

Assessment of the Impact of Transportation on the Volusia County's Economic Development

Volusia-Flagler Higher Education Consortium's
Volusia County Transportation Research Project

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Executive Summary:

The research reported here was contracted by Volusia County and the Volusia-Flagler Higher Education Consortium. Stetson University and the Stetson Institute for Social Research were asked to complete a study of transportation and economic development. Particular attention was devoted to road transportation since this is perceived by Volusia County officials to be a potential problem for county economic development in the relatively near future. The research was done using an internet survey design and by focusing on economic development professionals in Florida and private manufacturers and large employers in Volusia County. Results of the surveys are presented in two parts. The first is the economic development professional report, and it focuses on Florida transportation issues. The second is the Volusia County companies report, and it focuses on Volusia County business issues.

The following survey results were found to be the most important (supporting tables and graphs will appear in the body of the final report):

Survey Findings for Overall State Economic Development and Transportation Issues

Economic Development Professional Survey

Who was surveyed: Most respondents were either the director or president of their economic development organization.

Respondents' title in economic development organization

	Frequency	Percent	Valid Percent	Cumulative Percent
Other	1	3.0	3.0	3.0
Director	20	60.6	60.6	63.6
President	8	24.2	24.2	87.9
Vice President	4	12.1	12.1	100.0
Total	33	100.0	100.0	

Survey Findings for Overall State Economic Development and Transportation Issues

Economic Development Professional Survey

Who was surveyed (continued): All regions were represented but the response rate from Central Florida was near 100%.

State region of economic development organization

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 All Florida	1	3.0	3.0	3.0
	2 Central	13	39.4	39.4	42.4
	3 North	11	33.3	33.3	75.8
	4 South	8	24.2	24.2	100.0
	Total	33	100.0	100.0	

Survey Findings for Overall State Economic Development and Transportation Issues

Economic Development Professional Survey

Who was surveyed (continued): Most economic development professional respondents had over 10 years experience.

Years engaged in economic development work

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Less than 1 year	2	6.1	6.3	6.3
	3 3 to 5 years	8	24.2	25.0	31.3
	5 11 to 15 years	5	15.2	15.6	46.9
	6 16 to 20 years	5	15.2	15.6	62.5
	7 21 plus years	12	36.4	37.5	100.0
	Total	32	97.0	100.0	
Missing	System	1	3.0		
Total		33	100.0		

Survey Findings for Overall State Economic Development and Transportation Issues

Economic Development Professional Survey

Who was surveyed (continued): Most economic development professional respondents had 3 or more years experience at their current location.

Years engaged at current Florida location

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Less than 1 year	9	27.3	27.3	27.3
	2 1 to 2 years	2	6.1	6.1	33.3
	3 3 to 5 years	6	18.2	18.2	51.5
	4 6 to 10 years	5	15.2	15.2	66.7
	5 11 to 15 years	4	12.1	12.1	78.8
	6 16 to 20 years	4	12.1	12.1	90.9
	7 21 plus years	3	9.1	9.1	100.0
	Total	33	100.0	100.0	

Survey Findings for Overall State Economic Development and Transportation Issues

Economic Development Professional Survey

Current Issues:

- A large majority of economic development professionals see interstate, state, & county roads as essential for development.
- No other mode of transportation came close to roads in perceived importance for economic development.
- Economic development professionals are NOT satisfied with the current adequacy of roads for economic development; a majority of respondents were neutral or dissatisfied about the adequacy of all types of roads.
- Economic development professionals rank the importance of roads in this order: interstates, state, county roads.

Economic Development Professional Survey (continued)

Future Issues:

- **When asked to think about the future, economic development professionals continue to rank roads as the most important modes of transportation for economic development.**
- **Again, no other mode of transportation came close to roads in perceived future importance for economic development.**
- **Large majorities of economic development professionals are not satisfied with planned expansion/improvement of roads to meet future (25 to 40 year) economic development needs.**
- **Economic development professionals rank the future importance of roads in this order: interstates, state, county roads.**

Economic Development Professional Survey (continued)

General conclusion:

The economic development professionals who responded to our survey are at least as concerned about road transportation issues as are our own Volusia County officials.

Survey Findings for Volusia County Businesses' Economic Development and Transportation Issues

Who was surveyed: Mostly manufacturers

Does the company manufacture a product

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Yes	88	75.9	78.6	78.6
	2 No	24	20.7	21.4	100.0
	Total	112	96.6	100.0	
Missing	3 Not sure	3	2.6		
	System	1	.9		
	Total	4	3.4		
Total		116	100.0		

Survey Findings for Volusia County Businesses' Economic Development and Transportation Issues

**Who was surveyed: Most respondents have worked
at the Volusia County company for many years.**

How many years respondent has worked at the company

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 Less than 1 year	3	2.6	2.6	2.6
	2 1 to 2 years	6	5.2	5.2	7.8
	3 3 to 5 years	29	25.0	25.2	33.0
	4 6 to 10 years	16	13.8	13.9	47.0
	5 11 to 15 years	17	14.7	14.8	61.7
	6 16 to 20 years	11	9.5	9.6	71.3
	7 21 years or more	33	28.4	28.7	100.0
	Total	115	99.1	100.0	
Missing	System	1	.9		
Total		116	100.0		

Survey Findings for Volusia County Businesses’ Economic Development and Transportation Issues

Who was surveyed (continued): Most companies surveyed have been in Volusia County for many years.

How many years has the company had operations in Volusia County

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	3 3 to 5 years	11	9.5	9.6	9.6
	4 6 to 10 years	17	14.7	14.8	24.3
	5 11 to 15 years	18	15.5	15.7	40.0
	6 16 to 20 years	13	11.2	11.3	51.3
	7 21 years or more	56	48.3	48.7	100.0
	Total	115	99.1	100.0	
Missing	System	1	.9		
Total		116	100.0		

Survey Findings for Volusia County Businesses’ Economic Development and Transportation Issues

**Who was surveyed (continued): Majority of Volusia
County companies surveyed have 16 or more
employees.**

How many full-time employees does the company employ in Volusia County

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 0 full-time	2	1.7	1.8	1.8
	2 1 to 2 full-time	7	6.0	6.1	7.9
	3 3 to 5 full-time	18	15.5	15.8	23.7
	4 6 to 10 full-time	13	11.2	11.4	35.1
	5 11 to 15 full-time	15	12.9	13.2	48.2
	6 16 to 25 full-time	10	8.6	8.8	57.0
	7 26 to 50 full-time	14	12.1	12.3	69.3
	8 51 to 100 full-time	14	12.1	12.3	81.6
	9 101 to 200 full-time	12	10.3	10.5	92.1
	10 201 or more full-time	9	7.8	7.9	100.0
	Total	114	98.3	100.0	
Missing	System	2	1.7		
Total		116	100.0		

Survey Findings for Volusia County Businesses' Economic Development and Transportation Issues

Current Issues:

- When asked about the range of their transportation needs, the majority of Volusia County company respondents rated the County, Central Florida, Florida, the Southeast U.S., and Northeast, Midwest U.S. as essential or very important.
- For 43% of the Volusia companies, transportation costs exceeded 10% of their annual budget.
- The most frequently used means of transportation were large and small trucks with over 70% of Volusia companies using these regularly.
- The majority of Volusia companies see roads as essential for their current business. No other mode of transportation comes close in the essential category.
- Large majorities of Volusia company respondents are satisfied with the current adequacy of roads for their business.
- Volusia companies rank roads in terms of their current importance: interstates, state, county, city. Roads are by far seen to be the most important means of transportation for their businesses.
- While 18% of Volusia businesses evaluate the current road situation in Volusia County as poor or fair, 34% rate the situation as very good or excellent.

Survey Findings for Volusia County Businesses' Economic Development and Transportation Issues (continued)

Future Issues:

- **The majority of Volusia companies see roads as essential for their future business. No other mode of transportation comes close in the essential category.**
- **Volusia companies rank roads in terms of their future importance: interstates, state, county, city. Roads are by far seen to be the most important future means of transportation for their businesses.**
- **When asked about the roles roads will play in the next five years in their companies, large majorities strongly believe that they will play a very large role.**

Survey Findings for Volusia County Businesses' Economic Development and Transportation Issues (continued)

General conclusion:

Volusia County companies tend to be more satisfied with the transportation situation in the county than economic professionals in other counties. However, they make it very clear that roads are essential for their businesses' futures and thus from an employment and economic development perspective they should be given high priority, especially if they are projected to become inadequate to meet the future needs of local employers.

Research Findings and Procedures

Where we started...

Stetson University

- Analyze economic development impacts of transportation challenges
 - Brief history
 - Current situation
 - Future changes

What we did... Stetson University

Analyze economic development impacts of transportation challenges

○ Brief history

- Road transportation is perceived by Volusia County officials to be a potential problem for county economic development in the relatively near future
- Two surveys were conducted. The first was directed to economic development professionals in Florida and the second to private manufacturers and large employers in Volusia County.
- The first survey focused on Florida transportation issues.
- The second survey focused on Volusia County issues.

Research Procedures for Internet Surveys of Transportation Issues Conducted in February and March 2008

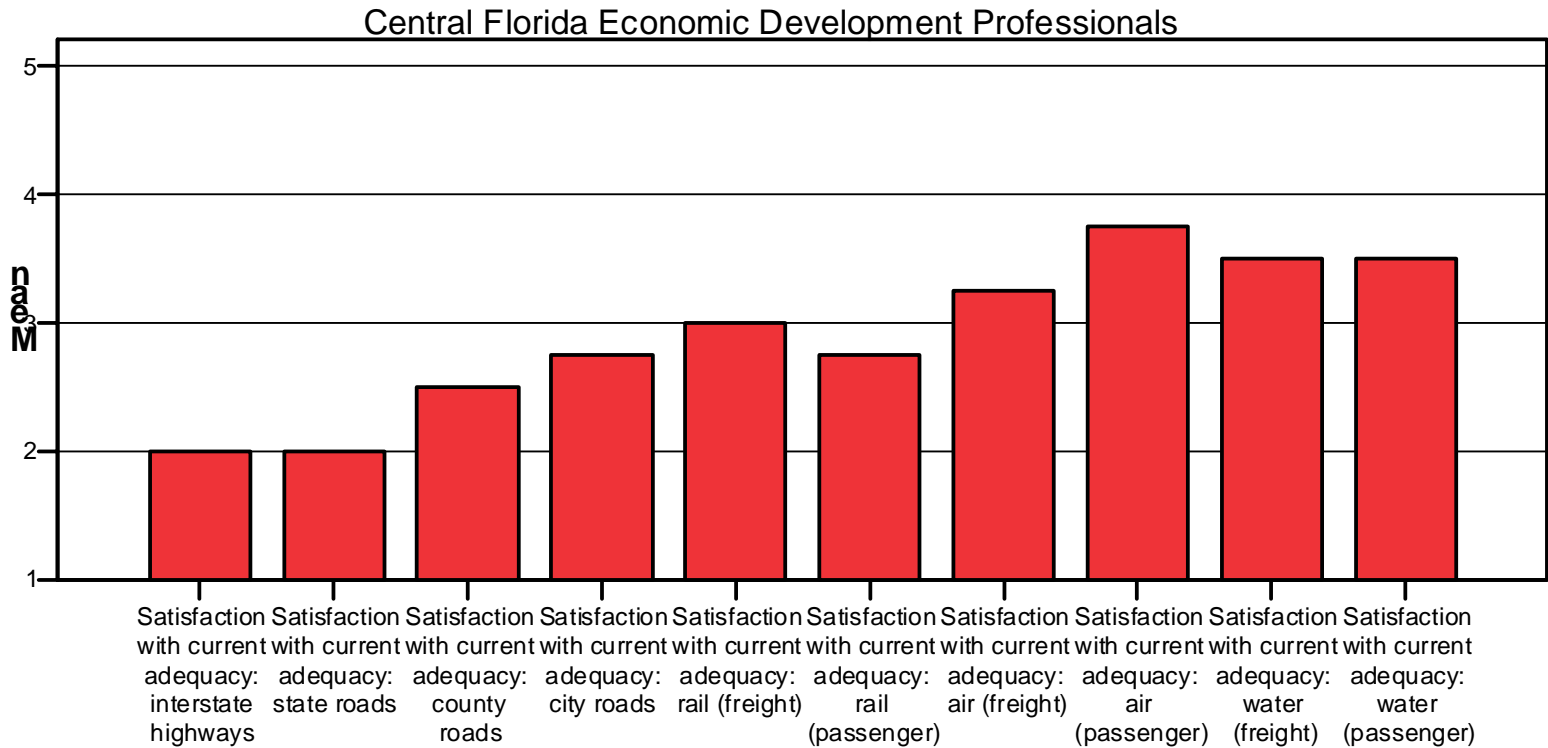
Economic Development Professionals in Florida Survey

- 68 economic development professionals were chosen using a statewide directory of economic development professionals (e-Florida Enterprise)
- Three attempts were made to elicit response to the internet survey
- A total of 33 responded for a response rate of 49%
- All Central Florida counties responded

Volusia County Manufacturers and Large Employers Survey

- 398 Volusia County manufacturers and large private employers with usable internet addresses were identified using lists provided by Volusia County economic development officials
- Three attempts were made to elicit responses from the CEO or person charged with transportation in these companies
- A total of 115 companies responded for a response rate of 29%

Satisfaction with Current Adequacy to Meet Economic Development Needs (1 = very dissatisfied 5 = very satisfied)



Thinking about your region, please indicate your satisfaction or dissatisfaction with each of the following modes of transportation in terms of their CURRENT adequacy to meet economic development needs

	1 Very Dissatisfied		2 Dissatisfied		3 Neutral		4 Satisfied		5 Very satisfied		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Satisfaction with current adequacy:interstate highways	3	9%	11	34%	4	13%	14	44%			32	100%
Satisfaction with current adequacy: state roads	3	9%	16	50%	7	22%	6	19%			32	100%
Satisfaction with current adequacy: county roads	3	10%	15	48%	8	26%	5	16%			31	100%
Satisfaction with current adequacy: city roads	3	10%	14	45%	10	32%	4	13%			31	100%
Satisfaction with current adequacy: rail (freight)	1	3%	7	23%	18	58%	5	16%			31	100%
Satisfaction with current adequacy: rail (passenger)	3	16%	5	26%	9	47%	2	11%			19	100%
Satisfaction with current adequacy: air (freight)	2	7%	10	33%	10	33%	7	23%	1	3%	30	100%
Satisfaction with current adequacy: air (passenger)	1	4%	8	30%	7	26%	6	22%	5	19%	27	100%
Satisfaction with current adequacy: water (freight)			4	16%	12	48%	8	32%	1	4%	25	100%
Satisfaction with current adequacy: water (passenger)	1	8%			11	85%			1	8%	13	100%
Satisfaction with current adequacy: other			2	100%							2	100%

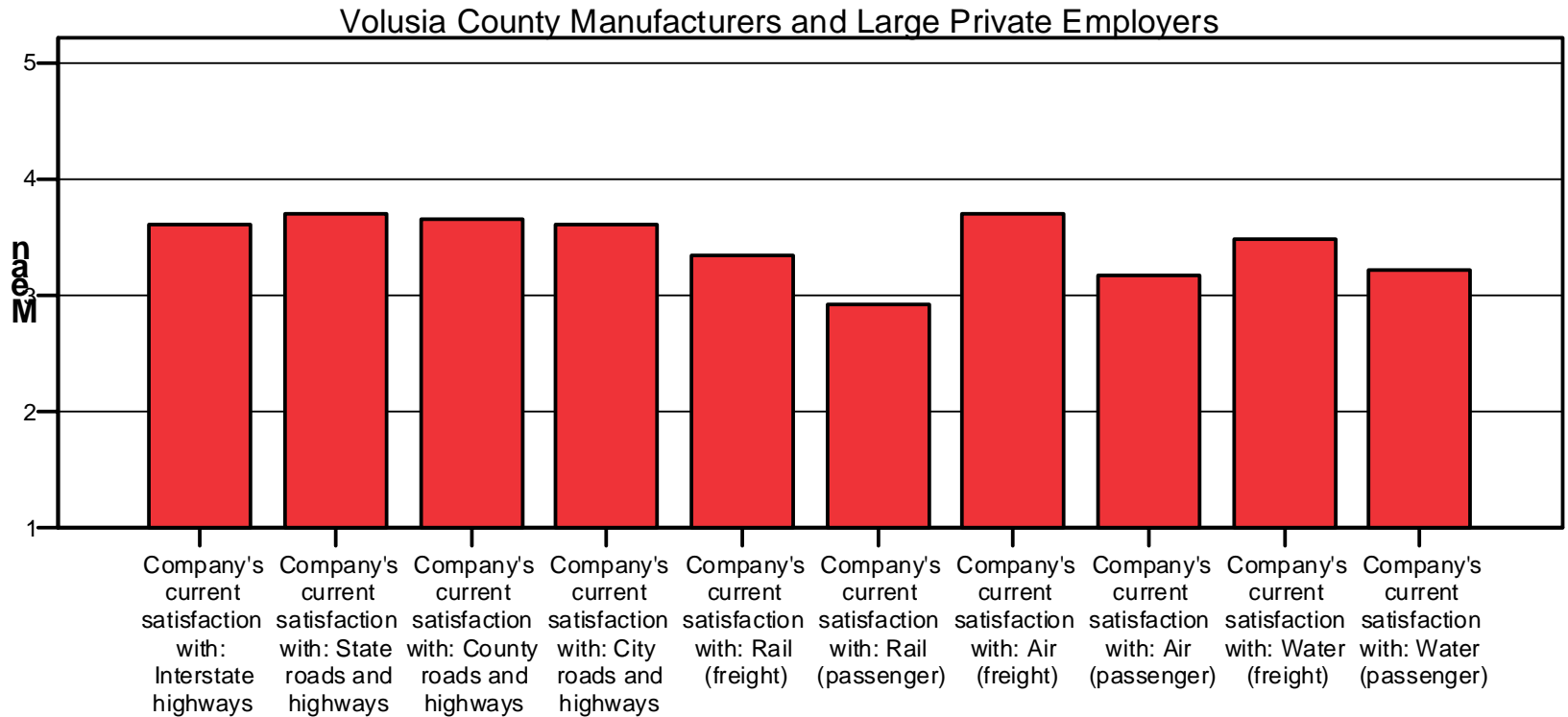
Economic Development Professional Survey:

Current Adequacy of Modes of Transportation

(Note: The graph and the table represent two different groups. The chart was constructed using only Central Florida respondents; while the table includes all Florida respondents).

- There is general dissatisfaction among both the Central Florida and all Florida economic development professionals with the current adequacy of interstate, state, county, and city highways and roads.
- Both groups were most satisfied with air passenger transportation.

Satisfaction with Current Adequacy for Company's Business (1= very dissatisfied 5 = very satisfied)



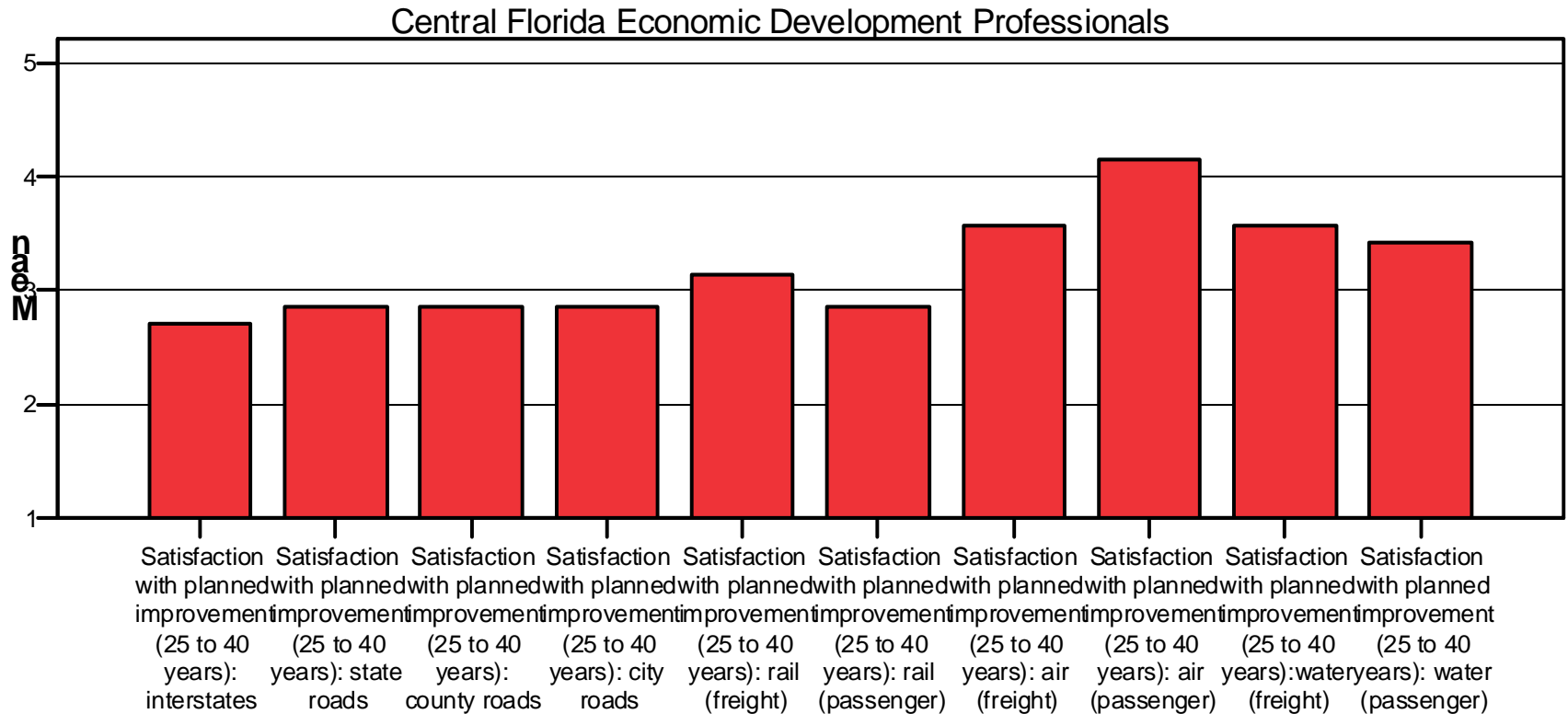
Thinking about your company's Volusia County operations, please indicate your satisfaction or dissatisfaction with each of the following modes of transportation in terms of their CURRENT adequacy for your company's business

	1 Very dissatisfied		2 Dissatisfied		3 Neutral		4 Satisfied		5 Very satisfied		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Company's current satisfaction with: Interstate highways	1	1%	10	10%	19	19%	54	55%	15	15%	99	100%
Company's current satisfaction with: State roads and highways	1	1%	9	9%	23	23%	57	57%	10	10%	100	100%
Company's current satisfaction with: County roads and highways	2	2%	9	9%	25	25%	54	54%	10	10%	100	100%
Company's current satisfaction with: City roads and highways	1	1%	14	14%	22	22%	50	51%	11	11%	98	100%
Company's current satisfaction with: Rail (freight)			1	2%	26	59%	16	36%	1	2%	44	100%
Company's current satisfaction with: Rail (passenger)	1	3%	5	16%	21	68%	4	13%			31	100%
Company's current satisfaction with: Air (freight)	1	1%	4	6%	20	30%	38	57%	4	6%	67	100%
Company's current satisfaction with: Air (passenger)	3	5%	14	23%	24	39%	18	29%	3	5%	62	100%
Company's current satisfaction with: Water (freight)	1	2%	1	2%	23	47%	22	45%	2	4%	49	100%
Company's current satisfaction with: Water (passenger)			1	4%	18	69%	6	23%	1	4%	26	100%
Company's current satisfaction with: Other			3	43%	3	43%	1	14%			7	100%

Volusia Businesses Satisfaction with Current Adequacy of Modes of Transportation

- The majority of Volusia County business respondents are satisfied with the current adequacy of interstate, state, county, and city highways and roads.
- The majority of Volusia County business respondents are satisfied with the current adequacy of air freight for their businesses.

Satisfaction with Planned Expansion / Improvement (1 = very dissatisfied 5 = very satisfied)



Thinking about your region, please indicate your satisfaction or dissatisfaction with planned expansion/improvement of each of the following modes of transportation to meet FUTURE (25-40 years) economic development needs

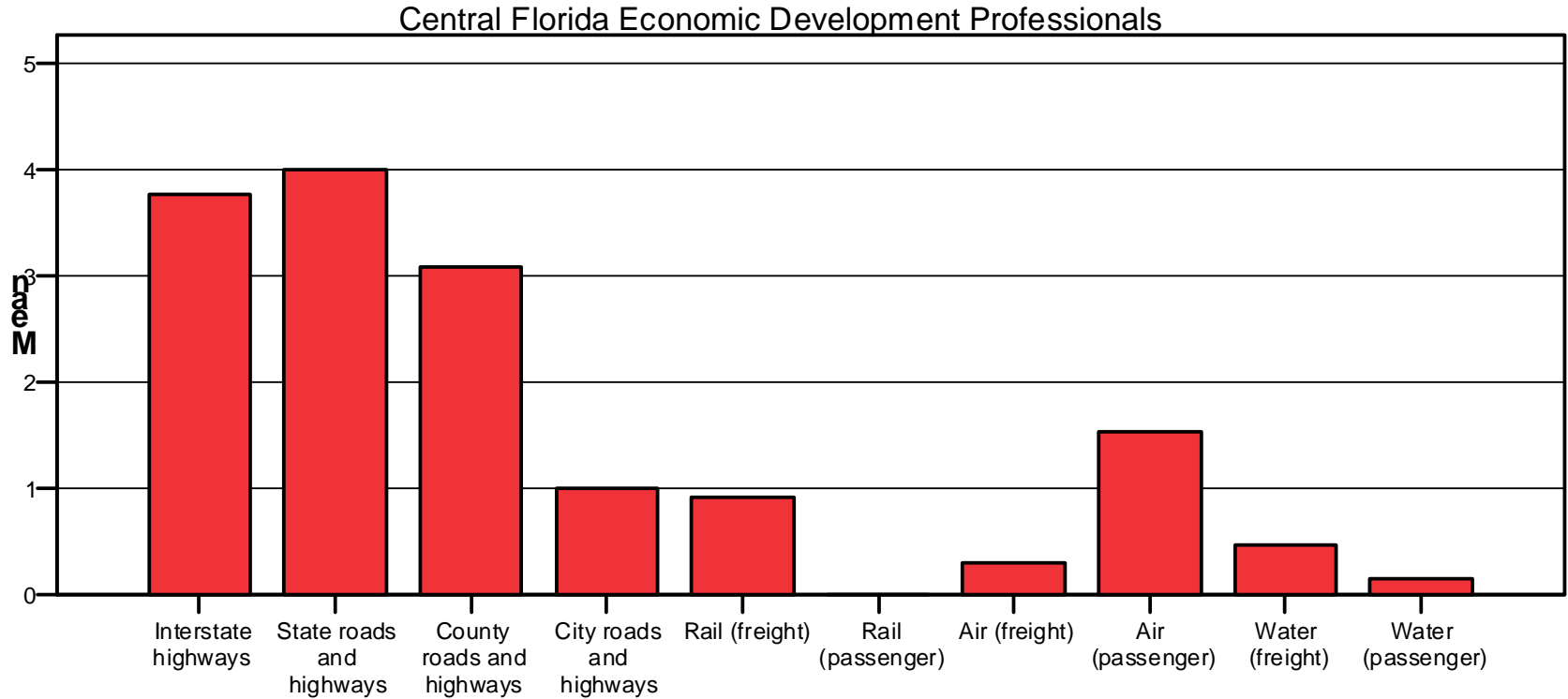
	1 Very Dissatisfied		2 Dissatisfied		3 Neutral		4 Satisfied		5 Very satisfied		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Satisfaction with planned improvement (25 to 40 years): interstates	2	6%	10	32%	8	26%	11	35%			31	100%
Satisfaction with planned improvement (25 to 40 years): state roads	4	12%	11	33%	10	30%	7	21%	1	3%	33	100%
Satisfaction with planned improvement (25 to 40 years): county roads	3	10%	11	35%	8	26%	9	29%			31	100%
Satisfaction with planned improvement (25 to 40 years): city roads	3	10%	10	33%	11	37%	6	20%			30	100%
Satisfaction with planned improvement (25 to 40 years): rail (freight)	1	3%	11	34%	13	41%	5	16%	2	6%	32	100%
Satisfaction with planned improvement (25 to 40 years): rail (passenger)	3	15%	6	30%	8	40%	3	15%			20	100%
Satisfaction with planned improvement (25 to 40 years): air (freight)	2	6%	6	19%	11	35%	9	29%	3	10%	31	100%
Satisfaction with planned improvement (25 to 40 years): air (passenger)			8	30%	5	19%	10	37%	4	15%	27	100%
Satisfaction with planned improvement (25 to 40 years):water (freight)	1	4%	5	20%	12	48%	5	20%	2	8%	25	100%
Satisfaction with planned improvement (25 to 40 years): water (passenger)			1	7%	11	79%	1	7%	1	7%	14	100%
Satisfaction with planned improvement (25 to 40 years): other			2	67%	1	33%					3	100%

Economic Development Professional Survey: Satisfaction with Planning for Expansion of Modes of Transportation

(Note: The graph and the table represent two different groups. The chart was constructed using only Central Florida respondents, while the table includes all Florida respondents).

- There is general dissatisfaction among both the Central Florida and all Florida economic development professionals with the planned expansion of interstate, state, county, and city highways and roads.
- Both groups were most satisfied with planning for expansion of air passenger transportation.

Average Ranking of Current Importance for Economic Development (0 = lowest 5 = highest)

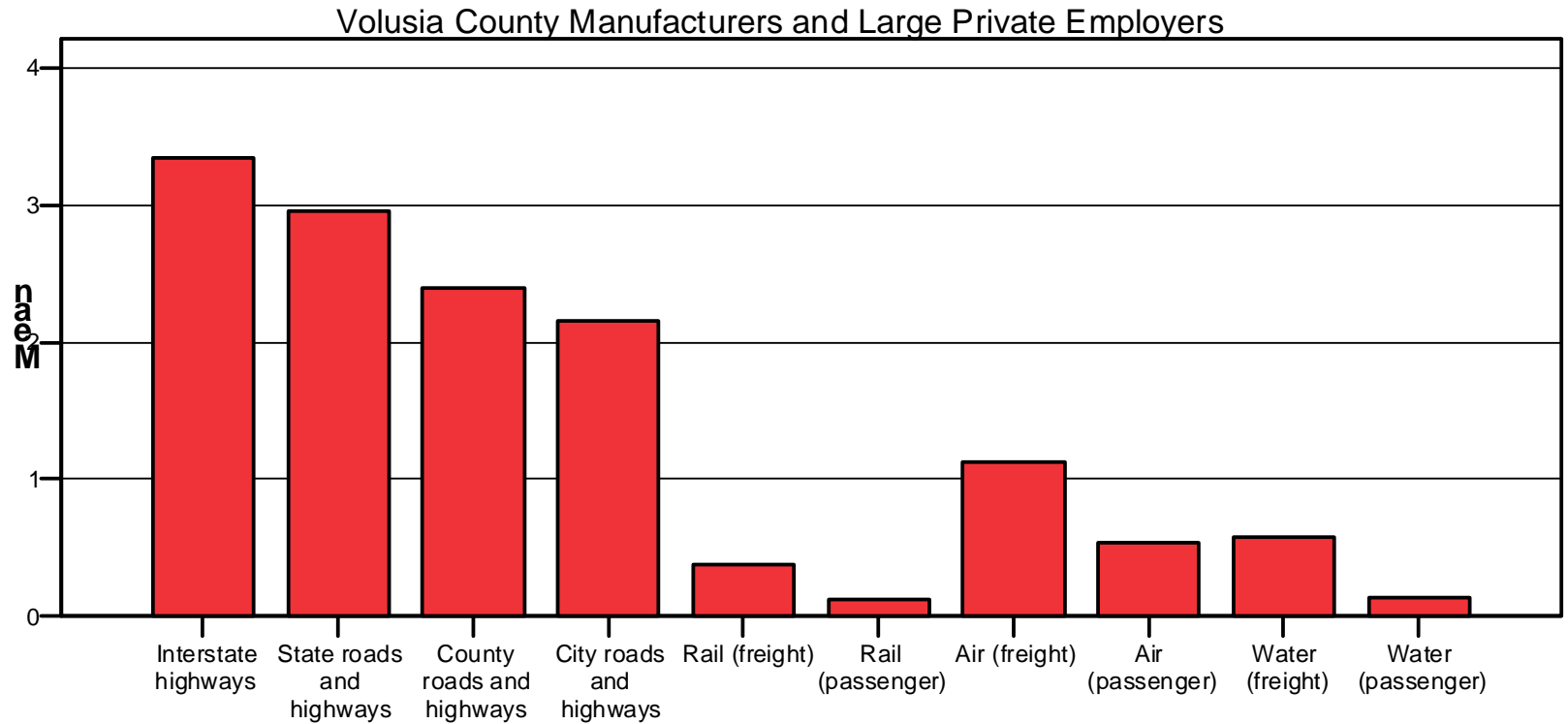


Economic Development Professional Survey: Ranking of Current Importance of Modes of Transportation

(Note: The chart was constructed using only Central Florida respondents).

- Central Florida economic development professionals rank the current importance of modes of transportation in this order (top 5):
 - State highways
 - Interstate highways
 - County roads
 - Air passenger
 - City roads

Average Ranking of Current Importance for Company's Business (0= lowest 5 = highest)



Volusia County Businesses Survey: Ranking of Current Importance of Modes of Transportation

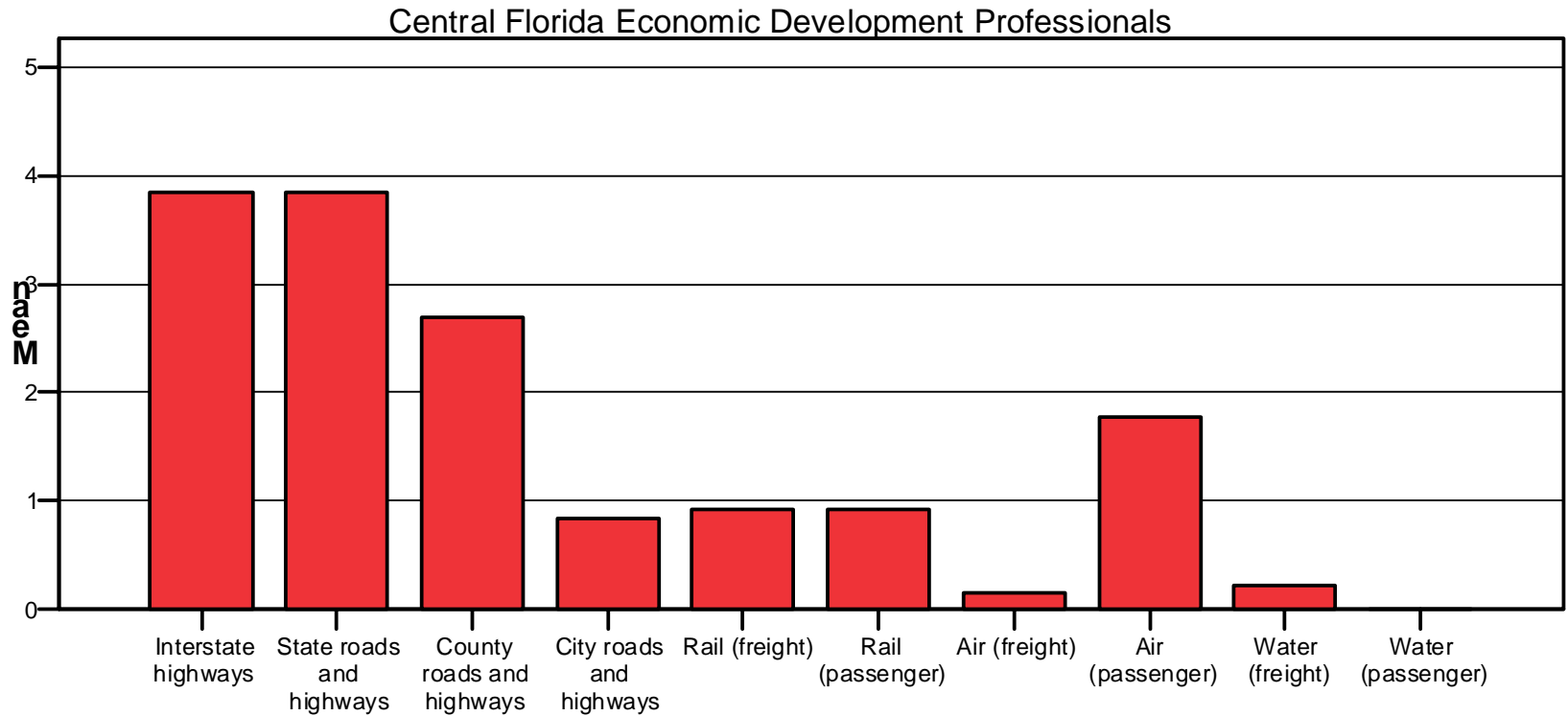
- Volusia County business respondents rank the current importance of modes of transportation in this order (top 5):
 - Interstate highways
 - State highways
 - County roads
 - City roads
 - Air freight

What we did... Stetson University

○ Summary of Current situation

- Economic development professionals in Central Florida are **not satisfied** with the state of the highway transportation system
- Volusia County manufacturers and large employers perceive that good roads are the absolute top **priority for their current business needs**
- Volusia County manufacturers and large employers are fairly **satisfied** with the current condition of the roads in the county

Average Ranking of Future Importance for Economic Development (0 = lowest 5 = highest)

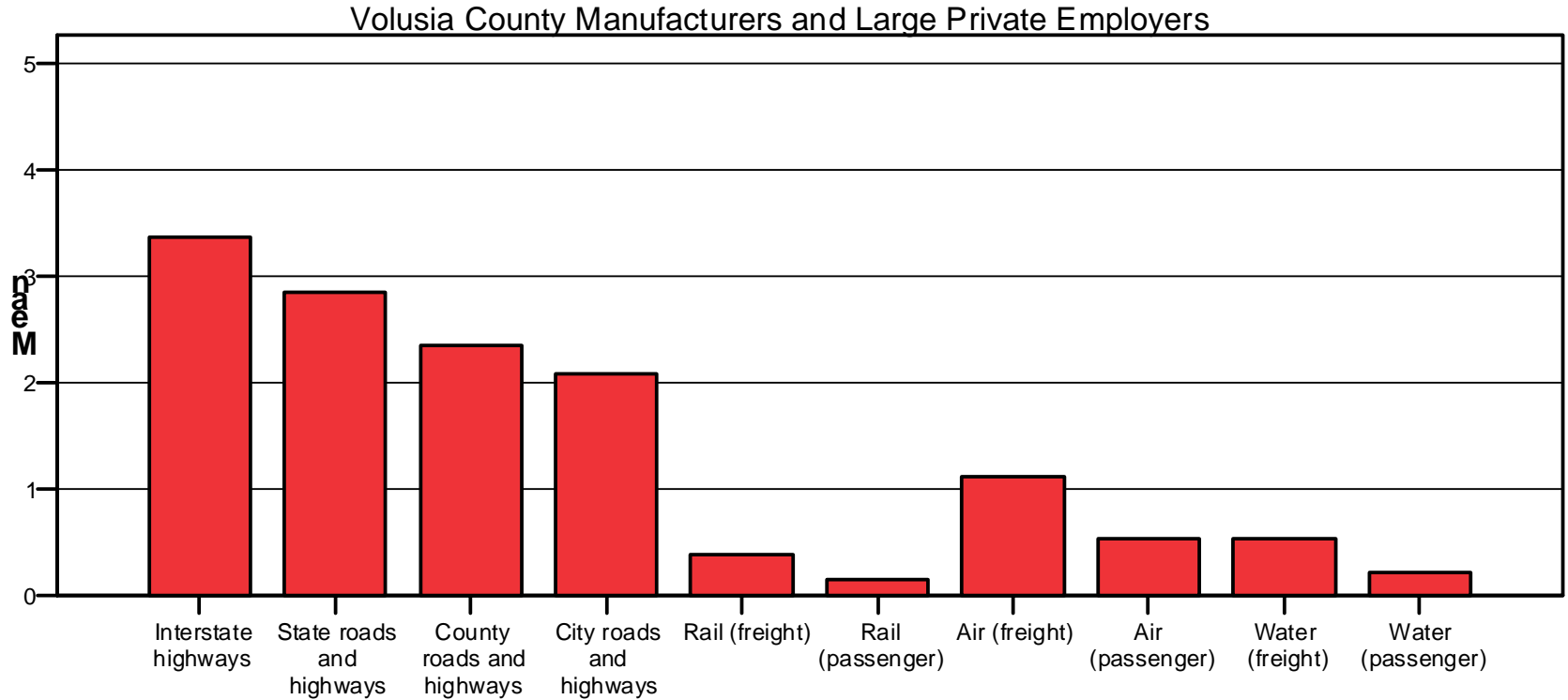


Economic Development Professional Survey: Ranking of Future Importance of Modes of Transportation

(Note: The chart was constructed using only Central Florida respondents).

- Central Florida economic development professionals rank the current importance of modes of transportation in this order (top 5):
 - State highways (tied for first)
 - Interstate highways (tied for first)
 - County roads
 - Air passenger
 - Rail freight and passenger (tied for fifth)

Average Ranking of Future Importance for Company's Business (0= lowest 5 = highest)

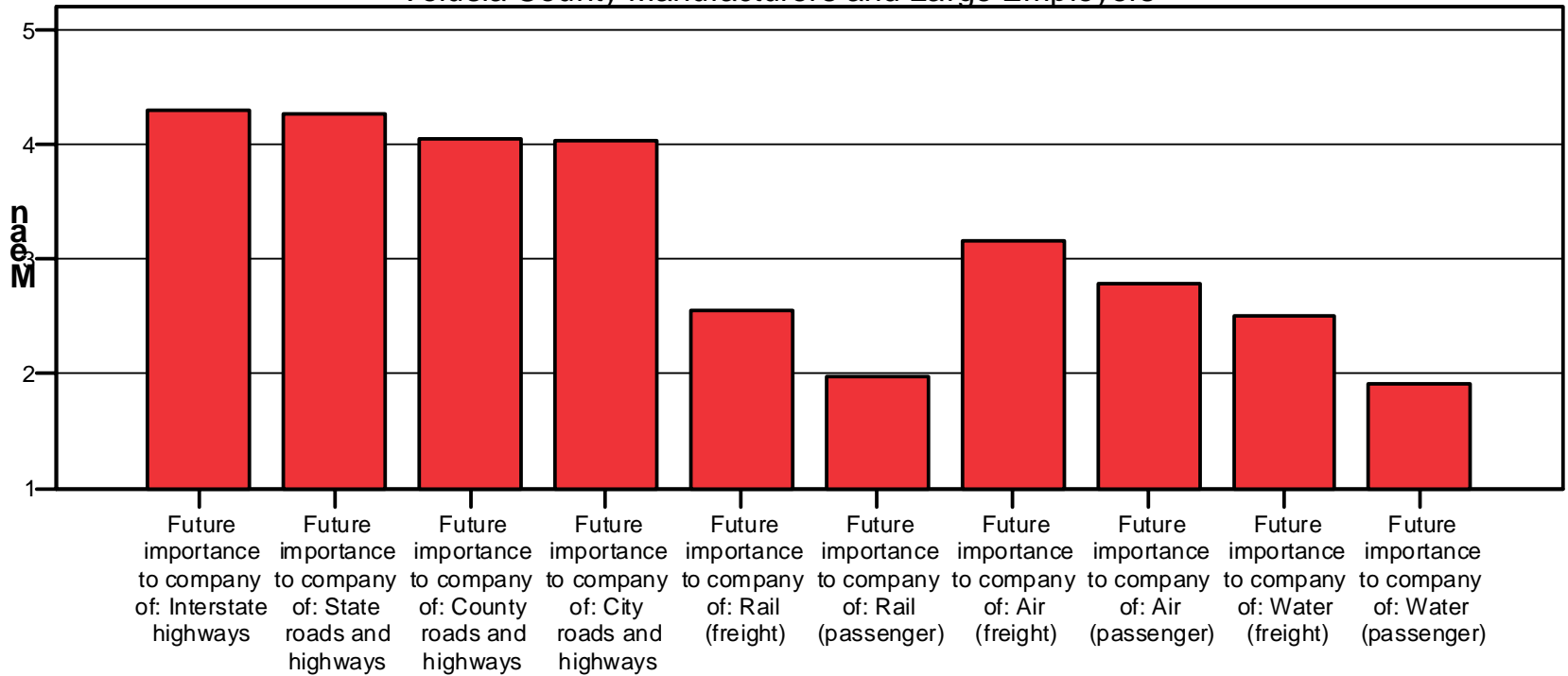


Volusia County Businesses Survey: Ranking of Future Importance of Modes of Transportation

- Volusia County business respondents rank the current importance of modes of transportation in this order (top 5):
 - Interstate highways
 - State highways
 - County roads
 - City roads
 - Air freight

Evaluation of Transport Mode for Company's Future Volusia Operation (1=Unimportant 5=Essential)

Volusia County Manufacturers and Large Employers



**Thinking about your company's Volusia County operations, please evaluate each of the following modes of transportation in terms of their
FUTURE importance for your company's business**

	1 Unimportant		2 Not that important		3 Important		4 Very important		5 Essential		Total	
	Count	%	Count	%	Count	%	Count	%	Count	%	Count	%
Future importance to company of: Interstate highways	1	1%	5	5%	15	14%	22	21%	62	59%	105	100%
Future importance to company of: State roads and highways	1	1%	4	4%	17	16%	21	20%	62	59%	105	100%
Future importance to company of: County roads and highways	1	1%	4	4%	21	21%	20	20%	56	55%	102	100%
Future importance to company of: City roads and highways	2	2%	6	6%	19	18%	24	23%	52	50%	103	100%
Future importance to company of: Rail (freight)	19	23%	23	28%	22	27%	6	7%	11	14%	81	100%
Future importance to company of: Rail (passenger)	29	43%	24	35%	9	13%	3	4%	3	4%	68	100%
Future importance to company of: Air (freight)	10	11%	13	15%	23	26%	16	18%	27	30%	89	100%
Future importance to company of: Air (passenger)	17	20%	19	23%	17	20%	15	18%	16	19%	84	100%
Future importance to company of: Water (freight)	20	24%	23	27%	15	18%	14	16%	13	15%	85	100%
Future importance to company of: Water (passenger)	28	44%	23	37%	4	6%	3	5%	5	8%	63	100%
Future importance to company of: Other	6	40%	8	53%					1	7%	15	100%

Volusia County Businesses Survey: Evaluation of Future Importance of Modes of Transportation for Business

- A majority of respondents see interstate, state, and county roads and highways as “essential.”
- A majority of respondents see city roads as “very important” or “essential.”
- No other mode of transportation was seen to be “very important” or “essential” by a majority of the respondents.

○ Summary of Future Issues

- Roads are by far seen to be the most important future means of transportation by both economic development professionals and Volusia County manufacturers and large employers
- Roads are seen as essential for economic development by Volusia County manufacturers and large private employers

Conclusion

Analysis of both surveys indicates that there is general agreement among economic development professionals and Volusia County businesses that adequate roads are essential for economic development and growth.

Policy makers and planners should recognize that roads are thought to be the most important mode of transportation for at least the next 25 to 40 years in the state of Florida, Volusia County and Central Florida.

For further information, additional analyses and specialized presentations on the subject of this research project, please contact:

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