



Driving Indiana's Economic Growth

2007 PURDUE ROAD SCHOOL

DATA DRIVEN DECISIONS

BY: Dave Andrews



2007 PURDUE ROAD SCHOOL

- Manager, Office of Pavement Engineering
 - Pavement Steering Committee
 - Pavement Designs (including type)
- Major Pavement Preservation Program
 - Program Manager
 - MP³ Committee Chairman
 - \$2,600,000,000 10 Yr Construction Prog.

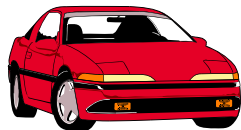


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WHAT IS A
DATA DRIVEN
DECISION ?



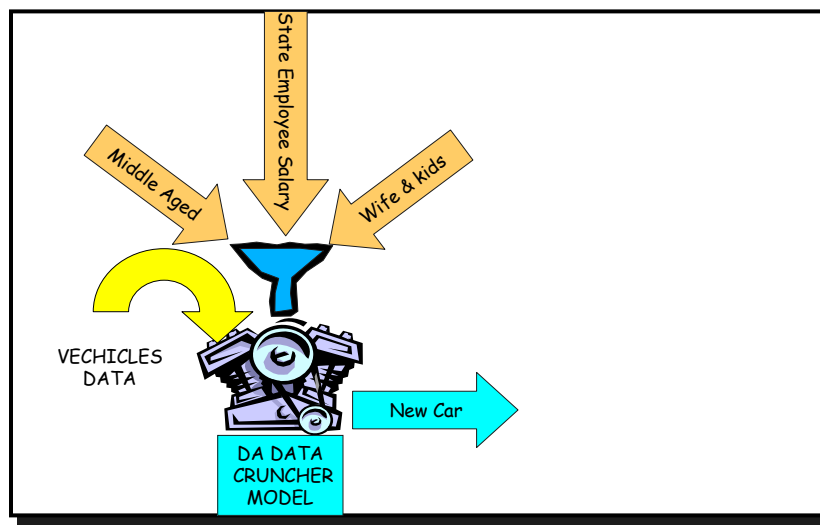
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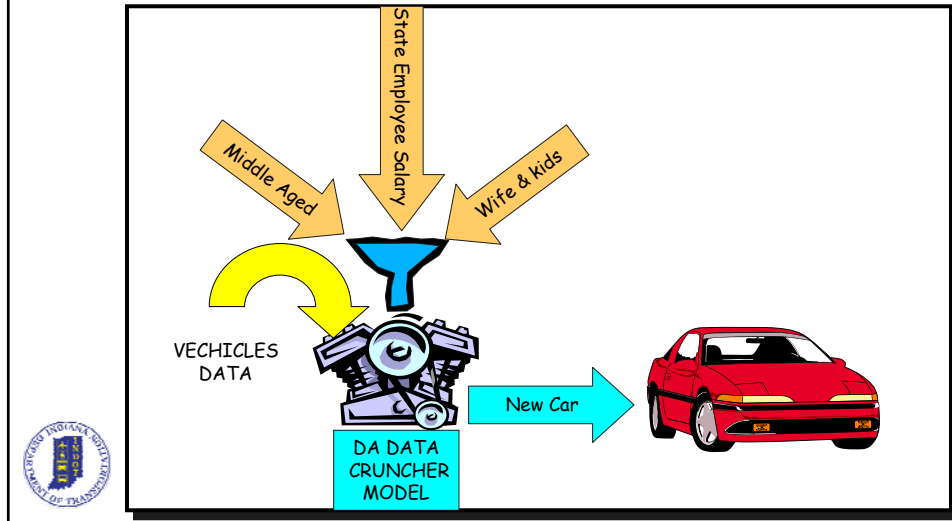
	Red Car	Blue Car
Base	12,000	34,000
MPG	35	13
0 – 60	6.6	4.2 sec
Warranty	Yes	Yes
Capacity	5	2



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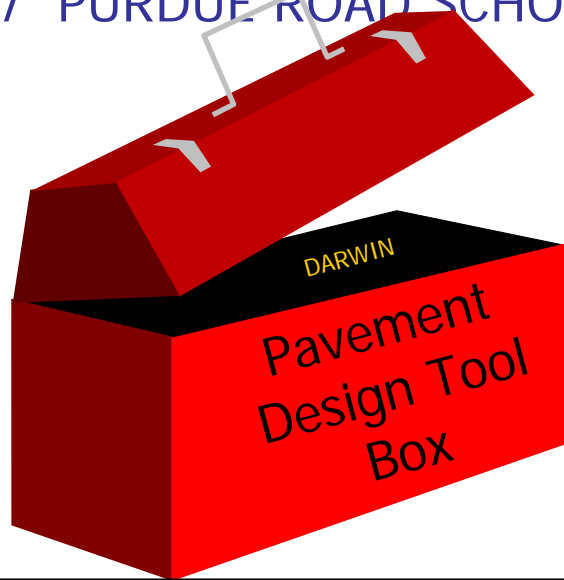
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PAVEMENT DESIGN DATA

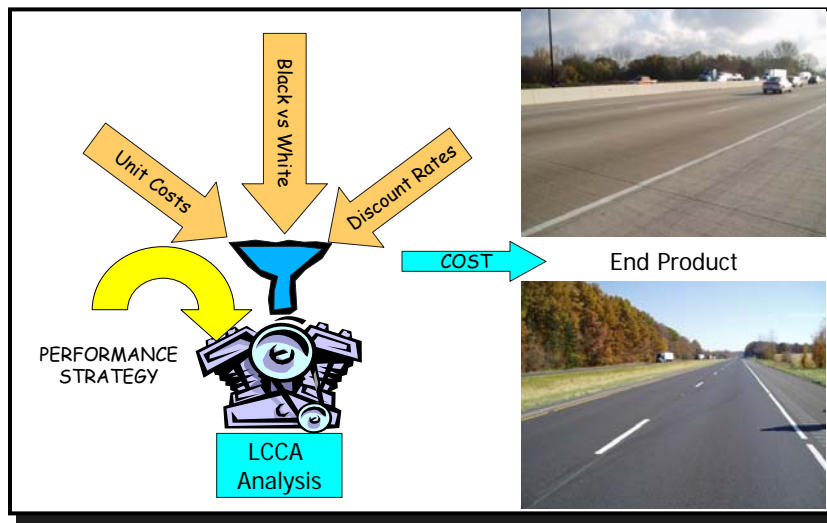
- Foundation (CBR)
- Traffic
 - ADT
 - % Trucks
 - Traffic Speed
- Climate
- Subgrade Treatment



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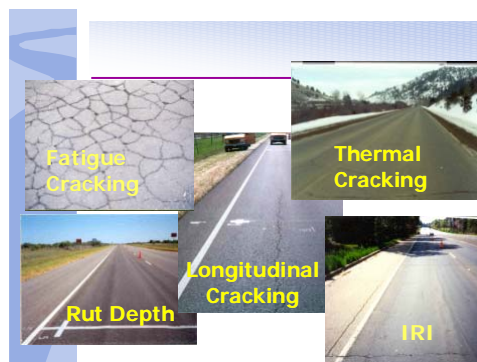
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Major Pavement Preservation Program

- \$2.6 Billion 10 yr Construction Program
 - Interstate
 - Non-Interstate
- Needs Exceed the Dollars Available
- Requires Data Driven Decisions and Visual Inspections



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2007 PURDUE ROAD SCHOOL PAVEMENT MANAGEMENT DATA

Asphalt	Concrete
IRI	IRI
Cracking	Cracking
Rut	Faulting
Surface Friction	Surface Friction



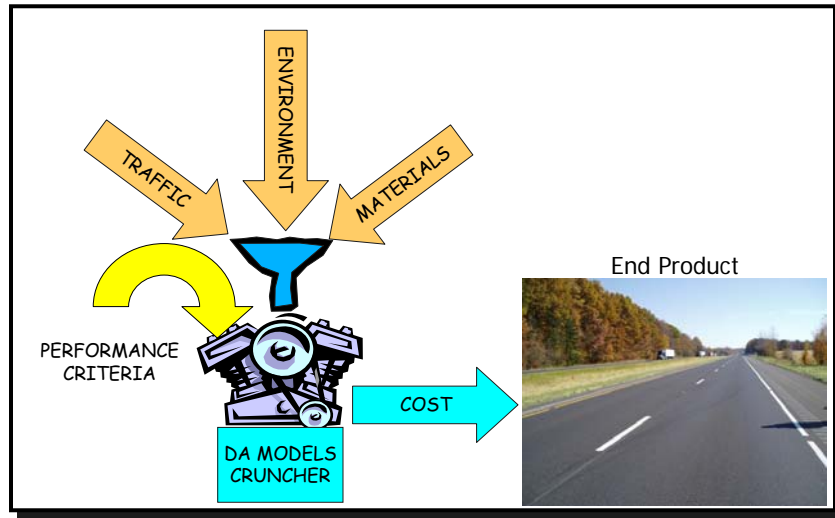
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PROJECT TYPE

- Replacement
- Reconstruction
- Rehabilitation
- Resurface
 - PM – 3R
 - Functional – 4R



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PROJECT DESIGN

- Prior to Re-engineering
 - Design to Standards
 - Add up the Dollars
- Post Re-engineering
 - Design to Dollars
 - Redesign to Dollars
 - Find Dollars



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CONSTRUCTION

- Prior to Re-engineering
 - \$ First Come First Serve
 - Unfunded Projects Moved Out
- Post Re-engineering
 - On Time
 - On Budget



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DATA DRIVEN DECISIONS

Good Data <u>+ Bad Model</u> Bad Decision	Good Data <u>+ Good Model</u> Good Decision
Bad Data <u>+ Bad Model</u> Bad/Good Decision	Bad Data <u>+ Good Model</u> Bad Decision







DATA DRIVEN DECISIONS

- Check the Data
- Calibrate the Model
- Perform a Reality Check
- Life is Good - Enjoy



THANK YOU

