



Interstate Rubbleization: Past & Future

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Deputy Director & Chief
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ARDOT Quick Facts

- 3rd largest State agency
- Approximately 3,700 employees
- Maintain 16,418 miles of highway and 7,335 bridges
- Central Offices in Little Rock
- 10 Districts Statewide



Background

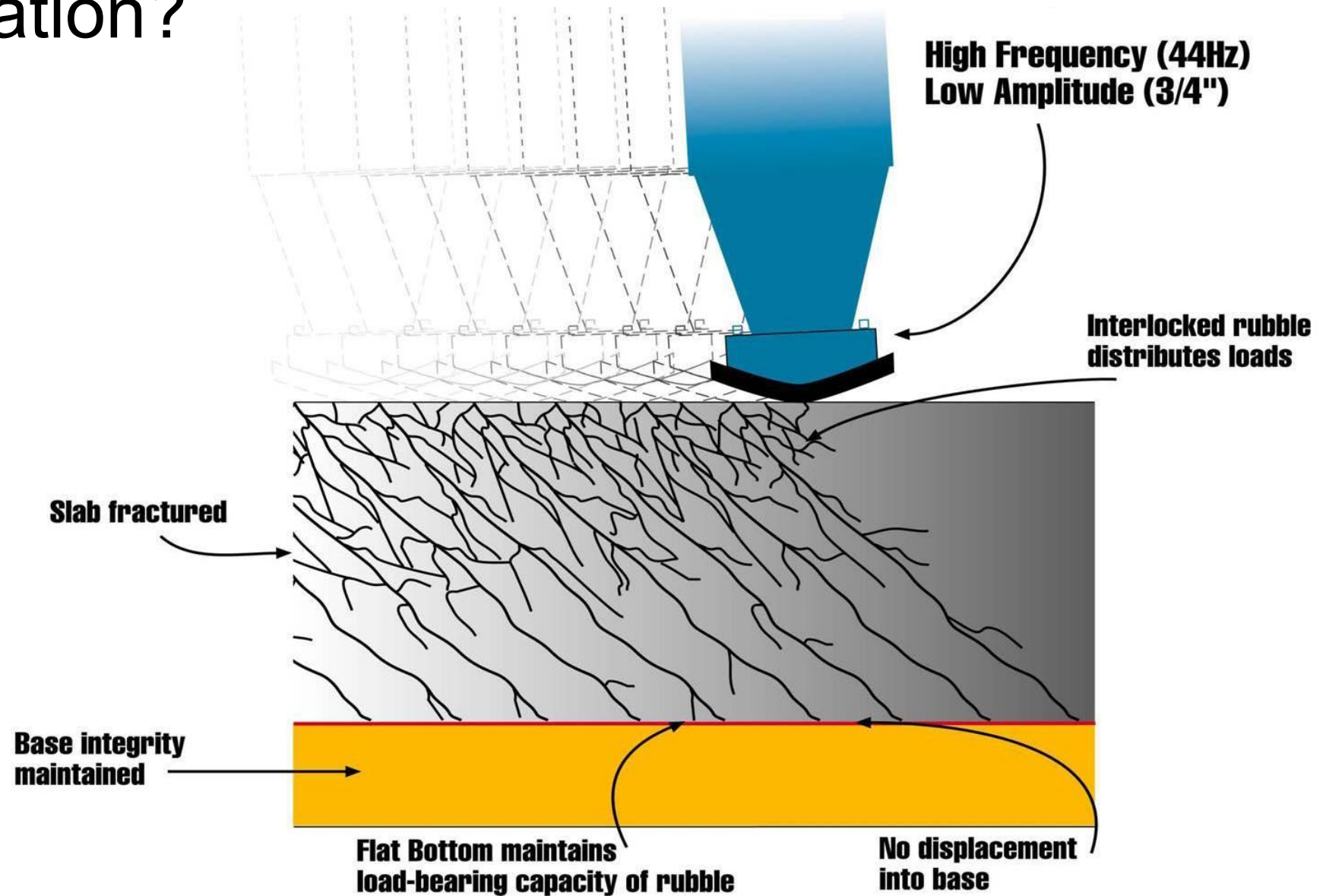
- Majority of Interstates built more than 60 years ago
- Over 60% of Interstates in “Poor” condition
- 6th worst in the country
- Patching not enough – Replacement needed

Background

- Highway improvements traditionally funded on a “pay-as-you-go” basis
- Interstates carry 25-60% trucks
- “GARVEE” financing
(Grant Anticipation Revenue Vehicle)
- Interstate Rehabilitation Program
- Majority asphalt reconstruction
- Some concrete reconstruction



What is Rubblization?

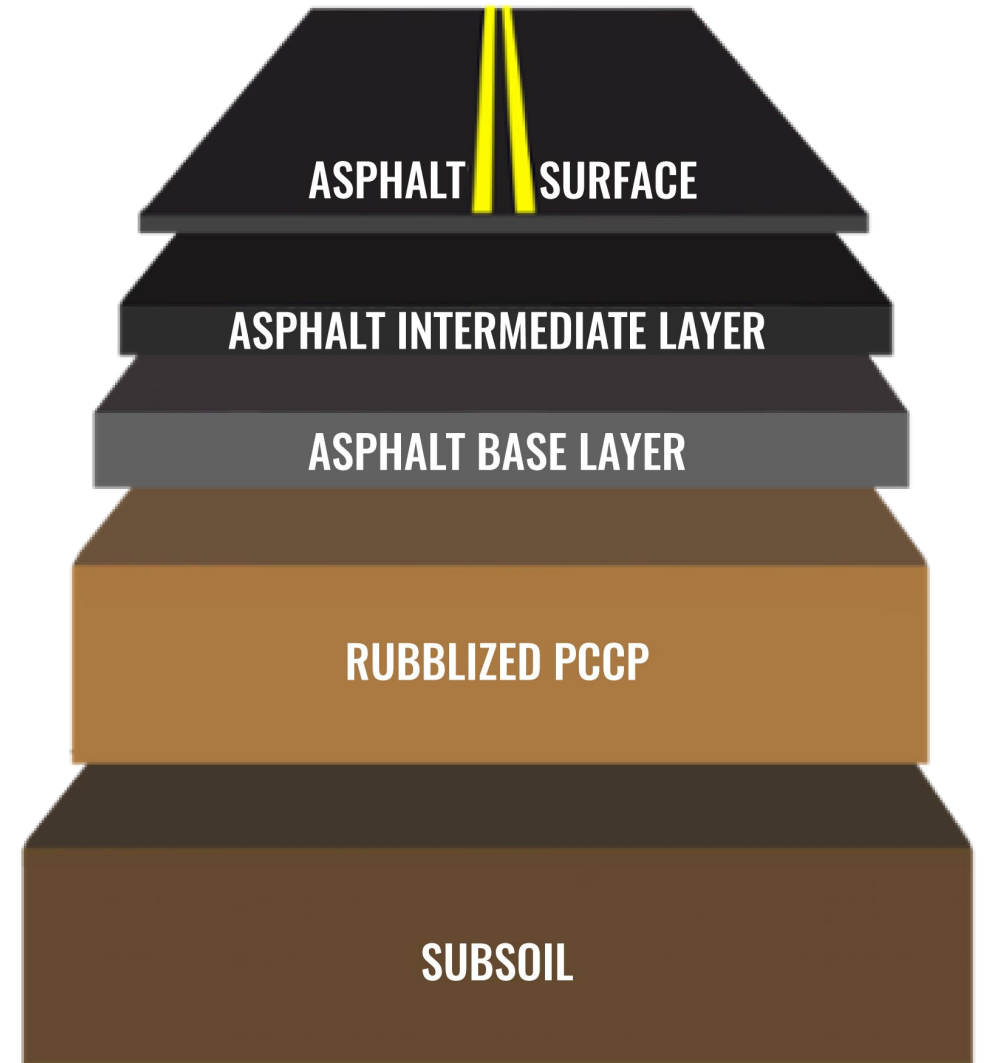


Asphalt Reconstruction

- Existing PCCP broken
- Drainage Installed
- ACHM Overlay

Asphalt Design

- 4" ACHM Surface Course (1/2")
- 3" ACHM Binder Course (1")
- 4" ACHM Base Course
- 9" Rubblized PCCP



Resonant Breaker

- Resonant Machines Inc. (RMI), Tulsa, OK
- Steel Beam
- Pedestal and shoe
- Low Amplitude, High Frequency
- Breaks PCCP into 6" pieces and smaller





Multi-Head Breaker

- Antigo Construction, Antigo, WI
- Badger State Highway Equipment
- 16 Steel Hammers
- Various Drop Heights
- Hammer cycles @ 30 drops/min



Rubblized Pavement



Underdrain



Interior Lane Overlay, 10' Shoulder



Full Depth at Bridge End



Full Depth at Underpass



Crossover



Centerline Median Barrier



4:1 Slopes



Completed Surface



Rumble Strips



1999

50 Projects | 360 Total Miles | \$1 Billion

Condition Improved from 21% 'Good' to 72%

2011

Passed with 81% of Vote

75 +/- Projects | 450+ Total Miles | \$1.2 Billion

First Contracts Awarded in November 2012



- Mill and Inlay
- Mill and Overlay
- Rubblize and Overlay
- Mill, Rubblize and Overlay
- Concrete Pavement Rehabilitation
- Concrete Reconstruction
- Interchanges Modifications

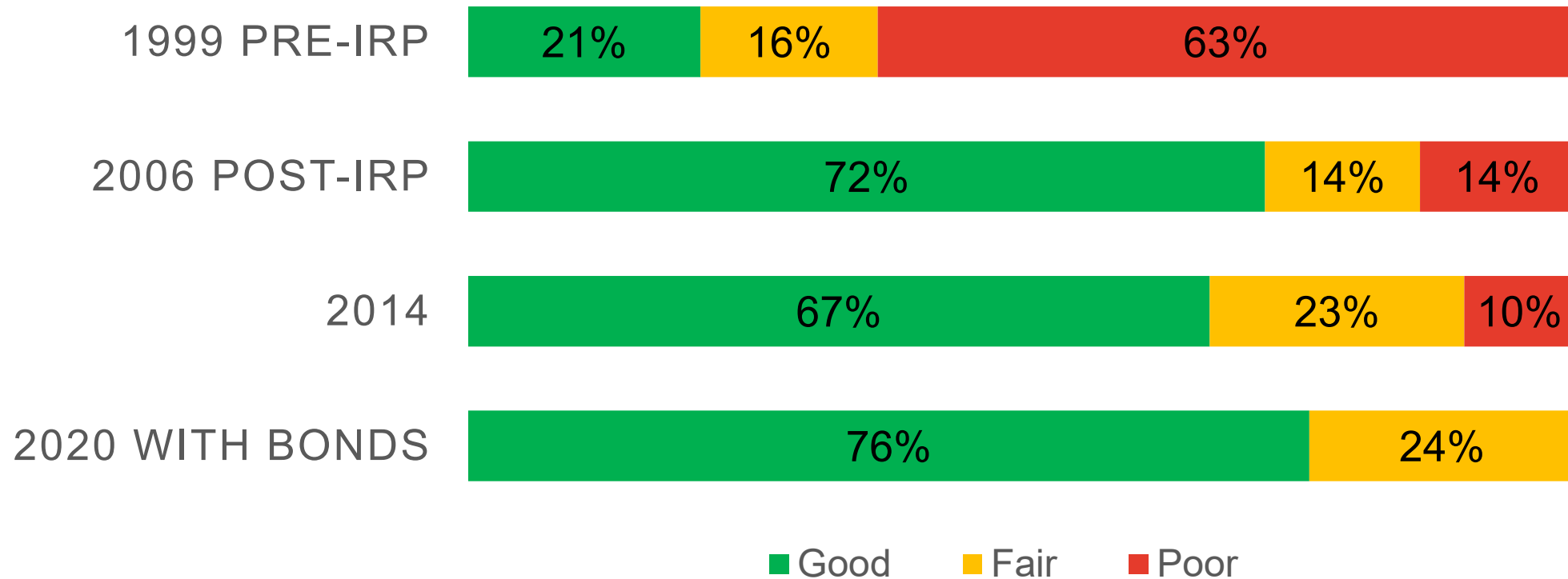


Scheduled

Under Construction

Completed

Interstate Condition





PRE-1999 IRP INTERSTATE SYSTEM

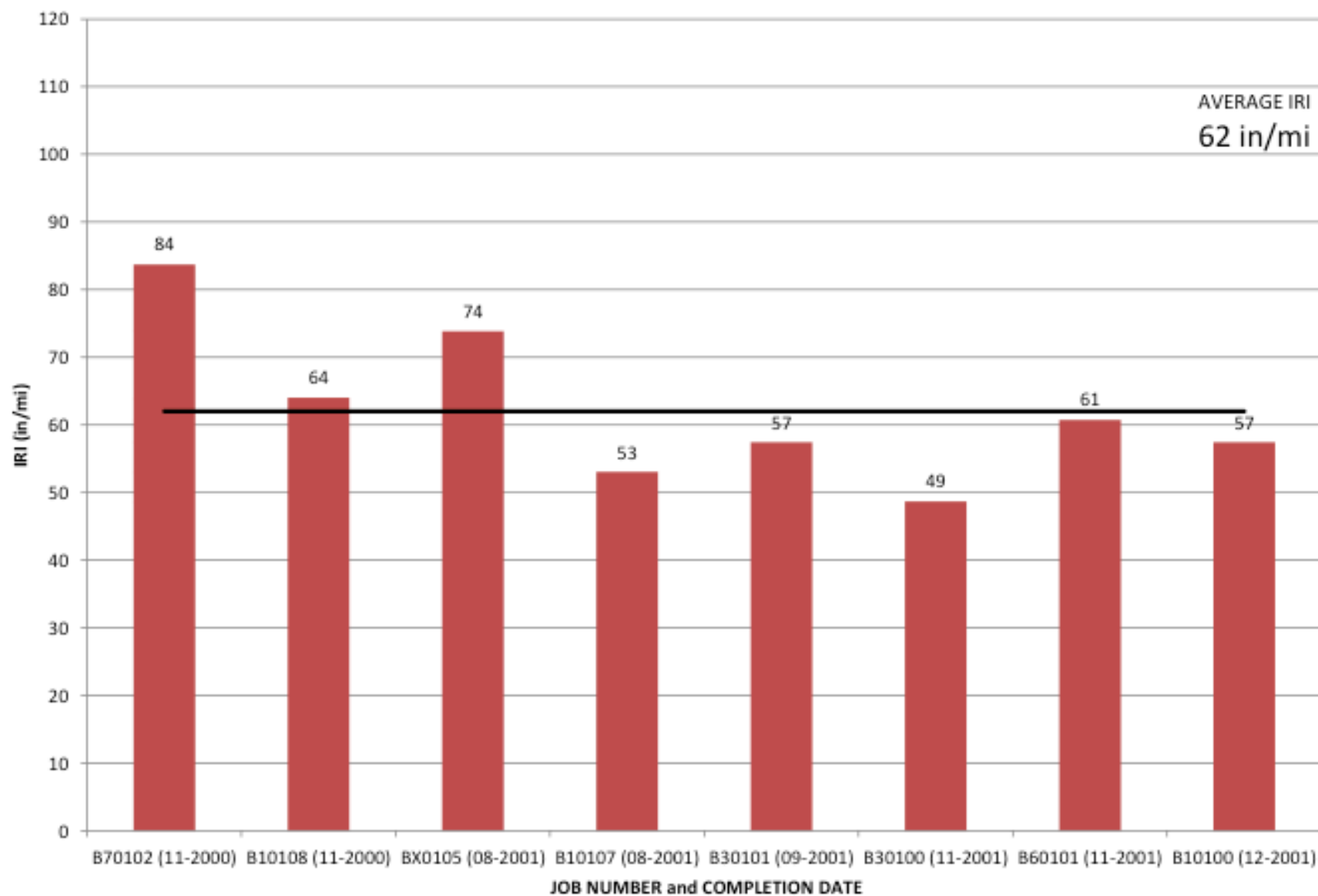
- 655 Total Miles
- 72.7% Concrete, 474.6 Miles
- 27.3% HMA, 180.8 Miles



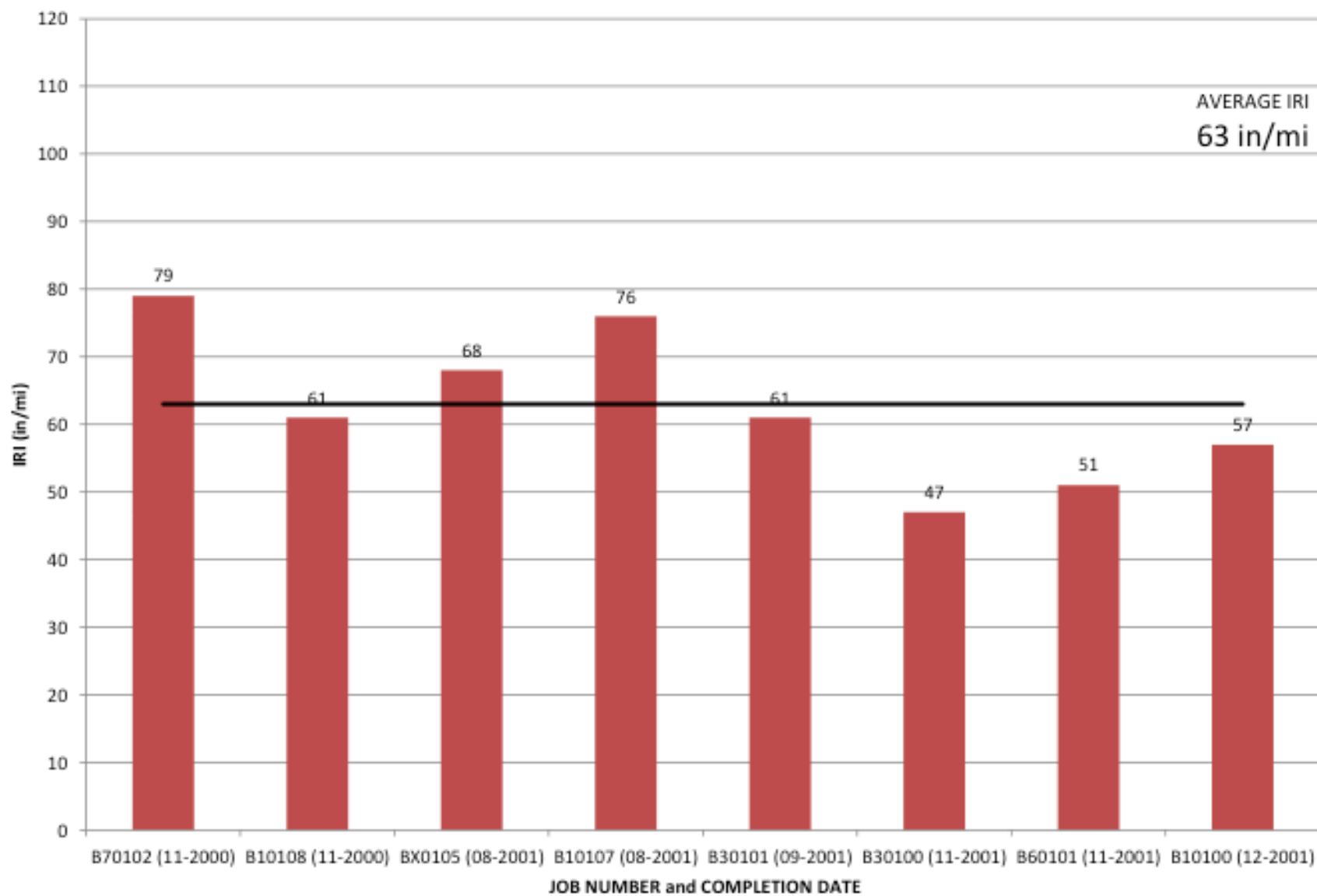
POST-1999 IRP INTERSTATE SYSTEM

- 655 Total Miles
- 33.3% Concrete, 220.7 Miles
- 66.7% HMA, 434.7 Miles

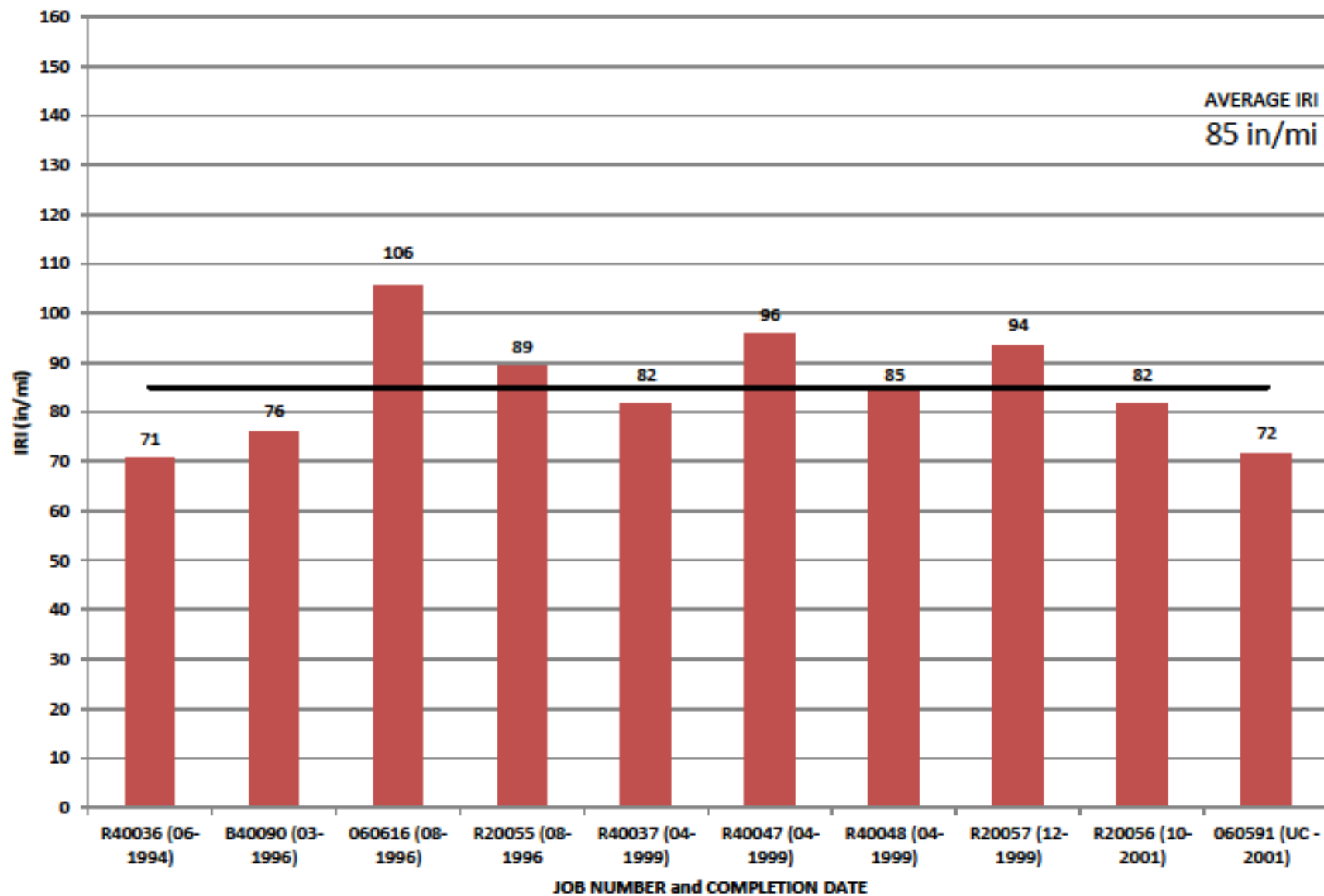
IRI ON NEW INTERSTATE ASPHALT PAVEMENTS (RUBBLIZED)



IRI ON INTERSTATE ASPHALT PAVEMENTS IN 2013 (RUBBLIZED)



IRI ON NEW INTERSTATE CONCRETE PAVEMENTS



Questions?

- Visit our website:
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