



Projected Funding & Highway Conditions

Area Commission on Transportation



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Overview

ODOT is facing funding reductions that will require new strategies to preserve the highway system



Today, I will describe:

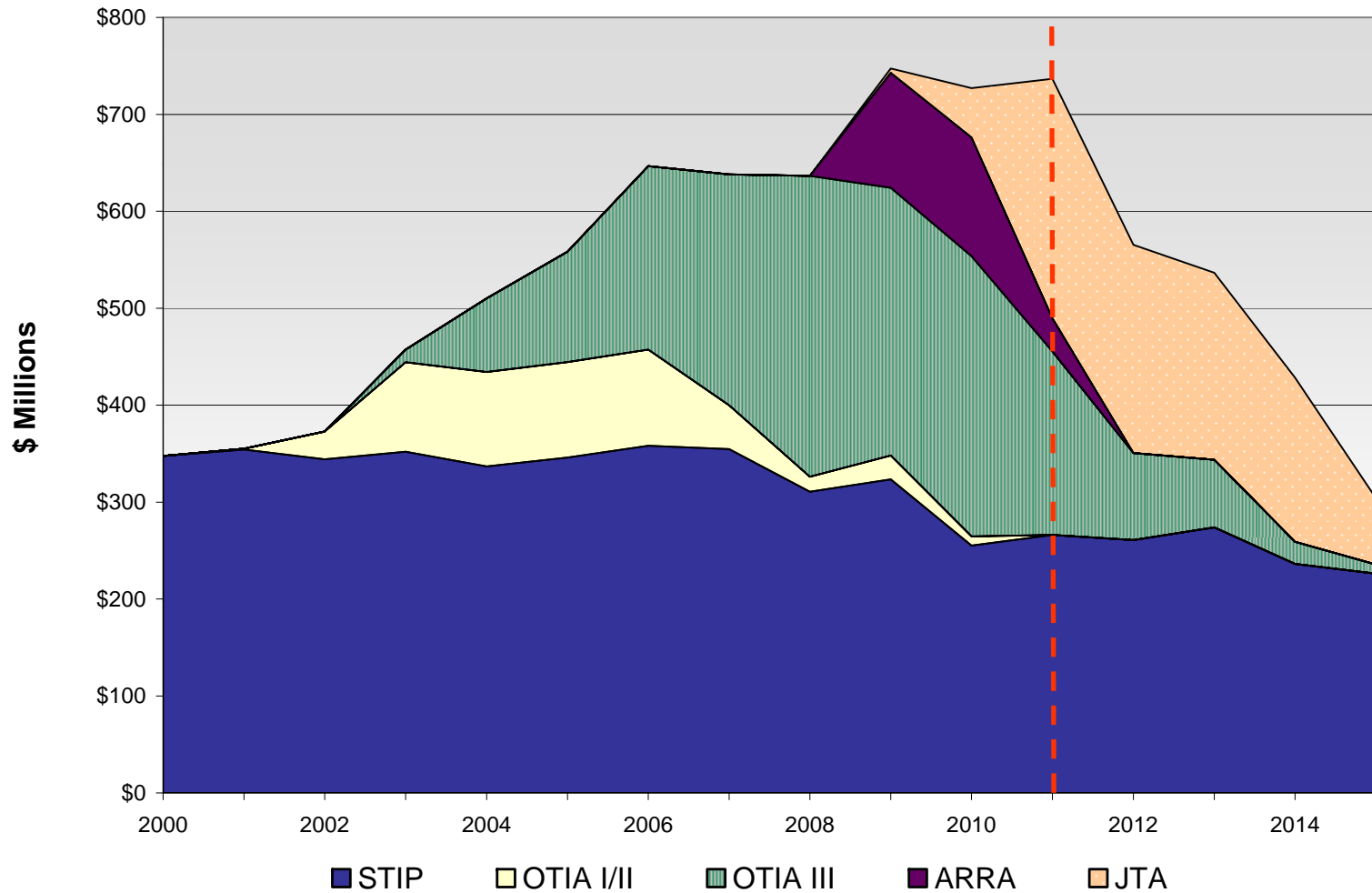
- Projected ODOT program size through 2015
- Bridge and highway conditions, funding, and preservation strategies
- Other highway issues (safety, culverts, slides)
- ODOT's Asset Management efforts





ODOT Construction Program

(2000-15)





Bridge Conditions

*Bridge conditions will significantly deteriorate over the next **several decades***



The largest portion of our bridges were built prior to 1970



1,500 bridges will reach the end of their “*design life*” by 2020



27% are “*one point*” away from federal “*structural deficiency*” rating





Bridge Funding

The State Bridge Program has historically been funded below the level needed to maintain current conditions

- One consequence has been the need for significant bond funding
- OTIA III bond program allowed for significant “catch-up” on key freight routes
- Still, declining federal revenues have reduced bridge funding





Bridge Funding....

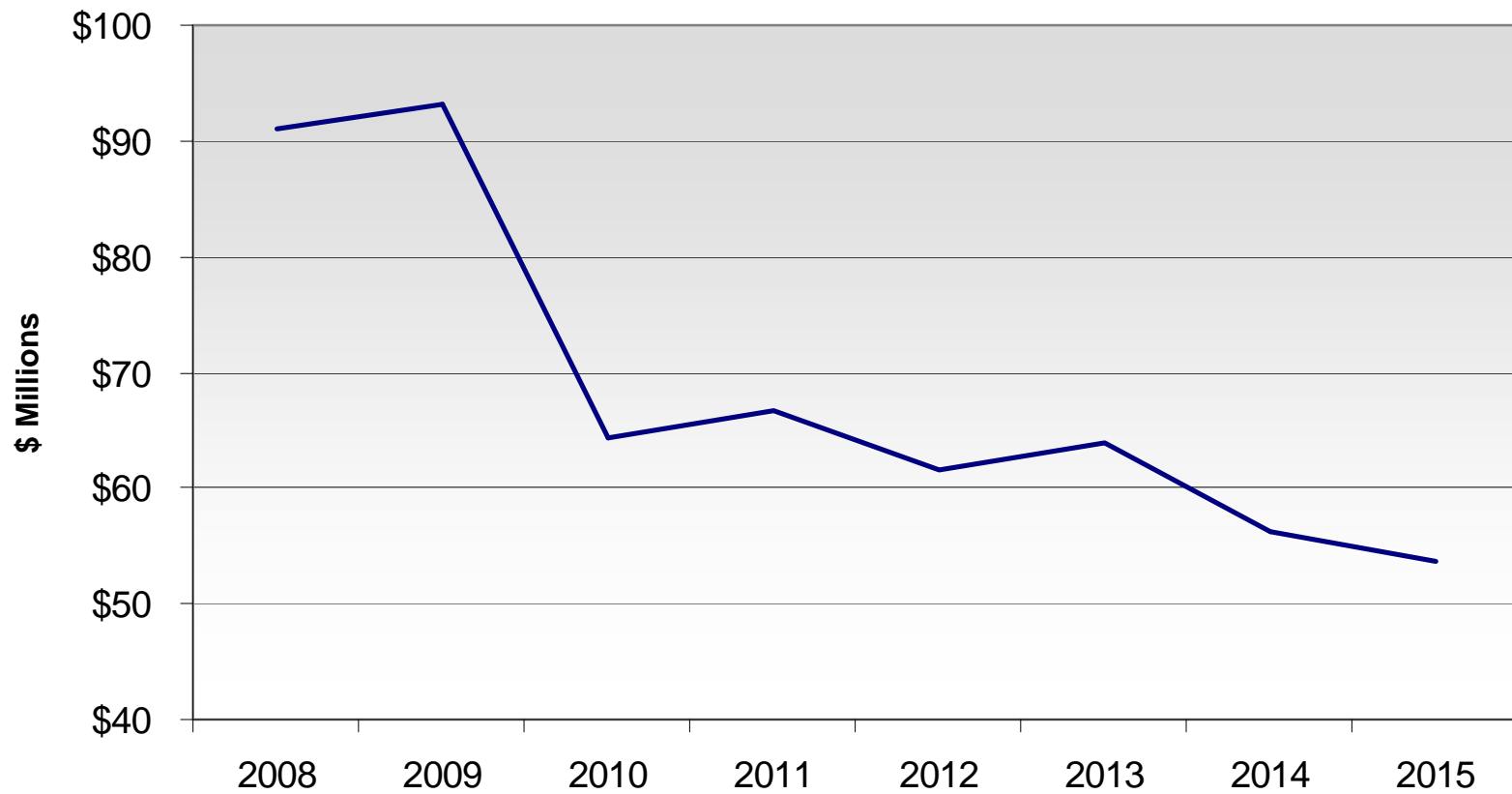
- OTIA III bond debt repayments will require further reductions to the Bridge Program
- Funding levels for 2012-15 are the lowest since the mid-1990s
- Inflation has further reduced purchasing power





STIP Bridge Funding

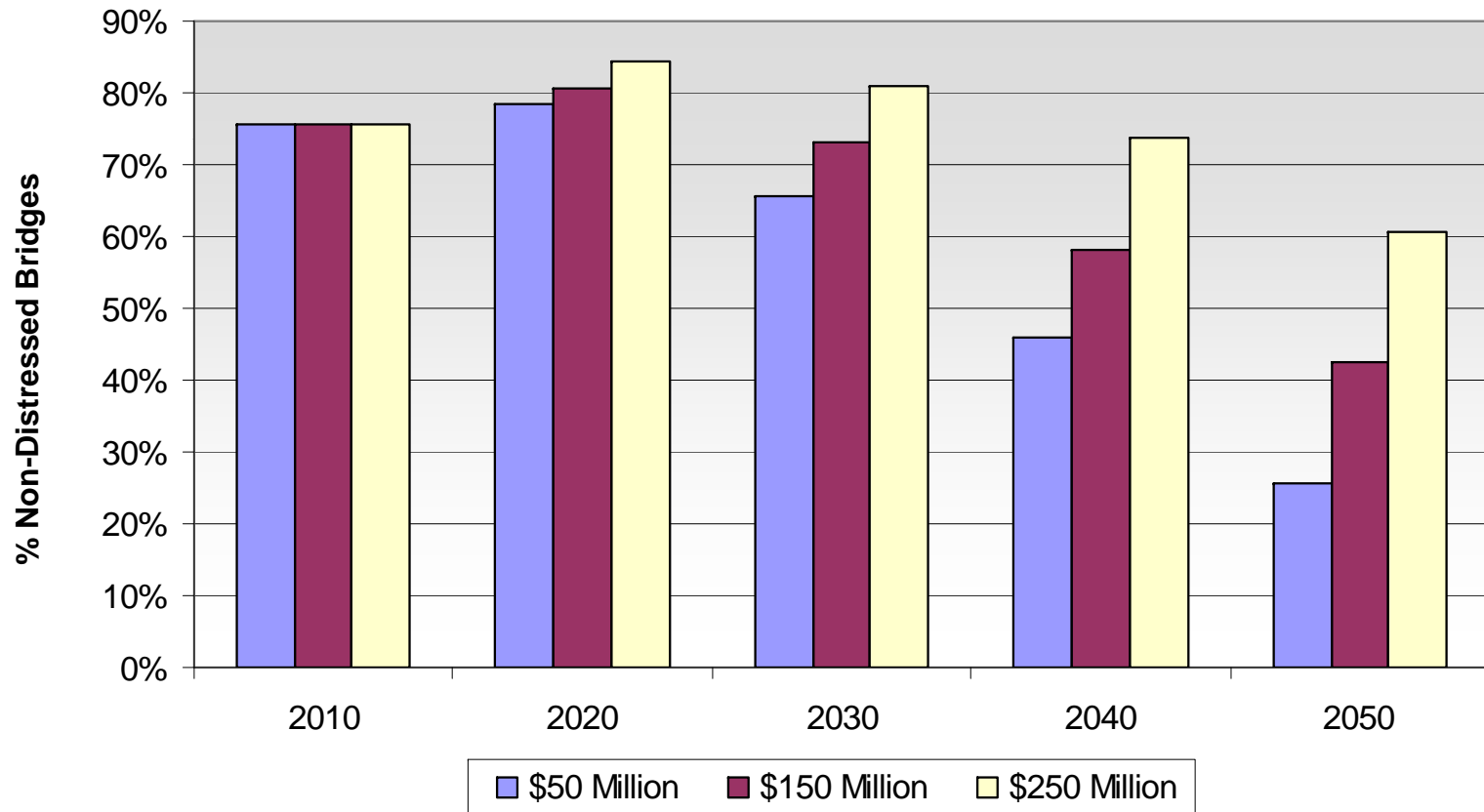
(2008-2015)





“Non-Distressed” Bridges

(2010-2050)



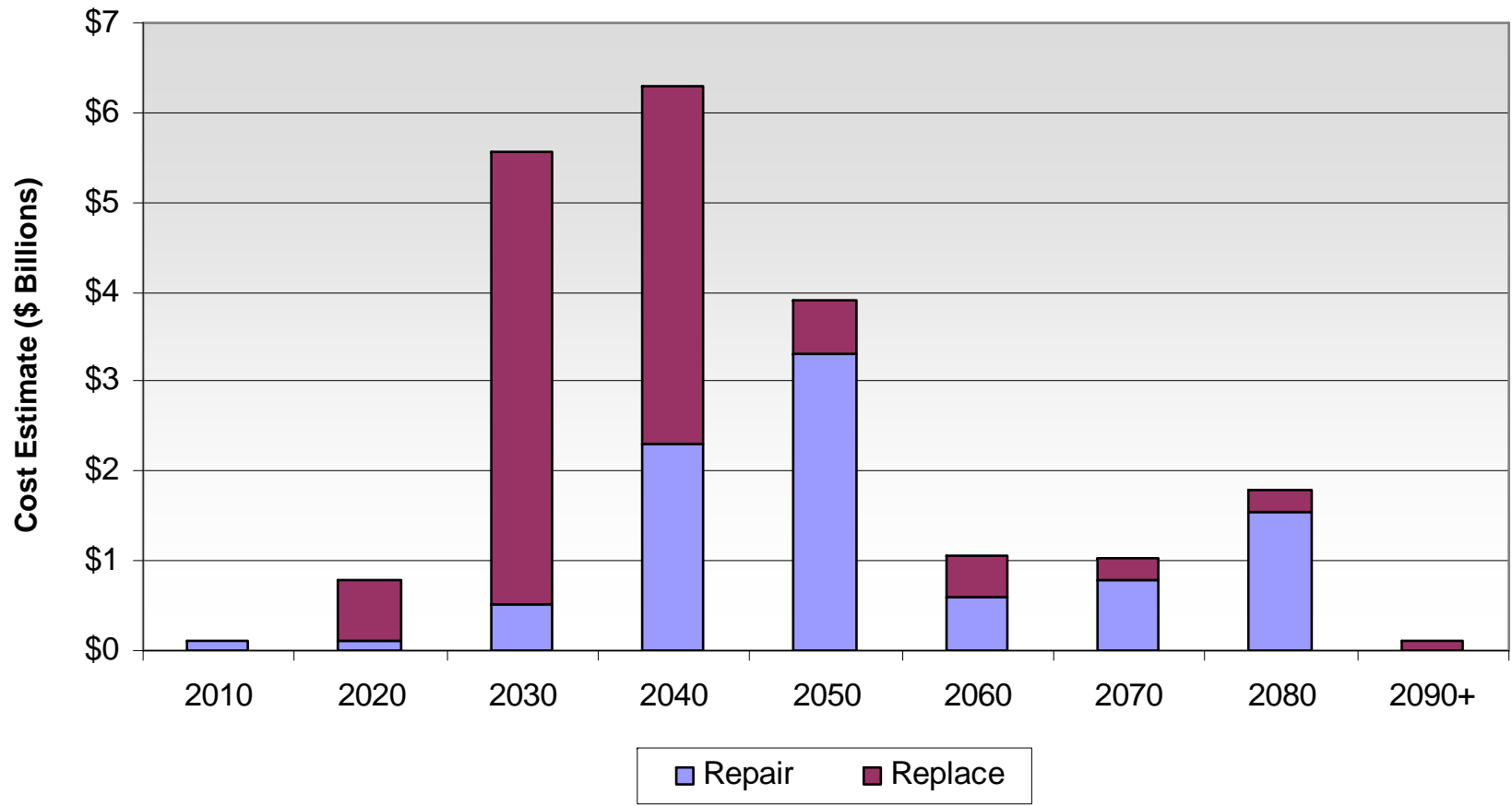
Out of 2692 Bridges





Bridge Needs By Decade

(2010-2090)





Bridge Preservation Strategies

- Protect high value coastal, historic, major river crossings, and border structures by **acting before cost becomes prohibitive**
- Use *Practical Design* and fund only basic bridge rehabs and rare replacements with bridge funds
- Give priority to **maintaining the *highest priority freight corridors*** to ensure efficient freight movement





Bridge Preservation Strategies...

- Continue Developing **bridge preventive maintenance program** to extend the service life of decks and other components
- Continue to raise awareness of the lack of **seismic preparation**
- Bring the 68 structurally deficient low volume structures currently in Poor Condition to Fair Condition using a **partial rehab scope of work** (*1R type strategy*)





Bridge Preservation Strategies...

- Use bridge inspection, health monitoring, and improved deterioration prediction methods to **better anticipate future bridge conditions**





Pavement System Conditions

Pavement conditions will significantly deteriorate over the next decade

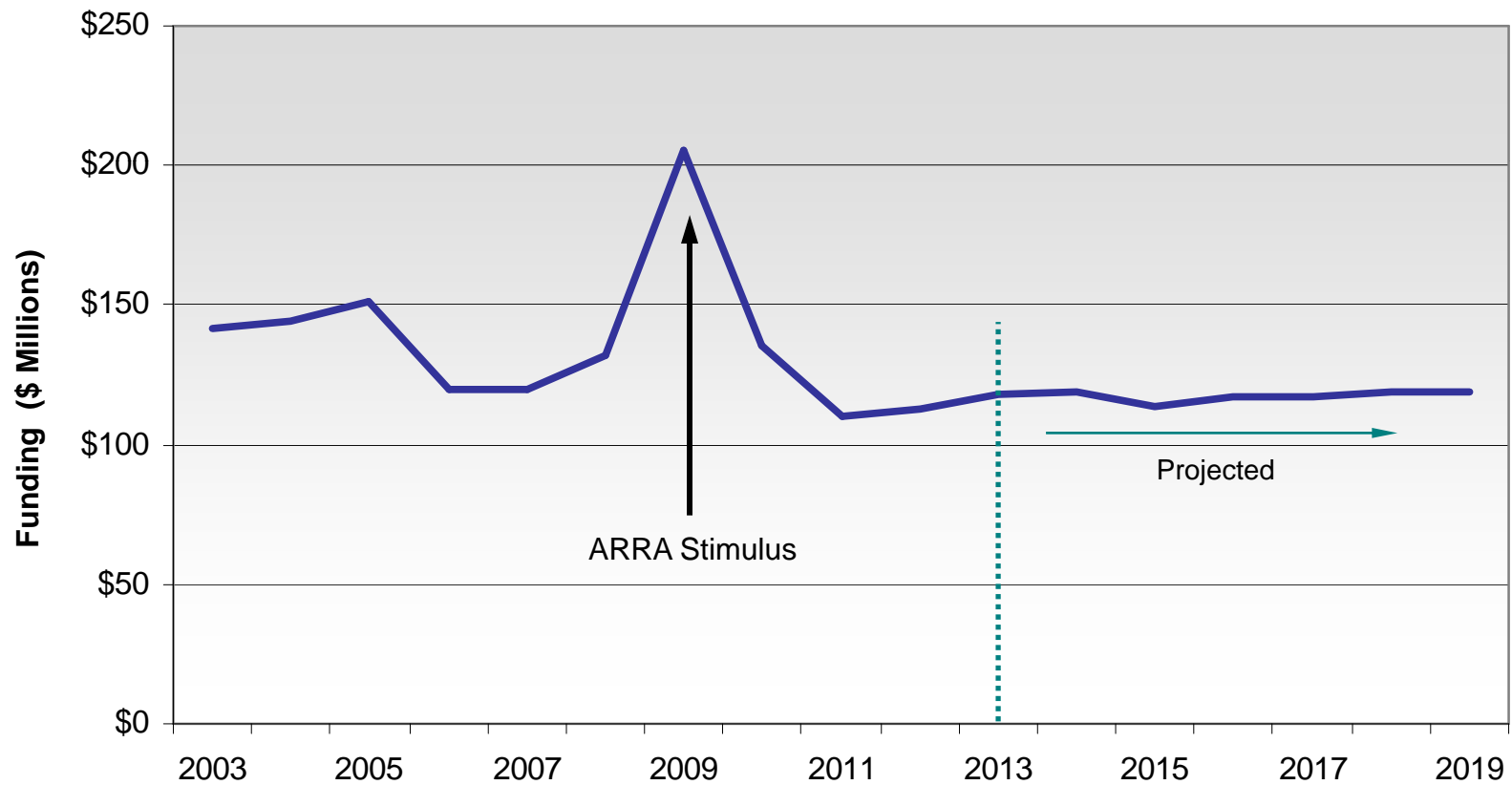
- **Declining federal funds** have resulted in cuts to Preservation funding
- **Inflation** has reduced purchasing power since the mid-1990s





Pavement Funding

(2003-2019)



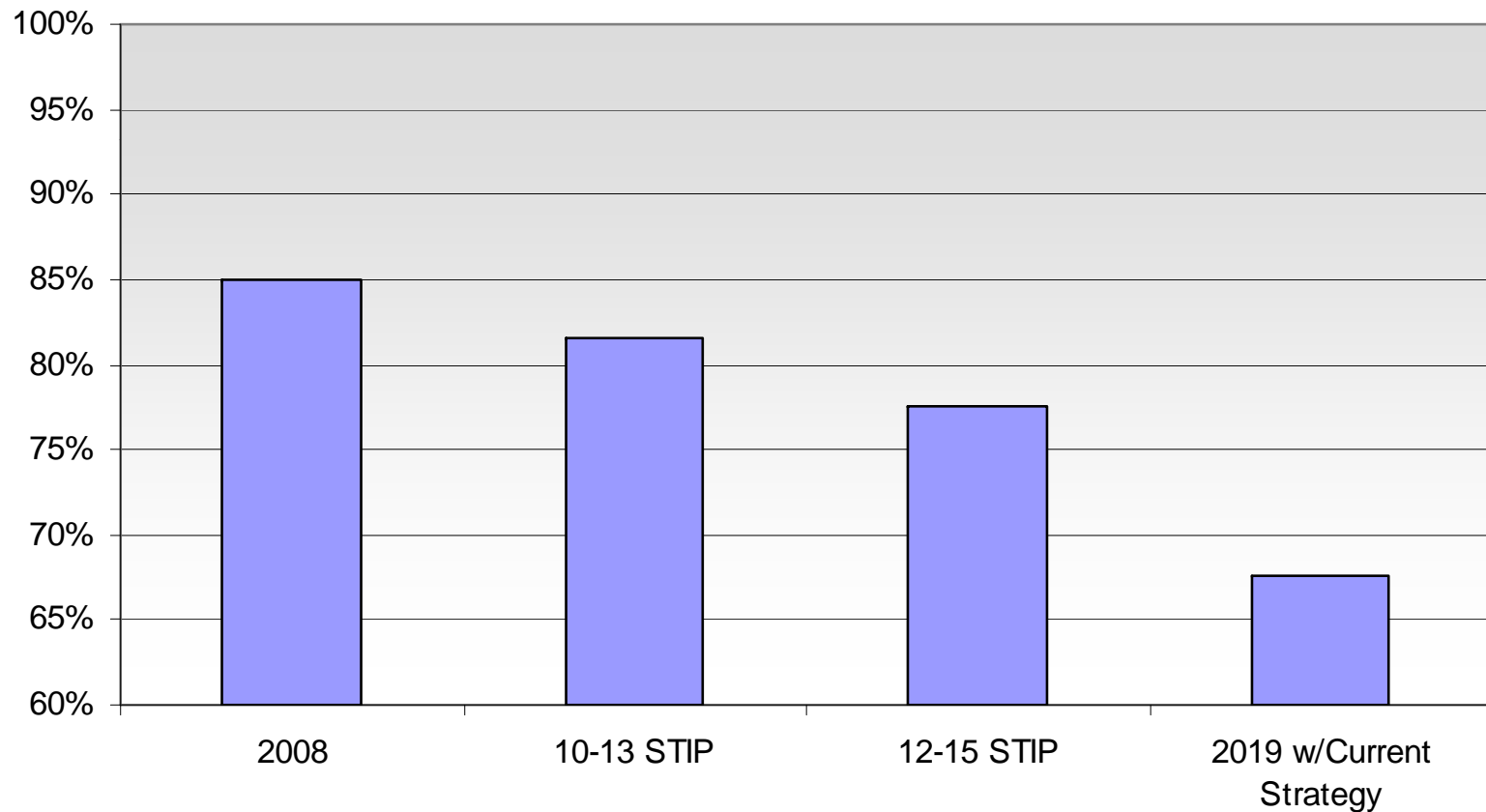
Actual funding levels are shown. Values are not adjusted for inflation effects.





% Pavements Fair or Better

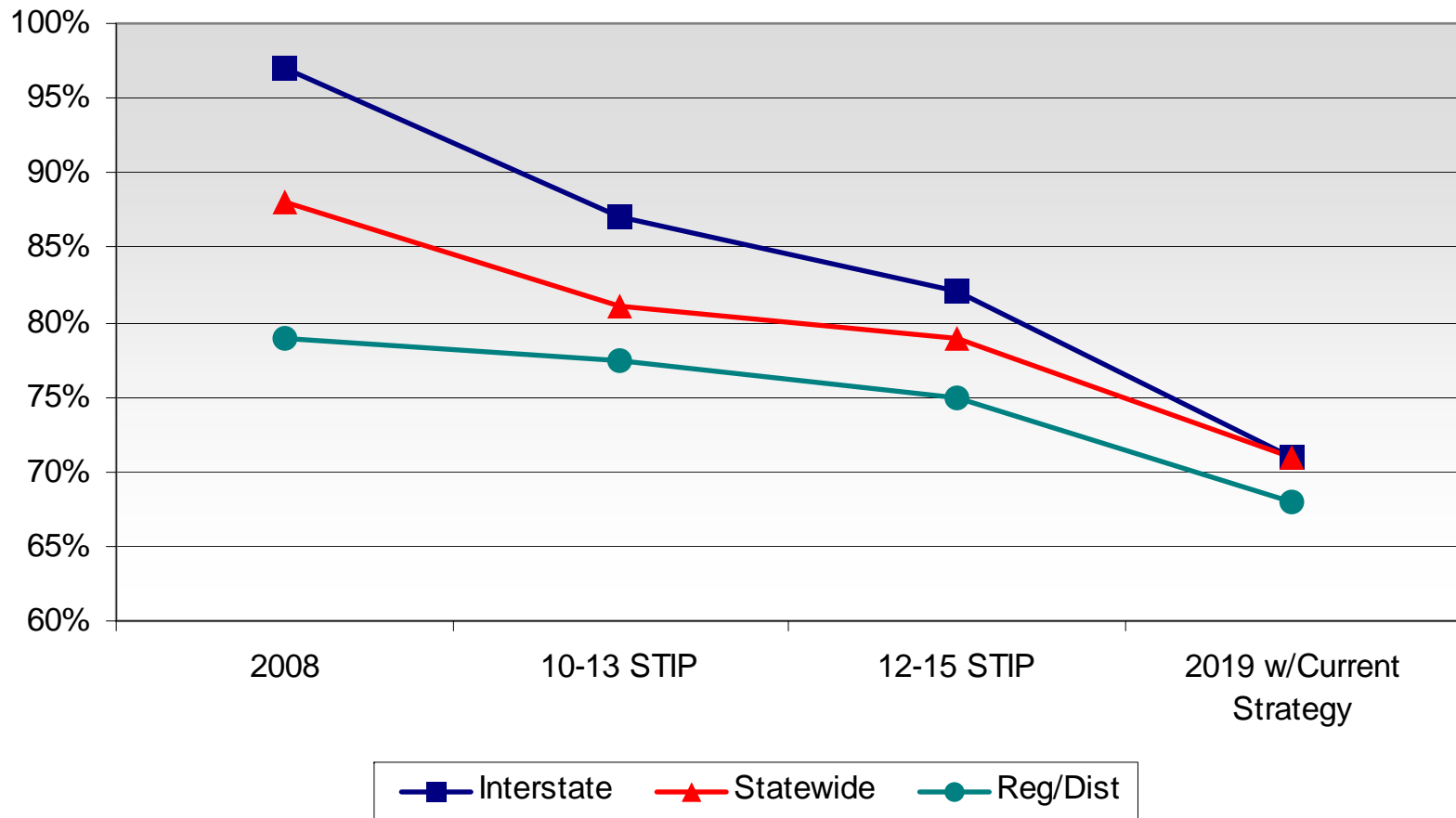
(All Highways 2008-19)





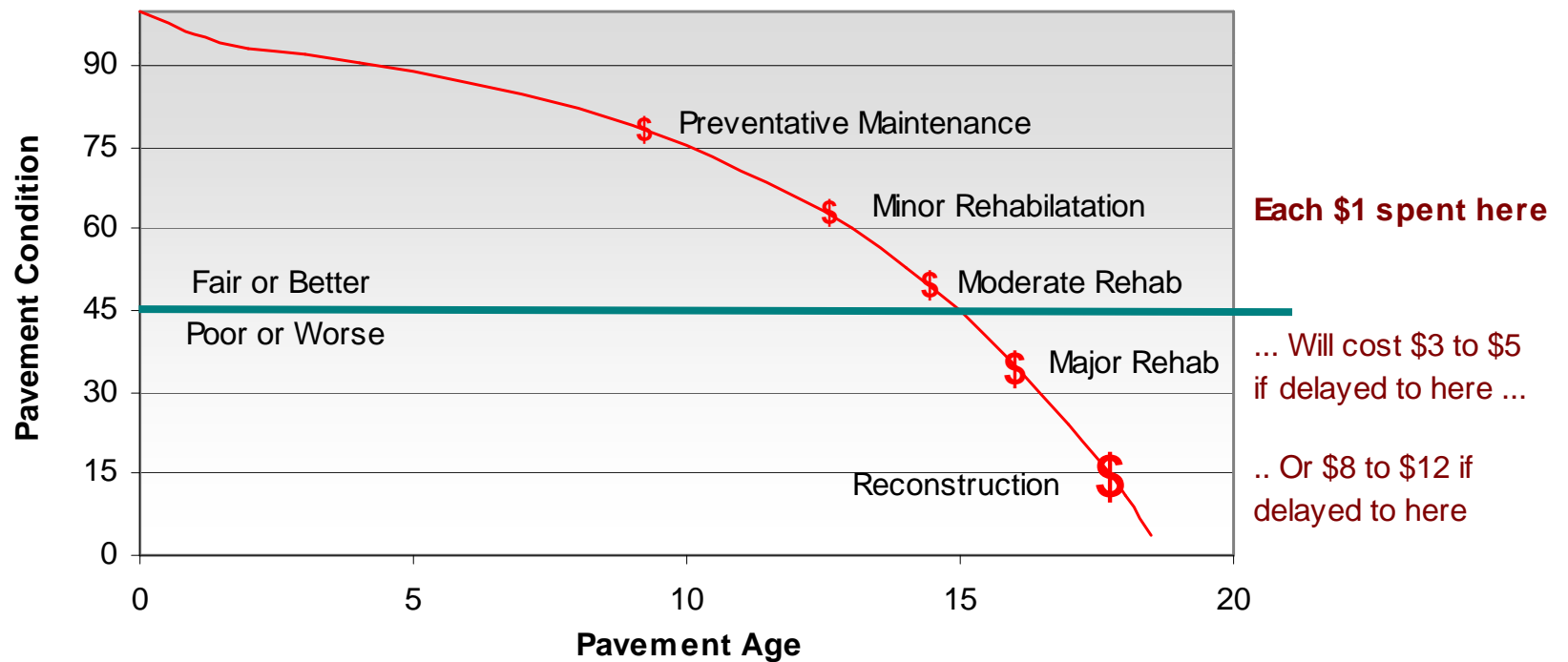
% Pavements Fair or Better

(By Highway Type 2008-19)



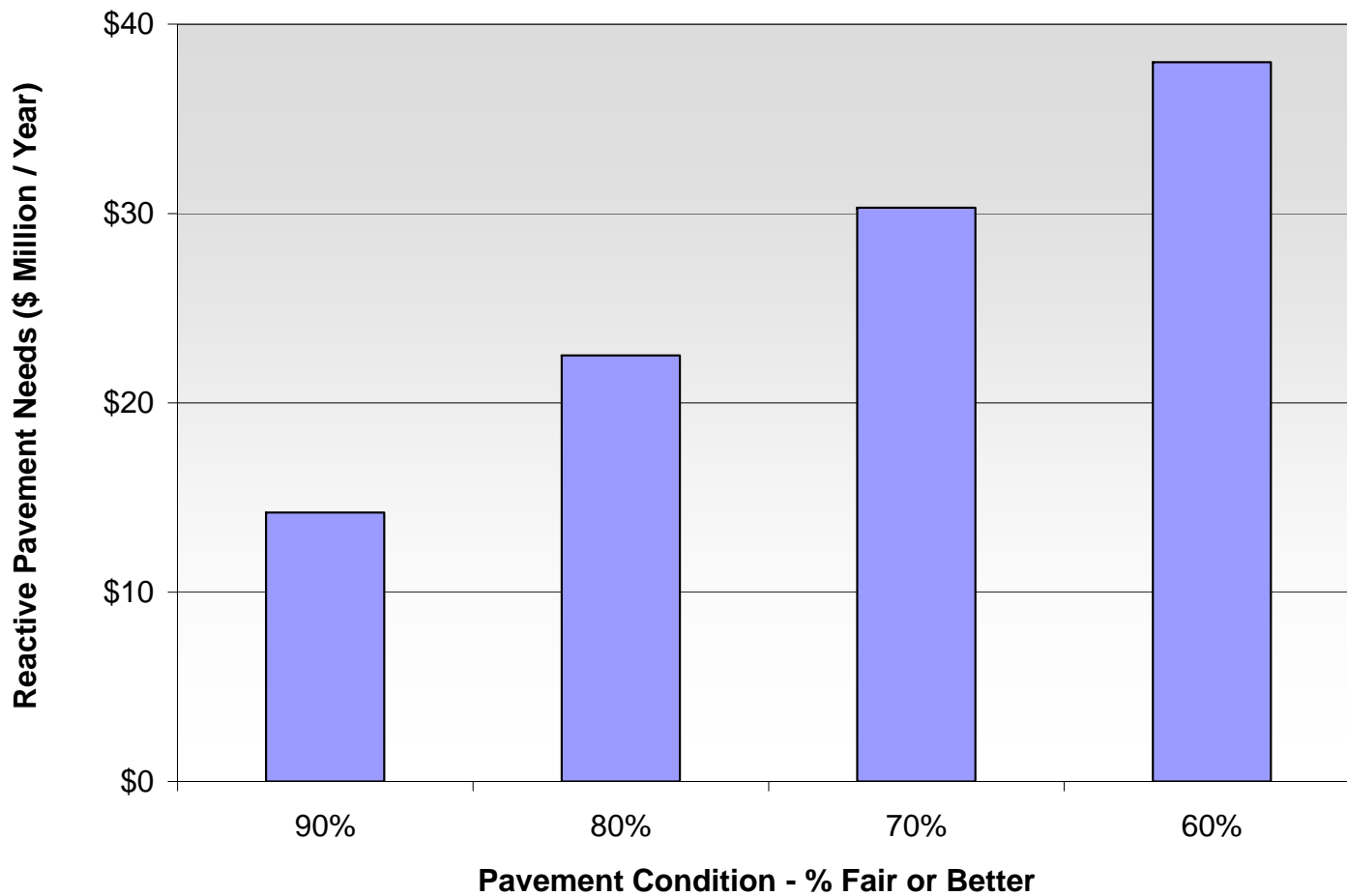


Pavement Treatment Cost vs. Condition



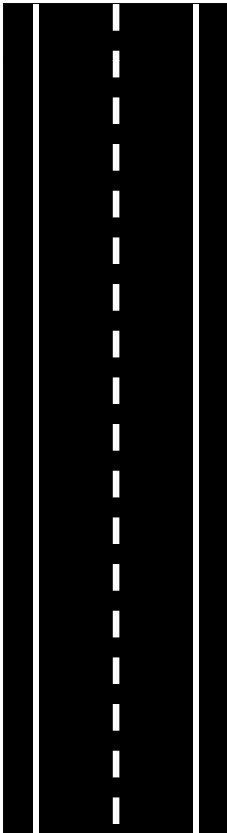


Reactive Preservation Needs vs. Pavement Conditions





Lane Mile Strategies

	LM/Year	Outcome
	— 780	Sustain Current (above target) Levels for Long Run
	— 690	Hit ODOT Target
	— 355	Current Strategy <i>(47-year resurfacing interval)</i>





Statewide Pavement Strategies

- Reevaluate budget *“split”* between Interstate and non-Interstate systems
- Look at adding statewide highways under **5,000 ADT** to *“low volume”* program
- Consider doing more *“partial pavement” restorations* with our Interstate program
- Pursue a *multi-lift pavement “1R”* (practical) strategy with Federal Highway Admin.





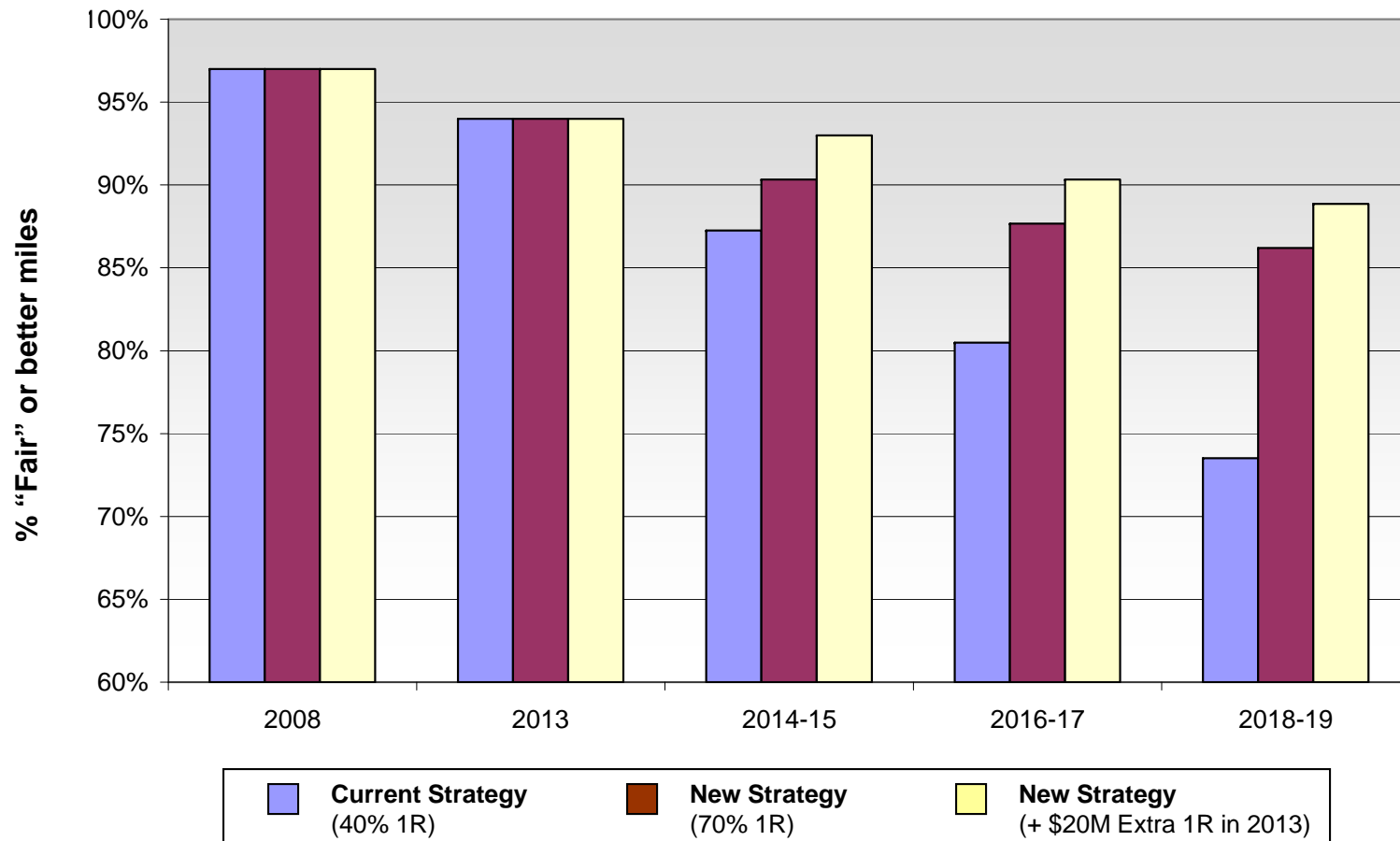
Statewide Pavement Strategies

- Implement more low cost “1R” and **chip seal** type treatments on system
- Focus **pavement \$’s on pavements only**. Seek exceptions on some “3R” projects
- *Leverage other programs* to do additional pavement preservation on the system
- **Implement other strategies** as determined by a life-cycle costs analysis





Interstate Pavement Strategy Comparison





Highway Needs

Culverts

- 31% of assessed culverts were in **Poor or Critical condition**
- Annual gap between needs and funding is **\$77 million**





Highway Needs...

Slides & Rockfall

- Managing unstable slopes is important for **public safety, mobility, and the economy**
- **Current funding of \$7.4 million per year = 25 years to address immediate need sites**
- **More feasible level of \$15 million per year = 12 years to address immediate need sites**





Highway Needs...

Traffic Safety

Fatal crashes are down ~10% from 2009 (total fatalities ~14%. 6th consecutive year of drops, lowest numbers since 1944.

37 Pedestrian Fatalities in 2009 (lowest since early 1940's), but 2010 similar to last decade (56+)

Less "3R" pavement projects means less "automatic" replacement/update of safety features (signs, markers, guardrail, etc.)





Asset Management Program

Progress to Date

**Sustain and build
asset inventories**

Sustain and improve systems

Improve data management

Asset	Statewide Data Availability	
	2005	Now
Bridges	X	X
Tunnels		X
ITS	X	X
Pavement	X	X
Right-of-Way	X	X
Signs		X
Traffic Barriers		X
Sidewalks		X
ADA Ramps		X
Bike Facilities		X
Culverts 6' & Over	NBI	In Progress
Culverts Under 6'		In Progress
WIM Sites		X
Sound Barriers		X
Wetland Mitigation Sites		X
Material Sources		X
Signals and Beacons	Tri-Color Only	Tri-Color Only
Retaining Walls		In Progress
Unstable Slopes		In Progress
Approaches		In Progress
Major Traffic Support		Just Starting
Storm Water Facilities		Just Starting
Illumination		





Summary

- The system is in decline with reduced funding
- A more deteriorated system is more expensive to maintain
- New strategies will lesson the decline in the short term
- Investing funds in these new strategies will have strategy benefits





Discussion...

