

# **HEARTLAND CIVIC COLLABORATIVE**

**REGIONAL TRANSPORTATION STRATEGY**

**November 2013**

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The business community initiated the Heartland Civic Collaborative, with its partners in the public and not-for-profit sectors, to ensure that the Heartland's facts and priorities are represented with a collaborative, multi-metropolitan approach as decisions are made at the local, state, regional, and national levels.

Cooperation between the metropolitan areas within the Heartland can guide the direction of transportation investment across the states. The Heartland Civic Collaborative through this Regional Transportation Strategy can support that cooperation by focusing on:

Providing **leadership** by actively participating in various State and Metropolitan advisory committees to advance the Heartland's interest and seek Federal funds for transportation investments.

Acting as an advocate to focus attention on the use of **performance** measures to ensure the reliability of the transportation network and limit the debilitating effects of deferred maintenance.

Leveraging the transportation assets, location and labor force that make the Heartland an **overflow market** between the surrounding megaregions, so business can be captured from congested markets.

## TRANSPORTATION TASK FORCE MEMBERS

Scott Smith, Co-Chair	HNTB Corporation
Bob Turner, Co-Chair	Union Pacific
Todd Ashby	Des Moines Area Metropolitan Planning Organization
William S. Berkley	Tension Corporation
David Brown	Greater Omaha Chamber of Commerce
Jay Byers	Greater Des Moines Partnership
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Vince Schoemehl	Grand Center
Jewel Scott	The Civic Council of Greater Kansas City
Adi Tomer	Brookings Institution
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## CONSULTANT



The Heartland region's economic future, including that of its metropolitan areas, is challenged by a declining and aging population base, competitively-driven industry consolidations that have moved large numbers of companies and jobs out of the region, and broad geographic expanses. Declining resources and the economic downturn of 2008 highlight the need for creating strong, lasting partnerships in the region's population centers to promote strategic growth that can compete with the mega-regions on both coasts, in the Great Lakes, the Texas Triangle and across the globe.

The business community initiated the Heartland Civic Collaborative (HCC), with its partners in the public and not-for-profit sectors, to ensure that the Heartland's facts and priorities are represented with a collaborative, multi-metropolitan approach as decisions are made at the local, state, regional, and national levels.

While each metropolitan area will continue to compete fiercely for growth and development within its own boundaries, the HCC intends to focus on critical areas where broad collaboration will add value or reduce risk for the entire region. The four critical focus areas for success are:

- **Transportation**
- **Water**
- **Connectivity**
- **Animal and Life Sciences**

The Transportation Task Force was convened to focus on strengthening economic assets by enhancing the region's movement of goods and people. Industry leaders in transportation recommended a focus on:

1. organizing private and public sector leaders to create a long-range Heartland transportation plan, including the role of departments of transportation (DOTs) and metropolitan planning organizations (MPOs), and incorporating the perspectives of transportation system users;
2. developing a fact-based plan, grounded in economics; and,
3. developing a set of coordinated, prioritized requests to the Congressional delegations from the Heartland states.

In June 2012, Transportation Forum participants from four metropolitan communities – Des Moines, Kansas City, Omaha, and St. Louis – were asked to focus and organize their discussion around three key goals:

- **Heartland Connectivity.** Movement of people and goods facilitates interaction among the Heartland metros.
- **Global Connectivity.** Capacity is never a constraining factor in the Heartland region's global freight flows.
- **Intermodal Movements.** The transportation system provides seamless and synergistic movement of goods and people between modes and to both national and global markets.

The result of that Forum was a recommendation to review, synthesize and align the existing transportation plans in the Heartland region. The emphasis is to develop specific strategies for the membership to implement. The HCC Regional Transportation Strategy identifies strategies where collaborative efforts can begin immediately while focusing on future expansion of the organization and its efforts.

## THE HEARTLAND

It is important to outline the geography covered by the Heartland Civic Collaborative because Heartland is a term with many meanings. For example, the Midwest Governor’s Association states that the Heartland can be used as a “synonym for the Midwest, or convey a state of mind, or certain populist politics without need for geographic precision.”

The HCC originally targeted a geography that included several metropolitan areas from the Mississippi River to the Rocky Mountains to consolidate into an area with a population greater than 12 Million. This threshold has been used by other national organizations as a means to designate megaregions. While each of these metropolitan areas found value in collaboration, it was determined that a smaller subset of cities would form the initial collaborative.

The four metropolitan areas comprising the HCC are Des Moines, Kansas City, Omaha, and St. Louis. These four metros and their respective states have similar economies characterized by heavy industry and intensive farming. Additionally, their transportation systems are connected by interstates, rivers and major rail corridors.



It is important to note that three of the four metropolitan areas are bi-state entities; Omaha in Nebraska and Iowa, Kansas City in Kansas and Missouri, and St. Louis in Missouri and Illinois. This illustrates that collaboration over political boundaries is already a part of how these metros operate.

As interest in the HCC’s initiative increases, it is likely that the geographic area may expand.

## A TRANSPORTATION REVIEW

Federal, state and regional transportation planning is basis for any transportation decision making. At the Federal level, Highway Trust Fund dollars are distributed annually on a formula basis to every state for transportation projects.

State departments of transportation (DOTs) are largely responsible for building and maintaining the highway system. They also support, in some cases, freight infrastructure, public transit and bicycle and pedestrian facilities.

DOTs are the main recipients of federal Highway Trust Fund (HTF) dollars and state transportation funds, and they set transportation goals for their states by working with state transportation organizations, other state agencies, MPOs, local governments, transit agencies, and other organizations.

Metropolitan planning organizations (MPOs) develop region-wide plans through intergovernmental collaboration, analysis, and consensus-based decision making in order to spend federal highway or transit funds.

While the Long Range Transportation Plans, of both the

States and the Metropolitan Planning Organizations, offer good background material, they are not, by definition, strategic plans. However, they assist in outlining the major policy areas that are important for consideration.

The Missouri, Kansas, Nebraska and Iowa state transportation plans focus on goals or guiding principles such as safety, mobility, environmental stewardship, coordination and cooperation, preserving the existing system, supporting

economic growth, efficiency, quality of life, congestion relief, broader access and efficient movement. Each plan singularly focuses on its state's priorities as a requirement. While no contradictory directions are apparent in terms of a State's policies or programs, it is inherently the purpose of a statewide planning document to focus on its own State's priorities. This can be seen as a conflict when considering a collaborative, regional approach.

The Mid-America Regional Council (MARC, Kansas City MO and KS), the East-West Gateway (EWG, St. Louis), Des Moines Area MPO (DAMPO), and Metropolitan Area Planning Agency (MAPA, Omaha) are the MPOs represented in the HCC area.

Transportation Outlook 2040 is based on a land-use direction for Kansas City to become a sustainable region of vibrant, green places connected by multimodal transportation corridors. Through the long-range planning process MARC identified the region's top priority as "preserving what we have." Nearly 60 percent of revenues over the next 30 years will be spent in the MARC region to keep the transportation infrastructure in good condition.

The East-West Gateway Regional Transportation Plan 2040 used the Renewing the Region initiative to develop their Ten Principles. These principles establish a new standard to guide transportation system evaluation and decision-

The Des Moines Area MPO is sponsoring an initiative called The Tomorrow Plan which looks forward to 2050. The Plan focuses on the economy, the environment, community vitality, and regional cooperation so that the area can compete globally and leave a dynamic, enduring legacy for future generations.

MAPA in Omaha is focusing on the region's future roadway capacity demands, but also land use and transit strategies that reduce infrastructure costs and increase the viability of other transportation modes, while responding to changing demographics in the region. Their analysis shows that given current funding and development trends, the MAPA region will struggle to keep pace with transportation demands. The projects shown in their current LRTP represent a significantly reduced list from previous plans, reflecting the widening gap between transportation needs and available resources.

### MORE THAN JUST TRANSPORTATION

Transportation is a means to an end, not an end to itself. And usually that end is to provide the safe and efficient movement of goods and people. By doing so the transportation network helps to foster economic development and enhance the quality of life through a multimodal system.



making over the course of the plan. The principles focus on areas like preserving the existing system and supporting public transit.

Considering the interrelationship between transportation and economic development, each state's economic development strategies were explored as input to HCC strategy development.

The State's economic development strategies typically focus upon three types of capital; physical capital, human capital and political capital. As such, the economic development strategies have a less direct relationship to transportation, yet transportation remains a common theme for each State's economic growth.

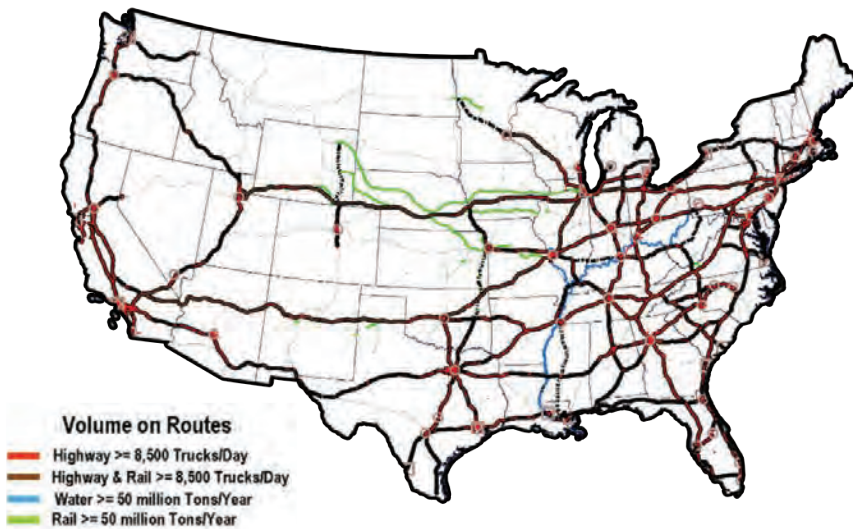
Each State attempts to assess competitive advantages to growing jobs, industry and talent. Transportation and logistics including freight carriers, warehousing and wholesalers is identified as important industry clusters in each state. The strategies often cite developing a core technological competence and sustainable critical mass with a research and development base across the industry and with the region's universities.

There is an emphasis on increasing infill and compact development while linking transportation planning to housing, the environment, education and energy. Economic Development agencies also acknowledge that access to regional public transit is important.

## NATIONAL PERSPECTIVES

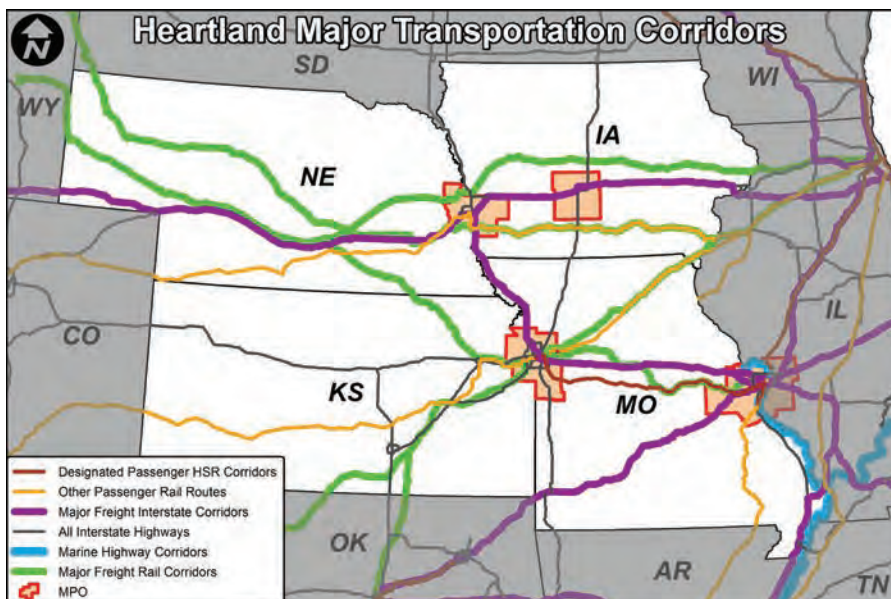
The Nation's transportation network is a systemic series of connections across places and modes. Numerous federal-level agencies and national organizations focus on assessment of the transportation network. While the sum of these plans provides extensive information on transportation, only key documents were reviewed to understand the role that the Heartland plays in the national transportation arena.

### NATIONAL CORRIDORS



Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, 2008.

These documents include the USDOT's efforts on the Corridors of Freight Significance (COFS), Congressional High Priority Corridors, Marine Highway Routes, as well as various High Speed Rail initiatives and the Regional Plan Association's America 2050. The documents address the movement of freight rail, trucking on highways, air cargo at airports and barges along our inland waterways as well as passenger rail. These documents note that transportation systems are important not only for moving people and goods but for their contributions to the economic vitality of the Heartland and the nation as a whole. The plans reviewed do not always present a consistent set of corridors because they may value different characteristics. For instance, the Heartland is home to many significant freight corridors but they may be categorized differently in these documents because they vary by value or volume.



Each mode has unique shipping characteristics based upon the commodity, distance, weight and time-sensitivity of the shipment. Even within a mode, shipping characteristics vary. For example, the rail lines carry coal from the Powder River Basin to many of the Nation's power plants, move intermodal containers from West Coast ports, and manifest trains carry raw material, agriculture products and

finished automobiles. And while analysis of the freight movements indicates a high percentage of through traffic, this just points out the Heartland's role as a mover and producer.

Both the Federal Railroad Administration's (FRA's) High Speed Rail (HSR) vision as well as the Midwest High Speed Rail Association's plan envisions a network of intercity rail connections. Current construction includes a 110 mph regional rail system between Chicago and St. Louis with future improvements allowing speeds up to 125 mph. Enhancements to existing Amtrak corridors and the introduction of new corridors under study present a feasible, sustainable approach that should meet the rest of the Heartland's passenger train needs.

The America 2050 report is largely based upon 11 megaregions which are networks of metropolitan areas, connected by travel patterns, economic links, shared natural resources, and social and historical commonalities. While the Heartland Region is not included within a megaregion, it is located along the periphery of several megaregions including the Great Lakes, the Texas Triangle and the Front Range.

Coalitions of adjacent metropolitan areas can help develop a national infrastructure investment plan by identifying infrastructure systems that cross multiple city, region and state boundaries, requiring federal assistance and coordination. Examples include landside intermodal connections to distribution centers and multi-state interstate corridors. America 2050's Infrastructure Vision for 21st Century America identifies transportation objectives like creating capacity for long-term sustainable growth, enhancing global accessibility, and achieving greater system performance and reliability. These objectives are distinctly similar to HCC's objectives and illustrate that with better transportation connections, industry can take advantage of lower-cost labor and start-up costs outside the major metropolitan areas of a megaregion.

***The Trans-American Freight Network from America 2050 highlights the significant role that transportation has across the Heartland and for the Nation. The interstate highway and freight rail corridors with high volumes crisscross through the Region, yet without the problems of severe bottlenecks.***

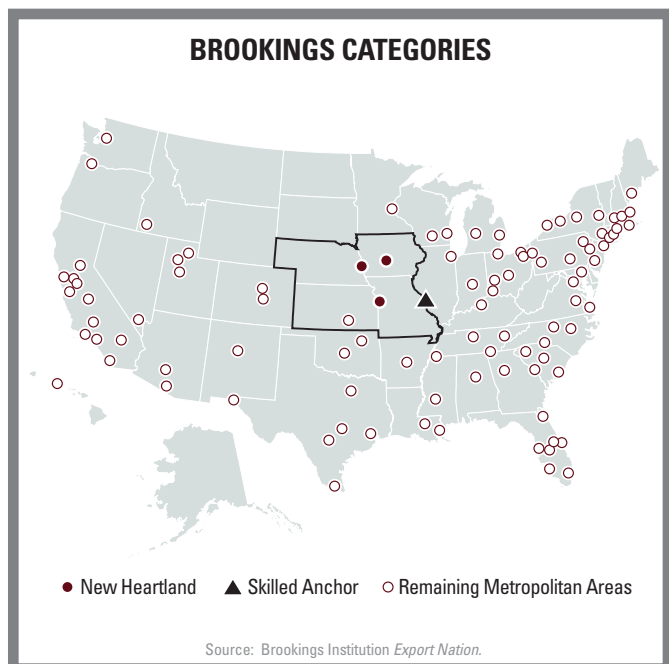
This cities perspective has also been the approach for many of the Brookings Institution's analyses. The Brookings Institution is a private, non-profit organization devoted to independent

research and innovative policy solutions. In the State of Metropolitan America five new realities for the nations top 100 cities were identified.

1. Growth and outward expansion
2. Population diversification
3. Aging of population
4. Uneven higher education attainment
5. Income polarization

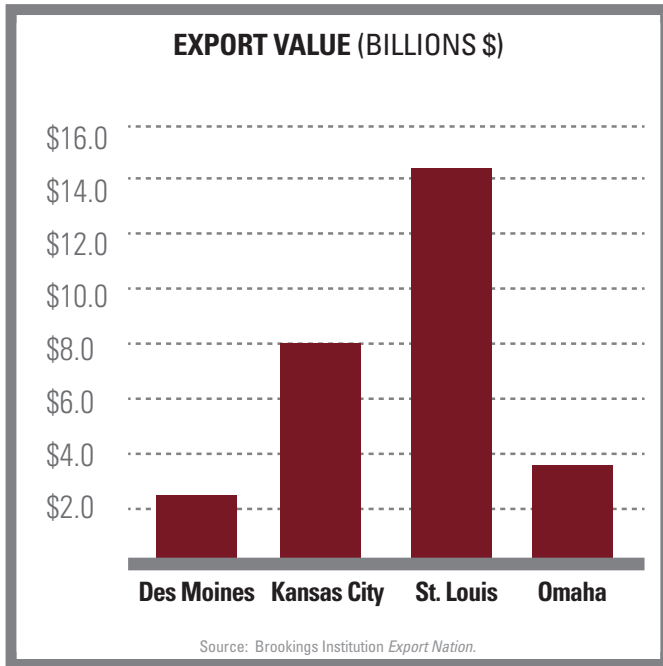
Economic development plans in the Heartland states acknowledge these realities. The demographic benefits include higher education and higher home ownership than the US average. On the other hand, challenges include difficulty in attracting personnel.

Brookings used several categories that correlate with industry clusters. One of the categories, a New Heartland, is identified including Des Moines, Kansas City and Omaha, whose metropolitan areas are fast growing, highly educated locales, but with lower shares of Hispanic and Asian populations than the national average. St. Louis is categorized as a Skilled Anchor with slow growth and a less diverse metro area that boasts higher-than-average levels of educational attainment.





If the Heartland Region utilizes their inherent cross border relationships – as these are multi-state and multi-jurisdictional entities – and pool their resources to a greater degree, then complementary economic unity could occur. One of the intrinsic links between the metropolitan areas is the transportation network, not only in terms of its condition and capacity, but its ability to literally “drive” the economy.

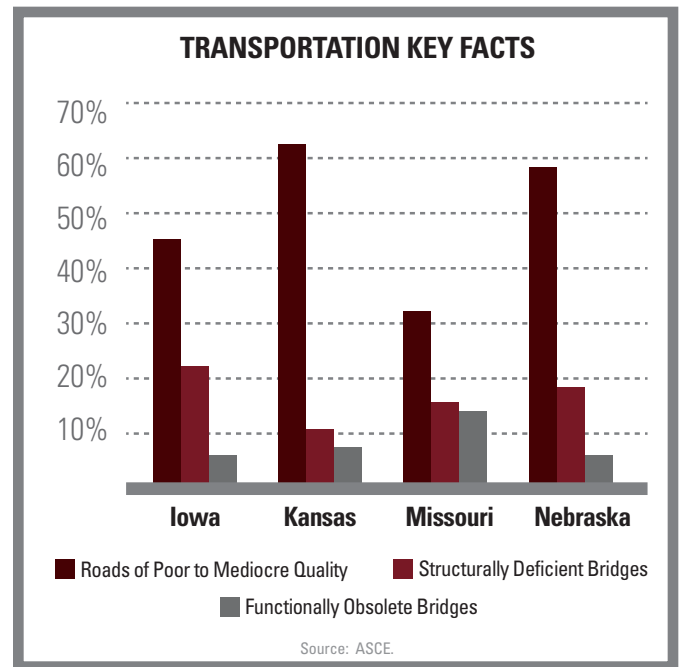


Brookings’ Export Nation forecasts that the next economy is to be driven by exports. Collectively, exports in the four metro areas have a value of \$28.7 billion and result in nearly 104,000 direct jobs. Top exports by industry are transportation equipment, chemicals, and machinery as well as food. Exporting relies on multi-modal transportation. With diverse manufacturing located throughout the Heartland Region, there is also a need for a corresponding diversity of transportation.

## CONDITION AND CAPACITY

Once every four years, America’s civil engineers provide a comprehensive assessment of the nation’s major infrastructure categories in ASCE’s Report Card for America’s Infrastructure. In 2013, America’s cumulative Grade Point Average (GPA) for infrastructure rose slightly to D+. The grades ranged from a high of B- for solid waste to a low of D- for inland waterways and levees. Infrastructure is critical for long-term economic growth, increasing GDP, employment, household income and exports.

Improving the performance of the highway system is needed to help achieve national economic, energy and other goals. Performance measures are being widely used, nationally and in the Heartland states, to provide greater accountability for how public funds are being spent across an ever growing number of programs. Performance measurement also hopes to improve the effectiveness of the delivery of transportation projects faster and more efficiently.



## TRANSPORTATION FUNDING

Federal transportation funding is largely based on the current multiyear federal transportation authorization bill. The current authorization, MAP-21 signed into law in 2012 is only a two year authorization resulting in wide uncertainty regarding future levels of federal funding. Another major concern with federal funding is solvency of the federal HTF beyond 2014. The HTF is funded primarily from federal fuel taxes and will not be able to provide funding at current levels starting in 2015.

For FY 2014-2018, the Iowa DOT forecasts approximately \$2.6 billion to be available for highway right of way and construction. The primary investment objective remains stewardship of Iowa’s existing highway system. Iowa’s program shows between \$140 and \$250 million per year of capacity or system enhancement projects that are being developed but not funded.

NDOR's state highway system needs are estimated to be \$505 million in FY 2013. Based on NDOR's current estimate, the amount of revenue that would be available for the FY 2013 construction program is \$389 million.

This results in a shortfall of \$116 million. If revenue were to remain constant over the next 20 years this funding shortfall would continue to swell through 2032.

Missouri's 2014-2018 program is primarily maintenance-focused. The contractor awards average \$694 million, and nearly 80 percent is aimed at taking care of the existing system. The opportunities to expand the system – widening a busy two-lane road to four lanes to reduce congestion and improve safety, or building a new roadway or interchange to help promote business development and bring jobs to the state – are disappearing.

KDOT is responsible for the delivery of T-WORKS; a 10-year, \$8 billion transportation program designed to create jobs, preserve highway infrastructure, and provide multimodal economic development opportunities across the state. The program includes \$2.7 billion in new revenues from increased registration fees for heavy trucks, additional bonding authority for KDOT and a sales tax deposit that takes effect in 2013.

MAPA's 2035 long range plan identifies over \$5 billion in street and highway projects over the next 25 years. Transportation Outlook 2040 discusses how the Kansas City region will manage, operate and invest \$18 billion in its multimodal transportation system over the next 30 years.

For the Des Moines Area MPO, a total of nearly \$2 billion in road projects are planned per the 2035 Metropolitan Transportation Plan. About \$605 million is scheduled to be invested in widening or creating 83 miles of roadway, \$13 million in pedestrian and streetscape improvements and nearly \$19 million is scheduled to be invested in expanding the trail network.

The East-West Gateway's current transportation program contains 540 projects costing approximately \$2.3 billion. Forty-four percent of the total cost is attributable to projects involving rehabilitating or replacing existing highway infrastructure or improving roadway operations.

The Heartland Civic Collaborative recognizes that a consistent and available funding source is necessary to simply maintain the infrastructure that we already have in

place. Additional work must be done to determine where the best return on investment occurs particularly while balancing funds across several modes of travel. And while the traditional project prioritization and selection process affords the majority of stakeholders an opportunity for input, the implementation of transportation improvements must be more responsive to marketplace forces in order to capitalize on economic growth.

Innovative finance tools and programs have been designed to enhance project effectiveness and bridge investment gaps between available resources and infrastructure needs.

USDOT has developed a number of financial tools to help project sponsors access credit to expedite the implementation of needed transportation improvements. Federal credit assistance in the form of loans and credit enhancements are tools to consider. Another tool is a State Infrastructure Bank (SIB). SIBs are revolving infrastructure investment funds for surface transportation that are established and administered by States. SIBs complement traditional funding techniques and serve as a useful tool to meet project-financing demands, stretching both Federal and State dollars.

MAP-21, the Moving Ahead for Progress in the 21st Century Act (P.L. 112-141), was signed into law by President Obama on July 6, 2012. Funding surface transportation programs at over \$105 billion for fiscal years (FY) 2013 and 2014, MAP-21 is the first long-term highway authorization enacted since 2005.

MAP-21 does not include a standalone freight program or dedicated formula funding for freight, but introduces several new provisions to federal transportation policy. In particular, MAP-21 establishes the need for a National Freight Policy, prioritizes freight projects, and recommends the creation of State freight advisory boards and State freight plans. The National Freight Policy program will establish goals and recommend the designation of a National Freight Network. This network will include a Primary Freight Network of key transportation corridors on the Interstate system and a network of critical rural freight corridors to connect the Primary Freight Network to freight facilities.

MAP-21 directs US DOT to develop a freight strategic plan to assess the conditions and performance of the National Freight Network, identify highway bottlenecks, and estimate the cost of resolving those bottlenecks. On the financing side, MAP-21 also raises the federal share for eligible projects to 95 percent for projects on the Interstate System, and 90 percent for other eligible projects. Eligible projects include construction and operational improvements for freight, intelligent transportation systems, grade separations, geometric improvements, truck-only lanes, improvements to freight intermodal connectors, and improvements to truck bottlenecks.

The four HCC states are in various stages of complying with MAP-21's freight requirements. MoDOT will complete their freight plan in 2014. Iowa is outlining their approach to updating their statewide freight plan and leveraging the knowledge base of the Freight Advisory Council established in 2012. Nebraska and Kansas are considering future updates to meet national requirements.

## THE FUTURE OF TRANSPORTATION

The forecast for the transportation network is simply that growth in traffic will create increased congestion. And while the metropolitan emphasis on land development may be on increased densities in urban areas, unless there is a corresponding investment in the transportation network to move goods and people, the greater densities are likely to result in a corresponding increase in congestion. Fortunately, commuting times in the Heartland are typically less than the national average.

Key trends as noted by the Federal Highway Administration include:

The advent of a truly global economy means that goods and services are being shipped over longer distances. This is fueling strong growth in freight movement and increasing the link between transportation and

economic competitiveness.

Trade as a percentage of US Gross Domestic Product increased from 13 percent in 1990 to 31 percent in 2008 and is expected to reach 35 percent by 2020. This growth will increase truck freight. The average length of haul for trucks has increased 80 percent from 263 miles in 1970 to 473 miles in 2000.

Marginal reductions in transportation costs for goods movement are critical to the economic vitality of our Nation. In addition to direct user benefits, highways must be recognized as an important contributor to productivity and competitiveness. The relationship of transportation to economic development results in

- Lower production costs (side effect of broader labor pool)
- Increased investment
- Circle effect of increased profitability and output

The Heartland's export competitiveness is also driven by the effectiveness and efficiency of the transportation network.

The Heartland has long been known as a transportation center. That's no surprise when considering the region's history with barge, rail, highway and air routes. Recently, there has been expansion in international trade based upon the Heartland's centralized location and logistics assets. The Foreign Trade Zones (FTZs) in the region assist in acting as international trade centers. The Heartland can take advantage of its rail connections and hubs incorporating its FTZ distribution centers with trucking. Surface trade amongst the US, Canada and Mexico continues to grow. Automotive parts are common commodities shipped by air from Mexico to assembly plants in the US.

Areas with robust transportation connections are emerging as viable candidates for distributors. Logistics typically account for 80% of the operating costs for distribution centers while real estate typically accounts for less than 5%. With transportation making up the largest portion of expenses and fuel costs remaining volatile, having many different options to move product is important to distributors.

The major logistic hubs around the country are well

established with each having a significant rail and highway infrastructure tied to a network of seaport, airport and land gateways through which goods are imported. Each serves a different region and a different path of goods moving in and out the country. Distribution centers can also be labor intensive, which is one reason they cluster on the outskirts of major metropolitan areas. On those outskirts, there is still a deep pool of labor, but wages are lower than they would be closer to the urban core. Consequently, distribution centers can be located along rural or remote areas on cheap land with concentrations along the periphery of major metropolitan markets, especially megaregions. With this approach, these distribution hubs can catch overflow business from congested nearby markets.

Steady growth in intermodal volume and continued investment by the railroad companies means access to rail remains an important factor and will continue to play a significant role in shaping the market. With reliable multi-modal, east-west and north-south connections, the Heartland has growth potential as an overflow market for cross country freight that is trying to avoid the congested megaregion markets like Chicago and Dallas.

## CONCLUSIONS

Economic growth depends upon access – access to labor and jobs as well as markets, goods and raw materials. A reduction in investment in transportation will likely mean a continued decline in overall system capacity as population grows. Consequently, transportation would play a smaller role in assisting economic growth.

For roads, the clear emphasis for investment will be in maintenance. Expansion or adding capacity may occur, but could be dependent upon more aggressive funding programs such as tolling facilities. Interest in toll roads is likely to focus on urban corridors and projects rather than projects that advance national connectivity. Investments in national connectivity are more complex, require greater cooperation across political boundaries, and can provide benefits that are outside of where the investment is being made.

## HCC STRATEGIES

An economic strategy common throughout the Heartland focuses upon retaining educated people by creating vibrant high-quality of life communities particularly around universities. This is in concert with the cluster approach to development by linking industry and education. Industry and metropolitan areas can also be enhanced through transportation investments, particularly when the transportation network is viewed as a system.

In the future, metropolitan areas will act as the economic engines for their regions and states. This is already occurring in a cooperative manner within the Heartland as several of the metropolitan areas cross state lines. By consolidating their influence, the metropolitan areas can begin to guide the direction of transportation across the states in a coordinated effort.

The private sector can provide **leadership** by actively participating in various State and Metropolitan advisory committees to advance the Heartland's interest and seek Federal funds for transportation investments. Participation in advocacy groups provides increased exposure for the HCC's objectives. The HCC, acting as an oversight group, should monitor opportunities for stakeholders and transportation experts to assist whenever necessary.

Through its advocacy role, the private sector can focus attention upon the reliability of the transportation network and the debilitating effects of deferred maintenance through the use of **performance** measures. It is of utmost importance to maintain the capacity of modal infrastructure while improving physical conditions. Initiating an infrastructure bank could provide the local match for funds and accelerate project delivery.

Finally, focus on an economic development strategy that utilizes the Heartland's transportation assets, location and labor force as an **overflow market** between the surrounding megaregions can capture business from congested markets.



