# Residential Perceptions of the Proposed All Aboard Florida Project: Survey Results

Dr. Jesse Saginor, AICP, Director of Housing, Economy, and Urban Development Dr. Eric Dumbaugh, AICP, Director of Transportation and Livability Nicole Estevez, Project Manager

> Center for Urban and Environmental Solutions Florida Atlantic University

### **Executive Summary**

This report presents the survey results from a survey conducted in partnership between the Center for Urban and Environmental Solutions (CUES) at Florida Atlantic University and the Martin County Property Appraiser's Office. The survey respondents were randomly selected based on geographic locations corresponding to the possible impacts of the proposed All Aboard Florida project. These geographic locations include residents living within 400 feet of the eastern Florida East Coast Railway track, residents within 400 to 1,000 feet of the track, and residents living on the waterfront on the west side of the bridge that would be lowered 32 additional times a day. Unlike many surveys conducted regarding the proposed AAF project, this survey focused on residents most likely to be impacted by the proposed project.

Between June 29, 2015 and July 24, 2015, respondents returned 1,013 mail surveys for a response rate of 54 percent. Of these 1,013 surveys, 296 were from households within 400 feet of the east FEC railroad, 315 were from households from 400 feet to 1,000 feet of the east FEC railroad, and the remaining 402 were from waterfront households west of the rail bridge. Respondents were more likely to be residing in their current home for more than five years, be a male, between the age of 50 to 69 years old, live in a home with no more than two people, was either retired or still working full-time, made between \$50,000 to \$99,999, and held a Bachelor's degree or higher. Regardless of respondent background or location, the survey results are consistently negative in relation to a variety of aspects regarding the proposed AAF project. Of all respondents, 86 percent strongly oppose the proposed AAF project, with only two percent of people strongly support it and another two percent somewhat support it. Ninety-one percent of residents believe that the proposed project will either slightly decrease or greatly decrease their property's value. In terms of the concern regarding the rail bridge needing to be lowered an additional 32 times, respondents who did not own a boat or go boating regularly showed a high level of concern. Despite this level of concern across multiple facets of the proposed project, a majority of respondents stated that they would not be moving due to the project. Taken together, these results show a clear lack of support by those households most likely to be impacted.

#### I. Introduction

The purpose of this report is to present the results from a mail survey that was administered in June to households within 400 feet of the eastern FEC rail line, households within 400 to 1,000 feet of the eastern FEC rail line, and waterfront households west of the bridge to measure perceptions related to the proposed All Aboard Florida project. These three groups of households constitute the households most likely to be impact by the proposed project. Rather than survey a sample of people throughout Martin County, surveying these groups in particular assists in determining the possible local impacts of the railroad. This report is a follow up to the report released in June that analyzed the short-time impacts on property values based on the All Aboard Florida announcement. While that report relied heavily on statistical analysis to determine property impacts, this report uses a survey of residents to gain insight on human perceptions of the proposed AAF project.

### II. Survey Sample and Methodology

Based on the results from the peer-reviewed literature in the previous report released in June, the aim of the survey was to focus on the households in the geographic areas most likely to be impacted by the proposed AAF project. The goal was to measure general support for or against the project and several underlying aspects of the project ranging from the 32 additional times the bridge will be lowered to noise and vibration concerns to frequency of use.

Using GIS data from the Martin County Property Appraiser's Office, the mailing addresses for property owners were generated for each geographic area. While the survey responses were anonymous based on respondent, there was a key at the bottom of each survey to denote whether the respondent was generally located in the waterfront area west of the bridge, within 400 feet of the railroad, or within 400-1,000 feet of the railroad. The purpose of this key was to determine whether there are differences between these three groups related to their perceptions of various aspects of the proposed AAF project.

The overall sample sizes and related data for the survey are outlined in Table 1. The number of single family households in each area is based on the number of homes using the single-family residences variable from the Martin County property data file. The sample size needed is the number of surveys that need to be completed for a 95-percent level of confidence and a five percent margin of error. Put simply, the responses based on the survey sample size will be representative of all respondents, while the margin of error provides a range of how the entire population would

respond to the survey. These benchmarks for this survey are fairly conservative for typical survey administration regardless of the method of survey.

Table 1: Survey Sample Data

Geographic Area	Number of	Sample Size	Surveys	Surveys	Response	Margin of
	Single	Needed	Mailed	Returned	Rate	Error
	Family					
	Households					
Waterfront area	2,005	323	646	402	62%	4.37%
west of the bridge						
Within 400 feet of	1,212	292	584	296	51%	4.95%
FEC						
Within 400-1,000	2,556	334	668	315	47%	5.17%
feet of FEC						
Total	5,773	949	1,898	1,013	54%	2.80%

Using the random number function in Excel, random numbers were created for households in each of three geographic locations. Assuming a response rate of 50 percent to get enough responses to meet the sample size needed to have statistically valid results, the three groups were sorted based on the order of random numbers for the mailing. For example, the first 646 random numbers when sorted from lowest number to highest number constituted the mailing list for the waterfront area west of the bridge. These addresses were giving a number of "1" to indicate that these addresses were in the first mailing group. While additional mailing groups were created in a similar fashion, the response rates from the initial mailing provided enough responses to not require a second mailing.

Once the initial survey was drafted, it was pre-tested on no fewer than two dozen people to minimize the likelihood of bias in the question wording and to maximize clarity. Additionally, the proper paperwork was filed through FAU's Institutional Review Board for approval of administering the survey.

The survey instrument consists of 22 questions, with 11 of these questions focusing on the respondent's background and the other 11 questions revolving around various aspects of the proposed AAF project. The full version of the surveys, along with the letter of solicitation from the Martin County Property Appraiser's Office, are in Appendix A. The 11 questions related to the proposed AAF project address seven different aspects of the project. Two survey questions (questions 1 and 4) focus on awareness and general level of support for the proposed project. Two questions (questions 2 and 11) gauge the frequency of use, with one question asking about the general frequency and the other question asking about frequency if there was a stop eventually put in Martin County. One question (question 7) focuses on the large boating community and level of concern regarding the bridge being lowered. Four questions (questions 8-10) cover noise and quiet zone aspects, while question 12 addresses concerns related to vibrations from the additional train traffic. The other two questions ask respondents to

determine the impact of the proposed project on housing values and the other question measures the likelihood of that respondent putting their house on the market in the future or staying in their current home.

While the original project timeline targeted a May 1<sup>st</sup> date to administer the survey, finalizing the survey and receiving the approval to administer the survey from FAU did not occur until mid-June. Typically, a mail survey takes a minimum of 14 weeks for enough responses to be generated. The survey was mailed out on June 26<sup>th</sup> to 1,898 households in the three geographic areas. Given the fact that many people do not live in Martin County year-round, in addition to the July 4<sup>th</sup> holiday weekend, the goal was to wait until the week of July 13<sup>th</sup> to determine whether to send out a second round of surveys and to allow ample time for out-of-state property owners to return surveys. Fortunately, the response rate was high enough that another round of mailings was not necessary. Additionally, whereas the typical timeline for a mail survey is 14 weeks, this survey only took 4 weeks from initial mailing to get enough responses to report statistically valid results.

#### III. Results

The results of the survey consistently demonstrate a solid level of opposition and concern regarding multiple aspects of the proposed AAF project across all geographic areas. Additionally, there is no single category (age, gender, income, educational attainment level, occupational status, or property owner's use of the property) that supports the proposed project. These results are despite the fact that every attempt was made to minimize bias in the survey instrument, including the wording and ensuring that the options included negative and positive responses. This section of the report discusses highlights from the overall survey. The full results of the survey, with their corresponding questions, are available in Appendix B.

### a. Demographic Overview of Respondents

The survey included ten questions regarding the background of survey respondents. Based on the summary of the data, the typical respondent was either retired or still working full time, between the age of 50 and 69 years old, living in a household with no more than two people, was male, had a Bachelor's degree or higher, and earned between \$50,000 and \$99,999, had lived in their current home for more than five years, and used the home as their primary residence. Fiftynine percent of the respondents were 60 or older, with slightly less than 10 percent of the respondents stating that they were 80 or older. These demographic characteristics are fairly representative of Martin County's total population.

### b. Awareness and Support for Proposed AAF Project

The first and fourth questions highlight general awareness of the proposed AAF project and whether the respondent supports or opposes the project. Due to many residents only using their homes on a seasonal basis, the possibility exists that some residents may not know the full extent of the proposed AAF project. Based on 1,009 answers to the question, 97 percent of respondents were aware of the proposed AAF project when they received the survey, with only 28 residents stating that they were not aware of the project. A follow up question asked about whether the respondent supported or opposed the project, with five options ranging from positive to negative (Figure 1). This question gauges general opinions of the project before additional questions asking about specific aspects of the project. Overall, 86 percent of respondents were strongly opposed to the project, with a range from a low of 83 percent for people living within 400 feet of the railroad to a high of 89 percent for people living on the waterfront west of the railroad bridge. Supporters of the project were minimal, with only two percent of respondents responding that they "strongly support" the project and another two percent responding that they "somewhat support" the project. Slightly less than four percent of respondents "neither favor nor oppose" or have "no opinion" of the project.

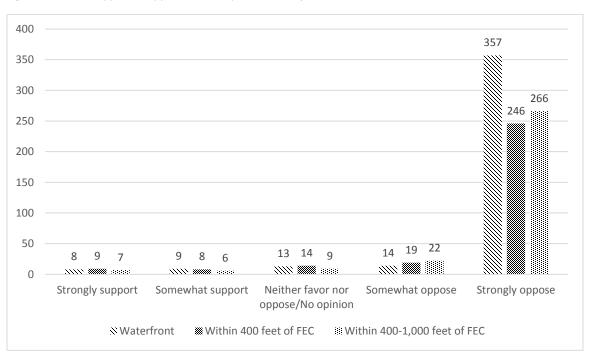


Figure 1: General Support or Opposition to Proposed AAF Project

### c. Potential Frequency of Use

There were two questions regarding frequency of use in the survey. The first question revolves around the frequency of use of AAF assuming that there will be no changes to the current plans for AAF to only have stops in Orlando, West Palm Beach, Fort Lauderdale, and Miami. The second question gauges frequency of use if there is a stop built in Martin County. While the first question asks the likelihood of someone to use AAF based on the current plan, the second question aims to see if that use would change if there was a stop actually in Martin County. Only 12 respondents (only 1.2 percent of all respondents) would use AAF on a monthly basis or more often, while 86 percent of all respondents said they would never use AAF (Figure 2).

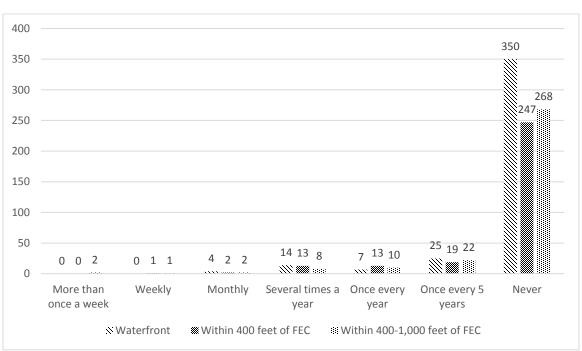


Figure 2: Frequency of AAF Use Based on Current Proposed Project

An AAF stop in Martin County aims to see if the drive from Martin County to the nearest stop in West Palm Beach is a barrier to frequency of use. If someone has to drive at least 30 minutes to get to the nearest AAF stop, it might be easier to just continue driving to the eventual destination, whether it is Fort Lauderdale, Miami, or even Orlando. Respondents to this question, if there are fewer "never" responses, indicate that a more convenient stop may overcome their lack of support for AAF. While 86 percent of people responded "never" in Figure 2, the percentage of respondents answering "never" with the addition of a stop in Martin County drops to 69 percent in Figure 3. Additionally, the number of people using AAF at a frequency that is monthly or greater increases slightly, from 1.2 percent without a stop in Martin County to 3.3 percent with a stop in Martin County.

300 272 250 209 200 150 100 46 50 30 33 27 26 23 <sub>19</sub> 19 6 7 5 3 5 Monthly Several times a Once every Once every 5 Daily Weekly Never year year years

Figure 3: Frequency of Use with Additional Stop in Martin County

Still, despite a slight increase in the number of people using AAF more frequently than monthly with a stop in Martin County, the numbers are not significantly different than frequency of use without a stop in Martin County. Furthermore, while there were many respondents who replied "never" to both questions, a stop in Martin County made some respondents change their previous frequency response from "never" to "once every five years". While these respondents did not say "never", responding "once every five years" is not a large enough difference to state that a stop in Martin County is why people do not support the proposed AAF project.

Within 400-1,000 feet of FEC

₩ Within 400 feet of FEC

### d. Potential Boating Impact

Waterfront

The boating questions and concerns related to the bridge lowering 32 additional times was asked of all respondents due to Martin County's large boating community. Driving through several areas not located on the waterfront provided visual evidence that many residents who do not live on the waterfront are boaters, based on actual boats or boat trailers. This visual inspection is the underlying justification for why this question was included on all surveys. Despite the fact that there are far more boaters on the waterfront than there are boaters proximate to the railroad at either interval, the level of concern related to the additional lowering of the bridge was far higher than the percentage of people who actually owned boats and used those boats regularly (Table 2).

Table 2: Boat Ownership and Use vs. Level of Concern regarding Bridge

	Percentage owning and using a boat on a regular basis	Percentage responding "Very Concerned" about Bridge	
Waterfront west of rail bridge	73%	91%	
Within 400 feet of rail	26%	83%	
Within 400-1,000 feet of rail	25%	84%	

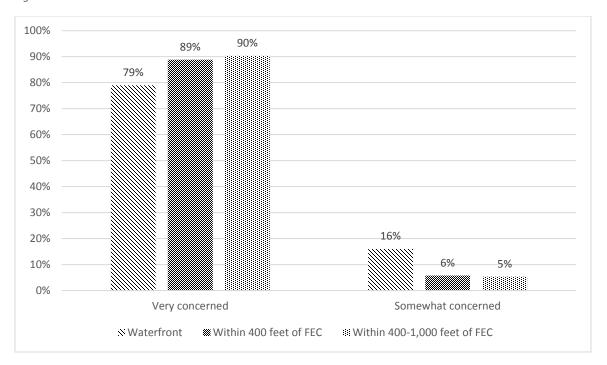
For respondents not living on the waterfront, the likelihood of owning and using a boat on a regular basis was 26 percent for people within 400 feet of the rail and 25 percent for people within 400 to 1,000 feet of the rail. Despite these relatively low numbers, the total number of respondents answering that they were "very concerned" about the bridge being lowered additional times was 83 percent for people within 400 feet of the rail and 84 percent for people within 400 to 1,000 feet of the rail. These responses indicate that, despite not having a boat, many people are concerned about the bridge. Possible reasons for this concern may be that, should they try to sell their home in the future, the bridge and related water accessibility issues could impact the sale of the home. Moreover, even if someone does not own a boat now, if they are thinking about owning a boat or going boating in the future, the bridge may be a big concern.

#### e. Potential Noise and Quiet Zones

Three questions focus on potential noise, quiet zones, and whether the construction of quiet zones would increase or decrease support for the project. These three questions were grouped together for this specific reason. For comparison, question 8 discusses the current Federal Railroad Administration rules regarding at-grade railroad intersections and the requirement that existing freight trains sound their horns when approaching. Question 9 revolves around quiet zones, briefly defining what a quiet zone is and asking whether quiet zones would cause a respondent to increase or decrease support for the proposed AAF project. Question 10 further defines quiet zones as being the responsibility of local government to construct quiet zones and asks whether quiet zones should be built in Martin County.

Ninety-five percent of all respondents across the three geographic areas are either "very concerned" or "somewhat concerned" about noise related to AAF (Figure 4). While proximity to the trains underlies the concerns of respondents living within 1,000 feet of the railroad, one likely reason underlying the high level of waterfront respondent concern is the fact that there is little to no noise buffer when trains sound their horns near the bridge over the open water. This effect would cause the train noise to carry further than if there was a natural buffer such as trees or if these areas were designated as quiet zones.

Figure 4: Concern about Noise Levels



The creation of quiet zones would delineate areas where trains will not sound their horns. These areas may be areas where a majority of land uses are residential to reduce the noise impact from train horns. The next question focuses on whether the respondent's support for the proposed AAF project would increase or decrease based on the quiet zones.

Figure 5: Changes in Support based on Quiet Zones

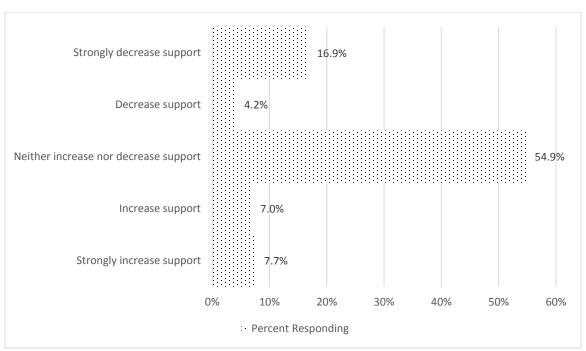


Figure 5 shows that even with the creation of quiet zones, nearly 55 percent of respondents said that quiet zones will not increase or decrease their support for the proposed AAF project. Slightly less than 15 percent of respondents said that quiet zones would either "increase support" or "strongly increase support". Given the general lack of support for the overall project, quiet zones would further decrease support, with 17 percent of respondents reporting that quiet zones would "greatly decrease support" for the proposed AAF project.

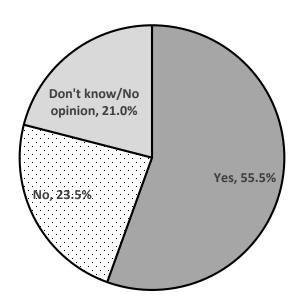
The last question regarding quiet zones further defines quiet by mentioning the construction enhancements to maximize safety at crossings in quiet zones. The question is written as follows:

In order to establish a quiet zone, the Federal Railroad Administration requires that local governments install supplemental safety measures along all at-grade intersection crossings. These safety measures include such features as median barriers and four-quadrant gates, which are designed to prevent pedestrians and motorists from attempting to cross the tracks while the gates are down.

Do you think quiet zones should be constructed in Martin County?

A majority of respondents to this question (55.5 percent) answered that the quiet zones should be built in Martin County, while 21 percent of respondents answered "Don't know/No opinion" and another 23.5 answered "No" (Figure 6).





Irrespective of the answers, if the proposed AAF project comes to fruition, the construction of quiet zones are likely to require funding from the county and municipalities. More importantly,

the creation of these quiet zones will require extensive public relations to explain what quiet zones are to the general public. Finally, there is a pretty solid chance that the crossing improvements will result in temporary closures and delays at some at-grade intersections for constructing the quiet zone crossing enhancements.

### f. Potential Vibration Impact

One pre-existing issue expressed by residents is the issue of vibrations and the impact on their homes. While this issue has been expressed in the past by some residents, the goal of this question measures whether those residents most likely to be impacted are concerned about the possible vibrations from the additional trains.

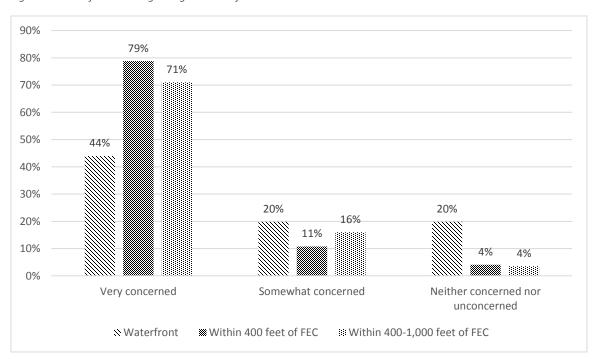


Figure 7: Level of Concern regarding Vibration from AAF

Due to distance from the rail, the waterfront respondents' level of concern was far lower than residents living within 1,000 feet of the railroad. While this result was expected, the question was included in the survey to waterfront respondents to reinforce the likelihood of this result. In terms of respondents living closer to the railroad, a combined 90 percent of respondents were either "very concerned" or "somewhat concerned" about additional vibration from the proposed AAF project. While this level of concern is slightly lower than the level of concern related to noise, quiet zones are a measure to alleviate some of the noise issues. The issue of vibration is largely unresolved, even with rail improvements. Given that many of the homes near the railroad are largely older than average compared to the typical home in Martin County, the impact of

vibration, in the long run, may become a greater cause for concern as the foundations of these homes continue to age.

### g. Potential Housing Impact and Situation

The impact on property and residential options for the future was asked in question 5 and question 13. Question 5 simply asks whether the residents thought that the proposed AAF project would greatly increase the property's value, slightly increase the property's value, have no effect on property value, slightly decrease the property's value, or greatly decrease the property's value. These options were included instead of attempting to list specific percentages, mainly because a typical resident can have a general idea about the future direction of property value, but may not have the required knowledge a realtor or appraiser has to determine the specific percent decline or increase of a property.

Question 13 focuses on what the respondent plans to do based on the proposed AAF project. With the project not likely to start running until 2017, the delay provides some time for residents to think about whether they plan to stay in their current home or decide to move. The options available for this question ranged from "nothing" to "I will try to sell my house in three or more years" (Figure 8). The use of this question, while hypothetical regarding what the respondent will do in the future, was included to determine if the respondent planned to relocate on the basis of the proposed AAF project.

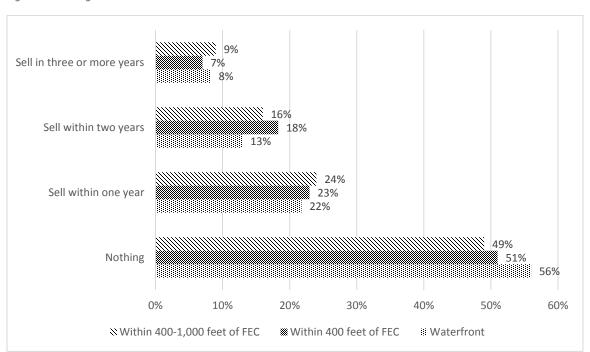


Figure 8: Housing Situation as it relates to AAF

The large number of "nothing" respondents should not be construed as supporting the proposed AAF project. Further analysis of respondents to this question reveals that 62 percent of respondents answering "nothing" to this question are 60 or older. Moreover, 11 percent of respondents who answer "nothing" are over the age of 80. The hassle of moving elsewhere in the twilight of their lives due to issues related to the train is not feasible for many people in retirement.

#### IV. Conclusion

The overall purpose of this survey was to understand resident perceptions of the proposed AAF project. These survey results provide insight into respondents' perceived impacts of the project, and should AAF come to fruition, a follow-up survey in a few years may determine whether the worst fears of these residents came true, and whether their actual use of AAF is equally low compared to their current likelihood of their use. Despite unbiased questions and rigorous mining of the responses, there is little to no support of the proposed AAF project by those respondents most likely to be impacted by the project. Quiet zones to minimize the impact of noise on respondents did not register a major change in their level of support for the project. Two other major areas of concern, additional bridge closures and the impact of vibrations, remain as two largely unresolved issues should the AAF project move forward. To determine whether the lack of support was due to the lack of a train stop in Martin County, respondent frequency of use increased only slightly. Even with the convenience of a stop closer than the nearest stop in West Palm Beach, respondent use of AAF does not drastically improve. In concluding, based on multiple questions, the responses indicate a clear and consistent lack of support for the proposed AAF project by those respondents most impacted by the project.

# **APPENDICES**

# **Appendix A: Survey Letter of Solicitation and Survey Instrument**

# Martin County Property Appraiser Laurel Kelly, CFA

Main Office 1111 SE Federal Highway Suite 330 Stuart, Florida 34994 Phone: (772) 288-5608 Fax: (772) 221-1346 Hobe Sound Annex 11726 SE Federal Hwy Island Crossings Center Hobe Sound, Florida 33455 Phone: (772) 546-1309 Fax: (772) 546-3287

June 26, 2015

Dear Property Owner,

The Martin County Property Appraiser's Office continues to evaluate the potential impact of the proposed All Aboard Florida project on the residents of Martin County. This project is intended to provide high-speed, passenger rail service between Orlando and Miami along the Florida East Coast (F.E.C) rail line, running along the eastern portion of Martin County, with additional stops in West Palm Beach and Fort Lauderdale.

As part of the Property Appraiser's effort to understand the potential impacts to property values, we have partnered with researchers from Florida Atlantic University Center for Urban and Environmental Solutions (CUES). CUES is conducting a scientific survey of residential households located (1) within 1,000 feet of the F.E.C. rail line, and (2) on waterfront property west of the railroad drawbridge. As the owner of a residential property located in one of these areas, you have been randomly selected to participate in this survey.

This survey should take a brief moment of your time to complete. A postage-paid envelope is enclosed for your convenience to return your completed survey as quickly as possible. Your honest responses will be of invaluable assistance to the Martin County Property Appraiser's Office. Your responses will remain anonymous and will be used to assist the Martin County Property Appraiser during the evaluation process.

The survey results will be available in August, 2015 on the Martin County Property Appraiser's Office website (www.pa.martin.fl.us). I greatly appreciate your participation in this important effort.

Sincerely

Laurel Kelly, CFA

Martin County Property Appraiser

The Property Appraiser's Office is YOUR office. Feel free at all times to visit and look over our records.

# EAU CENTER FOR URBAN & ENVIRONMENTAL SOLUTIONS

Florida Atlantic University

Jesse Saginor, Ph.D., AICP 777 Glades Road SO44, #284 Boca Raton, FL 33431

This survey should be completed by an adult member of your household. When you are finished, please insert the completed survey form into the enclosed postage-paid envelope and return it to the Martin County Property Appraiser's Office. Your responses will be anonymous and will be used to assist the Martin County Property Appraiser's Office in understanding how residents view the proposed All Aboard Florida project. Unless noted, please circle your response.

- Prior to your receipt of this survey, were you aware of the proposed All Aboard Florida project?
  - a. Yes
  - b. No
- If high-speed passenger rail service with stops in Orlando, West Palm Beach, Fort Lauderdale, and Miami were available, how frequently do you think you or a member of your household would use it?
  - a. More than once a week
  - b. Weekly
  - c. Monthly
  - d. Several times a year
  - e. Once every year
  - f. Once every 5 years
  - g. Never
- 3. Which of the following best describes your use of your property?
  - a. Used as primary residence
  - Used seasonally (e.g., as a winter residence, as a summer residence)
  - c. Used as a vacation home (e.g., visiting for a few weeks at a time)
  - d. Used as a weekend retreat
  - e. Used as a rental property
- 4. In general, do you support or oppose the adoption of high-speed, passenger rail service along the east F.E.C. rail line?
  - a. Strongly support
  - b. Somewhat support
  - c. Neither favor nor oppose/No opinion
  - d. Somewhat oppose
  - e. Strongly oppose
- What impact, if any, do you think that the proposed passenger rail service along the east F.E.C. rail line will have on the value of your property?
  - Greatly increase the property's value
  - b. Slightly increase the property's value
  - c. No effect on the property's value
  - d. Slightly decrease the property's value
  - e. Greatly decrease the property's value
- 6. Do you own or use a boat on a regular basis?
  - a. Own and use on a regular basis
  - Don't own but go boating on a regular basis
  - c. I neither own nor use a boat on a regular basis

 To accommodate the proposed All Aboard Florida passenger rail service, the rail bridges in the county will need to lower 32 additional times each day to accommodate this traffic.

How do you feel about the potential impacts of these additional bridge closures?

- a. Very concerned
- b. Somewhat concerned
- c. Neither concerned nor unconcerned
- d. Somewhat unconcerned
- e. Not at all concerned
- 8. The Federal Railroad Administration requires that trains use horns to announce their approach to an at-grade intersection. Because the east F.E.C. rail line intersects with streets at grade in Martin County, this means that each passenger train passing through Martin County will need to sound its horn, similar to the manner in which the existing freight trains using the east F.E.C. rail line use their horns.

How do you feel about the potential noise impacts of the additional train traffic associated with the proposed *All Aboard Florida* project?

- a. Very concerned
- b. Somewhat concerned
- c. Neither concerned nor unconcerned
- d. Somewhat unconcerned
- e. Not at all concerned
- The Federal Railroad Administration allows municipalities to establish quiet zones along railroad tracks, where trains will not sound their horns.

How would the provision of a quiet zone along the proposed *All Aboard Florida* route impact your support for this project?

- a. Strongly increase support
- b. Increase support
- c. Neither increase nor decrease support
- d. Decrease support
- e. Strongly decrease support
- f. Don't know/No Opinion

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# Fau Center for Urban & Environmental Solutions

Florida Atlantic University

Jesse Saginor, Ph.D., AICP 777 Glades Road SO44, #284 Boca Raton, FL 33431

10. In order to establish a quiet zone, the Federal Railroad Administration requires that local governments install supplemental safety measures along all at-grade intersection crossings. These safety measures include such features as median barriers and four-quadrant gates, which are designed to prevent pedestrians and motorists from attempting to cross the tracks while the gates are down.

Do you think quiet zones should be constructed in Martin County?

- a. Yes
- b. No
- c. Don't Know/No Opinion
- 11. How frequently do you think you would use the All Aboard Florida passenger rail service if there were an additional stop added in Martin County?
  - a. Daily
  - b. Weekly
  - c. Monthly
  - d. Several times a year
  - e. Once every year
  - f. Once every 5 years
  - g. Never
- 12. Some residents have expressed concern that the passenger rail traffic associated with All Aboard Florida may create vibrations that they may feel in their home, In general, how concerned are you about vibrations that may be associated with additional passenger rail traffic on the east F.E.C. rail line?
  - a. Very concerned
  - b. Somewhat concerned
  - c. Neither concerned nor unconcerned
  - d. Somewhat unconcerned
  - e. Very unconcerned
- 13. All Aboard Florida is not expected to formally start running until 2017, at the earliest. With this in mind, what is the most likely outcome regarding your housing situation specifically as it relates to All Aboard Florida?
  - Nothing. I will continue to live at my current address.
  - b. I will try to sell my house within one year.
  - c. I will try to sell my house within two years.
  - d. I will try to sell my house in three or more
- What is your occupational status? (Circle all that apply)
  - a. Employed full-time
  - b. Employed part-time
  - c. Work from home full-time
  - d. Work from home part-time
  - e. Self-employed business owner
  - f. Retired
  - g. Homemaker
  - h. Unemployed

- 15. What is your age?
  - a. 18-29
  - b. 30-39
  - c. 40-49
  - d. 50-59
  - e. 60-69 f. 70-79
  - g. 80 or above
- 16. How many people (including yourself) are in your household?
  - a. 1
  - b. 2
  - c. 3
  - d. 4 e. 5 or more
- 17. How many persons in your household are less than 18 years of age?
  - a. 1
  - b. 2
  - c. 3
  - d. 4
  - e. 5 or more
- 18. How many persons in your household are aged 65 or older?
  - a. 1
  - b. 2
  - c. 3 d. 4
  - e. 5 or more
- 19. What is your sex?
  - a. Maleb. Female
- 20. What is the highest grade of school you have completed?
  - a. Some high school
  - b. High school graduate or equivalent
  - Some college/ vocational school, no degree
  - d. Associate's degree
  - e. Bachelor's degree
  - f. Graduate school
- 21. What household income category best describes you (and your family)?
  - a. Less than \$25,000/year
  - b. \$25,000 to \$49,999/year
  - c. \$50,000 to \$99,999/year
  - d. \$100,000 to \$149,999/year
  - e. \$150,000 to \$249,999/year
  - f. \$250,000 or more/year
- 22. How long have you lived at your current address?
  - a. Less than one year
    - b. One to two years
    - c. Three to four years
    - d. Five or more years

1000

Thank you for your time in answering this survey.

# **Appendix B: Complete Survey Results**

### **Respondents by Geographic Area**

	Frequency	Percent
Waterfront	402	39.7
Within 400 feet of FEC	296	29.2
Within 400-1,000 feet of FEC	315	31.1
Total	1013	100.0

### Q1. Prior to your receipt of this survey, were you aware of the proposed All Aboard Florida project?

		Within 400	Within 400- 1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
Yes	392	284	305	981
No	8	12	8	28
Total	400	296	313	1009

Q2. If high-speed passenger rail service with stops in Orlando, West Palm Beach, Fort Lauderdale, and Miami were available, how frequently do you think you or a member of your household would use it?

			Within 400-	
		Within 400	1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
More than once a week	0	0	2	2
Weekly	0	1	1	2
Monthly	4	2	2	8
Several times a year	14	13	8	35
Once every year	7	13	10	30
Once every 5 years	25	19	22	66
Never	350	247	268	865
Multiple answers	1	1	0	2
Total	401	296	313	1010

Q3. Which of the following best describes your use of your property?

			Within 400-	
		Within 400	1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
Used as primary residence	369	245	267	881
Used seasonally	13	20	26	59
Used as a vacation home	2	3	2	7
Used as a weekend retreat	3	1	0	4
Used as a rental property	13	24	13	50
Multiple answers	1	3	3	7
Total	401	296	311	1008

Q4. In general, do you support or oppose the adoption of high-speed, passenger rail service along the east F.E.C. rail line?

			Within 400-	
		Within 400	1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
Strongly support	8	9	7	24
Somewhat support	9	8	6	23
Neither favor nor oppose/No opinion	13	14	9	36
Somewhat oppose	14	19	22	55
Strongly oppose	357	246	266	869
Multiple answers	0	0	2	2
Total	401	296	312	1009

# Q5. What impact, if any, do you think that the proposed passenger rail service along the east F.E.C. rail line will have on the value of your property?

			Within 400-	
		Within 400	1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
Greatly increase the property's value	3	3	0	6
Slightly increase the property's value	2	2	1	5
No effect on the property's value	48	14	19	81
Slightly decrease the property's value	67	28	45	140
Greatly decrease the property's value	277	246	244	767
Multiple answers	0	0	1	1
Total	397	293	310	1000

Q6. Do you own or use a boat on a regular basis?

		Within 400	Within 400- 1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
Own and use on a regular basis	291	76	77	444
Don't own but go boating on a regular basis	30	41	34	105
I neither own nor use a boat on a regular basis	78	177	200	455
Multiple answers	2	1	0	3
Total	401	295	311	1007

Q7. To accommodate the proposed All Aboard Florida passenger rail service, the rail bridges in the county will need to lower 32 additional times each day to accommodate this traffic.

How do you feel about the potential impacts of these additional bridge closures?

			Within 400-	
		Within 400	1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
Very concerned	364	245	262	871
Somewhat concerned	28	34	31	93
Neither concerned nor unconcerned	5	11	4	20
Somewhat unconcerned	1	1	4	6
Not at all concerned	3	5	11	19
Multiple answers	1	0	0	1
Total	402	296	312	1010

Q8. The Federal Railroad Administration requires that trains use horns to announce their approach to an at-grade intersection. Because the east F.E.C. rail line intersects with streets at grade in Martin County, this means that each passenger train passing through Martin County will need to sound its horn, similar to the manner in which the existing freight trains using the east F.E.C. rail line use their horns.

How do you feel about the potential noise impacts of the additional train traffic associated with the proposed All Aboard Florida project?

			Within 400-	
		Within 400	1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
Very concerned	314	263	282	859
Somewhat concerned	65	18	17	100
Neither concerned nor unconcerned	11	6	6	23
Somewhat unconcerned	2	0	1	3
Not at all concerned	8	9	7	24
Total	400	296	313	1009

Q9. The Federal Railroad Administration allows municipalities to establish quiet zones along railroad tracks, where trains will not sound their horns.

How would the provision of a quiet zone along the proposed All Aboard Florida route impact your support for this project?

			Within 400-	
		Within 400	1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
Strongly increase support	20	32	25	77
Increase support	22	26	22	70
Neither increase nor decrease support	242	150	158	550
Decrease support	14	8	20	42
Strongly decrease support	66	50	53	169
Don't know/No opinion	33	24	32	89
Multiple answers	1	1	2	4
Total	398	291	312	1001

Q10. In order to establish a quiet zone, the Federal Railroad Administration requires that local governments install supplemental safety measures along all at-grade intersection crossings. These safety measures include such features as median barriers and four-quadrant gates, which are designed to prevent pedestrians and motorists from attempting to cross the tracks while the gates are down.

Do you think quiet zones should be constructed in Martin County?

			Within 400-	
		Within 400	1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
Yes	182	175	171	528
No	94	63	66	223
Don't know/No opinion	106	42	52	200
Total	382	280	289	951

Q11. How frequently do you think you would use the *All Aboard Florida* passenger rail service if there were an additional stop added in Martin County?

			Within 400-	
		Within 400	1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
Daily	1	0	1	2
Weekly	4	3	5	12
Monthly	6	7	5	18
Several times a year	30	33	19	82
Once every year	26	23	19	68
Once every 5 years	46	27	36	109
Never	272	187	209	668
Multiple answers	0	2	2	4
Total	385	282	296	963

Q12. Some residents have expressed concern that the passenger rail traffic associated with *All Aboard Florida* may create vibrations that they may feel in their home. In general, how concerned are you about vibrations that may be associated with additional passenger rail traffic on the east F.E.C. rail line?

			Within 400-	
		Within 400	1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
Very concerned	167	224	211	602
Somewhat concerned	77	32	46	155
Neither concerned nor unconcerned	77	11	13	101
Somewhat unconcerned	23	7	4	34
Very unconcerned	40	11	22	73
Total	384	285	296	965

Q13. All Aboard Florida is not expected to formally start running until 2017, at the earliest. With this in mind, what is the most likely outcome regarding your housing situation specifically as it relates to All Aboard Florida?

		Within 400	Within 400- 1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
Nothing. I will continue to live at my current address.	209	140	141	490
I will try to sell my house within one year.	83	62	69	214
I will try to sell my house within two years.	49	50	46	145
I will try to sell my house in three or more years.	29	18	25	72
Multiple answers	1	2	4	7
Total	371	272	285	928

Q14. What is your occupational status? (Circle all that apply)

		,,	Within 400-	
		Within 400	1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
Employed full-time	129	108	92	329
Employed part-time	8	12	13	33
Work from home full-time	7	4	11	22
Work from home part-time	4	1	8	13
Self-employed business owner	61	33	36	130
Retired	154	103	114	371
Homemaker	2	5	9	16
Unemployed	2	2	1	5
Multiple answers	16	14	10	40
Total	383	282	294	959

# Q15. What is your age?

			Within 400-	
		Within 400	1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
18-29	1	6	5	12
30-39	7	14	14	35
40-49	46	16	29	91
50-59	110	80	69	259
60-69	97	83	90	270
70-79	92	50	57	199
80 or above	31	32	28	91
Total	384	281	292	957

## Q16. How many people (including yourself) are in your household?

			Within 400-	
		Within 400	1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
1	48	60	54	162
2	238	149	155	542
3	41	35	42	118
4	41	25	30	96
5 or more	16	11	14	41
Total	384	280	295	959

Q17. How many persons in your household are less than 18 years of age?

			Within 400-	
		Within 400	1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
0	186	130	120	436
1	31	32	33	96
2	31	10	17	58
3	6	3	8	17
4	4	1	1	6
5 or more	0	2	2	4
Total	258	178	181	617

## Q18. How many persons in your household are aged 65 or older?

			Within 400-	
		Within 400	1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
0	113	82	73	268
1	87	85	85	257
2	102	57	73	232
3	3	0	1	4
4	0	0	1	1
Total	305	224	233	762

### Q19. What is your sex?

	Waterfront	Within 400 feet of FEC	Within 400- 1,000 feet of FEC	Total
Male	253	131	159	543
Female	120	141	122	383
Total	373	272	281	926

Q20. What is the highest grade of school you have completed?

			Within 400-	
		Within 400	1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
Some high school	3	0	5	8
High school graduate or equivalent	25	34	36	95
Some college/vocational school, no degree	74	84	70	228
Associate's degree	40	31	33	104
Bachelor's degree	127	84	79	290
Graduate school	110	44	68	222
Total	379	277	291	947

## Q21. What household income category best describes you (and your family)?

			Within 400-	
		Within 400	1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
Less than \$25,000/year	10	27	27	64
\$25,000 to \$49,999/year	29	48	47	124
\$50,000 to \$99,999/year	89	85	86	260
\$100,000 to \$149,999/year	70	43	40	153
\$150,000 to \$249,999/year	61	22	35	118
\$250,000 or more/year	76	21	34	131
Total	335	246	269	850

### Q22. How long have you lived at your current address?

			Within 400-	
		Within 400	1,000 feet of	
	Waterfront	feet of FEC	FEC	Total
Less than one year	19	8	8	35
One or two years	29	18	27	74
Three to four years	30	27	30	87
Five or more years	307	230	229	766
Multiple answers	1	0	0	1
Total	386	283	294	963