




2013
State of the System Report

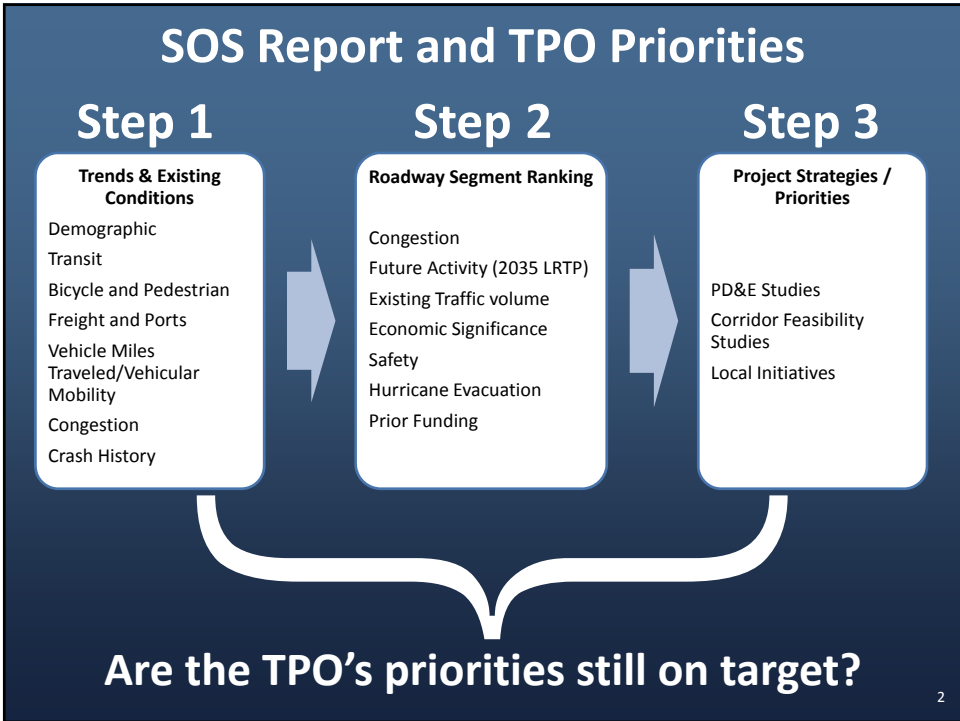
TO TO
INTERSTATE 95 1



 **Space Coast**
Transportation Planning Organization

TAC / CAC September 8, 2014
TPO Board September 11, 2014

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Agenda

- Trends and Existing Conditions
 - Countywide
 - Demographic
 - Transit
 - Bicycle and Pedestrian
 - Freight and Ports
 - Crash History
 - Vehicle Miles Traveled (VMT)
 - Corridor Specific
 - VMT
 - Congestion
- Roadway Segment Technical Rankings
 - Top Ranked SIS Facilities
 - Top Ranked Regional Facilities
 - Top Ranked Non-Regional Facilities

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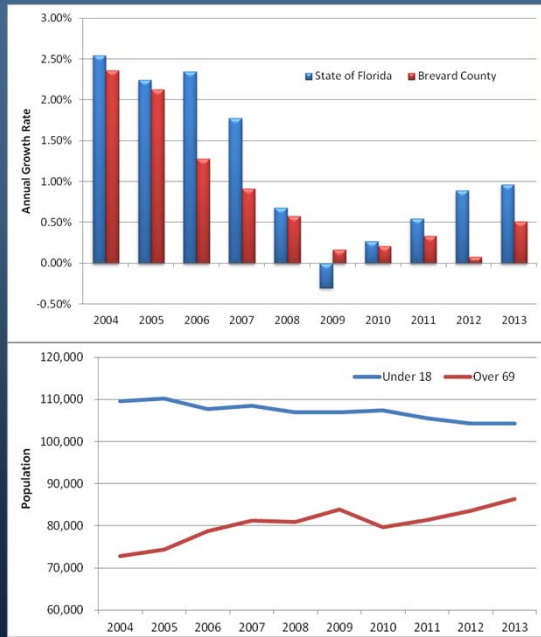
Trends & Existing Conditions



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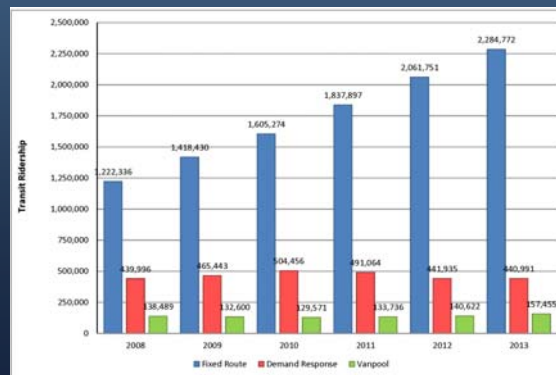
Demographic Trends

- County had 0.51% growth rate from 2012 to 2013
- Highest annual growth since 2008 (0.58%)
- County added 33,000 people between 2004 and 2013
- Population of 69+ continued gradual increase seen since 2010
- Population of 17 and younger continued gradual decrease seen since 2010



Transit Trends

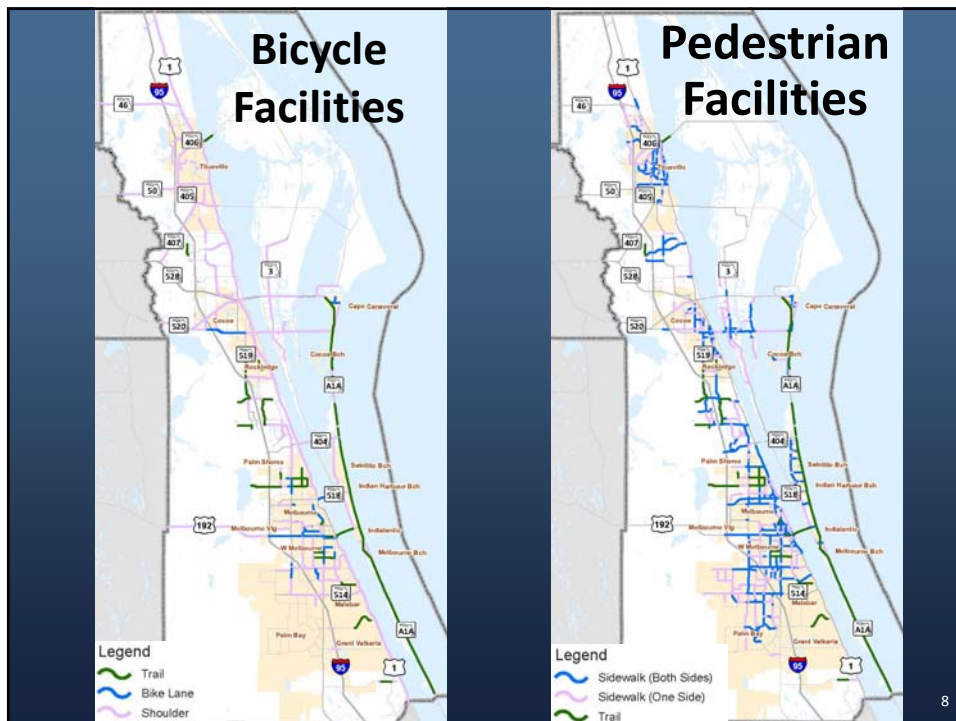
- Overall ridership, including fixed route, demand response and vanpool, continued to increase with 9.0% rise in 2013
- Fixed route transit ridership continued to increase from 2012 to 2013
 - Since 2008, ridership has nearly doubled from 1,222,336 to 2,284,772 riders
- Minor decrease in demand response ridership from 2012 to 2013 (<1%)
- Vanpool had increase in ridership for third straight year (12%)
 - 157,455 is highest ridership in SCAT history



Bicycle and Pedestrian Statistics

- TPO maintains database of pedestrian/bicycle facilities along the SOS roadway network
 - 640 miles of monitored SOS surface roadways
 - 197 miles have complete sidewalks on both sides of the road (31 percent)
 - 220 miles have complete sidewalks only on one side of the road (34 percent)
 - 14 miles have bicycle lanes on both sides of the road (2 percent)
 - 201 miles of roadway have shoulders wider than 3 feet (31 percent)
 - 1 mile has bicycle lanes only on one side of the road

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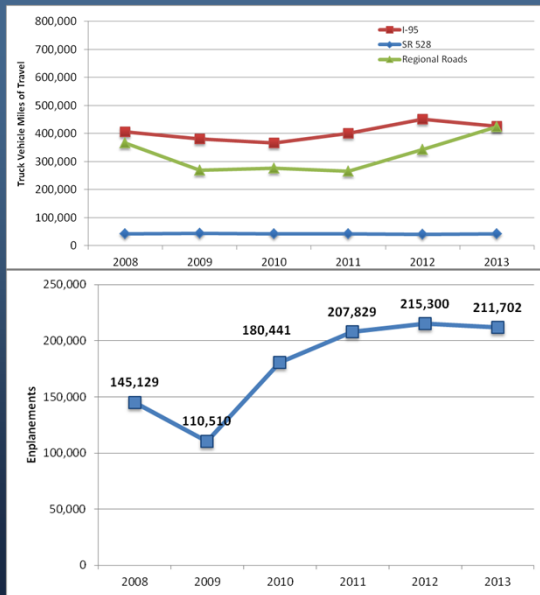
Multi-Use Trails

- Brevard County is developing a system of multi-use trails that serve both recreational and mobility needs
 - Brevard Zoo Trail
 - North Merritt Island Pioneer Trail
 - South Brevard Al Tuttle Trail
 - East Coast Greenway
 - A1A Urban Trail
 - St. Johns River Eco-Heritage Trail
 - KSC Loop Trail
 - East Coast Florida Rail Trail



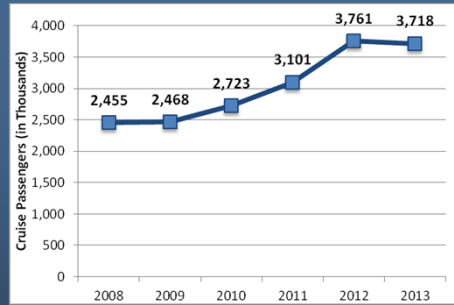
Freight and Ports Trends

- Truck Vehicle Miles Traveled (VMT)
 - Decreased along I-95
 - Remained constant along SR 528
 - Increased along regional roadways
 - VMT increased by approximately 23%
- Melbourne International Airport
 - Total enplanements decreased slightly in 2013



Freight and Ports Trends

- Port Canaveral
 - Cruise passengers remained constant in 2013
 - 2nd largest cruise departure port in FL
 - Focus on increased cargo tonnage
 - Exploration Tower opened in 2013
- Kennedy Space Center
 - NASA partnering with Boeing on deep space rocket design
 - Unmanned test launch in 2017, manned test in 2021



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Crash History

- 2013 SOS safety scoring methodology different from past years
 - Focus on crash severity and Florida Strategic Highway Safety Plan (SHSP) emphasis areas instead of crash rate
 - Five years of safety data (2009 – 2013) instead of a single year
- Contributing factors and detailed analysis of crashes is NOT part of SOS, however will be part of the Annual Countywide Safety Report which is currently in production

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FL SHSP Emphasis Areas

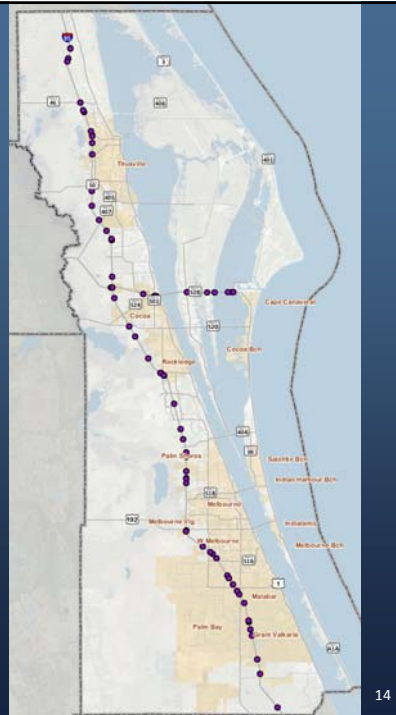
1. Aggressive Driving - 19 of top 27 aggressive driving segments along N. Courtenay Pkwy, SR A1A, US 1 and Babcock Street
2. Intersection Crashes
3. Vulnerable Road Users (pedestrians, bicyclists, and motorcyclists) - SR A1A had 8 of top 27 vulnerable road user segments
4. Lane Departure Crashes
5. Impaired Driving - 23 of top 42 impaired segments along US 1, SR A1A, or the causeways between US 1 and SR A1A
6. At-Risk Drivers (aging road users and teens)
7. Distracted Driving - 15 of top 26 distracted driving crashes occurred in southern portion of County

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Fatal Crash Mapping (SIS Facilities) (2009 – 2013)

- High Crash Areas:
 - Indian River Co Line to Malabar Rd
 - Eau Gallie Blvd to Wickham Rd
 - Fiske Blvd to SR 520
 - SR 406 to SR 46
 - Palm Bay Rd to US 192
- Total of 76 fatal crashes from 2009 – 2013
- 20 fatal crashes/1 million VMT on SIS roadways

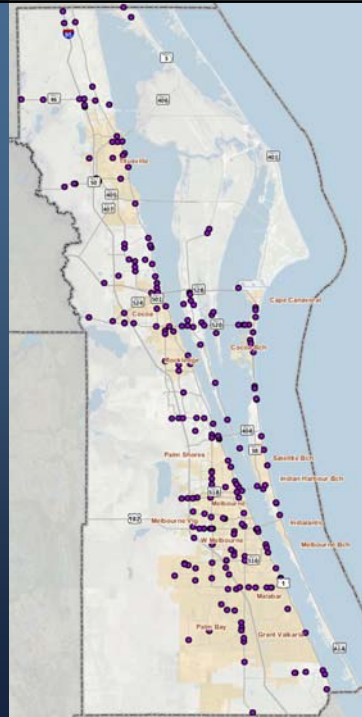
* Various portions of I-95 under construction during safety analysis period, further analysis to be provided as part of Safety Report



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Fatal Crash Mapping (Non-SIS Facilities) (2009 – 2013)

- High Crash Areas (S to N):
 - US 1 from Malabar Rd to US 192
 - US 192 from I-95 to Wickham Rd
 - US 1 N of SR 518
 - Wickham Rd from Sarno Rd to Parkway Dr
 - SR 520 Corridor
- Total of 241 fatal crashes from 2009 – 2013
- 32 fatal crashes/1 million VMT on non-SIS roadways



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Crash Severity SIS (2009 – 2013)

Rank	Road Segment	Severity Score
1	I-95 / EAU GALLIE (SR 518)-WICKHAM	14,672
2	I-95 / INDIAN RIVER COUNTY - MALABAR (SR 514)	14,436
3	I-95 / FISKE-SR 520	12,304
4	I-95 / PALM BAY - US 192	10,654
5	I-95 / SR 46-STUCKWAY RD	7,359
6	I-95 / MALABAR (SR 514) - PALM BAY	7,241
7	I-95 / WICKHAM-FISKE	6,460
8	I-95 / SR 406-SR 46	5,625
9	I-95 / PORT ST. JOHN CONNECTOR-SR 407	5,471
10	I-95 / SR 407-SR 50	4,895



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Crash Severity Non-SIS (2009 – 2013)

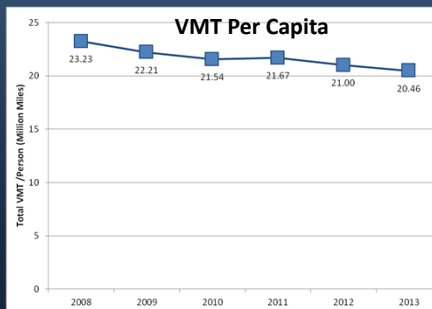
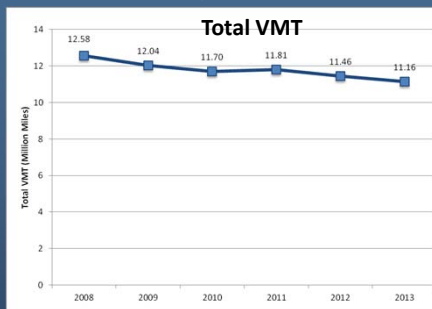
Rank	Road Segment	Severity Score
1	US 1 / SR 528-CANAVERAL GROVES	7,022
2	SR 520 / EAST MERRITT ISLAND CAUSEWAY	6,407
3	US 1 / BROADWAY BLVD.-FAY	6,121
4	US 192 / JOHN RODES-WICKHAM	5,986
5	SR A1A / MAIN GATE-CRESCENT BEACH DR	5,407
6	SR A1A / US 192-PARADISE	5,183
7	WICKHAM / PINEDA CSWY-JORDAN BLASS	5,176
8	US 1 / POST-PINEDA	5,115
9	HOLDER / DAIRY-SR 46	4,629
10	MALABAR / COREY-US 1	4,473
11	SR 50 / ORANGE CO-I-95	4,208
12	US 1 / PINEDA-SUNTREE BLVD	3,946
13	MALABAR / BABCOCK-COREY	3,941
14	SR 520 / BRIDGE-N.TROPICAL	3,667
15	SR 520 / I-95-BURNETT	3,561
16	US 1 / UNIVERSITY-NEW HAVEN	3,372
17	SR A1A / MCKINLEY-BUCHANAN	3,333
18	EAU GALLIE / S PATRICK-SR A1A	3,250
19	BABCOCK / PALM BAY-EBER	3,210
20	WICKHAM / MURRELL-I-95	3,099
21	S. TROPICAL TR / PINEDA-S COURTENAY	3,046
22	SR A1A / FISHER DR-ST LUCIE	2,905
23	N. COURTENAY / NEEDLE-LUCAS	2,895
24	FISKE / I-95/BARNES-EYSTER	2,864
25	US 1 / PALM BAY-RJ CONLAN	2,844



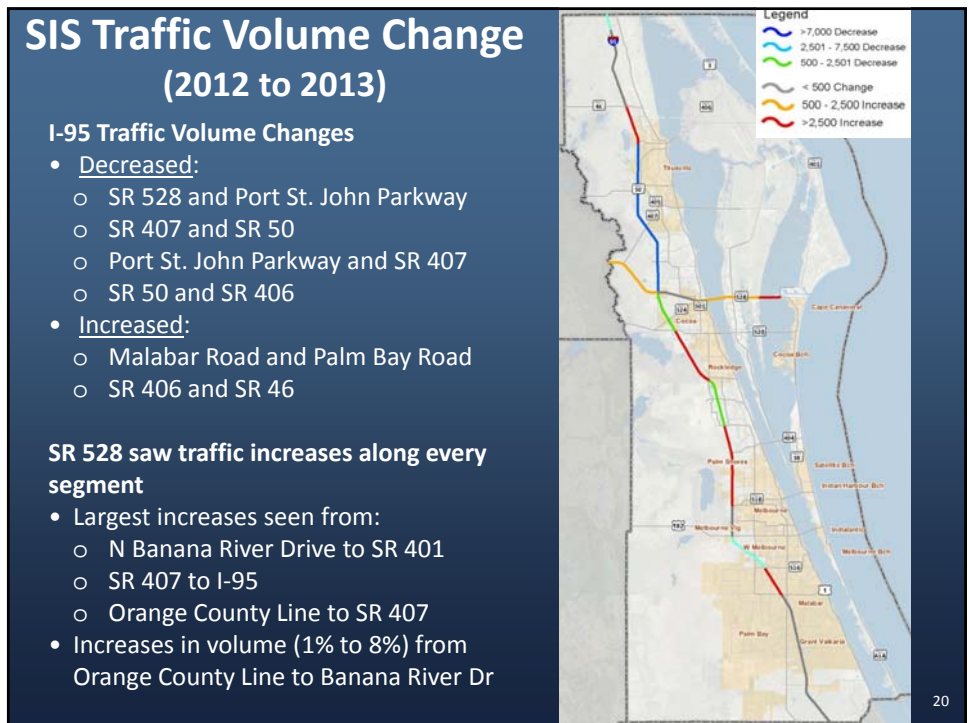
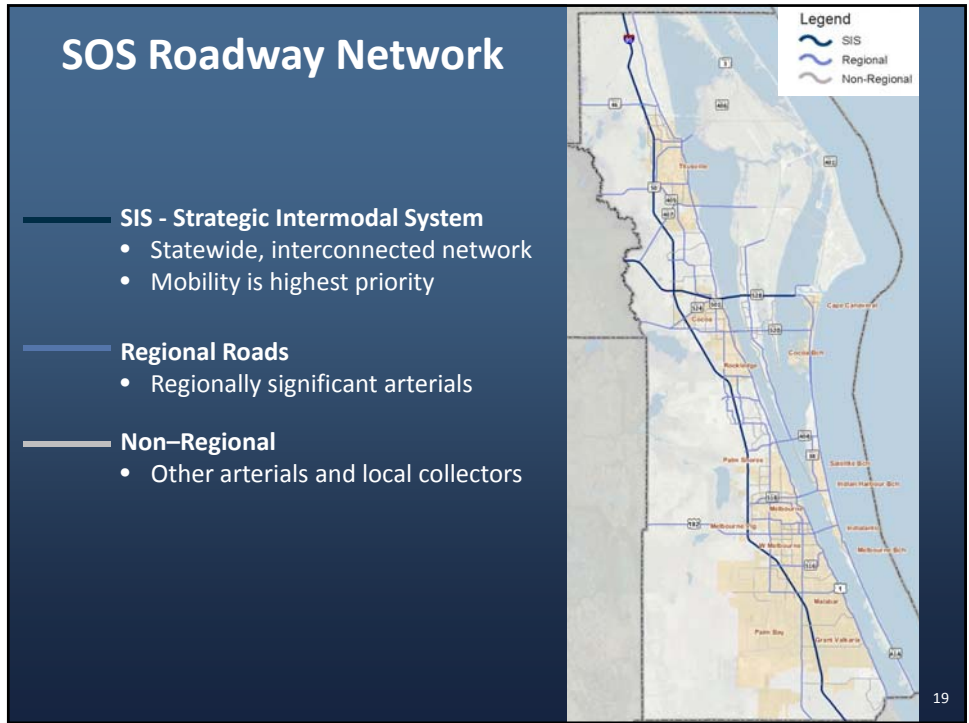
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VMT Trends – Countywide

- Total VMT declined in 2013, following same trend seen in 2012
- Countywide VMT per capita followed same trend as total VMT
- VMT and traffic volume reduction show that people are taking fewer/shorter trips
- Nationwide: total VMT slightly increased while VMT per capita decreased

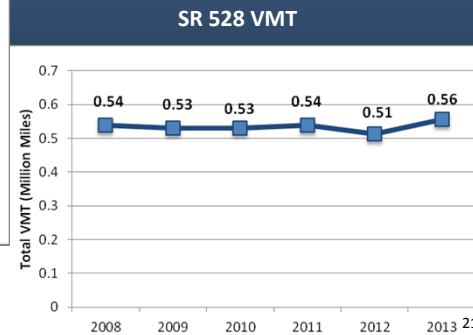
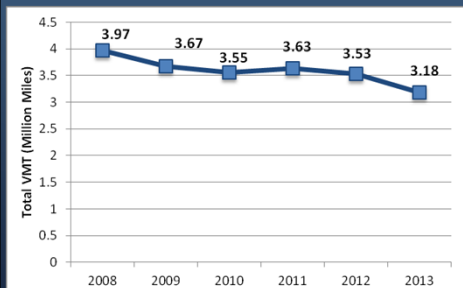


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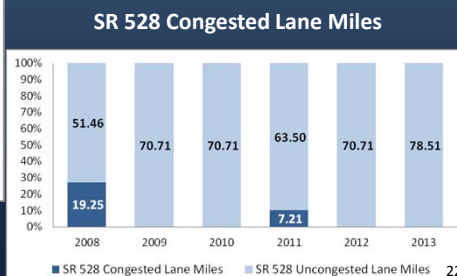
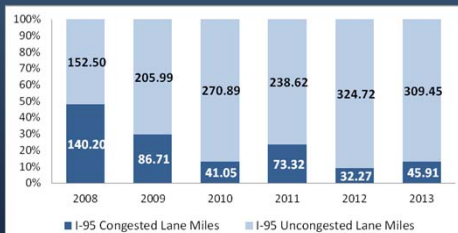
VMT Trends – SIS Facilities

- I-95 VMT decreased by 10% from 2012 to 2013, lowest VMT in the past 6 years
- SR 528 VMT increased by 8% in 2013, highest VMT in the past 6 years
- Since 2008, VMT has decreased by 20% on I-95 and increased by 3% on SR 528
 - Largest decreases seen along I-95 north of SR 528
 - Increases seen along I-95 from Malabar Road to SR 520



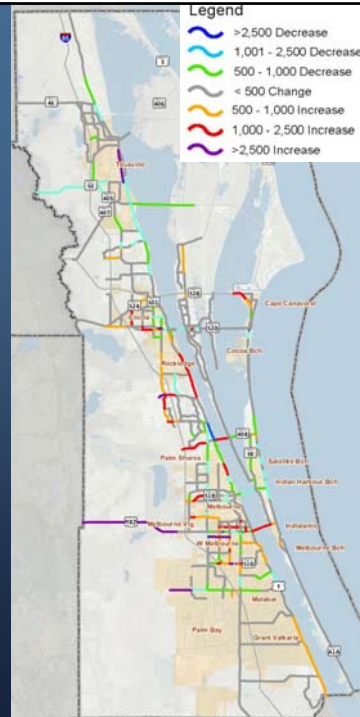
Lane Miles of Congestion – SIS Facilities

- Congested lane miles along I-95 increased by 50% from 2012 to 2013
 - 13% total lane miles congested in 2013 compared to 9% in 2012
 - Besides 2011, 2010 through 2013 has seen steady congestion between 9% and 15%
- Congested lane miles along SR 528 remained at 0% in 2013
 - Consistent with trends in 2009, 2010, and 2012



Regional/Non-Regional Roadways Traffic Volume Change (2012 to 2013)

- Traffic volume decreased on both Regional and Non-Regional Roadways
 - Largest increases seen along US 192 west of I-95 and US 1 in Titusville
 - Largest decreases seen along US 1 north of Pineda Causeway, US 1 south of Titusville, and portions of SR 50 and A1A

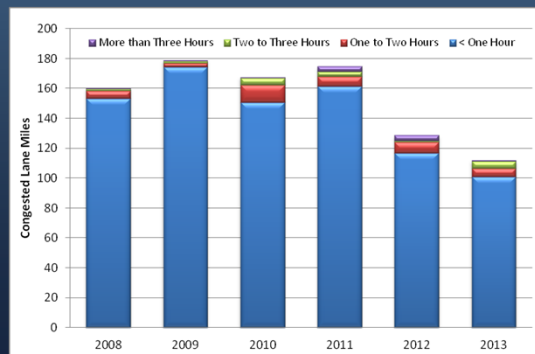


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Congestion of Regional/Non-Regional Facilities

- Congested lane miles have been decreasing since 2006:
 - 11% in 2009, 10% in 2011 and 7% in 2013
- Total lane miles experiencing congestion dropped by 13% from 2012 to 2013
- 90% of the congested lane miles in the network is less than an hour
- Number of lane miles experiencing congestion between 2 to 3+ hours has increased between 2012 and 2013 from 5 to 6

Duration of Congestion



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Duration of Congested Segments

- **Top congested segments based on duration of congestion:**
 - Portions of SR 520 between US 1 and the Merritt Island Causeway
 - Malabar Rd between Jupiter Blvd and Minton Rd
 - San Fillippo Dr between Jupiter Blvd and Malabar Rd
 - Wickham Rd between I-95 and the Wal-Mart/Target Entrance in Viera
 - Babcock St between Foundation St and Malabar Rd
 - SR A1A between Miami and US 192



Summary of Trends

- Demographic trends over the past four years show an increase in older population and decrease in younger population
- Traffic volumes and VMT are continuing to decrease from peak traffic conditions in 2006 and 2007, despite slight increase in population
- Transit fixed route ridership has consistently increased over the last 5 years
- Reduction in traffic volumes and VMT indicates people are taking fewer/shorter trips

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Roadway Segment Ranking



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Changes for 2013

- Reviewed classification of segments related to Regional vs. Non-Regional
 - *(Wickham Road re-classified as Regionally Significant)*
- Revised Safety scoring to include multi-year data to reduce fluctuations in annual score
 - Maximum points remains at 10 pts
 - Now considers Safety Emphasis Areas; Crash Frequency per Emphasis Area and Crash Severity

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Technical Ranking Factors

- Existing congestion (out of 40 pts.)
- Future activity (2035 LRTP) (max 10 pts.)
- Existing traffic volumes (max 10 pts.)
- Intermodal/economic significance (max 10 pts.)
- Safety (max 10 pts.)
- Hurricane evacuation (max 5 pts.)
- Prior funding committed in TIP (max 10 pts.)

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Top Ranked SIS Roads

- Three of the top four segments were in the top four segments in 2012. All of the top four segments are programmed for capacity improvements in the TIP
- Only two of the top 10 were not in the 2012 top 10 ranking (I-95 from Fiske Blvd to SR 520 (Rank 10) and SR 528 from US 1 to N Courtenay Pkwy (Rank 6))
- For the first time since 2010, a SR 528 segment made the top 10

2013 Rank	2012 Rank	Change	Road	Segment (Sections)	2013 AADT	Existing Volume to MAV (Weight = 40%)	Future-LRTP	Safety	Total
1	4	3	I-95	INDIAN RIVER COUNTY - MALABAR (SR 514)	35,000	29.23	10	7.5	79.2
2	7	5	I-95	SR 406-SR 46	38,500	29.62	10	6.6	78.7
3	1	-2	I-95	PORT ST. JOHN CONNECTOR-SR 407	37,000	28.46	10	5.6	76.6
4	2	-2	I-95	SR 50-SR 406	36,000	27.69	10	5.6	75.8
5	9	4	I-95	EAU GALLIE (SR 518)- WICKHAM	76,000	35.64	0	7.5	68.1
6	12	6	SR 528	US 1-N COURTENAY	44,700	29.90	0	7.9	67.8
7	8	1	I-95	SR 46-STUCK WAY	26,000	21.71	10	5.6	67.3
8	6	-2	I-95	STUCK WAY-VOLUSIA CO.	26,500	22.13	10	3.8	65.9
9	5	-4	I-95	SR 528-PORT ST. JOHNS	21,900	16.85	10	7.5	64.3
10	11	1	I-95	FISKE-SR 520	67,139	31.48	0	7.5	64.0

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Top Ranked Regional Roads

- All of the top 10 segments are in the LRTP and/or have TIP funding for widening, operations, or multimodal improvements
- In most cases, large jumps in rankings due to changes in TIP funding

2013 Rank	2012 Rank	Change	Road	Segment (Sections)	Safety	Total
1	1	0	SR 520 (Causeway-US 1 (WB))	DELANNOY-BREVARD	3.0	83.3
2	3	1	US 192	WINDOVER SQ-HOLLYWOOD	6.4	82.2
3	23	20	SR 520 (US 1-Causeway (EB))	DELANNOY-RIVEREDGE	4.0	79.4
4	5	1	US 192	WICKHAM-DAYTON	5.4	79.2
5	10	5	US 192	DAYTON-WINDOVER SQ ENT	3.4	77.3
6	2	-4	BABCOCK	MALABAR-CHARLES	6.6	77.1
7	14	7	BABCOCK	CHARLES-PT MALABAR	7.9	76.9
8	7	-1	US 192	HOLLYWOOD-MCCLAIN (W MALL ENT)	4.4	76.0
9	9	0	BABCOCK	PT MALABAR-PALM BAY	7.9	75.5
10	Changed Category		WICKHAM	I-95-WAL-MART/TARGET ENT. (SIGNAL)	4.0	75.2
11	4	-7	BABCOCK	FOUNDATION PK-MALABAR	4.0	75.2
12	13	1	US 1	SARNO-EAU GALLIE	5.0	74.4
13	17	4	SR AIA	FISHER DR-ST LUCIE	8.5	73.7
14	18	4	SR 520 (US 1-Causeway (EB))	FORREST-BREVARD	5.0	72.9
15	25	10	SR AIA	SHEPARD-MCKINLEY	7.5	72.6
16	32	16	US 192	JOHN RODES-WICKHAM	8.5	72.4
17	37	20	WICKHAM	MURRELL-I-95	5.0	72.2
18	20	2	US 192	SUNSET (E MALL ENT)-DAIRY	5.0	72.1
19	15	-4	SR AIA	S BANANA-FISHER DR	5.6	71.5
20	27	7	SR AIA	MCKINLEY-BUCHANAN	8.5	71.5
21	12	-9	US 1	MICHIGAN-SR 528	5.6	70.7
22	29	7	SR 520	BRIDGE-N.TROPICAL	7.6	70.7
23	22	-1	SR AIA	ST LUCIE-MARION	5.0	70.3
24	30	6	SR AIA	BUCHANAN-N ATLANTIC	7.5	70.2
25	39	14	SR 520 (Causeway-US 1 (WB))	CAUSEWAY-DELANNOY	0.0	70.2

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Top Ranked Non-Regional Roads

- Seven of the 2013 top 10 ranked non-regional segments were not in the 2012 top 10
- 17 of top 25 new to rankings in 2013
 - Due to reclassification of roadways
- Hollywood Blvd had four of the top six ranked segments

2013 Rank	2012 Rank	Change	Road	Segment (Sections)	Safety	Total
1	Changed Category		MALABAR	JUPITER-MINTON	5.0	66.2
2	2	0	SAN FILLIPPO	JUPITER-MALABAR	1.4	51.8
3	15	12	HOLLYWOOD	FLORIDA/WINGATE-HENRY	0.6	49.6
4	17	13	HOLLYWOOD	EBER-FLORIDA/WINGATE	1.5	47.5
5	6	1	HOLLYWOOD	PALM BAY RD-EBER	0.6	45.3
6	23	17	HOLLYWOOD	HENRY-US 192	0.6	44.6
7	7	0	SUNTREE	WICKHAM-US 1	1.9	43.5
8	30	22	PORT MALABAR	BABCOCK-TROUTMAN	2.5	42.4
9	25	16	EMERSON	MINTON-JUPITER	2.5	39.2
10	45	35	N. BANANA RVR	AUDUBON-BAYSIDE/CENTRAL	4.4	38.0
11	40	29	JOHN RODES	ELLIS-EAU GALLIE	1.4	37.9
12	39	27	DAIRY	EDGEWOOD-US 192	5.0	37.8
13	86	73	HOPKINS	COUNTRY CLUB-HARRISON	2.1	36.2
14	47	33	JUPITER BLVD	AMERICANA-PACE	2.3	35.7
15	New		HOPKINS	KNOX MCCRAE-COUNTRY CL	0.0	34.7
16	41	25	FORREST	SR 520-PEACHTREE	0.6	34.6
17	50	33	DAIRY	FLORIDA-EDGEWOOD	1.5	34.3
18	26	8	DAIRY	EBER-FLORIDA	1.9	34.1
19	84	65	N. BANANA RVR	CENTRAL-SR 528	4.6	33.3
20	62	42	PORT MALABAR	TROUTMAN-US 1	4.0	32.1
21	115	94	HICKORY	HIBISCUS-NASA	1.5	31.6
22	New		MALABAR	SIHP-JUPITER	0.0	31.5
23	28	5	JOHN RODES	US 192-SHERIDAN	1.0	31.3
24	81	57	N. ATLANTIC	SR A1A-CANAVERAL BLVD	0.0	30.8
25	55	30	JOHN RODES	SHERIDAN-ELLIS	0.0	30.8

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Questions ?



The collage consists of five distinct images arranged in two rows. The top row features a highway sign for Interstate 95 on the left and the word 'TO' on a sign to its right. The bottom row contains four smaller images: a cruise ship at sea, the NASA logo, a commercial airplane in flight, and a bus on a road.