

# The Role of IVI in Highway Safety

June 25, 2003



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# **The Role of IVI in Transit Safety**

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# **Our Mission**

**To provide safer, more  
reliable, and more efficient  
transit systems**



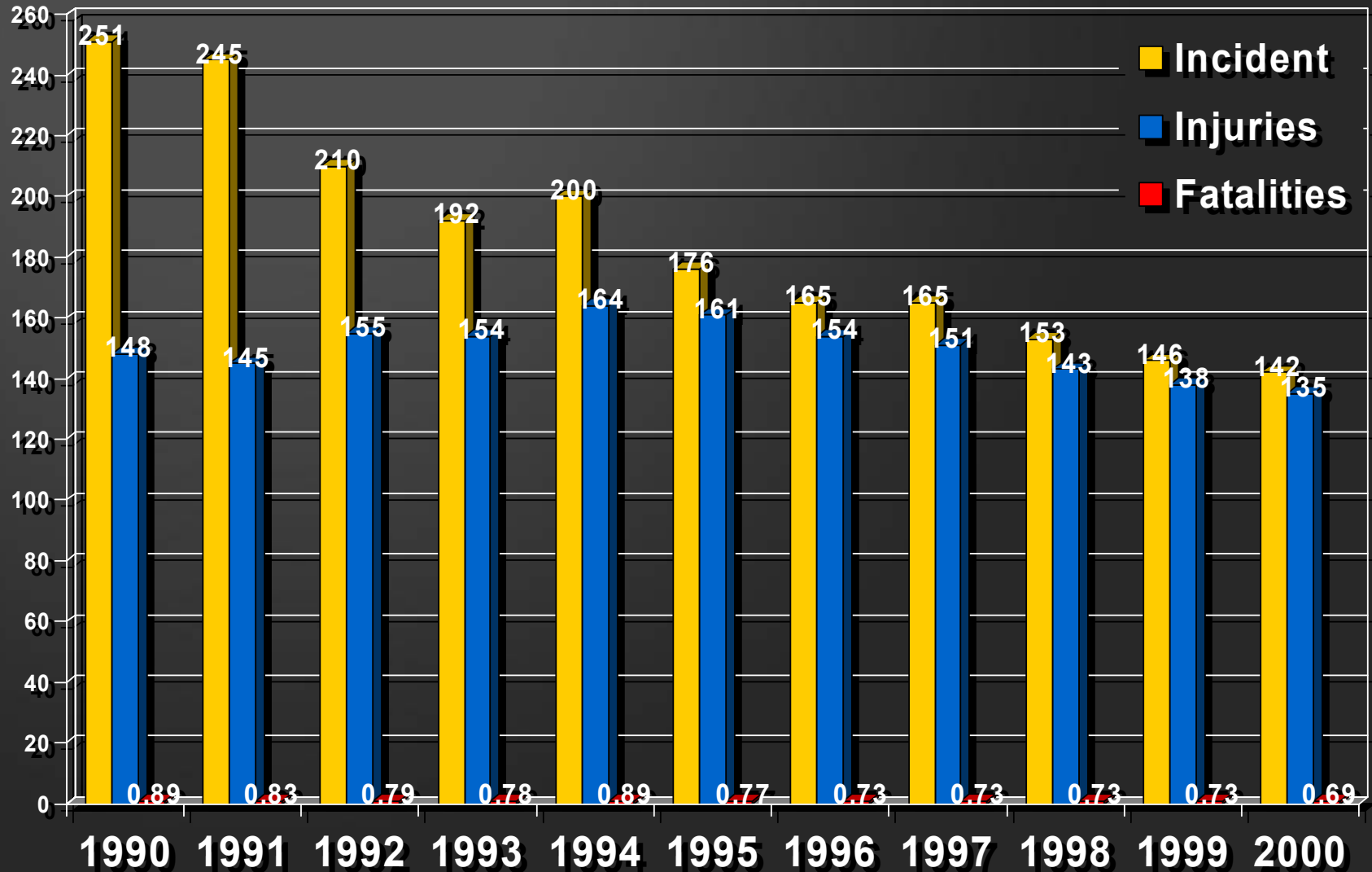
# IVI for Transit

- **Build upon the industry's safety record**
- **Utilize technology to improve service reliability**
- **Offer alternatives for improved transit service in challenging operational environments**

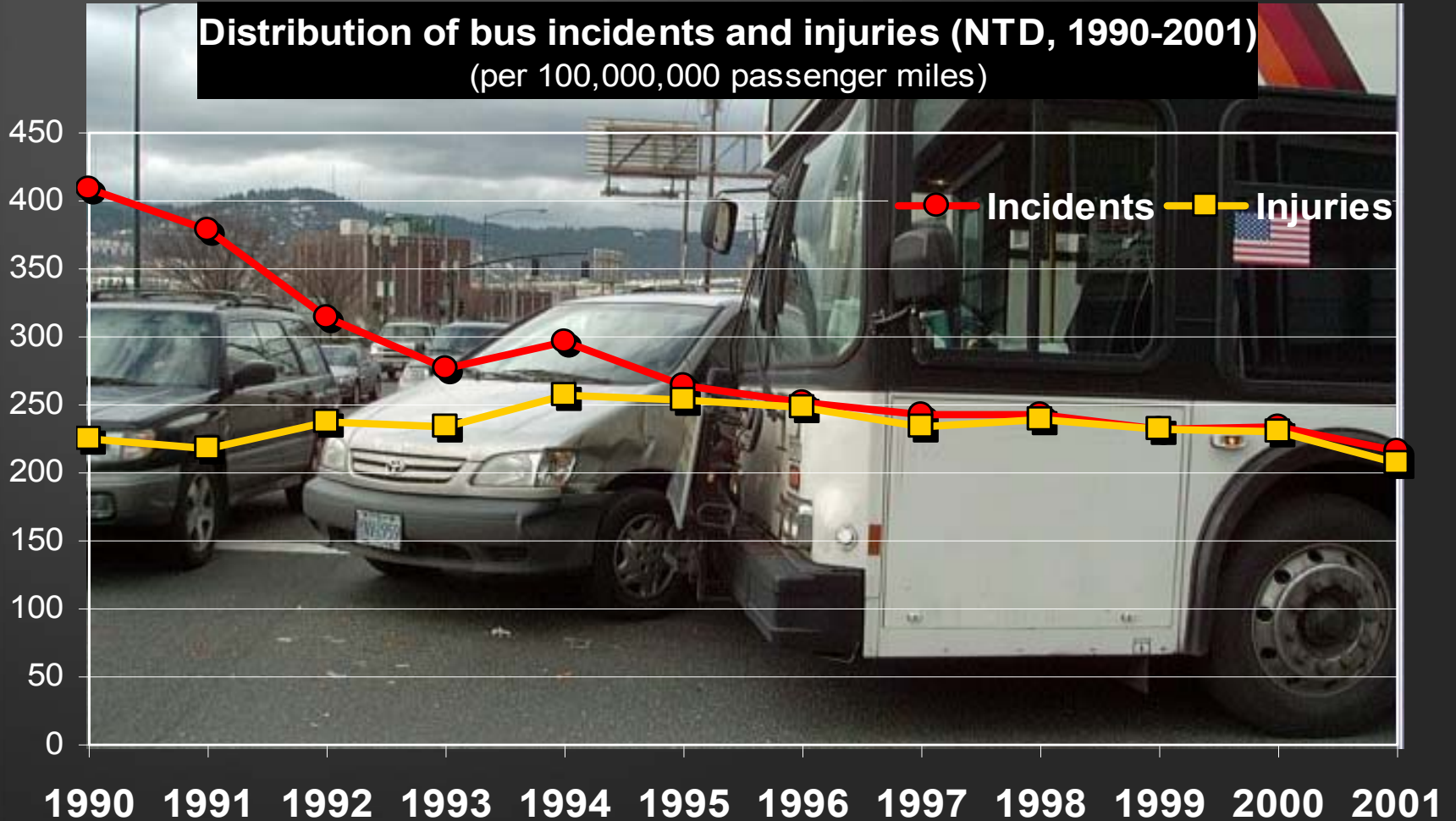


# Transit-Related Incidents

## Injuries & Fatalities per 100M Passenger Miles Traveled



# Transit Safety



**In 1998: Estimated total cost of \$870 million annually**



# Improved Safety

## Side Collision Warning



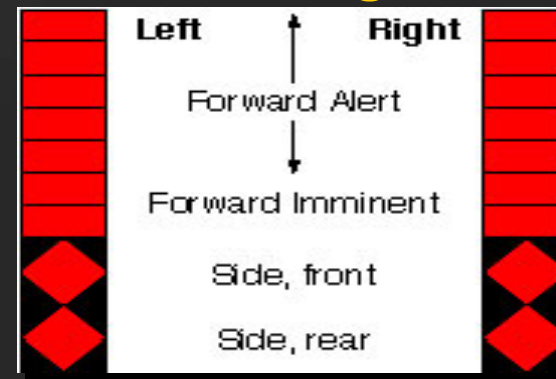
## Rear Impact Collision Warning



## Front Collision Warning

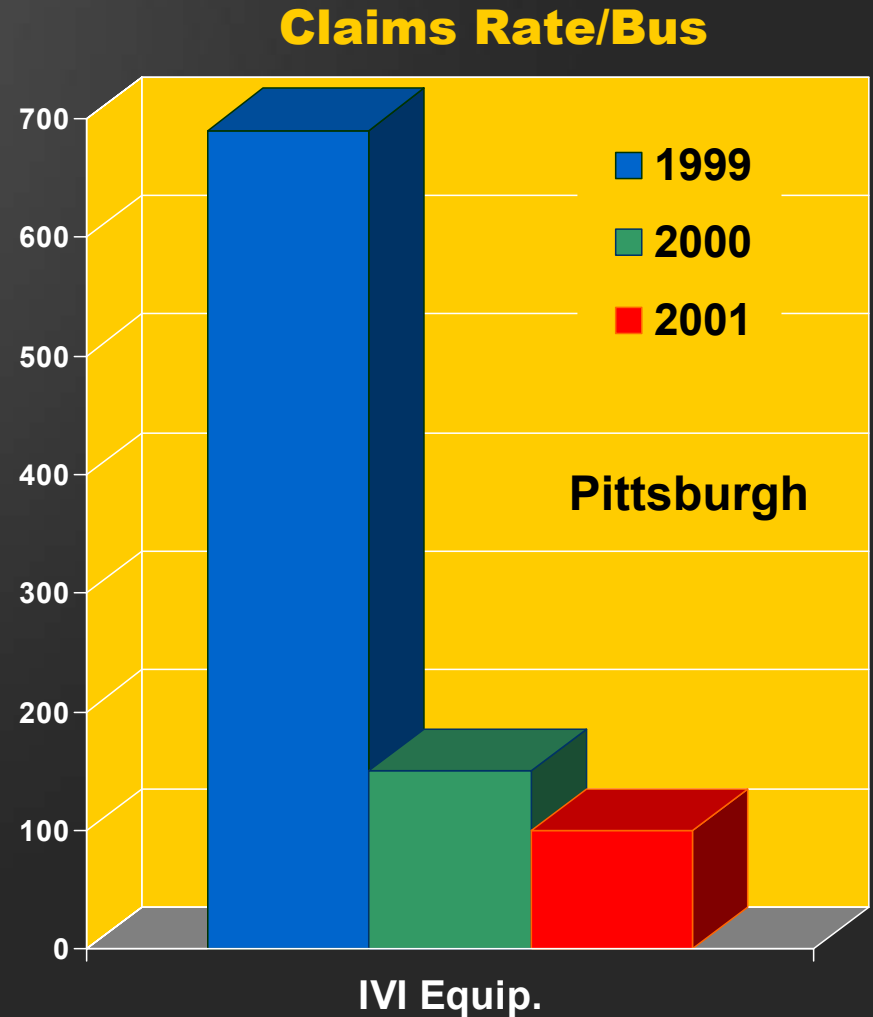


## Integrated Collision Warning



# IVI Demonstrated Performance

- 80 percent claims reduction in 100 vehicle test of side collision warning.





# Improved Transit Service

- **Bus Rapid Transit**
  - **Reduced travel times**
  - **Improved reliability**
  - **Substantially improved service levels**
  - **Increased ridership**



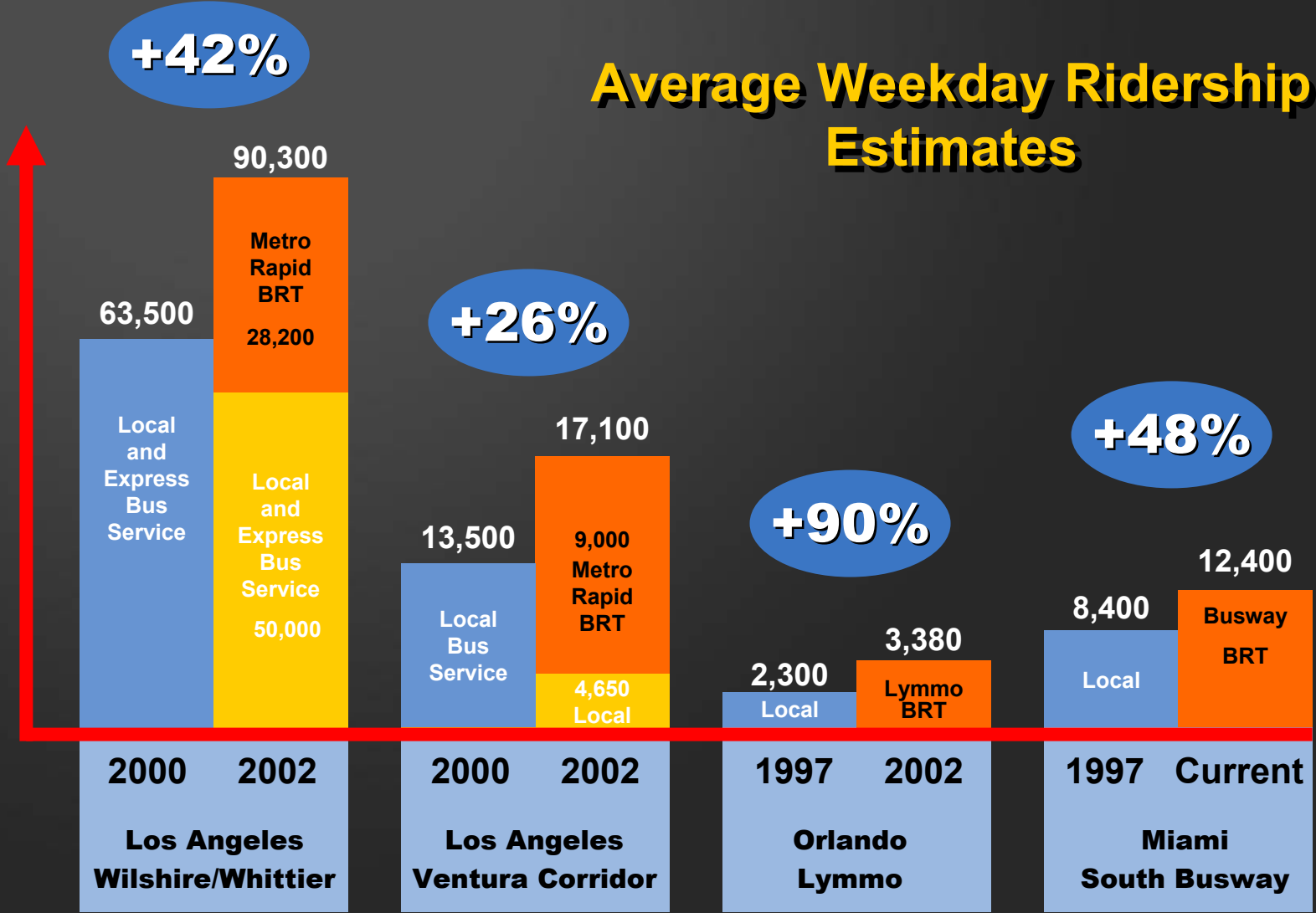
# Improved Transit Service

- **IVI components**
  - **Transit signal priority**
  - **Automatic vehicle location**
  - **Expedited fare collection**
  - **Next bus customer information**



# Ridership - Before and After BRT

## Average Weekday Ridership Estimates



**+42%**

**+26%**

**+90%**

**+48%**

# **Innovative Transportation Solutions**

- **42 state and local transit initiatives were on the ballot in November of 2002**
- **Over 120 transportation corridors pursuing funding in the new starts pipeline**
- **IVI has the potential to reduce the infrastructure needed to provide quality bus rapid transit service**

# Innovative Transportation Solutions

- **Mobility & lane assist**
  - **Connects BRT and IVI**
  - **Enhances mobility while maintaining safety**
  - **Lane assist technology can reduce the cost of a \$100 million guideway by 15 to 20 percent**



# Looking to the Future

- **Continue to evaluate the safety impact on of IVI technology**
- **Evaluate and quantify the independent benefits and costs of IVI components**
- **Pursue demonstration program to test lane assist systems in an operational environment**

