

The State of Iowa's Infrastructure

This IPRO report presents a brief summary of the state of transportation and waterway infrastructure in the state of Iowa.

Overview

After the gas line explosion in California, the bridge collapse in Minnesota, and the failure of the private Dehli dam in Iowa, questions have begun to arise about whether or not more money needs to be spent on our nation's infrastructure. In Iowa, the 2008 floods further damaged the already deteriorating transportation and waterway infrastructure. According to the report by the American Society of Civil Engineers, Iowa's bridges, roads, and levees are the top three infrastructure concerns of the state.¹

Bridges

The state of Iowa has roughly 24,000 bridges.² Of these, 21 percent are "structurally deficient," needing either significant maintenance or to be replaced.³ As a result, Iowa has the fourth highest percentage of structurally deficient bridges in the nation. It would cost roughly \$257 million to repair all of these bridges; in addition, 622 more bridges are on the verge of becoming structurally deficient if repairs are not made soon.⁴

Roads

Almost 40 percent of Iowa's roads are in poor to mediocre condition. Road conditions are a large factor in one-third of car collision fatalities. Iowa's fatality rate of 1.37 fatalities per 100 million miles of road travel is higher than the national average. Excluding life lost, roads cost Iowa motorists \$759 million in extra repairs each year—roughly \$381 for each motorist. Traffic on Iowa's highways and roads have increased. Thirty-eight percent of Iowa's urban roads are congested while vehicle travel on highways has risen by 34 percent.⁵

Levees

In July 2010, the failure of the Lake Dehli dam in Dehil, Iowa that resulted in mass flooding and high property damages sparked a renewed interest in the quality of levees across Iowa.⁶ Iowa is home to 3,325 dams of which 83 are considered to be high hazard dams. This means that if such dams fail, loss of life and high property damages could occur. Ninety-five percent of Iowa's high hazard dams have no emergency action plan or set of procedures and

¹ American Society of Civil Engineers, Iowa, September 2008, 28 November 2010
<<http://www.infrastructurereportcard.org/state-page/iowa>>.

² Iowa Department of Transportation, Bridges in Iowa, 28 November 2010
<http://www.iowadot.gov/iowa_bridges.html>.

³ The Road Information Program, Iowa's Deficient Bridges, February 2008, 28 November 2010
<http://www.tripnet.org/Iowa_Bridge_Report_Feb_2008.pdf>. The Road Information Program, Iowa's Deficient Bridges, February 2008, 28 November 2010
<http://www.tripnet.org/Iowa_Bridge_Report_Feb_2008.pdf>.

⁴ Ibid.

⁵ TRIP: a national transportation research group, Key Facts about Iowa's Surface Transportation System, August 2010, 28 November 2010 <http://www.tripnet.org/Fact_Sheet_IA.pdf>.

⁶ Steve Gravelle, Headlines, 10 September 2010, 28 November 2010
<<http://thegazette.com/2010/09/10/lake-delhi-dam-officials-unveil-9-9-million-plan-to-rebuild-by-next-summer/>> .

responsibilities aimed at preventing loss of life and high property damages in the case of dam failure. Thirty-one of Iowa's levees are in need of rehabilitation just to meet current state safety standards.⁷ Once levees fail, costs of repair increase greatly. The estimated cost to repair the Lake Delhi dam is \$9.9 million as compared to the relatively minor costs, averaging \$1.4 million per deficient dam, of repairing deficient dams and preventing levee failure.⁸⁹

Benefits and Concerns

The primary benefit of increasing infrastructure spending is a decrease in costs (both in money and in human life) from the continued use of roads, bridges, and levees that are currently in poor condition. Motor vehicle crashes cost Iowan \$2.1 billion per year. According to one study, an increase of \$100 million can save 145 lives over a ten-year period.¹⁰ Also, construction costs have risen for such repairs over time—by 43% in the past three years. This is mostly due to increases in costs of materials needed for construction such as diesel fuel, concrete, etc.¹¹ Increasing spending also increases the number of construction jobs in Iowa and also helps the \$115 billion worth of goods shipped through Iowa annually to be shipped more efficiently, saving businesses money.¹²

Primary concerns with raising infrastructure spending is the money required. Construction, as mentioned earlier, is expensive. With the current state of the economy, many states—including Iowa—have to cut their budgets. Money for infrastructure improvement would have to be taken from other state programs, increased taxes (especially gas taxes), or the creation of toll roads.

Iowa's Infrastructure Spending

In 2009, the state of Iowa spent a total of \$1.5 billion on infrastructure. Various state funds and bonds contributed \$850 million to Iowa's largest infrastructure investment. These funds were dedicated to roads, bridges, telecommunications, sewer and water projects, and renewable energy. Another \$663 million of Iowa's \$1.5 billion investment came from federal transportation funds and stimulus programs aimed to upgrade Iowa's infrastructure and repair damages from natural disasters in Iowa.¹³ As shown in Figure 1, Iowa's infrastructure spending in FY 2009 ranks 5th among six Midwestern states in both overall infrastructure spending and per capita spending and ranks 6th among the same states in infrastructure spending per square mile. In 2010, the Iowa Department of Transportation proposed the

⁷ Ibid.

⁸ Steve Gravelle, Headlines, 10 September 2010, 28 November 2010 <<http://thegazette.com/2010/09/10/lake-delhi-dam-officials-unveil-9-9-million-plan-to-rebuild-by-next-summer/>>.

⁹ Dams and Levees: 2010 Report Card for Pennsylvania's Infrastructure, 9 December 2010 <<http://www.pareportcard.org/PDFs/DamsLevees%20FINAL%20w%20NAT.pdf>>

¹⁰ TRIP: a national transportation research group, Key Facts about Iowa's Surface Transportation System, August 2010, 28 November 2010 <http://www.tripnet.org/Fact_Sheet_IA.pdf>.

¹¹ The Road Information Program, Iowa's Deficient Bridges, February 2008, 28 November 2010 <http://www.tripnet.org/Iowa_Bridge_Report_Feb_2008.pdf>.

¹² TRIP: a national transportation research group, Key Facts about Iowa's Surface Transportation System, August 2010, 28 November 2010 <http://www.tripnet.org/Fact_Sheet_IA.pdf>.

¹³ Rod Boshart, Iowa will spend \$1.5 billion on infrastructure, 17 December 2009, 28 November 2010 <http://siouxcityjournal.com/news/local/article_ae3e8627-dd40-5f65-9b24-e2a1bc6c32a2.html>.

Iowa Transportation Improvement Program that would make use of federal funds to allocate \$888 million towards infrastructure upgrades in Iowa between 2011 and 2015.

Figure 1:Infrastructure Spending in the Midwest (Fiscal Year 2009)

State	Infrastructure Spending (in millions of dollars)	State Population	Infrastructure Spending (Per Capita)	Infrastructure Spending (Per Square Mile)
Iowa	\$850	3,007,856	\$283.33	\$151.21
Nebraska	\$680.7	1,796,619	\$378.16	\$259.24
Kansas	\$1100	2,818,747	\$391.45	\$199.47
Minnesota	\$1700	5,266,214	\$323.19	\$481.94
Illinois	\$3900	12,910,409	\$302.32	\$554.69
Wisconsin	\$1500	5,654,774	\$267.86	\$445.32

Mass transit

With high rates of urban Interstate congestion, there has become a demand for mass transit projects across the state of Iowa. In 2010, Iowa secured a federal grant to build a passenger rail line that would connect Iowa City to Chicago.¹⁴ Aside from the Iowa City rail project, however, the state of Iowa has done little in terms of encouraging mass transit. Currently, Iowa is home to 19 urban public transit systems and 16 regional public transit systems that provide more than 26.6 million ride annually.¹⁵ Iowa’s mass transit systems are funded by both state and local funds. In the 2009, \$10.5 million of state funds were allocated to Iowa’s public transit systems. State public transit assistance is funded primarily from motor vehicle registration fees in Iowa.¹⁶

Federal Action:

In 2010, President Obama called for a \$50 billion infrastructure investment initiative. The initiative would make \$50 billion of federal funds available to repair highways, railways, and airport infrastructure in an attempt to stimulate the economy. The original plan for the infrastructure initiative seeks to rebuild over 150,000 miles of highways and over 4,000 miles of railways across the U.S.¹⁷ President Obama’s infrastructure investment initiative is expected to be voted on in Congress during the 2011 Congressional period.

Policy Alternatives

Unpaving Roads

¹⁴ [Iowa City-Chicago passenger rail](http://www.iowacityarea.com/Content/Iowa_City_Chicago_Passenger_Rail.aspx), October 2010, 28 November 2010 <http://www.iowacityarea.com/Content/Iowa_City_Chicago_Passenger_Rail.aspx>.

¹⁵ Iowa Department of Transportation, [Office of Public Transit](http://www.iowadot.gov/transit/mission.html), 28 November 2010 <<http://www.iowadot.gov/transit/mission.html>>.

¹⁶ Iowa Department of Transportation, [Office of Public Transit](http://www.iowadot.gov/transit/mission.html), 28 November 2010 <<http://www.iowadot.gov/transit/mission.html>>.

¹⁷ Todd Zwillich, [Transportation Nation](http://transportationnation.org/2010/10/11/obama-lahood-join-mayors-governors-to-push-infrastructure-at-white-house/), 11 October 2010, 28 November 2010 <<http://transportationnation.org/2010/10/11/obama-lahood-join-mayors-governors-to-push-infrastructure-at-white-house/>>.

In order to save money, decrease costs of maintaining less traveled roadways, and increase funds available for major infrastructure repair, some states have turned to the process of unpaving roads. Unpaving roads is a process that consists of converting paved, often rural roads to gravel in an attempt to save state and county funds that go towards maintaining the paved roads. Recently, states such as Michigan, North Dakota, and South Dakota have begun extensive unpaving projects.¹⁸

This report was prepared in December 2010 by the Iowa Policy Research Organization (IPRO), a non-partisan public policy undergraduate research group at the University of Iowa. For additional research on this or other issues, please visit our website at <http://www.uiowa.edu/~ipro/> or contact us at caroline-tolbert@uiowa.edu.

¹⁸ Lauren Etter, Roads to Ruin: Towns Rip Up The Pavement, July 2010, 9 December 2010, <<http://online.wsj.com/article/SB10001424052748704913304575370950363737746.html>>