The Headlines

- Congestion is growing…
- even in Florida!
- There are Solutions
- We need to do more
Congestion is Getting Worse

Very Large = 3 M +
Large = 1 M - 3 M
Medium = 500 K - 1 M
Small = Below 500 K

Hours per Traveler

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<td>Medium</td>
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<td>Very</td>
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Very Large = 3 M +
Large = 1 M - 3 M
Medium = 500 K - 1 M
Small = Below 500 K
Congestion: Worse in Bigger Places

![Graph showing congestion data for different area sizes](image)

- 17 Small Areas
- 30 Medium Areas
- 27 Large Areas
- 11 Very Large Areas

Delay per Traveler:
- 0
- 20
- 40
- 60
- 80
- 100

Areas
Congestion is Growing

1982 0.7 Billion Hours
2002 3.5 Billion Hours

- Uncongested: 20% (1982) vs. 33% (2002)
- Heavy: 8% (1982) vs. 10% (2002)
- Severe: 7% (1982) vs. 7% (2002)
- Extreme: 5% (1982) vs. 7% (2002)
“Reality” and Perception

Stephen Klineberg (Rice University) Houston Area Survey Results

Biggest Problem is Congestion

Houston Delay per Traveler

Percent of Respondents

Delay per Traveler (Hours)


Biggest Problem is Congestion

Houston Delay per Traveler

Percent of Respondents

Delay per Traveler (Hours)


Stephen Klineberg (Rice University) Houston Area Survey Results
Florida Commuter Delay
Very Large Urban Areas

Delay per Traveler

- Average
- Miami

Year:
- 1982
- 1992
- 2001
- 2002
Extra Time per Trip
Very Large Florida Urban Areas

Travel Time Index

- 1982
- 1992
- 2001
- 2002

Average Miami
Florida Commuter Delay
Large Urban Areas

Average  Orlando  Tampa-St Petersburg

Delay per Traveler

Extra Time per Trip
Large Florida Urban Areas

1.00
1.10
1.20
1.30
1.40
1.50
1.60

Travel Time Index

Average
Orlando
Tampa-St Petersburg

Florida Commuter Delay
Medium Urban Areas

Delay per Traveler

- Average
- Jacksonville
- Sarasota-Bradenton


Delay per Traveler
0 10 20 30 40 50 60 70
Extra Time per Trip
Medium Florida Urban Areas

<table>
<thead>
<tr>
<th>Year</th>
<th>Average</th>
<th>Jacksonville</th>
<th>Sarasota-Bradenton</th>
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<tbody>
<tr>
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<td>1.00</td>
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<td>1.10</td>
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<td>1.30</td>
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Florida Commuter Delay Small Urban Areas

- Average
- Cape Coral
- Pensacola

Delay per Traveler:

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<thead>
<tr>
<th>Year</th>
<th>Average</th>
<th>Cape Coral</th>
<th>Pensacola</th>
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<td>1982</td>
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Extra Time per Trip
Small Florida Urban Areas

- Average
- Cape Coral
- Pensacola

Travel Time Index

- 1982
- 1992
- 2001
- 2002
Congestion Has Many Causes

- Bottlenecks: 40%
- Traffic Incidents: 25%
- Bad Weather: 15%
- Work Zones: 10%
- Special Events/Other: 5%
- Poor Signal Timing: 5%
Congestion Occurs in Rural Areas
Congestion in Rural Texas is a little different ....
So What Should We Do?

- Accept Some Level of Congestion
- Diversify Development Patterns
- Manage the Construction Process
- Manage the Demand
- Increase System Efficiency
- Build More Capacity

The percentage varies for each city, with the majority accepting some level of congestion.
Strategy Mix Will Be Different

Outer Loop

Inner Loop

Capacity  Efficiency  Demand

Add
Capacity
Greater
Efficiency
Demand
Management
More . . .

- Roadway
- Transit
- Special use lanes
- Bicycle and walk paths
- Ridesharing
- Demand management
Freeways and Toll Lanes
Road Growth Helps
... But Can’t Do It All

Demand grew 30%+ faster than supply
Demand grew 10% to 30% faster
Demand grew less than 10% faster

54 Areas
26 Areas
5 Areas

Year
High-Occupancy Vehicle Lanes
Transportation Centers
Bus Rapid Transit
...But It’s Not Just About “Average” Congestion

- Index Value
- Time of Day
- Planning Time
- Buffer Index
- Average Time
Congestion and Reliability Are Related
Better . . .

- Traffic signal coordination
- Transit operations
- Construction processes
- Traveler information
- Parking programs
- Special event traffic management
- Freeway ramp control
- Manage crashes and vehicle breakdowns
Service Patrols
Ramp Metering
Ramp Metering Effects

Day of Year (weekdays, non-holidays only)
Event Management
Better Operations

Million Hours of Delay

- Incident
- Metering
- Signals
- Access

100% Deployment
Current
Elements of the Future

- No panaceas
- Technology can help, not solve
- Intelligent Transportation Systems? What about Informed, Motivated Humans?
- Markets and niches – Not just commuting to work
- Role of the “amenity-based economy”
- Pricing has a place
Elements of the Future

- Involve Business
  - Public-Private Partnerships
  - Travel Demand Management
  - Improve Job Productivity

- Choices – Provide information & options
  ...but ask for realism

- One word? Reliability
  - Information (Accountability)
  - Program Delivery
  - System Performance
Part of the Solution? Leave Town?
Summary – What Works?

- Congestion is growing
- Solutions are multimodal, policies, programs, projects, partnerships
- Clear Set of Goals and a Message
- Consensus and Spending
- Timely Delivery of Strategies
- Do the “small” things that lead to “big” changes
  - Clear the crashes and stalls
  - Coordinate the signals
  - Maintain the roads
  - Treat the bottlenecks – roads and transit

(http://mobility.tamu.edu)