



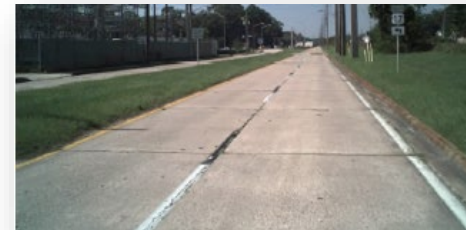
The Year in Asphalt

Jim Musselman

FDOT State Asphalt Materials Engineer

State Highway System

- 45,742 lane miles
 - 8,844 Interstate lane miles (19.3%)
 - 34,356 Arterial lane miles (75.2%)
 - 2,542 Turnpike lane miles (5.5%)
- 97.3% of pavement is asphalt
- 2.7% of pavement is concrete



Pavement Surfaces

- 50.3% of asphalt surfaces are dense-graded
- 49.7% of asphalt surfaces are open-graded



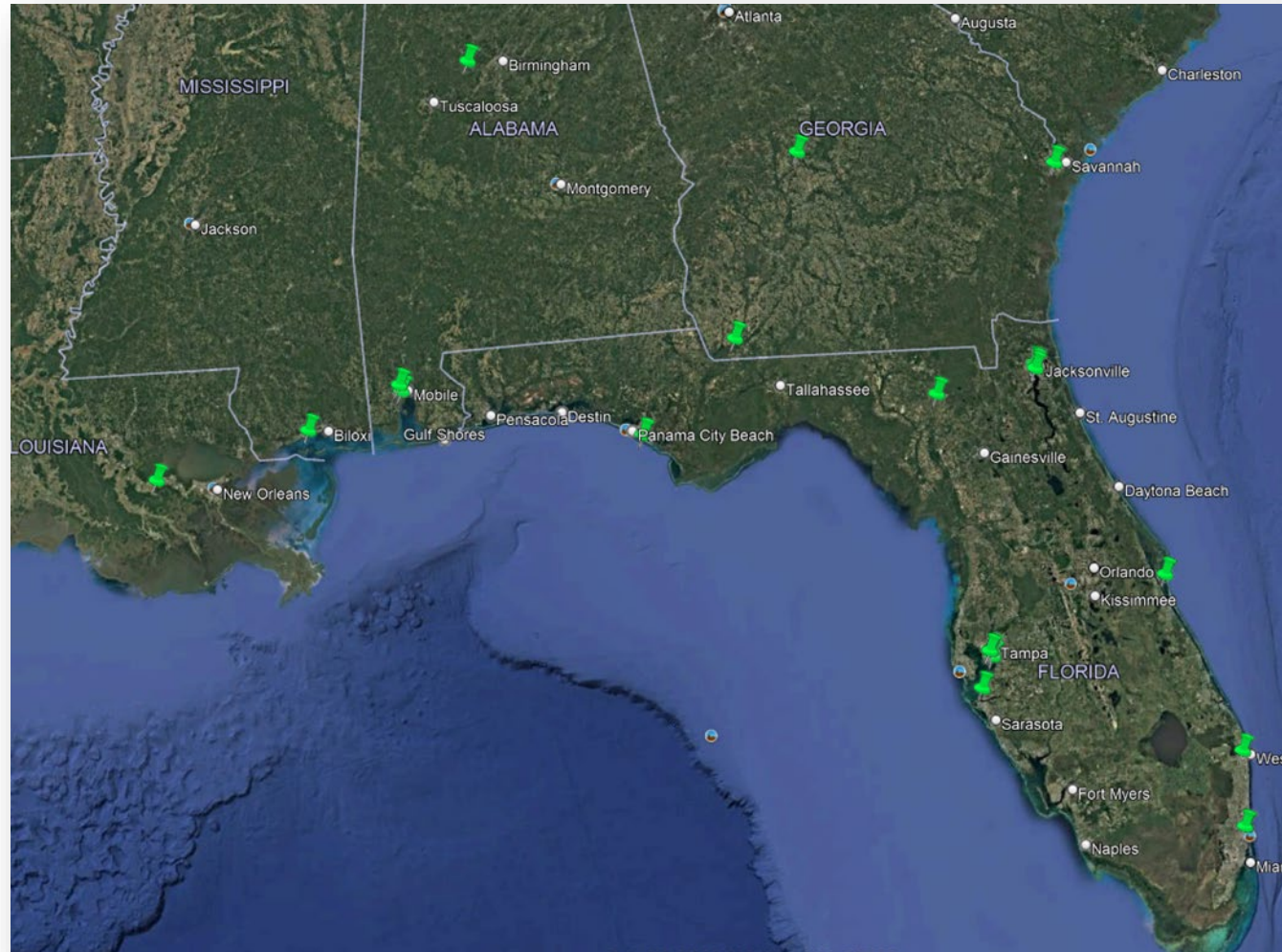
Asphalt Producers for FDOT

	In-State	Out-of-State
Asphalt Plants	96	4
Asphalt Contractors	38	4
Asphalt Binder Terminals	16	13
Asphalt Emulsion Terminals	10	9

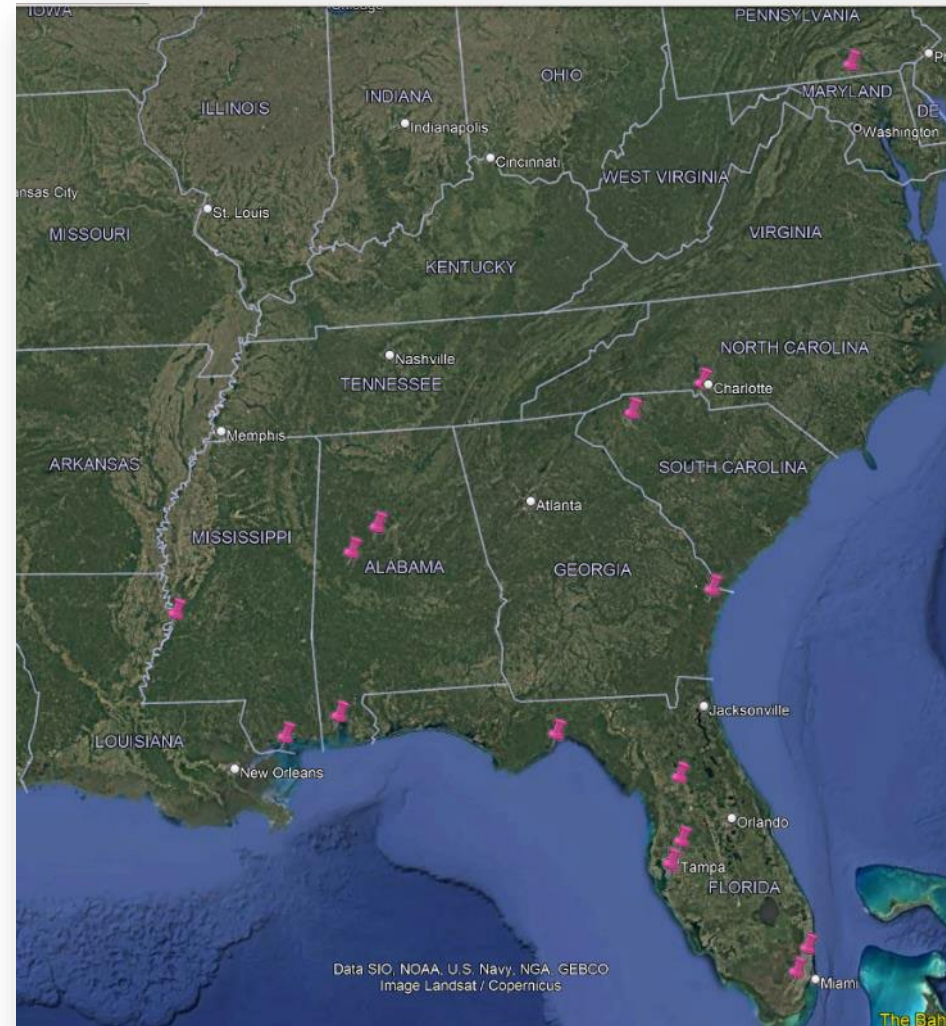
Approved Asphalt Plants



Approved Asphalt Binder Terminals

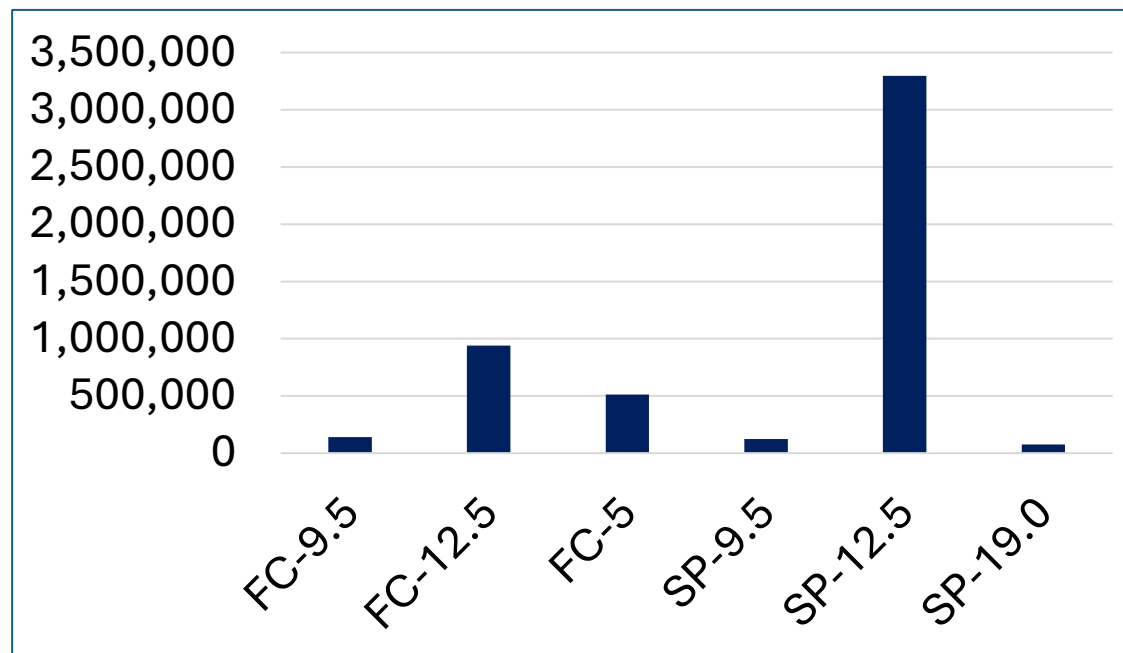


Approved Asphalt Emulsion Terminals



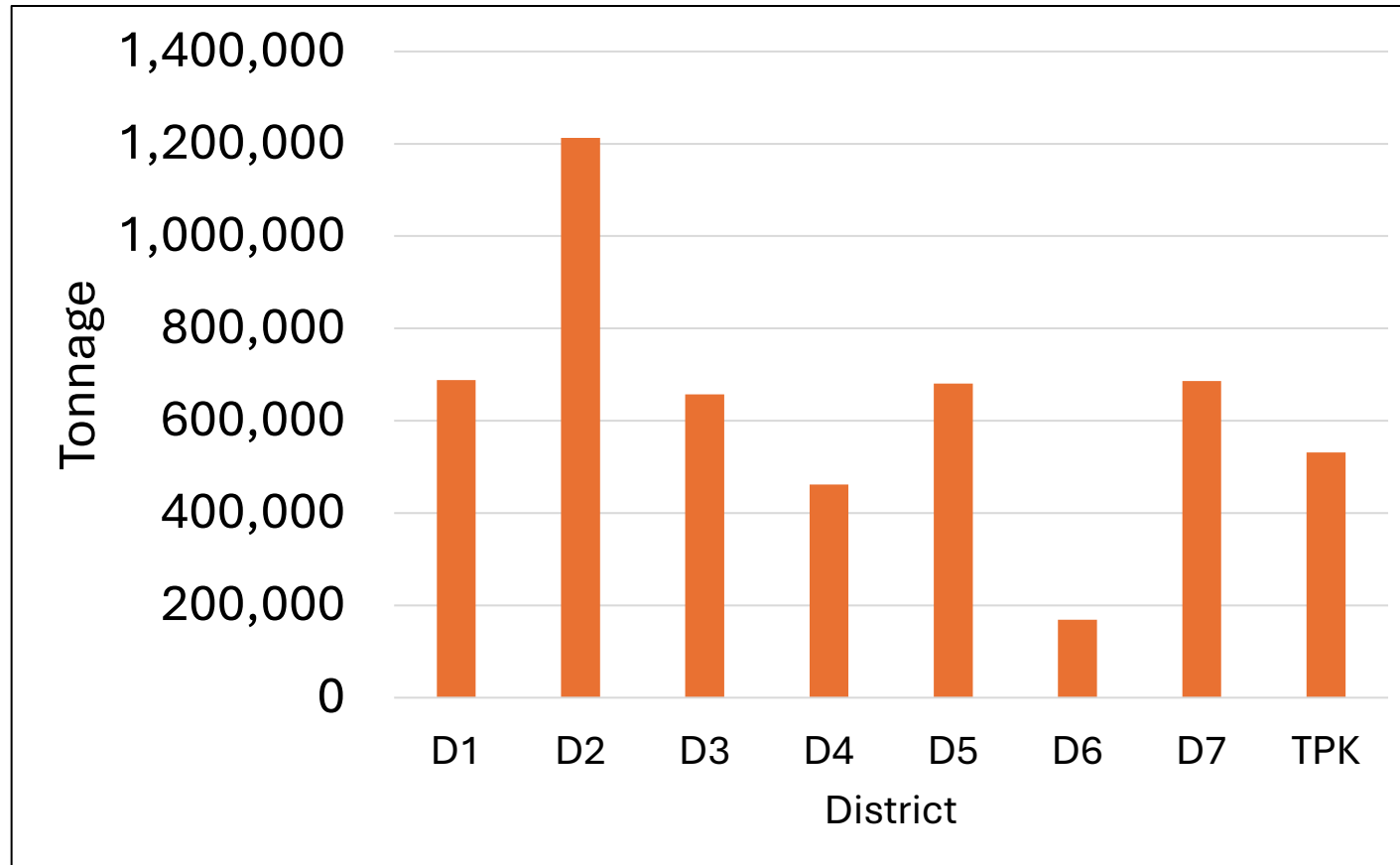
Asphalt Mixture Tonnage (23/24)

Friction			Structural			Total
FC-9.5	FC-12.5	FC-5	SP-9.5	SP-12.5	SP-19.0	
138,740	939,782	510,971	122,687	3,297,538	76,246	5,085,964

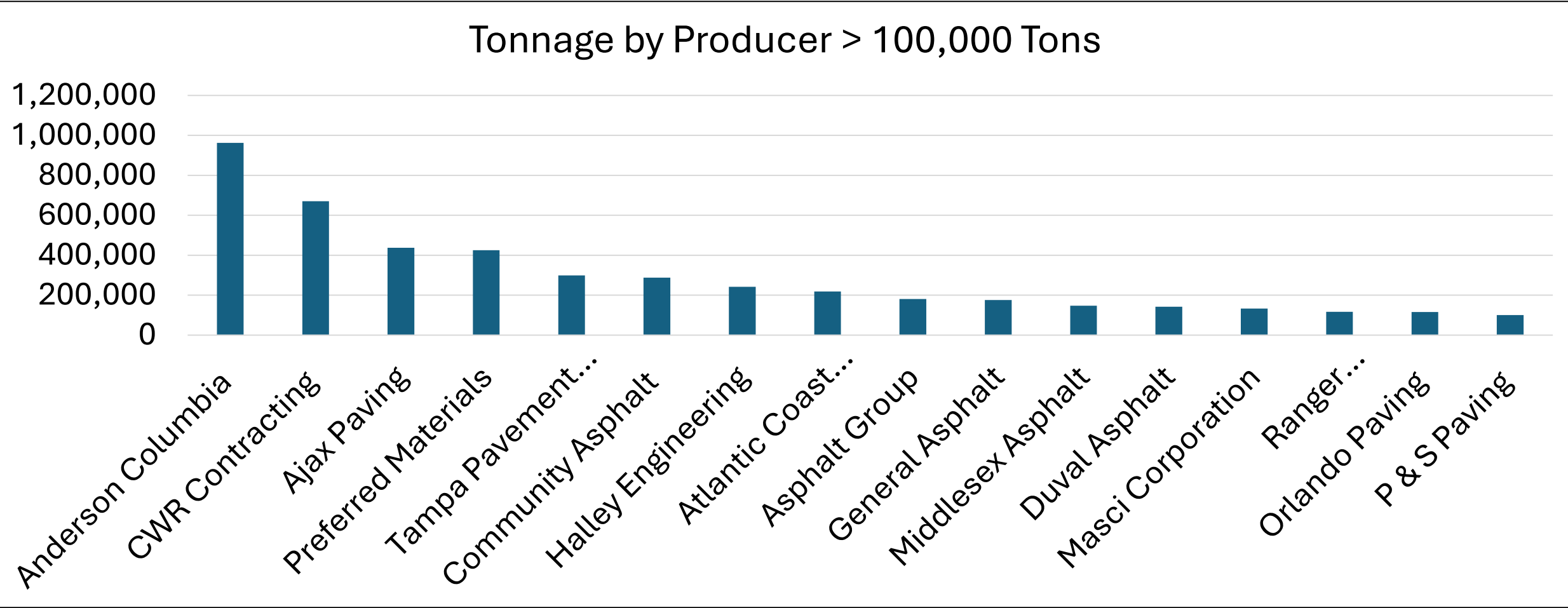


- Friction course: 1,589,494 (31%)
- Structural course: 3,496,470 (69%)

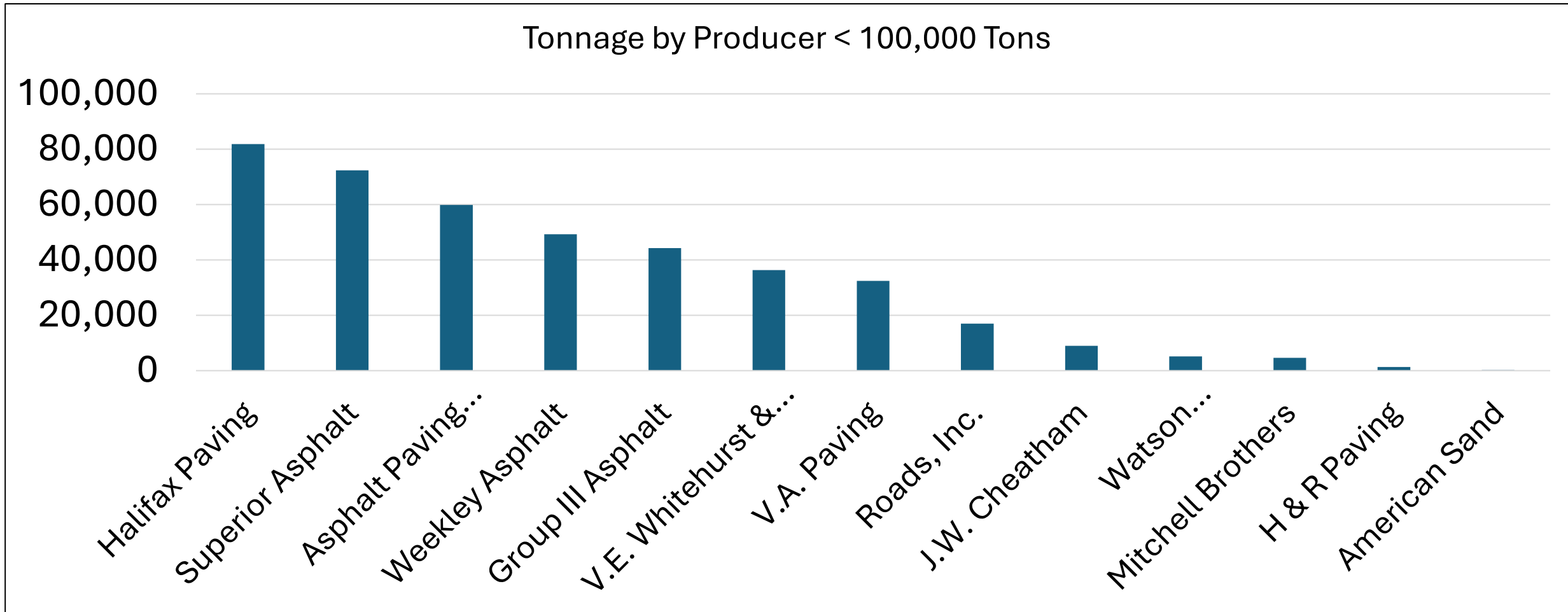
Asphalt Mixture Tonnage by District (23/24)



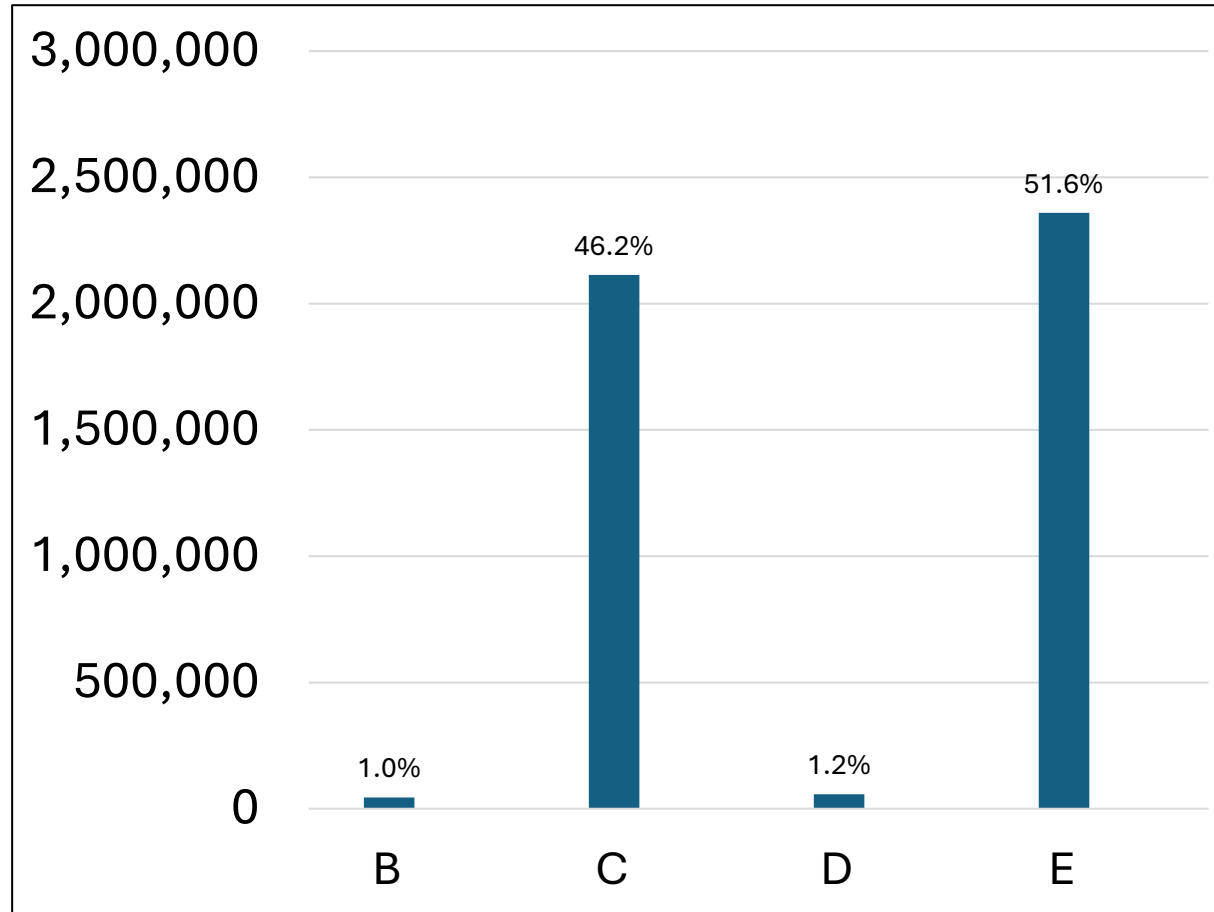
Asphalt Mixture Tonnage by Producer (23/24)



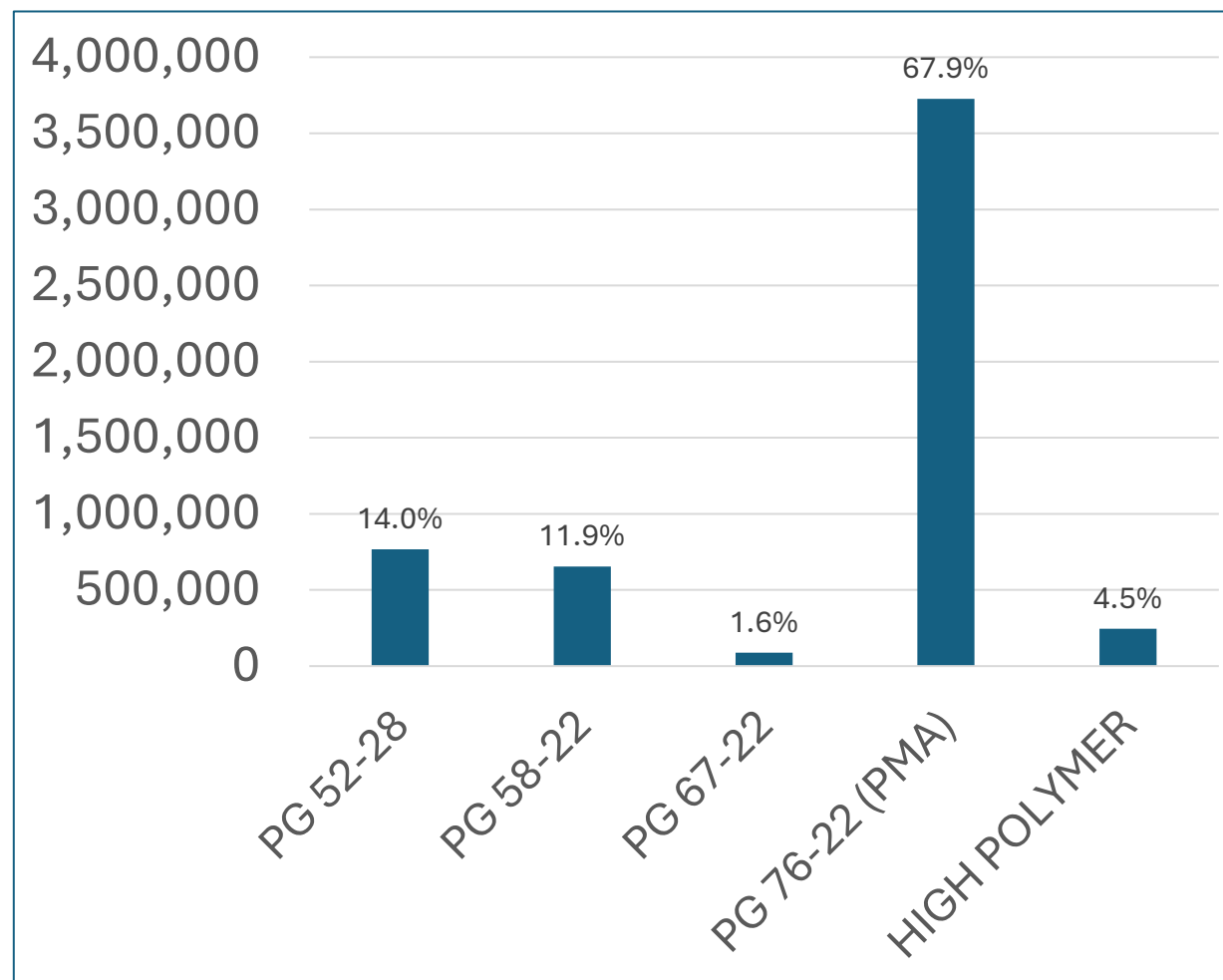
Asphalt Mixture Tonnage by Producer (23/24)



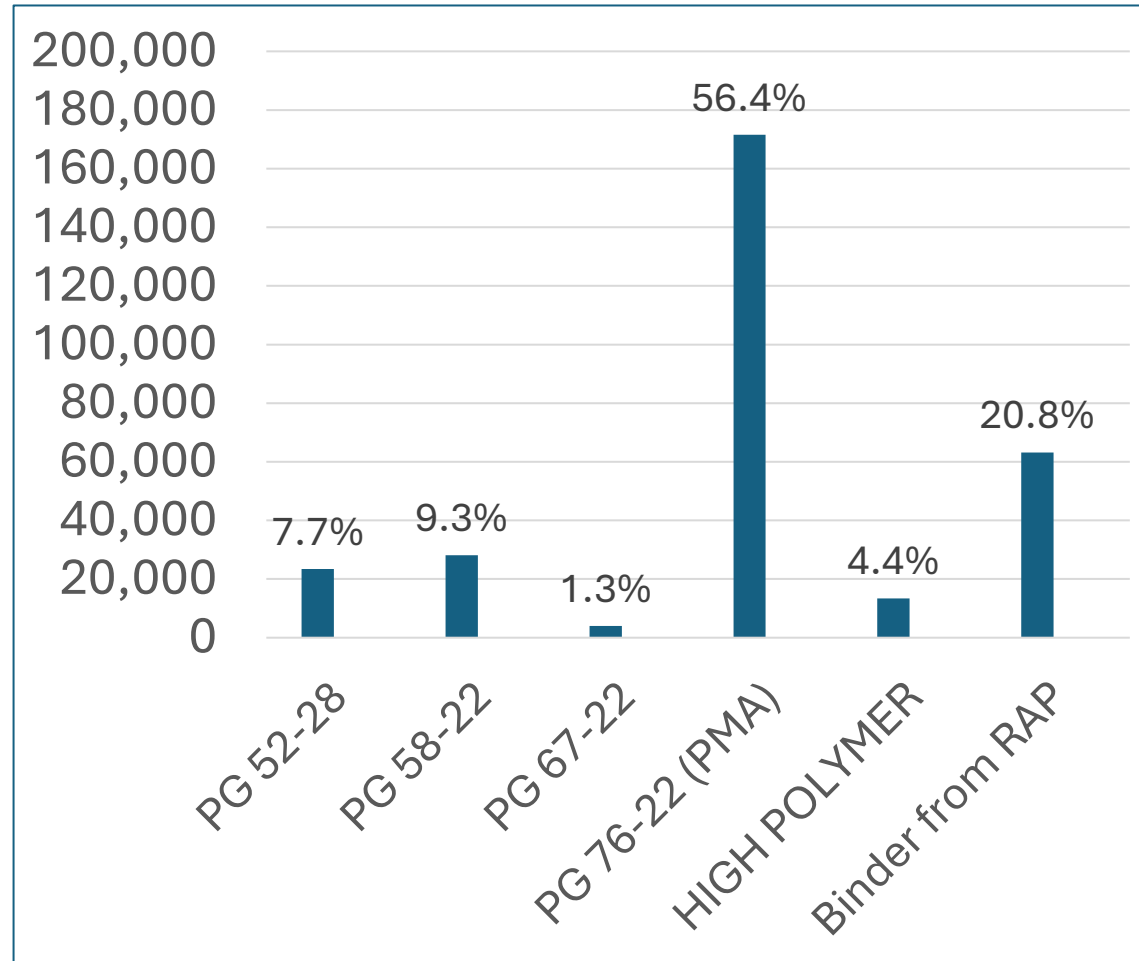
Asphalt Mixture Tonnage by Traffic Level



Asphalt Mixture Tonnage by Binder Type



Binder Quantities (23/24)



RAP Usage

FY 22/23

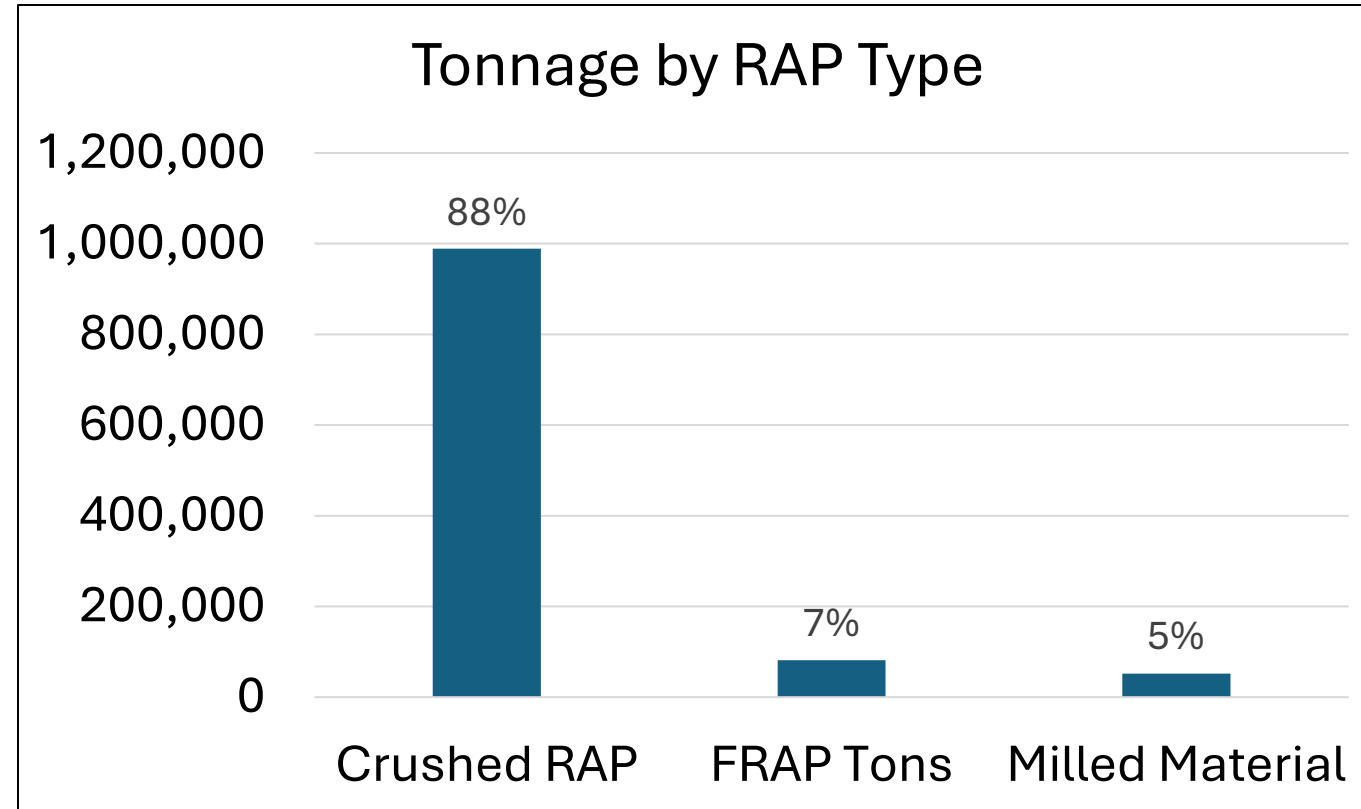
- 888,000 Tons of RAP
- 50,000 Tons of Binder from RAP
- 837,000 Tons of Aggregate from RAP

FY 23/24

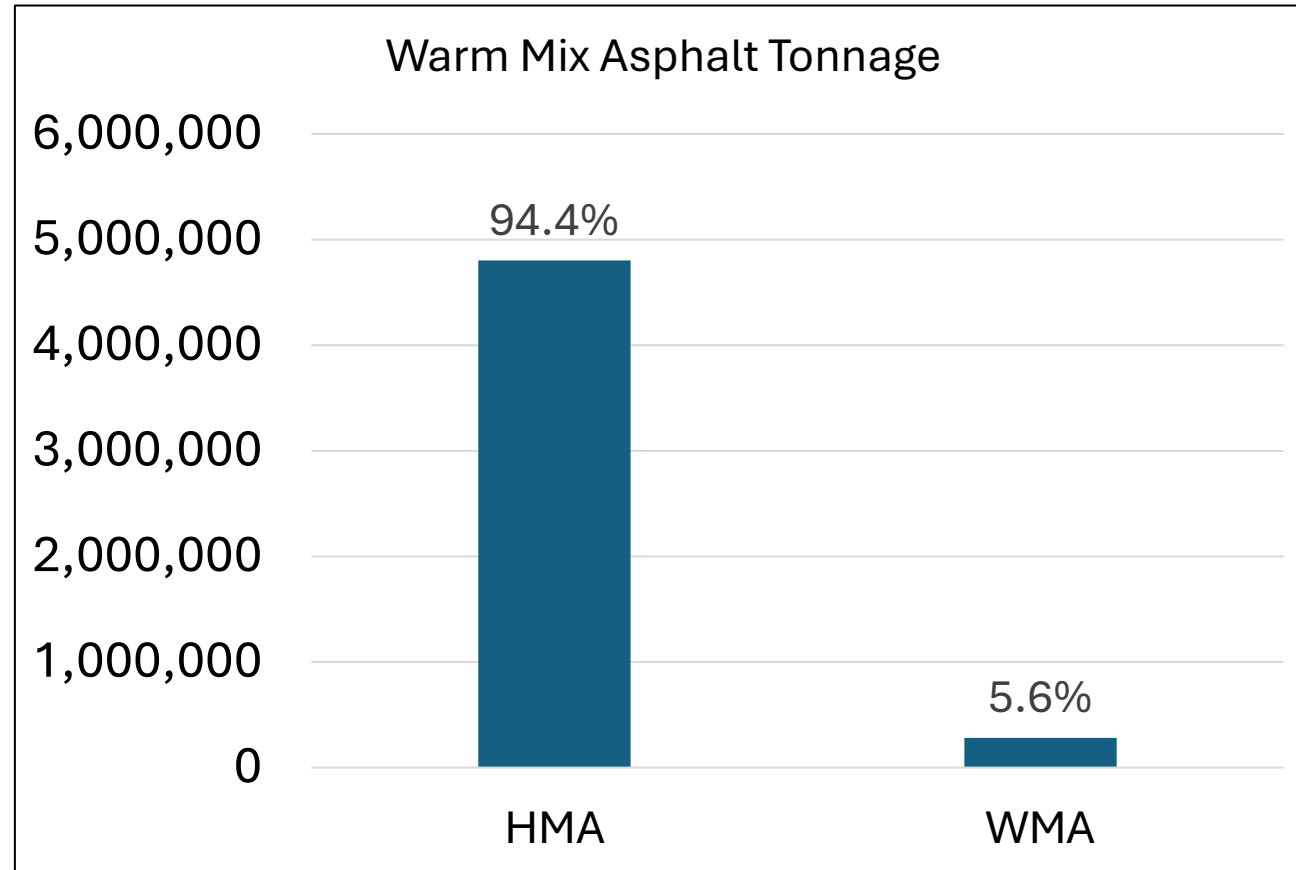
- 1,122,119 Tons of RAP
- 63,155 tons of Binder from RAP
- 1,058,964 tons of aggregate from RAP

26% Increase in total amount of RAP used!

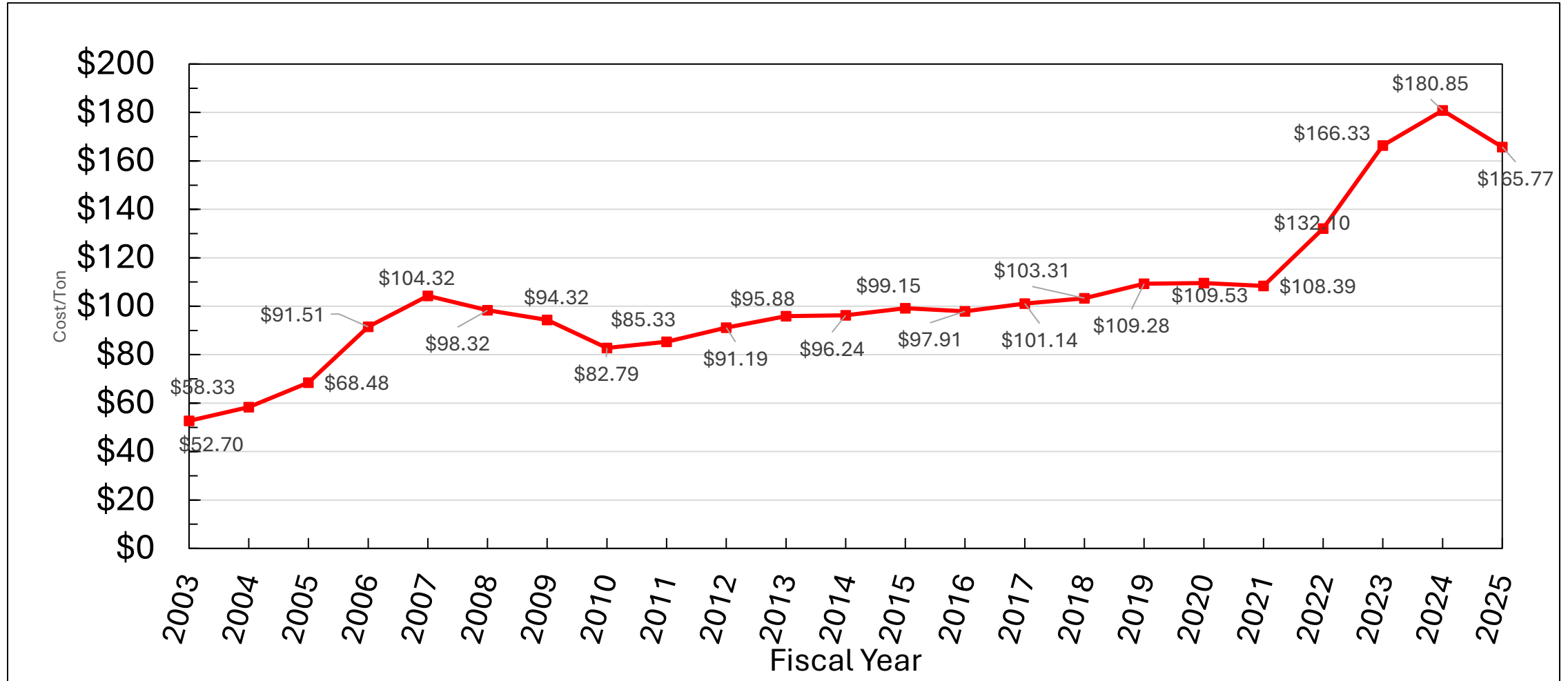
RAP Types



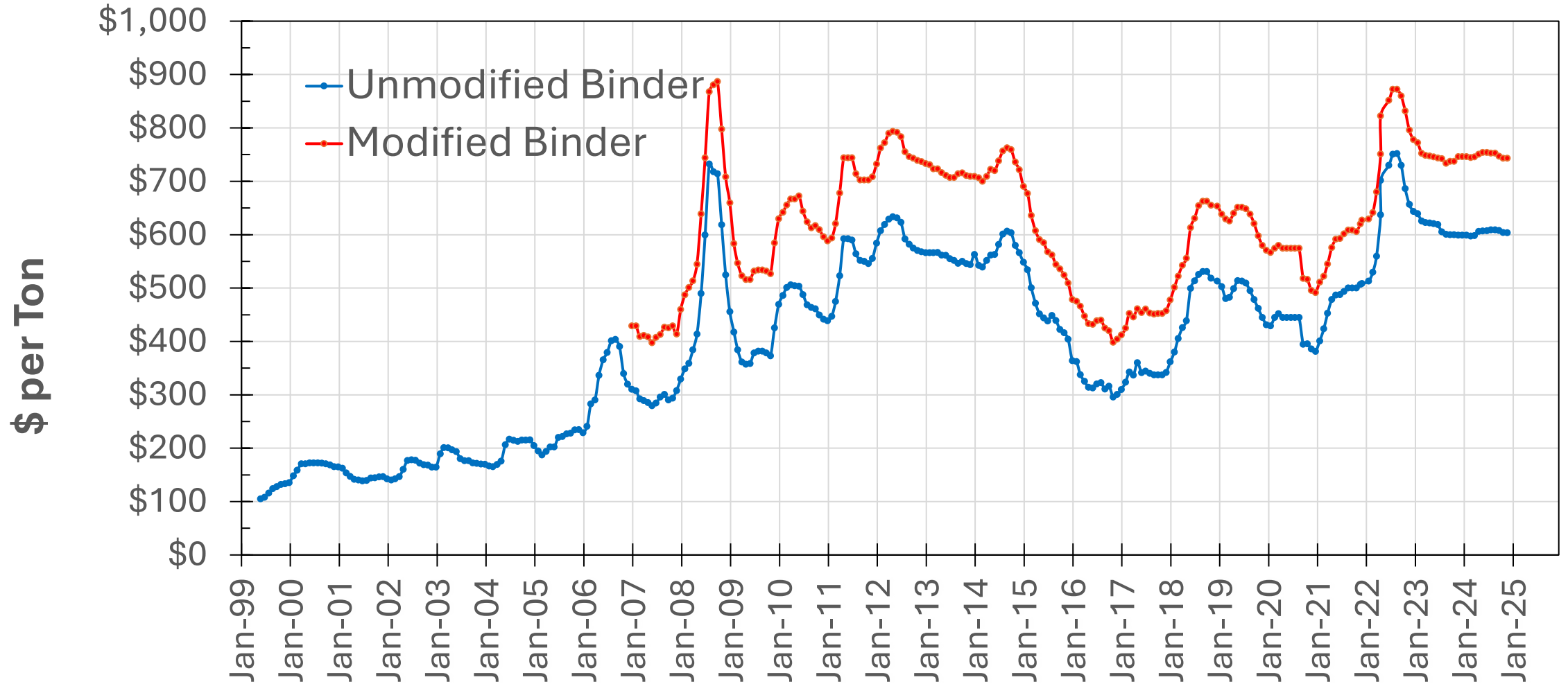
Warm Mix Asphalt



Asphalt Mix Average Cost (\$/ton)



Asphalt Binder Price Index (\$/Ton)



Pay Factor Data



Statewide Average Composite Pay Factor (CPF)

- FY 23/24: 1.019
 - FY 22/23: 1.020
 - FY 21/22: 1.015
 - FY 20/21: 1.020
 - FY 19/20: 1.018
 - FY 18/19: 1.016
 - FY 17/18: 1.016
 - FY 16/17: 1.013
 - FY 15/16: 1.009
 - FY 14/15: 1.018
 - FY 13/14: 1.019
 - FY 12/13: 1.011



FY 23/24 Top Producer CPF (> 100,000 tons)

1. Asphalt Group – 1.0430
2. Preferred Materials – 1.0333
3. Duval Asphalt – 1.0326
4. General Asphalt – 1.0310
5. Anderson Columbia – 1.0293



FY 23/24 Top Producer CPF (20,000 – 100,000 tons)

1. Group III Asphalt – 1.0420
2. V. E. Whitehurst – 1.0318
3. Superior Asphalt – 1.0237
4. V.A. Paving – 1.0213
5. Halifax Paving – 1.0194

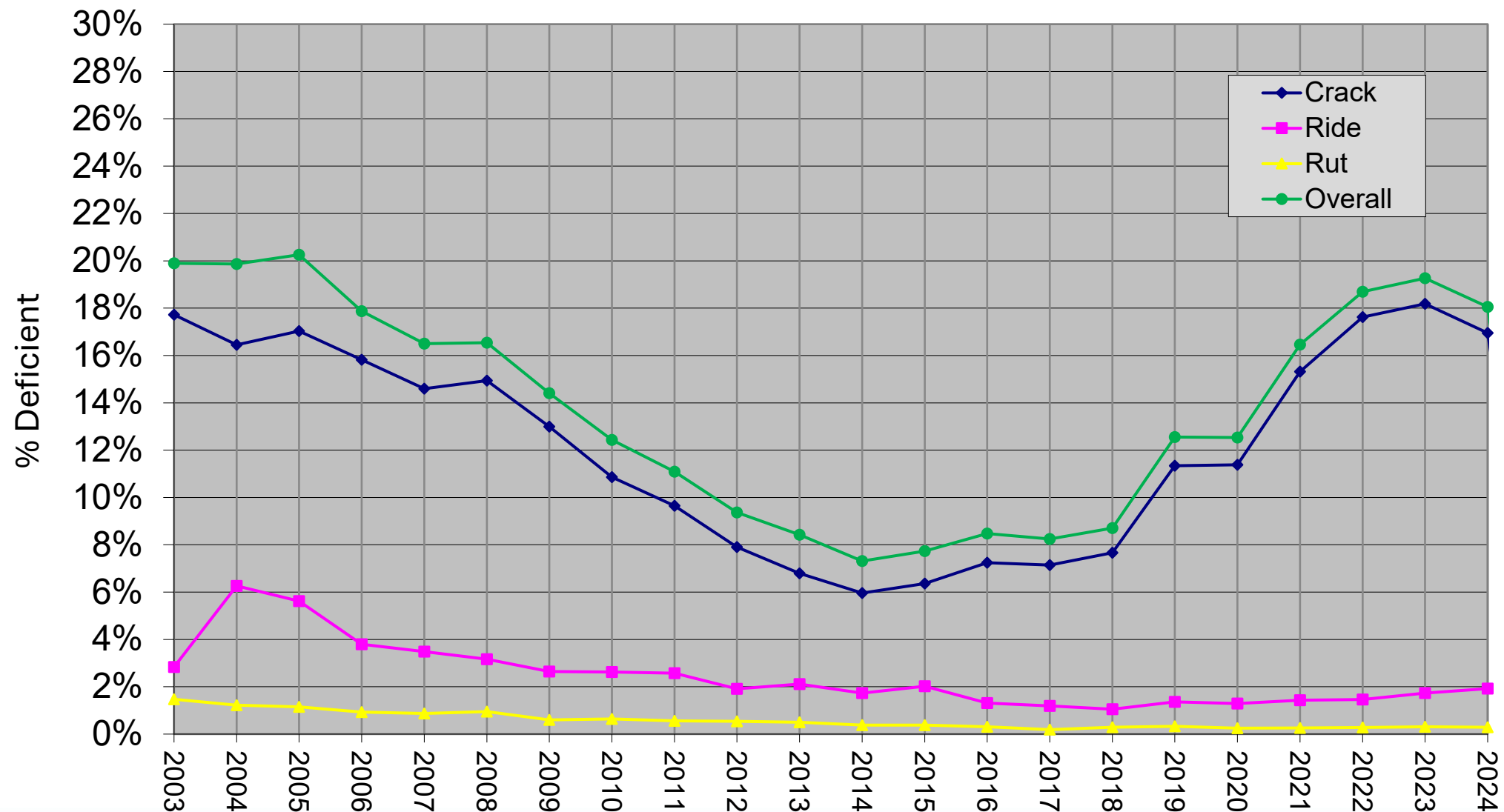


Statewide Pavement Performance

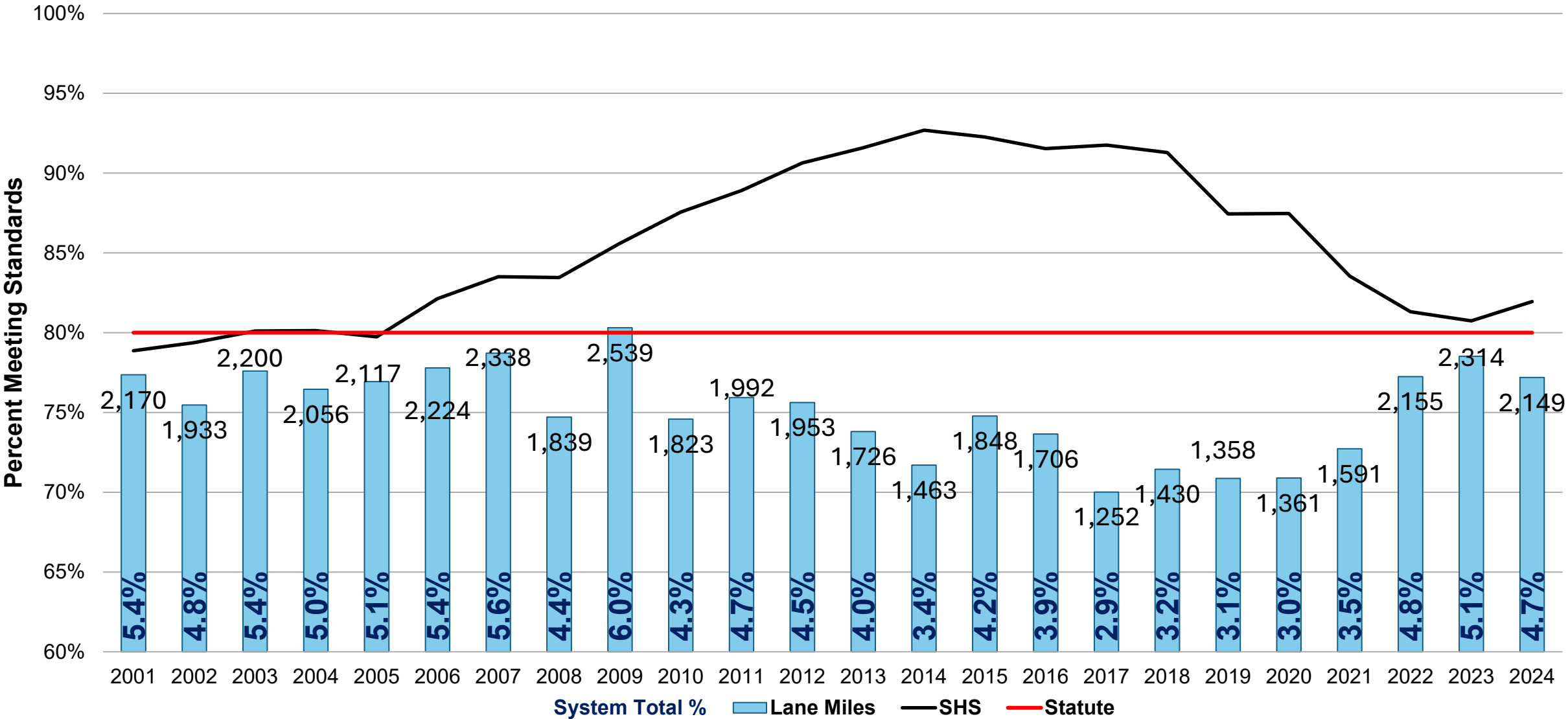
- Statutory Requirement
 - Ensure 80% of pavement on the State Highway System meets Department standards.

Deficient Pavements (%)											
Criteria	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Overall	7.3	7.7	8.5	8.2	8.7	12.6	12.5	16.5	18.7	19.3	18.1
Ride	1.7	2.0	1.3	1.2	1.1	1.4	1.3	1.4	1.5	1.7	1.9
Crack	6.0	6.4	7.3	7.1	7.7	11.4	11.4	15.3	17.6	18.2	16.9
Rut	0.4	0.4	0.3	0.2	0.3	0.3	0.3	0.3	0.3	0.3	0.3

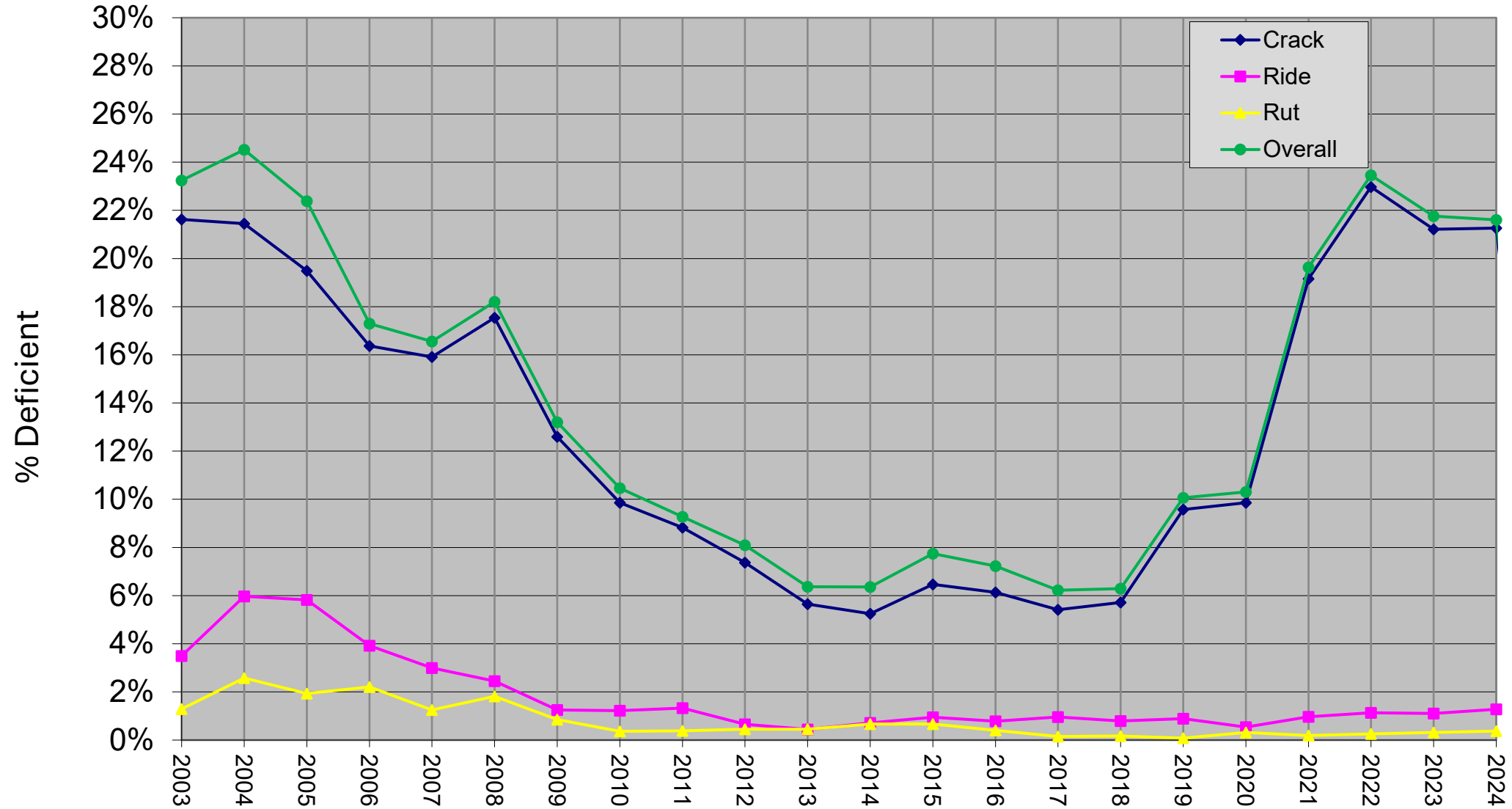
Historical Statewide Performance



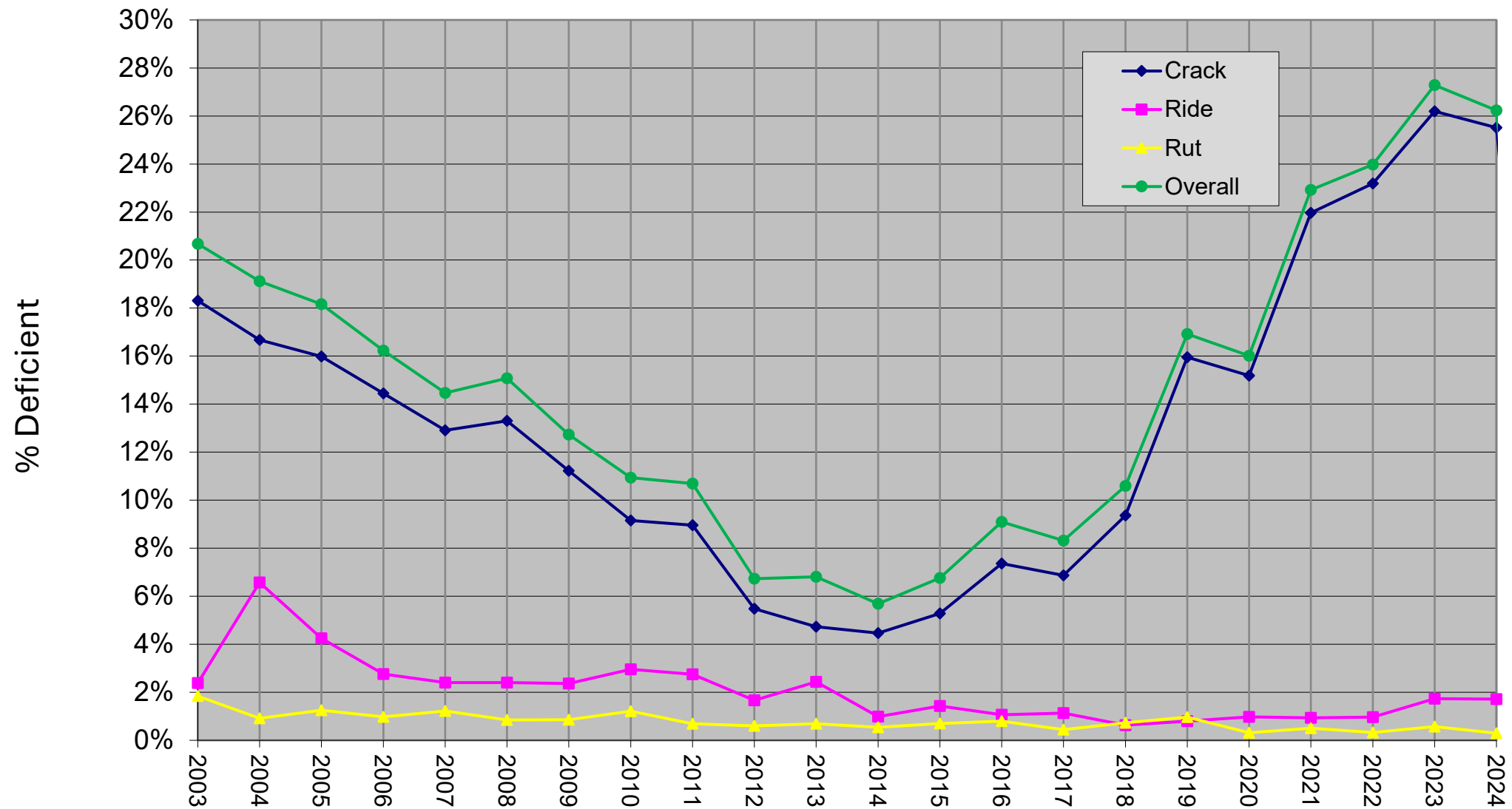
State Highway System Lane Miles Resurfaced and Percent Meeting Standards



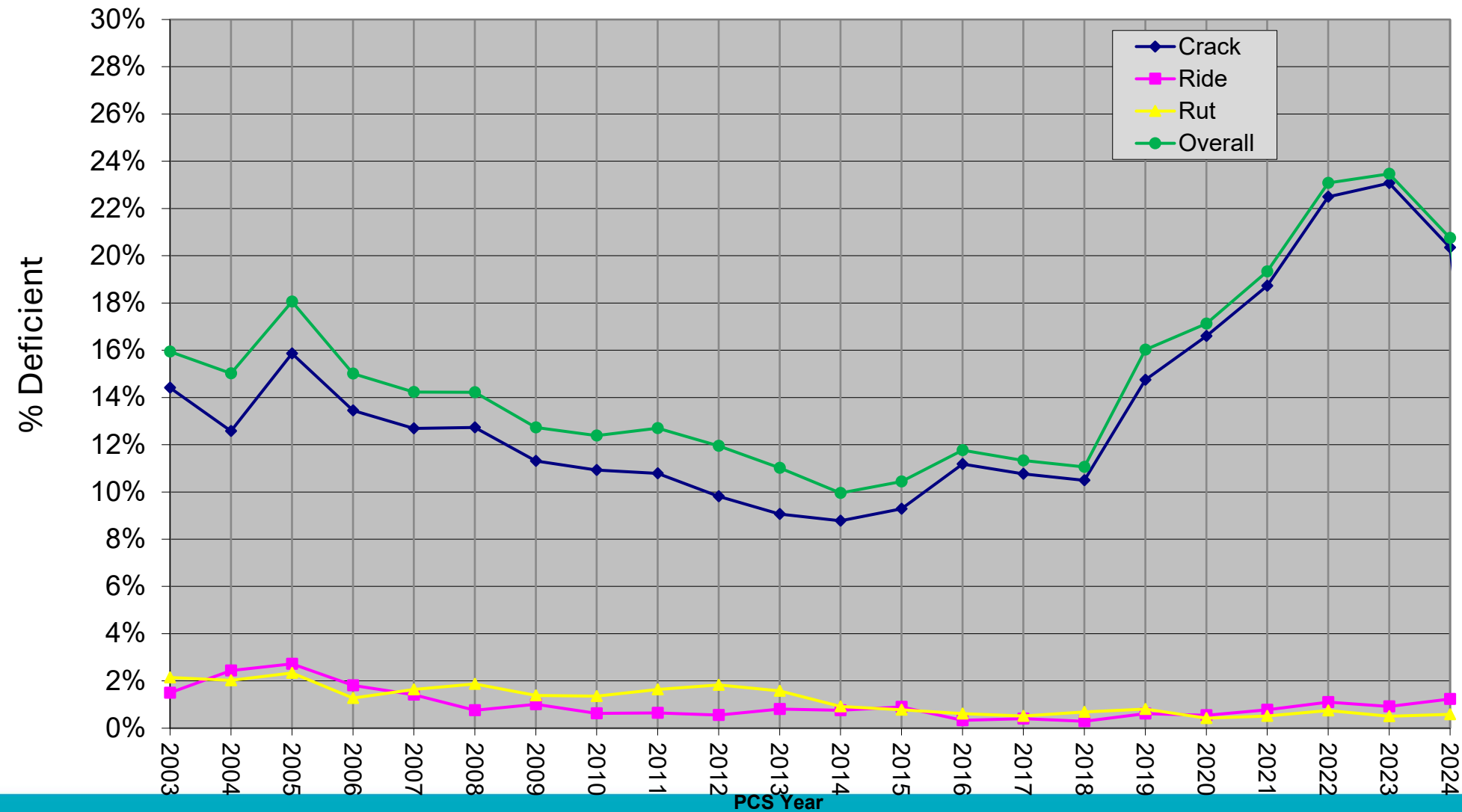
District 1 Historical Performance



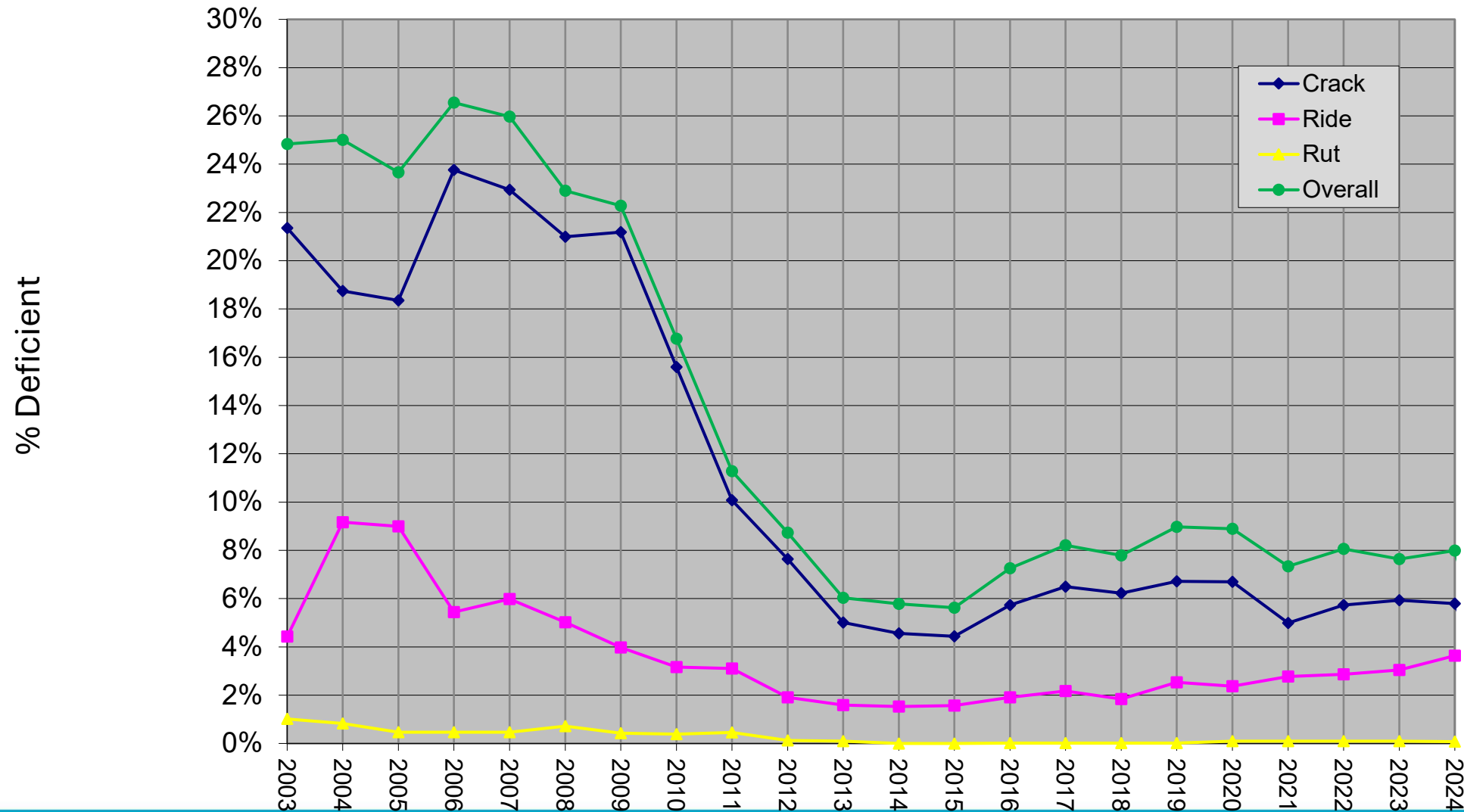
District 2 Historical Performance



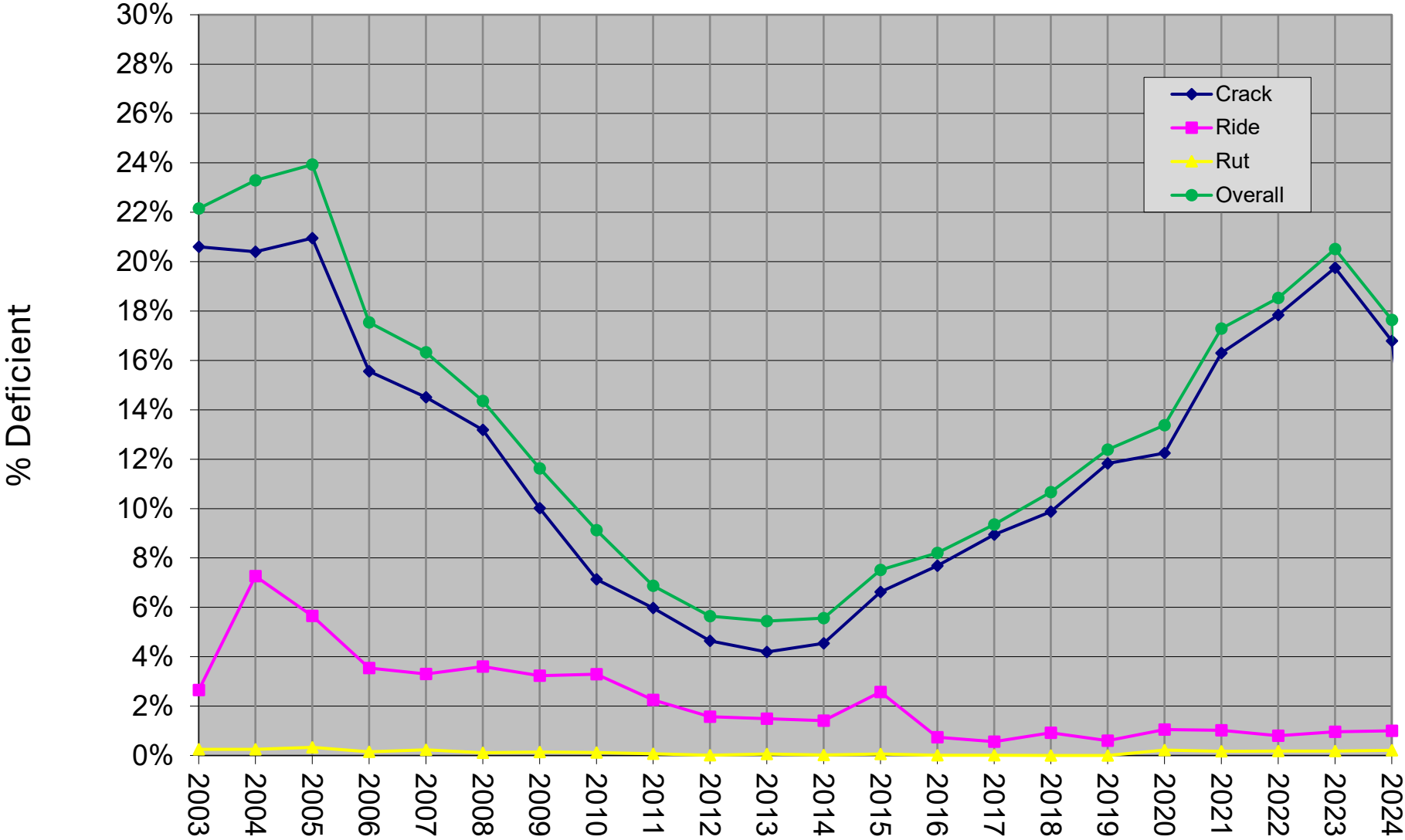
District 3 Historical Performance



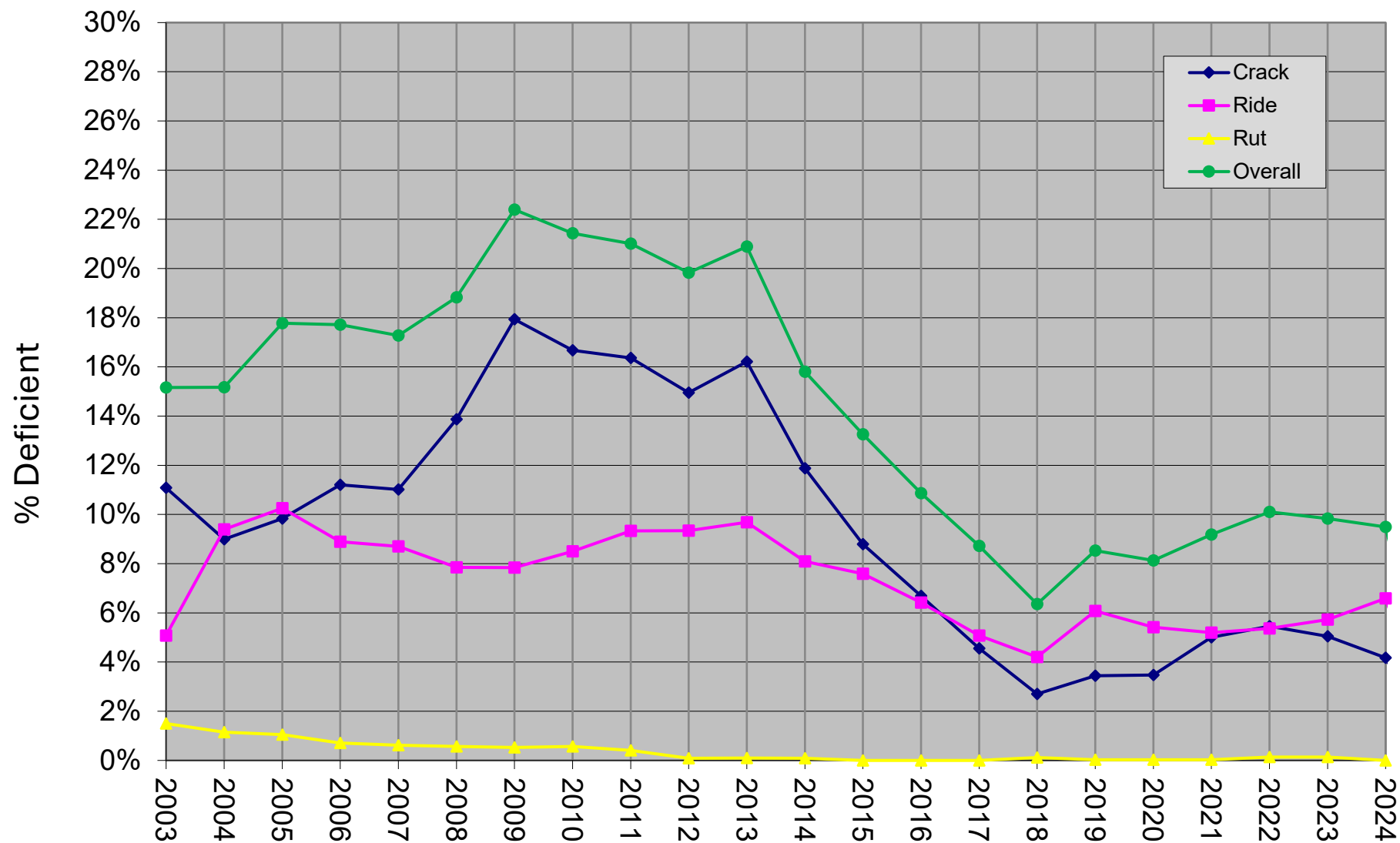
District 4 Historical Performance



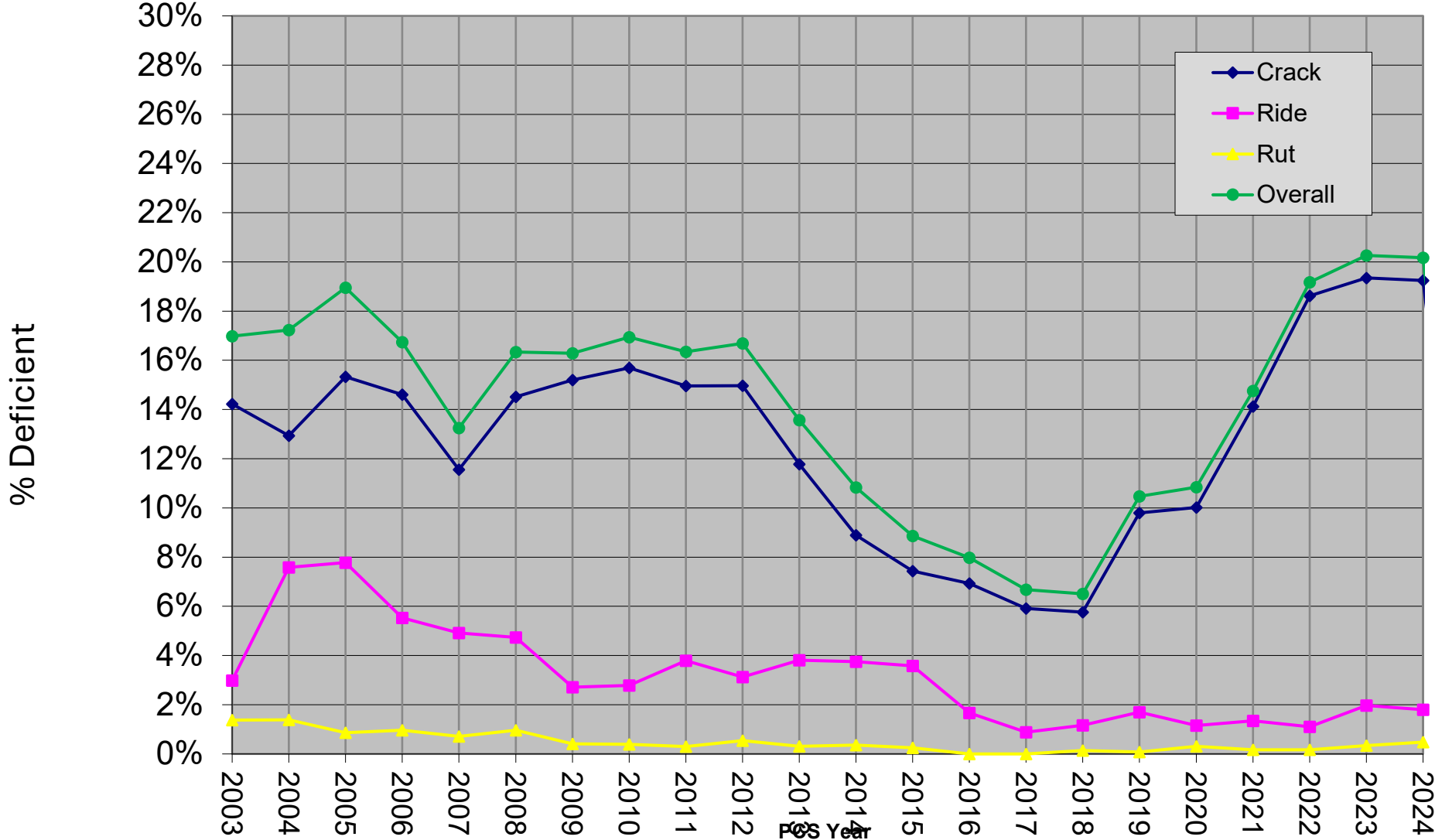
District 5 Historical Performance



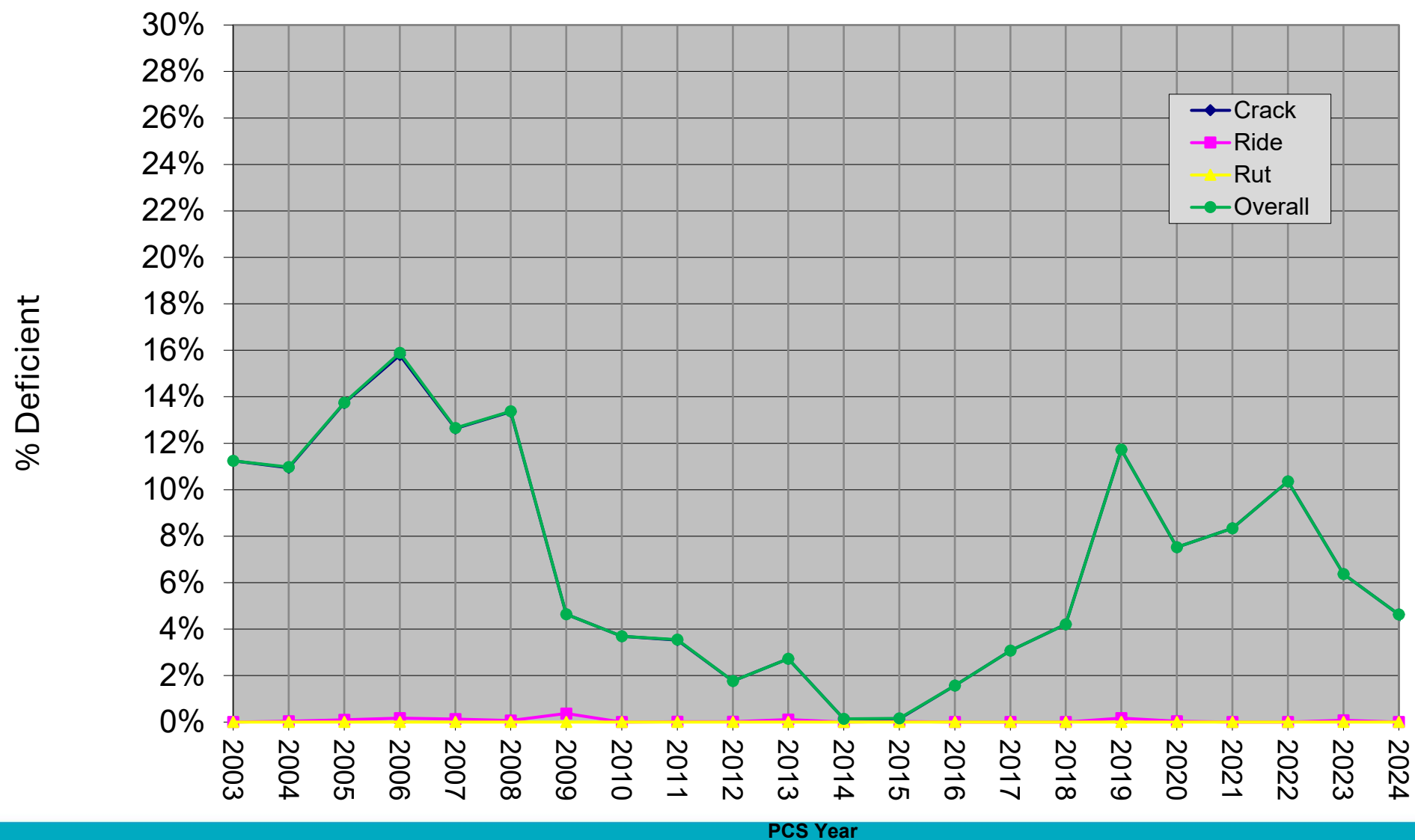
District 6 Historical Performance



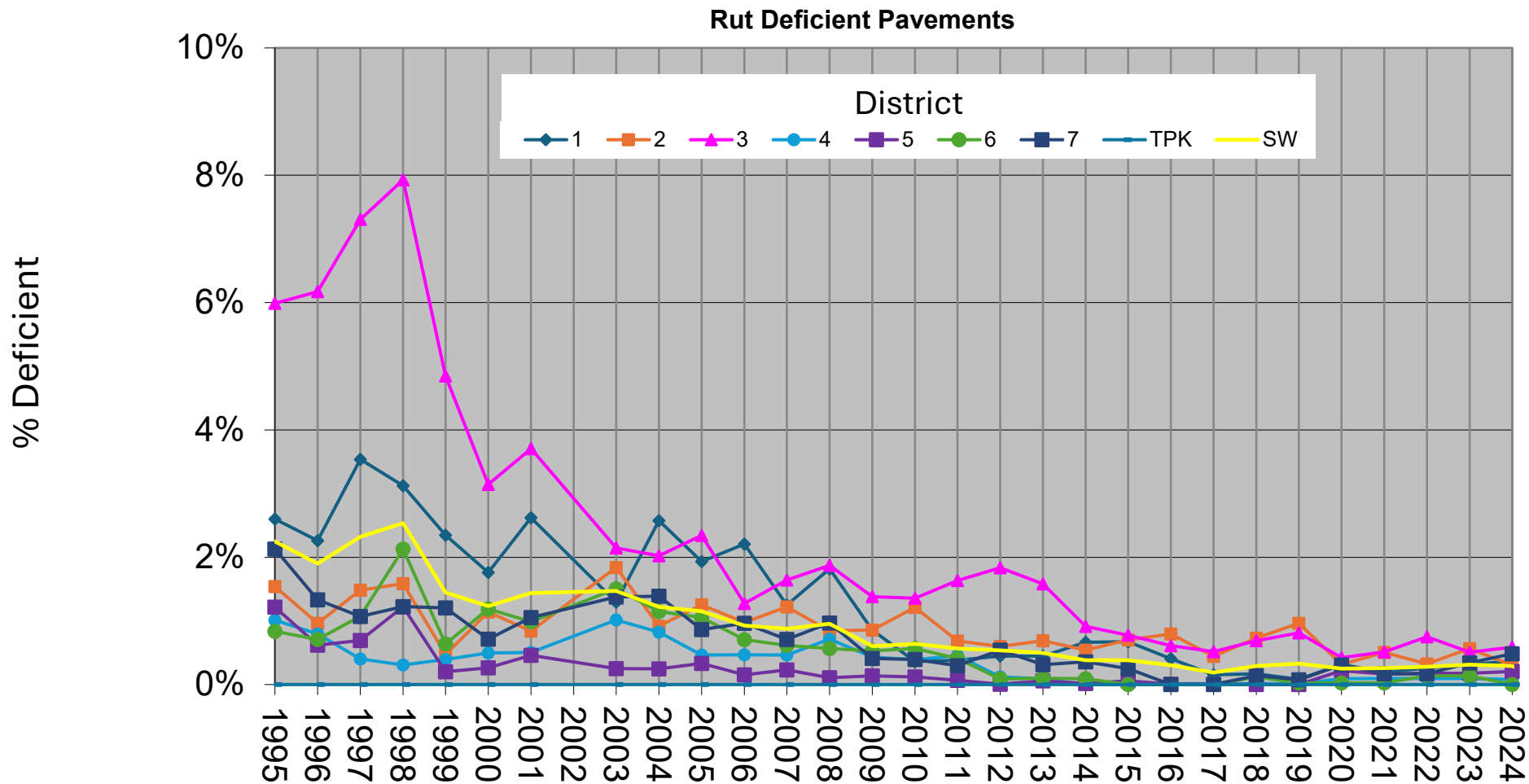
District 7 Historical Performance



Turnpike Historical Performance



What Happened to Rutting?



Hot Issues in 1994*

- * My first Conference as State Bituminous Engineer
- 53 Agenda Items
- Main Issues:
 - Viscosity of asphalt rubber
 - Density issues with 1" S-III
 - Status of smoothness specification
 - Off-duty officers
 - Binder content by meter printout with GTR
 - Variability of vacuum extraction procedure
 - Tracking problem with tack coats
 - How long to keep a lot open?
 - Can paperwork be reduced?



FLORIDA DEPARTMENT OF TRANSPORTATION
State Materials Office
2006 N E Waldo Road
Gainesville, Florida 32609
Ph. 904-372-5304

MEMORANDUM

DATE: October 4, 1994

TO: District Construction Engineers
District Materials Engineers
District Bituminous Engineers

FROM: J. B. Lairscey, Director, Office of Construction

COPIES: H. E. Prescott, V. G. Marcoux, C. W. Goodman, F. Simmons, G. C. Page,
J. A. Musselman, Carroll Lance (ACA)

SUBJECT: 1994 Annual Asphalt Construction Conference - Minutes

Attached are the minutes of the subject conference. We would like to acknowledge the participation of both Industry and Department personnel in making this 18th Annual Asphalt Conference a success.

We suggest that the appropriate distribution of these minutes be made with Industry and the Department.

A number of items are in the process of being resolved. As they are resolved appropriate means will be used to provide this information. Again thank you for your participation.

JB�:gpb

Attachments

Hot Issues in 2015*

- *My last conference with FDOT
- Pavement segregation
- PG 76-22 (ARB) availability issues
- FDOT looking for alternative to the Asphalt Rubber Membrane Interlayer
- Trackless tack problems
- Cold weather paving in North Florida

Hot Issues in 2024....

- FC-5:
 - Raveling and “FC-5 Only” Targeted Resurfacing
 - Changes in FC-5 policies
 - Research completed on alternatives to FC-5 in suburban areas
 - FC-7
- Asphalt test road opened to traffic October 2024
 - Concrete test road started to crack (it was planned, but still...)
- Streamlined asphalt mix design verification process
- Evaluating 100% RAP base with the FDOT heavy vehicle simulator

Thank You...

...its nice to be back!

Jim Musselman
State Asphalt Materials Engineer
Office: 352.955.6640
Cell: 352.538.1706
Jim.Musselman@dot.state.fl.us

