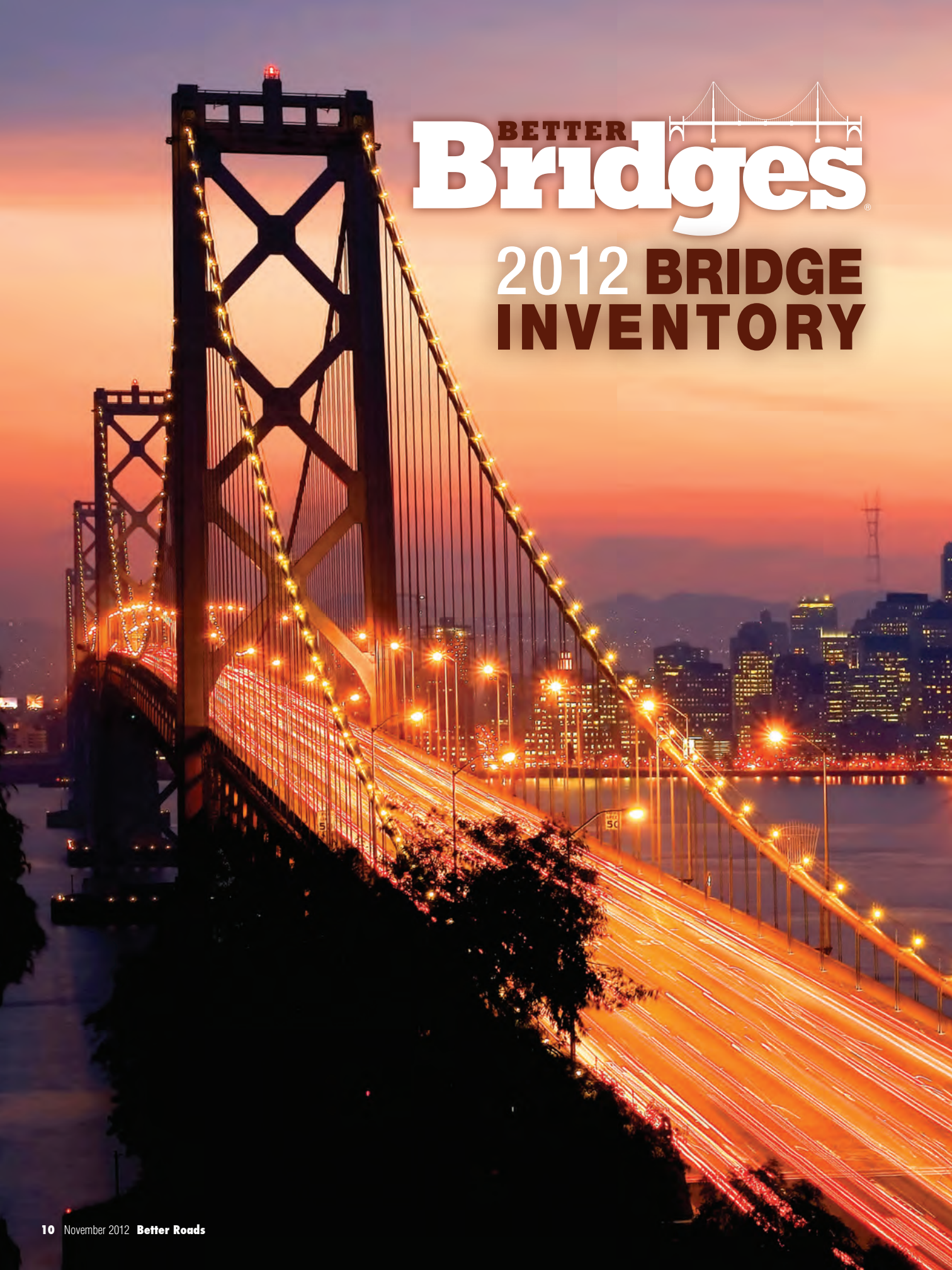

BETTER Bridges®

2012 BRIDGE INVENTORY

Getting Better All the Time

America's structurally deficient and functionally obsolete bridge count slowly, steadily falling

by Tina Grady Barbaccia

They aren't numbers to throw a party for yet, but once again, the number of structurally deficient (SD) or functionally obsolete (FO) bridges in America has fallen.

Our propreitary 2012 *Bridge Inventory* survey of 602,154 bridges shows 22.5 percent in the SD/FO categories, down from 22.7 percent in last year's survey, 23.3 percent in our 2010 survey, 23.7 pecent in 2009 and 24.3 percent in 2008.

Reponses show 20.1 percent SD/FO bridges among highway and Interstate bridges (down from 20.3 percent last year). Among city and county bridges 24.8 percent fall into the SD/FO category compared to 25 percent in 2011, although the total number of city/country SD/FO bridges has actually fallen (but so has the overall total surveyed).

Pennsylvania has the highest total number of combined (Interstate/highway and city/county) SD/FO bridges (9,095) ahead of **Texas** (8,752) and **Oklahoma** (6,547).

Washington, D.C., has the highest percentage of total combined SD/FO bridges at 55 percent, followed by **Rhode Island** with 49 percent and **Pennsylvania** with 40 percent.

Arizona leads the good news categories with the lowest percentage of combined SD/FO bridges at 10 percent followed by **Nevada** at 11 percent and **Utah** at 13 percent.

But amid cautious optimism arising from this improvement comes word from states that the new two-year, $105 billion, surface transportation legislation, Moving Ahead for Progress in the 21st Century (MAP-21), which has been faintly praised as a mini-savior for America's transportation infrastructure, still leaves us with a lack of adequate funds, now and in the foreseeable future, and that shortfall is still a major roadblock to a significant decrease in SD/FO numbers.

State Reports

John Orbistondo, engineering assistant for the **Alaska Department of Transportation**, says funding availability remains the state's greatest challenge to lowering its rate of deficient bridges and the new transportation bill isn't going to make much difference. "Having MAP-21 does no favor for bridges except the NHS [National Highway System] focus," Orbistondo notes in his survey answers. "[It] leaves other bridges underfunded."

But, he says, "Over 80 bridges are scheduled for work in the 2012-2015 STIP (Statewide Transportation Improvement Program)"

Gary Doerr, bridge management with the North **Dakota State Highway Department**, also says funding availability is one of the great challenges to lowering the state's rate of deficient bridges as is "on-local systems." Although Doerr says the state does expect to lower its rate of deficient bridges this year through "replacements and rehabs," 10 bridges, all local, have been closed this year because of structural failure or collapse. In the last five years, that number is 120 local bridges. Doerr also points out that MAP-21 won't

make a difference with his agency's ability to repair bridges. "A two-year bill does not provide the long-term planning avenue," he says.

But state agencies are not allowing the lukewarmth of MAP-21 derail them.

For example, Mills Gotcher, **Oklahoma Department of Transportation** media and public relations representative, tells *Better Roads* that although funding availability remains the state's greatest challenge in lowering bridge deficiency rates, MAP-21 "offers more funding flexibility and stability to deliver our bridge program. The emphasis on bridge preservation has resulted in a dramatic improvement in the condition of the on-system bridges."

A Five-Year Look at America's Bridges

Type of Bridge	2008	2009	2010	2011	2012
Interstate and state bridges					
Total surveyed	288,511	288,944	291,034	292,085	292,273
*SD/FO	63,910	62,454	61,149	59,250	58,851
Percentage	22.2%	21.6%	21.0%	20.3%	20.1%
City/county bridges					
Total surveyed	308,893	309,017	309,479	310,006	309,881
*SD/FO	81,032	79,442	78,471	77,566	76,806
Percentage	26.2%	25.7%	25.4%	25%	24.8%
Total overall bridges surveyed					
Total	597,404	597,961	600,513	602,091	602,154
*SD/FO	144,942	141,896	139,620	136,816	135,657
Percentage	24.3%	23.7%	23.3%	22.7%	22.5%

*SD/FO = structurally deficient/functionally obsolete

In fact, **Oklahoma** has embarked on an ambitious journey that started in 2002 with a $5.5 billion highway and bridge improvement program that will address all of Oklahoma's deficient bridges by the end of 2020, following the Sept. 10 approval by the **Oklahoma Transportation Commission** of the Federal Fiscal Year 2013 eight-year construction work plan. The program includes "all on-system known SD bridges be addressed by 2020," Gotcher says. "A significant portion of these bridges are included for the coming year."

In the past year, one bridge has been closed in Oklahoma because of structural failure or collapse and four have been closed in the last five years. All increased funding proposed by Oklahoma Governor Mary Fallin's "*Bridge Improvement and Turnpike Modernization Plan*," which was approved by the state legislature in May and signed by Fallin, means the eight-year plan includes the replacement or rehabilitation of the remaining 634 SD highway bridges. The plan includes 2,030 total projects and 951 bridge replacement or major rehabilitation projects.

"This will ensure that the number of structurally deficient bridges on state-owned highways, which peaked at 1,168 in 2004, will be essentially eliminated by the end of the decade," says **Oklahoma DOT** Secretary Gary Ridley. "After decades of major bridge problems, Oklahomans will finally have a safe and reliable bridge network that meets the needs of our growing state, and one for which we can all be proud."

Gotcher adds, however, that if one aspect of Oklahoma DOT could be changed to improve bridges, it would be to add more bridge inspectors and program managers. "Additional qualified personnel would help keep our inspectors current and further improve the quality. The supply of qualified personnel falls short of the inspection demands."

In **Maine**, funding is still the biggest challenge for lowering the rate of the state's deficient bridges. MAP-21 will not make a difference with the three bridges closed this past year in the state because of structural failure or collapse and the eight closed in the last five years for that reason, Benjamin Foster, assistant bridge maintenance engineer with the **Maine Department of Transportation,** tells *Better Roads*. But Foster expects his agency to be able to lower the rate of deficient bridges in this coming year through "bonds for bridge work."

The **West Virginia Department of Transportation** does not foresee lowering its rate of deficient bridges in the coming year. Insufficient funding will defer important work, according to W. Kyle Stollings, director of the maintenance division for West Virginia DOT. However, he does say that MAP-21 "stabilizes the planning process."

The **California Department of Transporation,** commonly known as Caltrans, often leads the way in trends and thought within the industry. The agency believes that MAP-21's two-year commitment of funds gives Caltrans and local agencies "a measure of certainty needed to plan and deliver bridge improvement projects," says Matt Rocco, Caltrans media relations manager. He says that in the short term, through fiscal year 2012-2013, no major changes to project funding is anticipated. "However, MAP-21 includes performance and accountability requirements, which in the long term, could

affect schedule and funding decisions for bridge and highway improvement projects," Rocco says. Caltrans does not "anticipate that funding constraints will affect priority safety projects." Caltrans invests about $450 million each year to protect and preserve state-owned bridges, Rocco says.

The **Texas Department of Transportation (TxDOT)** spends about $230 million to replace or rehabilitate structurally deficient or functionally obsolete bridges through the Highway Bridge Program, according to Alan Kowalik, P.E., bridge engineer with TxDOT. An additional $125 million through other categories of funding is also used to replace or rehabilitate SD and FO bridges, he says, adding that "MAP-21 is a step in the right direction."

For the short-term outlook, says Cody Axlund, bridge inventory/inspection engineer for the **South Dakota Department of Highways**, "MAP-21 has helped our discussion for bridges on the National Highway System. For all other bridges within our state, MAP-21 has added to uncertainty of available funding since it eliminated a dedicated funding pool for bridges."

Bridges now need to compete against all other federal aid eligible expenses for the funding, Axlund notes. "Fortunately for our local governments, in South Dakota, our Transportation Commission has elected to continue with the same allocation for available bridge funds for Fiscal Year 2013 and Fiscal Year 2014 as was used in Fiscal Year 2012 with a minor percent adjustment as was received in all STP funds for South Dakota," he says. "The uncertainty continues since MAP-21 is only a two-year bill, and we are now underway with try to program and begin design for Fiscal Year '15 structures."

Minnesota reports that only 14 percent of its combined total bridges are SD/FO (tied for fourth-best in the nation with **Wyoming** and **Wisconsin**). That's 1,856 of the state's total 13,735 bridges. The state's total Interstate and state bridges is also tied with **Iowa** and **South Dakota** at 9 percent for having the fourth-lowest percentage of SD/FO bridges. **North Dakota** has lowest percentage of total interstate and state bridges that are SD/FO with only 5 percent meeting this definition. **Wyoming** comes in second-lowest with 6 percent (14 percent of all bridges in the state are SD/FO) rated as SD/FO. **Nebraska** has the third-lowest with only 8 percent (23 percent of all bridges in the state are SD/FO) meeting the SD/FO classification.

The **Minnesota Department of Transportation (MnDOT)** is "committed to managing a safe system of bridges in Minnesota," Thomas Martin, bridge data management, Minnesota DOT Bridge Office, tells *Better Roads*. The state expects to be able to lower its rate of deficient bridges in the coming year, he says, with "dedicated state funds and bonds for F/C [fracture critical] and deficient bridge replacement and rehabilitation projects.

"Keeping bridges in a state of good repair is a funding priority, and in 2008 the Minnesota State Legislature established a 10-year program to address structurally deficient and fracture critical bridges," Martin says. "State bond dollars, along with federal dollars, fund this state highway bridge repair and replacement program. Having a new reauthorization bill will assist MnDOT in our assumptions of the level of federal funding that will be available to us in the next two federal fiscal years."

State DOT Wish Lists

"If you could change any aspect of your department to improve your bridges, what would it be?"

Georgia: "Georgia's on-system bridges basically are in good condition, but aging. Long-term sustainable funding that would allow a more robust and expansive rehabilitation and replacement program would be welcome." — *Ben Rabun, P.E., state bridge maintenance engineer, Georgia Department of Transportation*

Kansas: "Bridge management for long-term maintenance – realizing the value of preservation actions." — *Calvin Reed, P.E., Kansas Department of Transportation, bridge management engineer*

Kentucky: "Allocate more resources dedicated to preventive maintenance on bridges. Design and construct maintenance-friendly bridges. It costs less to keep up with the needed maintenance than it does to wait untl the bridge becomes deficient and then spend funds." — *David Steele, branch manager, Kentucky Transportation Cabinet, Division of Maintenance*

Minnesota: "A sustainable funding source for bridge preservation, rehabilitation and replacement programs." — *Thomas Martin, bridge data management, Minnesota Department of Transportation Bridge Office M S 610*

Missouri: "More funding. The lack of funding is a problem for all aspects of our transportation system within our state." — *David Koenig, P.E., bridge structural service engineer, Missouri Department of Transportation*

New Jersey: "Need to expand on [a] preventive maintenance program. Many bridge issues [are] due to deck joints drainage systems [and] salt intrusion." — *Eli D. Lambert, P.E., New Jersey Department of Transportation*

North Dakota: "Is a deck rating of 4 really as critical as super = 4? Few bridges have catastrophic failure because of decks." — *Gary Doerr, North Dakota State Highway Department, bridge management*

South Carolina: "Less bureaucracy." — *Lee Floyd, South Carolina Department of Highways, bridge maintenance engineer*

Texas: "It would be to implement a dedicated bridge maintenance program. this would reduce the number of SD and FO bridges and help maintain that bridge currently in good or better condition. — *Alan Kowalik, P.E., Texas Department of Transportation, bridge inspection engineer*

West Virginia: More bridge maintenance and evaluation engineers to improve oversight planning and maintenance. — *W. Kyle Stollings, West Virginia Department of Transportation, director of Maintenance Division*

Wisconsin: "More emphasis on preventive maintenance...preservation of the infrastructure." — *Travis McDaniel, P.E., Wisconsin Department of Transportation*

BETTER Bridges

2012 BRIDGE INVENTORY

How deficient and obsolete bridges break out in 2012

States and the District of Columbia have provided separate counts for the latest numbers on the breakdown of their structurally deficient (SD) and functionally obsolete (FO) bridges. — *Data compiled by Linda Hapner*

State	Interstate & State Bridges							City/County/Township Bridges						
	Total Bridges	Total FO	%	Total SD	%	Total SD/FO	%	Total Bridges	Total FO	%	Total SD	%	Total SD/FO	%
Alabama	5,741	946	16%	133	2%	1,079	19%	10,141	1,061	10%	1,235	12%	2,296	23%
Alaska	822	81	10%	81	10%	162	20%	148	22	15%	33	22%	55	37%
Arizona	4,816	356	7%	111	2%	467	10%	2,755	233	8%	81	3%	314	11%
Arkansas	7,263	750	10%	317	4%	1,067	15%	5,271	823	16%	540	10%	1,363	26%
California	12,655	1,156	9%	483	4%	1,639	13%	12,695	1,579	12%	1,226	10%	2,805	22%
Colorado	3,447	402	12%	238	7%	640	19%	4,748	368	8%	309	7%	677	14%
Connecticut	2,945	884	30%	210	7%	1,094	37%	1,247	230	18%	189	15%	419	34%
Delaware	846	116	14%	52	6%	168	20%	11	4	36%	1	9%	5	45%
District of Columbia	202	92	46%	19	9%	111	55%	0	0	n/a	0	n/a	0	n/a
Florida	6,266	664	11%	51	1%	715	11%	5,051	923	18%	176	3%	1,099	22%
Georgia	6,655	775	12%	142	2%	917	14%	8,003	978	12%	875	11%	1,853	23%
Hawaii	773	247	32%	46	6%	293	38%	402	104	26%	43	11%	147	37%
Idaho	1,307	198	15%	53	4%	251	19%	2,372	144	6%	274	12%	418	18%
Illinois	8,260	994	12%	565	7%	1,559	19%	18,238	977	5%	1,748	10%	2,725	15%
Indiana	5,649	463	8%	397	7%	860	15%	13,082	1,439	11%	1,598	12%	3,037	23%
Iowa	4,084	260	6%	125	3%	385	9%	20,363	879	4%	5,012	25%	5,891	29%
Kansas	5,435	593	11%	76	1%	669	12%	19,930	1,239	6%	2,573	13%	3,812	19%
Kentucky	8,972	1,838	20%	595	7%	2,433	27%	4,921	1,117	23%	583	12%	1,700	35%
Louisiana	8,013	1,381	17%	726	9%	2,107	26%	5,030	461	9%	1,033	21%	1,494	30%
Maine	2,080	257	12%	256	12%	513	25%	225	7	3%	71	32%	78	35%
Maryland	2,959	491	17%	104	4%	595	20%	2,288	476	21%	257	11%	733	32%
Massachusetts	3,572	953	27%	308	9%	1,261	35%	1,554	374	24%	164	11%	538	35%
Michigan	4,415	712	16%	234	5%	946	21%	6,508	608	9%	1,019	16%	1,627	25%
Minnesota	3,882	246	6%	106	3%	352	9%	9,853	355	4%	1,149	12%	1,504	15%
Mississippi	5,713	793	14%	245	4%	1,038	18%	10,896	444	4%	2,125	20%	2,569	24%
Missouri	10,405	976	9%	1,232	12%	2,208	21%	13,890	1,750	13%	2,260	16%	4,010	29%
Montana	2,923	328	11%	92	3%	420	14%	1,982	312	16%	111	6%	423	21%
Nebraska	3,514	94	3%	174	5%	268	8%	11,512	943	8%	2,306	20%	3,249	28%
Nevada	1,111	143	13%	19	2%	162	15%	713	21	3%	16	2%	37	5%
New Hampshire	1,509	192	13%	130	9%	322	21%	984	179	18%	227	23%	406	41%
New Jersey	2,418	340	14%	230	10%	570	24%	4,113	818	20%	353	9%	1,171	28%
New Mexico	2,972	158	5%	191	6%	349	12%	743	128	17%	81	11%	209	28%
New York	8,319	2,441	29%	760	9%	3,201	38%	9,052	1,812	20%	1,369	15%	3,181	35%
North Carolina	17,792	2,727	15%	2,609	15%	5,336	30%	829	129	16%	74	9%	203	24%
North Dakota	1,132	27	2%	35	3%	62	5%	3,150	199	6%	583	19%	782	25%
Ohio	11,499	1,890	16%	519	5%	2,409	21%	18,157	1,973	11%	2,071	11%	4,044	22%
Oklahoma	7,684	577	8%	634	8%	1,211	16%	16,187	700	4%	4,636	29%	5,336	33%
Oregon	2,706	615	23%	89	3%	704	26%	4,028	508	13%	282	7%	790	20%
Pennsylvania	16,145	2,682	17%	3,135	19%	5,817	36%	6,458	1,060	16%	2,218	34%	3,278	51%
Rhode Island	610	179	29%	123	20%	302	50%	148	40	27%	32	22%	72	49%
South Carolina	8,383	781	9%	894	11%	1,675	20%	853	104	12%	204	24%	308	36%
South Dakota	1,798	86	5%	79	4%	165	9%	3,966	121	3%	1,111	28%	1,232	31%
Tennessee	8,240	836	10%	279	3%	1,115	14%	11,446	1,209	11%	859	8%	2,068	18%
Texas	34,217	3,426	10%	264	1%	3,690	11%	17,967	4,021	22%	1,041	6%	5,062	28%
Utah	1,888	192	10%	28	1%	220	12%	1,027	70	7%	75	7%	145	14%
Vermont	1,086	194	18%	85	8%	279	26%	1,620	352	22%	182	11%	534	33%
Virginia	11,827	2,049	17%	989	8%	3,038	26%	1,558	344	22%	196	13%	540	35%
Washington	3,260	828	25%	142	4%	970	30%	3,993	673	17%	192	5%	865	22%
West Virginia	6,937	1,431	21%	908	13%	2,339	34%	112	42	38%	34	30%	76	68%
Wisconsin	5,172	422	8%	160	3%	582	11%	8,810	368	4%	989	11%	1,357	15%
Wyoming	1,954	15	1%	101	5%	116	6%	851	116	14%	153	18%	269	32%
TOTAL	**292,273**	**39,277**	**13.4%**	**19,574**	**6.7%**	**58,851**	**20.1%**	**309,881**	**32,837**	**10.6%**	**43,969**	**14.2%**	**76,806**	**24.8%**

For the FHWA's explanation of what makes a bridge structurally deficient and how a bridge becomes functionally obsolete, go to *http://www.fhwa.dot.gov/policy/2008cpr/chap3.htm#7. Better Roads*' editorial staff would like to thank all the state highway engineers for their continuing cooperation and special effort to provide current data. The data was collected through October 2012.

Note: FHWA, in consultation with the states, has assigned a sufficiency rating to each bridge (20 feet or more) that is inventoried.

Combined Total All Bridges

Total Bridges	Total FO	%	Total SD	%	Total SD/FO	%
15,882	2,007	13%	1,368	9%	3,375	21%
970	103	11%	114	12%	217	22%
7,571	589	8%	192	3%	781	10%
12,534	1,573	13%	857	7%	2,430	19%
25,350	2,735	11%	1,709	7%	4,444	18%
8,195	770	9%	547	7%	1,317	16%
4,192	1,114	27%	399	10%	1,513	36%
857	120	14%	53	6%	173	20%
202	92	46%	19	9%	111	55%
11,317	1,587	14%	227	2%	1,814	16%
14,658	1,753	12%	1,017	7%	2,770	19%
1,175	351	30%	89	8%	440	37%
3,679	342	9%	327	9%	669	18%
26,498	1,971	7%	2,313	9%	4,284	16%
18,731	1,902	10%	1,995	11%	3,897	21%
24,447	1,139	5%	5,137	21%	6,276	26%
25,365	1,832	7%	2,649	10%	4,481	18%
13,893	2,955	21%	1,178	8%	4,133	30%
13,043	1,842	14%	1,759	13%	3,601	28%
2,305	264	11%	327	14%	591	26%
5,247	967	18%	361	7%	1,328	25%
5,126	1,327	26%	472	9%	1,799	35%
10,923	1,320	12%	1,253	11%	2,573	24%
13,735	601	4%	1,255	9%	1,856	14%
16,609	1,237	7%	2,370	14%	3,607	22%
24,295	2,726	11%	3,492	14%	6,218	26%
4,905	640	13%	203	4%	843	17%
15,026	1,037	7%	2,480	17%	3,517	23%
1,824	164	9%	35	2%	199	11%
2,493	371	15%	357	14%	728	29%
6,531	1,158	18%	583	9%	1,741	27%
3,715	286	8%	272	7%	558	15%
17,371	4,253	24%	2,129	12%	6,382	37%
18,621	2,856	15%	2,683	14%	5,539	30%
4,282	226	5%	618	14%	844	20%
29,656	3,863	13%	2,590	9%	6,453	22%
23,871	1,277	5%	5,270	22%	6,547	27%
6,734	1,123	17%	371	6%	1,494	22%
22,603	3,742	17%	5,353	24%	9,095	40%
758	219	29%	155	20%	374	49%
9,236	885	10%	1,098	12%	1,983	21%
5,764	207	4%	1,190	21%	1,397	24%
19,686	2,045	10%	1,138	6%	3,183	16%
52,184	7,447	14%	1,305	3%	8,752	17%
2,915	262	9%	103	4%	365	13%
2,706	546	20%	267	10%	813	30%
13,385	2,393	18%	1,185	9%	3,578	27%
7,253	1,501	21%	334	5%	1,835	25%
7,049	1,473	21%	942	13%	2,415	34%
13,982	790	6%	1,149	8%	1,939	14%
2,805	131	5%	254	9%	385	14%
602,154	**72,114**	**12.0%**	**63,543**	**10.6%**	**135,657**	**22.5%**

Wayne J. Seger, P.E., Division of Structures, Director, with the **Tennessee Department of Transportation** Bridge Inspection/Repair Office, says the agency is "focused on structurally deficient bridges in the inventory for replacement and/or repair to retire the deficiency." Of the 15 bridges closed in **Tennessee** in the past five years and one this past year because of structural failure or collapse, "all have been or are being replaced or repaired," Seger says. "We had a major flood in middle and west Tennessee in May 2010. It forced us to close 54 bridges. However, in most of these cases, it was the approach roadways that had washed out." Only 10 bridges needed to be closed due to structural damage or complete washout, which are the 10 included in the 15 the state listed as those there were in imminent danger of collapse or had already collapsed or had been taken out by a flood, he says. "We have had many more that had been closed following an inspection due to deterioration in an element or elements that thorough evaluation would not support at least three tons," Seger says. "These were closed, and in most cases, the owner would repair the deteriorated member so that the structure could be put back into service."

Seger points out that most of the state's bridge repair projects are 100-percent state funded, and says that "MAP-21 will allow other types of transportation projects to compete for potential bridge funds."

However, Adam Matteo, assistant bridge engineer with the **Virginia Department of Transportation**, says the new bill actually "hurts" his agency. "There are not 'BR' (bridge replacement) funds, and therefore no requirement to fund bridges," Matteo says.

Nick J. Altobelli, P.E., director of structures state bridge engineer with the **Mississippi Department of Transportation**, thinks MAP-21 is less restrictive on applying funds, but there are "too many needs pulling from the same source." Gregory R. Perfetti, P.E., state structures management engineer with the **North Carolina Department of Transportation**, says with MAP-21, "it appears that there will be increased flexibility in [the] use of available funds." David Fish, P.E., managing engineer with the **Rhode Island Department of Transportation**, says it may help "by drawing attention to SD bridges."

Steve Anderson with the **Nebraska Department of Roads**

Bridge Division, points out that while the legislation "improves the stability of funds," the new requirements "will again syphon off money needed for construction. We always have more need than funds."

David E. Powelson, P.E., chief, existing bridge section, **New Hampshire Department of Transportation**, says that MAP-21 "provides more consistent funding that continuing resolutions, allowing better long-term planning." But, he says, it's important to note that the nation still needs a major overhaul when it comes to "sufficient revenue and funding to support full infrastructure reconstruction and investment." What makes this even more difficult, Powelson, says is that "the traveling public does not fully understanding nor choose to fund the work required to address bridge deficiencies."

Harvey L. Coffman, P.E., bridge preservation engineer with the **Washington Department of Transportation** Bridge Preservation Office, simply says MAP-21 will make "no difference." He also notes that "more resources, [a] priority to maintain [and] preserve infrastructure" are needed in the system of planning and maintaining bridge as in the United States at the federal, state and local level."

Eric J. Christie, assistant state maintenance engineer – bridges, **Alabama Department of Transportation**, agrees with Coffman, noting that MAP-21 "will not make a difference" with his agency's ability to repair bridges. John D. Clark, state bridge maintenance and repair engineer with the **Florida Department of Transportation**, says "No, No" when commenting on if MAP-21 will make any difference with his agency's ability to repair bridges.

The **New Mexico Department of Transportation** is still up in the air as to whether the short-term highway bill will have any impact on the agency. "We are not sure at this time," Jeff C. Vigil, P.E., state bridge management engineer for the New Mexico DOT Bridge Maintenance Unit, said when he answered the *Better Roads 2012 Bridge Inventory* survey in late September/early October. "It will depend on how funding is prioritized." Vigil also acknowledges that insufficient funding will restrict important work in the coming year to "a major extent." He also notes that "larger and more consistent funding levels" are needed" for the system of planning and maintain bridges in the United States at the federal, state and local levels. ❖

BETTER Bridges

2012 BRIDGE INVENTORY

Annual Bridge Inventory

Years	State-Interstate combined Total SD/FO Bridges	State-Interstate combined SD/FO %	State-Interstate%	Years	City/County Total SD/FO %
2012	292,273	58,851	20.1%	2012	309,881
2011	292,085	59,250	20.3%	2011	310,006
2010	291,034	61,149	21.0%	2010	309,479
2009	288,944	62,454	21.6%	2009	309,017
2008	288,511	63,910	22.2%	2008	308,893
2007	287,431	62,855	21.9%	2007	310,384
2006	285,942	62,517	21.9%	2006	309,247
2005	287,197	63,574	22.1%	2005	308,428
2004	286,019	63,172	22.1%	2004	308,451
2003	286,195	63,728	22.3%	2003	307,807
2002	278,919	62,795	22.5%	2002	298,068
2001	277,632	63,597	22.9%	2001	297,763
2000	275,868	63,927	23.2%	2000	300,652
1999	279,914	66,660	23.8%	1999	309,901
1998	279,543	68,466	24.5%	1998	309,792
1997	280,898	68,810	24.5%	1997	309,142
1996	281,398	70,126	24.9%	1996	307,845
1995	281,840	70,784	25.1%	1995	309,365
1994	280,575	68,910	24.6%	1994	309,112
1993	279,073	69,473	24.9%	1993	309,077
1992	281,670	74,424	26.4%	1992	319,080
1991	280,817	75,069	26.7%	1991	312,399
1990	275,202	75,367	27.4%	1990	310,134
1989	274,678	74,910	27.3%	1989	313,039
1988	272,337	77,787	28.6%	1988	314,606
1987	271,125	77,179	28.5%	1987	315,615
1986	269,307	76,160	28.3%	1986	315,722
1985	269,129	71,593	26.6%	1985	317,112

Since 1985 - Summary by Year

City/County Total	City/County SD/FO %	Years	Total All Bridges	Total All SD/FO Bridges	Total %
76,806	24.8%	2012	602,154	135,657	22.5%
77,566	25.0%	2011	602,091	136,816	22.7%
78,471	25.4%	2010	600,513	139,620	23.3%
79,442	25.7%	2009	597,961	141,896	23.7%
81,032	26.2%	2008	597,404	144,942	24.3%
81,459	26.2%	2007	597,815	144,314	24.1%
83,479	27.0%	2006	595,189	145,996	24.5%
85,552	27.7%	2005	595,625	149,126	25.0%
87,809	28.5%	2004	594,470	150,981	25.4%
89,692	29.1%	2003	594,002	153,420	25.8%
91,320	30.6%	2002	576,987	154,115	26.7%
94,925	31.9%	2001	575,395	158,522	27.6%
98,710	32.8%	2000	576,520	162,637	28.2%
104,612	33.8%	1999	589,815	171,272	29.0%
109,626	35.4%	1998	589,335	178,092	30.2%
110,645	35.8%	1997	590,040	179,455	30.4%
112,281	36.5%	1996	589,243	182,407	31.0%
116,720	37.7%	1995	591,205	187,504	31.7%
117,863	38.1%	1994	589,687	186,773	31.7%
121,951	39.5%	1993	588,150	191,424	32.5%
132,480	41.5%	1992	600,750	206,904	34.4%
132,995	42.6%	1991	593,216	208,064	35.1%
145,654	47.0%	1990	585,336	221,021	37.8%
150,552	48.1%	1989	587,717	225,462	38.4%
161,915	51.5%	1988	586,943	239,702	40.8%
166,201	52.7%	1987	586,740	243,380	41.5%
169,657	53.7%	1986	585,029	245,817	42.0%
177,618	56.0%	1985	586,241	249,211	42.5%