



Travel Time Data



presented to

Florida Model Task Force

presented by

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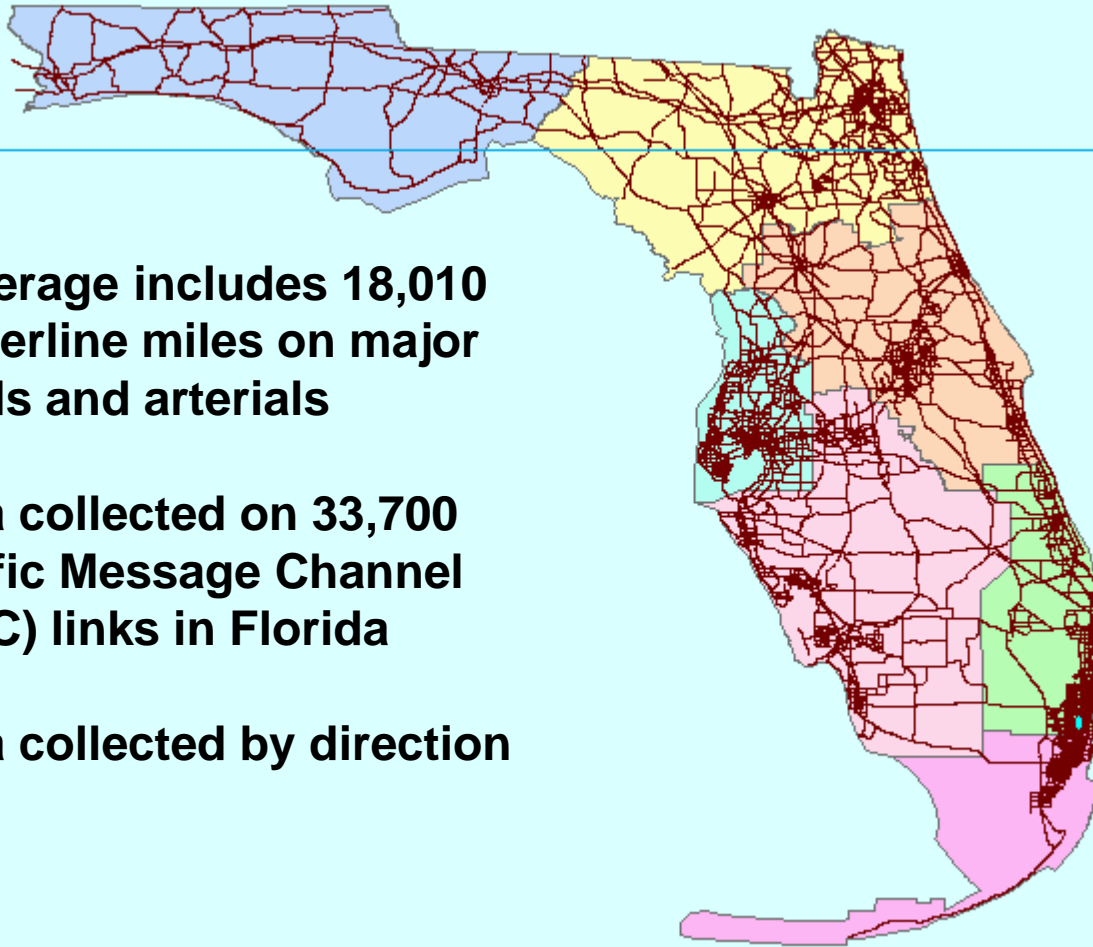


Travel Time Data Overview

- Purchased by Florida DOT Central Office to support speed research
- Data collected by private vendor using cell phone and GPS probes
- Spatial and temporal database of “average speeds” for a 12-month period (July 2010 to June 2011)
- Average speeds at temporal resolution of 5-minute intervals

Spatial Coverage in Florida

- Coverage includes 18,010 centerline miles on major roads and arterials
- Data collected on 33,700 Traffic Message Channel (TMC) links in Florida
- Data collected by direction





INRIX Travel Time Data

Some Possible Applications

- **Travel time and speed visualization and analysis**
 - Color-coded speed and travel time mapping
 - Congestion mapping
 - Analysis of travel time and speed over a time period
 - Travel time reliability analysis
 - Time series animation of speed and congestion
- **When supplemented with traffic count data:**
 - Calibration of existing volume delay function (VDF) used in travel models
 - Development of VDF using BPR and other functional forms

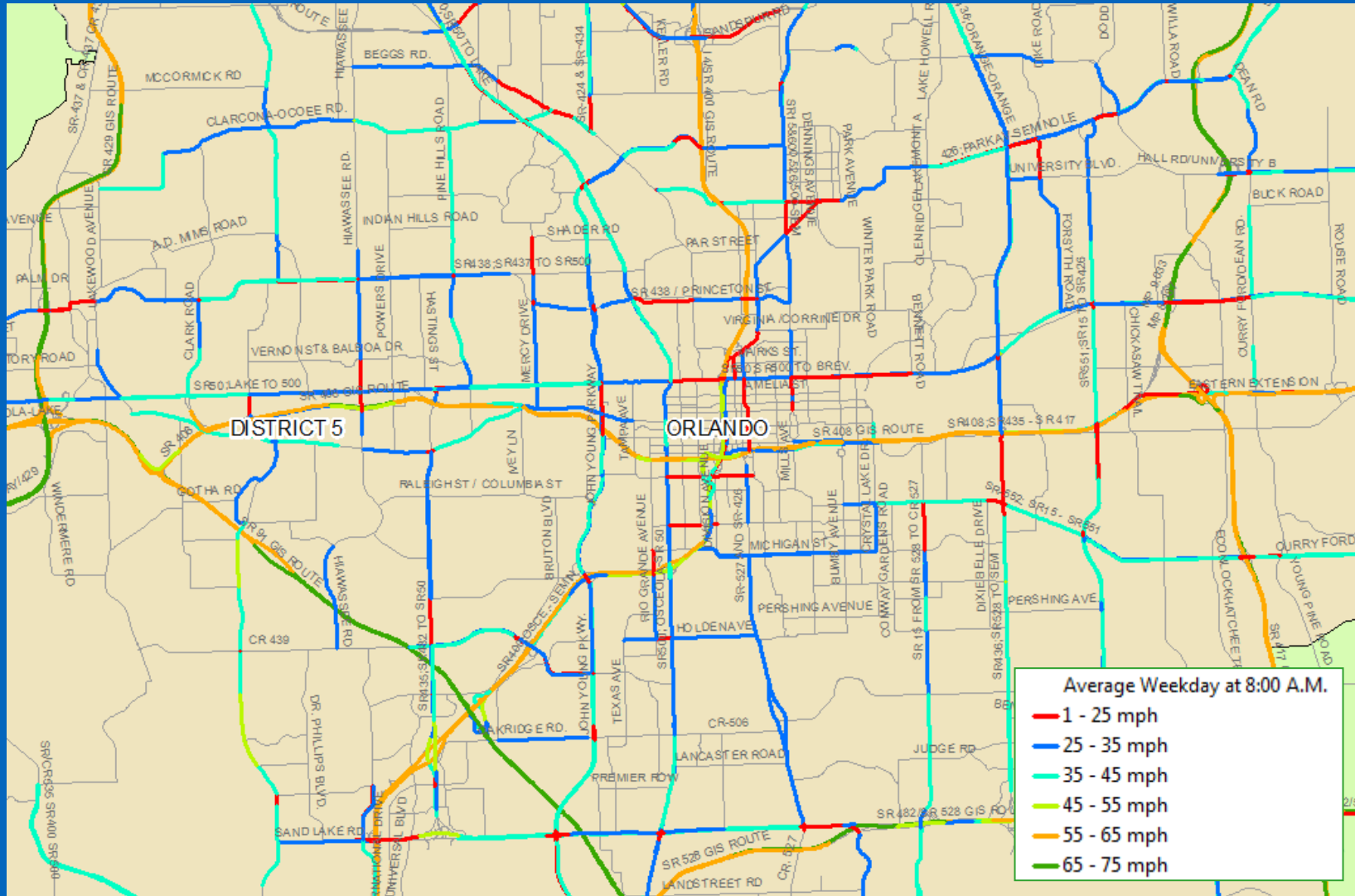


INRIX Travel Time Data

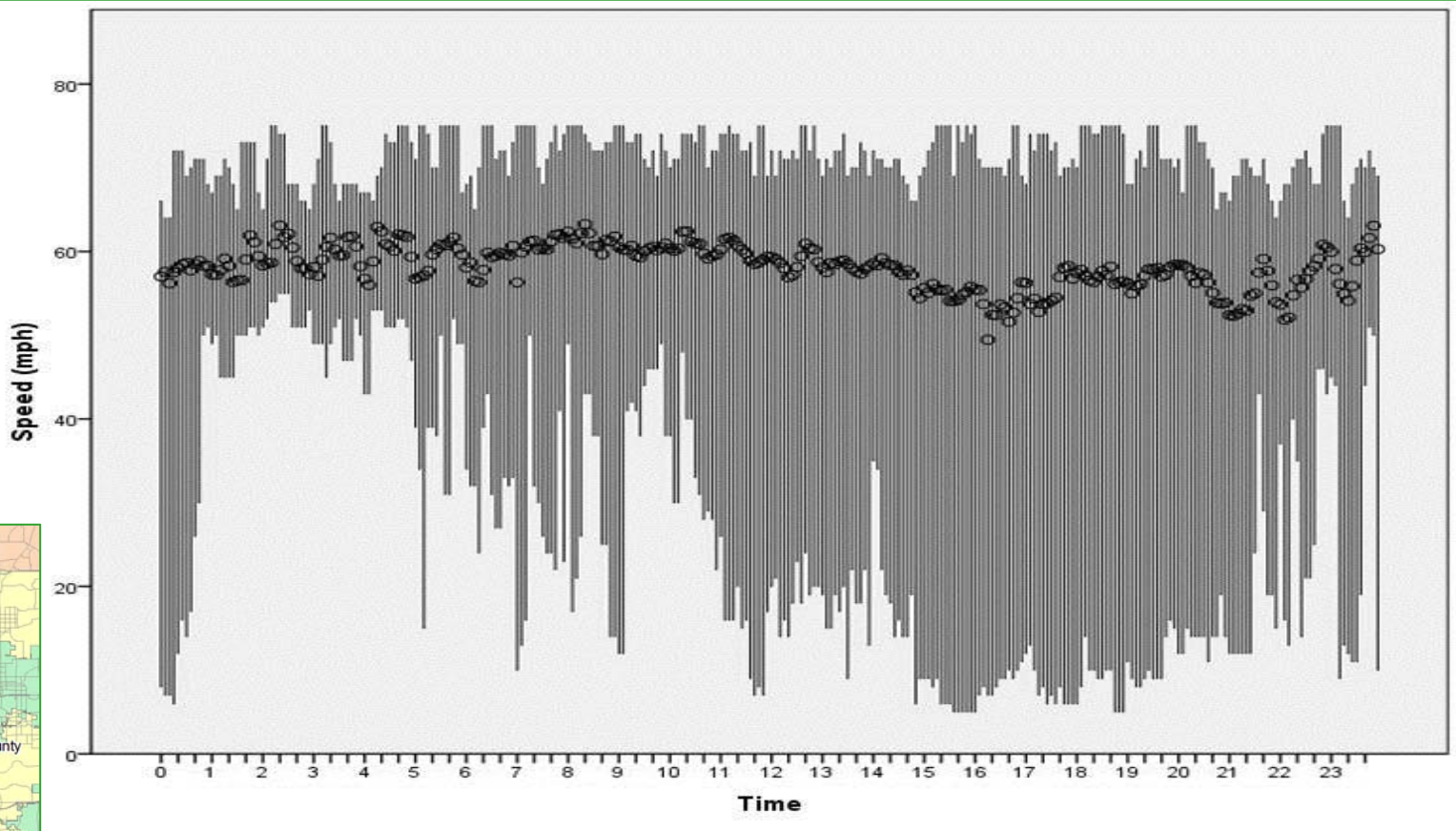
Some Possible Limitations

- Data not “lane specific”
 - Not suited for HOV Lane travel time analysis
- Proprietary methodology used to determine average speeds in original dataset

Color-coded Speed Map: Average Weekday Speeds in Orlando, April 4-8, 2011



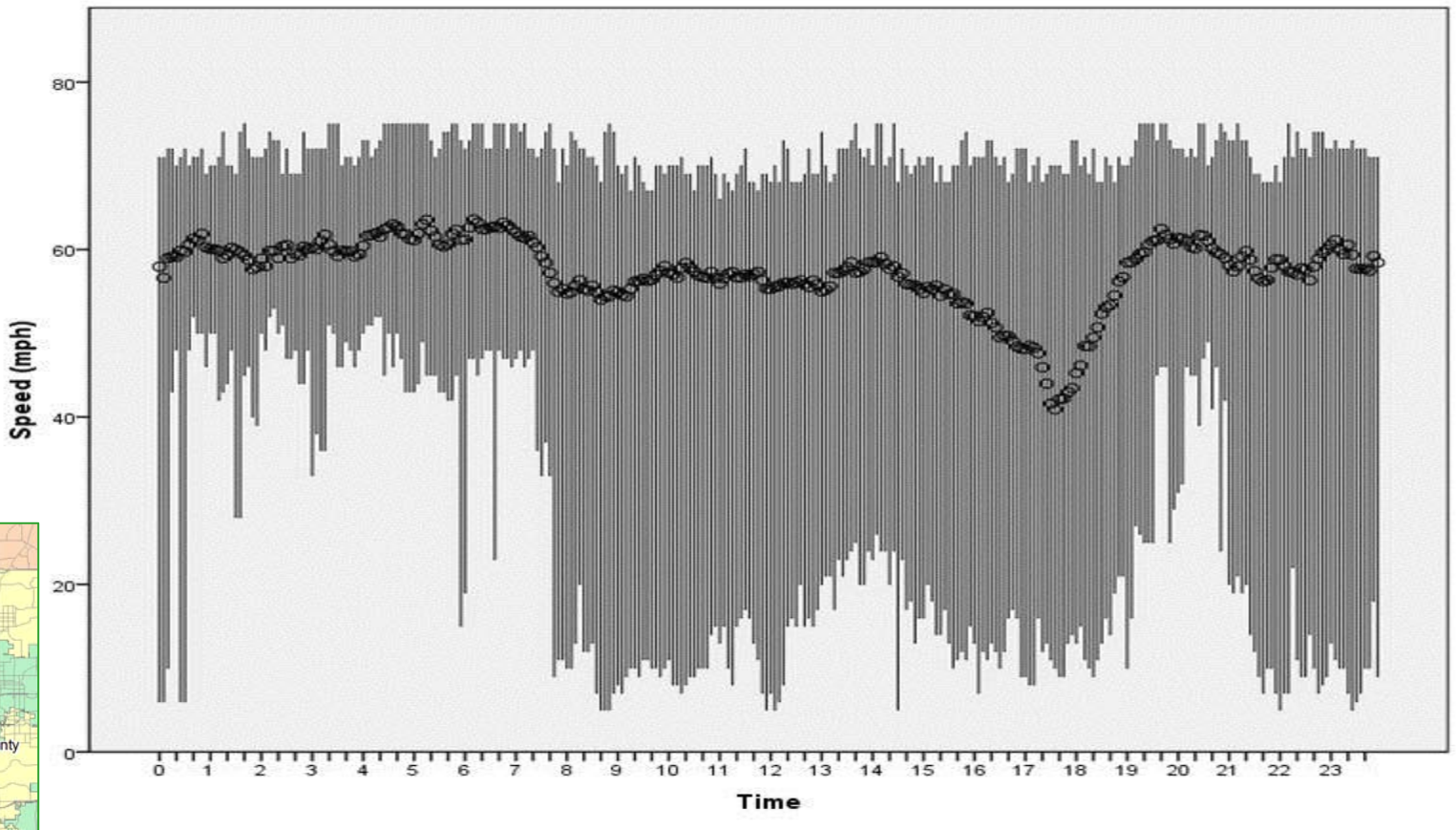
High, Low and Average Speeds on I-4 (between Osceola Pkwy & Maitland Blvd), July 3-5, 2010*



* High speeds capped at 75 mph; low speeds capped at 5 mph ; speeds captured at 5-minute intervals.

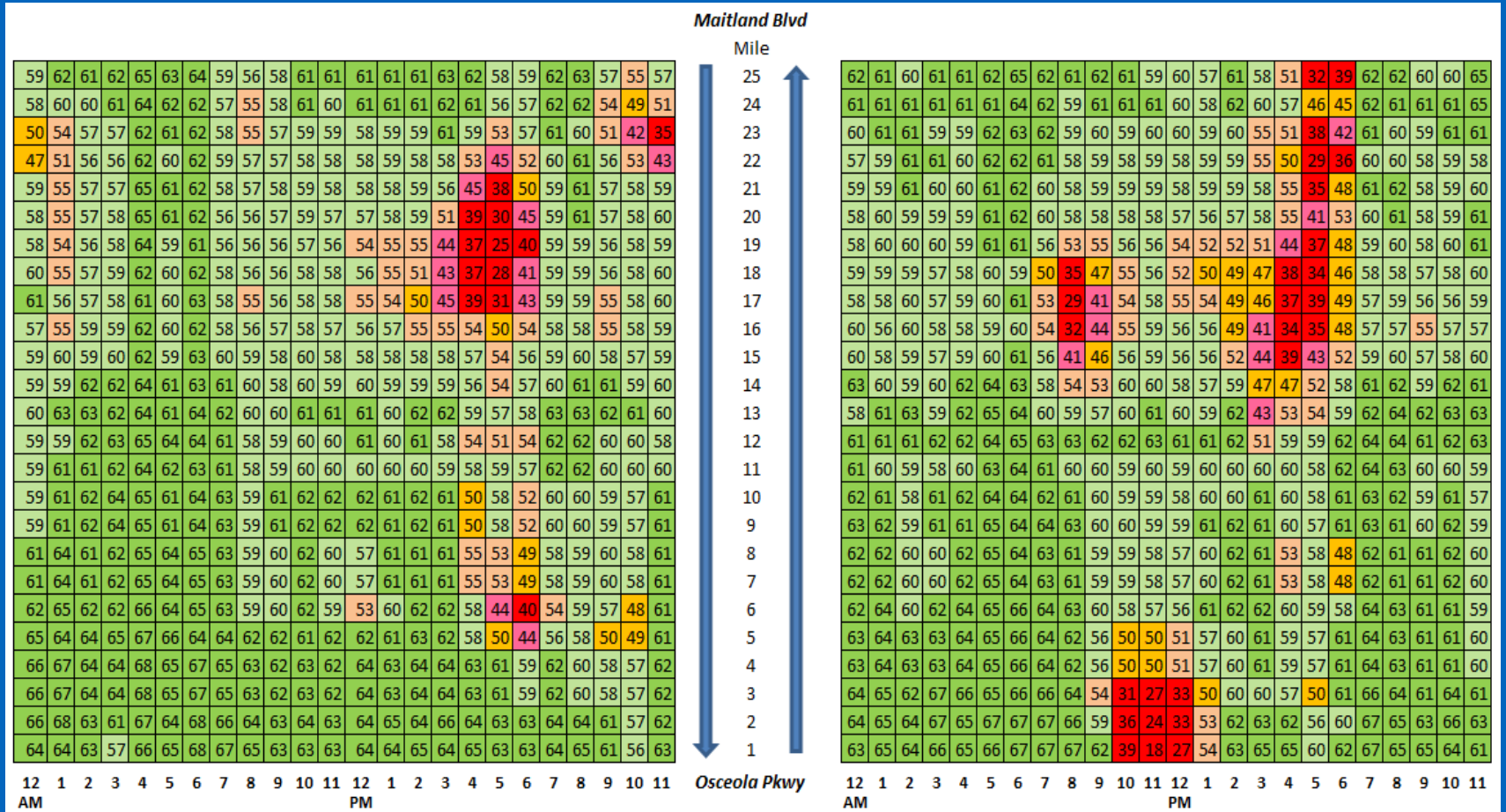


High, Low and Average Speeds on I-4 (between Osceola Pkwy & Maitland Blvd), July 6-9, 2010*



* High speeds capped at 75 mph; low speeds capped at 5 mph; speeds captured at 5-minute intervals.

I-4: Average Weekday Speeds by Hour by Mile (July 6-9, 2010)



Between Osceola Pkwy and Maitland Blvd



Travel Time Data: Summary

- Statewide dataset contains over 711 million records (approximately 30 GB)
- District-level sub-set of data contains between 40 million records and 142 million records per District.
- Speeds in data files are average space-mean speeds
- Collected on 33,700 Traffic Message Channel (TMC) links during the period 7/1/2010 to 6/30/2011
- Suitable for use in many transportation planning applications



Travel Time Data: Summary

District/State	Centerline Miles	Speed Records (5-minute interval) ^a
D1	3,333	105,875,469
D2	3,587	101,748,753
D3	1,767	40,137,130
D4	2,627	127,347,582
D5	3,077	142,516,885
D6	1,205	90,790,223
D7	2,414	112,953,993
Florida	18,010	711,351,697

- a. Some TMCs cross District boundaries and in such cases the associated speed records are included in more than one District data file



Travel Time Data Distribution

- A dataset of District speed records will be distributed to District Modeling Coordinators
- Data usage is restricted to FDOT and MPO projects only
- Questions and comments about data distribution should be addressed to:

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