



# Mobility Challenges and Solutions for Florida

## Florida Transportation Commission

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Texas Transportation Institute



# The Headlines

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



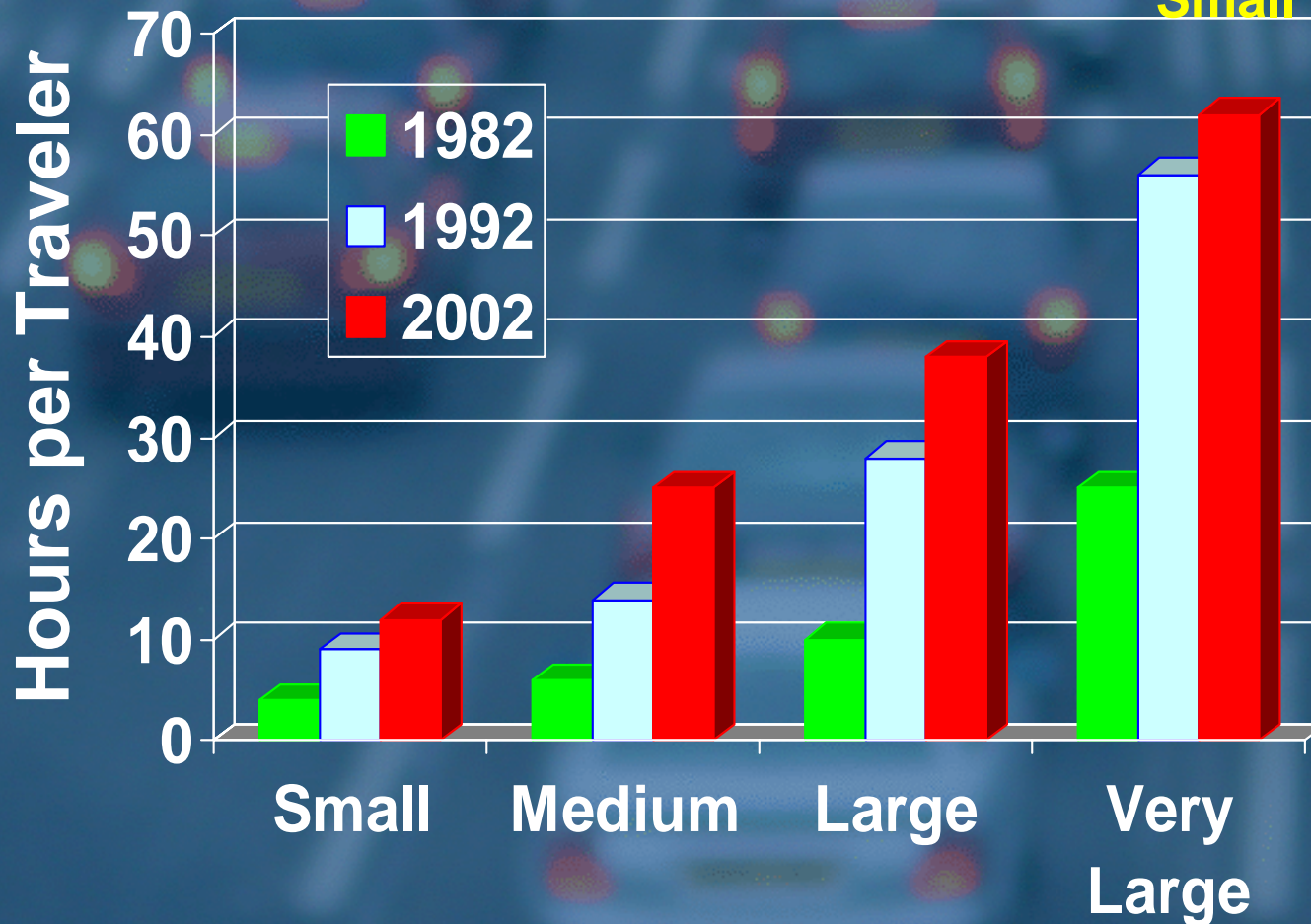
# Congestion is Getting Worse

**Very Large** = 3 M +

**Large** = 1 M - 3 M

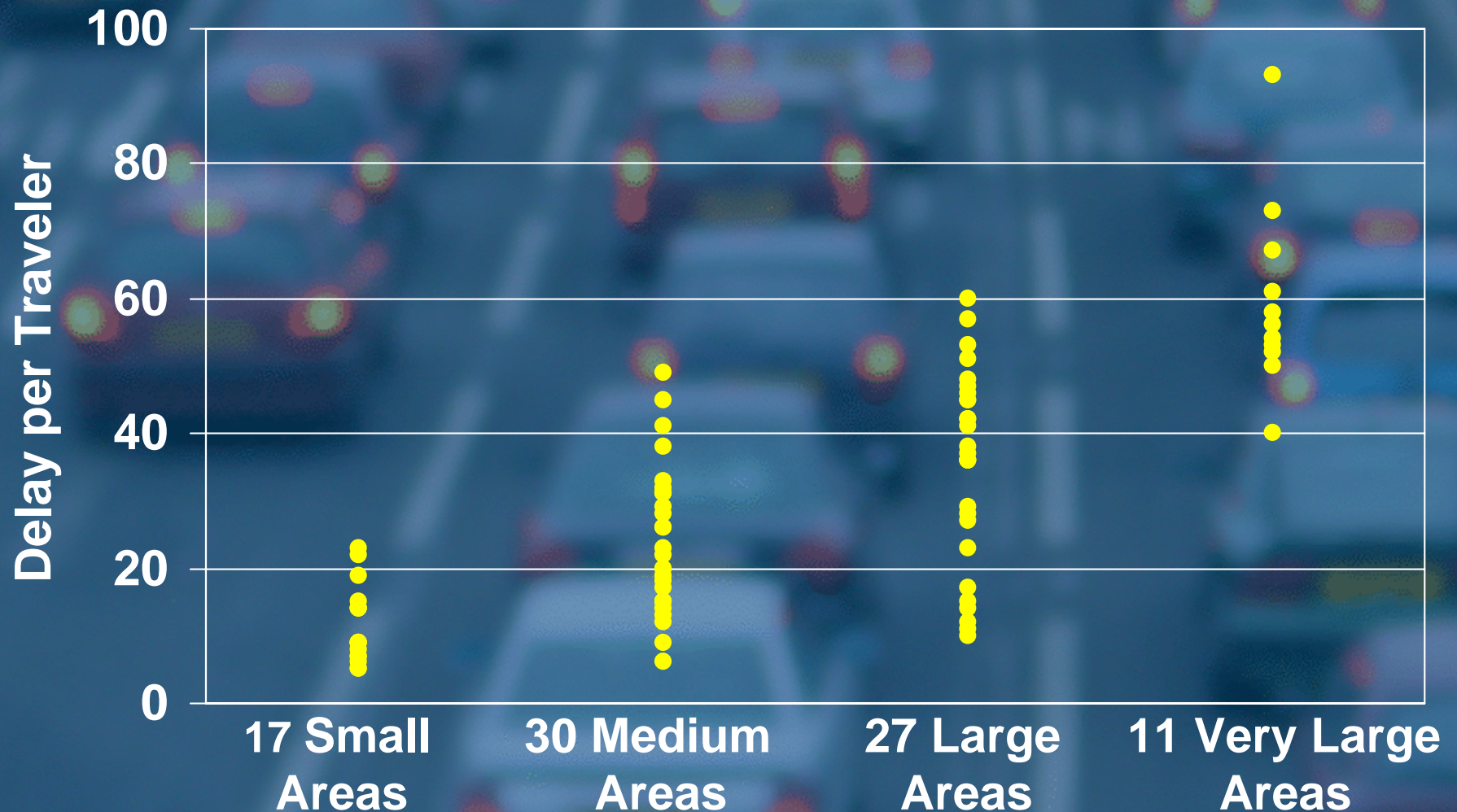
**Medium** = 500 K - 1 M

**Small** = Below 500 K





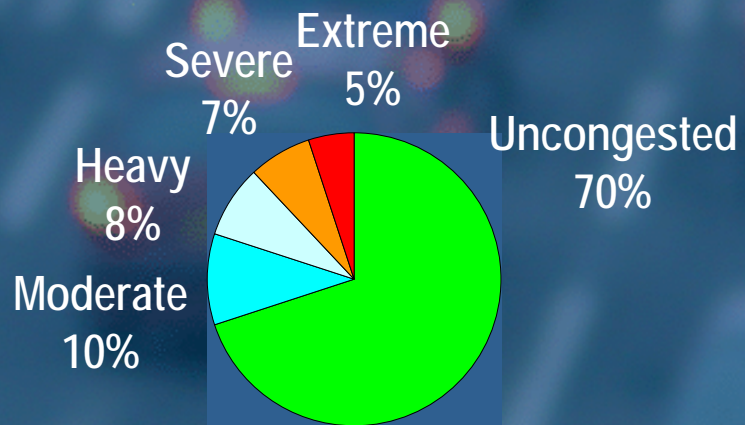
# Congestion: Worse in Bigger Places



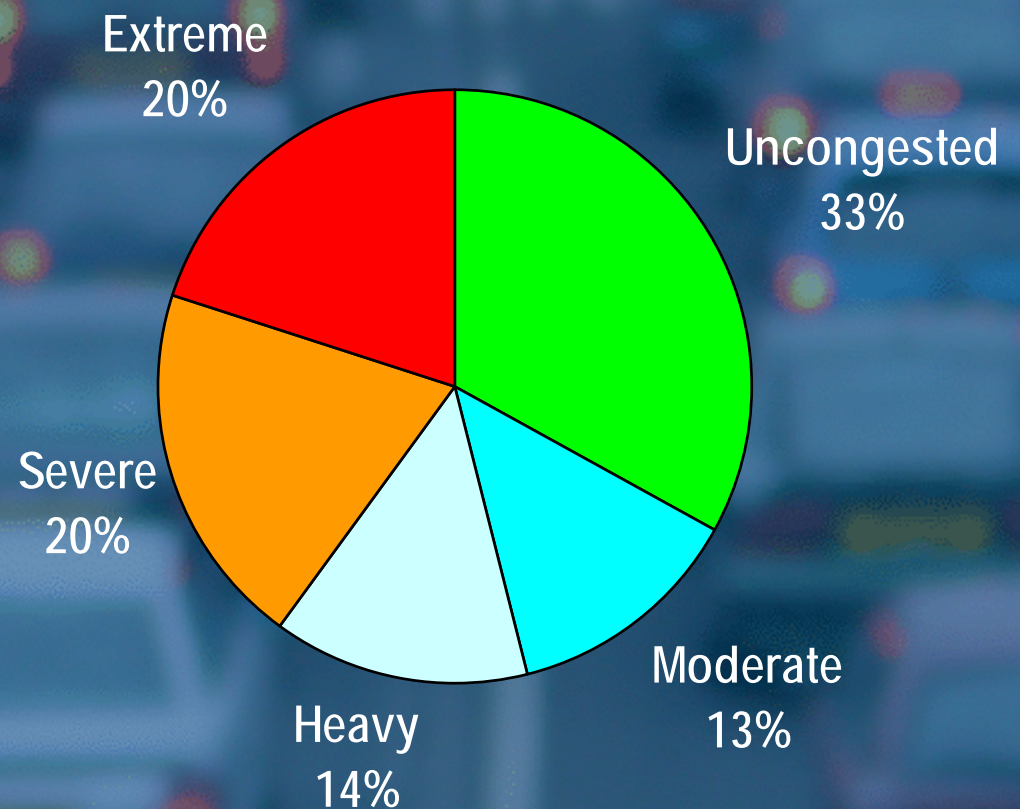


# Congestion is Growing

**1982 0.7 Billion Hours**

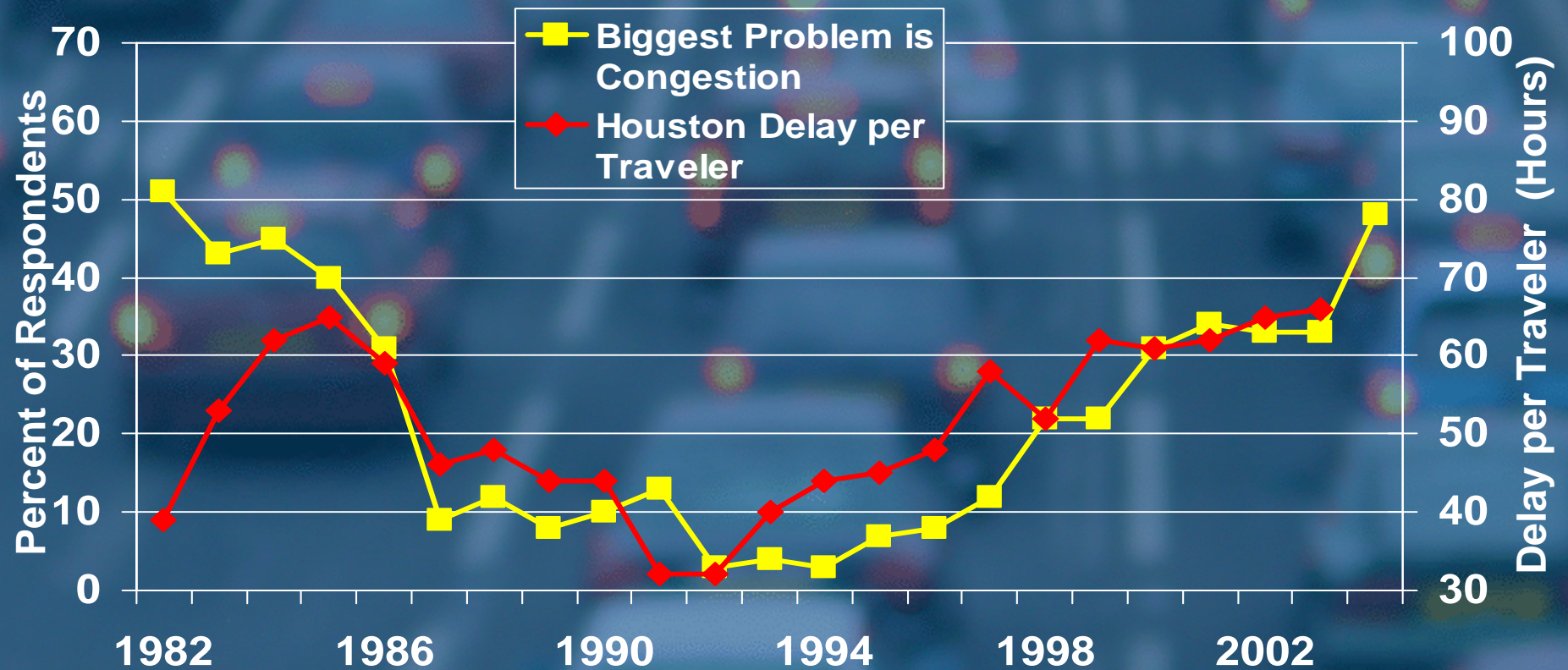


**2002 3.5 Billion Hours**





# “Reality” and Perception

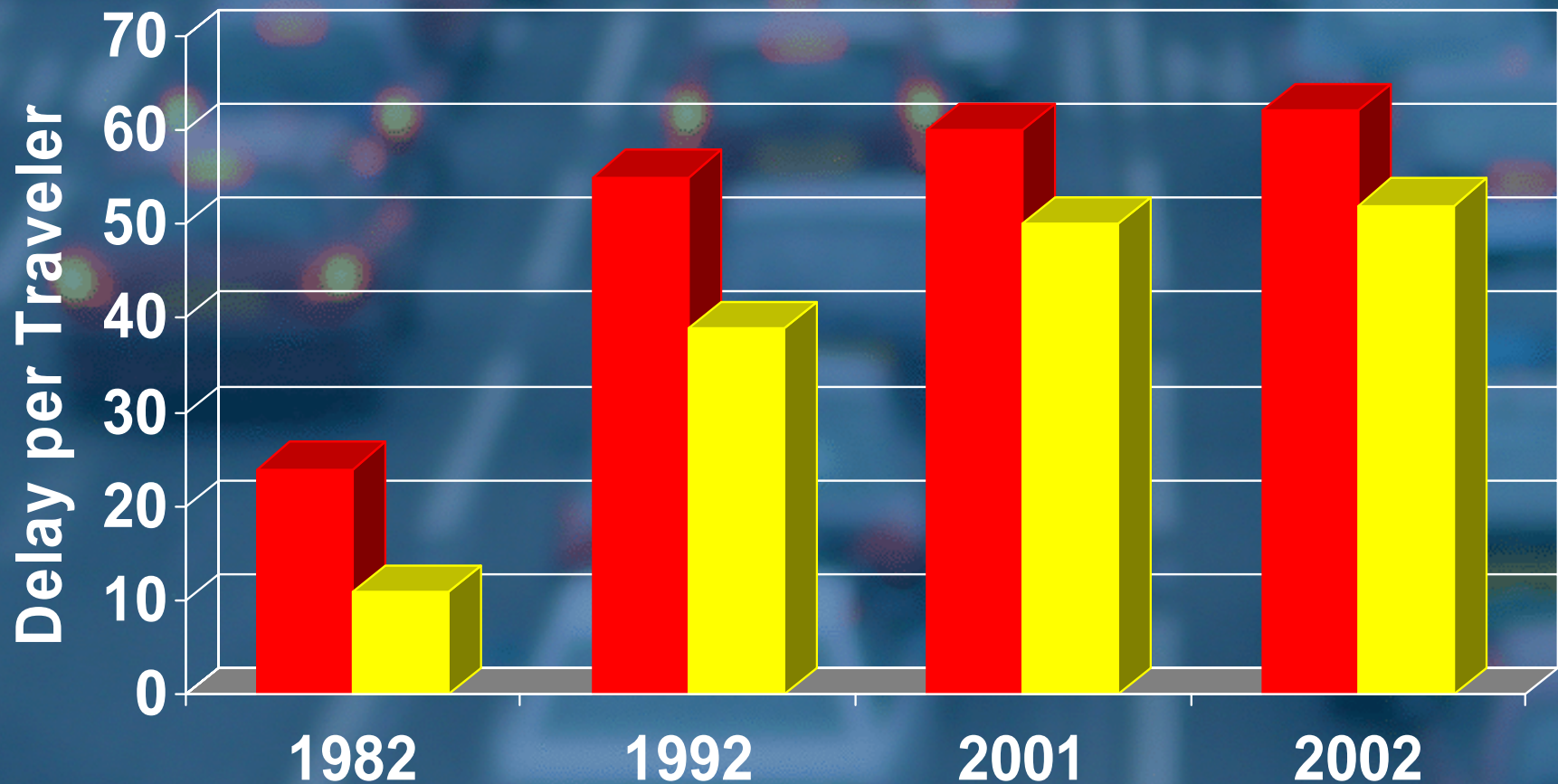


Stephen Klineberg (Rice University) Houston Area Survey Results



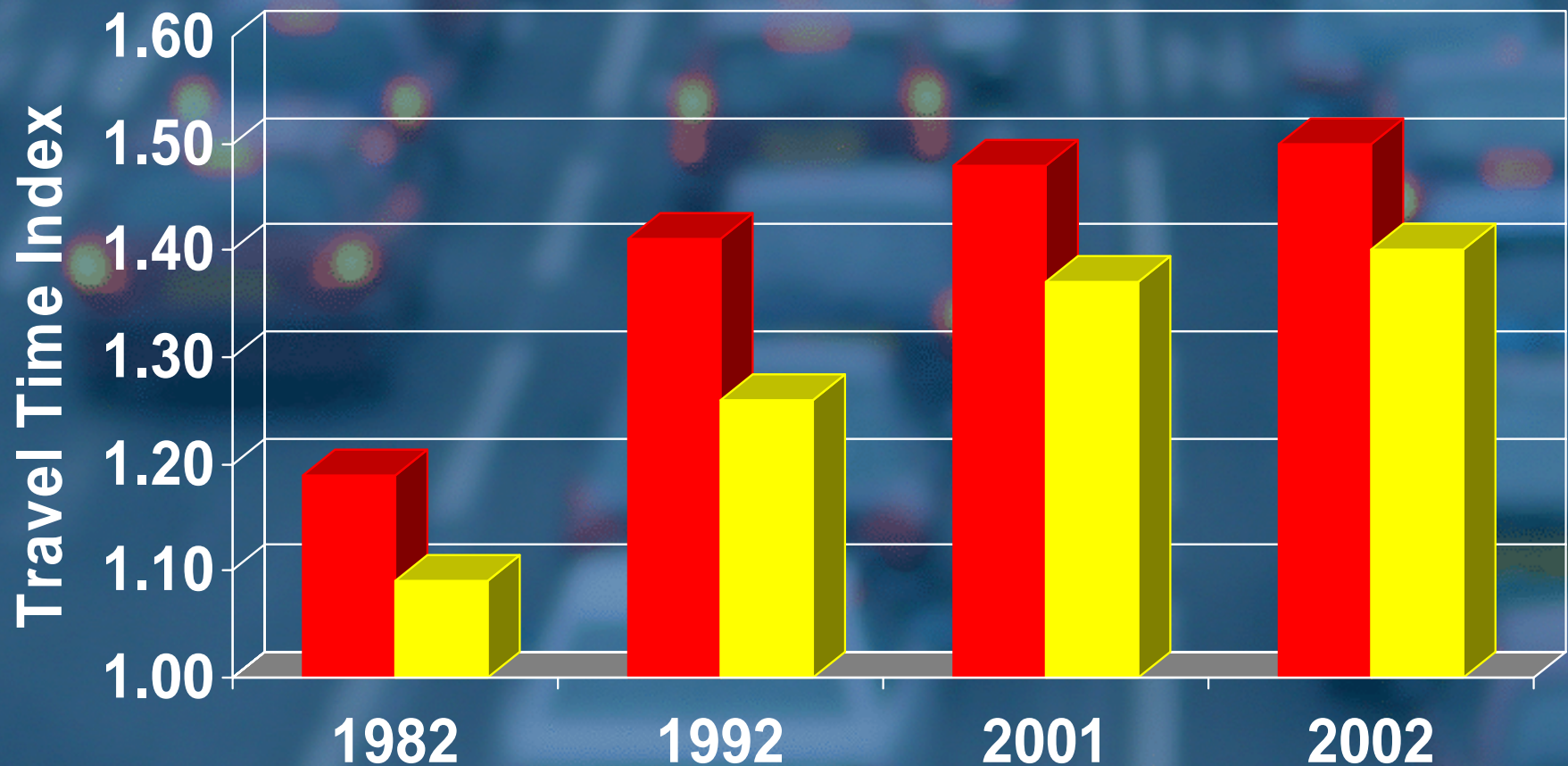
# Florida Commuter Delay Very Large Urban Areas

■ Average ■ Miami



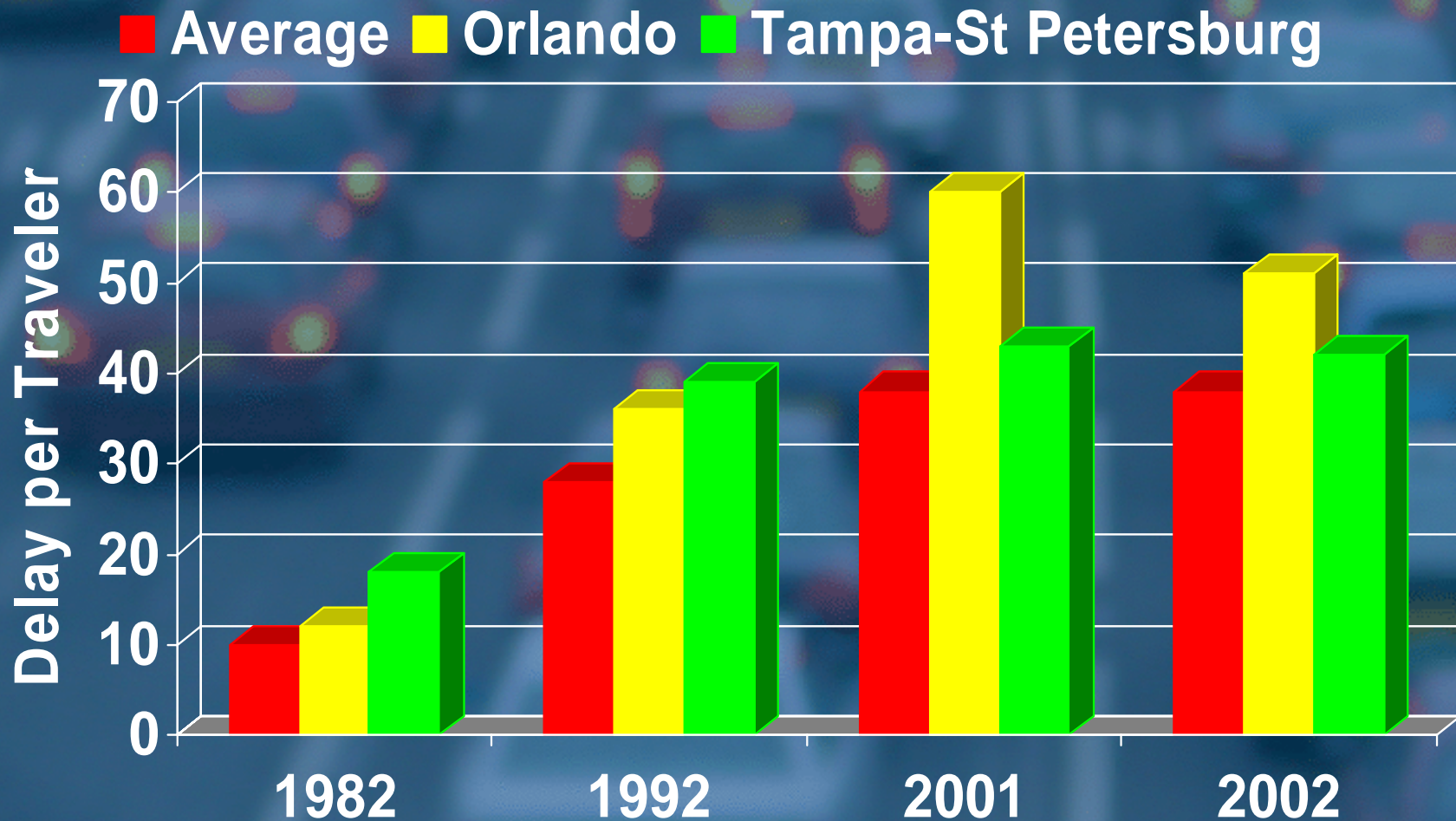
# Extra Time per Trip Very Large Florida Urban Areas

■ Average ■ Miami





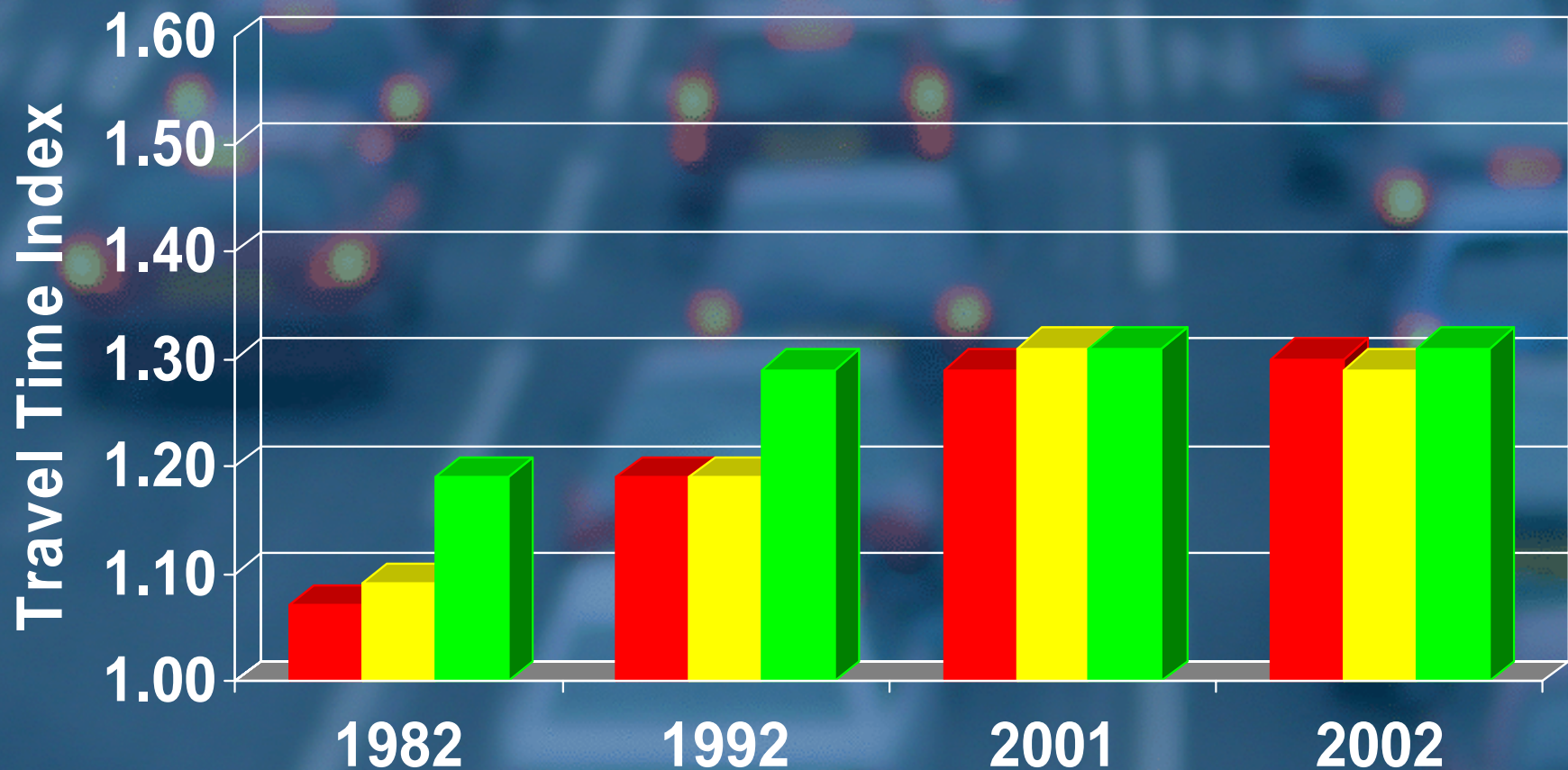
# Florida Commuter Delay Large Urban Areas





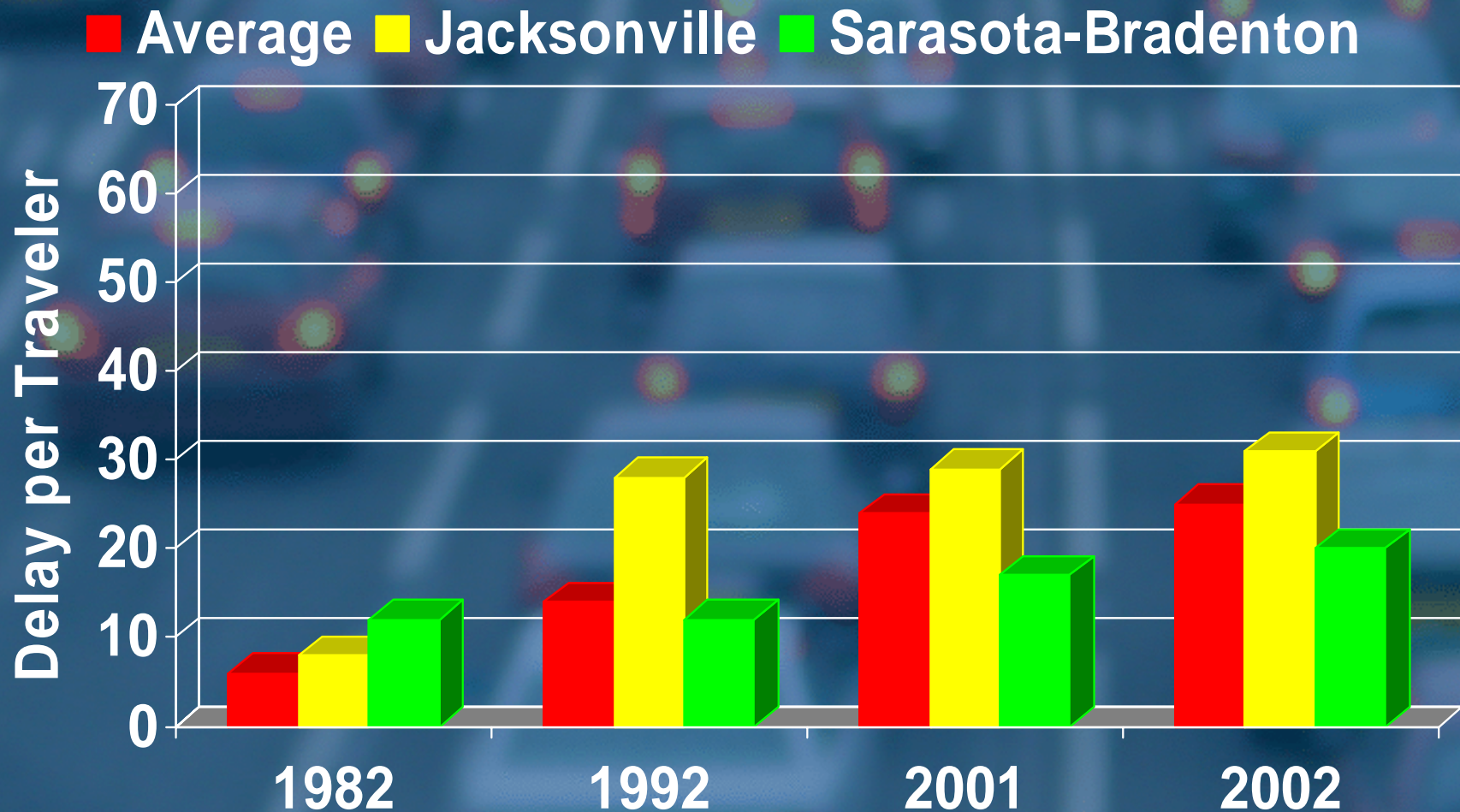
# Extra Time per Trip Large Florida Urban Areas

■ Average ■ Orlando ■ Tampa-St Petersburg



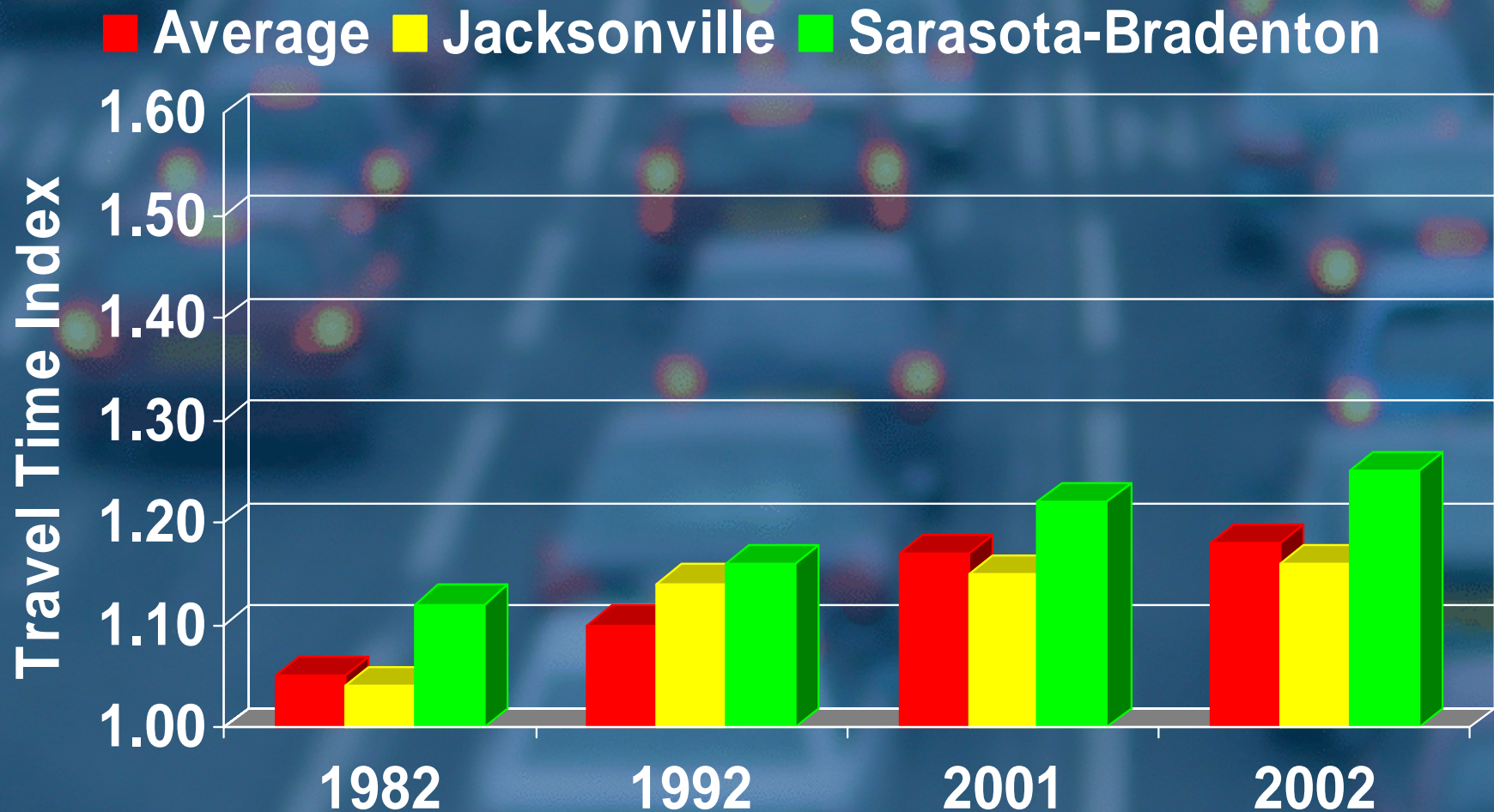


# Florida Commuter Delay Medium Urban Areas





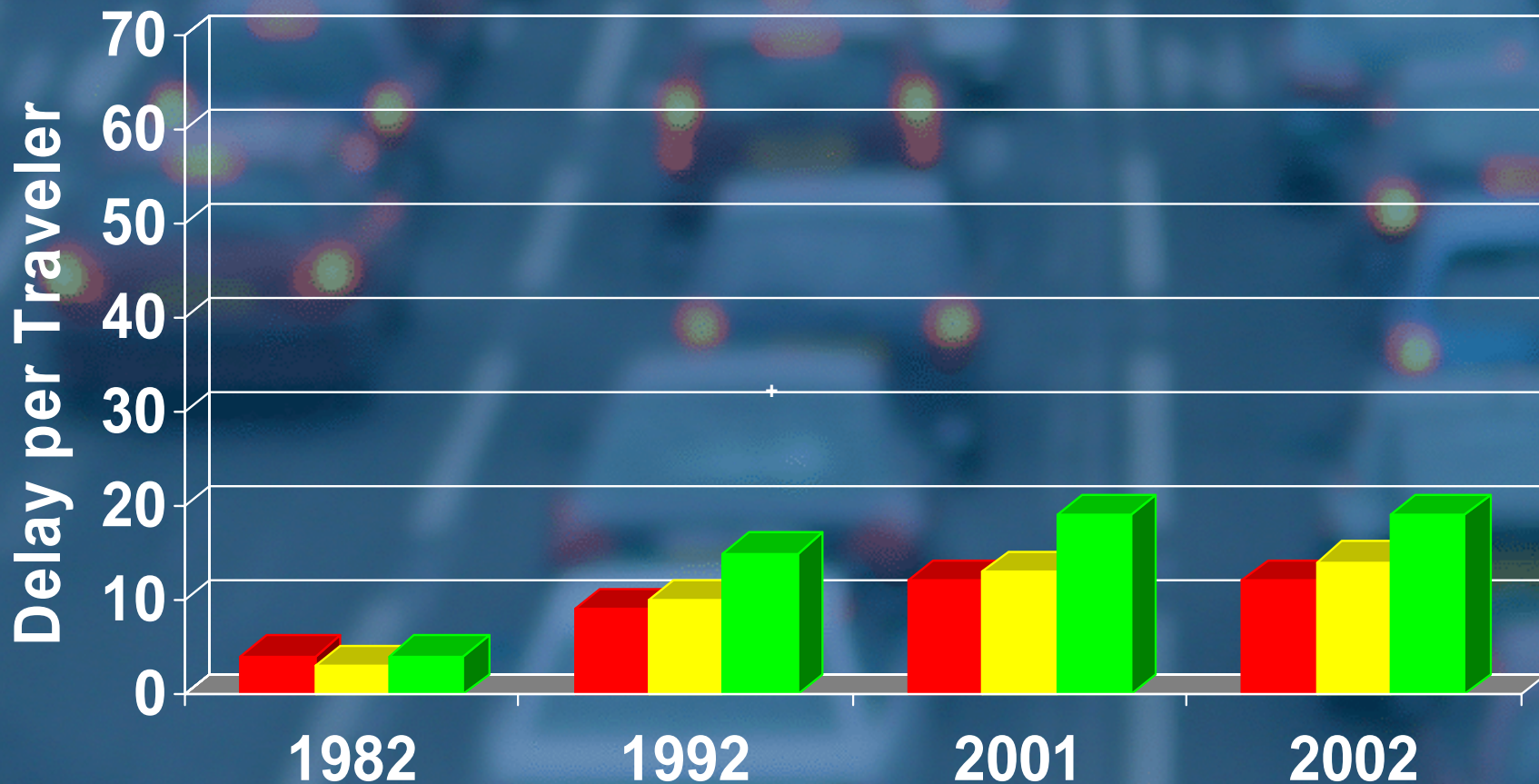
# Extra Time per Trip Medium Florida Urban Areas





# Florida Commuter Delay Small Urban Areas

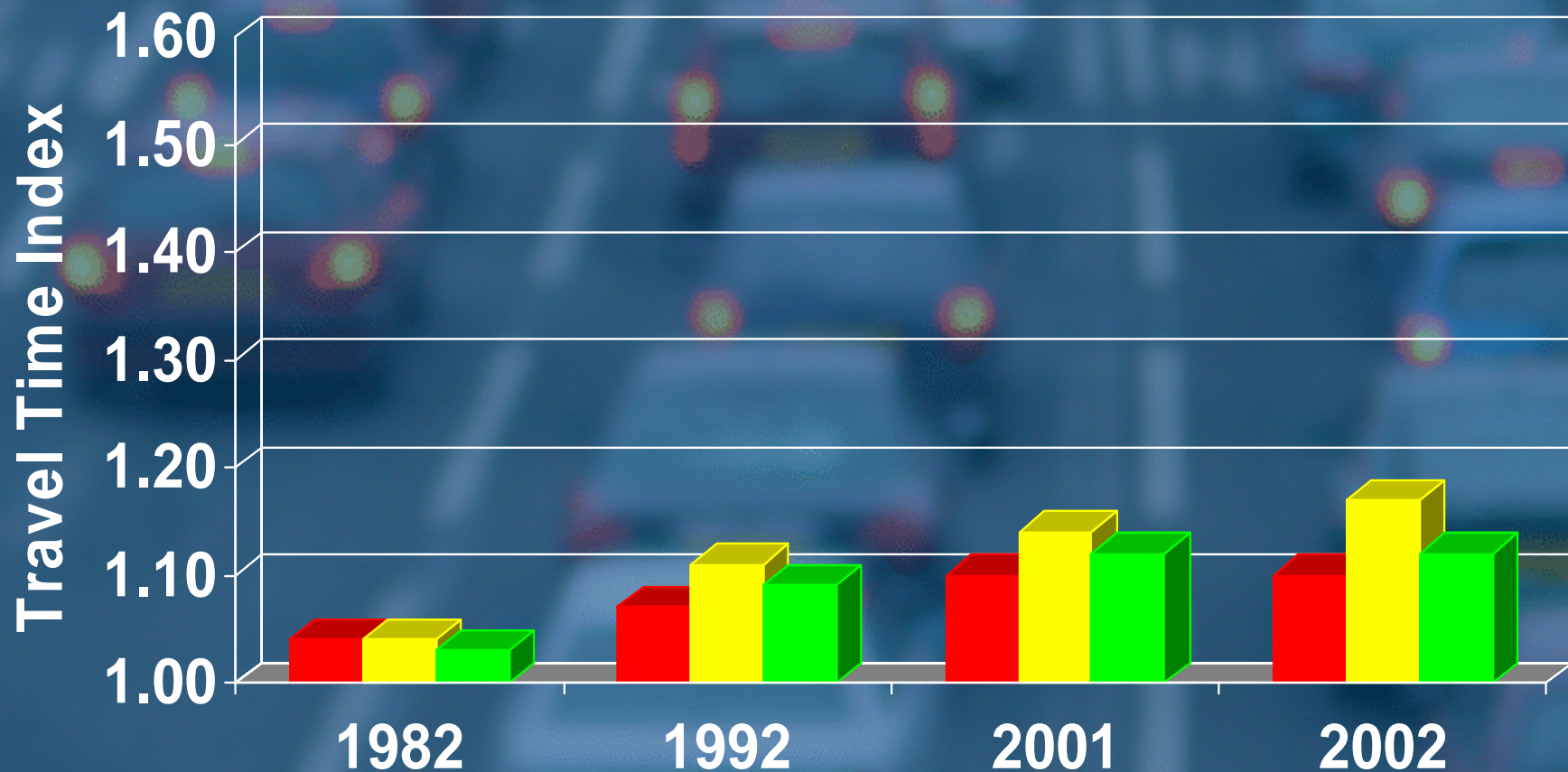
■ Average ■ Cape Coral ■ Pensacola





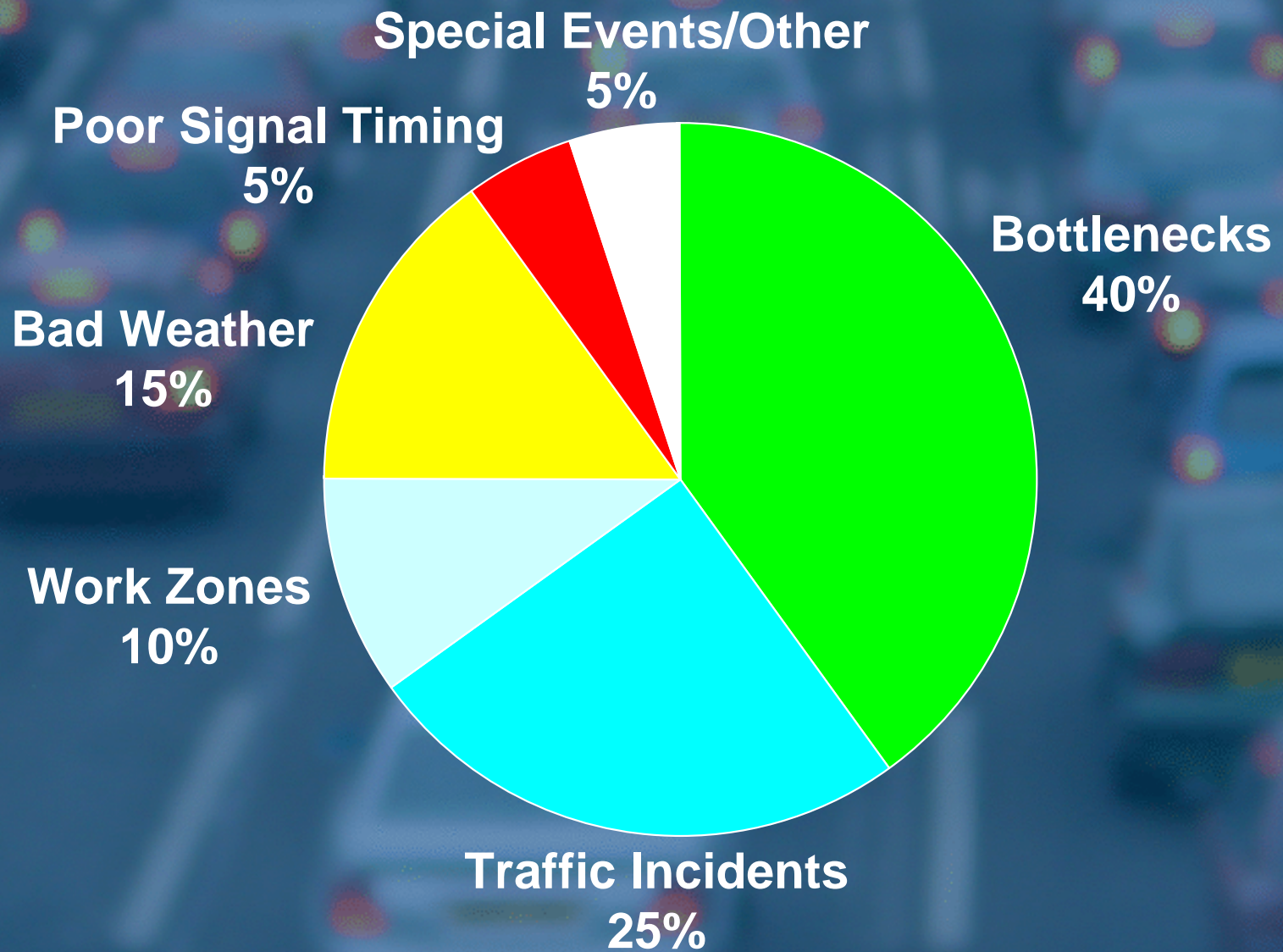
# Extra Time per Trip Small Florida Urban Areas

■ Average ■ Cape Coral ■ Pensacola





# Congestion Has Many Causes



# Congestion Occurs in Rural Areas





# Congestion in Rural Texas is a little different ....



# So What Should We Do?

100%

% Varies for Each City



Accept Some Level of Congestion

Diversify Development Patterns

Manage the Construction Process

Manage the Demand

Increase System Efficiency

Build More Capacity

0%



# Strategy Mix Will Be Different

Outer Loop

Capacity Efficiency Demand

Capacity Efficiency Demand

Capacity Efficiency Demand

Inner Loop

 **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





# High-Occupancy Vehicle Lanes





# Transportation Centers



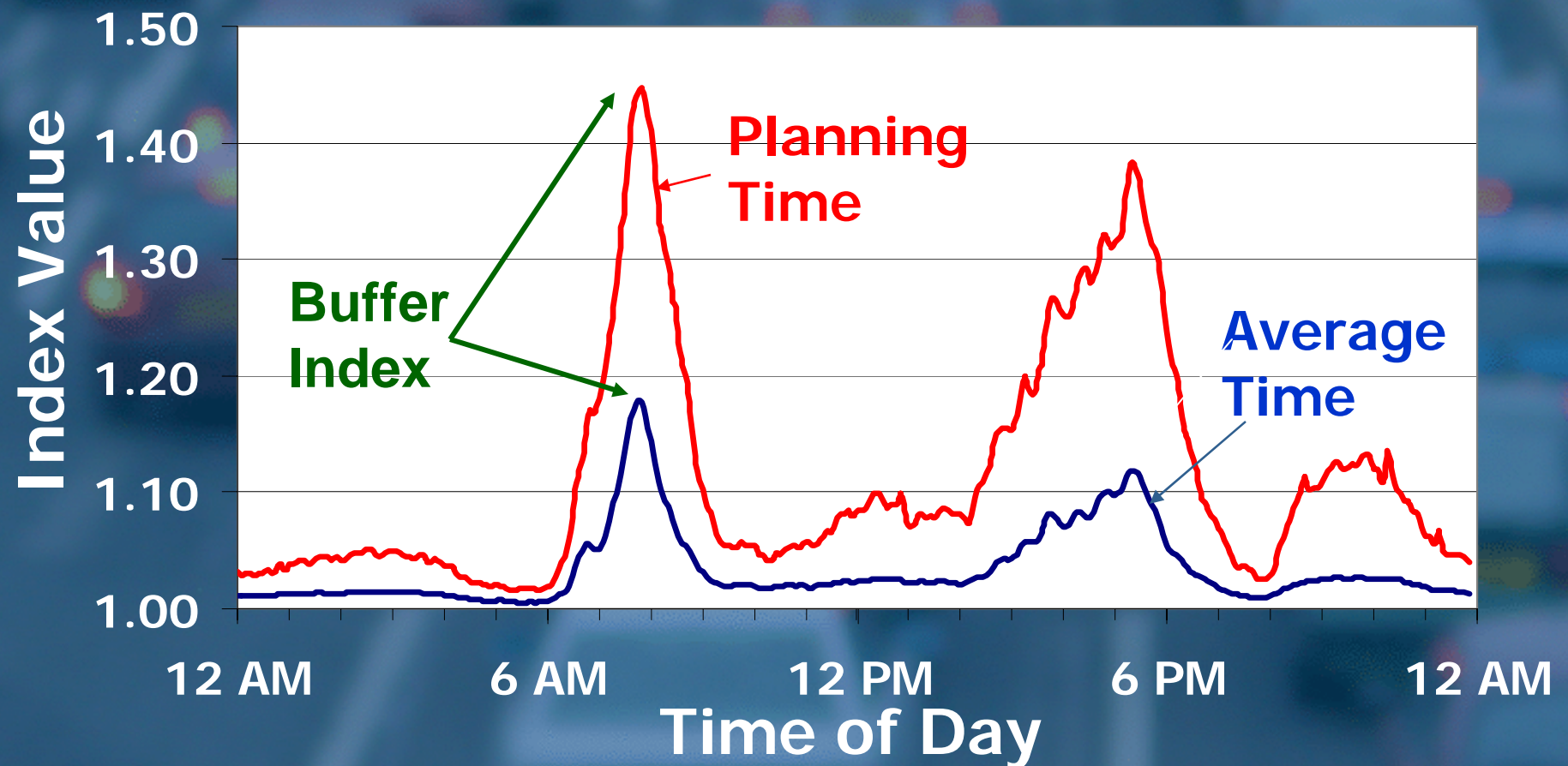


# Bus Rapid Transit

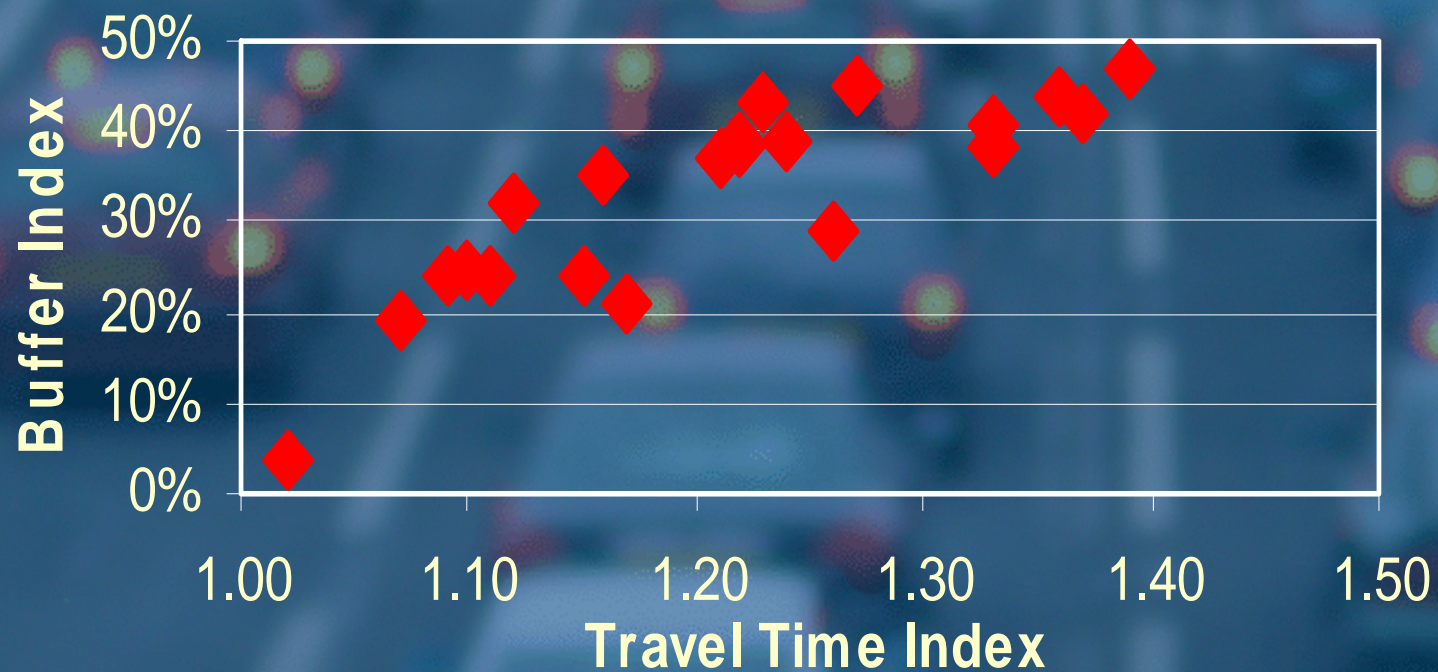




# ...But It's Not Just About “Average” Congestion



# 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



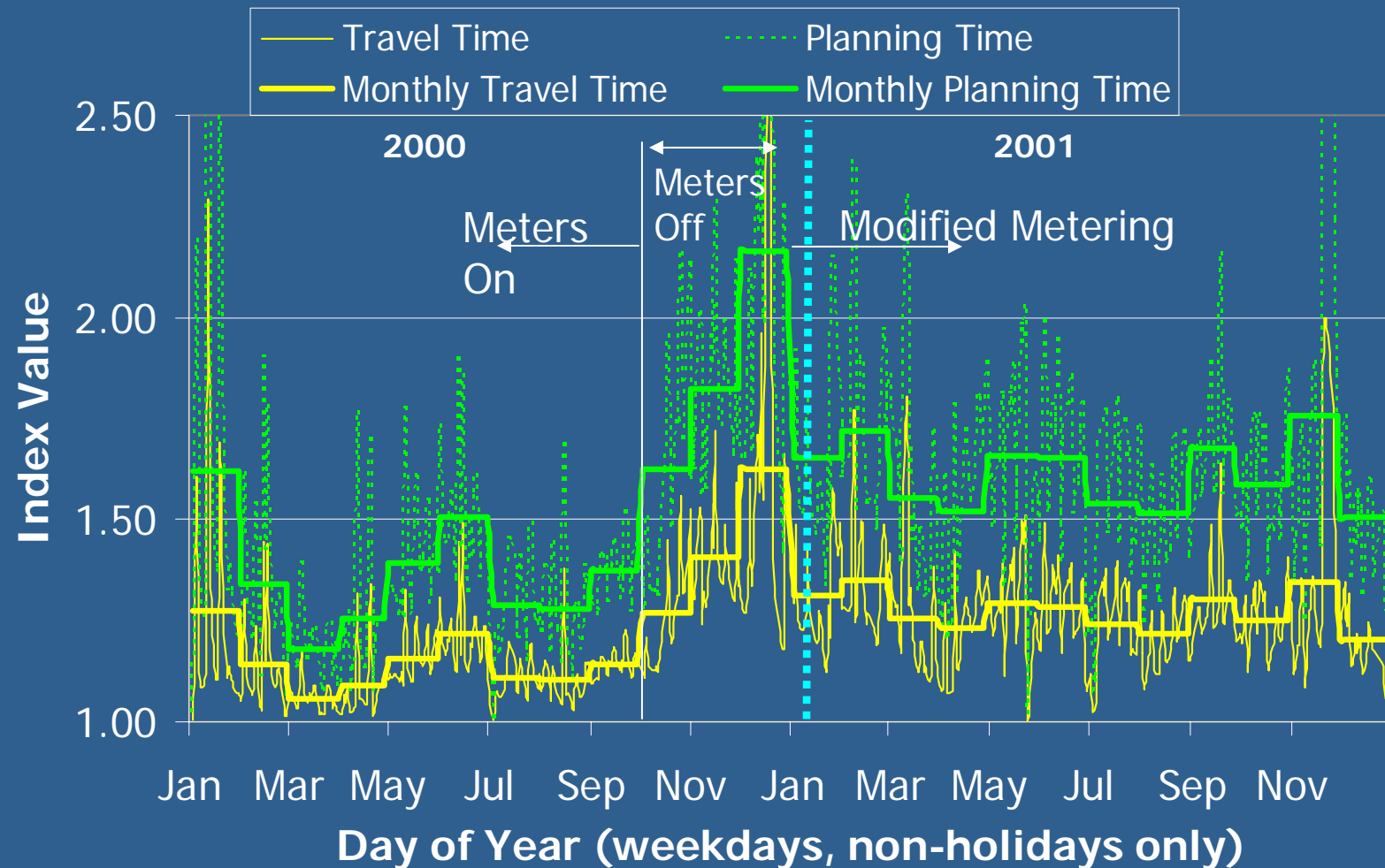


# Ramp Metering





# Ramp Metering Effects



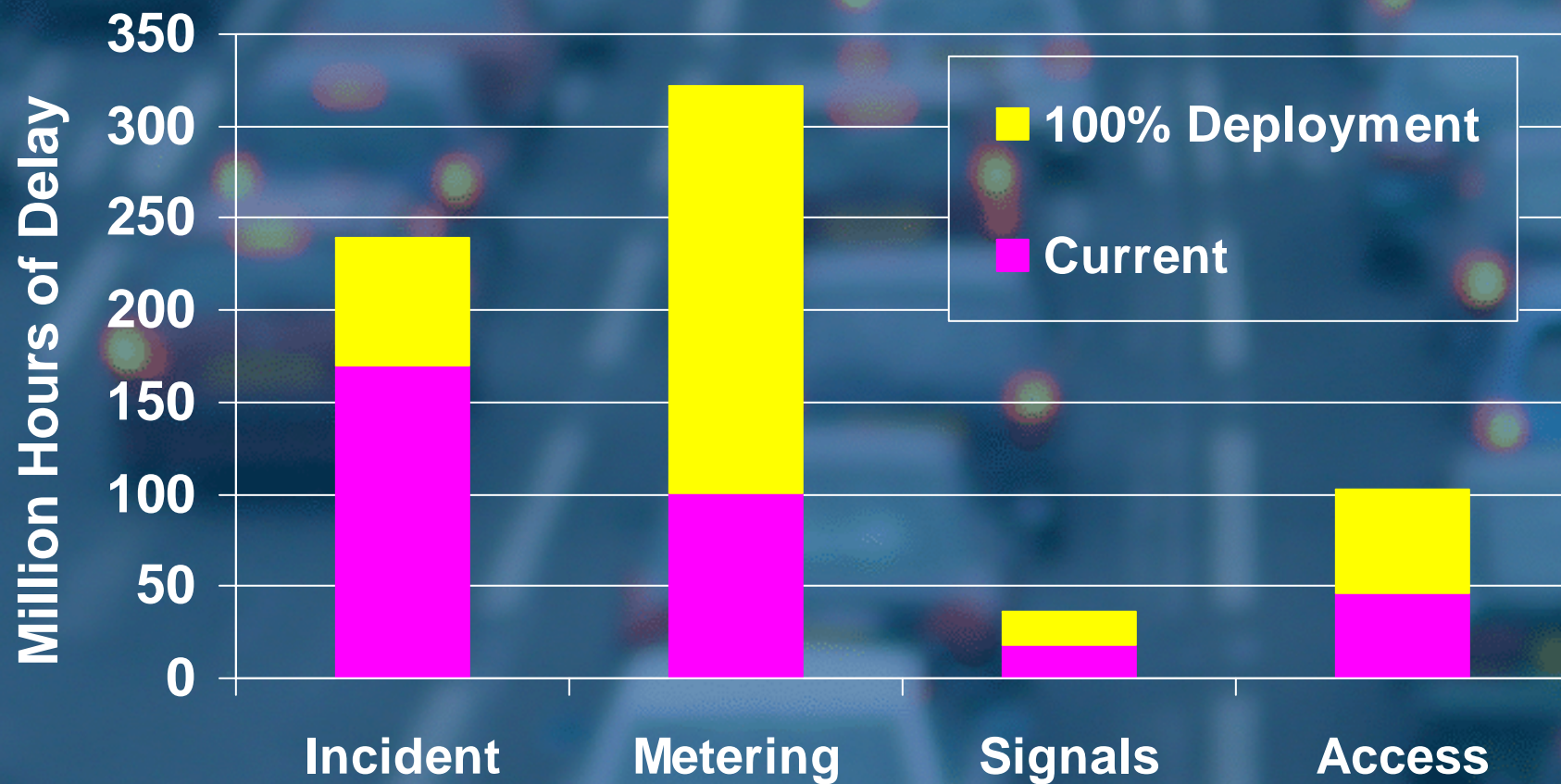


# Event Management





# Better Operations





# 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 \$pending
- 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>)