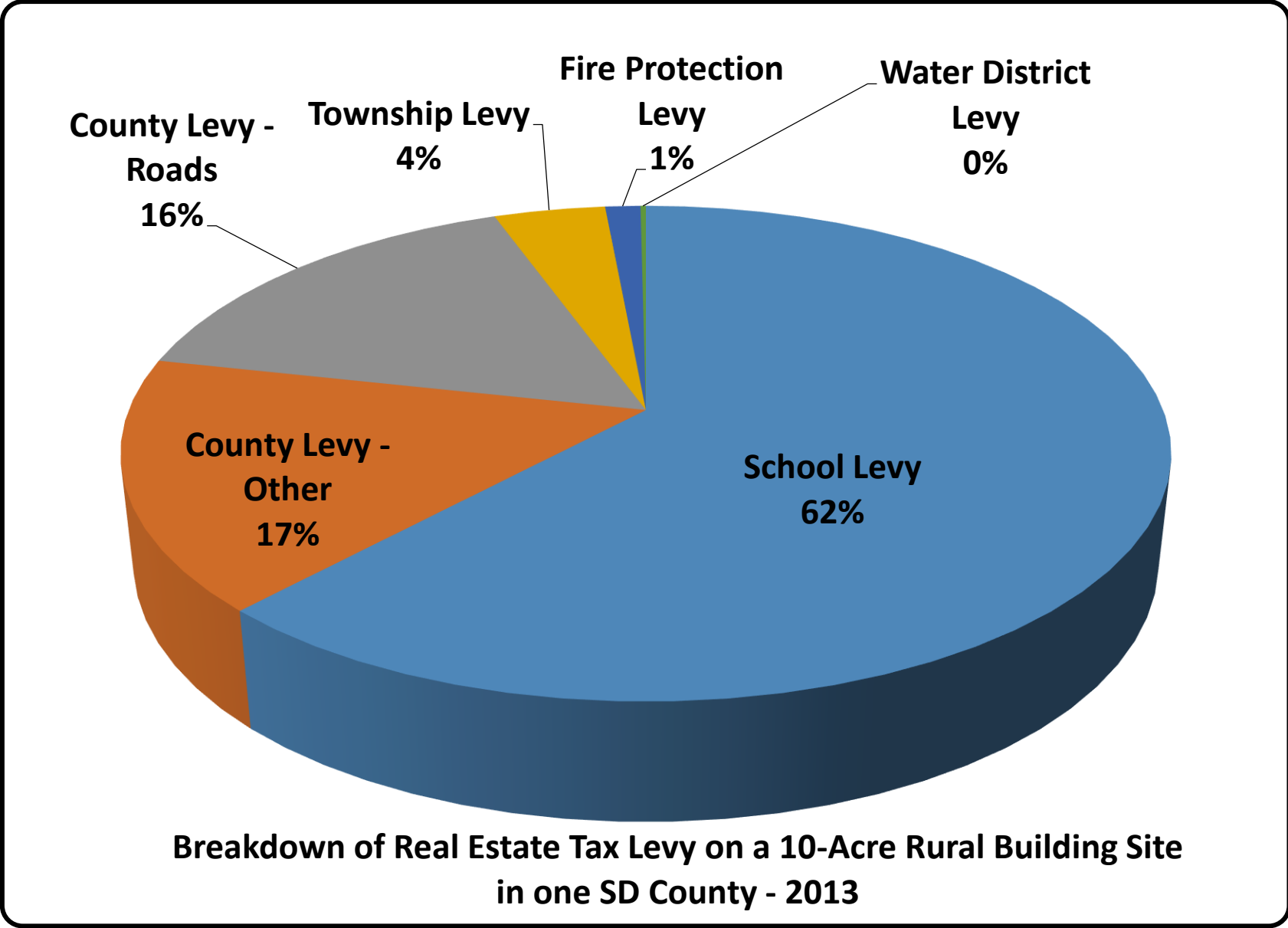


SD Township Rd Condition and Cost Assessment

Typical real estate tax revenue share for local road maintenance



Current SD Township Road Inventory

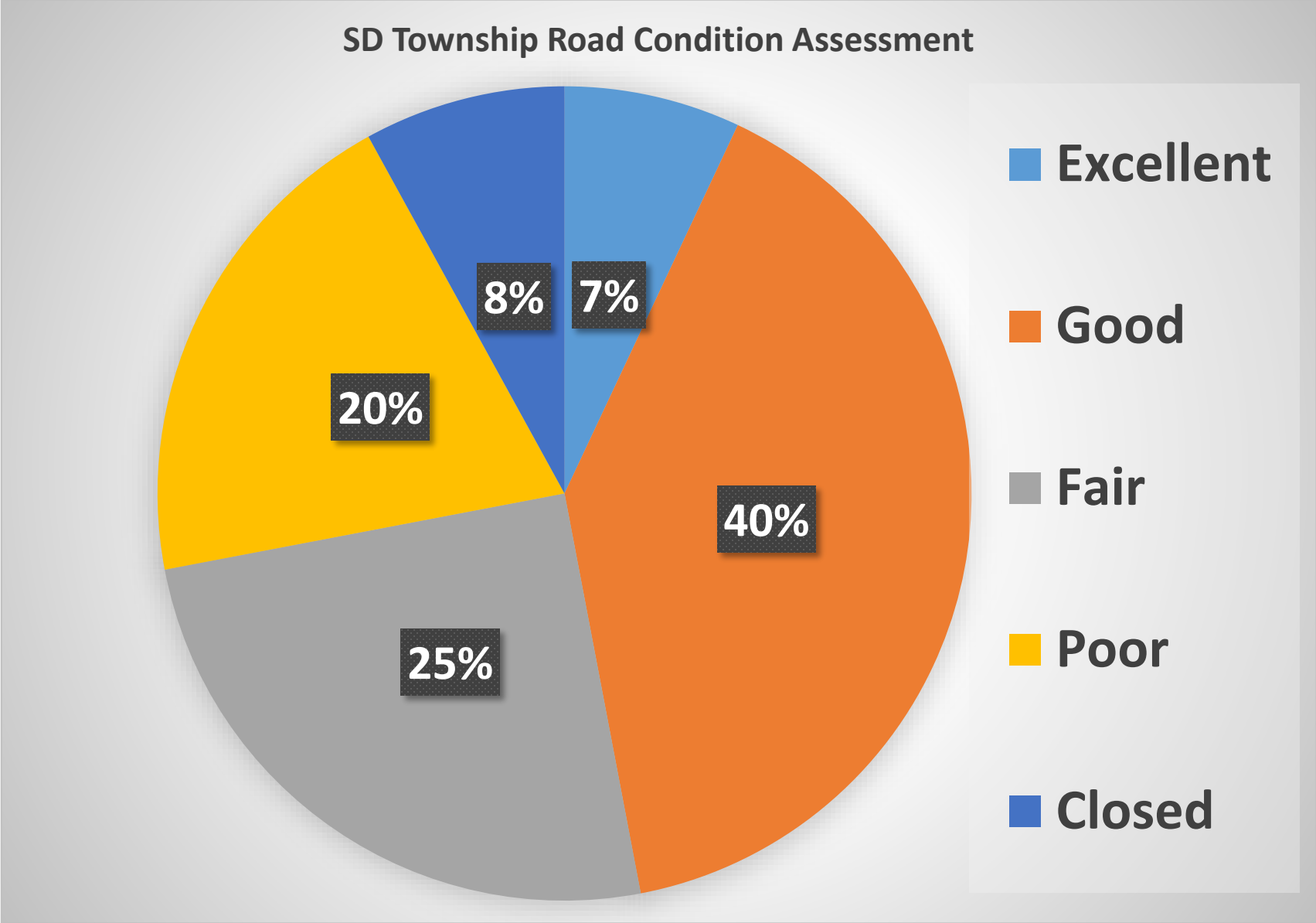
- **Total: 31,231 miles**
- **Breakdown by Designation (%):**
 - **Full Maintenance 73% (22,799 miles)**
 - **Minimum Maintenance 14% (4,372 miles)**
 - **Closed – No Maintenance 10% (3,123 miles)**
 - **Designated No Maintenance 3% (937 miles)**

Bridge <20 ft. (Small Structure) and Culvert Inventory

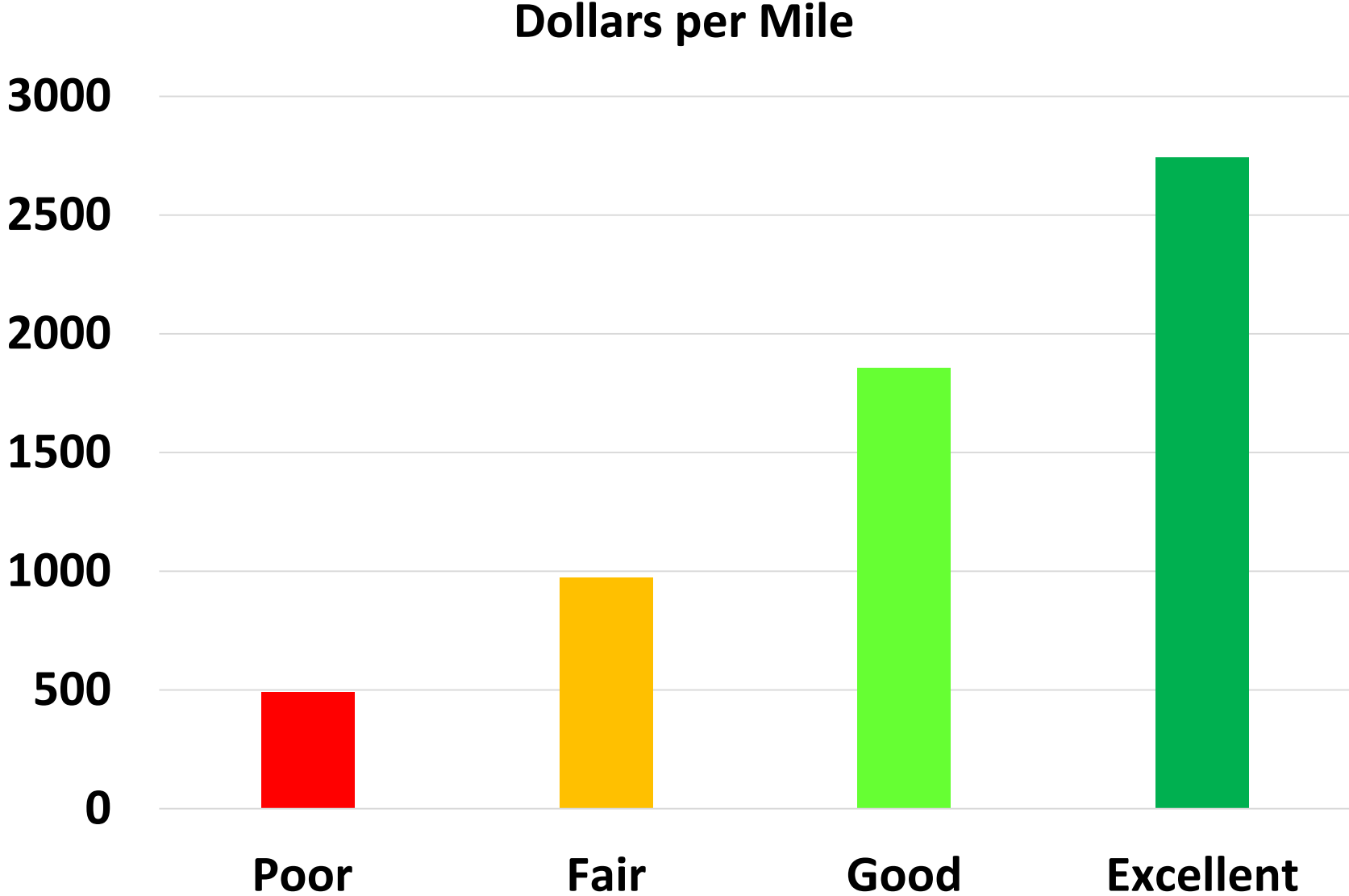
- **Total number of structures -** **1,820**
 - **Percentage Needing Improvement:** **49% (892 structures)**
 - **Percentage Closed:** **8% (145 structures)**

- **Culverts** **72,880***
 - **Percentage Needing Replacement:** **15% (11,220 culverts)**
 - **Percentage Failed Causing Road Closure:** **1.5% (1,093 culverts)**

Current Township Road Condition Assessment



Annual Expenditures and Resulting Surface Conditions



TOWNSHIP REVENUE

Information Based on Unaudited Financial Statements Submitted by the Townships to Legislative Audit

	FY 2003	FY 2008	FY 2013
14% Motor Vehicle Fees	\$ 4,093,340.04	\$ 4,881,250.06	\$ 7,153,926.92
Distributions from the Local Gov Hwy and Brdg Fund	\$ 666,272.68	\$ 756,482.10	\$ 1,255,240.21
Proration License Fees	\$ 887,552.47	\$ 1,037,065.63	\$ 1,436,827.61
Wheel Tax	\$ 428,543.80	\$ 546,595.46	\$ 880,851.45
Property Taxes	\$10,327,605.78	\$12,605,476.69	\$16,269,721.39
Bank Franchise Tax	\$ 183,069.91	\$ 302,575.77	\$ 245,858,.75
U.S. Fish and Wildlife Payments	\$ 170,116.29	\$ 213,595.50	\$ 393,062.04
State Highway Fund (former 10% game)	\$ 532,022.68	\$ 590,299.19	\$ 586,445.14
FEMA Grants	\$ 126,033.64	\$ 3,570,598.29	\$ 939,845.72
Interest Earned from Bank Accounts and CD's	\$ 477,511.74	\$ 860,517.56	\$ 243,505.62
Other Receipts	\$ 1,604,194.39	\$ 3,172,849.68	\$ 3,345,886.32
TOTAL RECEIPTS	\$19,496,263.41	\$ 28,537,305.93	\$ 32,751,171.17

TOWNSHIP EXPENDITURES

Information Based on Unaudited Financial Statements Submitted by the Townships to Legislative Audit

	FY 2003	FY 2008	FY 2013
Road Maintenance (graveling, grading, etc.)	\$ 9,686,152.96	\$15,193,845.03	\$ 17,056,778.51
Snow Removal	\$ 380,666.73	\$ 971,581.45	\$ 799,017,.39
Weed mowing/spraying	\$ 549,786.23	\$ 664,918.76	\$ 743,288.72
Road Construction (Culverts, bridges, regrading, reconstruction)	\$ 1,674,877.41	\$ 3,304,428.69	\$ 3,433,489.14
Equipment Purchase / Lease	\$ 1,252,919.47	\$ 1,562,440.60	\$ 1,515,378.99
Salaries / Fees / Mileage of Township Officials	\$ 1,102,920.31	\$ 1,391,310.49	\$ 1,516,703.62
Fire Protection	\$ 979,364.76	\$ 1,468,237.12	\$ 1,408,642.37
Ambulance Service	\$ 104,625.80	\$ 223,247.58	\$ 239,578.76
Other (Utilities, insurance, loan repayment, postage, supplies, etc)	\$ 2,014,546.71	\$ 2,440,267.11	\$ 2,563,518.23
TOTAL DISBURSEMENTS	\$17,745,860.38	\$27,220,276.83	\$29,276,395.73

Current Needs on Township Road System

- **Far too much deferred maintenance in last 20 years**
 - **Little gravel is being replaced**
 - **Blade maintenance is not being done frequently enough**
 - **Ditch/drainage maintenance has been almost entirely deferred**
 - **Culvert maintenance and replacement is done only on emergency basis**
 - **Counties often cannot provide replacement of bridges (small structures) <20 ft per SDCL 31-14-27 on township roads. Consequence is townships must pay much in excess of \$500 as defined in statute**

Typical Costs for Maintaining a Mile of Twp Road

Haul and place 2.5 inches of gravel at 20 ft road width – (expected life of 7.5 years)	\$17,111 (\$2,281 annualized)
Eight (8) cycles of annual blade maintenance at \$44 per cycle	\$352
Remove and replace a 24 inch culvert	\$1,700
Remove and replace a 48 inch culvert	\$5,000
Remove and replace a bridge (small structure) <20 ft. (Assumption is replacement with two 60 inch pipes)	\$16,000
Repair a bridge (small structure) <20 ft.	\$2800

Example Costs to Upgrade One Mile from Poor to Fair Condition

Add enough gravel for equivalent of one inch compacted depth on the road at 20 ft width.	\$6,844
Increase blade maintenance cycles from three to five times annually @ \$44 per cycle	\$88
Remove and replace one 24 inch culvert in a mile	\$1,700
Do minimal ditch cleaning to maintain drainage	\$75
TOTAL COST OF IMPROVEMENT	\$8,707

Example Costs to Upgrade One Mile from Fair to Good Condition

Add enough gravel for equivalent of two inches compacted depth on the road at 20 ft width (assuming one inch is in place)	\$6,844
Increase blade maintenance cycles from five to eight times annually @ \$44 per cycle	\$132
Remove and replace two 24 inch culverts in a mile	\$3,400
Do additional ditch cleaning to maintain better drainage	\$150
TOTAL COST OF IMPROVEMENT	\$10,526

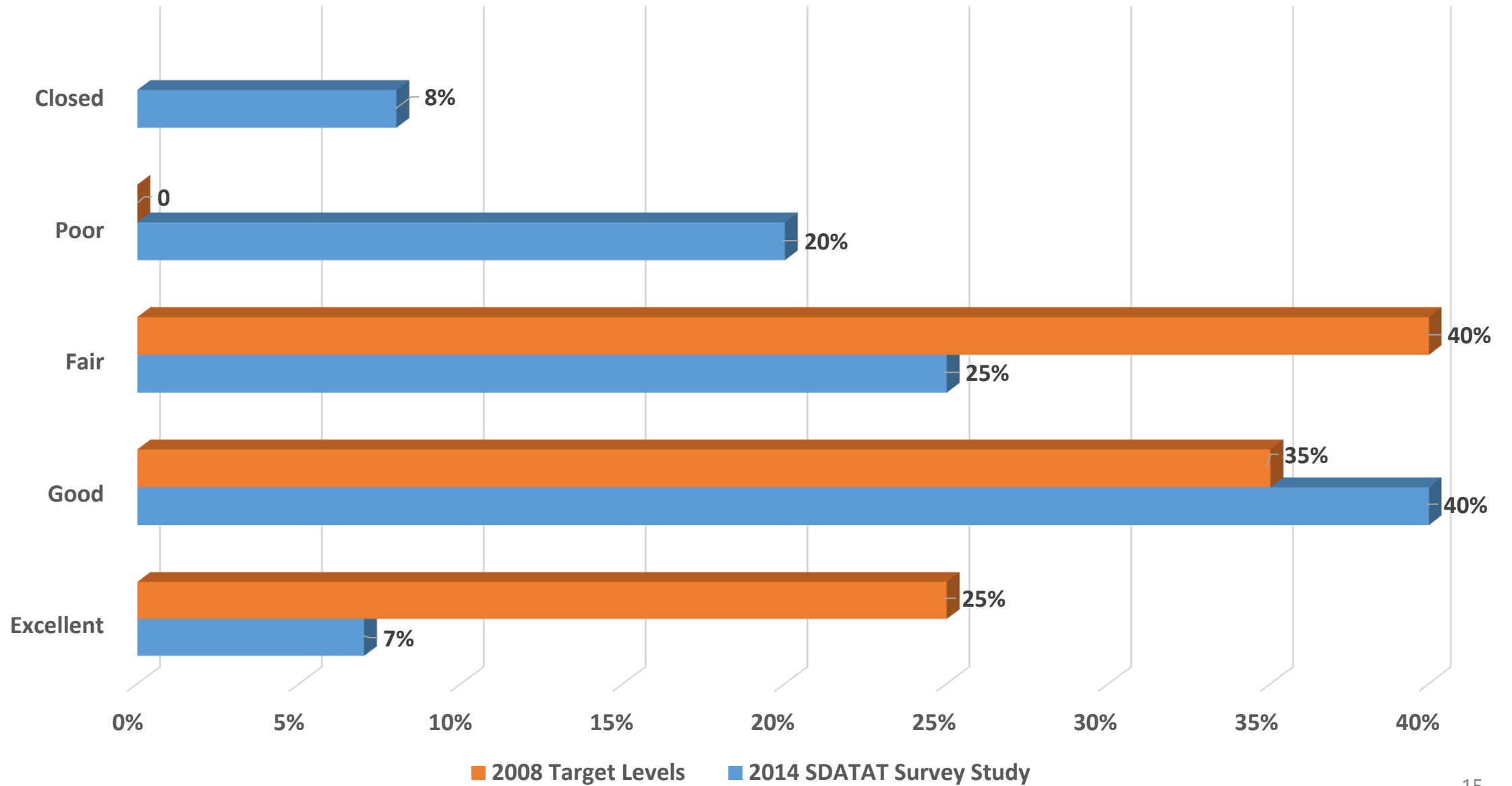
Example Costs to Upgrade One Mile from Good to Excellent Condition

Add enough gravel for equivalent of three inches compacted depth on the road at 20 ft width (assuming two inches in place)	\$6,844
Increase blade maintenance cycles from eight to ten times annually @ \$44 per cycle	\$88
Remove and replace three 24 inch culverts in a mile (could include pipes under driveways or field entrances)	\$5,100
Do more aggressive ditch cleaning to maintain drainage	\$100
TOTAL COST OF IMPROVEMENT	\$12,132

Example Costs to Upgrade One Mile from Fair to Excellent Condition

Add enough gravel for equivalent of three inches compacted depth on the road at 20 ft width (assuming one inch in place)	\$13,688
Increase blade maintenance cycles from five to ten times annually @ \$44 per cycle	\$220
Remove and replace all 24 inch culverts in a mile (average likely four pipes including driveway or field entrance pipes)	\$6,800
Do aggressive ditch cleaning to maintain drainage	\$175
TOTAL COST OF IMPROVEMENT	\$20,883

Current Conditions of Township Roads



FUNDING NEEDS

ESTIMATED ANNUAL COST TO MAINTAIN CURRENT CONDITIONS

*Based on 31,230 Total Miles

PerCent	Condition	Total Miles	Cost to Maintain	Total
7%	Excellent	2,186	\$ 2,800.00	\$ 6,121,080.00
40%	Good	12,492	\$ 1,800.00	\$ 22,485,600.00
25%	Fair	7,808	\$ 1,000.00	\$ 7,807,500.00
20%	Poor	6,246	\$ 500.00	\$ 3,123,000.00
8%	Closed	2,498	\$ -	\$ -
TOTALS:		31,230		\$ 39,537,180.00
			2013 Revenue Available:	\$ 27,000,000.00
			Current Shortfall:	\$ 12,537,180.00

ESTIMATED ANNUAL COST TO MAINTAIN TARGET CONDITIONS

*Based on 31,230 Total Miles

PerCent	Condition	Miles	Cost to Maintain	Total
25%	Excellent	7,808	\$ 2,800.00	\$ 21,861,000.00
35%	Good	10,931	\$ 1,800.00	\$ 19,674,900.00
40%	Fair	12,492	\$ 1,000.00	\$ 12,492,000.00
TOTALS:		31,230		\$ 54,027,900.00
			Annual Increase Needed:	\$ 14,600,000.00

ESTIMATED COST TO UPGRADE TO TARGET CONDITIONS

	Miles	Cost to Upgrade/Mile	Total Cost
Good to Excellent	5622	\$ 12,132.00 =	\$ 68,206,104.00
Fair to Good	4060	\$ 10,500.00 =	\$ 42,630,000.00
Poor to Fair	6246	\$ 8,700.00 =	\$ 54,340,200.00
Total			\$ 165,176,304.00
Increased Maintenance for Target Conditions =			\$ 14,600,000.00
Total Cost to Upgrade & Maintain Target Conditions =			\$ 179,776,304.00
Annualized Over 10 Years (Approx.) =			\$ 18,000,000.00 Per Year

TOTAL FUNDING INCREASE NEEDED TO UPDATE & MAINTAIN CURRENT AND TARGET CONDITIONS = \$ 30,500,000.00

TOWNSHIP REVENUE AND EXPENDITURES

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Distributions from the Local Government Hwy and Bridge Fund	\$ 666,272.68	\$ 756,482.10	\$ 1,255,240.21
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Ambulance Service	\$ 104,625.80	\$ 223,247.58	\$ 239,578.76
Other (Utilities, insurance, loan repayment, postage, supplies, etc)	\$ 2,014,546.71	\$ 2,440,267.11	\$ 2,563,518.23
Total Disbursements	\$17,745,860.38	\$27,220,276.83	\$29,276,395.73

HIGHWAY USER FEE DISTRIBUTION

(Since the "1985 Deal" - Millions of Dollars)

STATE HIGHWAY FUND	CY 1986	CY1997	FY 2010	FY 2013
Motor Fue Tax	\$ 47.841	\$ 99.504	\$ 122.600	\$ 131.200
<u>Motor Vehicle Excise Tax</u>	<u>\$ 19.900</u>	<u>\$ 40.270</u>	<u>\$ 54.600</u>	<u>\$ 70.400</u>
Totals:	\$ 67.741	\$ 139.774	\$ 177.200	\$ 201.600

LOCAL GOVERNMENTS	CY 1986	CY1997	FY 2010	FY 2013	% of Total
Counties	\$ 12.660	\$ 18.318	\$ 42.100	\$ 62.200	67.2%
Townships	\$ 3.489	\$ 4.663	\$ 10.700	\$ 15.800	17.1%
<u>Cities</u>	<u>\$ 2.984</u>	<u>\$ 4.289</u>	<u>\$ 9.800</u>	<u>\$ 14.600</u>	15.8%
Totals:	\$ 19.133	\$ 27.270	\$ 62.600	\$ 92.600	

TOTAL HIGHWAY USERS FEES	CY 1986	CY1997	FY 2010	FY 2013
State Highway Fund	\$ 67.741	\$ 139.774	\$ 177.200	\$ 201.600
<u>Local Governments</u>	<u>\$ 19.139</u>	<u>\$ 27.270</u>	<u>\$ 62.600</u>	<u>\$ 92.600</u>
Totals	\$ 86.880	\$ 167.044	\$ 239.800	\$ 294.200

DISTRIBUTION OF FEDERAL HIGHWAY FUNDS (1987-2003)

(Average Annual Apportionment To South Dakota - Millions of Dollars/Year)

	FY 1987		FY 1997		FY 2010		FY 2013	
	1987	% of Total	1997	% of Total	2010	% of Total	2013	% of Total
Total Federal Apportionment	90.4	100.0%	119.3	100.0%	310	100.0%	280	100.0%
Sub-Allocation to Local Gov'ts	11.1	12.3%	14.5	12.2%	43.7	14.1%	39.5	14.1%
Available for State Hwy System	79.3	87.7%	104.8	87.8%	266.3	85.9%	240.5	85.9%

TOTAL FEDERAL FUNDS & STATE USER FEES AVAILABLE TO THE STATE & LOCAL GOV'TS

(Average Annual Funds Available - Millions of Dollars/Year)

	FY 1987		FY 1997		FY 2010		FY 2013	
	1987	% of Total	1997	% of Total	2010	% of Total	2013	% of Total
State Highway System (7861 miles)								
Federal Funds	\$ 79.3		\$ 104.8		\$ 266.3		\$ 240.5	
User Fees (Motor Fuel & MV Excise Tax)	\$ 67.7		\$ 139.8		\$ 177.2		\$ 201.6	
TOTALS:	\$ 147.0	81.8%	\$ 244.6	84.8%	\$ 443.5	80.1%	\$ 442.1	76.5%
\$/Mile of Highway	\$ 18,700		\$ 31,116		\$ 56,418		\$ 56,240	
Local Governments (75.514 miles)								
Federal Funds (Includes State Match)	\$ 13.6		\$ 16.7		\$ 47.8		\$ 43.2	
User Fees (Vehicle Registration Fees)	\$ 19.1		\$ 27.3		\$ 62.6		\$ 92.6	
TOTALS:	\$ 32.7	18.2%	\$ 44.0	15.2%	\$ 110.4	19.9%	\$ 135.8	23.5%
\$/Mile of Highway	\$ 433		\$ 583		\$ 1,462		\$ 1,798	
<u>Total of State & Local Governments</u>								
Federal Funds & User Fees	\$ 179.7	100%	\$ 288.6	100%	\$ 553.9	100%	\$ 577.9	100%