

# South Dakota 2008 Local Roads Needs Study Interim Report

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SD Department of Transportation

South Dakota Local Roads Needs Study SD2008-11  
(Preliminary Results 9/25/08)



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## 2008 Interim Study on Highway Needs and Financing

### Scope:

- projected long term state and local highway needs
- allocation and distribution of responsibility for all highway segments within the state
- future state and local highway cost projections compared to projected revenue
- strategies for creating greater efficiency in financing state and local roads
- strategies to promote the development of innovative ideas aimed at reducing highway funding needs

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## Project Objectives

- Assess current condition of local roads and bridges
- Identify major cost elements affecting changing needs
- Identify objective and appropriate standards for the design, construction, and maintenance of local roads and bridges for use in estimating life-cycle costs
- Estimate current and future funding needs for local roads and bridges
- Identify opportunities and strategies for reducing funding needs and achieving greater efficiency

**Work is partially complete**

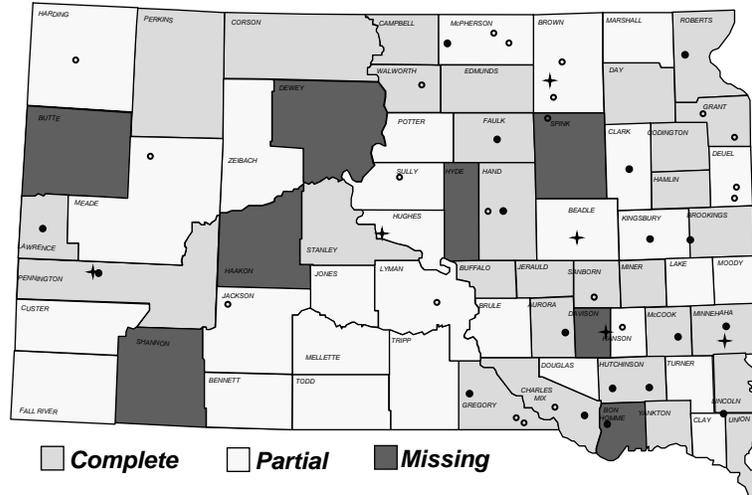
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**Local Agency Survey Responses (9/23/08)**



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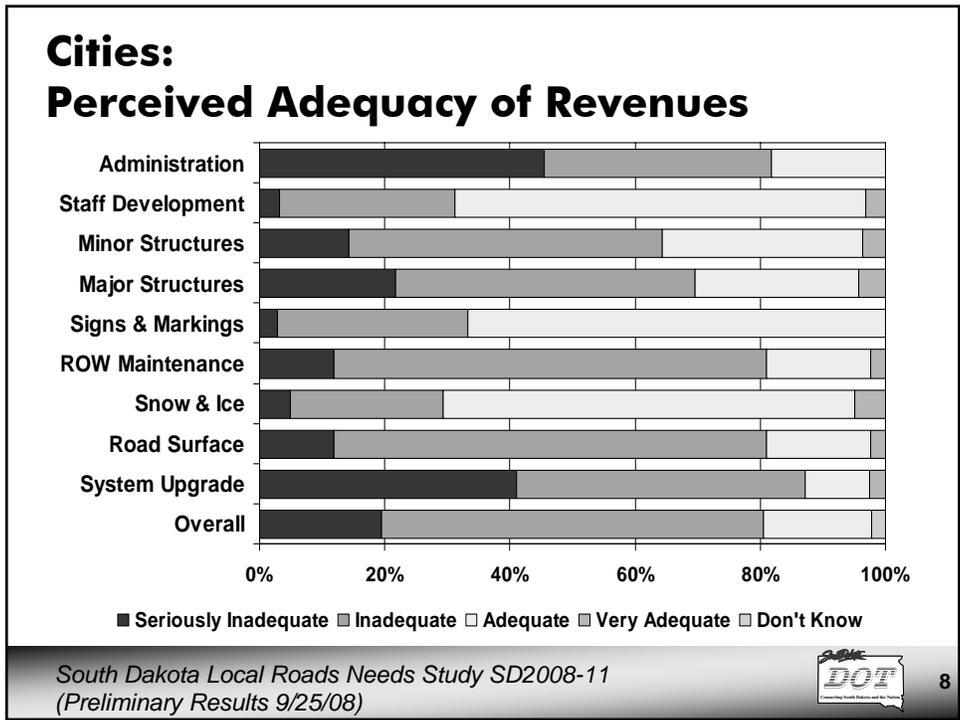
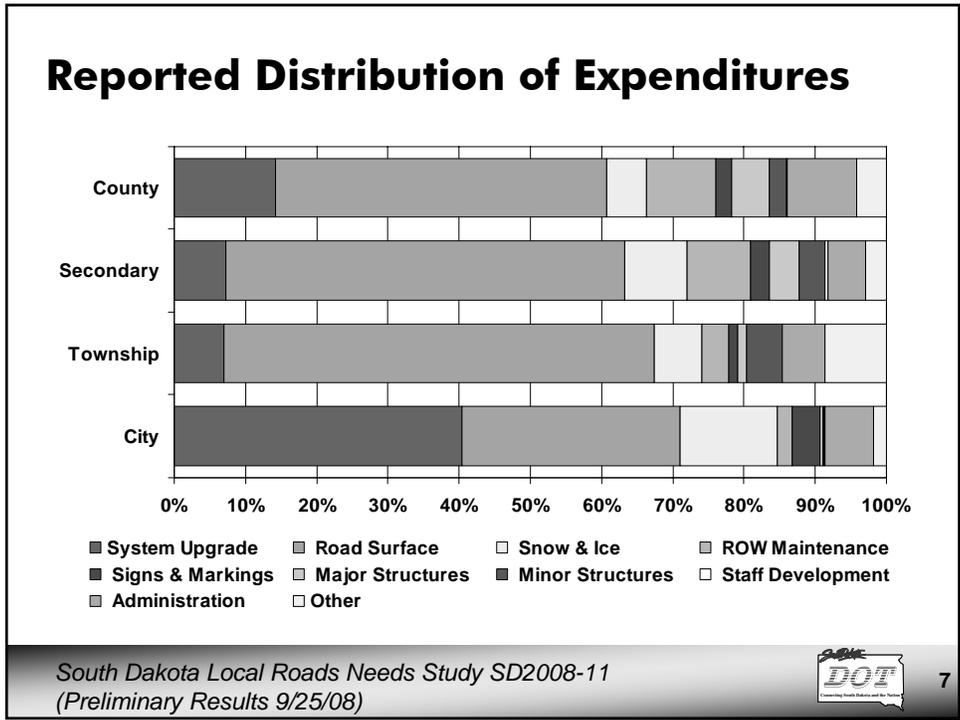
**Survey Responses (9/23/08)**

Agencies		Responses
Counties		58 (28 complete)
Cities	Class 1	6
	Class 2	17
	Class 3	20
Townships		70

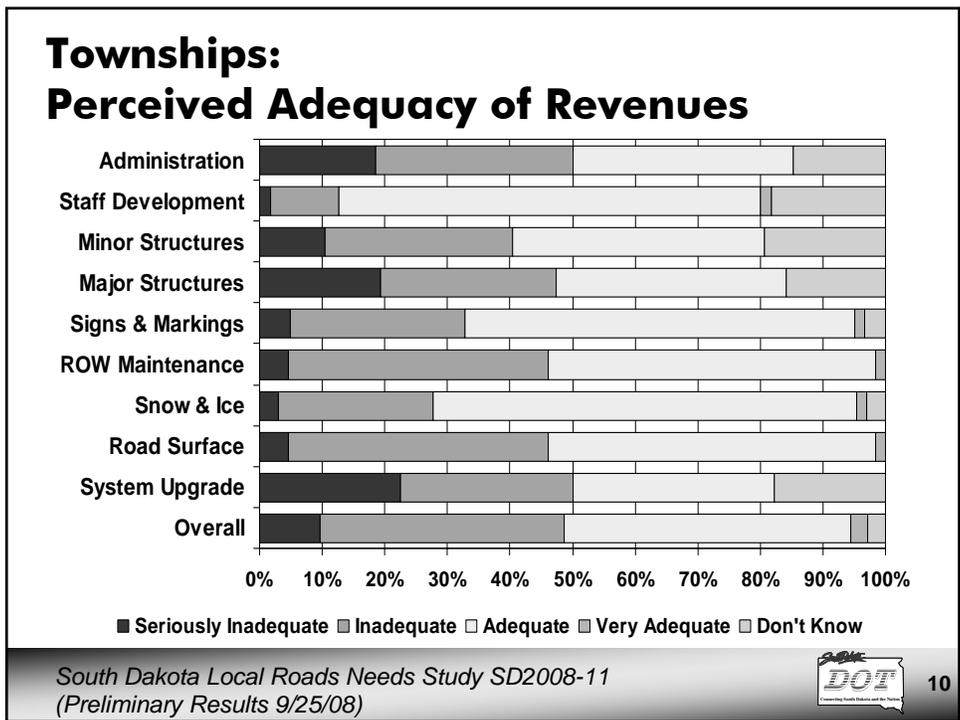
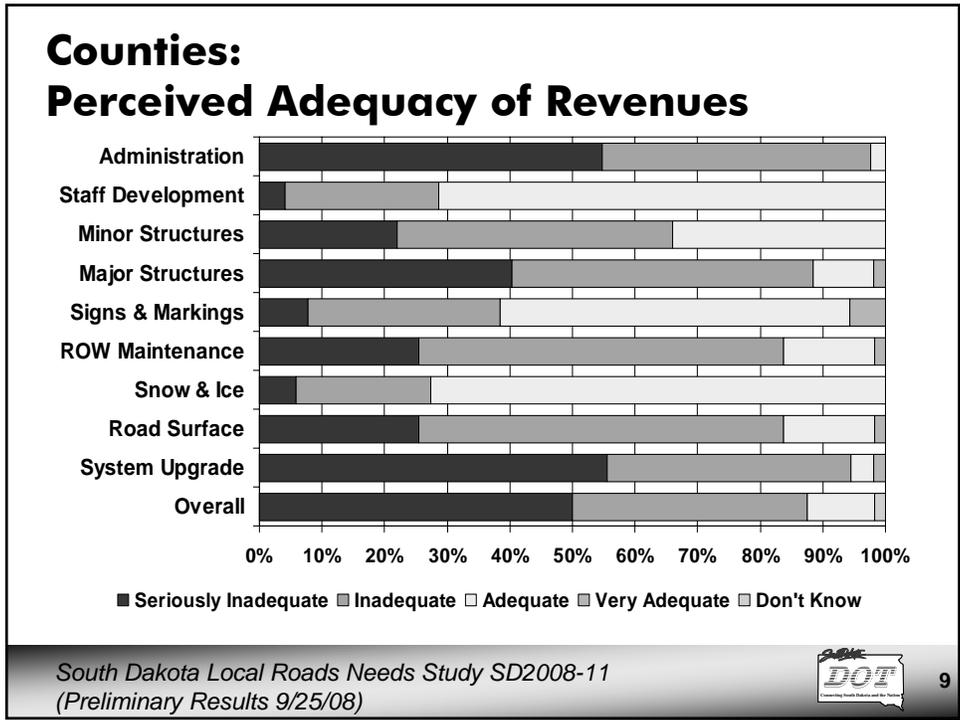
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## Most Critical Items to Agencies

Rank	Cities	Townships	Counties
1	Road Surface Maintenance	Road Surface Maintenance	Road Surface Maintenance
2	ROW Maintenance	ROW Maintenance	ROW Maintenance
3	System Upgrade	Snow & Ice	System Upgrade
4	Snow & Ice	System Upgrade	Administration

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## Perceived Opportunities for Funding

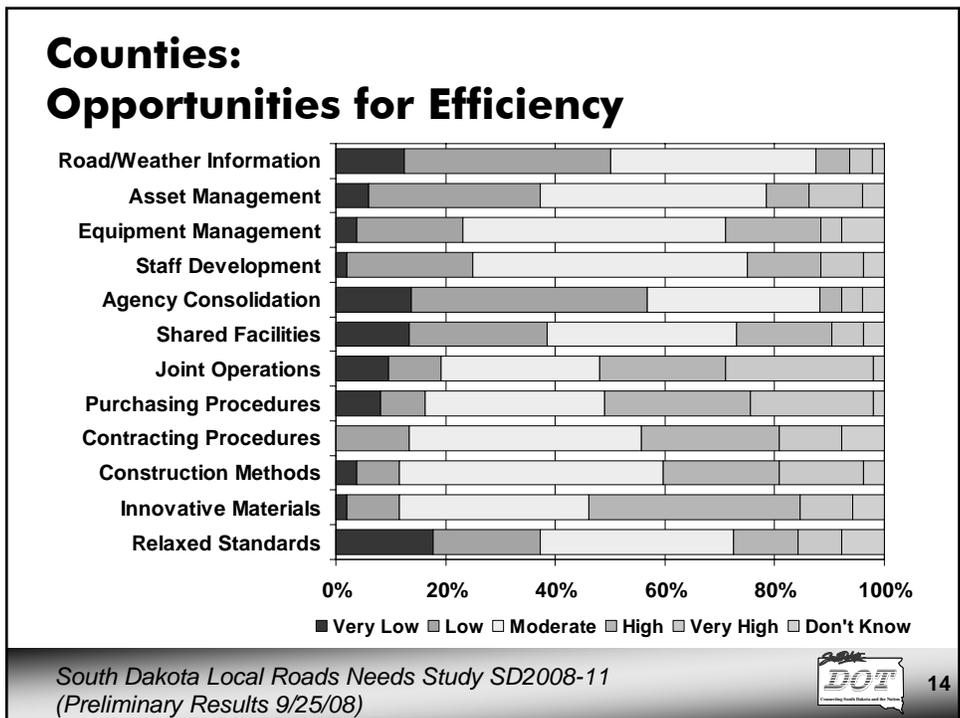
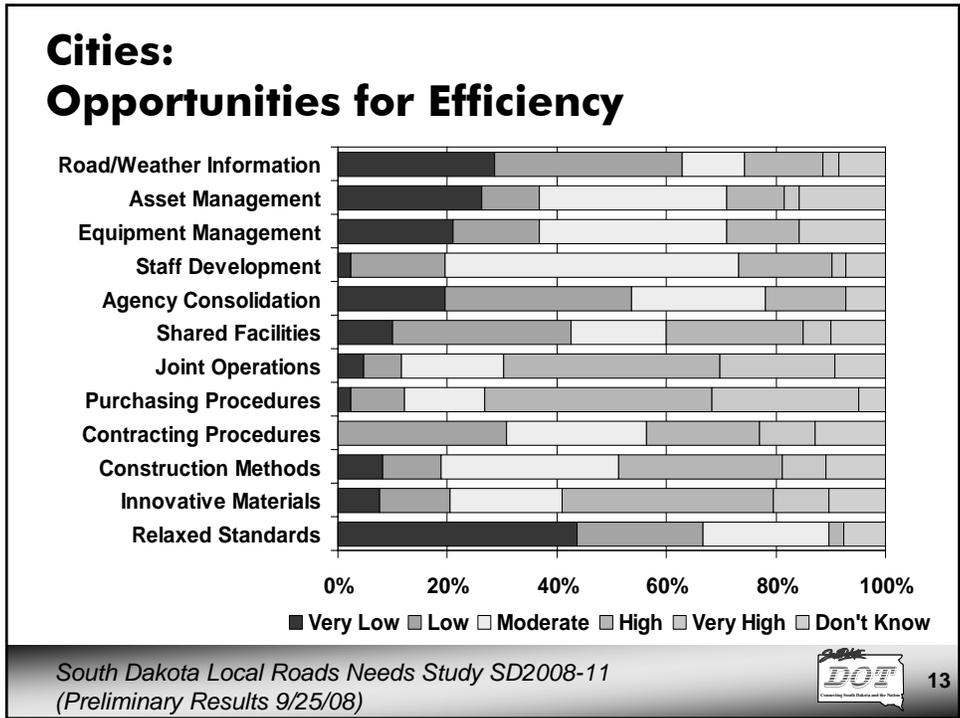
- Opt out of property tax freeze
  - Non-highway needs compete for limited funds
- Increase existing mechanisms
  - Vehicle registration
  - Wheel tax
  - Property tax

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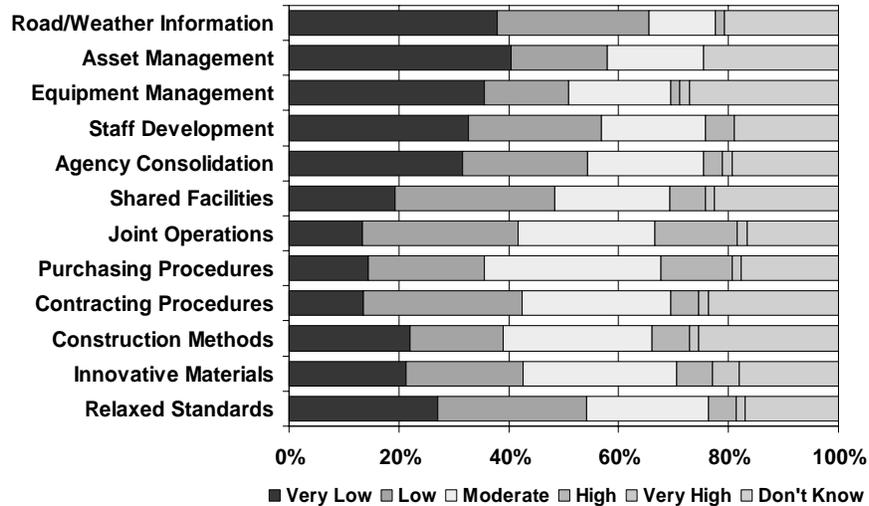


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## Townships: Opportunities for Efficiency



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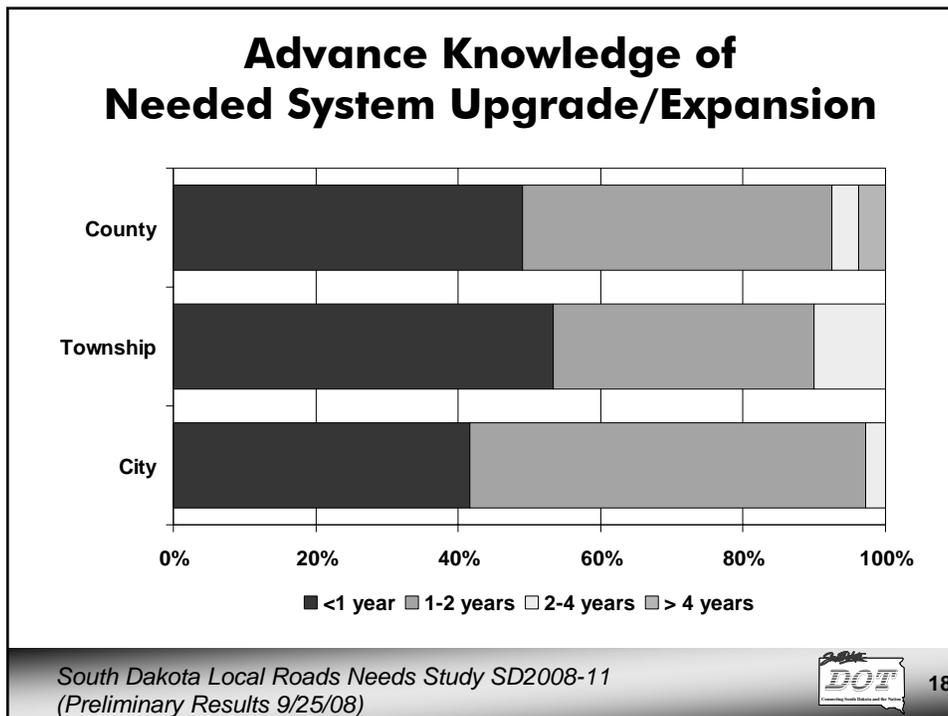
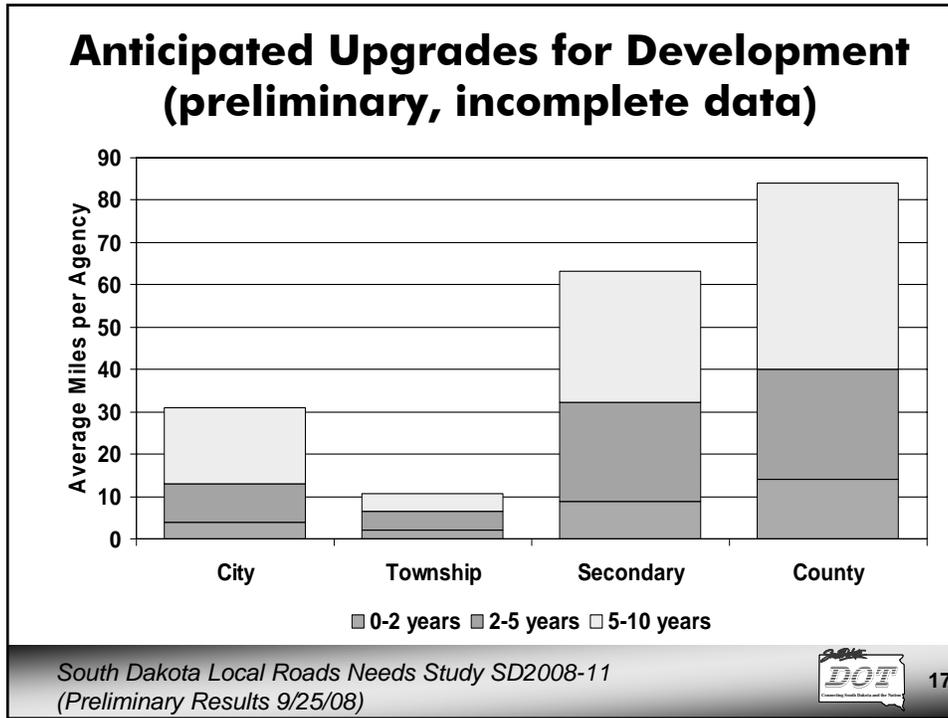


## Best Opportunities for Efficiency

- Joint operations
- Shared facilities
- Innovative materials
  - Reclaimed materials
  - Warm asphalt
- Procurement and contracting methods
- Relaxed standards are not seen as an effective means toward efficiency

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## Rural Development Pressure (Blom Township Example)



A large dairy was constructed west of Brandt, SD. The primary access is a gravel road from the dairy to SD Hwy 15. The road had performed quite well for ~50 years with routine blade maintenance and occasionally adding gravel.



Condition of the road after opening of dairy – the road deteriorated further and had to be closed.

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## Rural Development Pressure (Blom Township Example)

While the primary access road was closed for repair, this alternate route began to fail.



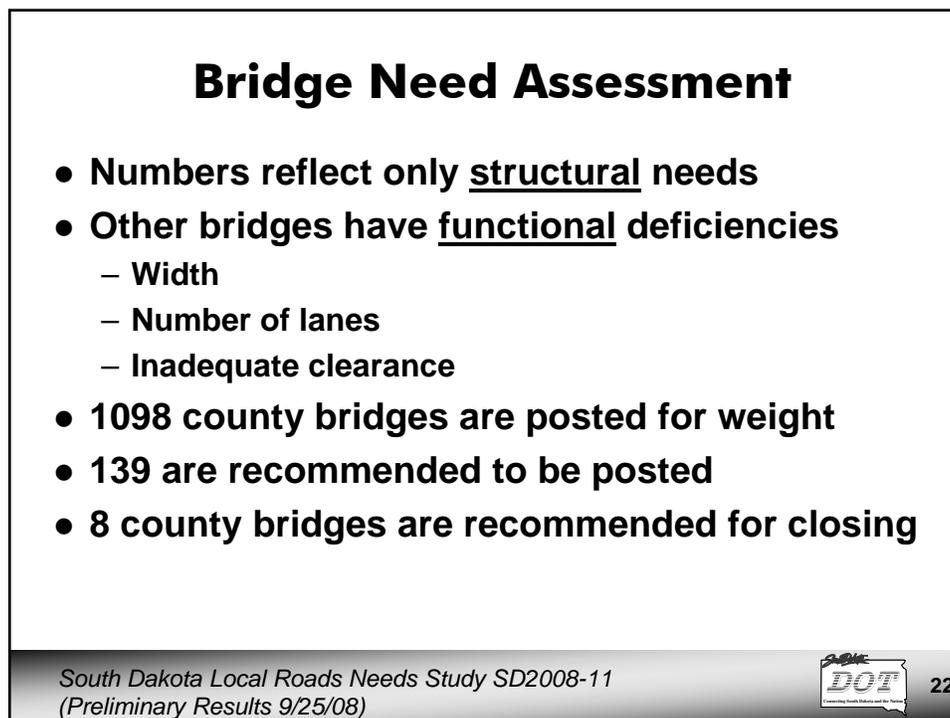
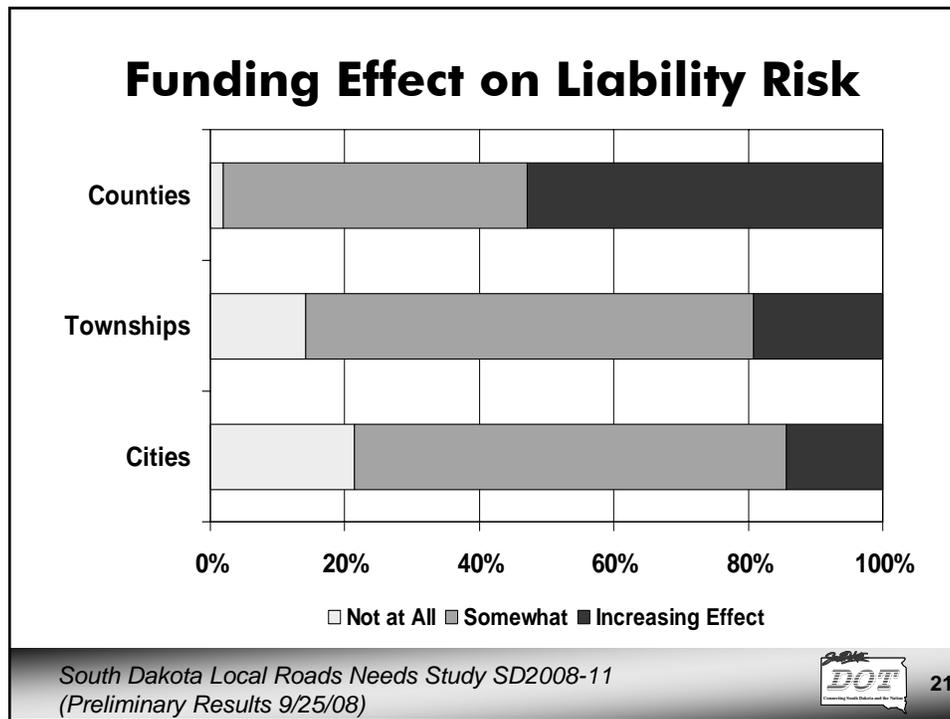
Approximately \$40,000 of local funds have been spent for road improvement thus far.

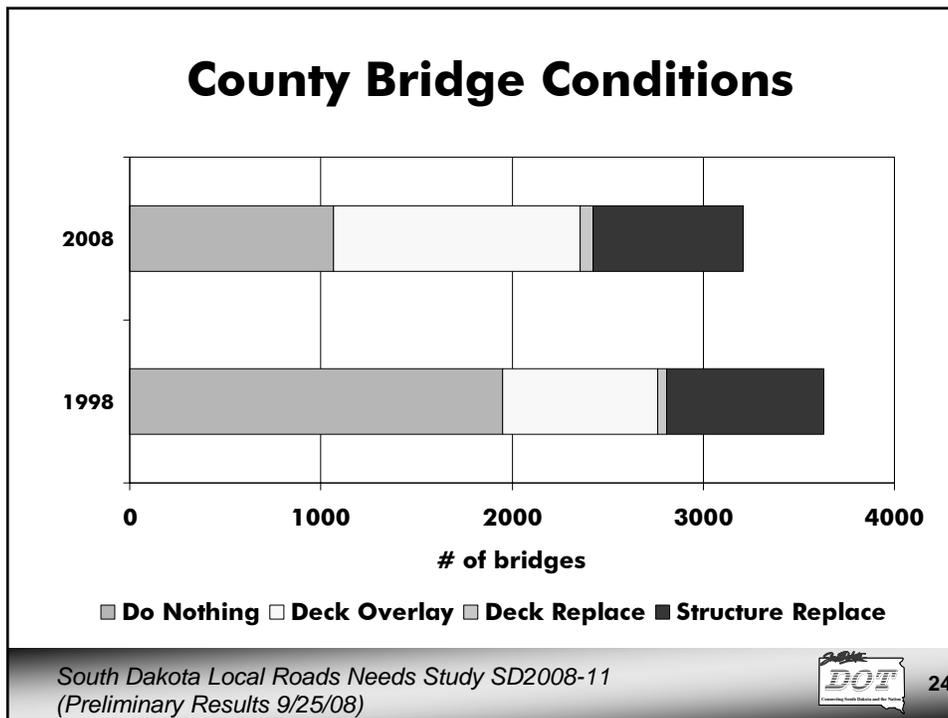
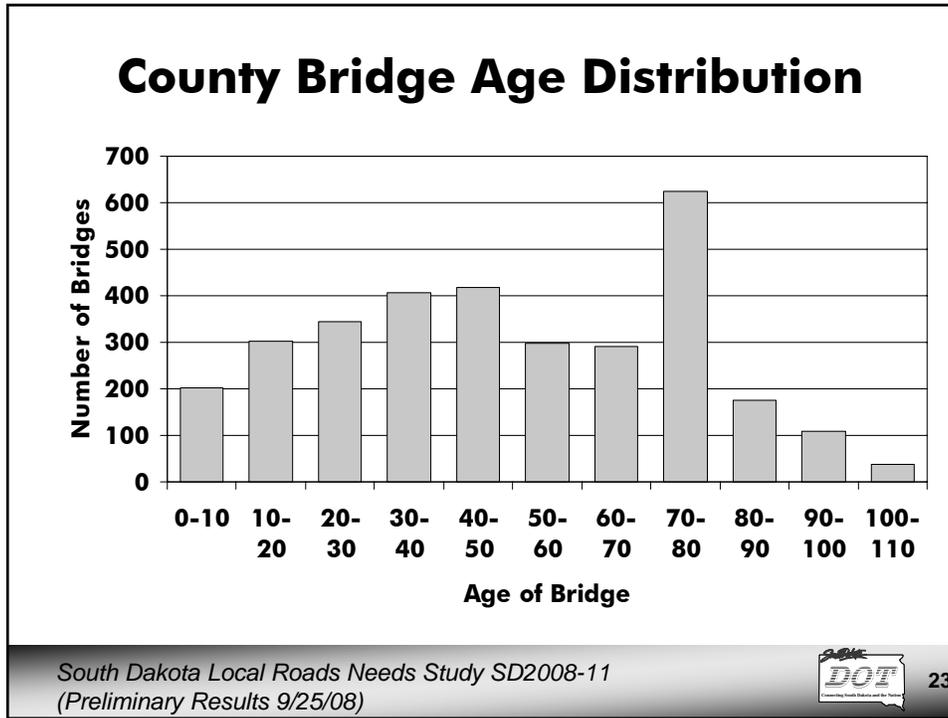


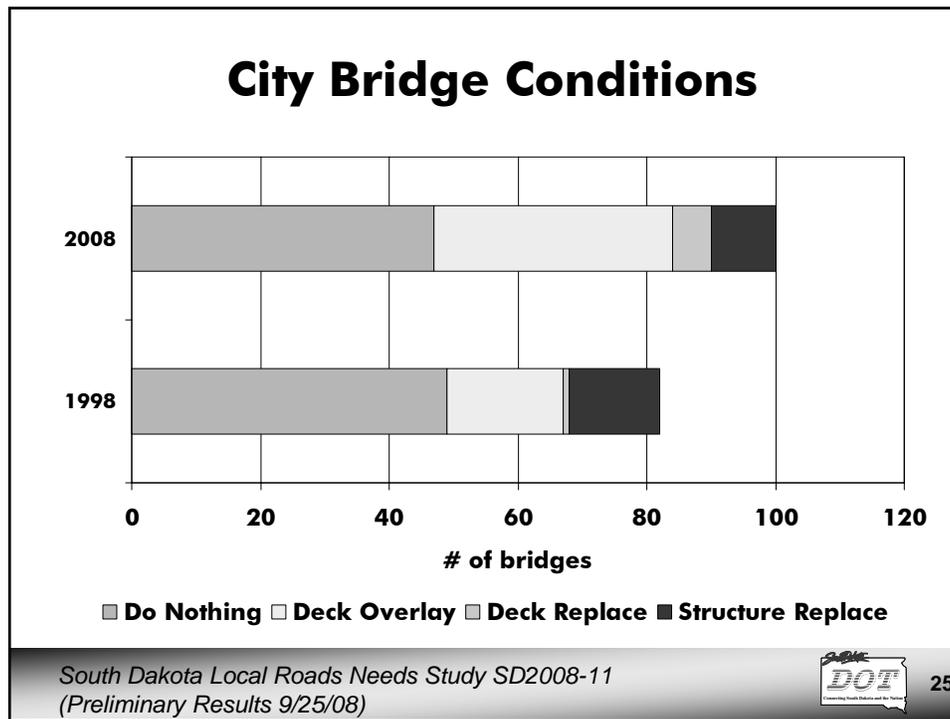
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### Bridge Rehabilitation Costs

System	Year	Deck Overlay	Deck Replace	Structure Replace
City	1998	\$7	\$20	\$93
	2008	\$18	\$55	\$202
County	1998	\$7	\$20	\$113
	2008	\$33	\$82	\$255

(all costs per square foot)

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## Example Road Surface Costs

Treatment	1998	2008
Regrade gravel surface, add 4" gravel	\$1.67	\$5.80
Reconstruct gravel road, 6" gravel	\$13.60	\$23.23
Reconstruct 6" base & blotter	\$16.16	\$26.98
Patch alligator-cracked areas (minor), rout and seal cracks, chip seal	\$1.65	\$1.87
Mill asphalt surface, patch, 2.5" overlay	\$6.68	\$12.05
Reconstruct 8" base, 3" asphalt mat	\$23.50	\$48.05
(all costs per square yard)		

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## Observations (Not Conclusions)

- Responses to local agency survey indicate serious financial challenges
- Agricultural, residential, and industrial development places significant demands on local transportation
- Survey responses are not yet adequate to reliably predict road surface funding needs
- Bridge and road surface treatment costs have risen dramatically since 1998 assessment
- Financial needs are expected to increase significantly from 1998

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## Remaining Work

- Work with local agencies and associations to improve survey response for need assessment
- Perform road surface need assessment
- Compare road and bridge needs with current funding levels
- Contact local agencies for additional detail on potential funding and efficiency opportunities
- Present findings to Interim Committee and others

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## Project Technical Panel

- Richard Benda  
SD Dept. of Tourism & Economic Development
- Robin Bobzien  
American Public Works Assn.
- Gail Brock  
SD Assn. of Towns & Townships
- Toby Crow  
Associated General Contractors
- Larry Engbrecht  
American Concrete Paving Assn.
- Brenda Forman  
Ag Unity
- John Foster  
SDDOT Research
- Bruce Lindholm  
SDDOT Local Programs
- Ben Orsbon  
SDDOT Office of the Secretary
- Raymond Roggow  
SD Highway Superintendents
- Hal Rumpca  
SDDOT Research
- Ken Skorseth  
Local Transportation Assistance Program
- Ken Swedeen  
Dakota Asphalt Paving Assn.
- Yvonne Taylor  
SD Municipal League
- Todd Thompson  
SDDOT Bridge Design
- Jeff Des Lauriers  
City of Sioux Falls
- Bob Wilcox  
SD County Commissioners Assn.
- Dale Tech  
SD Street Superintendents Assn.

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## Acknowledgements

- SD Association of Towns & Townships
- SD Association of Counties
- SD Municipal League
- SD Local Transportation Assistance Program
- SD Department of Tourism & State Development
- SDDOT Offices of Bridge Design, Project Development, Research, Local Programs
- Applied Pavement Technology

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## Questions?

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