



AMERICAN SOCIETY OF CIVIL ENGINEERS

KENTUCKY INFRASTRUCTURE REPORT CARD 2011

Category	KY 2003	U.S. 2009	KY 2011	
Aviation	C+	D	C+	Kentucky airports have a total economic impact on the state of approximately \$15 billion dollars, yielding nearly 115,000 jobs. Legislation for the FAA's Airport Improvement Program, Vision 100, expired in 2007. Congress has made 17 extensions of this outdated policy and has delayed new funding. Despite these funding challenges and the cap on the state's jet fuel tax, which supports aviation facilities, commercial service airports continue to maintain good facilities. However, a solid funding stream is needed to keep Kentucky's airports in running order and prepare them for growth.
Bridges	C-	C	D	The condition of Kentucky's bridges has deteriorated since the last report card, primarily due to lack of funding. The cost to repair or replace all deficient bridges in Kentucky is estimated to be more than \$1.2 billion. The cost to raise the condition of Kentucky's bridges to meet the national average is estimated to be more than \$283 million, but only \$98 million in combined state and federal funds are available. At the beginning of 2003, 29.7% of Kentucky bridges were deficient, compared to the national average of 27.6%. The national combined average has fallen to 24.8%, while the deficiency rate in Kentucky had risen to 32.2%.
Dams	C-	D	D+	Funding for the dam program has declined over the past 30 years, despite growing hazards, deteriorating dam conditions, and an increasing number of dams. Funds are needed to hire and train an adequate staff of professional inspectors, rehabilitate critical dams, improve the communication and notification systems, and update inspection methods and equipment. Approximately 58% of Kentucky's dams are privately owned and operated, which is unlike other types of infrastructure.
Drinking Water	C	D-	B	Since 2000, significant improvements have been made to Kentucky's drinking water systems with the assistance of nearly \$1 billion in grants and low-interest loans. Potable water is available to 95% of the population, and the state has established a goal of reaching 100% of the population by 2020. In 2007, the Drinking Water Stakeholders Group was established with representatives from regulatory agencies, funding agencies, water utilities, and industry associations. This collaborative approach has led to proactive development of regulations for capacity development, water quality, permits, operator certification, and design standards.
Energy	B-	D+	B-	While Kentucky's transmission grid currently meets the state's needs, potential changes in regulations and increased usage place Kentucky at a crossroads. Previously, Kentucky has benefited from industrial growth associated with low electricity prices, and coal is used to generate 92% of Kentucky's electricity. However, Congress is considering legislation that will further tighten emission limits, and the Environmental Protection Agency (EPA) is considering regulating fly ash from coal-fired power plants as a hazardous waste. New regulations could drive an increase in the state's energy prices. In response, electric utilities are considering alternative fuel sources and focusing investments on conservation and energy-efficiency measures, thereby avoiding some emissions and moderating the need for additional generation.

Hazardous Waste	D+	D	C	Kentucky remains a net exporter of hazardous waste, exporting 163,658 tons and importing 75,083 tons in 2009. Of the state's 20 Superfund sites, 17 either have a remedy in place or have been closed and removed from the EPA's priority list. However, hundreds of contaminated sites not on the federal list require cleanup at an initial estimated cost of \$80 million. Currently, \$1.2 million per year is generated from hazardous waste fees to address cleanups at these sites.
Levees	Not Assigned	D-	D+	A significant portion of the levees in Kentucky were constructed between 1940 and 1960. The condition of this flood protection system has deteriorated as these systems have aged. Of Kentucky's 29 projects, five had an acceptable rating, five had an unacceptable rating, and the remaining 19 projects were rated minimally acceptable. Total costs to repair all systems could approach \$200 million.
Roads	D	D-	D	There are more than \$40 billion of unfunded road projects on the Kentucky Transportation Cabinet's work list. In addition, individual counties have their own roadway projects that have been planned but do not have a funding source. Road congestion is a growing problem, as delays have outpaced those experienced in areas of similar size. The percentage of poor pavement on primary state routes has increased from 13% to 21% between 2005 and 2007.
School Facilities	D+	D	B-	Kentucky's 1,197 school facilities are evaluated every four years using a grading system that ranges from "like new" to "needs replacement." Based on this assessment, only 1.4% (or 17 facilities) are in need of replacement. An additional 10% need major renovation. The rest are in acceptable or better condition. Kentucky faces a \$3.1 billion cost for school modernization, which includes \$2.4 billion for infrastructure and \$686 million for technology needs. The average per-pupil expenditure is \$6,829, compared to the \$7,015 national average.
Solid Waste	C-	C+	B	The state has made progress in controlling solid waste. Compliance rates for underground storage tanks have increased from 42% to 46%, but are still well below the average of 68% for other states in EPA Region 4. While recycling of household items fell from 34.7% in 2008 to 29.7% in 2009, the rate is still above the national average. And, since 2003, the Historic Landfill Program has completed 10 landfill closure projects.
Transit and Rail	D	D ^{Transit} C- ^{Rail}	C-	Each of the 120 counties in Kentucky has some form of transit as a result of the past decade of emphasis by the Area Development Districts. Eighty percent of commuters ride to work alone, and 1.2 percent ride public transportation. Louisville and Lexington have made substantial steps forward in bicycle and pedestrian facilities since 2003, with their Louisville Loop and Legacy Trail projects. In 2006, 7.1 million tons of freight was moved by rail in the state. Funding from the American Recovery and Reinvestment Act of 2009 for Amtrak in Kentucky totaled \$226,000 and was mostly used for Americans with Disabilities Act (ADA) compliance projects and bus replacements.
Wastewater	D-	D-	C-	Since the 2003 Report Card, progress has been made toward reducing combined sewer overflow, mitigating sanitary sewer overflow, implementing long-term control plans and enforcing the Clean Water Act. Kentucky will need a minimum of \$2.1 billion to meet wastewater collection and treatment needs over the next 20 years. Currently, \$142.6 million is available in the Clean Water State Revolving Fund low-interest loan program to help fund these projects.

Kentucky's Infrastructure Grade: C
U.S. Infrastructure Grade: D

A = Exceptional B = Good C = Fair D = Poor F = Inadequate

Each category was evaluated on the basis of condition and performance, capacity versus need, and funding versus need.