

# Designing for Safety

## Comprehensive Highway Safety Plans

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# SAFETY GOAL

*“Just to be Average!”*

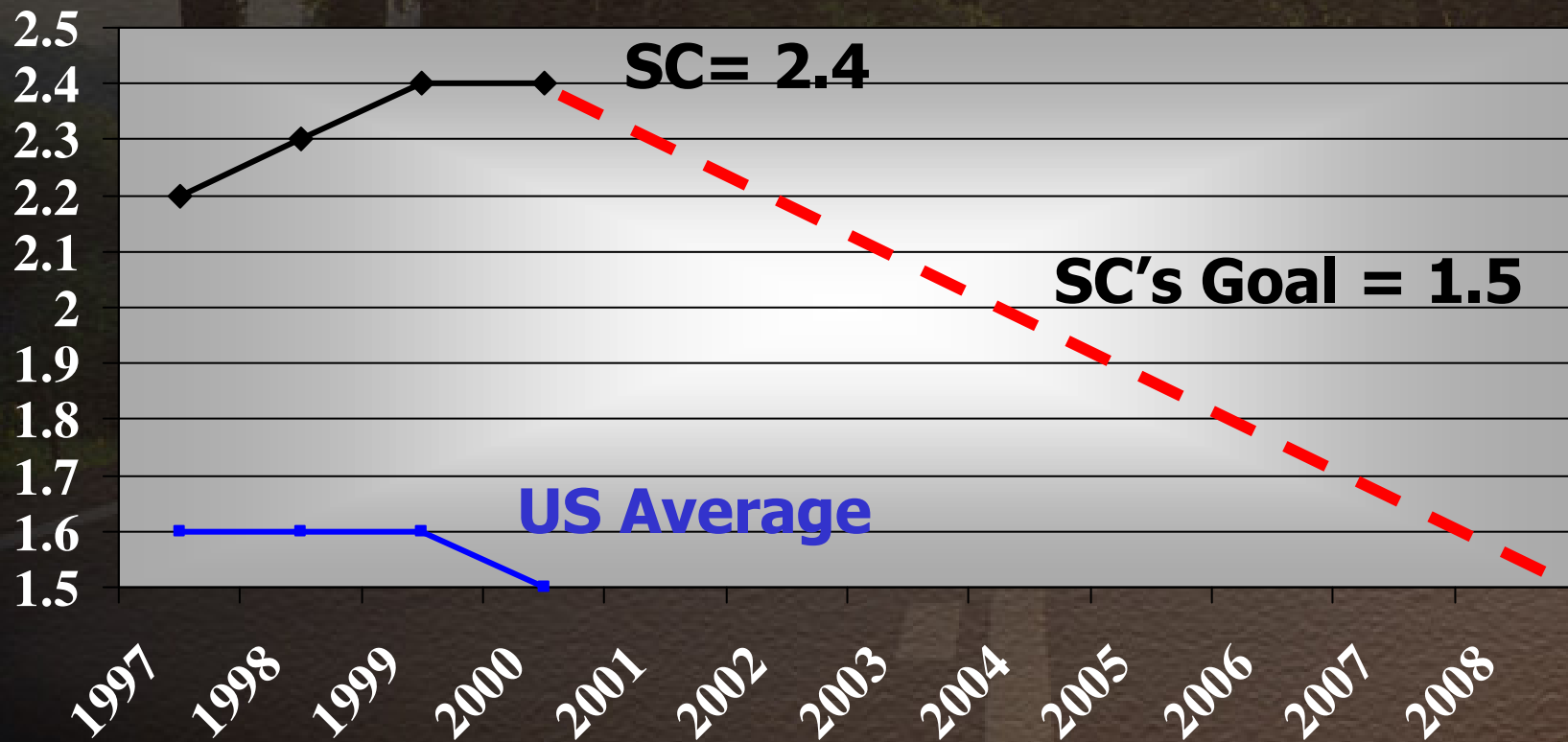
*Achieve safety improvements and fatality reductions to improve in the rankings.*

**We were #3 in 2000**

**SCDOT**

# 2000 SC FATALITY RATE

**3<sup>rd</sup> Highest Fatality Rate – 60% above national average**

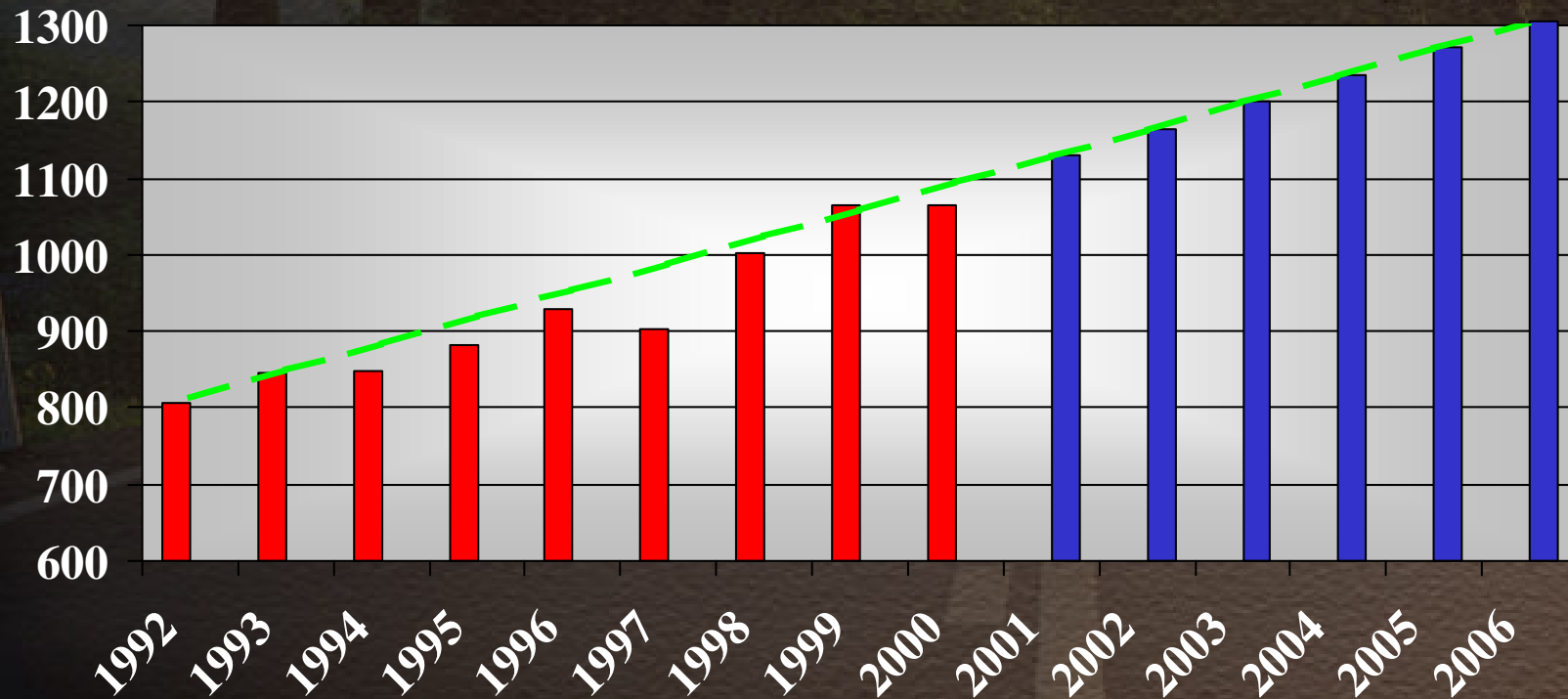


\* Fatalities per 100 Million Vehicle Miles

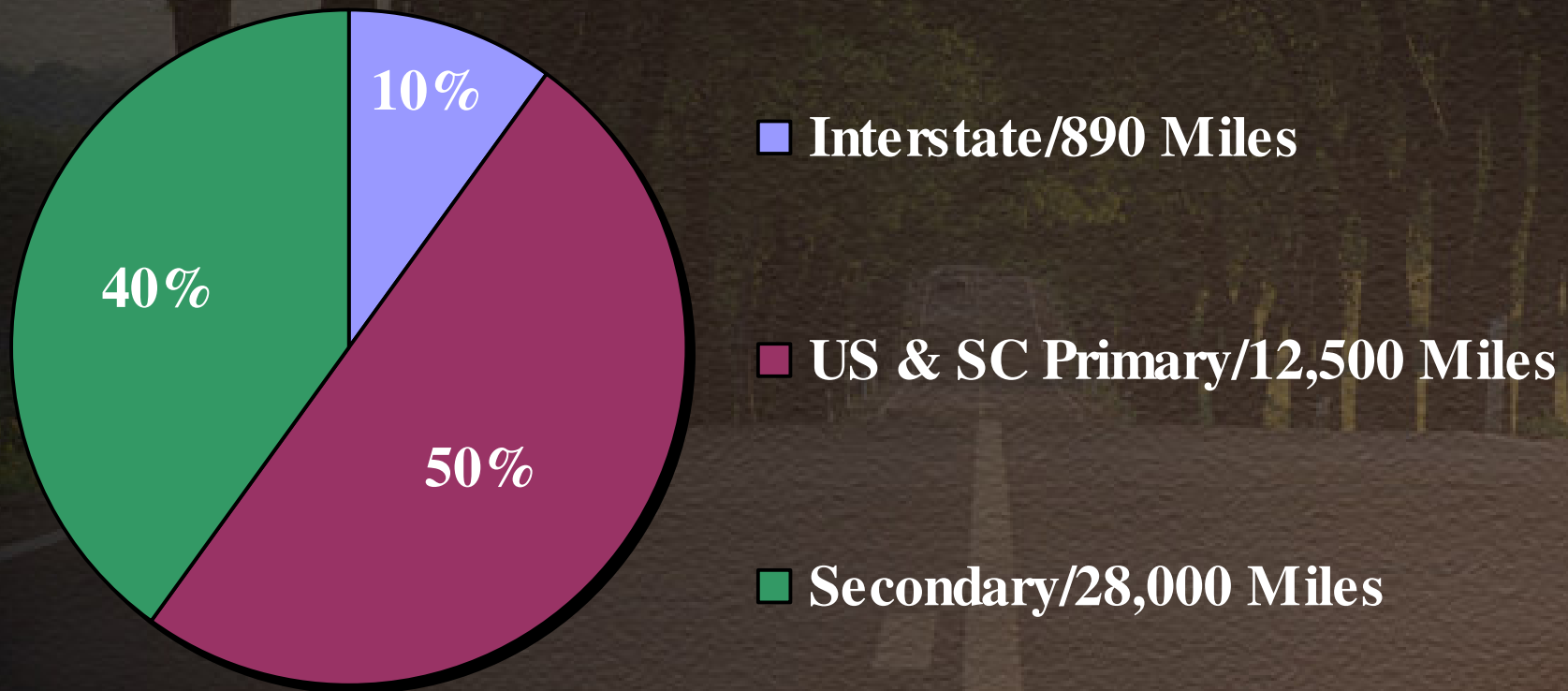


# SC FATALITY TREND

Had We Done Nothing since 2000



# FATALITIES by Roadway Class



# INTERSTATES

## What We've Done on Our Interstates

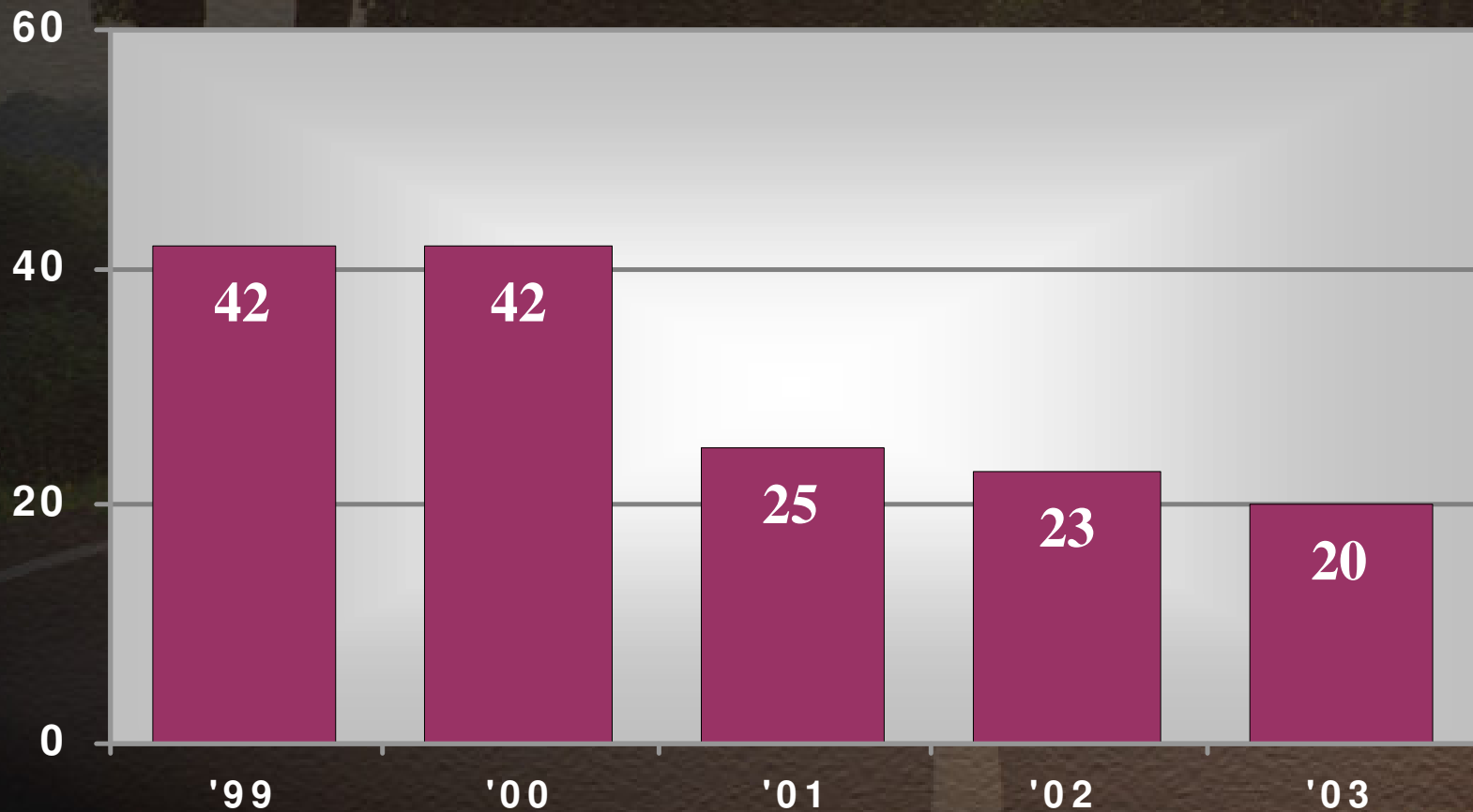
- Truck lane restrictions
- Reduce urban speed limits
- Interchange ramps (RUSH)
- Statewide Interchange Improvement Program
- Cable median barriers

# TRUCK LANE RESTRICTIONS

- Implemented on all Interstate Highways having 6 or more lanes (101 Miles)
- **Results: Interstate Truck Fatalities Down 45%**

# SC Traffic Trends

## Interstate Heavy Truck Fatalities



Source: SCDPS





# REDUCE URBAN SPEED LIMITS

- **1999 speed limit legislation**
  - Rural Interstate: 70 mph
  - Urban Interstate: 65 mph
- **Crash Statistics One Year Later**
  - Fatalities increased 50%
  - Urban section fatalities increased 113%
- **December 2000**
  - Most urban sections reduced to 60 mph
  - Some rural sections reduced also

# REDUCE URBAN SPEED LIMITS

- Average speed on urban sections down 3 mph (66)
- Average speed on rural sections remains at 72 mph
- Overall crashes down 24%
- Interstate fatalities down 17%

# RUSH

## Ramp Upgrades for Safer Highways



- Began in August of 2001 by FHWA and SCDOT
- Low cost initiative to improve safety at interchanges by lengthening accel and decel lanes
- No additional right-of-way and minimal environmental impacts

# Statewide Interchange Improvement Program

- Upgrading entrance and exit ramps
- Began in 2001
- 29 Projects Programmed
  - 27 complete
  - 1 under construction
  - 1 pending

# Cable Median Barrier



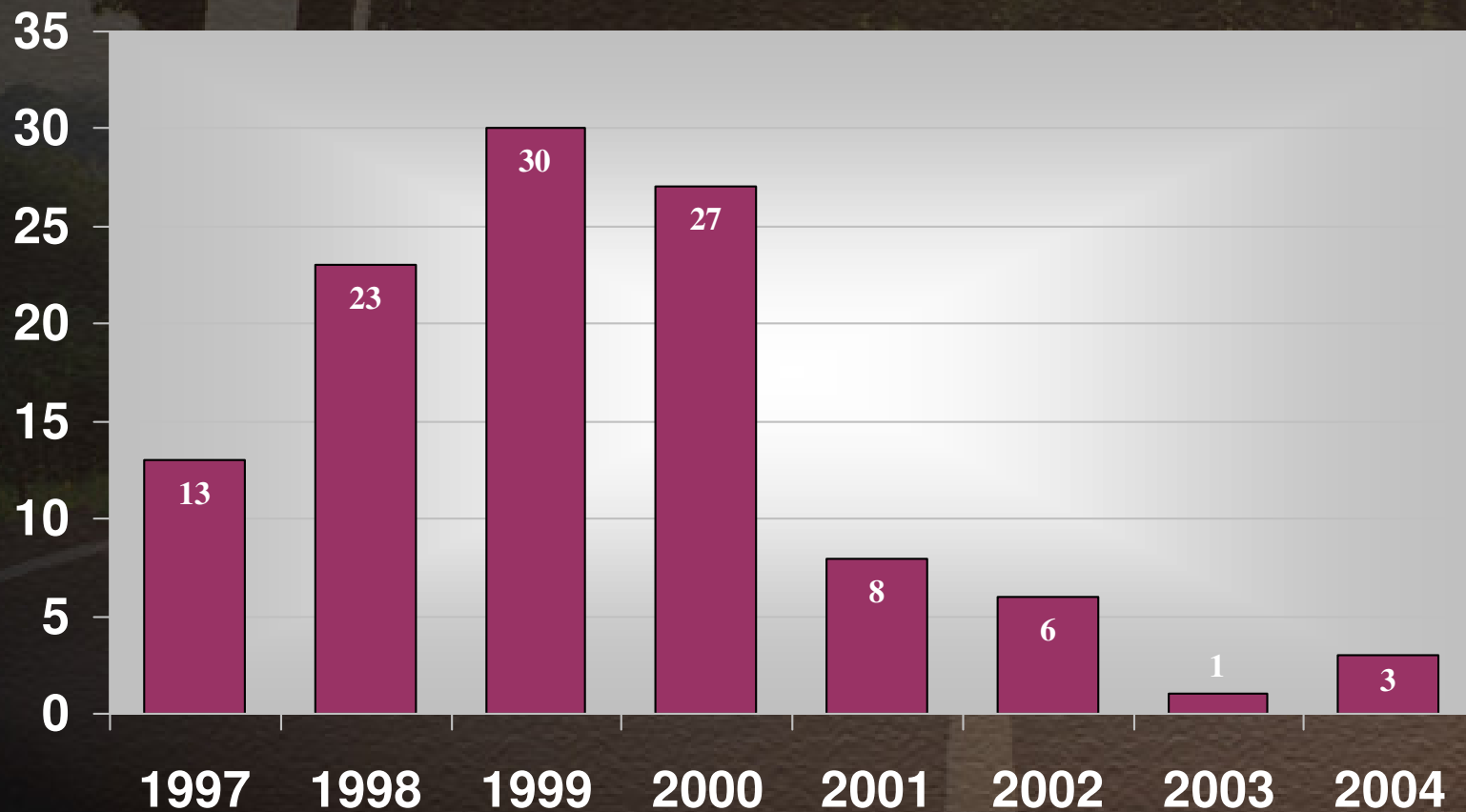
- First Project Awarded in 2001
- 425 Miles Installed in Areas with Median Width of 72 Feet or Less
- Currently Averaging 6-7 Hits per Day

**Over 7300 Hits (saves) Since 2001**

**SCDOT**

# Cable Median Barrier

## Fatal Crashes Involving Interstate Median Crossovers



Source: SCDPS



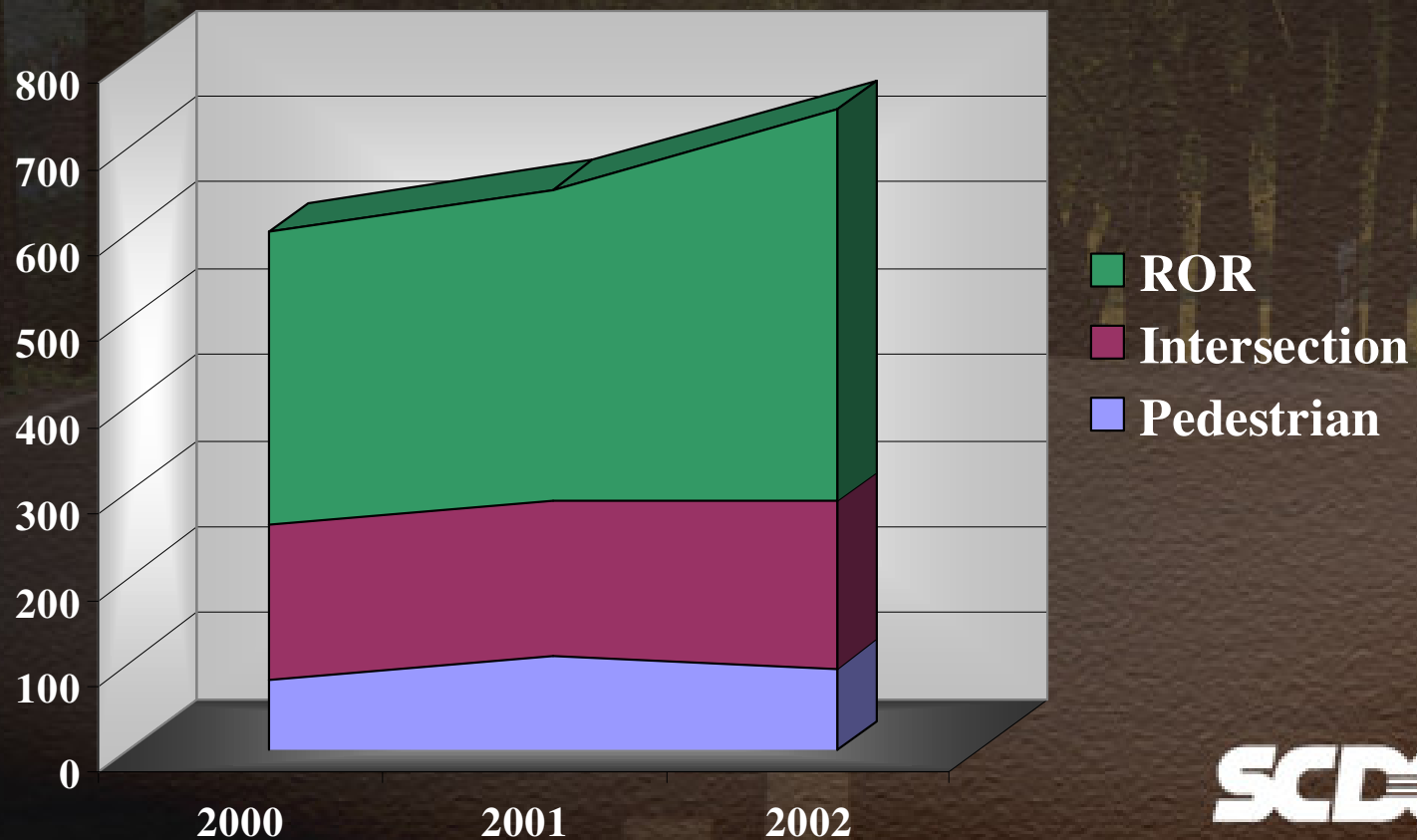
# Primary Routes & Secondary Roads

## Continuing Safety Problem Areas

- **Run-Off-Road (ROR)**
- **Intersections**
- **Pedestrians/Bicycles/Motorcycles**

# Pedestrian / Intersection / ROR Fatalities

These Types of Fatalities Increased By 24% Between 2000 and 2002





# Primary Routes & Secondary Roads

## What We're Doing:

### Standard Type Improvements

- Regular Federal-Aid Construction Funding
- District-wide Guardrail Upgrades
- Traffic Signalization Upgrades
- Pavement Marking Program
- Hazard Elimination Program

# Primary Routes & Secondary Roads

What We're Doing:

## Additional Safety Initiatives

- Match Programs
- Shoulder Paving
- CRISOS

# Match Programs

## Leverage Local Transportation Funds to:

- Improve Intersections
- Provide Turn Lanes
- Add Paved Shoulders
- Resurfacing

**Total to Date = Approx.  
\$200M over 5-6 Year Period**



# SECONDARY ROADS

What We're Doing:

Crash Reduction by Improving Safety  
On Secondaries:

**CRISOS**

SCDOT

# CRISOS Program

- Focuses on safety improvements on secondary roads
- Roads selected based on crash rate, crash severity and other factors
- Located in a predominately rural area
- 4 fatal crashes within last 3 years or 50 crashes in last 5 years
- Have significant, identifiable hazards or other compelling features

# CRISOS Program

Short term solutions – signing and pavement marking revisions, clearing sight areas



# CRISOS Program

Intermediate solutions – guardrail installation, utility pole relocation, shoulder paving, selective right of way clearing



# CRISOS Program

Long term solutions– significant clearing, shoulder widening & paving

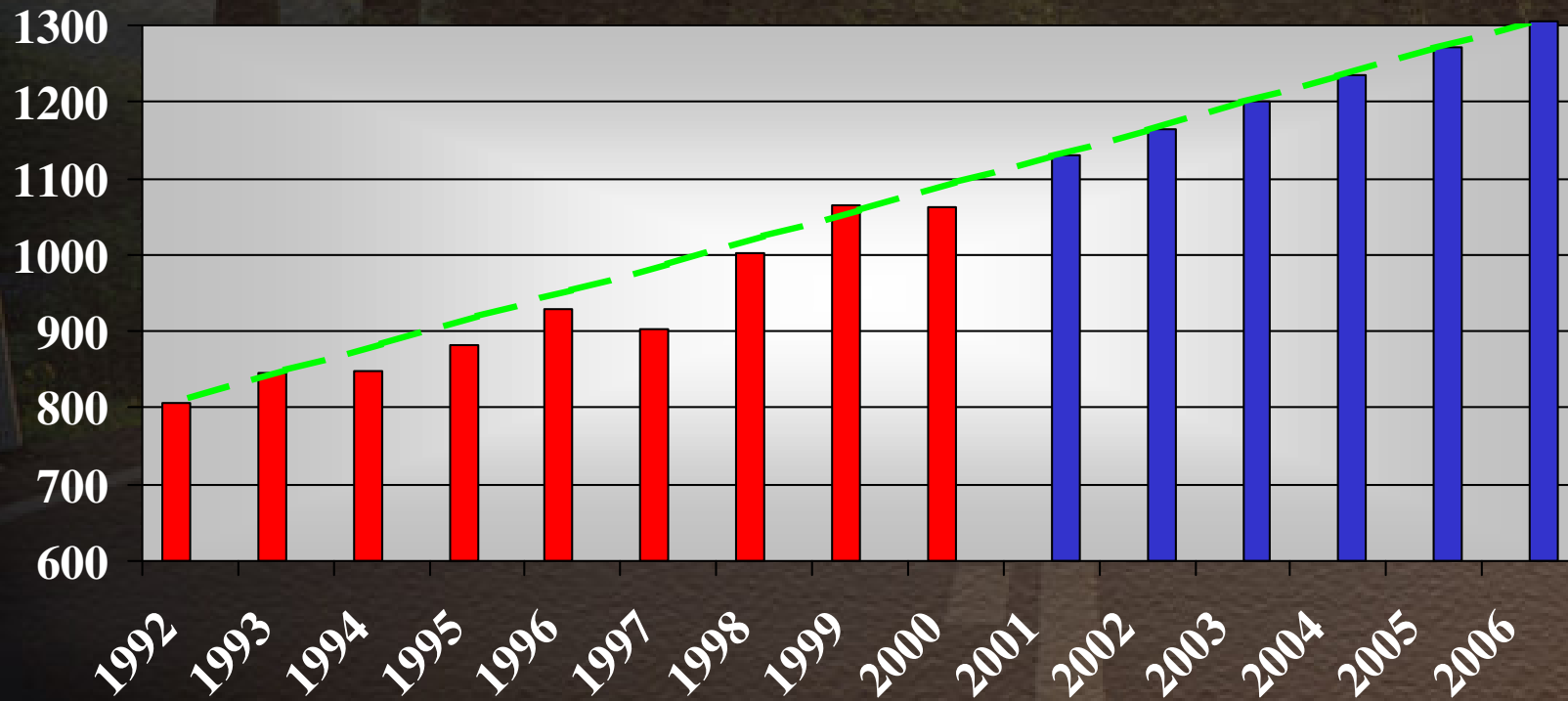


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# SC FATALITY TREND

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# SC FATALITIES

## Results

