

# SUMMARY

Every family, every community and every business needs infrastructure to thrive. Infrastructure encompasses: your local drinking water supply to the Illinois River; the subway car you take to work to the rail lines spanning the State; and the street in front of your home to the interstate highway system.

**“You cannot escape the responsibility of tomorrow by evading it today.”**  
-Abraham Lincoln

A panel of Professional Civil Engineers and American Society of Civil Engineers (ASCE) members throughout the State graded each infrastructure category according to the following eight criteria: capacity, condition, funding, future need, operation and maintenance, public safety, resilience, and innovation. In 2010, the Infrastructure Grade for Illinois was a D+, reflecting delayed maintenance and underinvestment across most categories.

Now the 2014 Report Card Grades are compiled, and the Illinois cumulative grade for infrastructure rose slightly to a C-. The 2014 Report Card demonstrates that we can improve the current condition of Illinois infrastructure — when investments are made and projects move forward, the grades improve. For example, greater public and private investment for efficiency, connectivity and safety brought improvements in the rail category; renewed efforts in Chicago and across the State helped replace some of our oldest water assets; and, several categories benefited from short-term boosts in funding from the *Illinois Jobs Now!* initiative. However, in categories where we have underinvested or our commitment remains uncertain, the grades have remained unacceptably low.

We know that investing in infrastructure is essential to support healthy, vibrant communities. Infrastructure is also critical for long-term economic growth, employment, household income, exports and re-establishing our State’s competitive advantage. The reverse is also true – without prioritizing our State’s infrastructure needs, deteriorating conditions can become a drag on the economy. Families, businesses and commerce will move elsewhere.

While the modest progress is encouraging, there is much work left to be done. It is clear that we have a significant backlog of overdue maintenance across our infrastructure network, a pressing need to build modern and resilient systems, and an immense opportunity to create reliable, long-term funding sources to avoid wiping out our recent gains.

To raise our infrastructure grades, we need to create sustainable infrastructure investment programs that plan for the future Illinois we want our children to live in, and continue the positive momentum we have seen over the past four years.

**ASCE**  
ILLINOIS SECTION

## 2014 REPORT CARD

# Illinois INFRASTRUCTURE

*ASCE’s Report Card for Illinois Infrastructure* seeks to inform the public and policy makers about the condition of the State’s infrastructure and how to improve it.

Based on 8 criteria (capacity, condition, funding, future need, operation and maintenance, public safety, resilience and innovation).

- A = Exceptional: Fit for the Future**
- B = Good: Adequate for Now**
- C = Mediocre: Requires Attention**
- D = Poor: At Risk**
- F = Failing: Critical: Unfit for Purpose**

<b>AVIATION</b>	<b>C+</b>
<b>BRIDGES</b>	<b>C+</b>
<b>DAMS</b>	<b>C</b>
<b>DRINKING WATER</b>	<b>C-</b>
<b>NAVIGABLE WATER</b>	<b>D-</b>
<b>RAIL</b>	<b>C</b>
<b>ROADS</b>	<b>D+</b>
<b>TRANSIT</b>	<b>D+</b>
<b>WASTEWATER</b>	<b>D+</b>

ILLINOIS | 2014 GRADE | **C-**

**AVIATION.** Illinois has 11 commercial service airports, serving over 42 million passengers. The number of passengers at large hub airports—including O’Hare and Midway International Airports—are predicted to grow at an annual rate of 2.3 % through 2040. O’Hare is forecasted to have the highest number of aircraft operations in the U.S. by 2040, and a forecasted 72 % increase in operations at Midway International Airport will make it the 23rd busiest airport in the nation by 2040, up from its current position at 28th. The Illinois aviation system supports hundreds of thousands of jobs and produces billions of dollars in annual economic output. The City of Chicago continues to invest in its airports, but decreasing federal and State funding levels will have an impact on aviation infrastructure, the economy and our global competitive advantage in aviation.

**BRIDGES.** Illinois is the cross roads for the movement of goods for a large part of the country, and Illinois has the 3rd largest bridge inventory in the nation. Regrettably, 16% of Illinois’ bridges are classified as structurally deficient or functionally obsolete. While it is encouraging that the percentages of structurally deficient and functionally obsolete bridges in Illinois are lower than the national average, inevitable increases in the number of trucks and axle loads will degrade roads and bridges more rapidly. A targeted investment strategy is necessary to further decrease the number of structurally deficient and functionally obsolete bridges in the State.

**DAMS.** Dams in Illinois supply communities with water, create recreational lakes, and provide much needed flood control. Illinois has 1,759 State-regulated dams. The overall condition of dams in Illinois is well above average and the State Dam Safety program is strong. However, there are a number of older dams that were not issued permits. This is a concern because the condition and level of risk posed from these dams are unknown. Many dams are decades old and long-term funding for repair and replacement remains a key issue. Increased funding for the State program to bring the ratio of dams being managed by each dam safety employee more in line with the national norms is recommended.

**DRINKING WATER.** In 2011, Illinois estimated that the drinking water systems needed an investment of \$19 billion over the next 20 years to replace aging facilities and comply with safe drinking water regulations. However, over that same time period the water quality compliance rate has increased from 93.9% to 96.5%. Through programs such as the Clean Water Initiative, Public Water Supply Loan Program, and the Green Infrastructure for Clean Water Act, Illinois has begun to make steps to improve its drinking water infrastructure. The City of Chicago Department of Water Management’s recently adopted 10-year plan for replacing aged water lines is a good step forward. These new efforts benefit our drinking water infrastructure; however, there is still a very long way to go.

**NAVIGABLE WATERWAYS.** The Mississippi River, Illinois River, Ohio River, and Lake Michigan locks near Chicago provide vital commercial shipping links for goods to travel throughout Illinois as well as the entire country. About 116 million tons of commodities are shipped annually on the 1,118 miles of Illinois’ inland waterways, totaling more than \$23 billion. Much of the system was built in the 1930s with a 50-year design life and is now in desperate need of upgrades, rehabilitation, and repair. An unreliable lock and dam system and inadequate funding threaten the future viability of the State’s navigable waterway infrastructure which is a key to a national and global competitive shipping advantage.

**RAIL.** The Illinois rail network is the 2nd largest in the country, and Chicago is the single largest rail hub in the nation. Ridership in Illinois has increased 85% between 2006 and 2011. Every day 500 freight trains with 37,500 cars and 700 passenger and commuter lines pass through Chicago. In 2013, Amtrak recorded its highest year of ridership ever with 6 million Illinois riders. Both freight rail and passenger rail have been investing heavily in their tracks, bridges, and tunnels as well as adding new capacity for freight and passengers bringing a grade improvement. However, rail freight volume is expected to double by 2025, causing congestion and delays unless continued investments are made. Congestion on the State’s rail system costs millions of dollars in shipping delays and causes substantial noise and air pollution as trains idle for hours waiting for track clearance. Future rail investment needs are estimated at \$20.5 billion.

**ROADS.** Between 1990 and 2012, vehicle travel on Interstate highways in Illinois increased 25%, while the population grew by 13% and lane miles added grew by just 11%. Severe traffic congestion costs Illinois’ economy billions of dollars in lost productivity each year. Congestion is estimated to cost \$4 billion annually for the Chicago area alone, and 42% of Illinois’ major roads are in poor or mediocre condition. Driving on these roads costs Illinois motorists \$3.7 billion a year in extra vehicle repairs and operating costs. Significant investments have been made by the Illinois Tollway and IDOT since the 2010 Report Card, but these funding sources must be supplemented with a long term sustainable funding source at the State and federal level. Illinois’ poor roads will continue to hinder the State’s ability to spur economic growth and build sustainable, efficient communities.

**TRANSIT.** Varied transit systems ease congestion and provide a diversity of options for Illinois families and workers. The need to invest in transit will only grow as demand rises. The current capital needs for transit systems in Northeastern Illinois are over \$2 billion annually, and transit ridership in the region is 5% higher than in 2010. The dramatic growth in intra-suburban commuting is a major transit challenge; however, the cost of gasoline, growing environmental concerns, and worsening roadway congestion make efficient and upgraded transit systems valuable. Much of the infrastructure for a world-class transit system, particularly in Northeastern Illinois, is in place, but it has suffered as a result of age and lack of funding. The Chicago region under-spends on transit operations and capital compared to both national and international cities. The estimated need to bring the Chicago region’s transit to a state of good repair over the next ten years has risen to \$30.9 billion in 2012 from \$26.1 billion in 2010.

**WASTEWATER.** Many wastewater management systems in Illinois are more than 100 years old and continue to serve Illinois families and businesses. Currently, the EPA estimates that Illinois must invest \$17.5 billion over the next 20 years to replace existing systems and build new ones to meet increasing demands. Federal assistance alone cannot be expected to meet Illinois’ needs. Financial shortfalls will need to be funded by the State of Illinois and its ratepayers if Illinois hopes to maintain the necessary infrastructure to meet its growing population. The Illinois Clean Water Initiative has recently been expanded and time will tell if it can lead to progress toward meeting this vast need.