

Congestion Problems in Chicago

**William O. Lipinski Symposium
on Transportation Policy**

October 2007

Tim Lomax

Texas Transportation Institute

The Congestion Headlines

- Congestion is growing...
- ...in cities of all sizes
- It affects more:
 - times of the day,
 - roads,
 - buses & trains
- It occurs on weekends, in the country...
- It affects people and freight
- It is caused by our attempts to fix it
- And its rarely “typical”

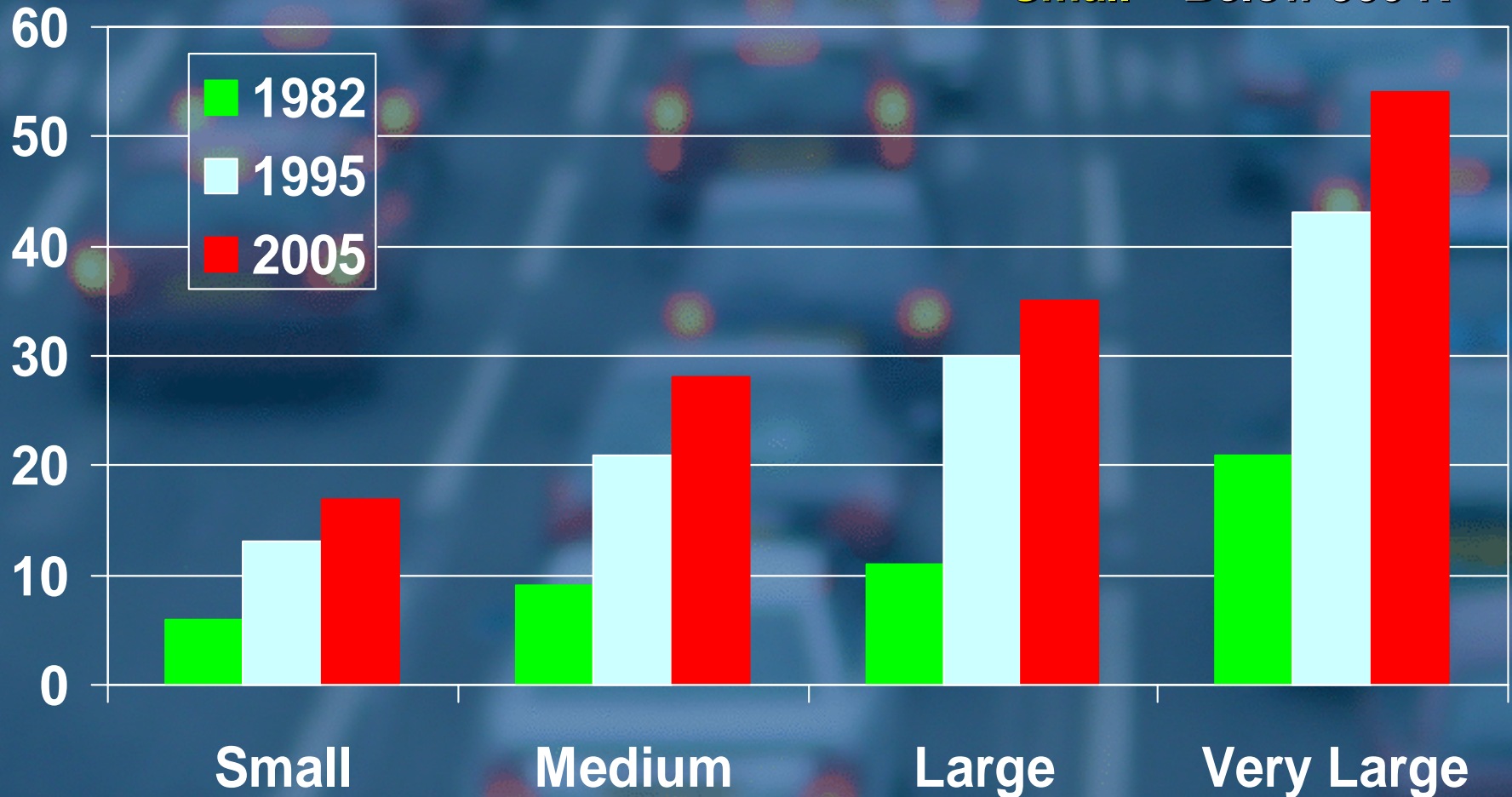
The Congestion Context

- Transportation is only one element of urban decisions
 - Quality of life
 - Economic Development
 - Home
 - Schools
 - Spouse's job
- Agencies have many concerns
 - Safety
 - Infrastructure quality
 - Environment
 - Homeland security
 - And more

Congestion is Getting Worse in Cities of All Sizes

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

Delay per Traveler



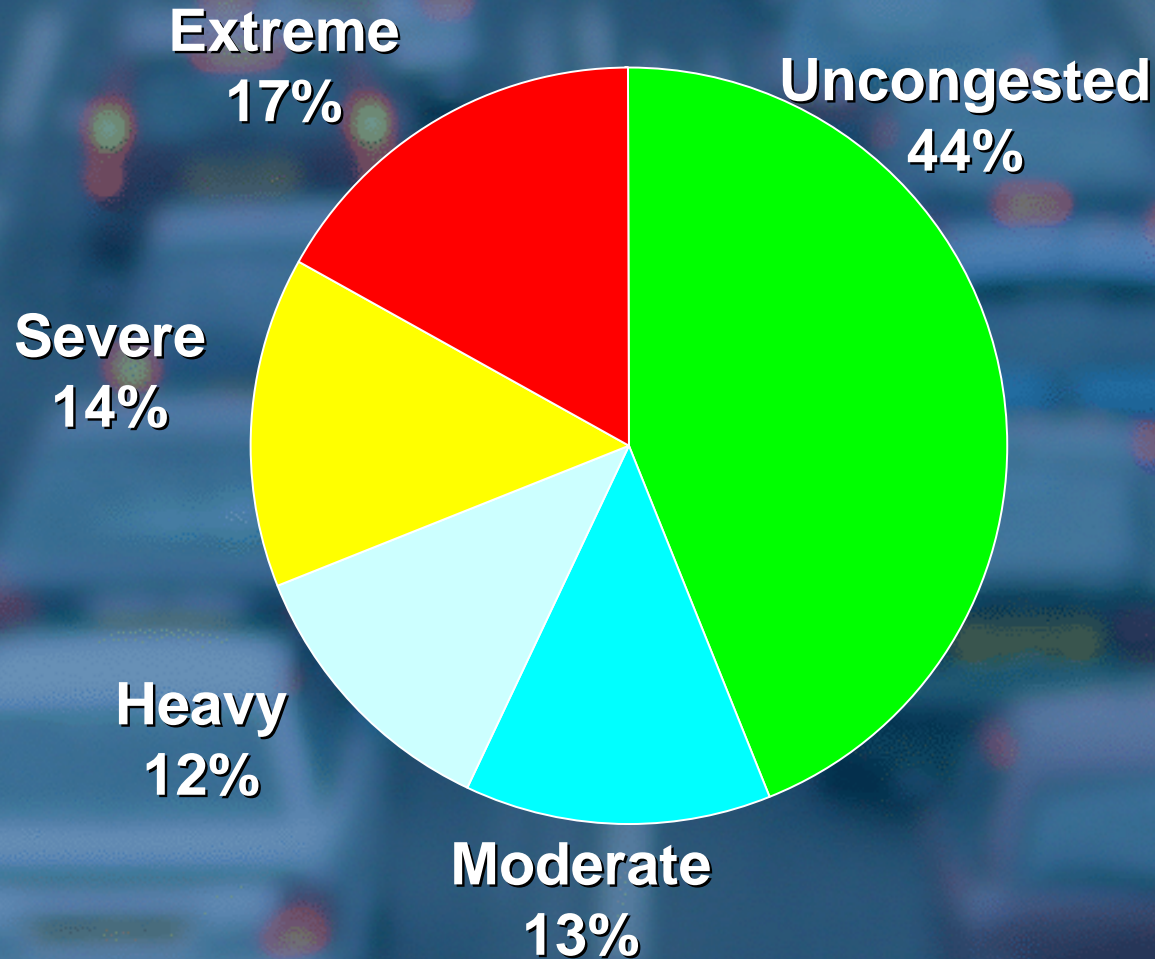
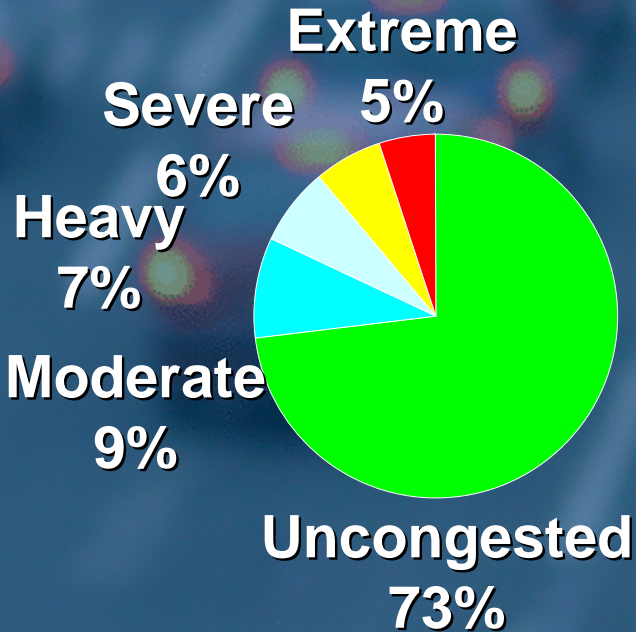
Expanding Travel Delay & Shrinking Free-Flow Hours

1982

*Total Delay =
0.8 Billion Hours*

2005

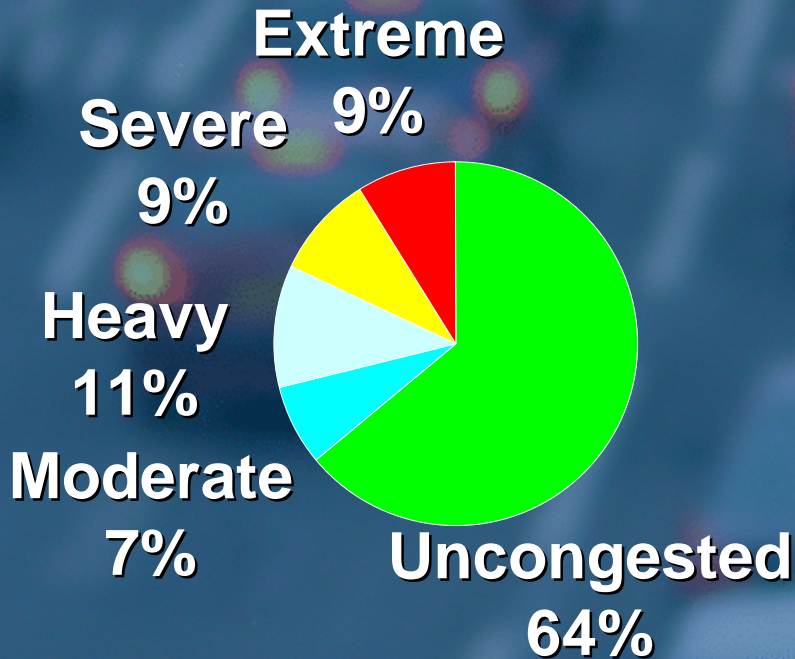
*Total Delay =
4.2 Billion Hours*



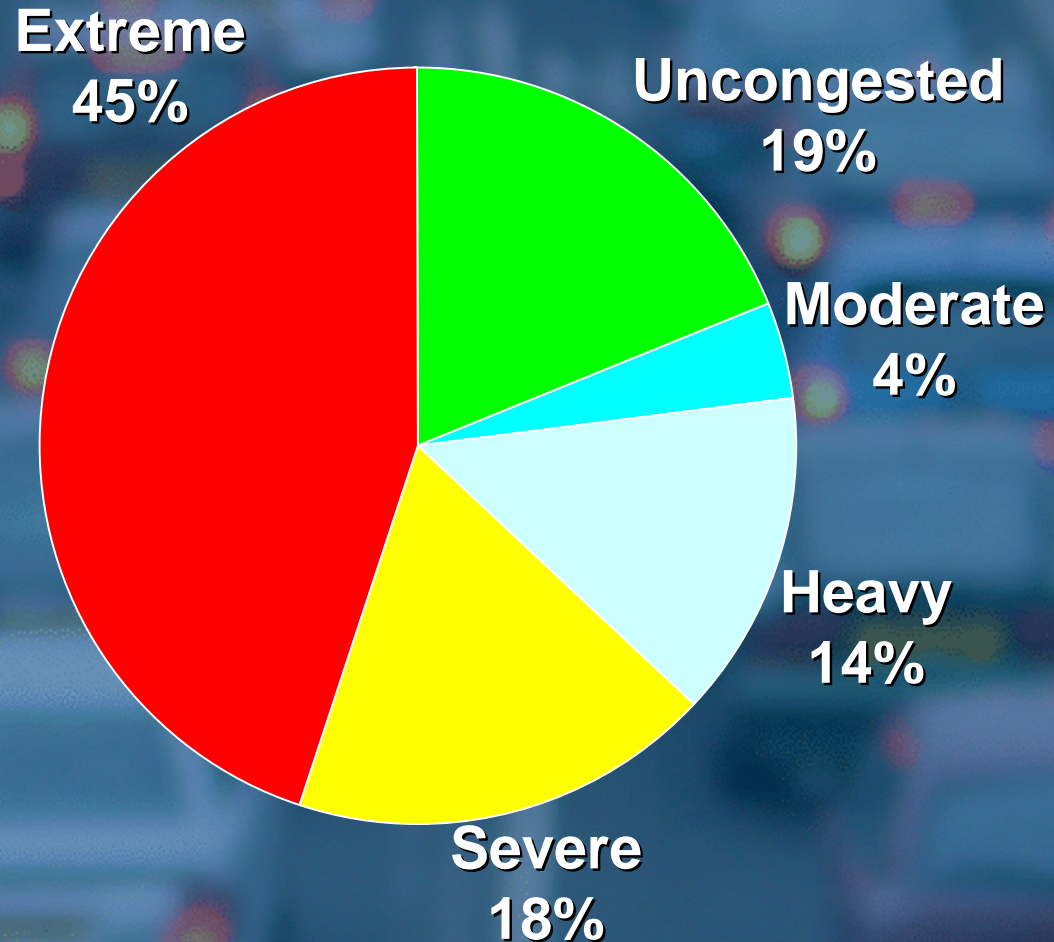
**Wasted Fuel
(Same Trend)
2.9 B Gallons in 2005**

.....& Chicago Congestion is Worse Than Most

1982 Total Delay =
40 Million Hours



2005 Total Delay =
203 Million Hours



Chicago's Congestion "Tax"

- Average Chicago peak period traveler:
 - 46 hours of extra travel time in 2005
 - 32 gallons of wasted fuel
 - \$900 cost of time and fuel
- The region:
 - 203 million hours
 - 142 million gallons
 - \$4 billion cost

Freight Congestion

A Key Element of the 21st Century Economy

- Chicago truck delay
 - 11 million truck hours
 - \$910 million
- In addition...
- Inventory costs
- Just-in-time operations
- Fleet productivity
- Distribution centers
- Public & private sector decision structures

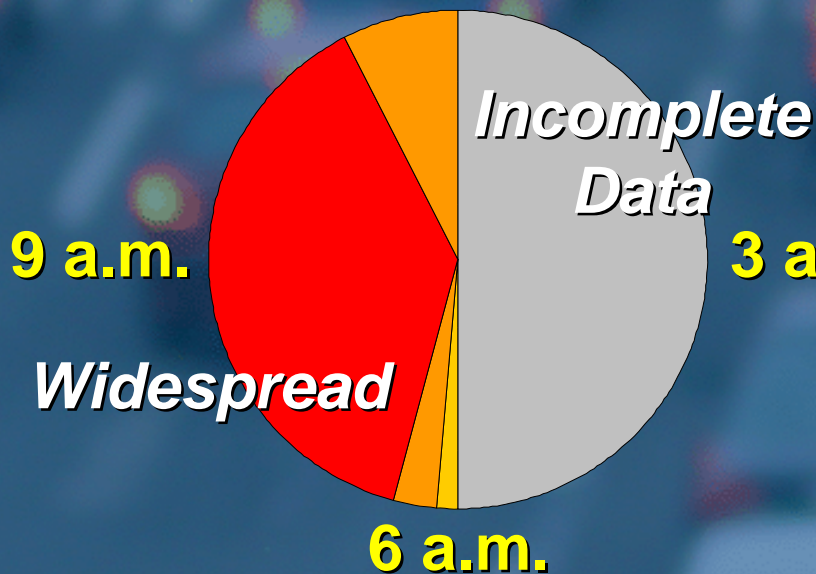


Just to “Stay Even”

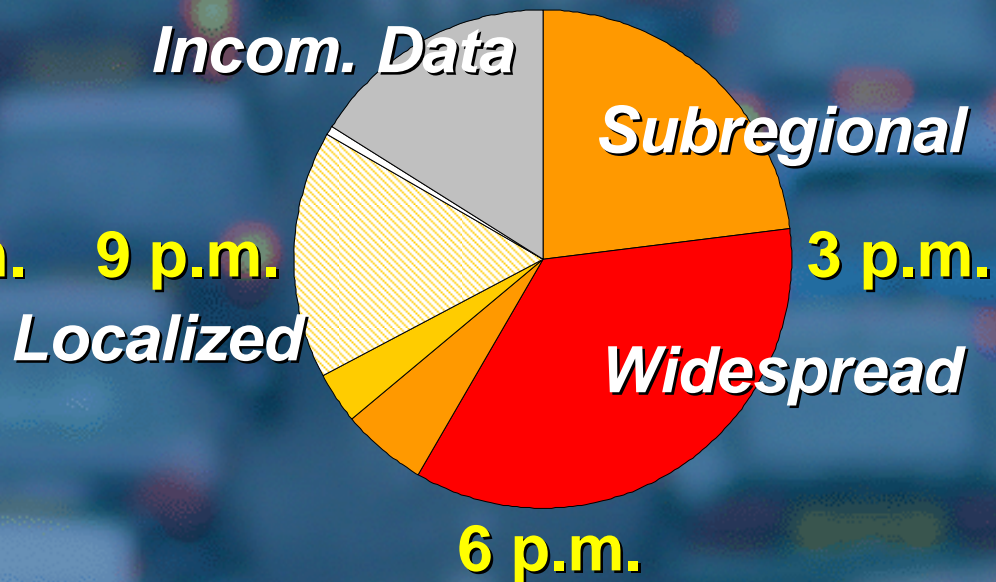
- Growth in population and jobs means *each year* Chicago must add:
- 300 lane-miles of roadway
- Or
- Expand transit system by 12%
- Or
- All new workers telecommute
- Or
- Hope for a recession??

When do you have to think about congestion?

Morning
Congestion
Clock



Evening
Congestion
Clock



Congestion is Speeds
Below 50 mph

Congestion growth is not just a few minutes of extra travel time

- Plan around traffic for more of the day
- Congested roads and trains are less reliable
- Travel time varies with seasons and events
- Congestion affects more ...
 - Neighborhoods
 - Job centers
 - Transportation network
- Access to jobs, workers and markets

Congestion problems in rural Texas are a little different

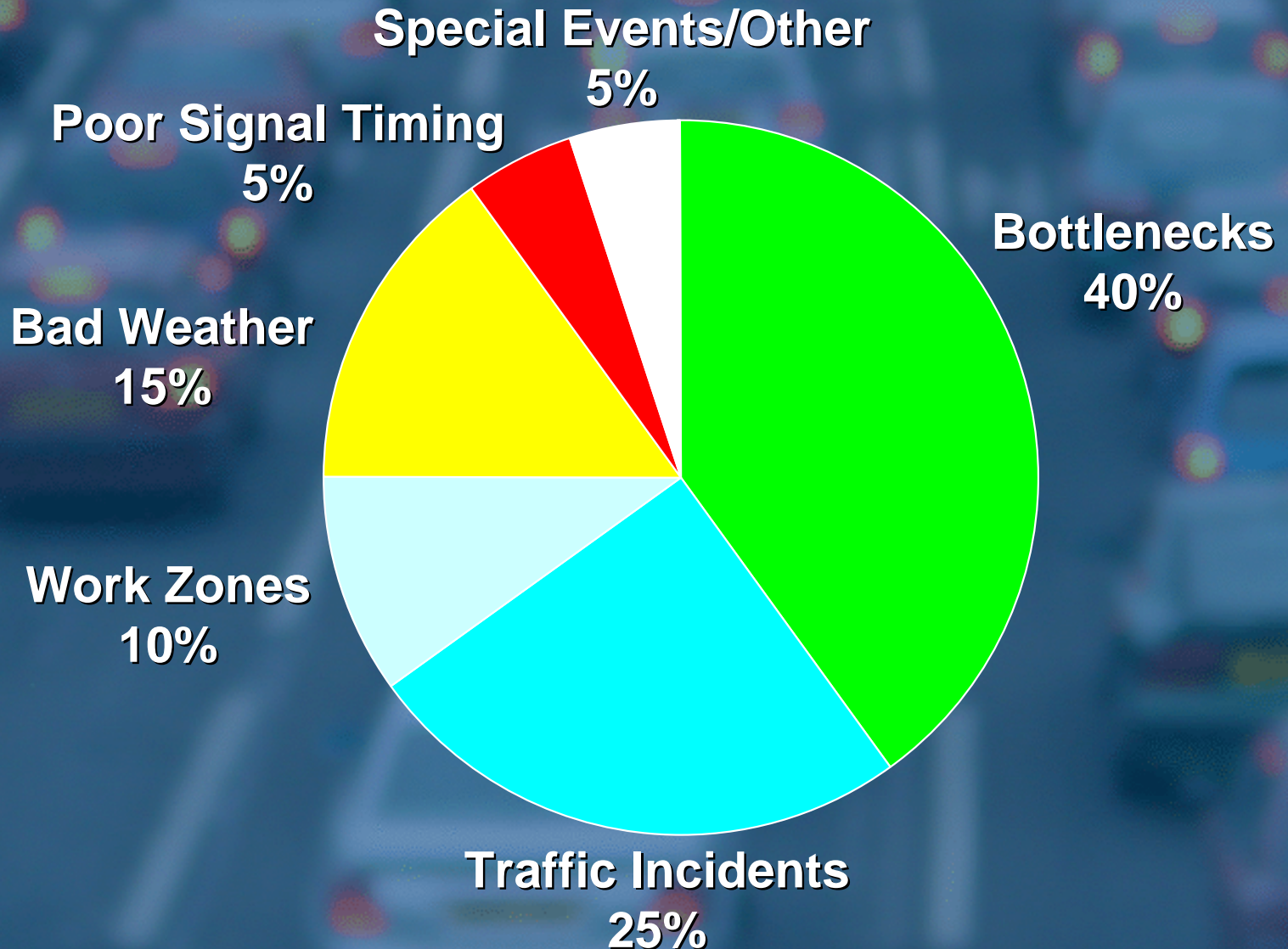


Congestion problems in rural Texas are a little different



...but we still work with our stakeholders

Congestion Has Many Causes

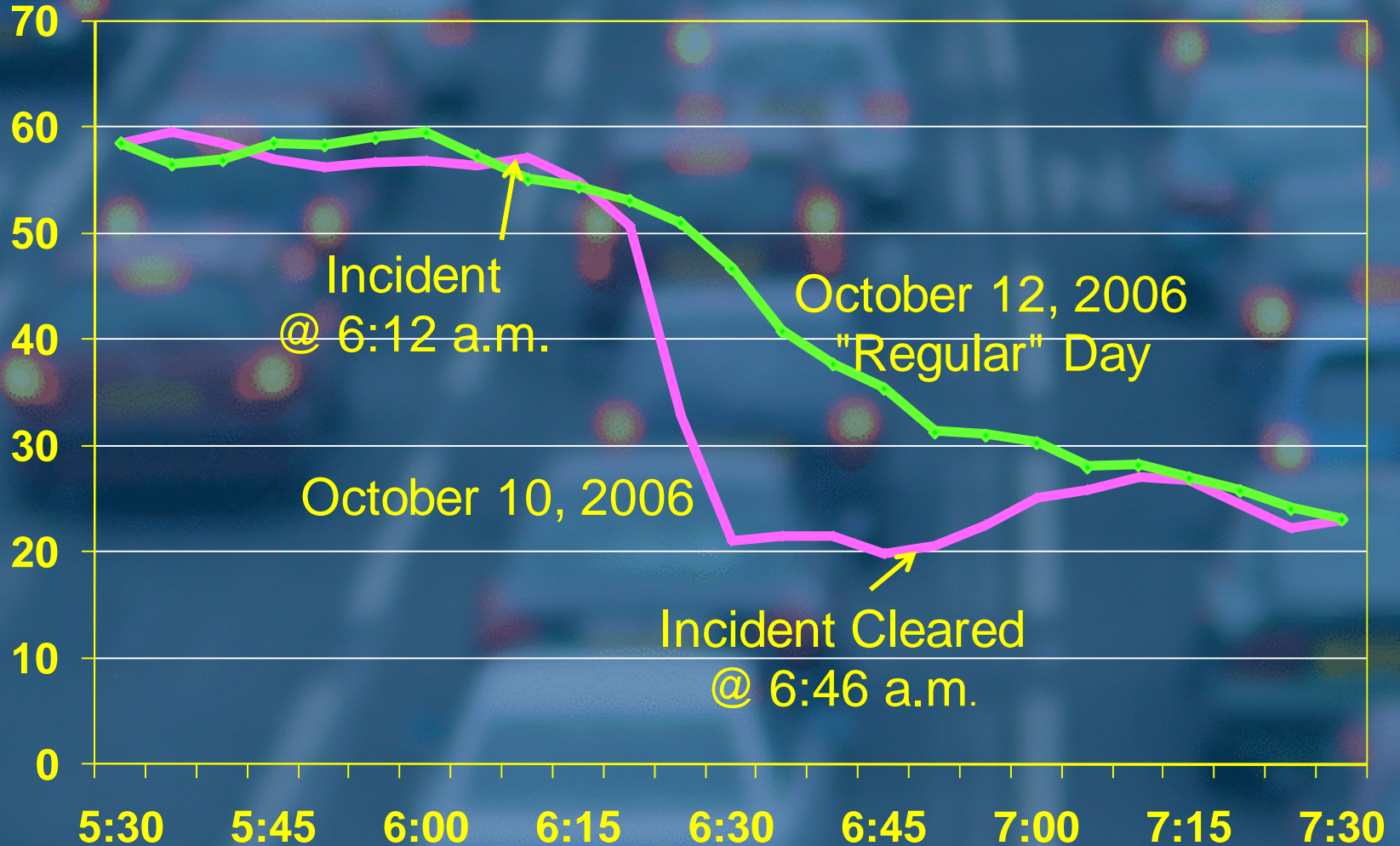


Stalled Vehicles and Crashes



Southbound I-94 (I-90 to I-80)

Speed



Incident
@ 6:12 a.m.

October 12, 2006
"Regular" Day

October 10, 2006

Incident Cleared
@ 6:46 a.m.

Northbound I-94 “Rubbernecker”



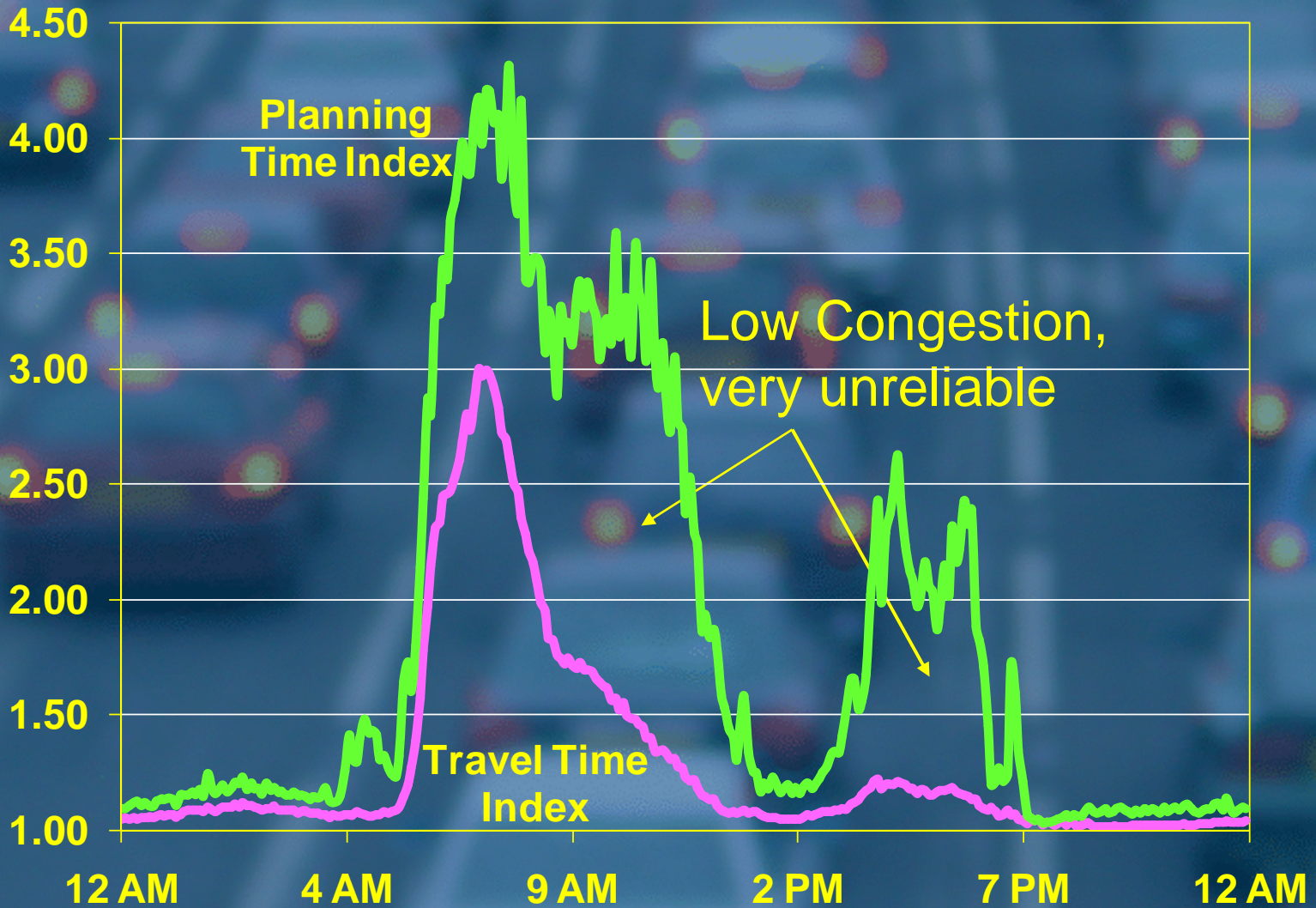
Why Do We Say “Rush Hour”?

- No one is rushing anywhere and not an hour
- Midday congestion
- Weekend congestion

- Plan around congestion all day
- When do you move freight?
- When do you leave for the airport?

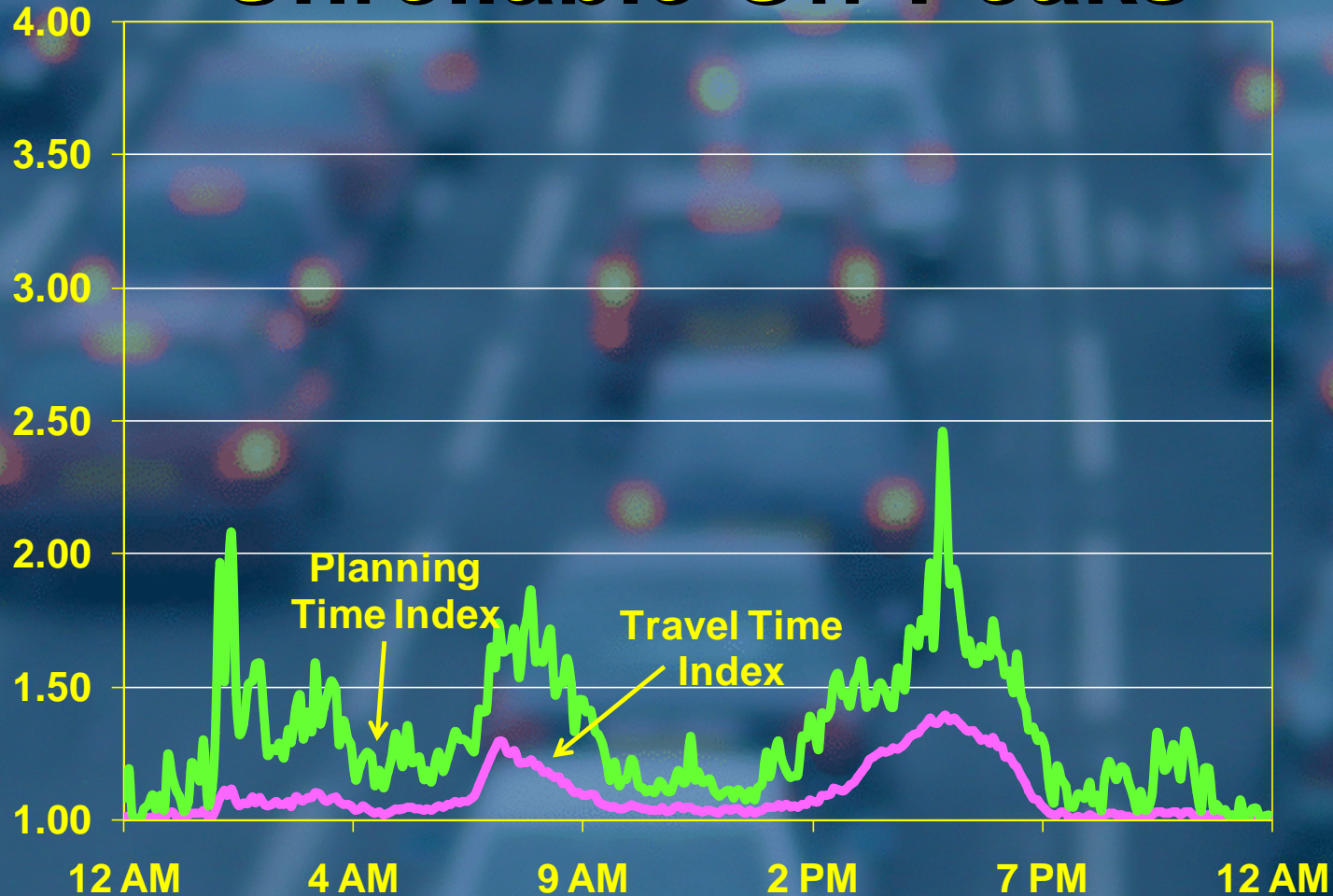
- Problems have different solutions

Congestion & Reliability Problems



Source: Traffic.com -- I-294 NB: St. Charles Road to Route 72

Moderate Congestion, Unreliable Off-Peaks



Source: Traffic.com -- I-88 WB: Finley Road to Naperville Road

Construction Projects: Solution and Problem



Other Aspects of the Congestion Problem?

- How do we talk about the problems?
- Public expectations?
- Do we talk about the benefits of solutions?
- Are we accountable to the public?
- Is our data transparent and relevant to the public and businesses?
- How would we operate if there were no Trust Fund?
 - Spending would compete with other needs
 - More talk about benefits

The Big Picture

- Congestion is bad and getting worse
- There are large costs to people, businesses and the economy
- Affects person and freight travel

- But,.....
- There are solutions – need them all and need new ones
- Agency, business and traveler decisions
- Addressing the problem can provide huge benefits

(<http://mobility.tamu.edu>)