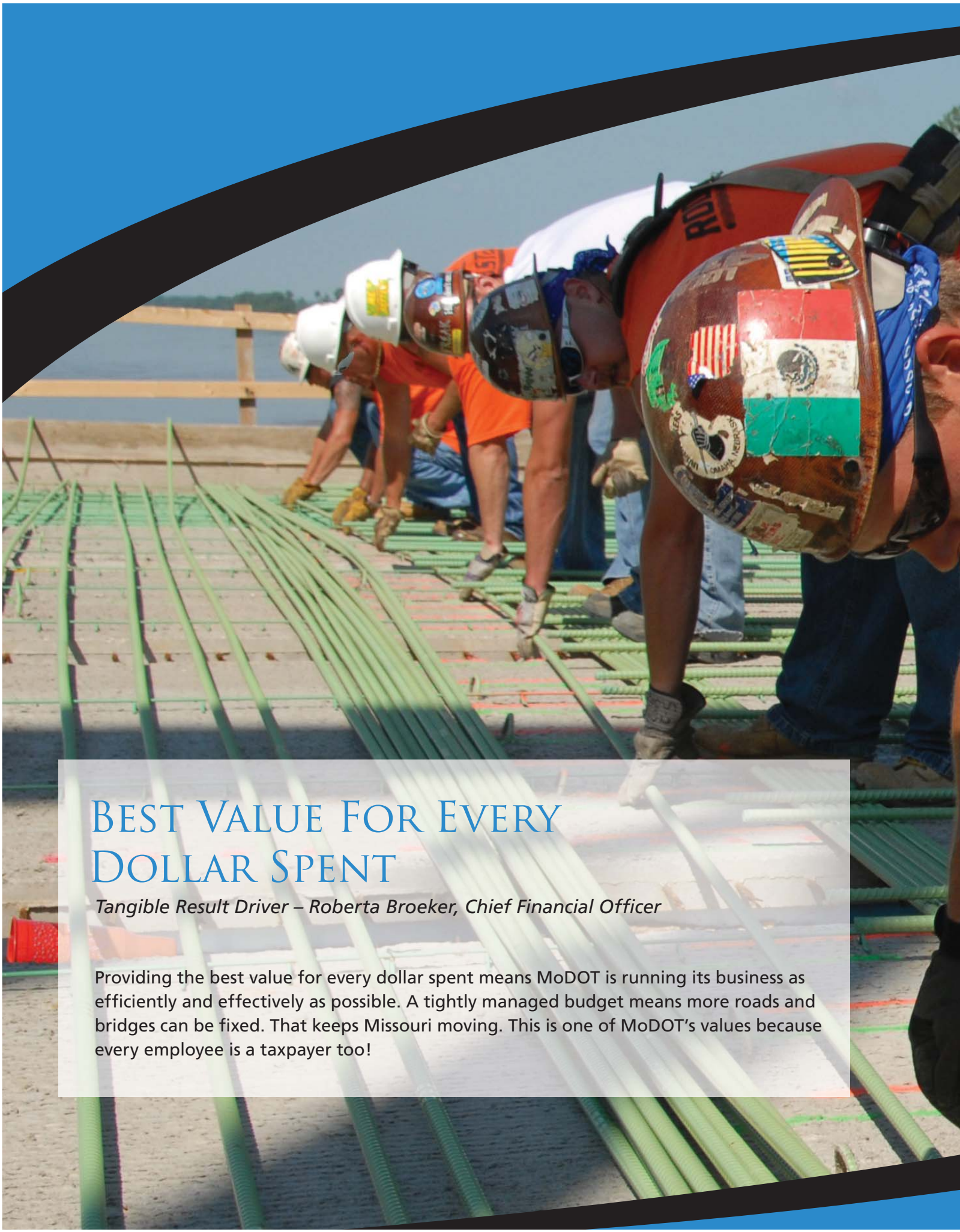


Best Value For Every Dollar Spent

Tangible Result Driver – Roberta Broeker, Chief Financial Officer

Providing the best value for every dollar spent means MoDOT is running its business as efficiently and effectively as possible. A tightly managed budget means more roads and bridges can be fixed. That keeps Missouri moving. This is one of MoDOT's values because every employee is a taxpayer too!

Tracker

Measures of Departmental Performance

Number of full-time equivalencies expended-16a

Result Driver: Roberta Broeker, Chief Financial Officer
Measurement Driver: Steve Meystrik, Special Projects Coordinator

Purpose of the Measure:

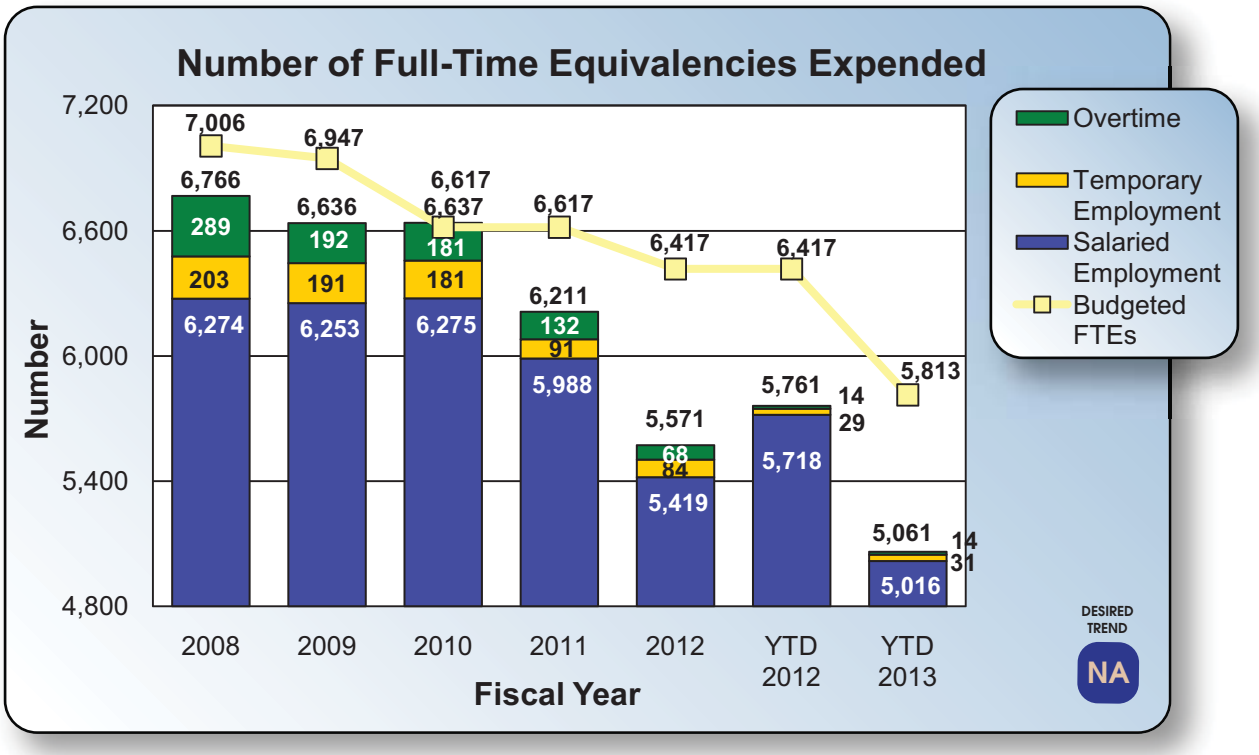
This measure tracks the change in the number of full-time equivalencies (FTEs) expended within the department and compares it to the number of FTEs in the legislative budget. The data provides a high-level view of overall staffing at MoDOT in relation to budgeted FTEs.

Measurement and Data Collection:

This measure converts the regular hours worked or on paid leave of temporary and salaried employees, as well as overtime worked (minus any hours that are flexed during the workweek), to FTEs. In order to convert these numbers to FTEs, the total number of hours worked or on paid leave is divided by 2,080. Salaried employment data is converted to an annual number for ease in comparison to previous years, whereas temporary employment and overtime data represent actual year-to-date calculations. This measure is updated quarterly.

Improvement Status:

Through the first quarter of fiscal year 2013, compared to the same period last year, there has been a decrease in FTEs resulting from salaried employment due to MoDOT's continued implementation of its workforce reduction plan and Bolder Five-Year Direction approved on June 8, 2011. FTEs resulting from overtime expended through the first quarter of FY 2013 remains steady compared to last year. There has been a slight increase (two) in the number of FTEs resulting from temporary employment compared to the same period last year. This increase is the result of the department's continued use of temporary workers to close the staffing gap in full-time maintenance worker positions.



Number of lost workdays-16b

Result Driver: Roberta Broeker, Chief Financial Officer
Measurement Driver: Jeff Padgett, Risk and Benefits Management Director

Purpose of the Measure:

This measure tracks the actual number of days that employees cannot work due to work-related injuries. This measure has changed to include all lost workdays, regardless of when injury occurred. Previously, measurement of lost workdays ended at the end of the calendar year in which the injury was incurred.

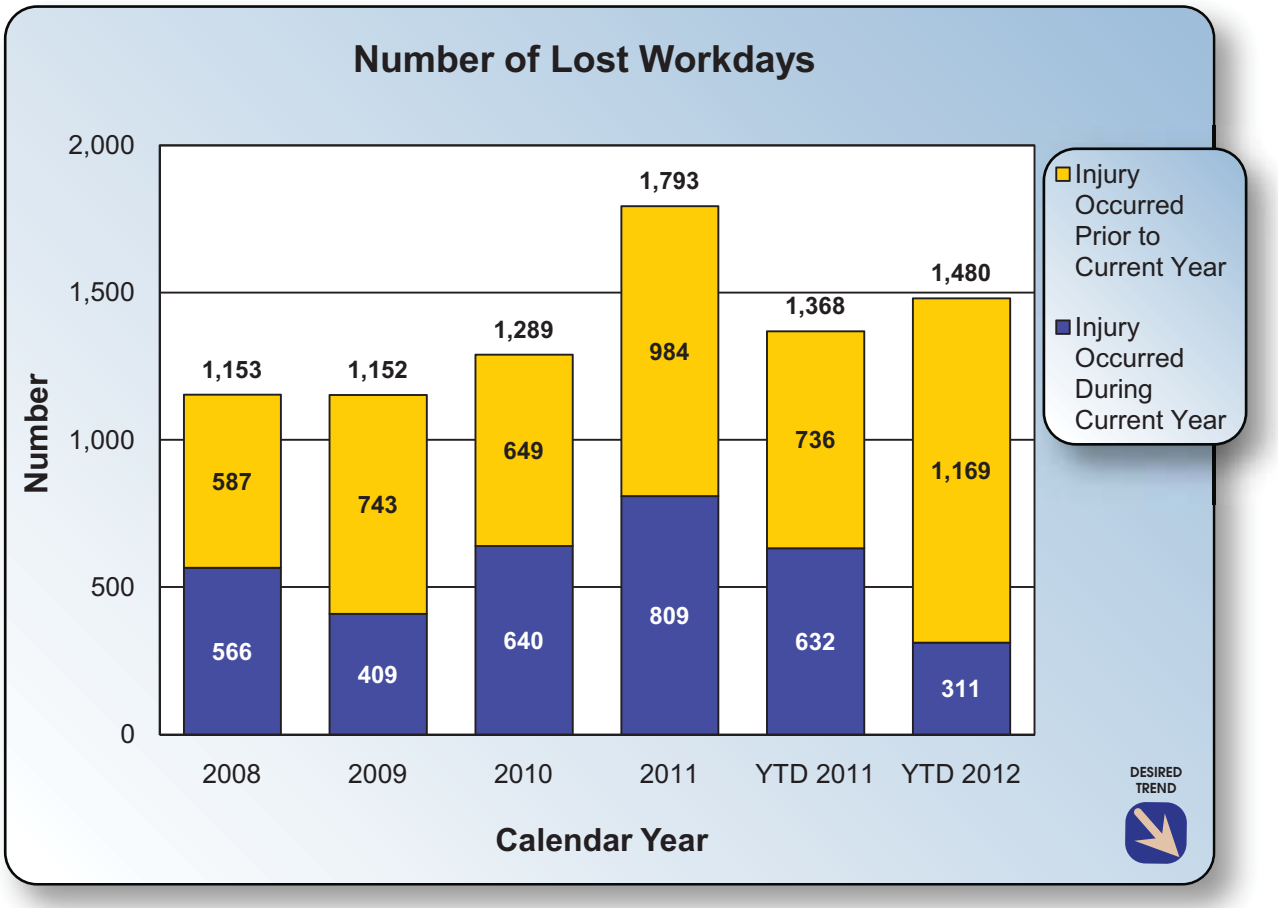
Measurement and Data Collection:

The data is collected from Riskmaster, a claims administration software. This measure is updated quarterly.

Improvement Status:

The number of lost workdays for the first, second and third quarters of 2012 is 8.2 percent greater than the same period in 2011, increasing from 1,368 to 1,480 lost workdays. Three motor vehicle incidents caused by a third party accounted for 37 percent of the lost workdays. These occurred in the St. Louis and Southeast districts. The Southwest District suffered two injuries and the Southeast District suffered one injury in which an employee struck or was struck by MoDOT equipment or materials. These accounted for 18 percent of the lost workdays. Another 19 percent of the lost workdays were attributable to lifting incidents, one in the Southwest District and one in the St. Louis District.

Two teams have made recommendations to improve the trend for this measure. One has recommended a new incentive program that began in July 2012. A second team has completed a comprehensive safety plan, which will include various strategies and implementation dates.



Rate and total of MoDOT recordable incidents-16c

Result Driver: Roberta Broeker, Chief Financial Officer
Measurement Driver: Jeff Padgett, Risk and Benefits Management Director

Purpose of the Measure:

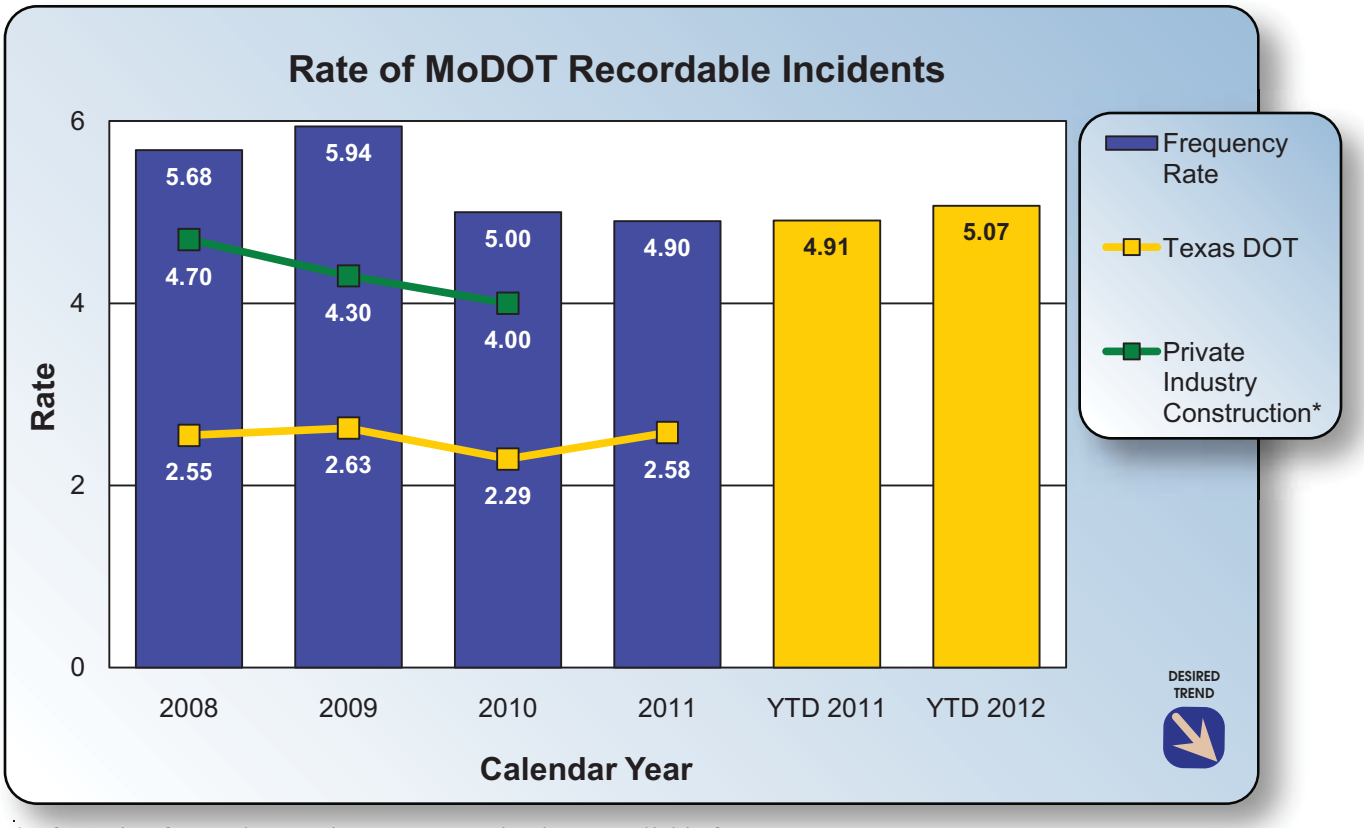
This measure tracks the number of recordable injuries, in total and as a rate of injuries per 100 workers. The calculation for incidence rate is the number of recordables times 200,000 divided by the number of hours worked. The 200,000 used in the calculation is the base for 100 full-time workers (working 40 hours per week, 50 weeks per year). MoDOT defines a recordable incident as a work-related injury or illness that results in death, days away from work, or medical treatment resulting in cost to the department.

Measurement and Data Collection:

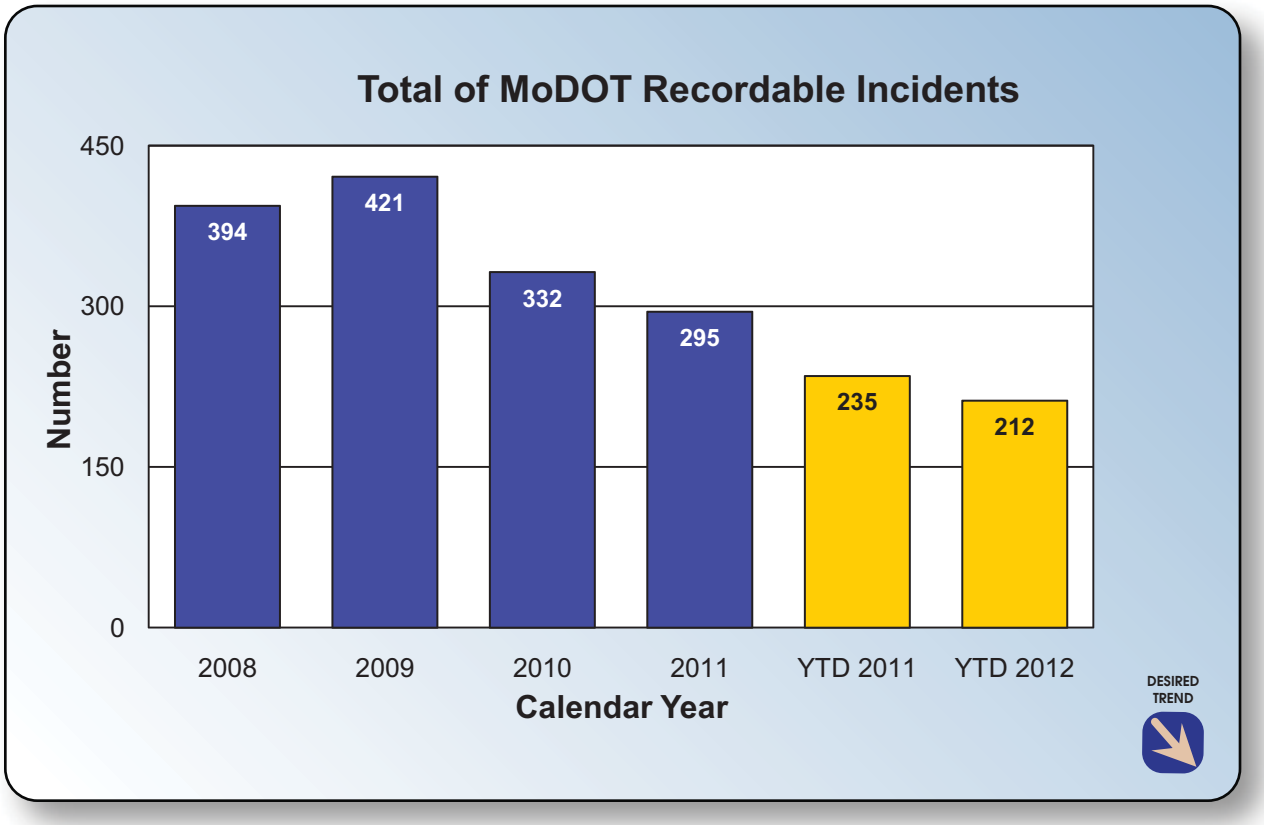
The injury data is collected from Riskmaster, a claims administration software. The number of hours worked is taken from MoDOT's payroll data. This measure is updated quarterly.

Improvement Status:

While the number of MoDOT recordable incidents were down for the first three quarters of 2012, the rate of incidents was up slightly compared to the same period in 2011. The number of MoDOT recordables decreased by 10 percent over the period, with a decrease from 235 to 212. The incident rate increased by 3 percent over the reporting period, rising from 4.91 to 5.07.



*Information from Private Industry Construction is not available for 2011.


Total of MoDOT Recordable Incidents
450
300
150
0
Number
394
421
332
295
235
212
2008
2009
2010
2011
YTD 2011
YTD 2012
Calendar Year
DESIRED TREND

Number of claims and amount paid for general liability-16d

Result Driver: Roberta Broeker, Chief Financial Officer
Measurement Driver: Jeff Padgett, Risk and Benefits Management Director

Purpose of the Measure:

General liability claims arise from allegations of injuries/damages caused by the dangerous condition of MoDOT property and the injury/damage directly resulted from the dangerous condition. In addition, an employee must be negligent and create the dangerous condition or MoDOT must have actual or constructive notice of the dangerous condition in sufficient time prior to the injury/damage to have taken measures to protect the public against the dangerous condition. This measure tracks the number of general liability claims filed and amount paid.

Measurement and Data Collection:

Risk and Benefits Management reports on the measure quarterly and collects the claims data from Riskmaster, the Risk Management claims administration software.

Improvement Status:

The desired outcome is a reduction in the number of claims and amount of payments. The year-to-date number of claims was down 33 percent while payments were up 88 percent compared to the same period in 2011.

For the quarter, MoDOT paid a total of $2.8 million in general liability claims. Six claims account for 84 percent, or $2,361,495 of this amount. Four of the claims were in the St. Louis District while two were in the Kansas City District. Summaries of the six claims are as follows:

A claim was settled for $343,000 from a 2006 incident on Route H in Jefferson County. A car ran off the roadway and due to a significant edge drop off, the driver could not safely regain control and eventually struck a fence causing serious injuries to the driver.

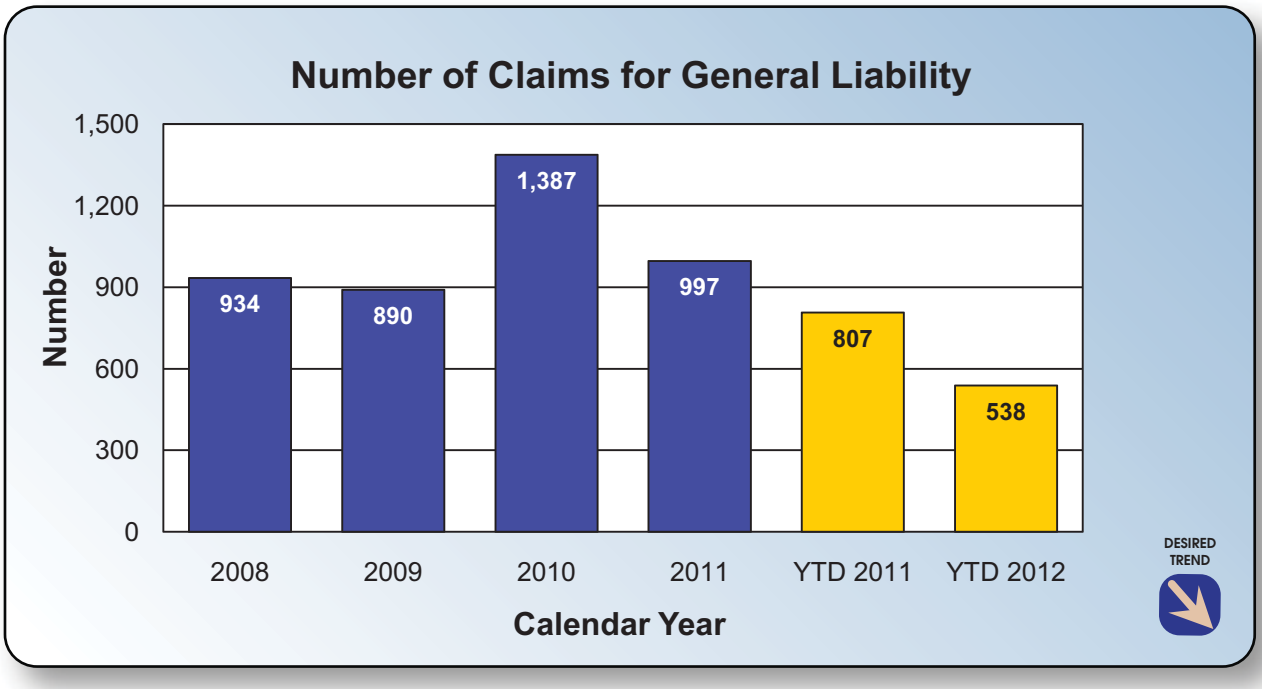
A claim was settled for $196,367 from a 2010 incident on I-44 in the City of St. Louis. A car ran into a concrete barrier, knocking it over then crashed head on into the next barrier causing serious injuries to the driver. Plaintiff claimed we failed to install and properly maintain the concrete barriers.

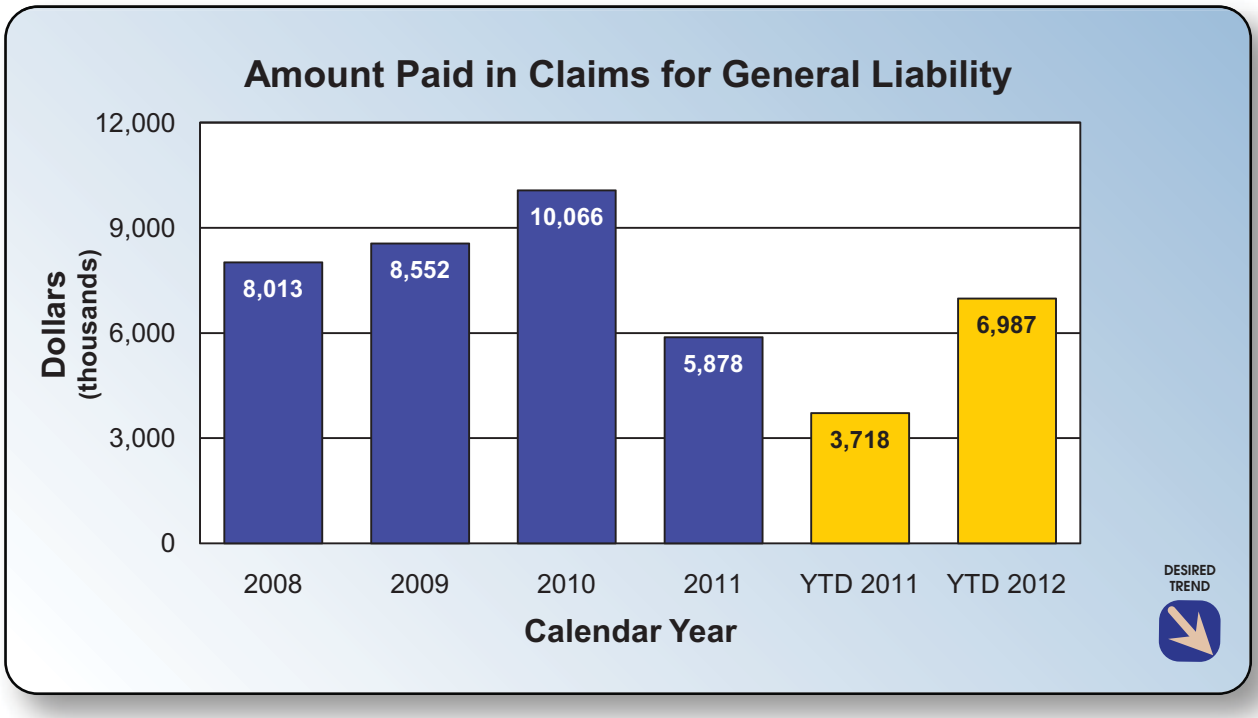
A claim was settled for $353,943 from an incident in 2003 on I-55 in St. Louis County. A car ran off the road, hit a concrete culvert, then some trees causing paralysis to the passenger. Plaintiff claimed the design of the culvert and the location of the trees caused a dangerous condition.

An arbitration award of $250,000 was paid based on poor intersection design causing a T-bone crash in 2005 resulting in serious injuries. The incident occurred in St. Charles County.

An arbitration award was paid of two statutory caps ($785,468) for a motorcycle incident on Highway 50 near Lee's Summit. An arbitration panel determined poor intersection design was the cause.

An arbitration award was paid of statutory cap ($392,734) for a motorcycle incident on Highway 50 near Lee's Summit. An arbitration panel determined poor intersection design was the cause. This case was argued at the same time as the previously mentioned case.


Number of Claims for General Liability
Number
1,500
1,200
900
600
300
0
934
890
1,387
997
807
538
2008
2009
2010
2011
YTD 2011
YTD 2012
Calendar Year
DESIRED TREND


Amount Paid in Claims for General Liability
Dollars (thousands)
12,000
9,000
6,000
3,000
0
8,013
8,552
10,066
5,878
3,718
6,987
2008
2009
2010
2011
YTD 2011
YTD 2012
Calendar Year
DESIRED TREND

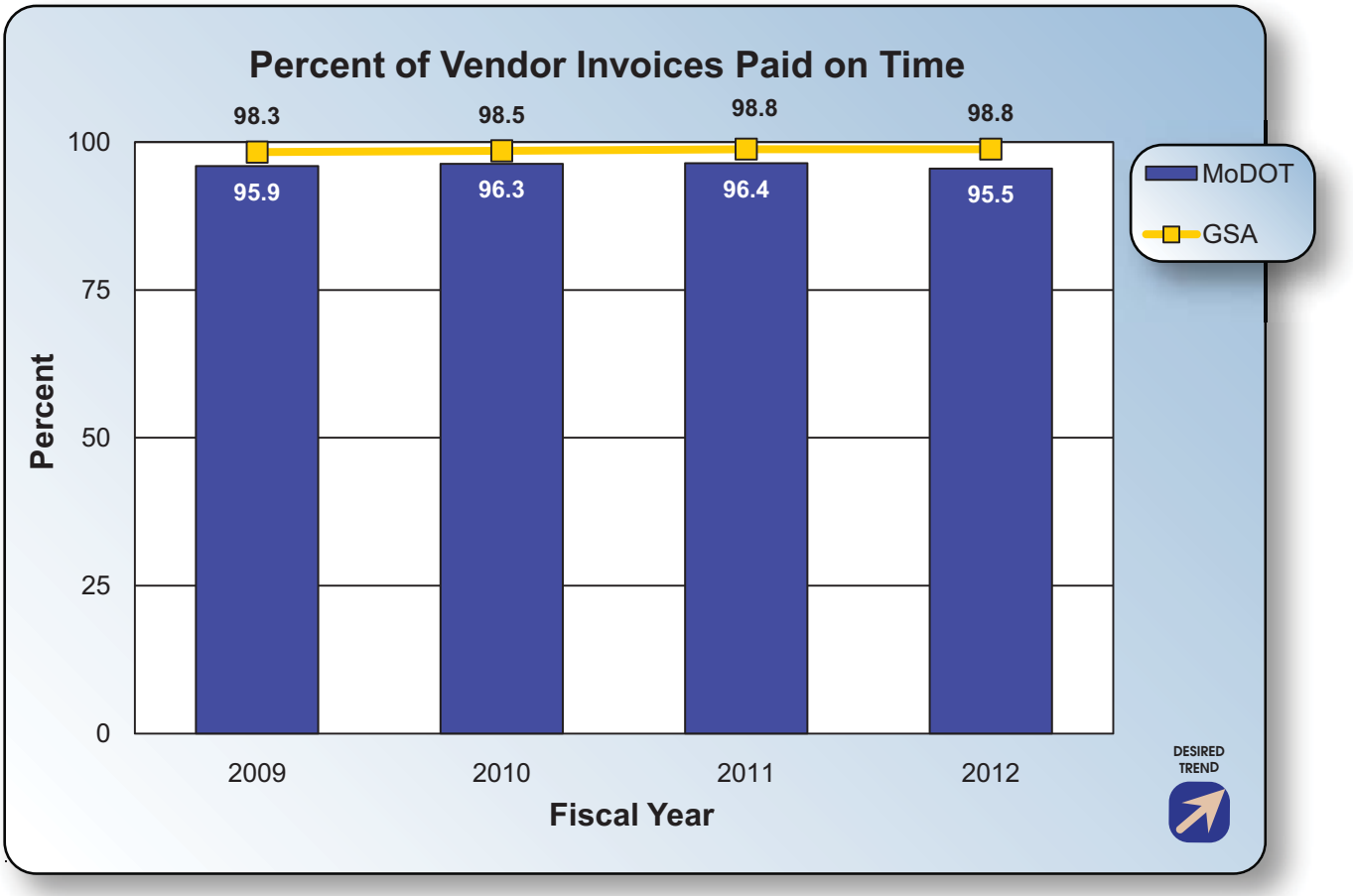
Percent of vendor invoices paid on time-16e

Result Driver: Roberta Broeker, Chief Financial Officer
Measurement Driver: Amy Blankenship, Financial Services Manager

Purpose of the Measure:
This measure tracks the department's timeliness in processing vendor payments.

Measurement and Data Collection:
The check date determines if the invoice payment is timely. Vendors age their receivables based on the date of the invoice; therefore, timely is defined as a check issued less than 31 days from the date of invoice. The department's measure is benchmarked to the U.S. General Services Administration (GSA), which is updated annually with the federal fiscal year calendar ending Sept. 30. This measure was first reported in fiscal year 2006 with 82.9 percent of the invoices being paid timely. This is an annual measure updated in July.

Improvement Status:
The measure indicates a slight decrease from fiscal year 2011. The slight decline is largely attributed to the placement and training of new staff during the Bolder Five-Year Direction.



Distribution of expenditures-16f

Result Driver: Roberta Broeker, Chief Financial Officer
Measurement Driver: Christina Wilkerson, Financial Services Manager

Purpose of the Measure:

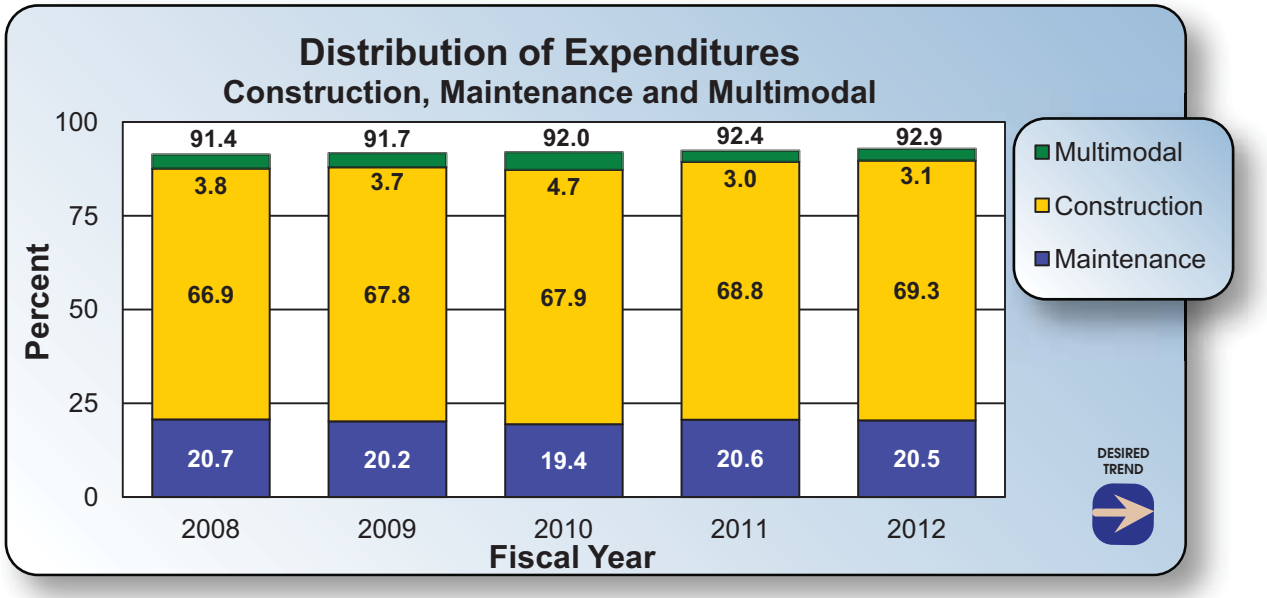
The purpose of the measure is to demonstrate a responsible use of taxpayers' money, with the emphasis of spending on our transportation system.

Measurement and Data Collection:

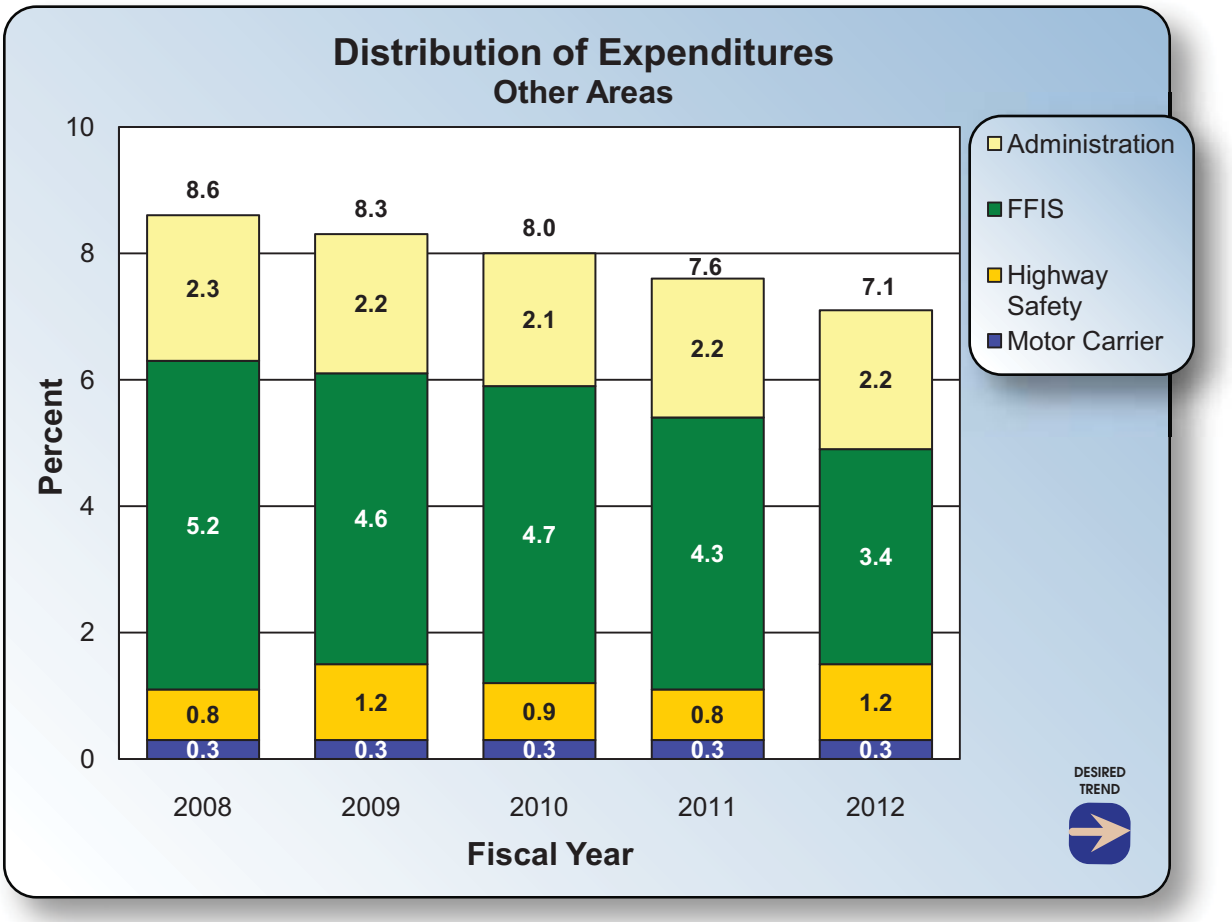
The data collection is based on cash expenditures by appropriation. Construction, maintenance and multimodal expenditures are defined as expenditures from the construction, maintenance and multimodal appropriations. Other expenditures include administration, fleet, facilities, and information systems (FFIS), motor carrier and highway safety appropriations. Debt service appropriations are not included. This measure is updated in January and July.

Improvement Status:

MoDOT's emphasis is on expenditures for routine maintenance of the system (maintenance appropriation), rehabilitation and construction of the system (construction appropriation) and other modes of transportation (multimodal appropriations). Total expenditures have decreased by $176.6 million from this fiscal year compared to last fiscal year. The largest reduction is reflected in the decrease in the construction program dollars as a result of decreased funding. The percentage of expenditures for maintenance remains comparable to last fiscal year. Administration and motor carrier percentages have remained constant compared to last fiscal year while highway safety increased slightly and FFIS decreased compared to last fiscal year. FFIS decreased as a result of the Bolder Five-Year Direction. Highway Safety increased as a result of the programming and timing of related expenditures for hazard elimination projects such as guard cable installation, shoulder work and rumble stripes or specific projects such as the Cole County Route 54 intersection safety improvements.



	2008	2009	2010	2011	2012
Construction	1,377,328	1,533,866	1,617,246	1,549,412	1,437,440
Maintenance	424,815	457,020	462,490	463,608	424,209
Multimodal	77,265	83,007	112,298	67,533	64,093
Total	**1,879,408**	**2,073,893**	**2,192,034**	**2,080,553**	**1,925,742**



	2008	2009	2010	2011	2012
Administration	46,808	49,214	49,451	48,787	46,858
FFIS	106,343	104,635	111,564	96,972	70,110
Motor Carrier	6,930	7,095	6,963	6,498	5,813
Highway Safety	17,064	26,531	21,543	17,182	24,844
Total Other Areas	**177,145**	**187,475**	**189,521**	**169,439**	**147,625**

Total Expenditures	**2,056,553**	**2,261,368**	**2,381,555**	**2,249,992**	**2,073,367**

Accuracy of state and federal revenue projections-16g

Result Driver: Roberta Broeker, Chief Financial Officer
Measurement Driver: Kelly Wilson, Senior Financial Services Analyst

Purpose of the Measure:

This measure shows the precision of state and federal revenue projections. Projections are used to prepare the budget that funds MoDOT's operations and capital program.

Measurement and Data Collection:

State revenue includes three major components of taxes and fees paid by highway users: motor fuel taxes, motor vehicle and driver licensing fees, and motor vehicle sales and use taxes. This measure does not include interest earnings and miscellaneous revenue, which are also considered state revenues. The measure provides the cumulative, year-to-date percent variance of actual state revenue versus projected state revenue by state fiscal year.

Federal revenue is the amount available to obligate in a federal fiscal year for formula apportionments. Formula apportionments are distributed to states via federal law. The measure provides the variance of actual federal revenue versus projected federal revenue by federal fiscal year.

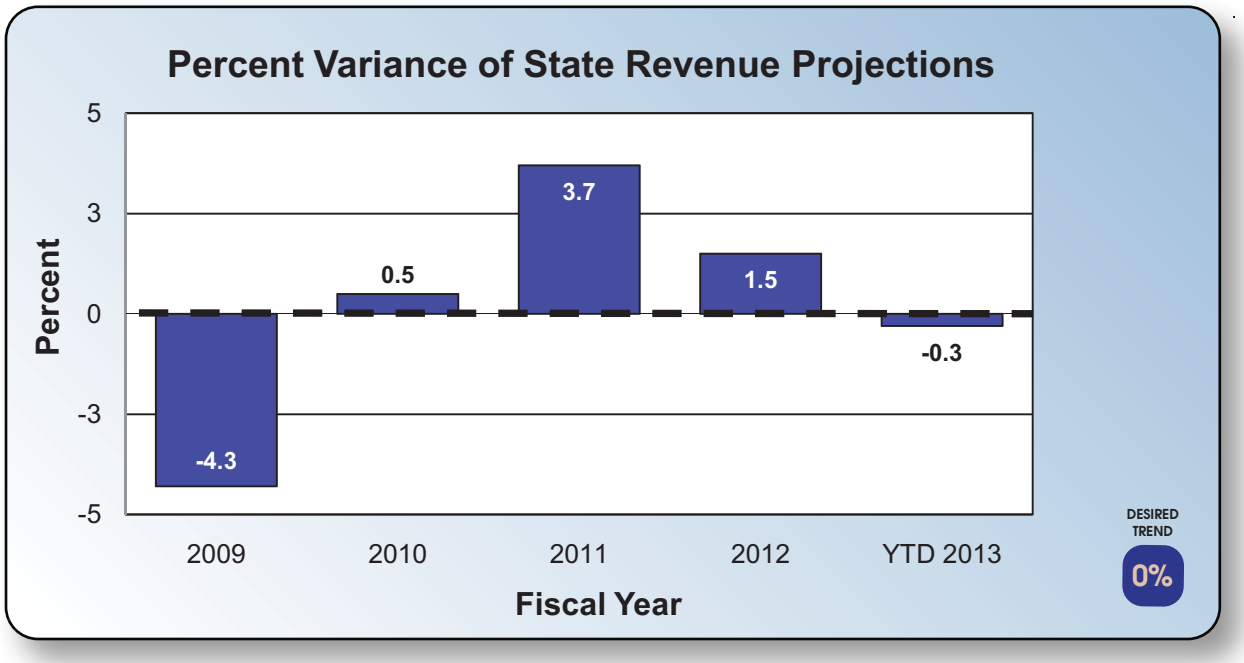
State and federal revenue projections are based on the department's current financial forecast. State revenue data is updated quarterly. Federal revenue data is updated annually in October.

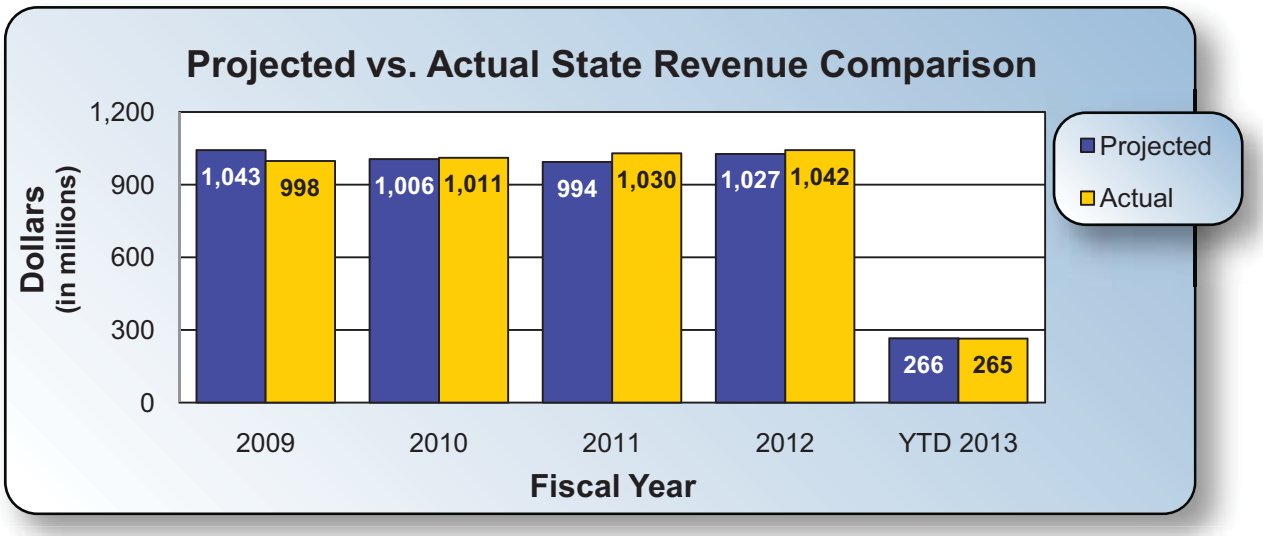
Improvement Status:

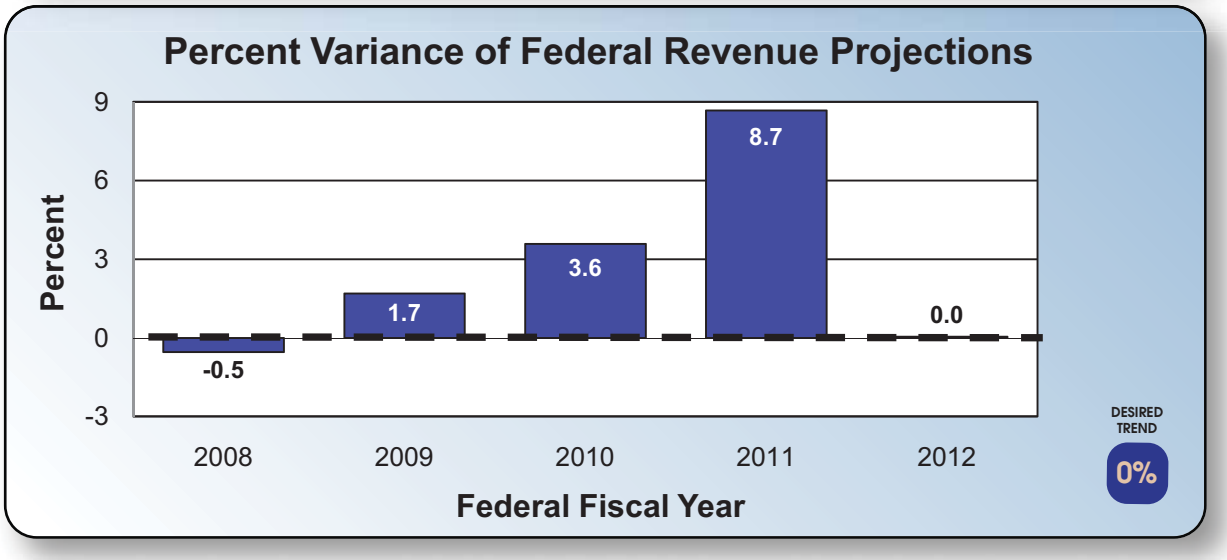
Actual state revenue was less than projected through the first quarter of fiscal year 2013. Projected revenue was $265.5 million; however, actual receipts were $264.7 million, a difference of $800,000 thousand and a negative variance of 0.3 percent. The receipts were $4.2 million, or 1.6 percent, more than the first quarter of fiscal year 2012. Motor vehicle sales and use tax receipts and motor vehicle and driver licensing fees were higher than projected, while motor fuel tax was slightly lower than projected.

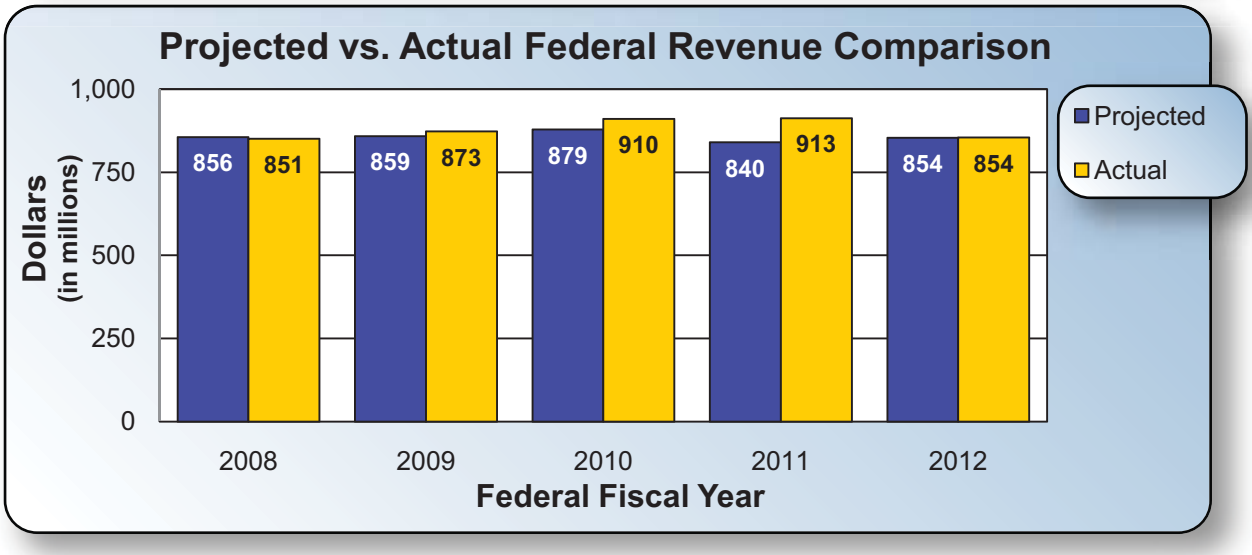
Actual federal revenue matched the projection for FFY 2012. Projected and actual revenue totaled $854.0 million.

The desired trend is for actual revenue to match projections with no variance. MoDOT staff adjusts future operating and capital budgets to account for these variances, if needed.




Projected vs. Actual State Revenue Comparison
Dollars (in millions)
1,200
900
600
300
0
1,043
998
1,006
1,011
994
1,030
1,027
1,042
266
265
2009
2010
2011
2012
YTD 2013
Fiscal Year
Projected
Actual


Percent Variance of Federal Revenue Projections
Percent
9
6
3
0
-3
-0.5
1.7
3.6
8.7
0.0
2008
2009
2010
2011
2012
Federal Fiscal Year
DESIRED TREND
0%


Projected vs. Actual Federal Revenue Comparison
Dollars (in millions)
1,000
750
500
250
0
856
851
859
873
879
910
840
913
854
854
2008
2009
2010
2011
2012
Federal Fiscal Year
Projected
Actual

Number of excess properties conveyed and gross revenue generated from excess properties conveyed-16h

Result Driver: Roberta Broeker, Chief Financial Officer
Measurement Driver: Kelly Lucas, Right of Way Director

Purpose of the Measure:

The purpose of this measure is to track the number of excess parcels conveyed from MHTC ownership and to track the amount of revenue generated from the conveyance of excess property. In order to fulfill its stewardship role of asset management while observing practical business decisions, the department is proactively identifying and disposing of property that is no longer needed for the maintenance of the transportation system, will not be used for future expansion projects and is no longer needed for its operations. Funds received from the conveyance of excess properties are used to improve the condition of the state highway system. The districts use these funds to apply toward the costs associated with construction projects.

A Change in Route Status Report and subsequent property conveyance is completed when a portion of the existing route is no longer needed for Commission use and removed from the state highway system.

Measurement and Data Collection:

Data collection for this measure is reported on a quarterly basis from the realty asset inventory system.

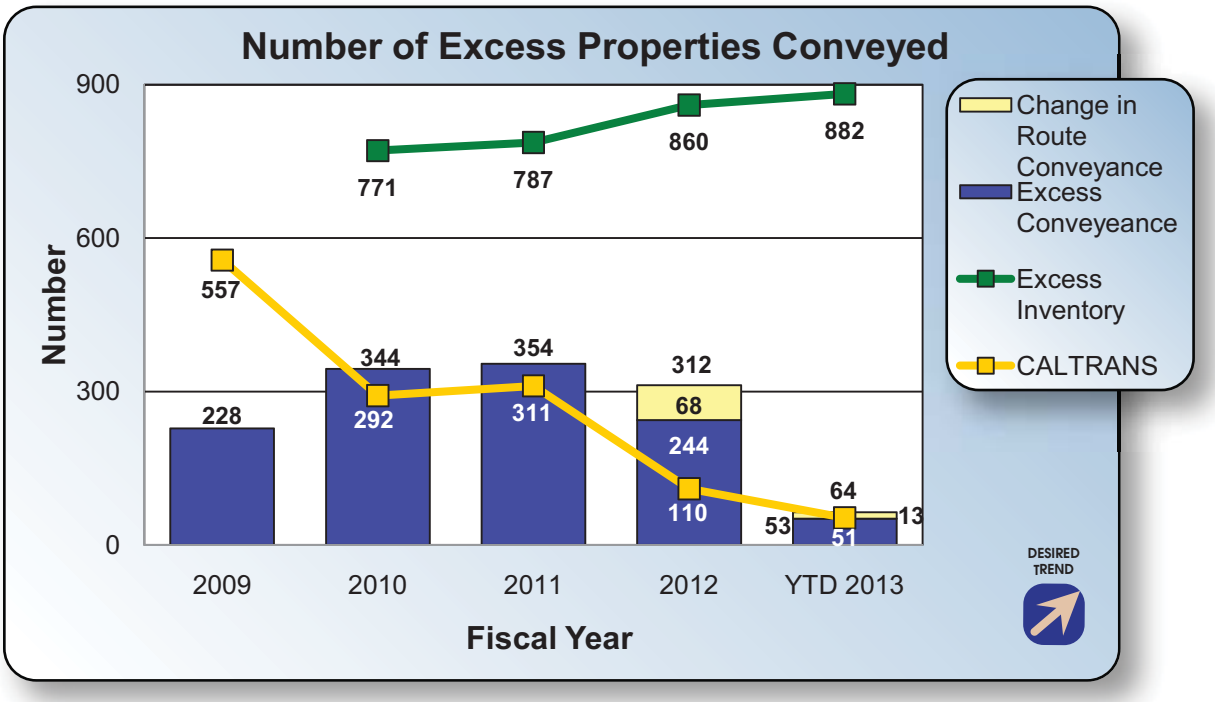
Improvement Status:

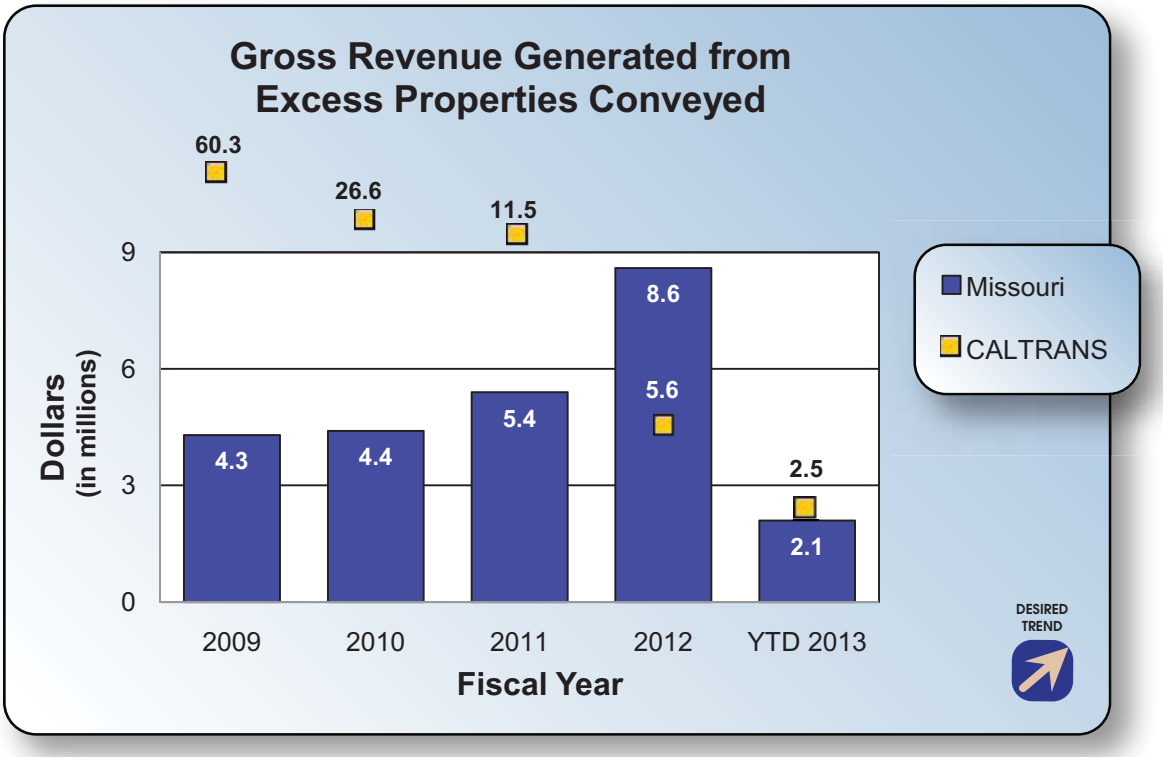
MoDOT conveyed 64 parcels in the first quarter of fiscal year 2013, which is greater than the 40 parcels conveyed in the first quarter of fiscal year 2012.

Revenue through the end of the first quarter of fiscal year 2013 from excess sales totals $2,093,007. Revenue came from 57 percent of the conveyances.

In August, the St. Louis District held a Realty Asset Summit and Strategic Advance. The purpose of the meeting was to focus on process improvements, staff development, and creating competencies in the area of property management.

This quarter, districts focused heavily on the reduction of the maintenance sites identified in the Bolder Five-Year Direction. Strategies used to market these properties include the use of brokers, on-site auctions, sealed bids, negotiating with local entities and staff marketing the property for sale. Revenue generated this quarter came as a result of selling excess maintenance facilities identified in the Bolder Five-Year Direction.


Number of Excess Properties Conveyed
900
600
300
0
Number
771
787
860
882
557
228
344
292
354
311
312
68
244
110
64
53
51
13
2009
2010
2011
2012
YTD 2013
Fiscal Year
Change in Route Conveyance
Excess Conveyeance
Excess Inventory
CALTRANS
DESIRED TREND


Gross Revenue Generated from Excess Properties Conveyed
60.3
26.6
11.5
9
6
3
0
Dollars (in millions)
4.3
4.4
5.4
8.6
5.6
2.5
2.1
2009
2010
2011
2012
YTD 2013
Fiscal Year
Missouri
CALTRANS
DESIRED TREND

Cost per lane mile and total number of lane miles for highway construction improvements–16i New!

Result Driver: Roberta Broeker, Chief Financial Officer
Measurement Driver: Natalie Roark, Bidding and Contract Services Engineer

Purpose of the Measure:

Customers will gain an understanding of what it costs to construct some of the more common types of contracted work for MoDOT and the amount of this type of work contracted by MoDOT.

This measure tracks the cost per lane-mile and the total number of lane-miles completed for various types of highway construction projects constructed by MoDOT's contracting partners, including:

- Seal coat, also known as chip seal,
- Minor road one-inch asphalt resurfacing,
- Major highway 3 ¾ inch asphalt resurfacing,
- Interstate 3 ¾ inch asphalt resurfacing,
- New two-lane construction, and
- New four-lane construction.

Seal coat and asphalt resurfacing are routine pavement treatments used to keep our roads in good condition. New two-lane construction projects consist of adding two lanes of roadway to an existing two-lane highway or a completely new two-lane highway. New four-lane construction projects include a completely new four-lane divided highway.

Measurement and Data Collection:

This measure includes the costs associated with the equipment, labor and fringe benefits and materials necessary to construct each of the types of projects. Data is obtained from the history of prices received from contractors over time.

Seal coat costs include the pavement material for an average ten-foot lane width one mile in length, traffic control and temporary pavement marking. Minor road one-inch asphalt resurfacing costs include the pavement material for an average 11-foot lane width one mile in length, traffic control and temporary pavement marking. Major highway and interstate asphalt resurfacing costs include the pavement material for an average 12-foot lane width one mile in length, traffic control, permanent pavement marking, rumble strips, pavement repair, guardrail and signing. New two-lane and four-lane construction costs include grading, drainage, pavement, bridge and all incidental costs for the completed project. This is an annual measure updated each January.

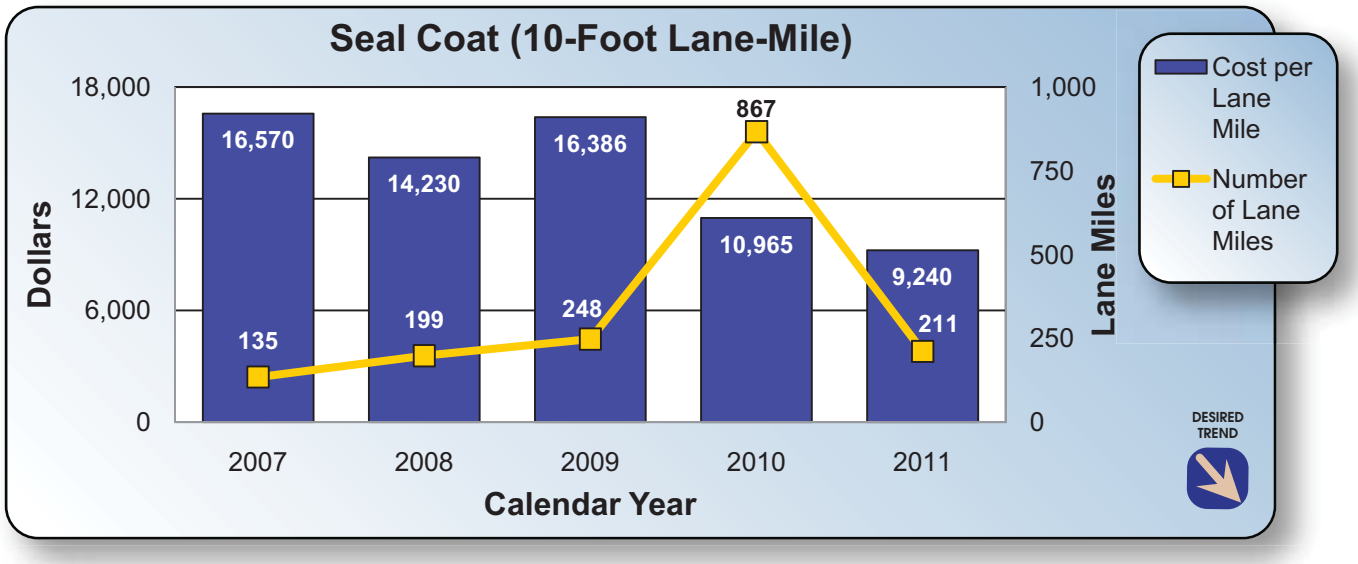
Improvement Status:

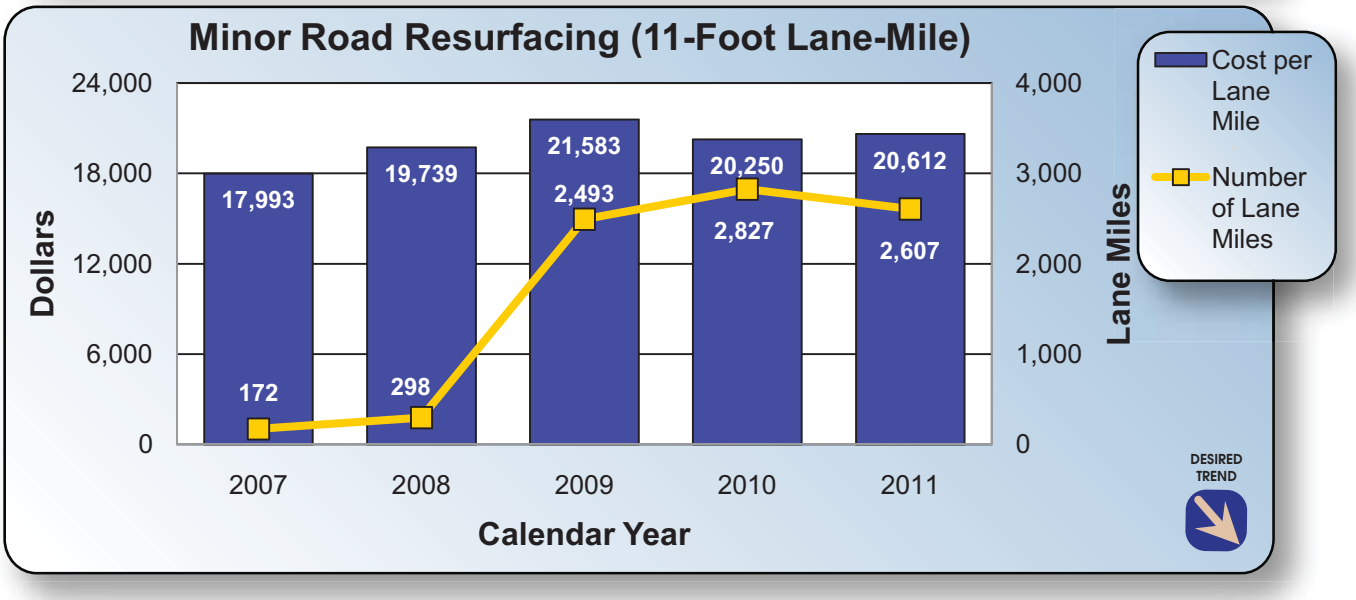
In 2011, MoDOT spent on average $9,240 per lane-mile for contractor-performed seal coat projects. It is expected MoDOT will receive even more competitive contractor prices as more seal coat projects are completed by contractors.

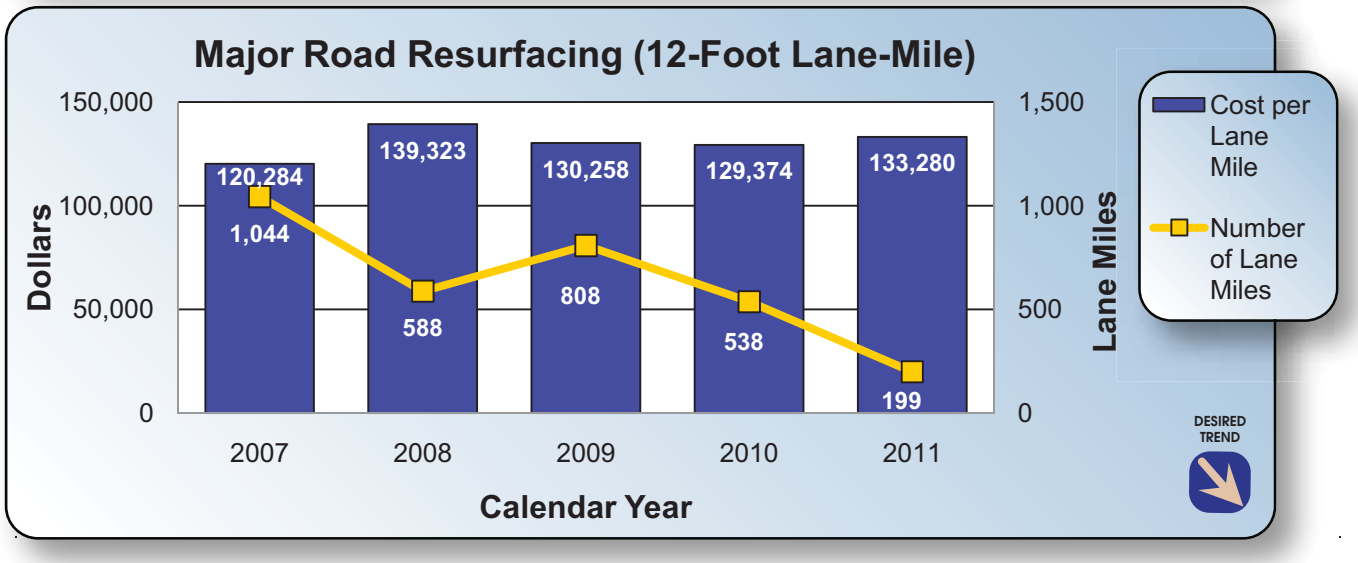
From 2009-11, MoDOT spent approximately $50 million dollars annually on contract minor road asphalt resurfacing projects, which was a significant increase from the $6 million spent in 2008. The spike in costs in 2009 can be attributed to a combination of increased fuel and oil costs and an above-average quantity of one-inch asphalt overlay work for contractors as MoDOT began shifting its focus to improving minor roads.

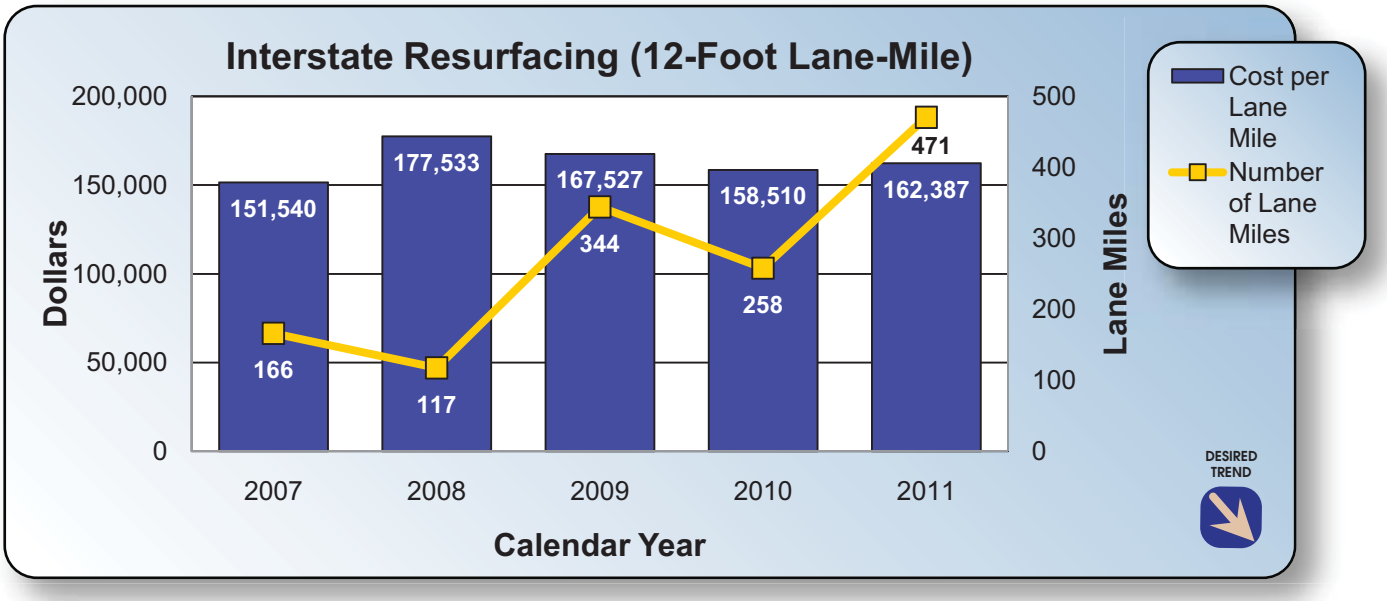
Increased asphalt resurfacing costs in 2008 for the major highways and interstates was due to increased fuel and oil costs and partly due to a shortage of polymer, which is a unique asphalt component used in mixes for these types of roadways. From 2009-11, asphalt resurfacing costs for these types of roadways decreased and remained stable. Factors contributing to the lower costs were the increased use of recycled material in the asphalt and also increased competition on bids.

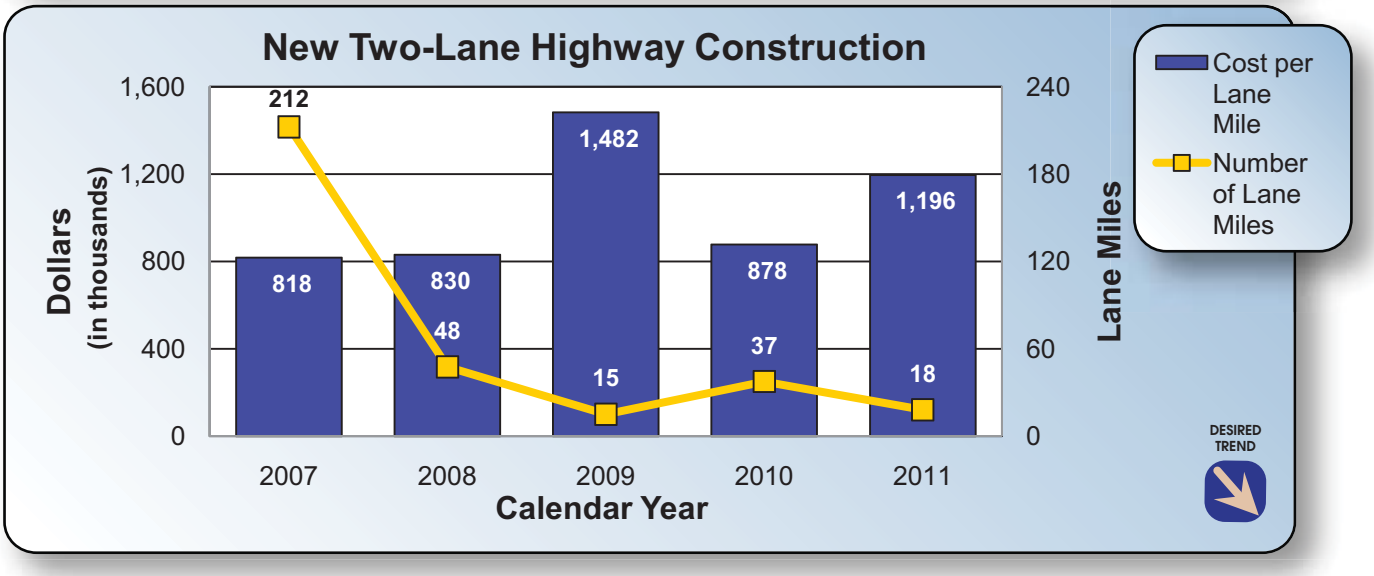
Overall, 2010 received the highest number of bids since 1990. Less work in cities, counties and surrounding states and the shift in contractors from residential/commercial construction to highway construction resulted in continued increased competition for MoDOT. Although equipment, material and labor costs increased due to the economic downturn, MoDOT experienced only a slight increase in overall construction costs. With MoDOT's construction program reducing by half, contractors are aggressively bidding on all types of projects, but even more competition is being seen on the limited number of complex two- and four-lane projects. In addition, to maximize competition, MoDOT allows flexibility and encourages innovation for the contractor and strategically schedules its bid openings to spread out the amount of work and financial obligation for the bidders.

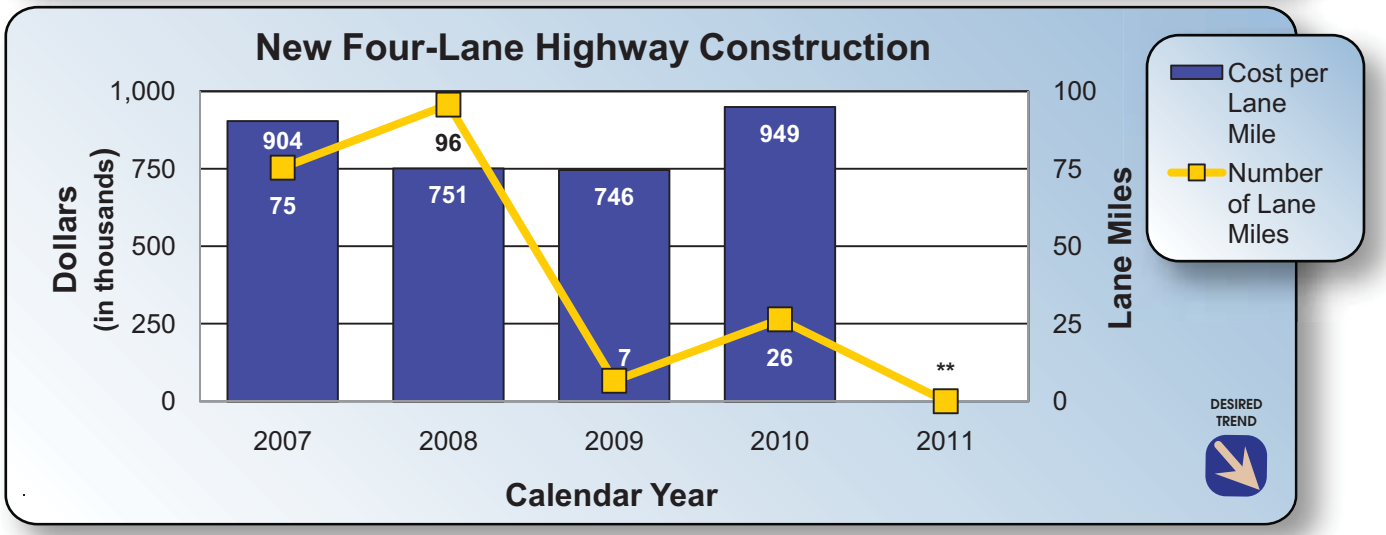

Seal Coat (10-Foot Lane-Mile)
Dollars
18,000
12,000
6,000
0
1,000
750
500
250
0
Lane Miles
16,570
14,230
16,386
10,965
9,240
135
199
248
867
211
2007
2008
2009
2010
2011
Calendar Year
Cost per Lane Mile
Number of Lane Miles
DESIRED TREND


Minor Road Resurfacing (11-Foot Lane-Mile)
Dollars
24,000
18,000
12,000
6,000
0
4,000
3,000
2,000
1,000
0
Lane Miles
17,993
19,739
21,583
20,250
20,612
172
298
2,493
2,827
2,607
2007
2008
2009
2010
2011
Calendar Year
Cost per Lane Mile
Number of Lane Miles
DESIRED TREND


Major Road Resurfacing (12-Foot Lane-Mile)
Dollars
150,000
100,000
50,000
0
1,500
1,000
500
0
Lane Miles
120,284
139,323
130,258
129,374
133,280
1,044
588
808
538
199
2007
2008
2009
2010
2011
Calendar Year
Cost per Lane Mile
Number of Lane Miles
DESIRED TREND







** No four-lane projects bid in 2011.

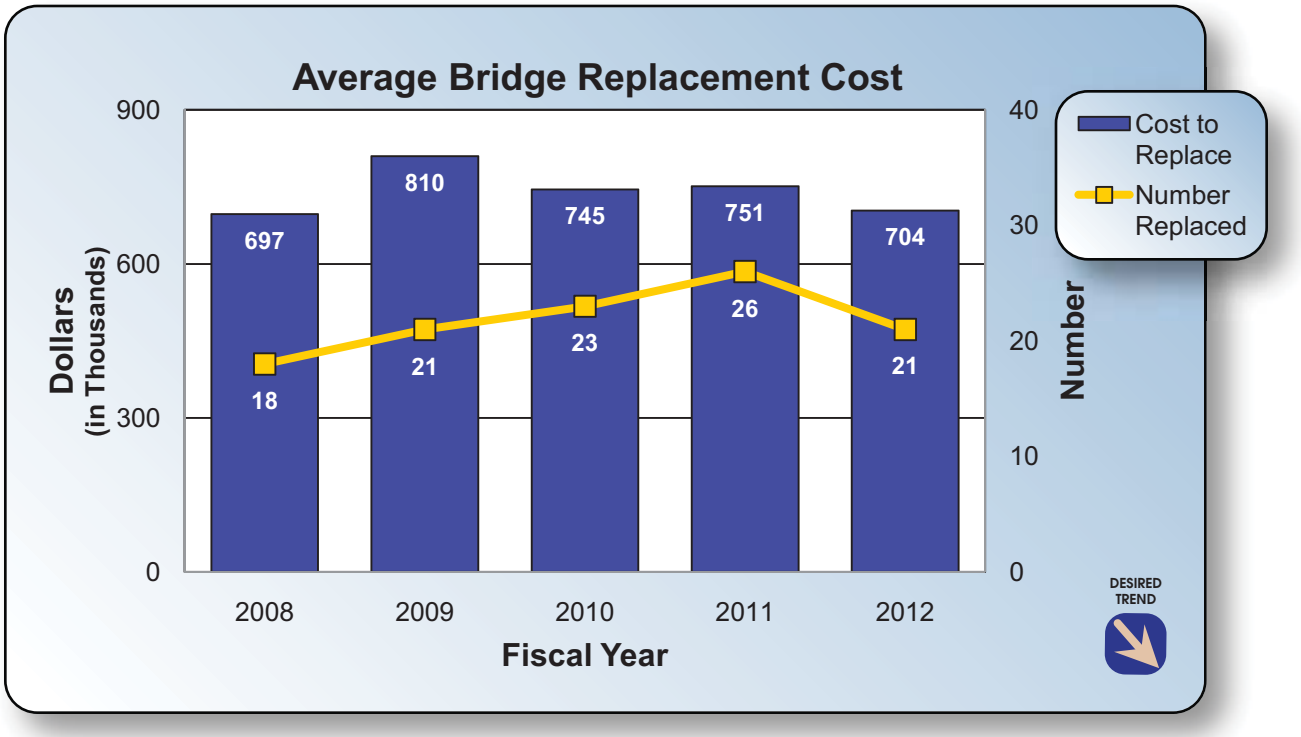
Average bridge costs-16j New!

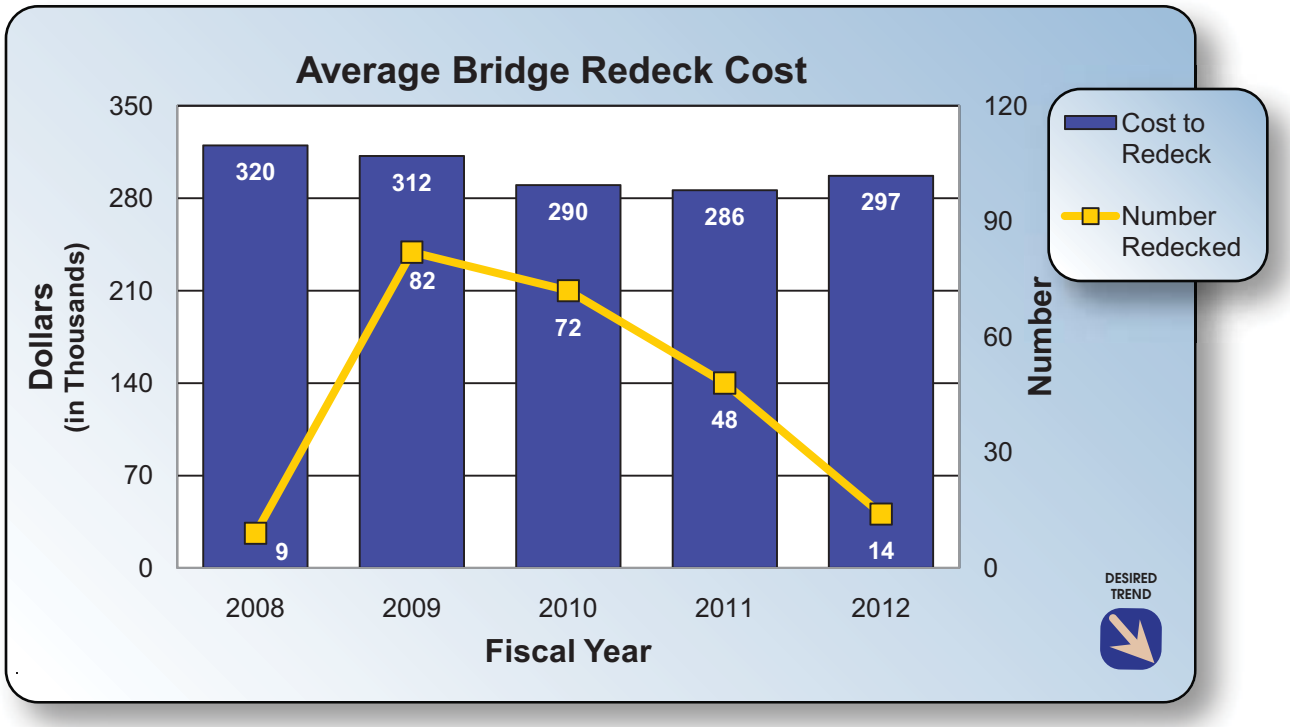
Result Driver: Roberta Broeker, Chief Financial Officer
Measurement Driver: Bill Dunn, Structural Preliminary and Review Engineer

Purpose of the Measure:
This measure tracks the average construction cost for bridge replacements and bridge redecks.

Measurement and Data Collection:
Data is collected from each bid letting after the commission's award decision, and then entered into the bridge division general reports. The average cost per square-foot of bridge is tabulated and applied to a 6,800 square-foot bridge (area of the average bridge on the state system) to simplify comparison. The costs reported include all jobs processed through the normal bid letting process with the exception of major bridge projects. These are not included since they are much more expensive than routine replacements and would significantly inflate the average cost. This measure also excludes the 554 Safe & Sound design-build contract bridges because of the difficulty in separating the construction cost from the design cost. The cost reported includes all bridge items in the contract. This is an annual measure updated each July.

Improvement Status:
Great competition in recent years has caused bridge construction costs to go down slightly. The spike in replacement cost in 2009 was due to the Safe & Sound Bridge Program that flooded the bridge contractors with work, causing a temporary jump in construction cost. These costs have dropped as MoDOT's construction program has decreased.




Average Bridge Redeck Cost
Dollars
(in Thousands)
350
280
210
140
70
0
120
90
60
30
0
Number
320
312
290
286
297
9
82
72
48
14
2008
2009
2010
2011
2012
Fiscal Year
Cost to Redeck
Number Redecked
DESIRED TREND

Off roadway unit costs-16k New!

Result Driver: Roberta Broeker, Chief Financial Officer
Measurement Driver: Dan Niec, District Engineer

Purpose of the Measure:

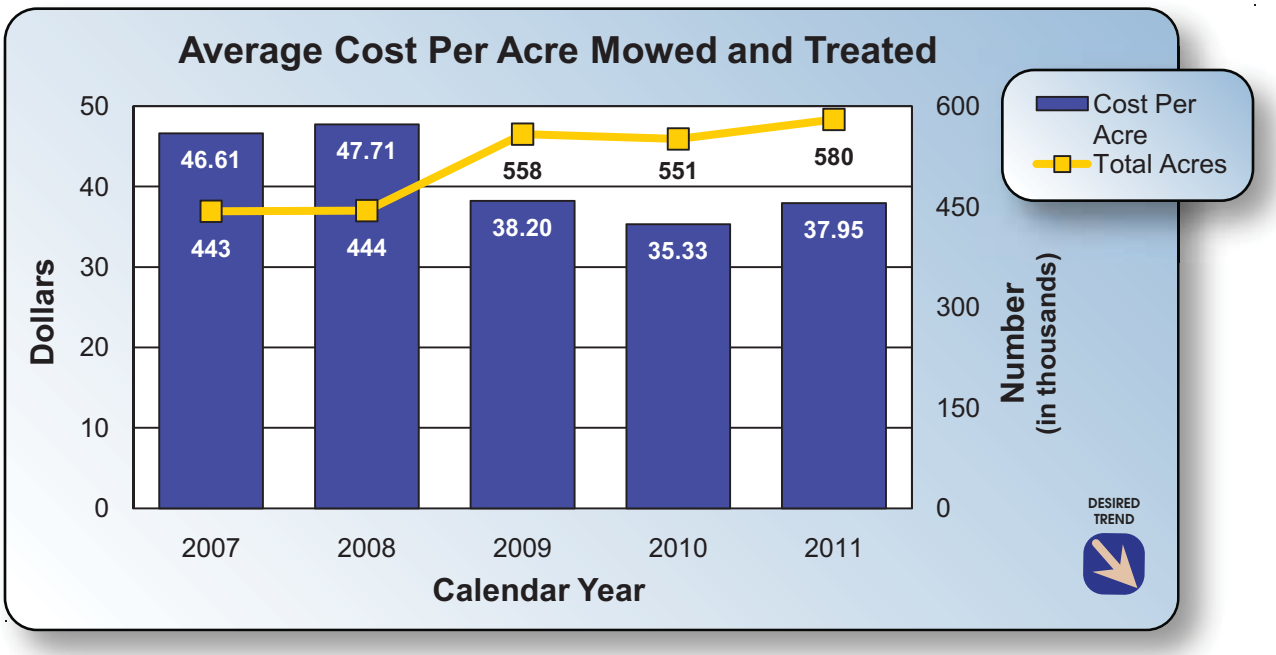
This measure tracks the average annual cost per acre of roadside vegetation managed by mowing and/or herbicide treatments and the total cost per lane mile of state highway to perform our winter operations. MoDOT has made improvements to the overall quality and efficiency of managing roadside vegetation through the development of mowing best practices and herbicide research. The majority of winter operations cost is snow removal; however other activities such as mixing winter materials and pre-treating road and bridges to prevent snow and ice accumulation are also included.

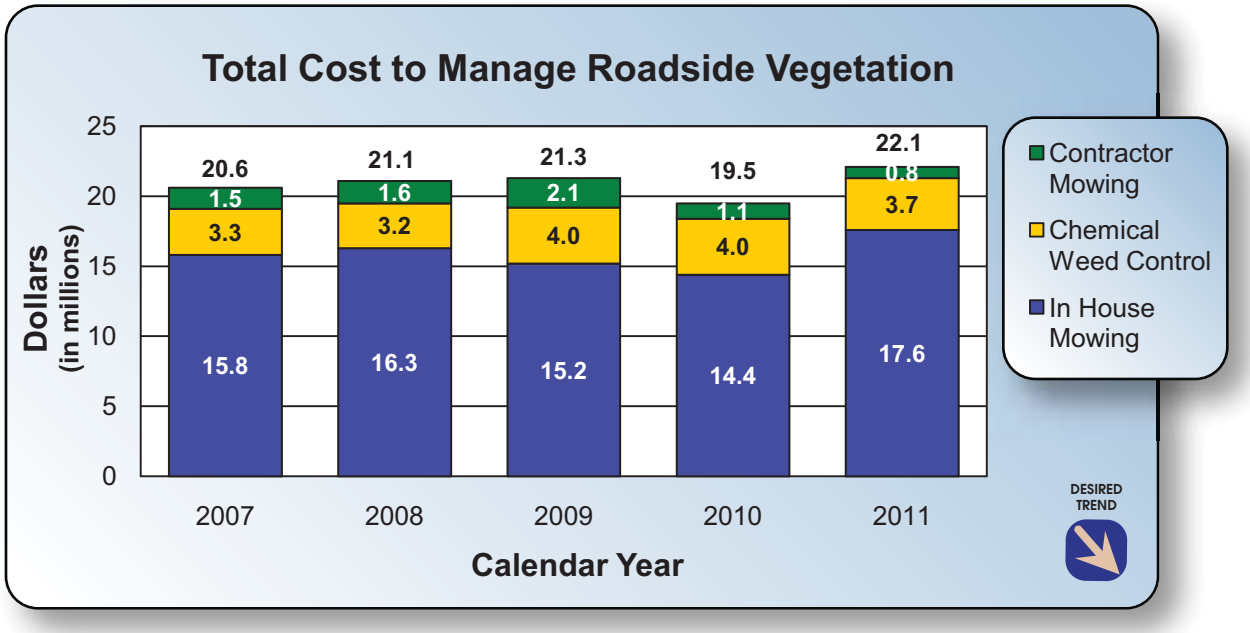
Measurement and Data Collection:

Data for roadside vegetation and herbicide treatments is collected by input from each district into the Financial Management System and the Herbicide Database. This measure evaluates the cost of managing roadside vegetation in accordance with the Roadside Vegetation Management Policy and the Herbicide Handbook. The costs reported are a total of in-house mowing, contractor and farmer mowing and herbicide treatments for chemical mowing and the control of noxious weeds, brush and other undesirable vegetation. Snow removal data is generated by acquiring the costs of our winter operations from monthly reports provided by the Financial Services division. These costs include labor, materials and equipment usage as reported through the Time Reporting System. The total costs are divided by the number of state system miles to achieve the cost per lane mile. This is an annual measure updated each January.

Improvement Status:

During the spring and summer of 2011, MoDOT's roadside vegetation management direction was modified to improve consistency in mowing along all roadways. This included the reduction of the use of plant growth regulators on major roadways and mowing at four specific times: prior to Memorial Day; July 4; Labor Day and a final fall mowing. In 2011, a full mow of all minor roads met the alternate year mowing direction and MoDOT's in-house mowing costs increased by $1 million. The light winter of 2011-12, with an average of only 5.1inches of snow statewide, resulted in a low $206 cost per lane mile for winter operations. This compares to $547 per lane mile last year when we experienced an average of 34.9 inches of snow statewide, illustrating the fact that winter operations are an expensive emergency response activity.




Total Cost to Manage Roadside Vegetation
Dollars
(in millions)
25
20
15
10
5
0
20.6
21.1
21.3
19.5
22.1
1.5
1.6
2.1
1.1
0.8
3.3
3.2
4.0
4.0
3.7
15.8
16.3
15.2
14.4
17.6
2007
2008
2009
2010
2011
Calendar Year
Contractor Mowing
Chemical Weed Control
In House Mowing
DESIRED TREND

Snow Removal Cost per Lane Mile
Dollars
750
500
250
0
725
580
711
547
206
2007-08
2008-09
2009-10
2010-11
2011-12
Winter
DESIRED TREND