

INRIX Data Services - Update

Washington Transportation Commission



Agenda

INRIX Introduction: who we are – what we do

I-95 Corridor Coalition

INRIX Services for WSDOT - Analytics

INRIX Scorecard

Questions - Answers

INRIX Transportation Intelligence

Massive input data

Technology Platform

Products & Optimized Solutions

- Consumer vehicle GPS data
- Historical traffic data
- Fleet data
- Parking data
- Mobile data
- Incident data
- Event data
- Road sensors
- Weather data

INRIX INTELLIGENCE

Real-Time Predictive Historical

- Leverages big data for real-time fusion and predictive analytics
- Advanced crowdsourcing technology
- Cloud-based service delivery for robust customer applications

COVERAGE

ACCURACY

PREDICTIVE

ACTIONABLE



What We Do

Aggregate Content

Smart Driver Network

Aggregate traffic & related content from >400 sources

Largest GPS Probe Network in the World

Road Sensors & Other Traffic Flow Sources

Traffic Incident Data

Traffic Metadata to Enable Predictions

Traffic Camera, Red Light Camera, Weather & Other Dynamic Content

User Generated Content

Analyze & Process

Fusion Engine

Enhance data using advanced error detection advanced algorithms

Real-Time Processing

Predictive Modeling

SpeedWaves Secondary Road Analysis

Deliver Solutions

Products & Services

Deliver traffic-powered data, apps and tools to customers via Connected & Broadcast Services

Apps & Tools

Directions & Driver Services

Traffic Information

Connected Services

Automotive

Mobile

Public Sector

Fleet

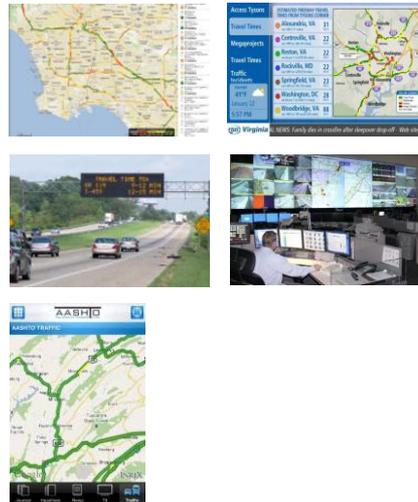
Internet & Media

Public Sector Suite

Traffic platform for planning, analysis and operations of road networks

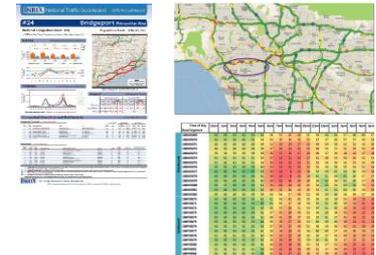
Traffic Services

- Real-Time & Predictive Traffic Flow
- Traffic Monitoring
- Key Route Travel Times
- Point to Point Travel Times
- Traffic Incidents
- Traffic Cameras
- Developer & App Services



Historical Traffic

- Traffic & Freight Profiles
- Traffic Data Archive
- Corridor Travel Times



Analytics

- Traffic Monitoring Dashboard
- Bottleneck & Congestion Analysis
- Historical Traffic Analysis
- Dynamic Route Travel Times





Managing Traffic with Declining Resources: *Using Public-Private Partnerships*

**George Schoener, Executive Director
I-95 Corridor Coalition**

**2012 ITS America Annual Meeting
May 22, 2012**

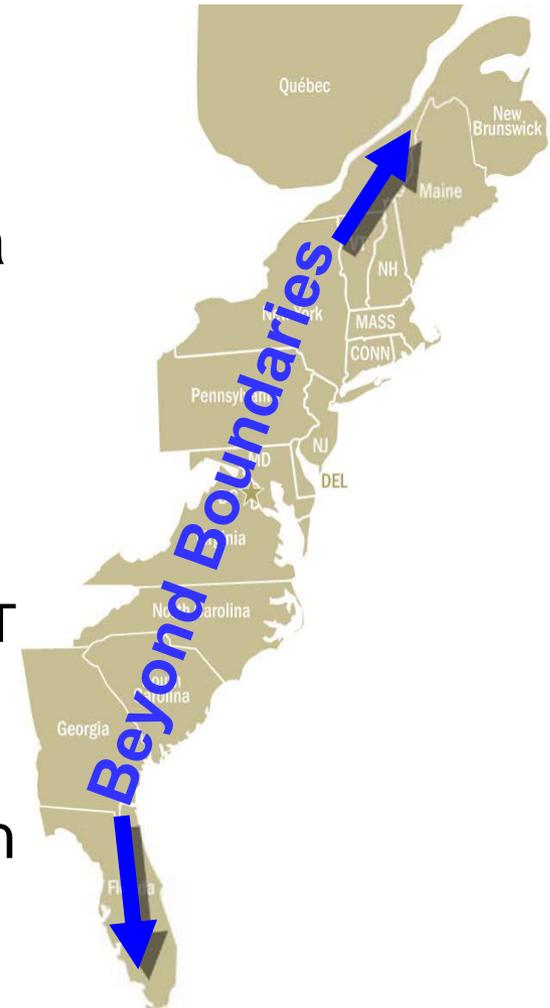




I-95 Corridor Coalition

Who we are...

- An alliance of transportation agencies and related organizations from Maine to Florida (with affiliates in Canada)
- With a transportation system of:
 - \$4.5 trillion economy (40% of US GDP)
 - 21% of nation's road miles; 35% of nation's VMT
 - 5.3 billion tons of freight shipments annually
- Providing a forum to address transportation management and operations issues of common interest

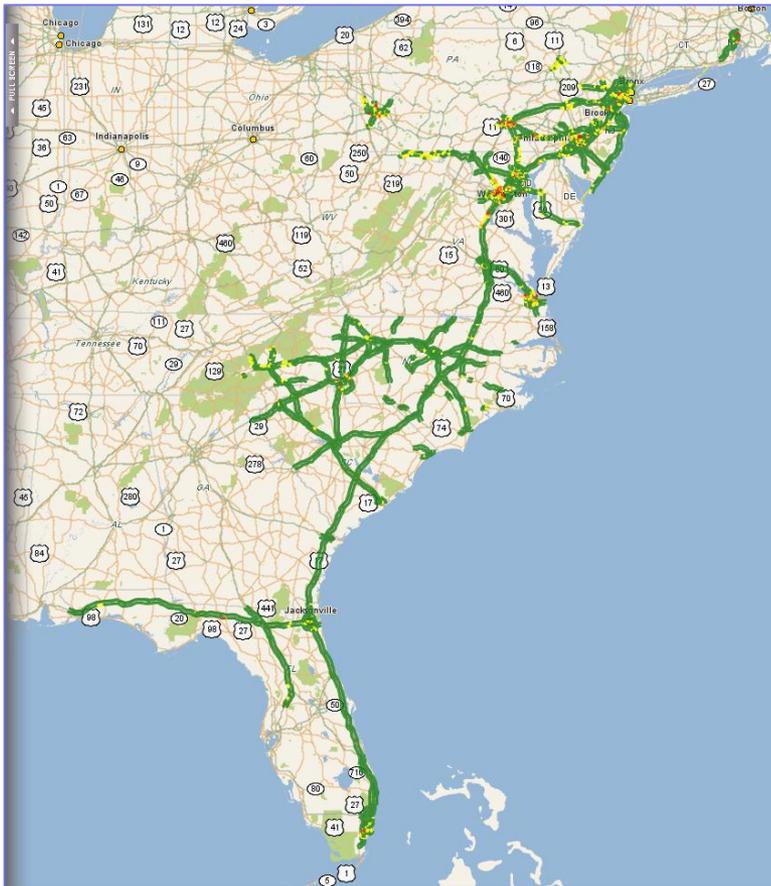




The Public-Private Partnership: *Data Acquisition/System Performance*

Why?	Cost prohibitive to provide speed and travel time information along a long-distance corridor through conventional detection
What?	Multi-state traffic monitoring system (real-time and archived data)
How?	RFI/RFP Competitive procurement-probe based; independent validation

Current Contracted Coverage – May 2012

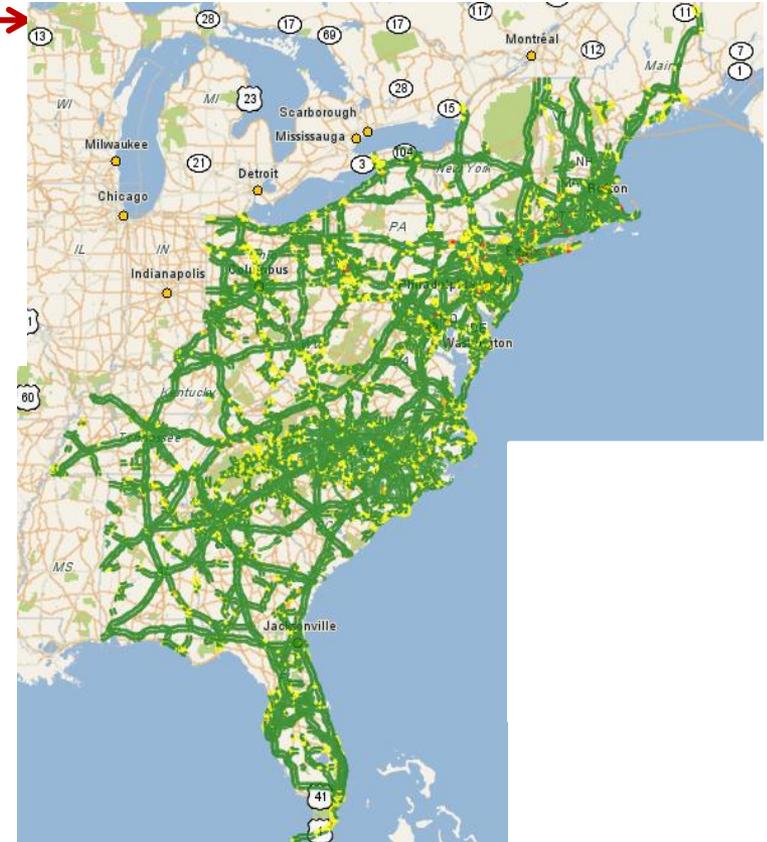


State	Freeway Coverage		
	Core	Expansions	Total
Maine	0	0	0
New Hampshire	0	0	0
Massachusetts	0	0	0
Rhode Island	78	0	78
Connecticut	0	0	0
New York	0	0	0
New Jersey	472	424	895
Pennsylvania	149	488	637
Delaware	46	0	46
Maryland/DC	301	445	746
Virginia	310	1,102	1,411
North Carolina	262	1,291	1,553
South Carolina	220	980	1,200
Georgia	139	0	139
Florida	728	533	1,261
Total	2,704	5,262	7,966



Vehicle Probe Project (VPP) Services

- **Monitoring Site** →
 - <http://i95.inrix.com> (agencies only)
 - ~ 450 officials in corridor have access
- **Data Feed**
 - Real-time access for integration into applications (published I/F Guide)
- **Data Archive**
 - 5 minute archive available through monitoring site
- **VPP Suite**
 - Real-time and historical tools for ops and planning
 - Users group established for information sharing



Vehicle Probe Project Suite

Vehicle Probe Project Suite



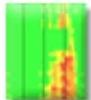
Vehicle Probe Project Suite Dashboard ⓘ

Explore the impacts of and relationships between bottlenecks and traffic events in real-time and at previous points in the past.



Massive Raw Data Downloader ⓘ

Download raw probe data from our archive.



Congestion Scan ⓘ

View how congested conditions rise and fall on a single stretch of road.



Historic Tools ⓘ

View aggregated data from previous points in time.



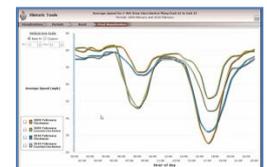
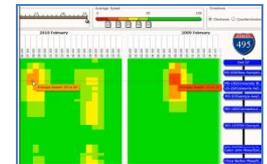
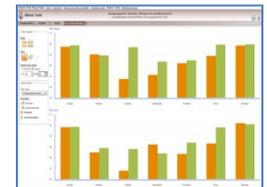
Bottleneck Ranking ⓘ

Search for recurring bottlenecks and discover which ones have the greatest impact.



Tutorials

Learn how to use each of the tools in the suite.

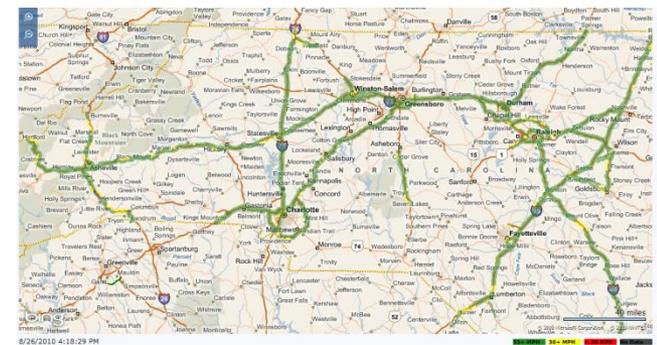
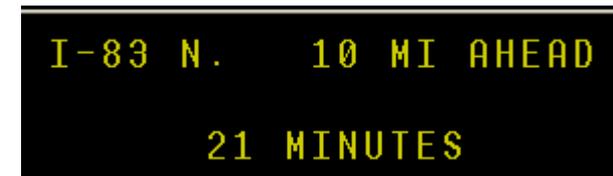


Noteworthy VPP Applications

- Ops Center Monitoring
 - Monitoring Site – ME, NH, NY, NJ, DE, MD, VA, NC, SC, FL
 - TMC Software Integration – RITIS, SC, FL (soon), NJ (soon)
 - **Big Benefit – cross border monitoring**
- Travel Times on Signs: VA, SC, MD
- Travel Times on Web Sites: NJ, SC
- System Performance Measures: Several States and MPOs
- Welcome Center/Mall Displays: VA



(511) Virginia AL NEWS: Family dies in crossfire after sleeper drop-off - Web site posts





Benefits of the VPP

- Real-Time Traffic Monitoring
 - Pay once, everyone uses
 - Cross border travel times
- Performance Monitoring & Measurement
 - VPP Suite, available to all participating agencies
- Managed by the I-95 Corridor Coalition
 - Central admin / procurement mechanism
 - Comprehensive validation
 - Aggressive pricing
- Liberal data licensing agreement
 - Full Rights for all internal applications
 - Archive in perpetuity
 - All external applications supported
 - Limitations only on the distribution of base data
- Vendor Retains Ownership of Data



Leading the Way

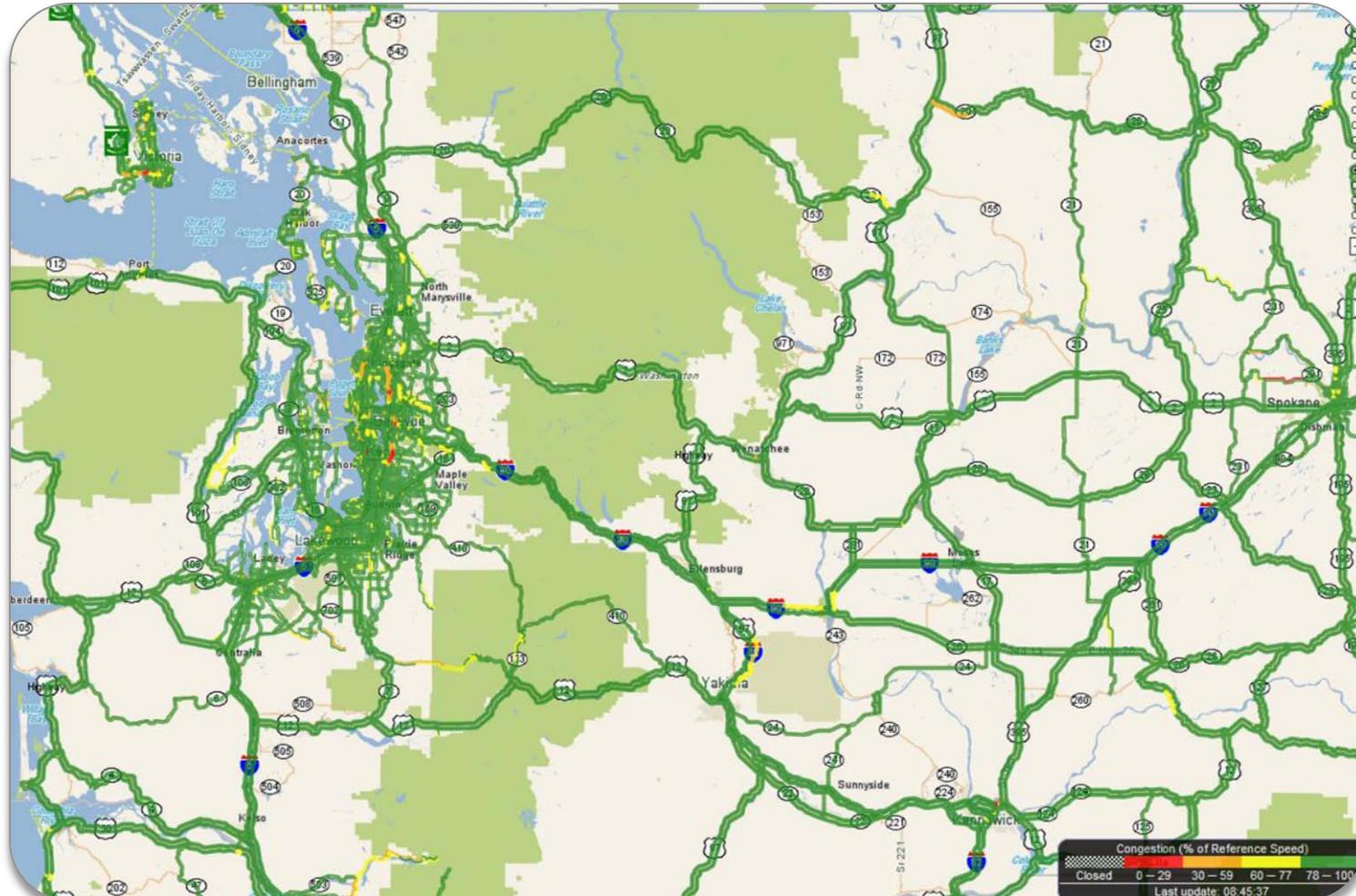
- Virginia DOT
- New York State DOT
- Florida DOT
- Georgia DOT

Statewide Traffic Data Services for WSDOT

- Real-Time
- Historical
- Analytics

INRIX Traffic Flow

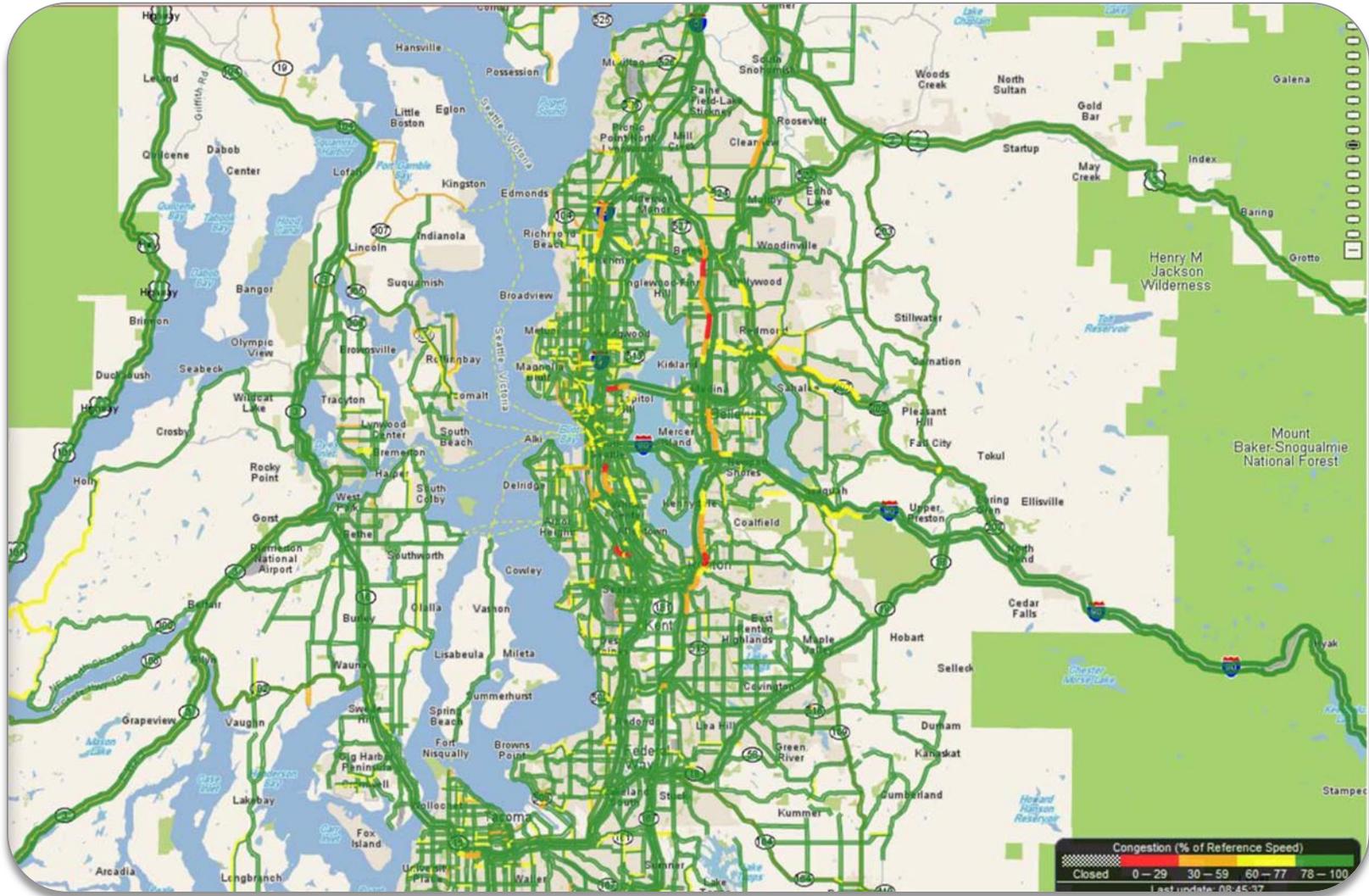
Washington State Coverage



	FRC1	FRC2	FRC1-2	FRC3	FRC4	Total Miles
Centerline Miles	780	3359	4138	3354	1560	9053

INRIX Traffic Flow

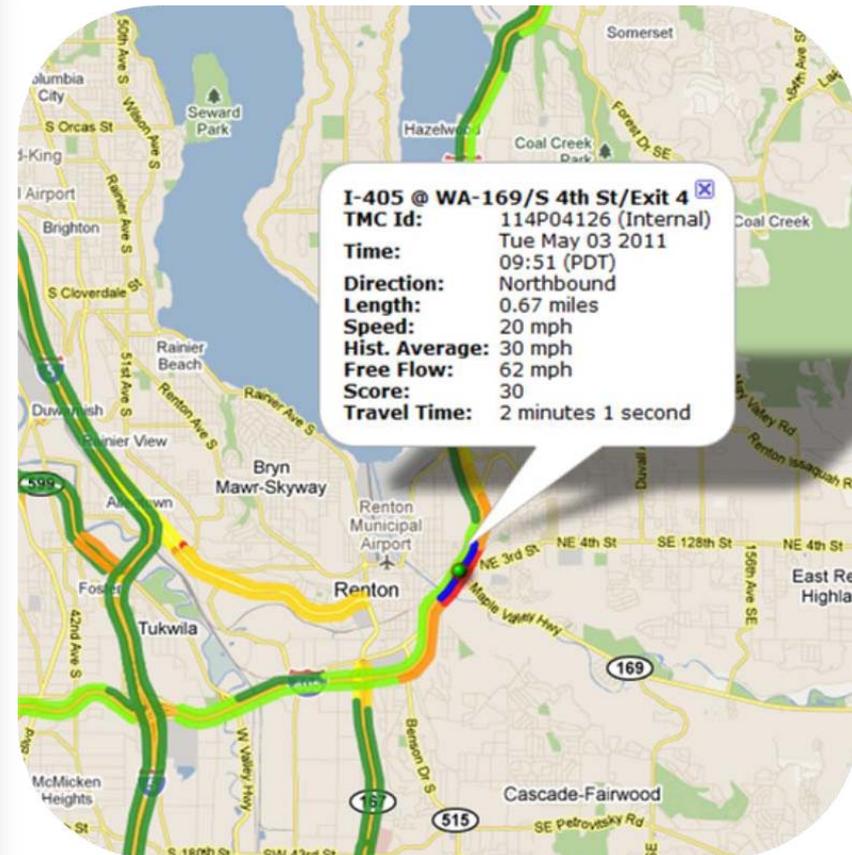
Puget Sound Coverage Example



INRIXTraffic.US

First Free Traffic Operations Service for Transportation Agencies Nationwide

- Over 1000 agency personnel in over 49 states accessing the site
- Unique access to traffic flow data in cities, statewide & across state lines
 - Provides a complete, real-time picture of current traffic speeds for 1,849 centerline miles in Washington State
 - Provides statewide and over-the-border views of traffic flow of value particularly in times of crisis or during heavy travel periods
- Creates a community and forum for sharing agency generated incidents
- Empowers agencies with a tool to better manage traffic operations, emergency response coordination and public safety



INRIX is the leading provider of traffic information in North America. INRIXTraffic.US provides a complete, real-time picture of current traffic flow conditions across the major roads in the United States, initially covering over 100,000 miles and growing to over 200,000 miles by the end of Summer. The site is designed for use by those who manage and patrol these highways.

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New Tab

Recent News

Recent Announcements

[Telmap Selects INRIX Traffic Information for Mobile Location Companion Service](#)

PR Newswire, 10/31/2011

[INRIX Analytics Introduces a Smarter Approach to More Effectively Managing Road Networks at Reduced Cost](#)

PR Newswire, 10/18/2011

[I-95 Corridor Coalition with INRIX Expands Vehicle Probe Project](#)

INRIX, 10/11/2011

[More Press Releases »](#)

Webinars

[INRIX National Traffic Scorecard 2009 Annual Report](#)

[Getting Started with INRIX Connected Services](#)

[Benchmarking Traffic Data Quality](#)

[INRIX Traffic and Emergency Evacuation](#)

[More Webinars »](#) (Select View Event Recordings)

INRIX Analytic Tools



[INRIX System Monitoring Dashboard](#)

Explore the impacts of and relationships between bottlenecks and traffic events in real-time and at previous points in the past.



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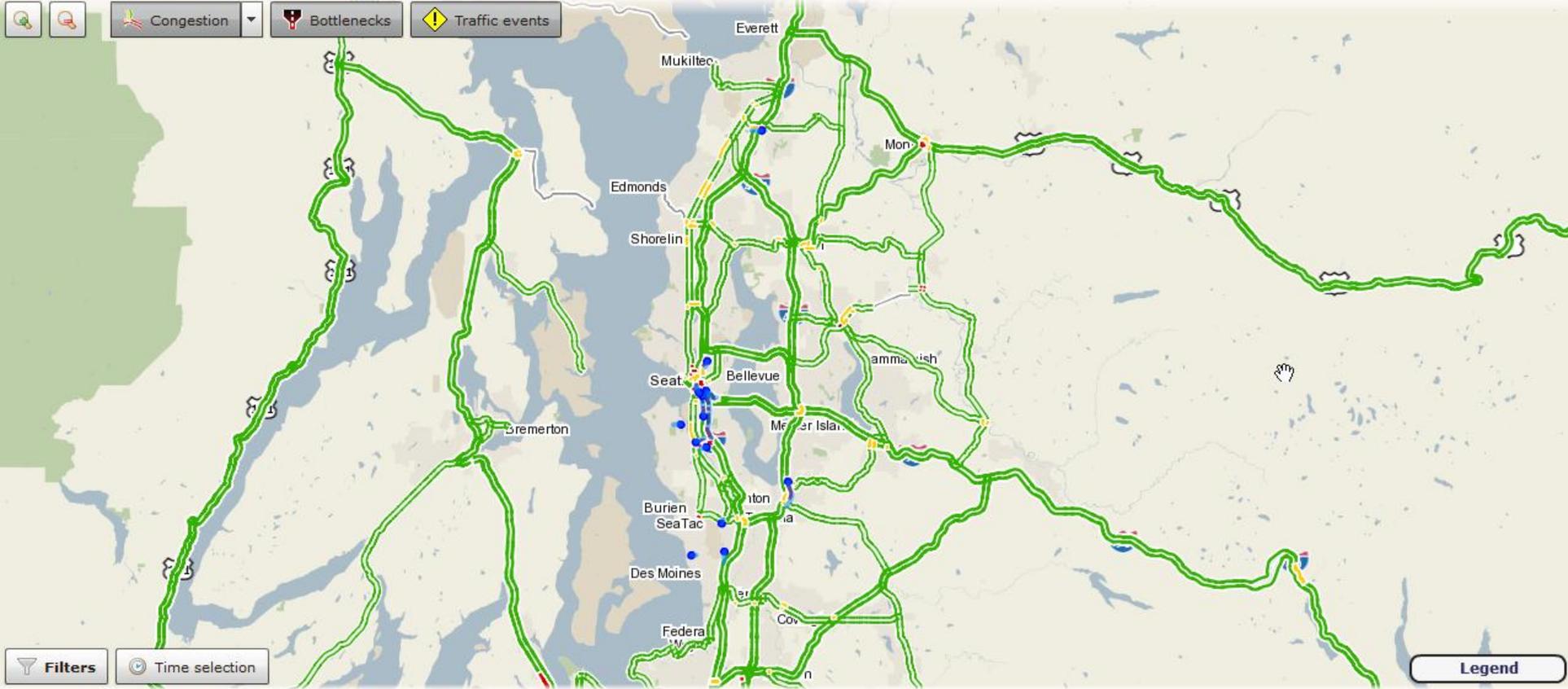
[Tutorials](#)

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Need to reach out to us? [Feedback](#) [Support](#)

INRIX System Monitoring Dashboard

Data exports Settings Help



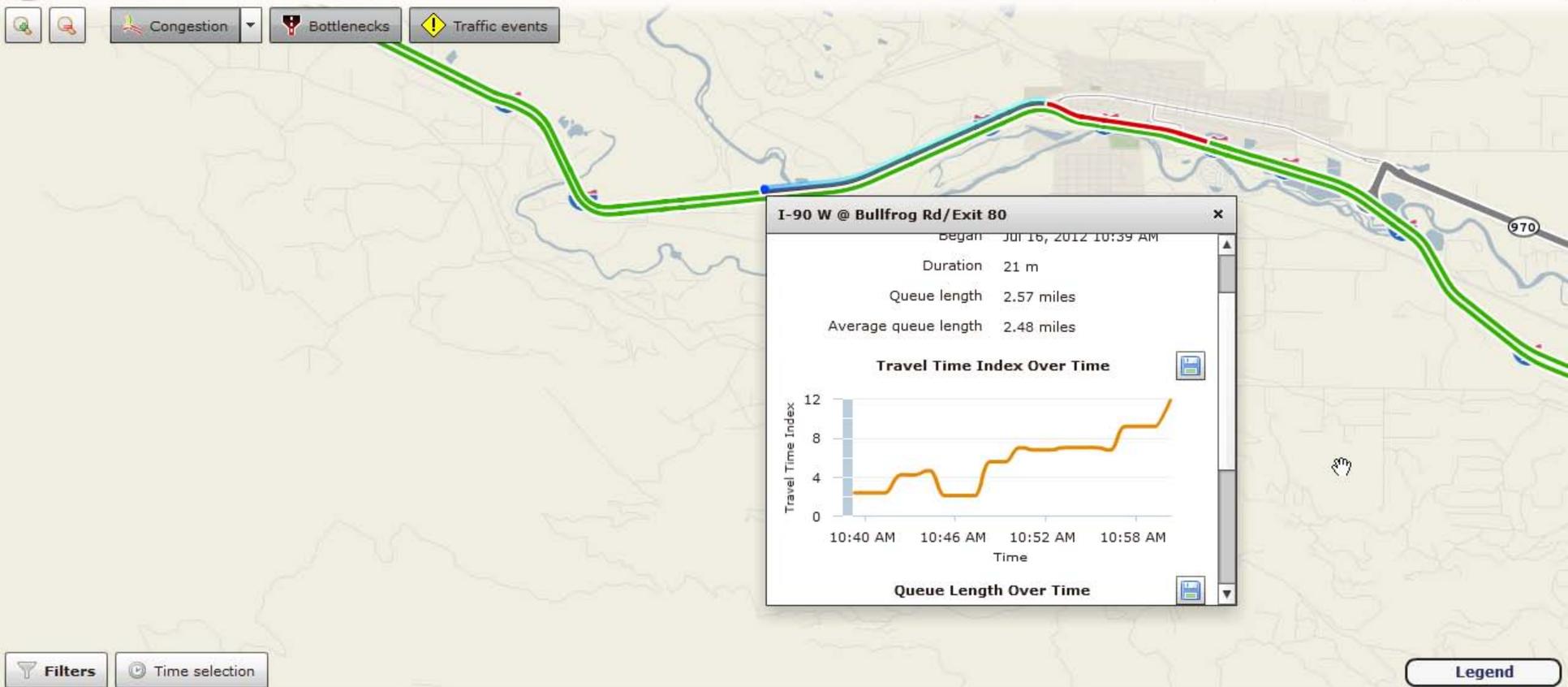
Nest bottlenecks and events
 Show only bottlenecks
 Show only events

Type	Description	Duration	Length (miles)	State	
	I-5 N @ James St/Exit 164	4 h 13 m	3.71	WA	
	I-5 S @ Seattle Fwy/Exit 163	42 m	2.27	WA	
	6th Ave E @ WA-14/Lewis and Clark Hwy	5 h 46 m	1.86	WA	
	I-405 N @ WA-900/N 5th St/Exit 5	4 h 43 m	1.43	WA	
	I-90 W @ Barker Rd/Exit 293	9 m	1.31	WA	
	I-90 W @ I-5	19 m	1.21	WA	

INRIX System Monitoring Dashboard

Data exports Settings Help

Congestion Bottlenecks Traffic events



Filters Time selection

Legend

Nest bottlenecks and events Show only bottlenecks Show only events

Type	Description	Duration	Length (miles)	State	
Bottleneck	I-5 N @ James St/Exit 164	4 h 22 m	3.71	WA	
Bottleneck	I-90 W @ Bullfrog Rd/Exit 80	21 m	2.57	WA	
Bottleneck	I-5 S @ Seattle Fwy/Exit 163	51 m	2.27	WA	
Bottleneck	WA-4 E @ WA-411/SW 1st Ave	8 m	1.99	WA	
Bottleneck	6th Ave E @ WA-14/Lewis and Clark Hwy	5 h 55 m	1.86	WA	
Bottleneck	I-90 W @ I-5	28 m	1.21	WA	

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Historic Probe Data Explorer

Average Speed for I-5 from Marvin Rd/Exit 111 to WA-512/Exit 127
 Averaged for every weekday in June 2009, June 2010, June 2011, and June 2012.



- Introduction**
- Search Criteria**
- Visualization Technique
- Final Visualization

1. Road

I-405 in WA

Search Again

Entire road State to state Partial road

From

To

Northbound Southbound

2. Metric

Average Speed

- Average Speed
- Buffer Index
- Buffer Time
- Travel Time Index
- Travel Time
- Planning Time Index
- Planning Time

3.

For performance reasons, the max amount of time periods allowed is four.

Create a Date Range

1) Selection Type

Single Selection Range Day

2) Date Selections

Year Month

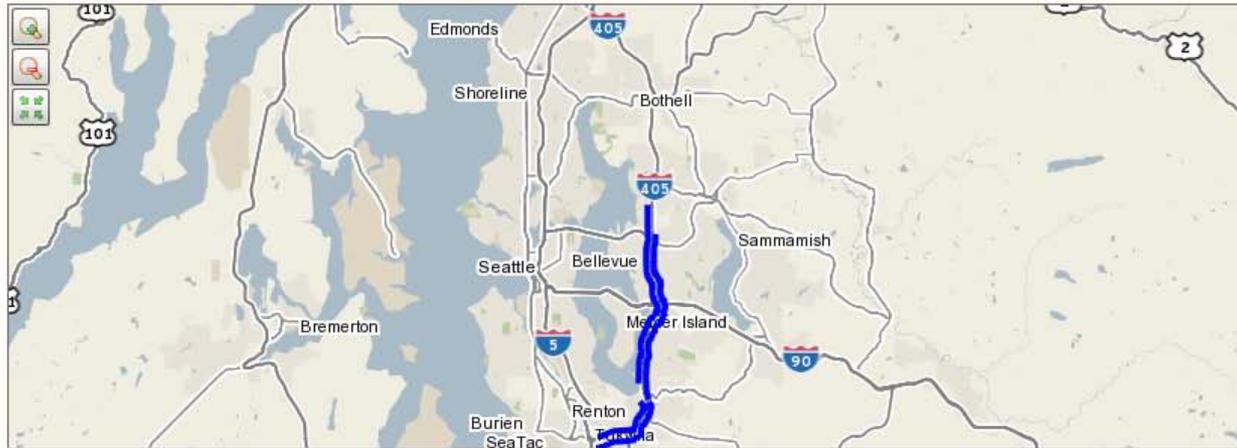
Entire Year

3) Name (optional)

Add Time Period

Selected Date Ranges

- June 2009
Average data across June of 2009.
- June 2010
Average data across June of 2010.
- June 2011
Average data across June of 2011.
- June 2012
Average data across June of 2012.



Next Step



Selected Criteria

You have chosen to look at the **average speed** for I-395.

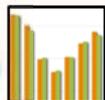
The values will be grouped by **hour of day** and will only be included if they fall within **every Monday, Tuesday, Wednesday and Thursday**.

The readings will be selected from the date range(s) of **January 2009, January 2010, and January 2011**.

[Change Search Criteria](#)

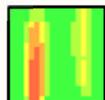


How do you want to explore the results of your search criteria?



Charts

Aggregated metrics as they change over time.



Contour Plots

Performance metrics across a stretch of road.



Trend Map

Performance metrics with a geospatial context.



Performance Summaries

The performance summaries visualization is not available for the selected grouping method.

Reports on all of the types of data, averaged for AM rush, Midday, and PM rush.

Historic Probe Data Explorer

Average Speed for I-405 from WA-181/Valley Hwy/Exit 1 to WA-520/NE 14th St/Exit 14

Averaged for every weekday in June 2009, June 2010, June 2011, and June 2012.



Graphing Options

Mode



Type



Vertical Axis Scale

Best fit Custom

Min Max

Data Options

Data Type

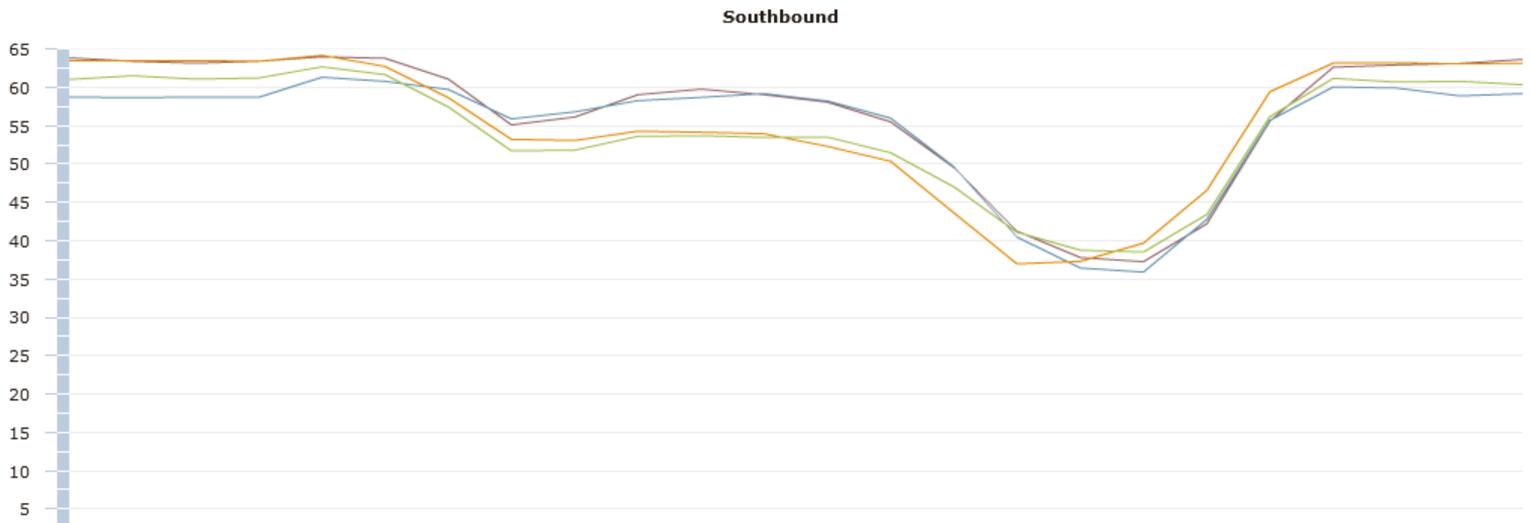
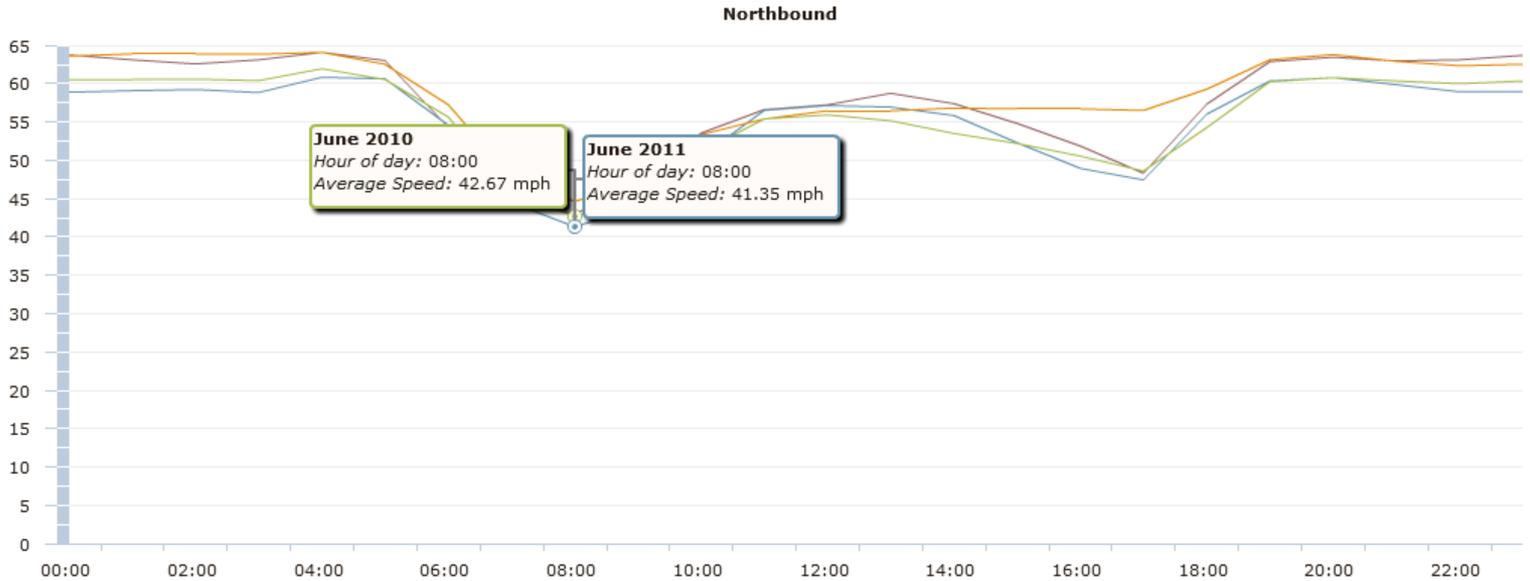
Average Speed (mph)

Toggle Graphs

- Northbound
- Southbound

Graph Data

- June 2009
- June 2010
- June 2011
- June 2012



INRIX Traffic Scorecard

Ken Kranseler, Vice President, Product Management

July 18th, 2012



<http://scorecard.inrix.com>

INRIX

Topics

- **Scorecard Overview**
- **Methodology**
- **Key Findings**
- **Congested Corridors**

Monthly INRIX Traffic Scorecard

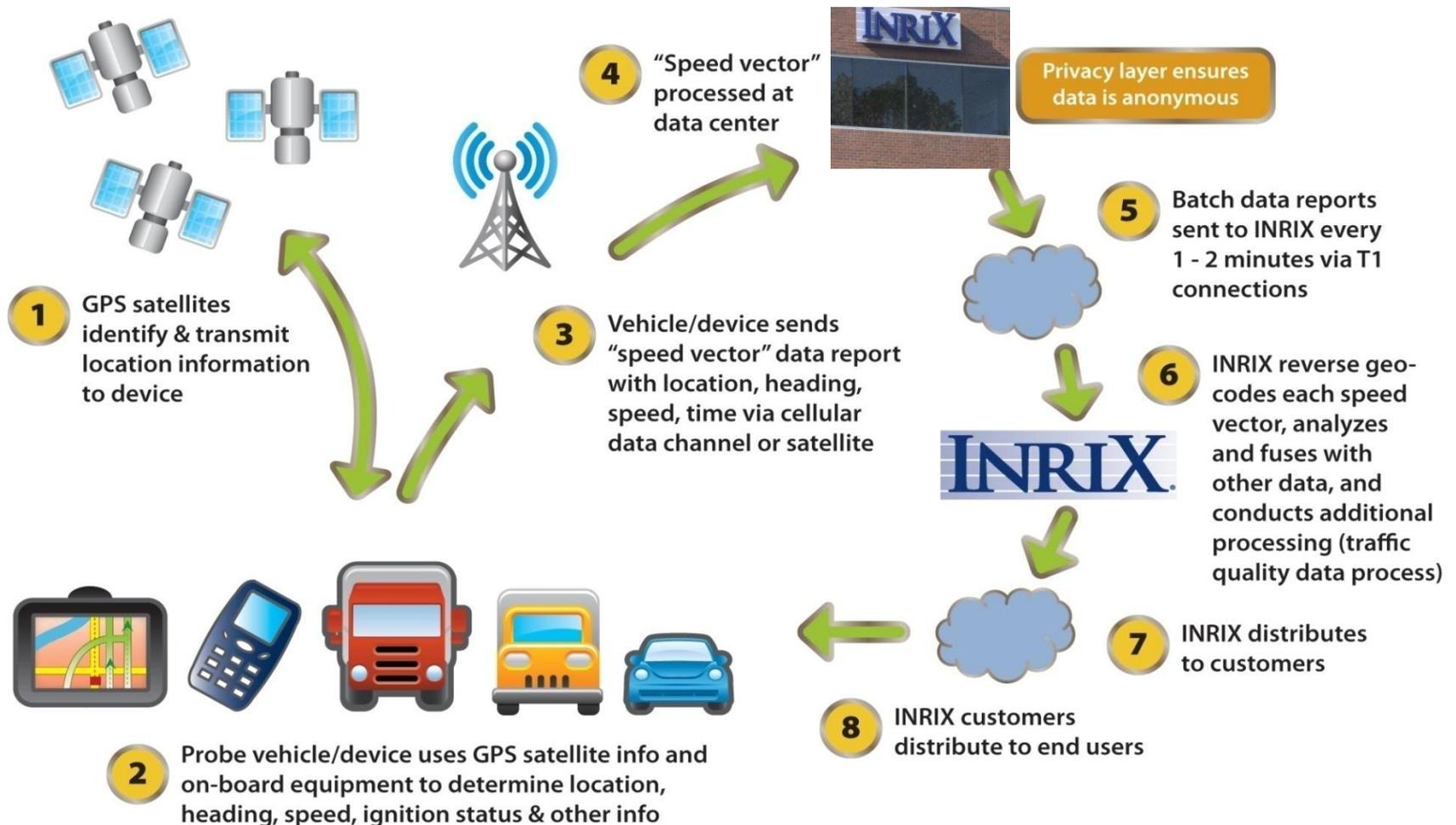
- Studies > 200,000 miles nationwide across 100 metro areas in US
 - Additional 99 metros and 250,000 miles across Europe & Canada
- Report for Every Month – Jan 2010 to May 2012 (updated monthly)
- Country Summary and Trends
- Metropolitan Rankings and Trends
- Metropolitan Summaries for Top 100 Areas
- Congested Corridors (US Only, Annual Summary)



INRIX Scorecard

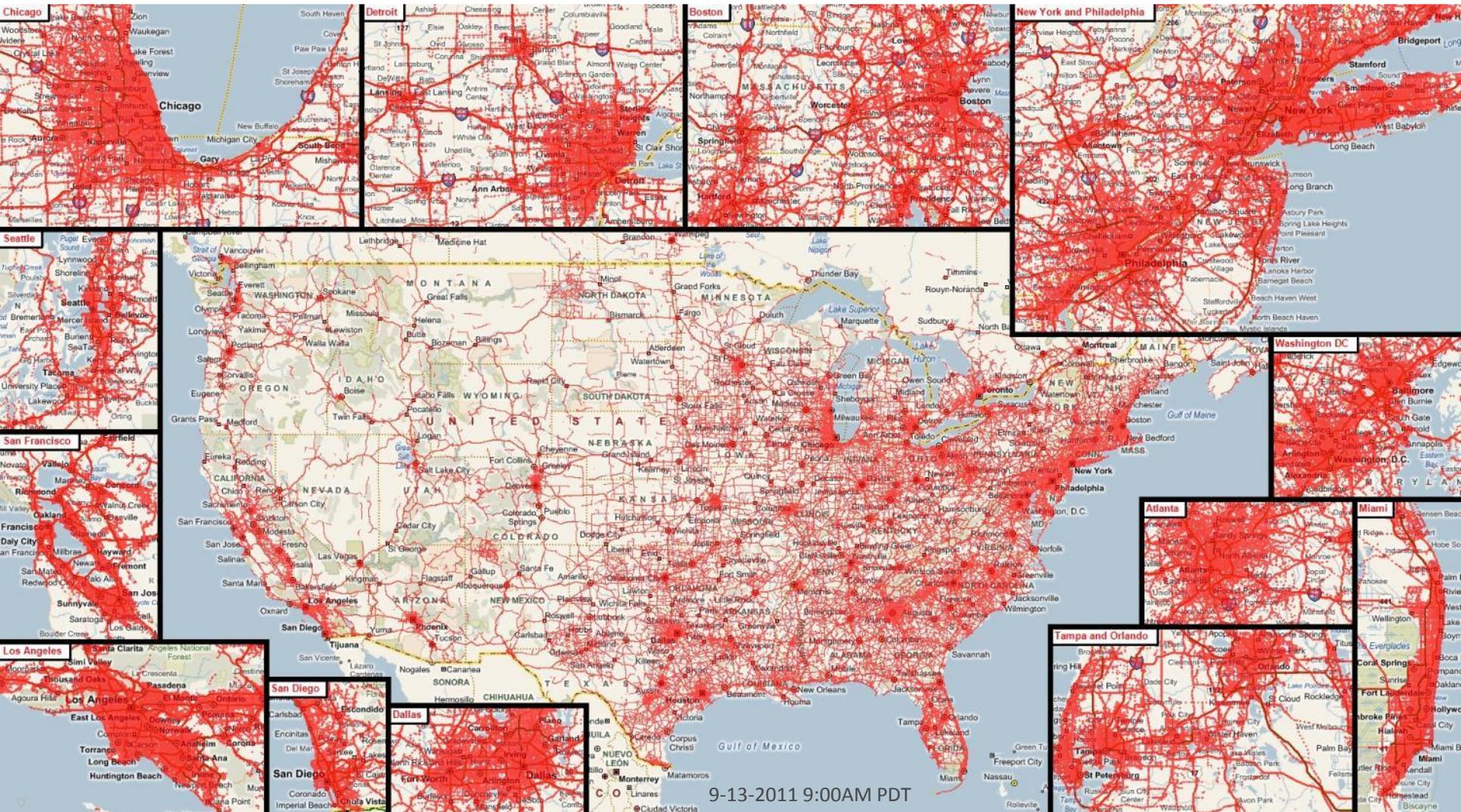
- Apples-to-apples comparisons between metros and countries
 - Congestion as an economic indicator
- Document day-by-day, hour-by-hour, month-to-month variance in congestion and trends over time
- Derived from Traffic Data Archive not Profiles – includes sensor data + FVD
- Road coverage includes motorways & major arterials
- Fully automated monthly updates of basic metrics – turn around time in days
- Methods scalable from road segment to worldwide
- Key Metrics:
 - INRIX Index
 - Total Hours Wasted in Congestion
- Output: Dynamic web site, updated monthly

How Crowdsourcing GPS Probe Speed Data Works

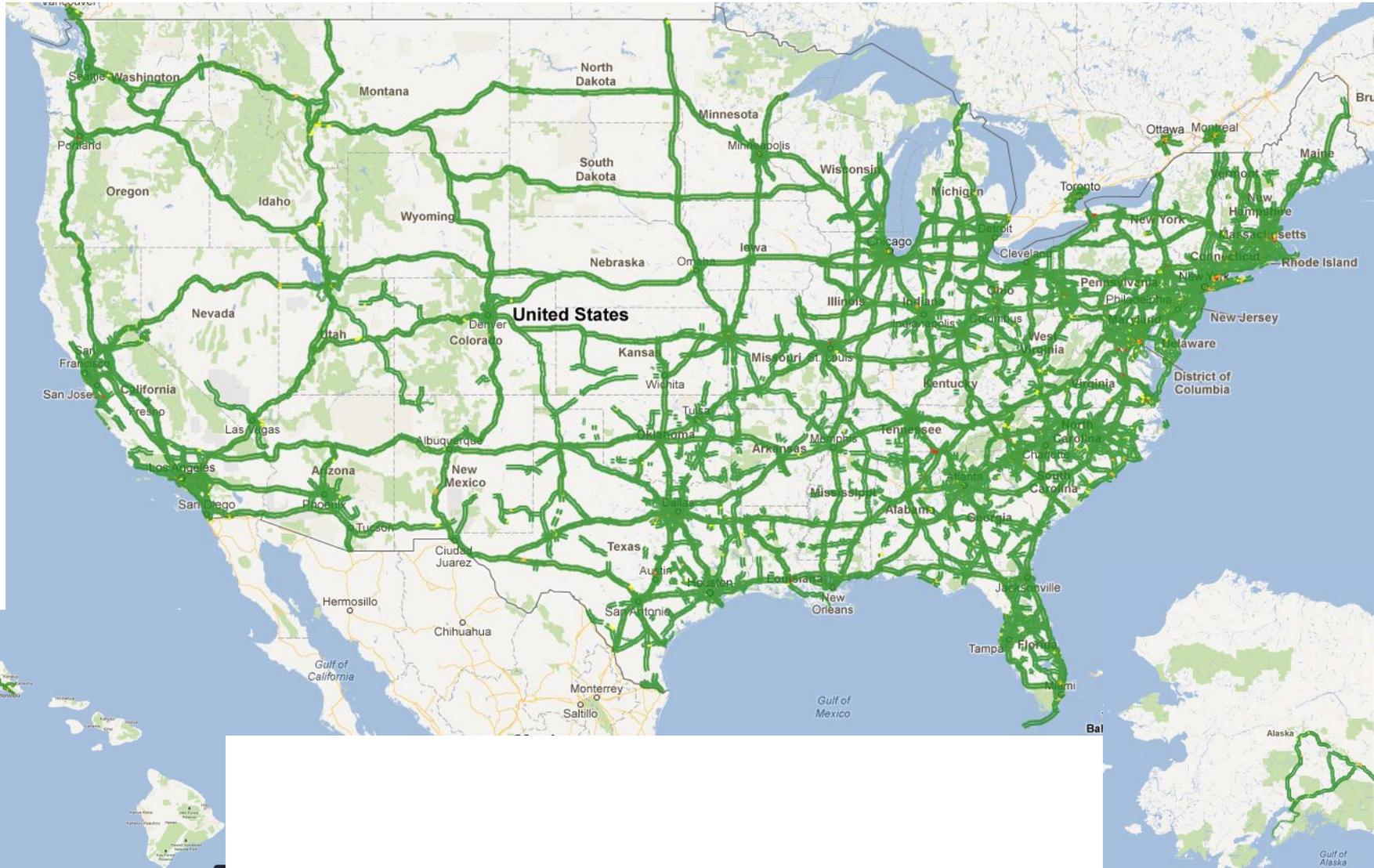


INRIX Smart Driver Network – North America

Billions of real-time GPS probe reports per month (15-minute time slice below)



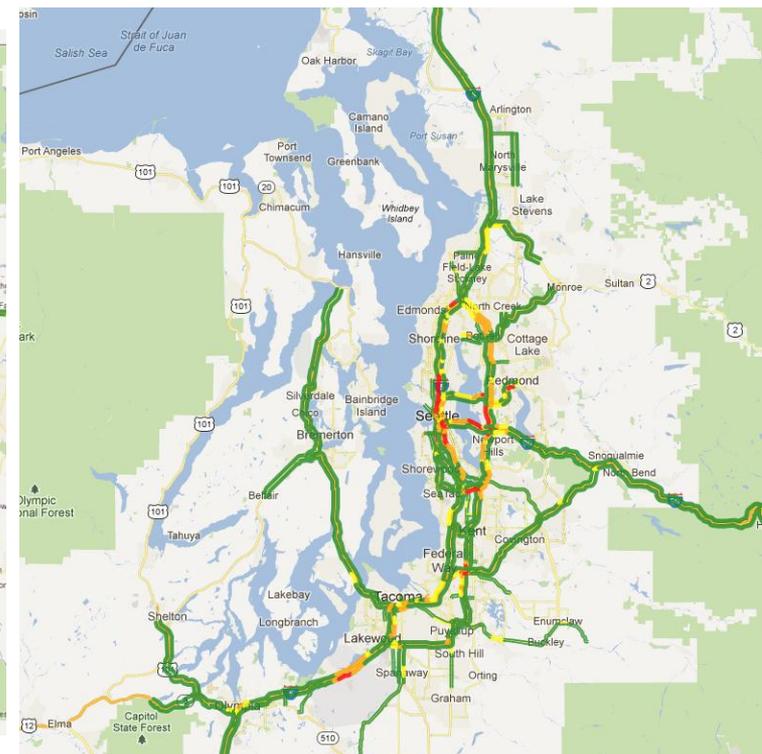
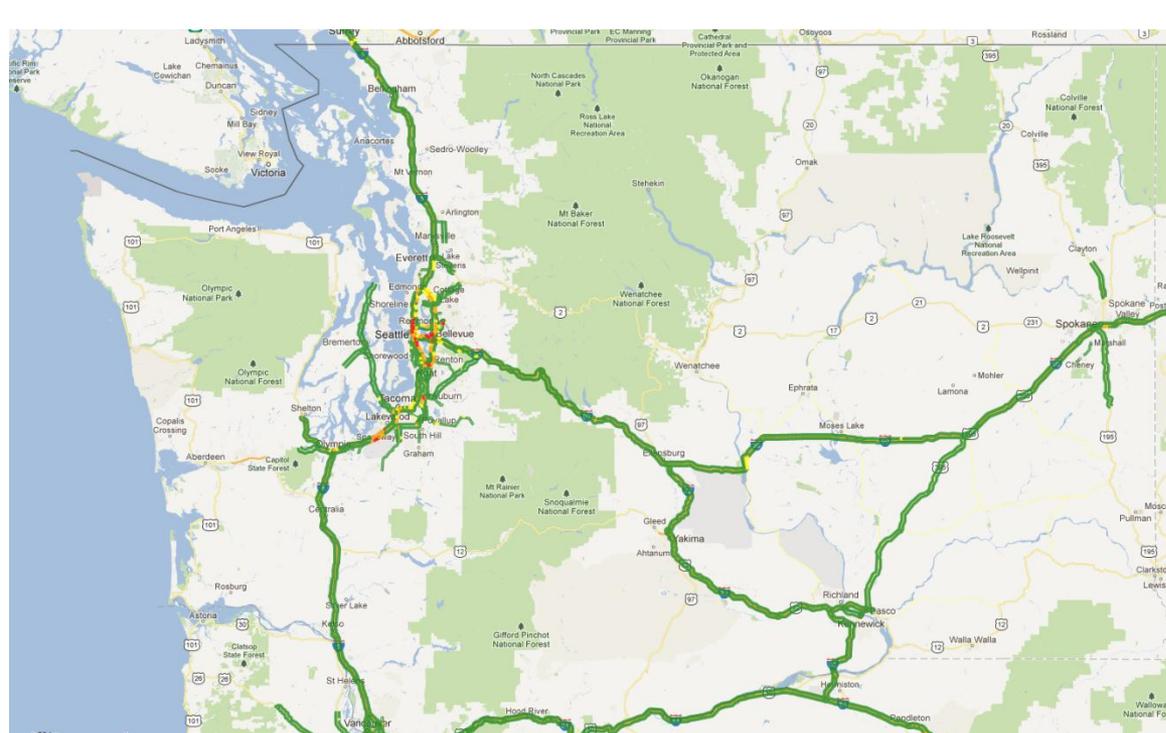
The Road Network Analyzed



Roads Analyzed: Example Washington/Seattle

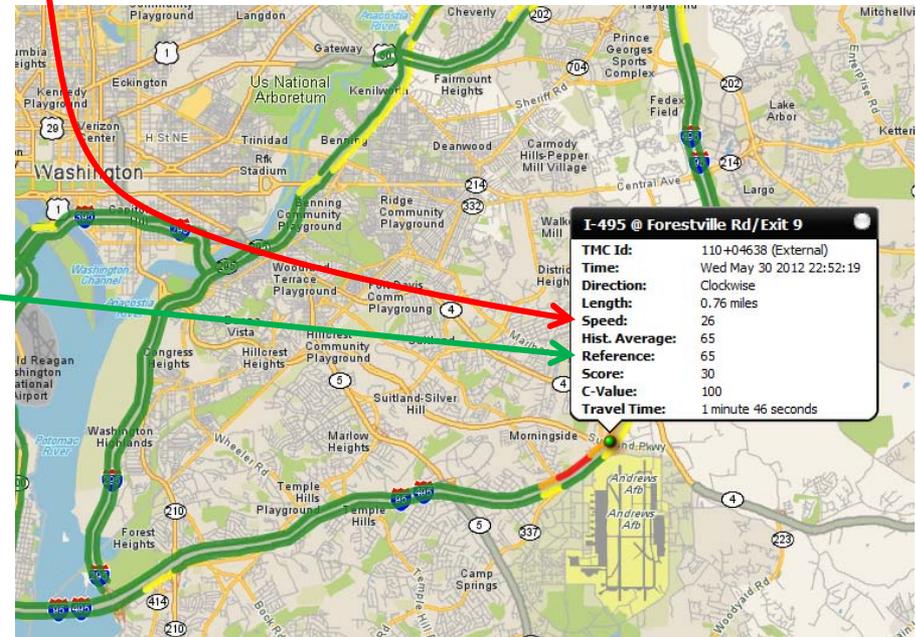
Washington: 1,300 centerline miles

Seattle: 476 centerline miles



Determining INRIX Index: Road Segment Analysis

- “Calculated Speed”
 - Archived speeds
 - 15 minute period for each day for each road segment
- “Reference Speed”
 - Uncongested/free flow speed
 - One value for each segment
 - Capped at 65 MPH

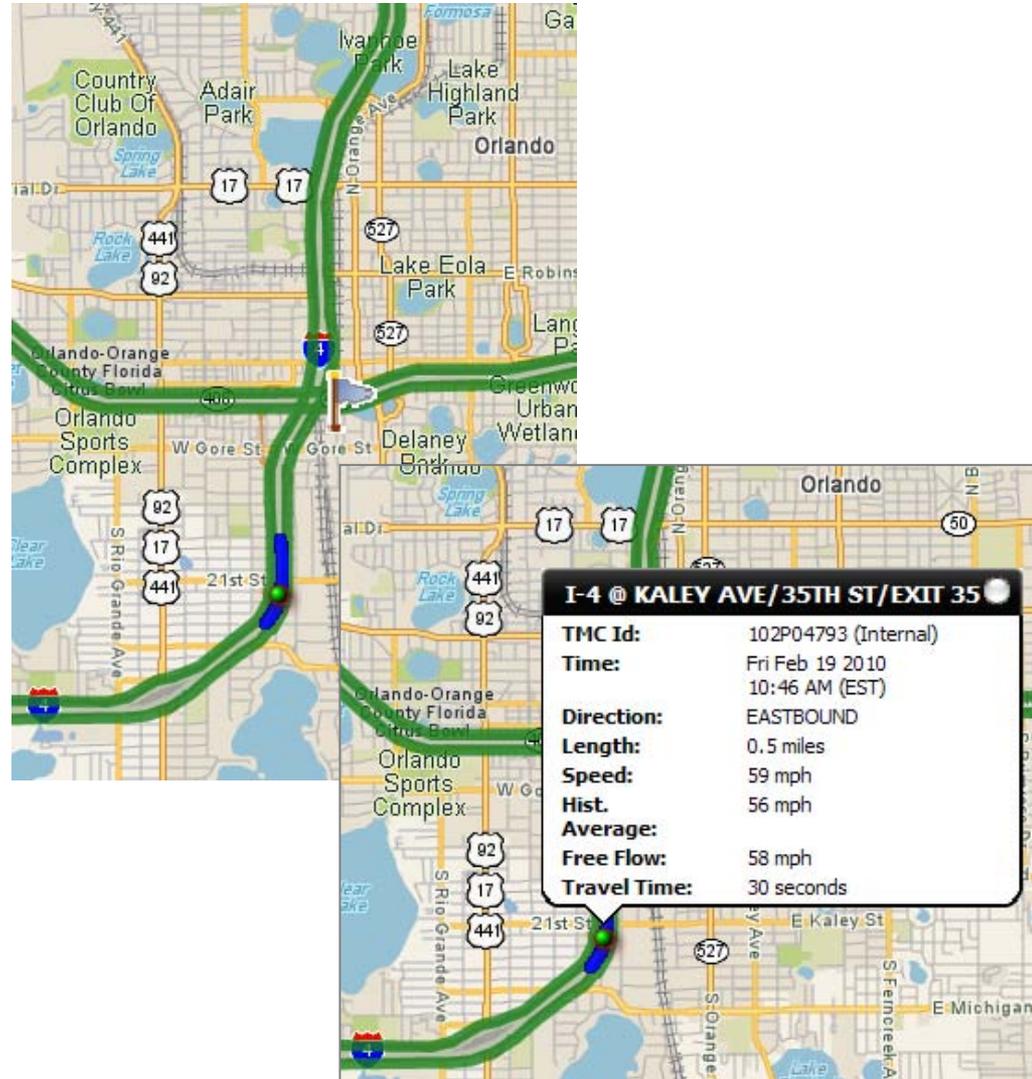


Methodology Basics

- For each road segment, an INRIX Index is calculated for each 15 minute period of the week, using the formula:
 - $\text{INRIX Index} = ((\text{Reference Speed} / \text{Calculated Speed}) - 1) * 100$
- “Drive Time” Congestion: Only “peak hours” are analyzed. Consistent with similar studies, peak hours (M-F, 6:00-10:00 & 15:00-19:00)
- For each Metro, overall level of congestion is determined for each of the 40 peak hours starting with an INRIX Index for each road segment in the Metro:
 1. For each of the 40 peak hours, all road segments analyzed in the Metro are checked. Each segment where the INRIX Index > 0 is contributing congestion.
 2. For each segment contributing congestion, the amount the INRIX Index is greater than 1 is multiplied by the length of the segment, resulting in a congestion factor.
 3. For each 15 minute period, the overall metropolitan congestion factor is the sum of the congestion factors calculated in STEP 2.
 4. To establish the Metropolitan INRIX Index for a given 15 minute period, the metropolitan congestion factor from STEP 3 is divided by the number of road miles analyzed.
 5. A peak period INRIX Index is determined by averaging the 15 minute indices from STEP 4.

Example Road Segment

- Where:
 - Orlando
- Road:
 - I-4
- Direction:
 - Eastbound
- Segment:
 - Exit 35 (Kaley Ave)
- Length:
 - 0.48 miles



I-4 EB @ Exit 35 (Kaley Ave)

- Reference Speed: 58 MPH
- Calculated Speeds (MPH), June 2011

Day	5A	6A	7A	8A	9A	10A	11A	12P	1P	2P	3P	4P	5P	6P	7P	8P	9P
Sun	62	52	51	61	64	56	57	64	59	60	56	63	38	40	58	49	59
Mon	59	59	25	15	24	42	43	51	54	35	18	20	25	31	46	57	57
Tue	57	57	22	16	16	45	56	55	41	25	19	19	14	28	52	56	57
Wed	63	59	21	15	21	39	49	45	41	26	16	17	16	21	51	54	56
Thu	57	57	24	16	19	37	41	35	27	19	18	16	12	19	32	54	54
Fri	60	57	22	16	25	33	38	26	20	19	17	16	15	15	29	52	60
Sat	51	59	60	59	58	61	58	60	57	53	43	43	42	29	30	43	62

- Speeds above or near reference speeds 10pm to 5am (not shown)

Congestion Analysis: Road Segment Level

- Focus on Peak Days/Hours (Green)

Day	5A	6A	7A	8A	9A	10A	11A	12P	1P	2P	3P	4P	5P	6P	7P	8P	9P
Sun	62	52	51	61	64	56	57	64	59	60	56	63	38	40	58	49	59
Mon	59	59	25	15	24	42	43	51	54	35	18	20	25	31	46	57	57
Tue	57	57	22	16	16	45	56	55	41	25	19	19	14	28	52	56	57
Wed	63	59	21	15	21	39	49	45	41	26	16	17	16	21	51	54	56
Thu	57	57	24	16	19	37	41	35	27	19	18	16	12	19	32	54	54
Fri	60	57	22	16	25	33	38	26	20	19	17	16	15	15	29	52	60
Sat	51	59	60	59	58	61	58	60	57	53	43	43	42	29	30	43	62

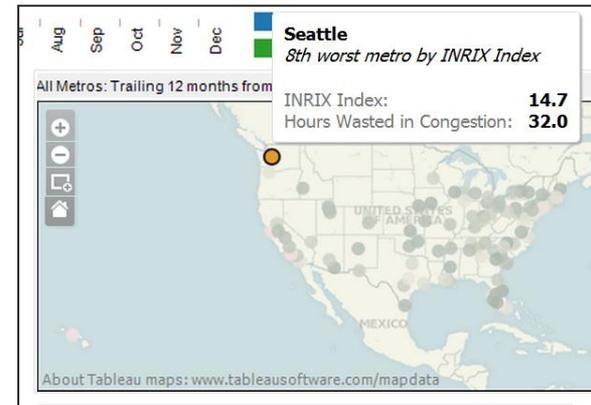
- Calculate INRIX Index (II) for each Peak Hour

Day	6A	7A	8A	9A	3P	4P	5P	6P
Mon	0	132	287	142	222	190	132	87
Tue	2	164	263	263	205	205	314	107
Wed	0	176	287	176	263	241	263	176
Thu	2	142	263	205	222	263	383	205
Fri	2	164	263	132	241	263	287	287

- These local indices building blocks for all congestion results

Wasted Hours in Congestion Estimate

- Wasted Hours popular with media and public
 - Now included in INRIXTraffic! Mobile App
- Uses average commute time by CBSA from Census
 - http://factfinder2.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_10_1YR_GCT0801.US22PR&prodType=table
- Variables:
 - CBSATT: CBSA Commute Trip Time (one way, minutes)
 - Commute trips per year (“CT” set at 440, or 220 each way)
 - INRIX Index (“II”, CBSAs trailing 12 month Index)
- Wasted Hours Per Year Calculation:
 - $(II/100) * CBSATT / 60 * CT$
- Example
 - II = 10, CBSATT = 30 mins
 - Wasted Hours = $(10/100) * (30/60) * 440 = 22$ hours



Why results might differ from other analyses?

- **Coverage**
 - Mainline highways only, no ramps, arterials, etc.
- **Speed focus**, not volume, lane-miles weighted
- Varying network **coverage** in regions
- **Definition of metro areas** could be different
 - E.g., some reports include Baltimore with DC metro region
- INRIX Index scores likely lower than most studies
 - Scorecard includes greater fringe metro coverage
 - Reference speed used vs. flat free flow speed (e.g. 60 MPH)
 - All peak hours weighted the same

Key Findings

- Traffic down across the board in 2011
 - Trend has continued through 5 months of 2012
 - Economy, fuel prices, construction impetus, weather (US) as key factors
 - Key lagging EU economies driving huge declines in 2012 (Port/Ire/Spain/Italy)
- Some smaller cities among the most congested (intensity)
 - Honolulu, Austin, Bridgeport, San Jose
- Seattle is 7th-8th most congested metro in US
 - Higher in 2012 as congestion down only 12% YTD vs. National Average of 31%
- US Congestion much lower than international
 - Lowest of 15 countries analyzed
 - L.A. 6th most congested global (NA/EU) city in 2011

INRIX Traffic Scorecard → Live Tour/Demo

INRIX go anywhere[™] **Traffic Scorecard** 

Scorecard | U.S. Corridors | Key Findings | Methodology | Contact Us

The INRIX Traffic Scorecard provides a comprehensive analysis of the state of traffic congestion across the world. Click on any of the interactive charts and rankings to produce customized data views.

INRIX Scorecard Global | **INRIX Scorecard Country**



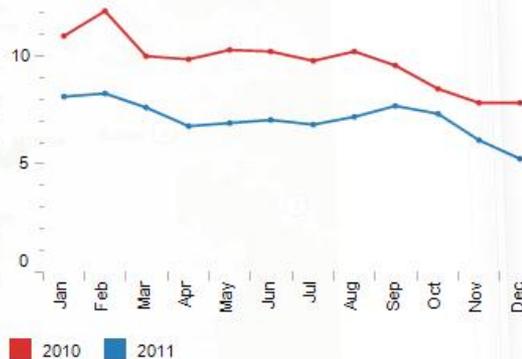
United States

This Month	This Month LY	% Growth
5.2	7.8	-33.5%
T12 Months	T12 Prior Year	% Growth
7.1	9.7	-27.3%

Trailing 12 months from

Show Top

INRIX Index, United States: Monthly Trend



INRIX Index

- [Austria](#)
- [Belgium](#)
- [Canada](#)
- [France](#)
- [Germany](#)
- [Hungary](#)
- [Ireland](#)
- [Italy](#)

Metro	Rank	T12 Months	This Month	This Month LY
Seattle	7	15.4	12.2	19.6
Austin	8	15.3	13.3	13.7
Boston	9	15.0	10.3	14.9
Chicago	10	14.5	9.8	15.3
Philadelphia	11	13.9	10.5	13.8
Miami	12	13.7	10.7	11.9
San Jose	13	12.7	10.6	12.6
Portland OR	14	12.1	11.4	16.0
Atlanta	15	12.0	8.8	10.3
Baltimore	16	11.4	9.2	11.2

Top 25 Metros: Trailing 12 months from December 2011



Biggest Movers: YTD vs. Last Year

San Francisco	1	-6%
Baton Rouge	2	-12%
Knoxville	3	-13%
Austin	4	-13%
Denver	5	-15%
Louisville	6	-15%
Boston	7	-17%

Biggest Movers: Current Month vs. Last Year

Fort Myers	1	32%
Sarasota	2	31%
Louisville	3	16%
Little Rock	4	16%
El Paso	5	15%
Jacksonville	6	10%
Denver	7	10%

Trend: Country Trend

The INRIX Traffic Scorecard provides a comprehensive analysis of the state of traffic congestion across the U.S. Click on any of the interactive charts and rankings to produce customized data views.

INRIX Scorecard Global



INRIX Index
United States

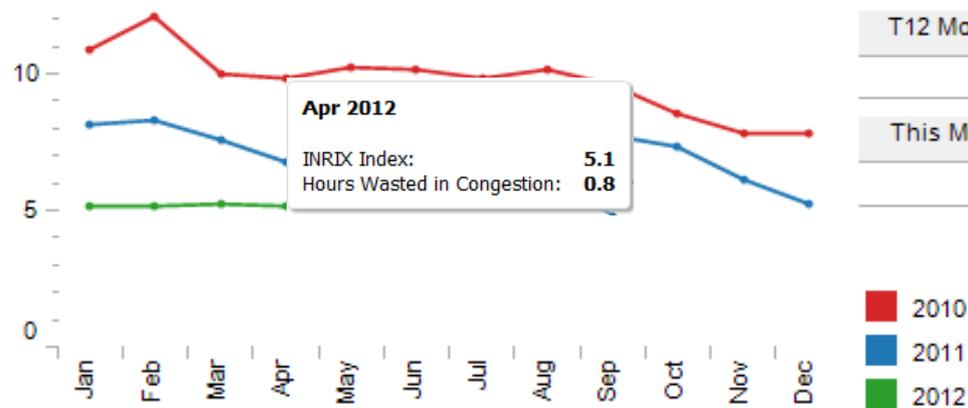
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All

Trailing 12 months from

Apr, 2012

INRIX Index, United States: Monthly Trend

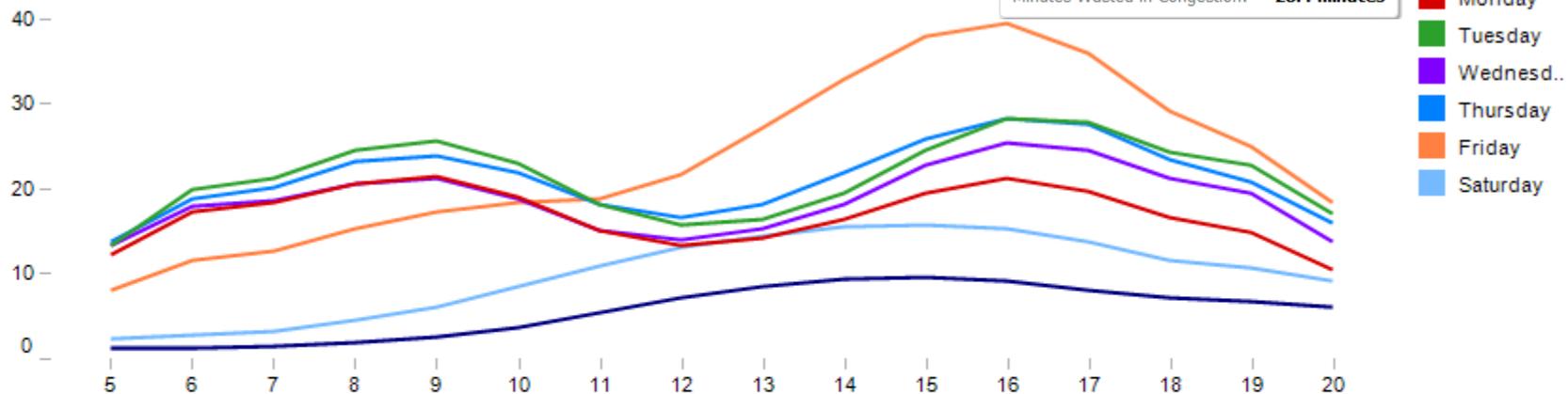


T12 Months	T12 Prior Year	% Growth
6.2	8.7	-28.5%
This Month	This Month LY	% Growth
5.1	6.7	-23.8%

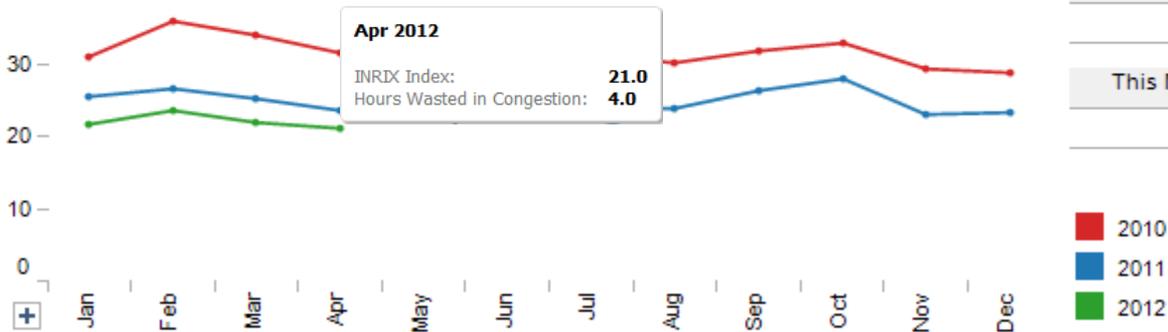
Trend: Metro Trend

Los Angeles, INRIX Index (April 2012): 20.9

Daily Patterns for Los Angeles
Trailing 12 Months from April, 2012



INRIX Index, Los Angeles: Monthly Trend



T12 Months	T12 Prior Year	% Growth
23.8	29.1	-18.5%
This Month	This Month LY	% Growth
21.0	23.4	-10.5%

Metro Rankings: Overall & Map View

INRIX Index

United States

Show Top

All

Trailing 12 months from

Apr, 2012

Metro	Rank	T12 Months	This Month	This Month LY
Honolulu	1	24.0	21.3	27.4
Los Angeles	2	23.8	21.0	23.4
San Francisco	3	20.6		
New York	4	18.6		
Bridgeport	5	16.5		
Washington D.C.	6	15.3		
Seattle	7	14.2		
Austin	8	15.1		
Boston	9	13.1		
Chicago	10	13.1		
Philadelphia	11	12.4	10.1	14.7

Los Angeles
April, 2012

Select a value in a Metro to see its details. Click metric headers to change the sort.

Based upon the current sort, out of 100 total metro regions (All displayed), Los Angeles is ranked number 2.

INRIX Index Trailing 12 Months:	23.8
INRIX Index Current Month:	21.0
INRIX Index Month Last Year:	23.4

Hours Wasted in Congestion Trailing 12 Months:	54.0 hours
Hours Wasted in Congestion Current Month:	4.0 hours
Hours Wasted in Congestion Month Last Year:	4.4 hours



Metro Rankings: Biggest Movers

INRIX Index

United States

Show Top

All

Trailing 12 months from

Apr, 2012

Biggest Movers: YTD vs. Last Year

Fort Myers	1	13%
El Paso	2	1%
San Jose	3	-2%
Austin	4	-3%
Houston	5	-3%
San Francisco	6	-9%
Seattle	7	-11%
San Diego	8	-11%
Baton Rouge	9	-12%
Los Angeles	10	-13%
Tampa	11	-16%
New Orleans	12	-16%

Seattle
Based upon current and prior YTD up to April, 2012

INRIX Index:
Current YTD: **13.6**
Last YTD: **15.2**
Change: **-11%**
Rank: **7th**

Biggest Movers: Current Month vs. Last Year

Minneapolis	1	46.0%
Melbourne	2	12.3%
San Jose	3	11.2%
New Orleans	4	8.1%
Austin	5	3.6%
Houston	6	3.4%
El Paso	7	1.3%
San Diego	8	0.9%
Baton Rouge	9	0.9%
Los Angeles	10	-4.3%
Tampa	11	-6.1%
New Orleans	12	-6.8%

New Orleans
Based upon current and prior Month up to April, 2012

INRIX Index:
Current Month: **6.9**
Last Year: **6.4**
Change: **8%**
Rank: **4th**

Download



INRIX Index United States

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All

Trailing 12 months from
April, 2012



Metro	Rank	T12 Months	This Month	This Month LY
Honolulu	1	24.0	21.3	27.4
Los Angeles	2	23.8	21.0	23.4
San Francisco	3	20.1	17.0	17.8
New York	4	18.1	15.4	18.4
Bridgeport	5	16.4	13.8	16.4
Washington D.C.	6	15.1	12.9	16.4
Seattle	7	14.9	11.9	13.4
Austin	8	15.2	16.5	15.9
Boston	9	13.0	10.2	13.8
Chicago	10	13.3	10.3	13.2
Philadelphia	11	12.4	10.1	14.7



Biggest Movers: YTD vs. Last Year

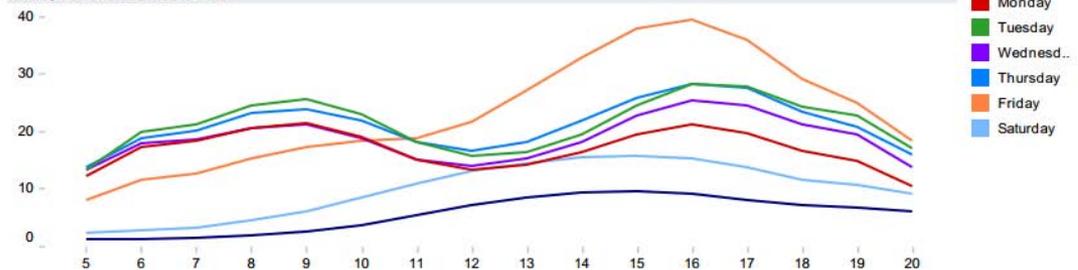
Fort Myers	1	13%
El Paso	2	1%
San Jose	3	-2%
Austin	4	-3%
Houston	5	-3%
San Francisco	6	-9%
Seattle	7	-11%
San Diego	8	-11%
Baton Rouge	9	-12%
Los Angeles	10	-13%
Tampa	11	-16%
New Orleans	12	-20%

Biggest Movers: Current Month vs. Last Year

Minneapolis	1	46.0%
Melbourne	2	12.3%
San Jose	3	11.2%
New Orleans	4	8.1%
Austin	5	3.6%
Houston	6	3.4%
El Paso	7	1.3%
San Diego	8	0.9%
San Francisco	9	-4.3%
Albany	10	-4.3%
Denver	11	-6.1%
Columbia	12	-6.2%

Los Angeles, INRIX Index (April 2012): 20.9

Daily Patterns for Los Angeles
Trailing 12 Months from April, 2012



Share...

Boston	9	13.0	10.2	13.8
Chicago	10	13.3	10.3	13.2
Philadelphia	11	12.4	10.1	14.7

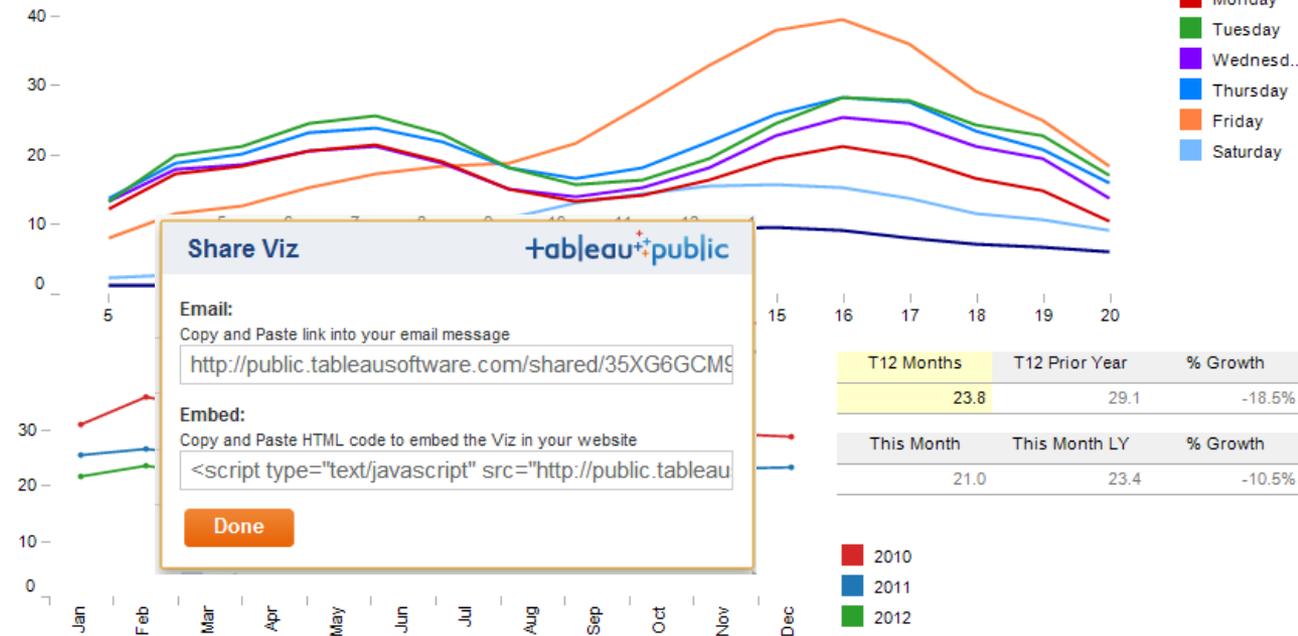


Fort Myers	1			13%
El Paso	2			1%
San Jose	3			-2%
Austin	4			-3%
Houston	5			-3%
San Francisco	6			-9%
Seattle	7			-11%
San Diego	8			-11%
Baton Rouge	9			-12%
Los Angeles	10			-13%
Tampa	11			-16%
New Orleans	12			-16%

Minneapolis	1			46.0%
Melbourne	2			12.3%
San Jose	3			11.2%
New Orleans	4			8.1%
Austin	5			3.6%
Houston	6			3.4%
El Paso	7			1.3%
San Diego	8			0.9%
San Francisco	9			-4.3%
Albany	10			-4.3%
Denver	11			-6.1%
Columbia	12			-6.8%

Los Angeles, INRIX Index (April 2012): 20.9

Daily Patterns for Los Angeles
Trailing 12 Months from April, 2012



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Copy and Paste HTML code to embed the Viz in your website

Done

T12 Months	T12 Prior Year	% Growth
23.8	29.1	-18.5%
This Month	This Month LY	% Growth
21.0	23.4	-10.5%

- 2010
- 2011
- 2012

Share



33,912 views · Share your perspective



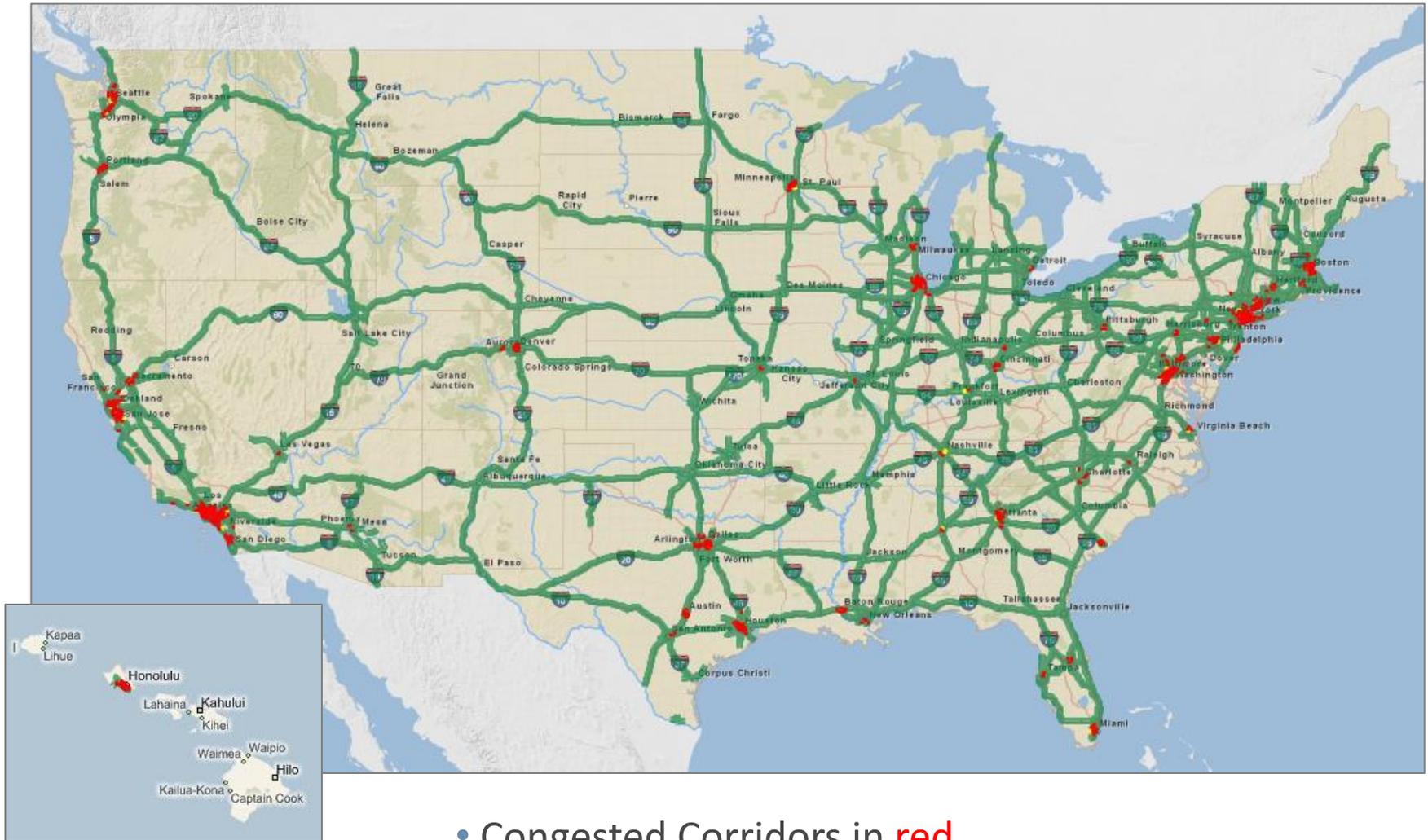
Powered by Tableau



Congested Corridors

- 341 Congested Corridors identified
 - Consistent from 2010 to 2011
- Corridor criteria:
 - 3 miles or longer
 - Multiple road segments
 - At least one major bottleneck segment (congested 10 hours a week or more)
 - All segments must have at least 4 hours of congestion a week
- Ranking corridors:
 - Determined average travel times through corridors each hour in 2011
 - Identified worst peak congestion – morning or evening
 - For worst peak, compute average delay (minutes) and INRIX Index
 - Ranked by product of delay and INRIX Index in worst peak

2011 Congested Corridors



2011 Congested Corridors by Rank

Metro: Select Time:

2011 Rank	Metro	2010 Rank	Roadway: From -> To	Length (Miles)	Worst Peak (AM/PM)	Travel Time (Mins)	Average Speed (Mph)	Delay (Mins)	INRIX Index	Index change 2010-2011
1	Los Angeles	2	I-405 NB: from I-105/IMPERIAL HWY to GETTY ..	13.1	PM					
2	New York	1	Long Island Expy EB: from MAURICE AVE/EXIT ..	16.0	PM					
3	Los Angeles	7	I-10 EB: from CA-1/LINCOLN BLVD/EXIT 1B to A..	14.9	PM					
4	New York	9	Van Wyck Expy NB: from BELT PKWY/EXIT 1 to ..	3.1	PM					
5	Los Angeles	3	I-5 SB: from EAST CEASAR CHAVEZ AVE to VA..	17.5	PM					
6	New York	8	Brooklyn Queens Expy SB: from NY-25A/NORTH..	10.2	PM					
7	Los Angeles	24	I-405 SB: from NORDHOFF ST to MULHOLLAN..	8.1	AM					
8	New York	6	Van Wyck Expy SB: from HORACE HARDING E..	6.2	PM					
9	Pittsburgh	15	I-279 NB: from LYDIA ST/EXIT 2 to US-19 TK RT..	3.4	AM					
10	San Francisco	13	CA-4 EB: from BAILEY RD to SOMERSVILLE RD	5.8	PM					
11	Riverside	5	CA-91 EB: from CA-55/COSTA MESA FWY to M..	20.7	PM					
12	Los Angeles	28	CA-110 NB: from I-10/SANTA MONICA FWY to S..	3.1	PM					
13	Miami	42	Dolphin Expy WB: from I-95 to FL-959/RED RD	5.6	PM					
14	Chicago	4	Kennedy EB: from PERSHING RD/EXIT 55B to S..	15.9	PM					
15	Boston	16	I-93 NB: from MA-28/RANDOLPH AVE/EXIT 5 to ..	10.4	AM					
16	Los Angeles	19	I-105 EB: from NASH ST to I-605	17.6	PM					
17	Chicago	34	Stevenson SB: from STATE ST/EXIT 293C to PU..	5.7	PM					
18	Los Angeles	10	I-10 EB: from CITY TERRACE DR/HERBERT AV..	12.8	PM					
19	Honolulu	35	I-1 EB: from HI-92 to S VINEYARD BLVD/WARD ..	3.9	PM					
20	New York	11	Cross Bronx Expy WB: from CONNER ST/EXIT 1..	11.3	PM					
21	Washington, DC	14	I-95 SB: from I-395 to RUSSELL RD/EXIT 148	23.9	PM					
22	Chicago	83	Eisenhower WB: from S ASHLAND AVE/EXIT 28..	8.9	PM					
23	Los Angeles	36	I-10 WB: from I-5/GOLDEN STATE FWY to NATI..	12.6	AM					
24	Austin	18	I-35 SB: from US-183/EXIT 239-240 to WOODLA..	6.7	PM					
25	Chicago	17	Kennedy WB: from I-294/TRI STATE TOLLWAY t..	15.4	PM					
26	San Francisco	25	CA-4 WB: from HILLCREST AVE to SOMERSVIL..	2.9	AM					
27	Boston	40	I-93 SB: from I-95/MA-128/EXIT 37 to US-1/EXIT ..	9.8	AM					
28	New York	22	Long Island Expy WB: from GLEN COVE RD/EXI..	14.9	AM					

“Worst” Corridors by Different Criteria

- Longest Average Delay
 - 2011: LIE/I-495 (New York): 16.0 miles → 22 mins delay in PM
 - 2010: Same → 26 mins delay in PM
- Highest Average INRIX Index
 - 2011: Van Wyck Expy (New York): 3.1 miles → 290
 - 2010: Same → 279
- “Worst Hour of Week” Overall Rank
 - 2011: Riverside Fwy (CA-91) EB (LA/Riverside): 20.7 miles → Friday 4-5 pm
 - 2010: I-95 SB (DC): 23.9 miles → Friday 4-5 pm
- “Worst Hour of Week” Longest Average Delay
 - 2011: Riverside Fwy (CA-91) EB (LA/Riverside): 20.7 miles → Friday 4-5 pm (51 mins)
 - 2010: I-95 SB (DC): 23.9 miles → Friday 4-5 pm (55 mins)
- “Worst Hour of Week” Highest Average Travel Time Tax
 - 2011: Penn Lincoln Pkwy/I-376 EB (Pitt): 3.4 miles → 501 T3 , Wed 8-9 am (19 mins delay)
 - 2010: Penn Lincoln Pkwy/I-376 EB (Pitt): 3.4 miles → 477 T3 , Wed 8-9 am (18 mins delay)

Seattle Congested Corridors



Congested Corridors (U.S. Only for 2011)

Metro: Select Time:

2011 Rank	Metro	2010 Rank	Roadway: From -> To	Length (Miles)	Worst Peak (AM/PM)	Travel Time (Mins)	Average Speed (Mph)	Delay (Mins)	INRIX Index	Index change 2010-2011
31	Seattle	66	I-405 SB: from WA-520/NE 14TH ST/EXIT 14 to ..	4.5	PM					
63	Seattle	99	I-5 SB: from WA-523/145TH ST/EXIT 175 to UNI..	9.0	PM					
97	Seattle	183	I-405 NB: from 61ST AVE to 44TH ST/EXIT 7	7.0	AM					
104	Seattle	175	WA-520 WB: from 148TH AVE to 84TH AVE	4.2	PM					
106	Seattle	103	WA-167 SB: from 277TH ST to 8TH ST	7.3	PM					
127	Seattle	174	I-5 NB: from ALBRO PL/SWIFT AVE/EXIT 161 to ..	4.1	AM					
150	Seattle	166	I-405 SB: from WA-527/26TH AVE/EXIT 26 to W..	8.7	AM					
158	Seattle	193	I-5 NB: from CENTER DR/EXIT 118 to BERKELE..	4.6	PM					

More Information

- Scorecards
 - Interactive Tables
 - Free Downloads
 - Scorecards: <http://scorecard.inrix.com>
- INRIX Public Sector Monitoring Site: <http://inrixtraffic.us>
 - Free for agencies – targeted for real-time operations users
- INRIX Smartphone Application: <http://inrixtraffic.com>
- INRIX Corporate Site: <http://www.inrix.com>

Q&A

THANK YOU!

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Back-Up

INRIX.

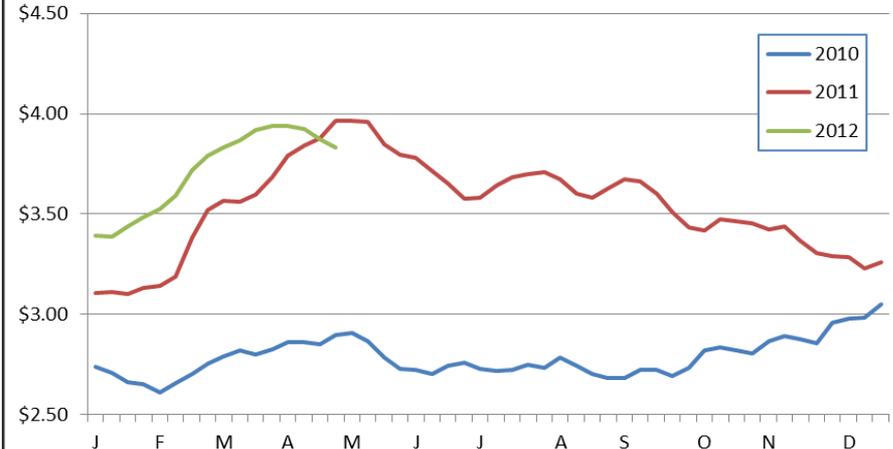
Context – Fuel Prices (Through May 2012)

Average US Fuel Prices
(Regular, All Formulations)



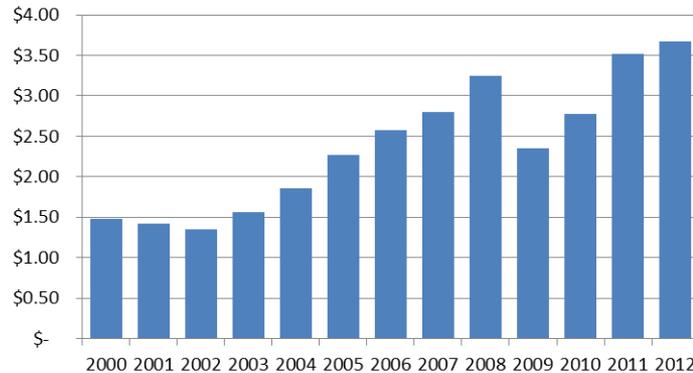
Source: U.S. Energy Information Administration (<http://tonto.eia.doe.gov/oog/info/gdu/gasdiesel.asp>)

Weekly Average US Fuel Prices, 2010 - Present
(Regular, All Formulations)



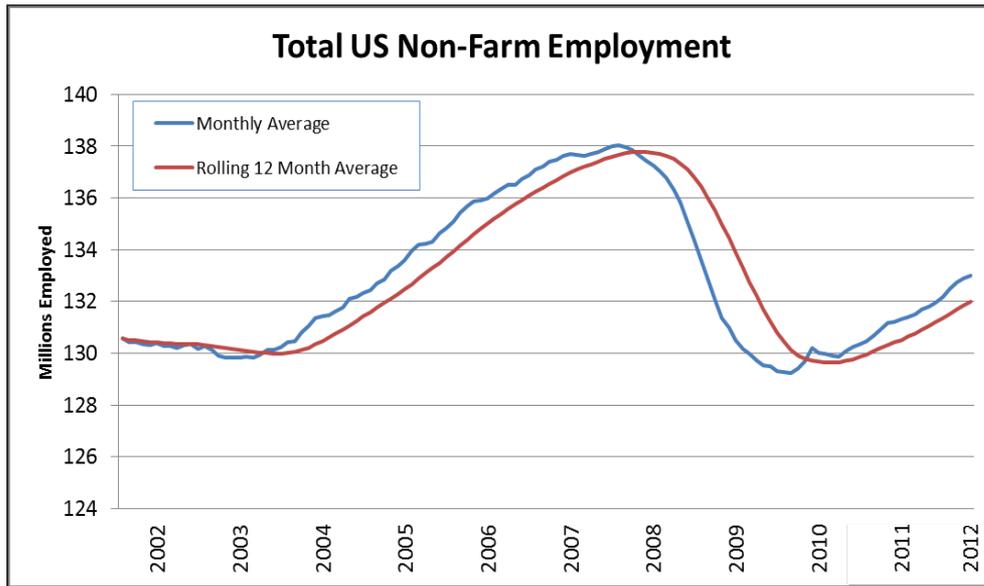
Source: U.S. Energy Information Administration (<http://tonto.eia.doe.gov/oog/info/gdu/gasdiesel.asp>)

Annual Average US Fuel Prices
(Regular, All Formulations)

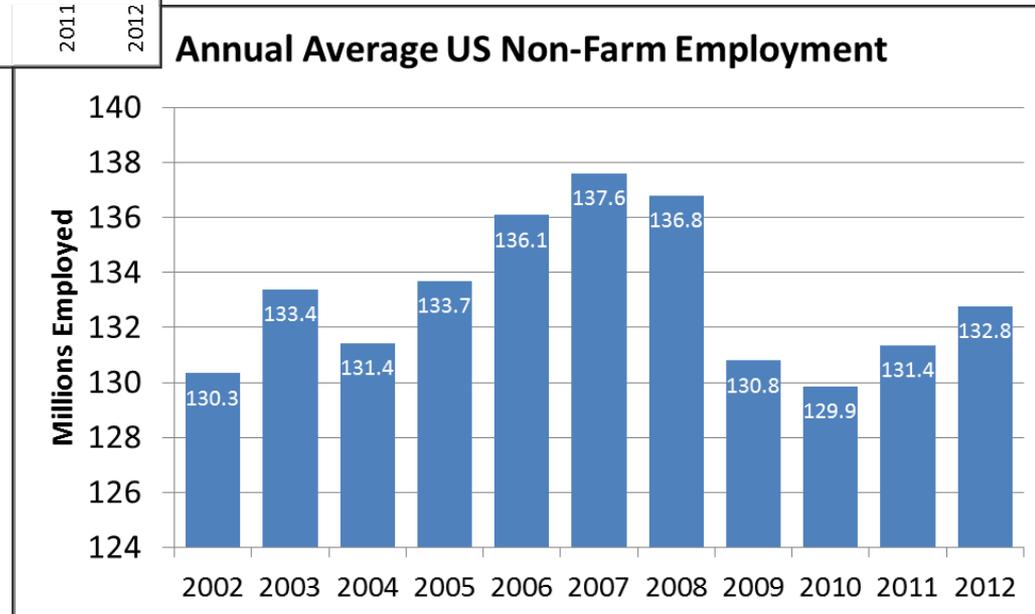


Source: U.S. Energy Information Administration (<http://tonto.eia.doe.gov/oog/info/gdu/gasdiesel.asp>)

Context - Employment

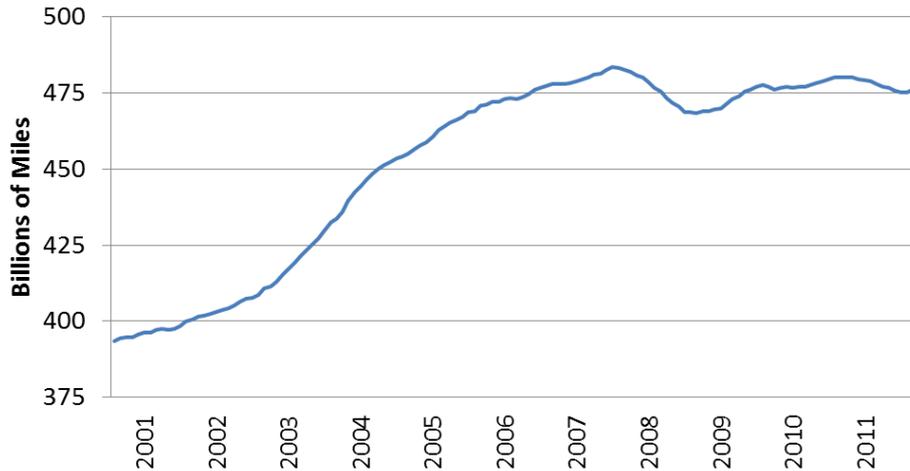


- Urban job growth trailing rural
- Mid-level jobs trailing high and low level jobs



Context – Traffic Volumes

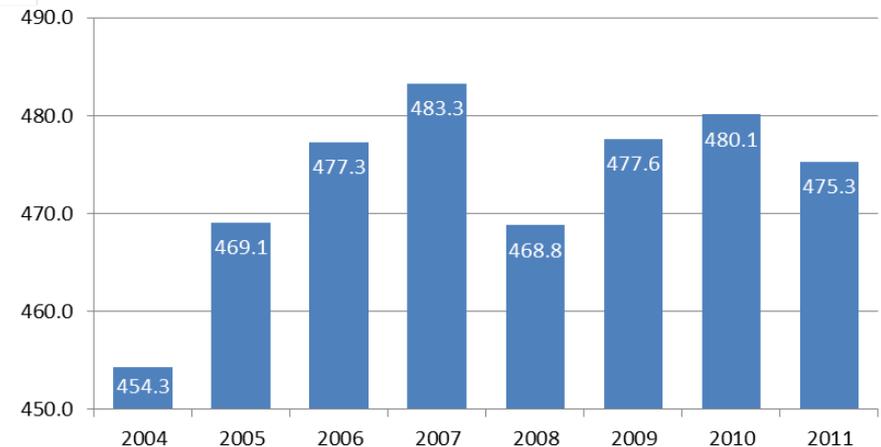
Traffic Volume on "Urban Interstates"
(12 month rolling average)



Source: FHWA, Traffic Volume Trends (<http://www.fhwa.dot.gov/ohim/tvtw/tvtpage.cfm>)

- Urban Interstate traffic down ~1% 2011 vs. 2010
- Up ~2% Q112 vs. Q111 in preliminary results

Annual Vehicle Miles Travelled, Urban Interstates

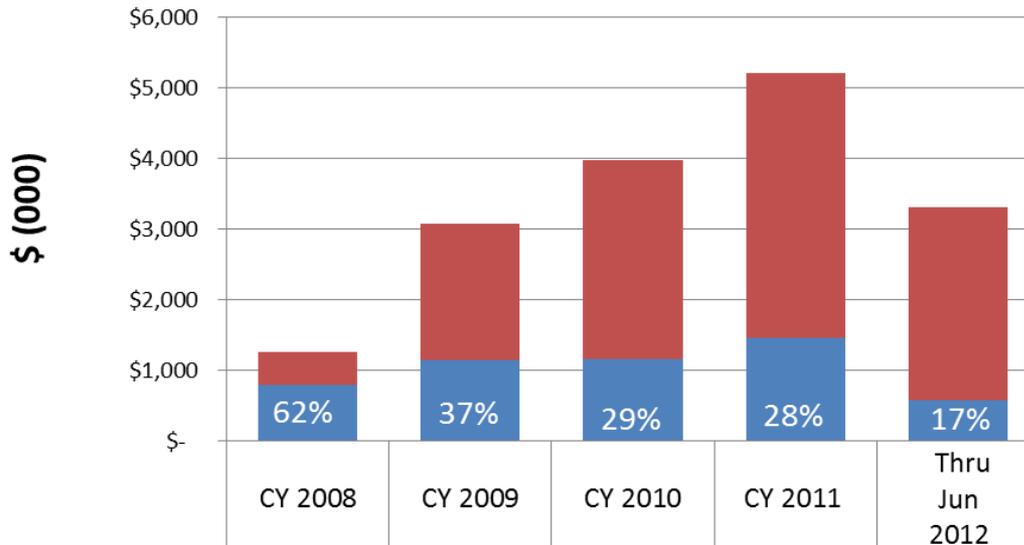


Source: FHWA, Traffic Volume Trends (<http://www.fhwa.dot.gov/ohim/tvtw/tvtpage.cfm>)



Member Agency Funding

**Coalition Funding Leverage
Vehicle Probe Project - INRIX Subtotal**



Member Agencies	\$479	\$1,919	\$2,830	\$3,743	\$2,738
Coalition	\$790	\$1,151	\$1,153	\$1,460	\$573

End of Year Totals (Freeways)

	CY 2008	CY 2009	CY 2010	CY 2011	Current
Fwy Miles Covered	2,926	4,160	5,113	7,063	7,966
# of States Covered	6	7	8	10	10
# of States Invested	2	4	7	10	10



Now Transportation Officials are Dealing with Sponsorships

- Naming Rights
- Sponsored Safety Service Patrols
- Sponsored 511 Systems
- Much more





Requires a Different Way of Thinking

- What will sponsors pay for?
- What do sponsors value?
 - Not: what do I need to sell
- Means selling fewer, bigger, more strategic packages
 - And understanding how transportation assets provide a marketing and business ROI for the sponsor



Public/Private Partnership Best Practices

1. Build Partnerships, Don't Sell Advertising
2. Develop Strategy Based on Strategically Capitalizing on Marketable Assets, Not Based on Selling What Needs Funding
3. Centralize Management of Assets and Design Strategic Solutions for Partners
4. Engage in Fewer, Bigger Partnerships
5. Outsource Sales to Experienced Agents with a Track Record of Selling and Servicing Integrated Partnerships and/or Develop In-house Expertise
6. Base Fees on Fair Market Value and Understand the Value Drivers
7. Build in Benefits for Citizens and Visitors
8. Set Policy and Guidelines and Be Transparent Internally and Externally

Source: Global-5 Communications