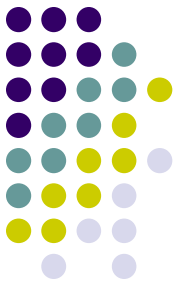


OHIO INFRASTRUCTURE REPORT CARD

October 20, 2010

Kevin P. Carpenter, P.E., P.S.



“ . . . The greatest advances in improving human health were the development of clean drinking water and sewage systems. So, we owe our health as much to civil engineering as we do biology.”

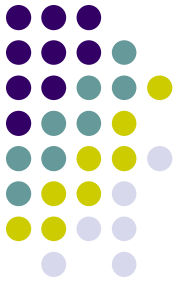
- Lewis Thomas, Former head of Yale Medical School & Memorial Sloan-Kettering Cancer Center

THE GRADES



Ohio Council Of Local Sections
Akron-Canton, Central Ohio, Cincinnati,
Cleveland, Dayton, Toledo

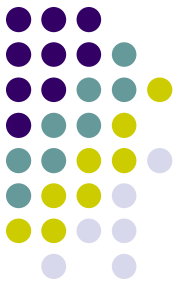
2010 UPDATE – 2009 OHIO INFRASTRUCTURE REPORT CARD



Subject	Grade	Comments
Aviation	C-	Ohio ranks third in the nation with 124 paved and lighted general aviation airports. Only 58% of runways, 57% of taxiways and 62% of aprons meet the satisfactory condition index. These percentages are below ODOT Office of Aviation established goals. Ohio's commercial service airports are meeting capacity requirements.
Bridges	B-	Bridges in Ohio are crucial components of one of the largest transportation systems in the country. Ohio has the second largest inventory of bridges in the United States. It is estimated that it would cost \$3.6 billion to replace all the structurally deficient bridges and two-thirds of the functionally obsolete bridges in Ohio.
Dams	C	There are more than 2,800 dams in the State of Ohio. Nearly 70% of Ohio dams are privately owned. There were 1,597 state-regulated dams in Ohio in 2007. Of the state-regulated dams, 33% are deficient. It is estimated that the repair cost for Ohio's deficient dams is approximately \$300 million.
Drinking Water	D+	Approximately 90% of Ohioans receive water for daily needs from one of the more than 6,000 public water systems. An estimated 99% of the burden for funding public water supply systems is borne by local government. It is estimated that Ohio has \$9.68 billion in drinking water infrastructure needs.
Electricity	C+	Electric generation, transmission and distribution systems in Ohio are satisfactory, reliability problems are relatively few, and those that exist are being addressed by system improvements. However, mandates related to alternative energy and environmental protection may pose problems for Ohio's electric utilities in the future.
Parks and Recreation	C-	Park systems in Ohio provide a crucial economic element in terms of jobs and financial impact. An additional \$26.5 million is needed each year to properly operate the state parks and other divisions, and an additional \$29.9 million annually is needed to eliminate the maintenance backlog over the next 10 to 20 years.
Railroads	C	Railroads provide critical services to industries important to Ohio's economy, hauling raw materials, parts, and finished products. Railroads are an important industry, employing more than 8,000 workers and paying approximately \$500 million in wages. ODOT estimated that the cost to improve thirty railroad choke points is \$1.19 billion.
Roads	D	With over 125,000 miles of roads, Ohio has one of the largest and most utilized roadway networks in the United States. 43% of Ohio's roads are in critical, poor, or fair condition. It is estimated that by the year 2014, Ohio will have a highway budget shortfall of more than \$10 billion at the state government level alone.
Schools	C	The quality of schools in Ohio is crucial to the state's long-term viability and ability to compete in the global marketplace. The American Federation of Teachers estimated in 2008 that Ohio schools require \$9.32 billion in infrastructure investment. This ranks Ohio 6 th in the country for total funds needed.
Transit	D	An average of 500,000 riders use public transit daily, making Ohio 12 th highest in ridership rate in the nation. Ohio ranks 40 th in the nation in percentage of state transportation funds expended on public transit. Less than 1% of Ohio's state transportation funds go towards public transit.
Wastewater	C-	Aging systems discharge billions of gallons of untreated wastewater into U.S. surface waters each year. An estimated 95% of the burden for funding municipal wastewater treatment systems is borne by local government. It is estimated that Ohio has \$11.18 billion in wastewater infrastructure needs.

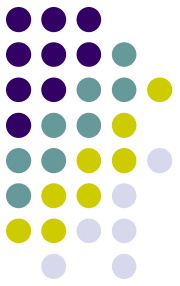
The 2010 update to the 2009 Ohio Infrastructure Report Card added the Transit Section. Copies of the Transit Section and the full report card are available though the Ohio Council of Local Sections Website www.ohioasce.org.

AVIATION



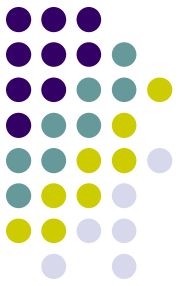
- Grade: C-
 - Ohio ranks 3rd in the U.S. with 124 paved and lighted general aviation airports
 - ODOT Goal: 85% runways, 80% taxiways, 75% aprons shall have a “satisfactory” rating
 - Runways = 58%
 - Taxiways = 57%
 - Aprons = 62%

BRIDGES



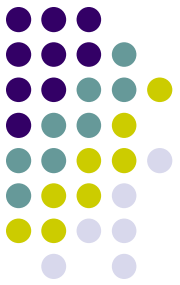
- Grade: B-
 - Ohio has the 2nd largest inventory of bridges in U.S.
 - Structurally Deficient or Functionally Obsolete
 - 4,213 (9.5%) SD
 - 5,081 (11.5%) FO

DAMS



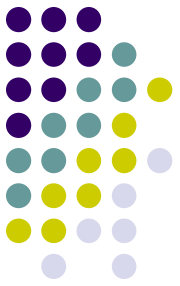
- Grade: C
 - Nearly 70% of the more than 2,600 dams in Ohio are privately owned
 - Of the 1,597 state-regulated dams in Ohio, 33% are deficient

DRINKING WATER



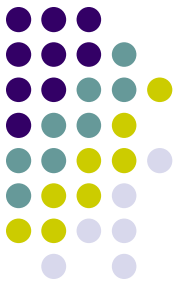
- Grade: D+
- Ohio has more than 6,000 public water systems
- 99% of funding for water comes from local government

ELECTRICITY



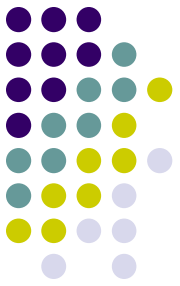
- Grade: C+
- Usage is
 - 29% commercial
 - 37% industrial
 - 34% residential
- Coal provides 2/3 of Ohio's electric generating capacity

PARKS & RECREATION



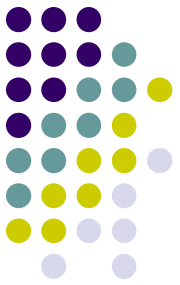
- Grade: C-
 - Ohio state parks are the 3rd most visited in the U.S.
 - 32 state parks have no on-site manager
 - Another 22 have no permanent staff

RAILROADS



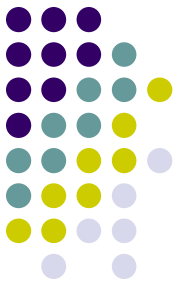
- Grade: C-
 - 1/3 of nation's freight passes through Ohio
 - Columbus is the 2nd largest city in the U.S. without passenger rail service

ROADS



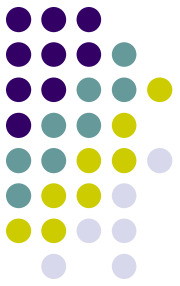
- Grade: D
 - Ohio has the 7th most public road length in the U.S.
 - Roadway ratings:
 - 22.5% excellent
 - 34.5% good
 - 29% fair
 - 11.3% poor

SCHOOLS



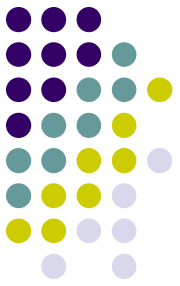
- Grade: C
 - The Ohio Schools Facilities Commission has fully addressed facility needs in 123 school districts
 - There are 614 school districts in Ohio

TRANSIT



- Grade: D
 - Ohio has the 12th highest transit ridership in the U.S.
 - Less than 1% of Ohio's state transportation funds go towards public transit

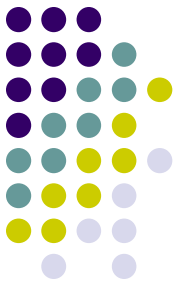
WASTEWATER



- Grade: D+
- There is a general lack of statewide data regarding wastewater in Ohio
- As of June, 2009 Ohio had 1,306 known CSO in 86 communities

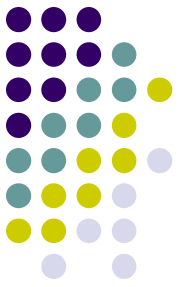


ASCE's Five Key Solutions



1. **Increase** federal leadership
2. **Promote** sustainability & resilience
3. **Develop** national, regional and state infrastructure plans
4. **Address** life-cycle costs and ongoing maintenance
5. **Increase & improve** investment from all stakeholders

ESTIMATED COSTS



System	National	Ohio	
Aviation	\$40,700,000,000	\$117,000,000	(a)
Bridges	\$549,500,000,000	\$3,600,000,000	(b)
Dams	\$7,450,000,000	\$300,000,000	(d)
Drinking Water	\$108,600,000,000	\$9,680,000,000	(d)
Electricity	\$29,500,000,000	*	(e)
Parks	\$47,170,000,000	\$150,000,000	(a)
Rails	\$11,700,000,000	\$1,190,000,000	(f)
Roads	(inc. w/ bridge)	\$10,050,000,000	(a)
Schools	\$35,000,000,000	\$9,320,000,000	(d)
Transit	\$190,100,000,000	\$350,000,000	(g)
Wastewater	(inc. w/ drinking)	\$11,160,000,000	(d)
Total	\$1,019,720,000,000	\$45,917,000,000	

(a) Amt. to eliminate current backlog of projects identified with no funding

(b) Amt. to replace all structurally deficient & 2/3 of functionally obsolete bridges

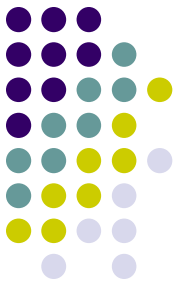
(d) Amt. to meet current standards

(e) Unknown due to pending Federal legislation

(f) Amt. to improve only 30 most critical locations

(g) Amt. of annual deficit in funding to maintain existing system

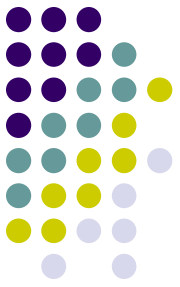
INFRASTRUCTURE INVESTMENT



Spending as a percent of GDP:

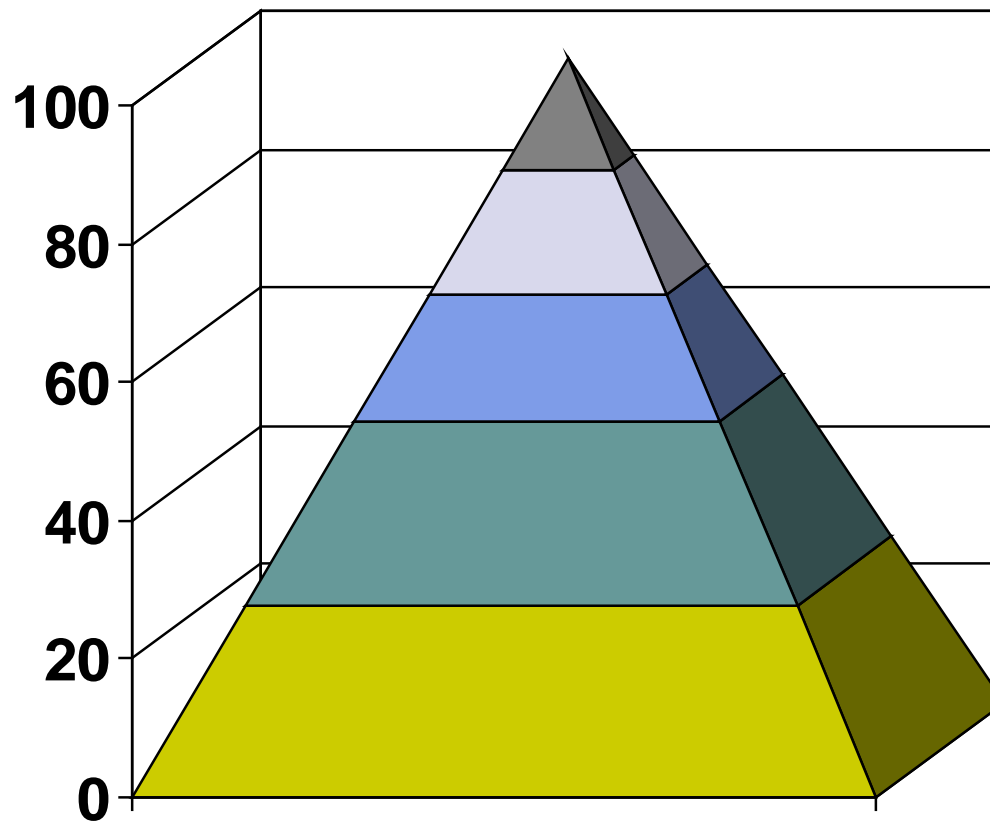
- Brazil – 15%
- China – 10 %
- Mexico – 8%
- India – 6%
- Japan – 5%
- U.S. - 4%

PUBLIC POLICY LEADERSHIP



- “Show up” in the public policy arena
- Gain and exercise the “public trust” as a source of useful information and rational decision-making
- Educate the public about the relationship between infrastructure and quality of life

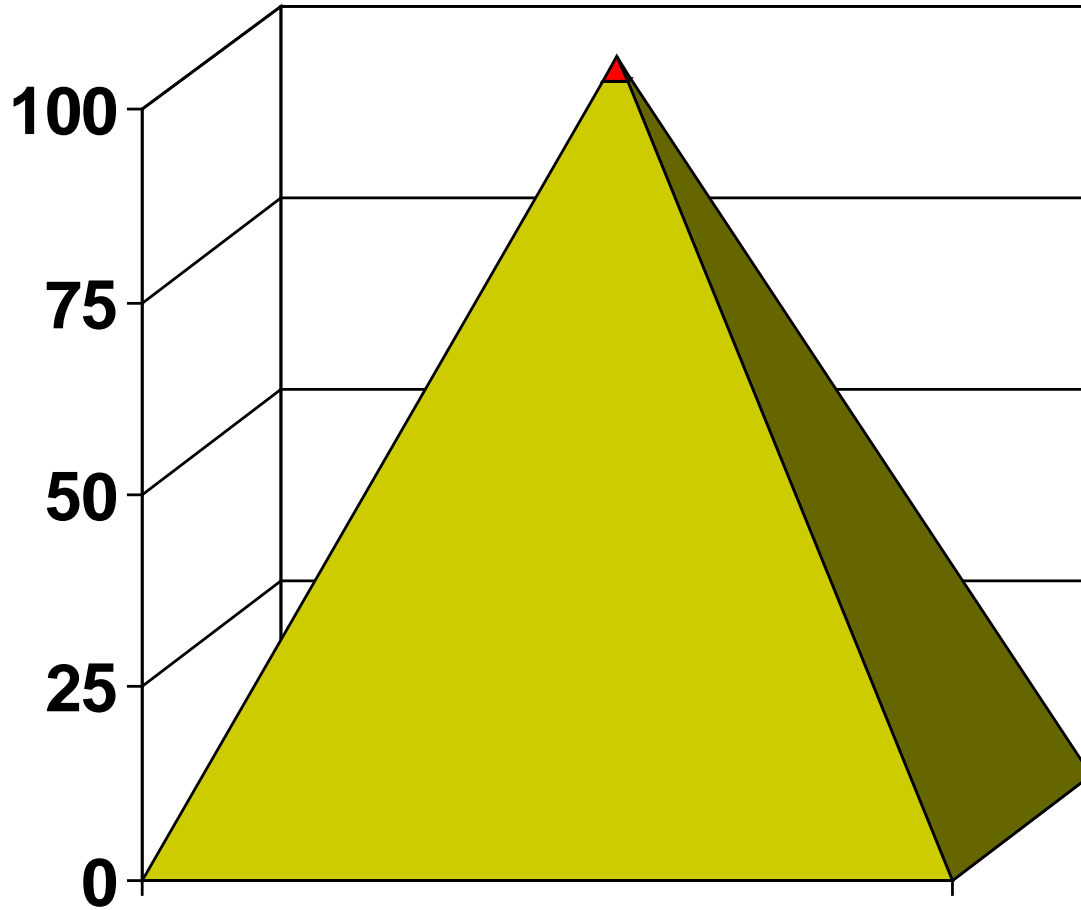
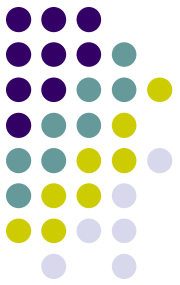
Political Influence Model



**Average Congressional
District - 646,952**

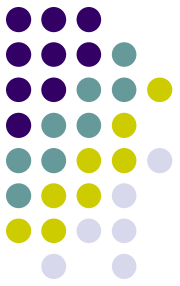


Pinnacle of Influence



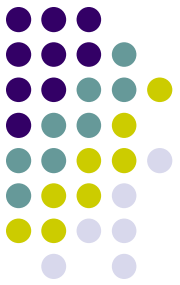
Total who voted for the Winner - 111,800

By the Numbers



- Today – 8,700 Key Contacts
- Goal – 13,000
- Goal – 10% of ASCE members in each congressional district
- Goal – 20% of ASCE members in KEY congressional districts



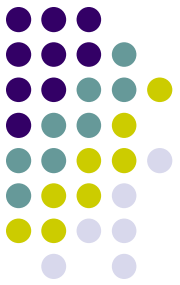


Key Contacts in Ohio

- Total Members = 2713
- Key Contacts = 254 (9.36%)
- Key Legislators – 10 of 18 (180 total)

- Legislators – 9 with 10% KCs
- Key Legislators – 0 with 20% KCs

For more information:



2009 Ohio Infrastructure Report Card



American Society of Civil Engineers
Ohio Council of Local Sections
May, 2009

- Copies of the full report or any sections can be downloaded at:
www.ohioasce.org