



Infrastructure  
**STRATEGY**  
For Iowa's Future Economy

Transportation Sector  
REPORT & RECOMMENDATIONS

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## Introduction

Iowans have high expectations for a strong economy, good jobs, and a future of opportunity. Setbacks came in 2008 with the summer disasters followed by the national recession. These events had significant impacts on Iowa's infrastructure. Even while addressing those challenges through the influx of federal and state short-term funding for jobs, infrastructure, disaster recovery, and other broad needs, Iowans must also give significant consideration of the vision for the future economy and the infrastructure it will demand. Interested Iowans statewide will find in this report a set of recommendations and a strategic direction specifically for the transportation sector.

Iowa's transportation system was the subject of deliberations over a four-month period by a diverse array of Iowans who contributed their expertise, experience, and perspectives on the future economy and the comprehensive transportation infrastructure that will be required to meet those future needs. Because the report was developed by stakeholders from across the state, it reflects points of view of diverse stakeholders including the private sector, issue-based groups, nonprofit organizations, academia, and local and state government.

Iowans depend on its transportation system for the movement of goods, access to employment and quality of life. The public roadways, railroads, airports, transit systems, trails, and rivers are critical to support Iowa's diverse economy. And, as agriculture yields increase and the manufacturing economy shifts and expands, there will be a continued emphasis on maintaining this system for our urban and rural communities.

In the early 1930s, it was determined that it was time to get travelers and farmers "out of the mud." The state and federal government graded and constructed gravel and hard-surface roadways that became the lynchpin of Iowa's growing agricultural economy. The state built upon its strong agriculture base and over the last 80 years the manufacturing sector has significantly expanded and diversified.

Iowa's transportation system consists of over 114,000 miles of highways, 4,000 miles of rail lines, 111 public airports, 35 public transit systems, over 1,500 miles of trails, and almost 500 miles of navigable rivers. There continues to be an expectation by Iowans that their roads, trails, airports, and streets are safe and well maintained. Farmers and rural communities rely on the road system to move their products to market, as well as to help sustain an economy in small towns where population is waning. Iowa's population has grown little over the last 100 years. Creating trails and outdoor recreation opportunities has been one strategy for recruiting younger people to the state. What is more, as Iowa's population is aging, it requires adaptation and changes in roadway design and signage, as well as access to services provided by public transit. Resolving the challenges of the transportation sector is very complicated.

This report does not stand alone, however. As part of a comprehensive and coordinated statewide planning initiative, the recommendations and insights on the Transportation Sector Committee will be considered by a Task Force, along with similar reports on infrastructure needs for the future economy in building and vertical infrastructure, energy, natural resources, and telecommunications. The ideas and recommendations contained in the five reports and the coordinated plan reflect the involvement and engagement of more than 200 Iowans over a span of nine months. From those deliberations, a strategy for Iowa's future economy was developed on behalf of and for all stakeholders. It is the hope of the Transportation Sector Committee that policymakers, community leaders, business and industry, and others find ways to implement or support the recommendations of this sector report and those of the coordinated Infrastructure Strategy for Iowa's Future Economy.

## Executive Summary

The Transportation Sector Committee, with input from four community forums and ICN sessions at 10 sites, developed three primary recommendations that address system issues essential for meeting the needs of Iowa's future economy. Public safety remains a critical overarching issue for Iowa's transportation system. These issues and recommendations must be addressed if Iowa is to create a skilled workforce, create quality jobs, and maintain a quality of life and identity to be more livable and globally competitive.

### Definition

*Transportation is the safe, efficient, and coordinated movement of people and goods by all modes for all purposes.*

### Transportation Sector Committee Goal

*To develop a transportation infrastructure system for Iowa that is the right system, in the right place, and with the right services to support the basic needs of the economy.*

### Priority Issues

*To address the Committee Sector's Goal and to establish Iowa's transportation for 2020 and beyond, the following issues were identified.*

#### *Issue One*

Iowa's transportation infrastructure is aging and expansive.

It is clear there is an economic impact resulting from infrastructure development. For example, for every \$1 billion in highway investment, 27,800 jobs are supported for construction, with industry, and through induced employment. But Iowa's system is large and aging. Construction cost inflation, coupled with flattening revenues makes it very difficult to maintain acceptable condition ratings for roads and bridges. A 2006 study completed by the IDOT identified a \$27.7 billion shortfall in funding to meet all of Iowa's needs through a 20-year period. And while Iowa's rail system is critical to Iowa's agricultural, energy, and manufacturing economy, Iowa lacks the rail capacity to meet future demands. Like other elements of the system (aviation, trails, and transit), funding is also severely inadequate.

#### *Issue Two*

The funding and financing of Iowa's transportation system extends well beyond problems with the current funding mechanism and funding shortfall. There have been few changes or alterations to a funding system created for the last half of the 20<sup>th</sup> century.

Iowa's transportation system is primarily funded through user taxes and fees. At the local level, supporting farm-to-market roads and community streets also may affect local property taxpayers. Little has changed in Iowa's infrastructure funding mechanisms over the last 60

years. Cars and trucks that travel on Iowa's streets provide a great deal of the revenue for funding Iowa's transportation system.

### *Issue Three*

Iowans do not adequately understand the funding, the financing mechanisms, and constraints in providing high quality and safe public services. Educating the general public is important to further the development of the transportation system.

Iowans are generally satisfied with Iowa's infrastructure. For many years the state has built and maintained a massive infrastructure system. As Iowa looks to its economic future, it is essential to engage Iowans as an informed partner in addressing all of the state's infrastructure sector priorities and financing issues.

## **Recommendations**

### *Recommendation One*

Assess the current transportation system and shortfalls, and develop affordable methods to prioritize, improve, and achieve accessible transportation for people, goods, and services.

The reality for Iowa is that it can no longer sustain and grow its infrastructure at the current level. This requires that the state of Iowa as well as cities and counties, take a very hard look at the current situation and determine how best to move forward.

### *Recommendation Two*

Determine transportation infrastructure funding levels, new funding and financing mechanisms, revenue generation methods and prioritization for investments, distribution methods, and priorities for project funding.

Iowa's city, county, and state government funding systems are stressed. Iowans have high expectations and are very pleased with their roads and streets. But there is an enormous funding shortage for transportation infrastructure in 2010. Supporting that system under the current funding mechanism is impossible if Iowa is to grow and expand its economy. It must change the way it makes decisions and find new ways to fund what is decided.

### *Recommendation Three*

Engage and educate stakeholders, users, and citizens regarding transportation infrastructure funding and financing mechanisms, sustainable project priorities, investment decision-making, and policies and procedures.

Information should be provided to the public and key stakeholders on the enormity of the infrastructure issues faced by the state. The public education initiative needs to include the costs associated with maintenance, current funding mechanisms, and the importance of moving forward with a more sustainable approach to infrastructure.

**Conclusion**

Members of the Transportation Infrastructure Sector Committee have focused on the fact that Iowa's current infrastructure is not sustainable or affordable. To address the issues of Iowa's future economy will require a coordinated, integrated, and strategic planning process that takes into consideration all infrastructure sectors. This report is one of five sector reports to be considered by the Infrastructure Strategy Task Force.

For Iowa to be more competitive in the global economy, better coordinated planning and strategic investments must become a high priority. With these considerations, Iowa's quality of life will continue to improve and its population will grow and prosper.

## Iowa's Future Economy

There is no crystal ball to predict exactly what Iowa's economy will be like in 2020 and beyond, but there are indicators and, certainly, steps that can be taken to shape the economy as Iowa recovers from the dual challenges of the 2008 disasters and the national recession. The Infrastructure Strategy for Iowa's Future Economy initiative was designed to work from a common understanding of Iowa's current economy and forecast of economic factors in order to establish some strategic direction for the state. Essential elements of the future economy were identified from this information and from the deliberations of the participants in the process. This section highlights the foundational premises of the Sector Committees and Sector Chairs Group that guided their work.

### **Essential Elements of the Future Economy**

Iowa's economy of the future can benefit from and faces challenges because of the disasters and the recession. Iowans have vowed to come back from adversity stronger than ever. The future holds opportunity for innovative and strategic thinking, which tend to be a departure from day-to-day challenges to our infrastructure. In early discussions, each Sector Committee and the Chairs Group worked to identify how Iowa's economy can build upon current short term investments and grow to be stronger and more globally competitive.

Eight essential elements of the future economy were identified by the Sector Committees and the Sector Chairs Group. The essential elements were used by the Sector Committees to guide and measure their work and their recommendations against the vision for Iowa's economic future.

The Essential Elements of Iowa's Future Economy are:

- Smart planning and growth principles
- A diversified economy with a strong agricultural sector
- A skilled workforce for quality jobs
- Environmental stewardship
- Iowa-based energy solutions
- An economy that is globally competitive
- A population that chooses to live and work in Iowa
- Rapid access to markets and services
- Realistic funding for new and maintenance of infrastructure

### **Iowa's Current Economy and its Impacts**

In the current environment in Iowa in 2010, a number of trends are affecting the state's economy. The following factors are taken from data provided to the Committees by researchers at Iowa State University's Department of Economics. First, the population of Iowa is shifting from rural to urban areas. Two other factors are the aging population and the baby boomer generation nearing retirement age. There has been an increase in the outmigration of youth

workers to other states, and population growth in Iowa has been due to increases in immigrant and minority populations in the state.

Because of the economic recession and the scaling back or closing of significant numbers of manufacturers across the state, non-metropolitan Iowa is losing both jobs and Iowans between ages of 25 and 44, which also has an echo effect of population loss in the under-20 category, reflecting children of those 25-44 year-olds. Iowa's unemployment rate, which has typically remained relatively low, may start to have a structural upward shift. The rural housing stock is deteriorating, and economic vitality is concentrated in a relatively few areas. Additionally, tax capacity in non-metropolitan communities is rapidly eroding due to population shifts and loss of manufacturing employers. However, rural energy opportunities, such as biofuels and wind, are evolving.

### **Iowa in 10 Years**

ISU researchers predict that in ten years Iowa will see the results of current trends in population, namely that there will be fewer people in non-metropolitan areas, more investment and growth in metropolitan areas, and the continued outmigration of young and working-age people. Regional trade centers, called micropolitan communities (populations of 10,000 – 50,000), will be mostly stable, but not growing. The sectors that will lead in job demand will be business, personal care, education, and health services. Although some downplay the role of energy production in rural resettlement, the Sector Committees identify the energy industry's crucial role in the future economy of Iowa as a significant contributor to the overall rural economy and its potential to be a mitigating factor in further rural depopulation. It is also predicted that manufacturing will still be important, but the number of jobs will have decreased, and the manufacturing businesses that remain will be those with the most efficient and productive processes. The ability of those companies to rapidly access diverse markets and distant locations through a network of airports across the state will prove to be critical in the choice of those companies to locate within the borders of Iowa as opposed to neighboring states. Rapid access is illustrated by the growth and dependence on the priority air freight systems developed by Fed Ex and UPS.

It is clear that actions taken to shape Iowa's future economy will be key determinants in the success of the state. As technology develops, energy and telecommunications infrastructure will be critical to the state's competition in a global economy. Additionally, transportation, buildings, and vertical infrastructure will remain fundamental for moving and storing goods and services and supporting Iowa's workforce. Finally, natural resources will be essential to the state's continued economic success within the agricultural, industrial, and business sectors. All sectors are integrated and mutually dependent. The work of the planning initiative is to harness the opportunities of these critical sectors. When people come to live and work in Iowa, it will be because of Iowans' anticipation of the coordinated natural resources, transportation, buildings and vertical infrastructure, energy, and telecommunications infrastructure to support a robust economy.

## The Issues

To begin the issue identification process, the Sector Committee first defined transportation and then, through subsequent discussion and public input, identified a goal for transportation and three priority issues, all of which are summarized below:

### Definition

*Transportation is the safe, efficient, and coordinated movement of people and goods by all modes for all purposes.*

### Goal

To develop a transportation infrastructure system for Iowa that is the right system, in the right place, and with the right services to support the basic needs of the economy.

### Issues

- Iowa's transportation infrastructure is aging and expansive.
- The funding and financing of Iowa's transportation system extends well beyond problems with the current funding mechanism and funding shortfalls. There have been few changes or alterations to a funding system created for the last half of the 20<sup>th</sup> century.
- Iowans do not adequately understand the funding, the financing mechanisms, and constraints in providing high quality and safe public services. Educating the general public is important to further the development of the transportation system.

The remainder of this section provides a summary of the discussion that led to the issue identification along with additional detail on each issue.

### Transportation Overview

The way Iowans live and work has changed considerably over the years. While agriculture, small business, manufacturing, and our service industry are core to our past and future economy, planning and fitting our infrastructure system into a new and changing economy requires a serious "step-back." As Iowa continues to address its transportation sector planning for the future economy, it requires greater consideration and integration with all other infrastructure categories, and a closer integration with Iowa's building and vertical infrastructure, energy, natural resources, and telecommunication sectors.

For the most part, Iowans have high expectations for Iowa's infrastructure. Roadways should be in good shape and safe. Iowa's water and air should be clean and safe, and high quality access to technology is an expectation. Iowans expect to see a light come on when they flip the light switch. There are basic and essential elements to ensure a quality of life for all Iowans who live and work in the state.

Iowans have long enjoyed a quality of life that meets their expectations. Over the last 100 years, Iowa has built a remarkable infrastructure in response to the expectations of Iowans. But over the last century, with agriculture, the state's population has grown little. With a lack of population gains, advancements in agricultural practices, an expanded service economy sector, and more diverse manufacturing, Iowa's economy is no longer grounded in small towns and farms. For Iowa, population shifts from rural to urban and suburban communities require adjustment and changes in Iowa's infrastructure system, as well as the understanding of Iowans.

Iowa's transportation sector encompasses six categories: highways, passenger and freight rail, aviation, public transit, navigable rivers, and trails. The Iowa Department of Transportation has a long and strong record of system planning for the construction, maintenance, and support of Iowa's transportation system. Local governments, the federal government, and the private sector also play significant roles in ensuring a safe and accessible multi-modal transportation system.

Iowa's transportation system is expansive. For example, Iowa's public roadway system consists of more than 114,000 miles of highway and approximately 25,000 bridges. Nationally, Iowa ranks 13<sup>th</sup> in miles of road and 5<sup>th</sup> in number of bridges to maintain and repair. At the same time, Iowa is 30<sup>th</sup> in the nation in population and 23<sup>rd</sup> in land area, meaning Iowans have a heavy roadway infrastructure burden whether measured on a per capita basis or per square mile of land area. This system is linked by farm-to-market roads that checkerboard Iowa's landscape. Like the entire US, Iowa once depended on freight and passenger rail to move people and product. Iowa currently has 4,000 miles of freight rail, down from a high of over 10,000 miles in 1915. Passenger rail service in Iowa is limited to two long-distance Amtrak routes; however, through national and state initiatives there is a unique opportunity to expand passenger rail service in the very near future with efforts underway to provide service from Chicago to Dubuque and Chicago to Iowa City.

Iowa has 35 public transit systems that serve every county through 12 large urban transit systems, seven small urban systems, and 16 rural systems. The access of transit service to all counties is unique in the country. The dichotomy is that the urban transit systems move people to work and jobs, while the rural systems primarily serve many older Iowans, make access to services possible and serve vital transportation needs of many rural communities.

Scenic trails for hiking and biking enthusiasts meander across the urban and rural countryside throughout the state. The more than 1,500 miles of trails provide recreation, but there is also an increase in those who use the trails to commute to work.

The great Mississippi and Missouri rivers, which are border the eastern and western boundaries of the state, are invaluable in transporting agricultural commodities and other products out of the state. The 500 miles of these navigable rivers are a key part of the Iowa transportation system and are essential to the state's economy. Within these same boundaries are 111 public airports serving cities, towns, and regions of the state. Eight of those airports also provide commercial

service. These airports are unique in that they serve both urban centers and rural outlying areas of the state by directly and rapidly connecting Iowa's economy to neighboring states and countries, bypassing the already overtaxed system of roads and bridges. The role played by airports in time of natural disaster or state or national emergency has most recently been seen in Haiti, and closer to home in the flooding in 1993 and 2008. Funding for the airports is a mixture of federal, and local funds, revenue is generated through federal and state fuel excise taxes, passenger facility charges, and registration fees.

Aviation represents a large portion of Iowa's economy. A 2009 study prepared by Wilbur Smith Associates reports that aviation contributes \$5.4 billion to Iowa's economy, supporting an estimated 47,304 jobs and a payroll of \$2.7 billion. Airports are not operated or financed by the State of Iowa; however, many airports receive grant funding for vertical infrastructure. This funding is small, but plays an important role in modernizing facilities.

### **Transportation Issues**

There were extensive discussions of the Sector Committee and from participants in the statewide forums regarding the high value of Iowa's extensive transportation system. At the same time, however, it was recognized there are significant challenges and barriers to growing and sustaining a system that is appropriate for the 21<sup>st</sup> century.

Iowa's existing highway and roadway system is aging and requires significant maintenance and safety measures to meet the expectations of the public. Severe weather over the last several years has had a dramatic impact on Iowa's transportation infrastructure. Roads, bridges, railroads, trails, and public transit facilities have been damaged or destroyed by flooding and harsh weather. And, Iowa's highway infrastructure and trails have been incrementally damaged by the severe winters.

It is expected that regulation and public pressure regarding greenhouse gas emission from cars and trucks will significantly change how Iowa might address its current transportation funding system. Increased fuel prices are expected to result in more efficient automobiles and trucks, which will affect the current methods of funding, revenue generation, and planning and program requirements. That is expected to result in increased use of public transportation and other means of alternative travel. And despite greater attention to increased funding of Iowa's transportation system by policy makers, it has not received the necessary funding required to maintain its infrastructure.

Iowa's new and resurgent economy in bio-fuels and energy, as well as a continued increase in livestock and grain production could, result in additional impacts from oversize and overweight vehicles. This will likely increase stress on roads and an expected increase of highway maintenance costs.

Because more Iowans are moving from farms and rural communities to urban and regional centers, it will be necessary for the state to adjust its transportation system to ensure those

living in these communities continue to have safe and equitable access to services. Public transit and linking transportation modes together will become a higher priority if Iowa is to move forward with smart growth planning.

## **Priority Issues for Transportation**

### **Issue One**

*Iowa's transportation infrastructure is aging and expansive.*

It is clear there is an economic impact resulting from infrastructure development. For example, for every \$1 billion in highway investment, 27,800 jobs are supported for construction, with industry, and through induced employment. But Iowa's system is large and aging. Construction cost inflation, coupled with flattening revenues, makes it very difficult to maintain acceptable condition ratings for roads and bridges. A 2006 study completed by the IDOT identified a \$27.7 billion shortfall in funding to meet all of Iowa's needs through a 20-year period. And while Iowa's rail system is critical to Iowa's agricultural, energy, and manufacturing economy, Iowa lacks the rail capacity to meet future demands. Like other elements of the system (aviation, trails, and transit), funding is also severely inadequate.

Iowa has a number of other issues that must be taken into consideration in making infrastructure planning decisions for the future. There continue to be challenges in developing new sources of economic activity in nonmetropolitan areas. Maintaining and developing infrastructure without new development places additional tax burdens on existing residents and businesses. And, while there is an evolution of rural opportunities through a new energy economy, it does not provide for economic development and jobs for many communities because of where these industries grow and locate. Conversely, there is a deterioration of rural housing stock, and job opportunities are very limited in many rural areas of the state. Simply, over the last 25 years, Iowa's economic vitality has evolved in a select few areas of the state.

Iowa's population has grown very little in the last 100 years, and the current demographics and projections for the next ten years indicate a continuing shift of population from rural areas to urban, suburban, and Iowa's growing regional trade or commercial population centers. At the same time, Iowa's primary industry is agriculturally based, representing 27 percent of economic output. Farm-to-market roads and highways are essential to moving commodities and other products efficiently to the market. While population has declined, the economic value of farm products being transported on secondary and farm-to-market roads has increased to an average of about \$225,000 per mile. It is expected that Iowa will also continue to expand and diversify its economy with a focus on energy, bio-technology, and advanced manufacturing. That will also require an infrastructure that is affordable, accessible, and capable of serving Iowa's new and emerging global economy.

There is a clear understanding that hard decisions will need to be made if Iowa is to succeed in the future global economy. It is essential that Iowa integrate its long-term planning to include all

infrastructure sectors. While Iowans should continue to expect good systems, accessibility, and good service, the reality is that building new infrastructure or sustaining the system at its current level is not a reality. The challenge will be how best to do that in a way that improves Iowa's future economy.

Integrated planning, coordination, and cooperation from many jurisdictions are essential in right-sizing a transportation infrastructure system that will give Iowans the quality of life they expect. And growing Iowa's future economy will require a significant transformation in thinking and making very difficult decisions.

## **Issue Two**

*The funding and financing of Iowa's transportation system extends well beyond problems with the current funding mechanism and funding shortfalls. There have been few changes or alterations to a funding system created for the last half of the 20<sup>th</sup> century.*

The reality is that when focusing on the transportation infrastructure system, there are not enough resources provided by the current funding mechanisms to sustain it. Despite additional state-allocated TIME-21 funds and additional funding injected into the system through the 2008 disaster recovery, the American Recovery and Reinvestment Act of 2009, and state I-JOBS, the transportation infrastructure needs remain so great that the state can no longer approach infrastructure decisions and investments through a status quo approach.

Iowa's transportation system is primarily funded through user taxes and fees. At the local level, supporting farm-to-market roads and community streets also may affect local property taxpayers. Little has changed in Iowa's infrastructure funding mechanisms over the last 60 years. Cars and trucks that travel on Iowa's streets and roads provide a great deal of the revenue for funding Iowa's transportation system.

The investments needed to preserve, modernize, and enhance Iowa's transportation infrastructure are great. The historic and current revenue streams for all modes of transportation at all levels of government have seen little increase in rates of revenue generation. More recently, they have flattened even more. It also clear that some methods of revenue generation are not sustainable and over the long term, more innovative revenue generation must be put in place.

Fuel prices are expected to continue to rise. New technologies and more efficient engines mean cars and trucks are getting better miles per gallon which means fewer gas tax dollars. The transportation sector produces approximately 30 percent of the greenhouse gas emissions in the country, and it is expected that in the near future, there will be significant action at the federal level to control it. As we look to the future, we should expect changes in fuel prices, revenue generation, a change in revenue distribution, and other programming and planning requirements.

There has been a gradual shift to alternative transportation for some. Smart growth principles, which are being implemented in many public and private sector initiatives, emphasize reducing single occupant travel and increasing the use of bicycling, walking, public transit, and passenger rail.

The changes in technology and in behavior will require the state to change methods of funding Iowa's infrastructure system. It will mean taking into consideration other sector projects and coordinating closely with other governmental jurisdictions and the private sector. And certainly, there will be a great challenge in how to evaluate and make decisions in greatly changing economy.

### **Issue Three**

*Iowans do not adequately understand the funding, the financing mechanisms, and constraints in providing high quality and safe public services. Educating the general public is important to further the development of the transportation system.*

Iowans are generally satisfied with Iowa's infrastructure. Yet there are indications of infrastructure stress with increasing numbers of embargoes on secondary roads which impact basic transportation needs of local residents and businesses. For many years the state has built and maintained a massive infrastructure system, one that exceeds most states in number of highway and road miles and bridges. There are very few states with transit systems that serve every county. It is important to note there are also 111 public airports across Iowa.

For the most part, Iowa's local and state governments have been able to keep up with maintaining such a large system, but each year costs increase, funding is inadequate, and maintenance slips back. Proposals for increasing user fees and taxes over a number of years have been rejected. In the current economic downturn, there is little political or public will to increase budgets through the current funding mechanisms.

Iowans love their cars, SUVs, and pick-ups, and their transportation habits will change little over the next few years. Iowans are a bit reticent to embrace public transportation, but it is vital for many Iowans. More will ride bicycles or walk for recreation and for transportation to their job. Iowans will primarily continue to travel by automobile. But as engines become more fuel efficient and there are alternative fuel sources for automobiles and trucks, revenues will diminish and even fewer funds will be available to maintain the system.

Like most, Iowans often find change difficult. But history has demonstrated that when Iowans learn and understand issues, they are willing to adjust and change with the times. Educating the public and key stakeholders is often suggested as a simple answer to address issues, but in this case it is an essential element to move forward to a future economy. The fact is that not enough has been done to inform and educate Iowa's public about the state's crumbling infrastructure and the funding mechanism presently in place, and why changes are required.

As Iowa looks to its economic future, it is essential to engage Iowans as informed partners in addressing all of the state's infrastructure sectors. Iowans want to know what they are paying for and why. If they support an initiative, project, fee or tax, or if they do not, they should understand the implications.

## Recommendations

The Transportation Sector Committee, with input from four community forums and ICN sessions at 10 sites, developed three primary recommendations that address system issues essential for meeting the needs of Iowa's future economy. Public safety remains a critical overarching issue for Iowa's transportation system, and while highway fatalities have decreased over the years, safety remains the number one priority. Smart planning and growth principles were also identified as an overarching and critical issue. There was unanimity within the committee that more attention should be given to smart planning and growth principles if Iowa is to create a skilled workforce, create quality jobs, and maintain a quality of life and identity to be more livable and globally competitive.

### **Recommendations for Transportation:**

#### **Recommendation One**

*Assess the current transportation system and shortfalls, and develop affordable methods to prioritize, improve, and achieve accessible transportation for people, goods, and services.*

The reality for Iowa is that it can no longer sustain and grow its infrastructure at the current level. This requires that the state of Iowa as well as cities and counties, take a very hard look at the current situation and determine how best to move forward. An initial assessment of the current situation is basic. Planning conducted by IDOT, other state agencies, regional/metropolitan planning organizations, and local governments can provide a start.

It is clear that resources cannot meet the current needs or expectations. Iowa has no mechanism to encourage comprehensive planning at the state, regional, and local levels. Planning for sustainability has taken a higher priority over the last five years. The Iowa Department of Economic Development (IDED) has adopted "smart growth" as a priority. IDOT has used smart growth principles in its planning.

Some Iowa communities have also adopted sustainable planning principles. Iowa's Councils of Governments have worked from a regional perspective, and the Rebuild Iowa Office has made smart planning principals a priority in the state's flood recovery work.

Smart planning and growth principles can guide local, regional, state government, and the private sector in future infrastructure planning. These principles provide a framework that will guide planning, investments, and oversight. Smart planning and growth principles would help set broad guidance to be used across infrastructure sectors, government entities, and other public and private stakeholders to direct resources to infrastructure projects and address issues of fragmentation.

## **Recommendation Two**

*Determine transportation infrastructure funding levels, new funding and financing mechanisms, revenue generation methods and prioritization for investments, distribution methods and priorities for project funding.*

Iowa's city, county, and state government funding systems are stressed. Iowans have high expectations and are generally pleased with their roads and streets. They appreciate available public transit and the state's quality recreational trail system. But the public also feels stressed, and most anguish, over any proposed increase in fees, use taxes, or property taxes. Sustaining current levels of transportation infrastructure services often conflicts with many other needs for Iowa's communities, businesses, and families. Resources are not available for everything.

A 2006 study completed by the IDOT identified a \$27.7 billion shortfall in funding to meet all of Iowa's needs through a 20-year period. The funding shortfall for critical needs was estimated to be \$4 billion, or \$200 million per year, over that 20-year period. Since then, that amount has increased to \$267 million per year as a result of inflation, severe weather impacts, and delays in securing the necessary funding.

The current system is outdated, and the demands and opportunities in all modes have shifted. Good roads are critical to an expanding agricultural economy that is increasing yields. Even though Iowa's freight railroads' contribution to the economy is growing, there is a lack of rail capacity to meet future demand and a lack of rail spurs to accommodate new and expanding businesses and industry. Public transit vehicles are old and deteriorating and the need for expanded services is significant just to meet the needs of Iowa's transportation disadvantaged. The trucking industry has evolved to address the just-in-time delivery demands of their customers, and access and investment in sufficient roads is essential.

There is an enormous funding shortage for transportation infrastructure in 2010. Iowans have high expectations and deserve a good transportation system. But supporting that system under the current funding mechanism is more than daunting; it is impossible. If Iowa is to grow and expand its economy, it must change the way it makes decisions and find new ways to fund what is decided.

## **Recommendation Three**

*Engage and educate stakeholders, users, and citizens regarding transportation infrastructure, funding and financing mechanisms, sustainable project priorities, investment decision-making, and policies and procedures.*

Information should be provided to the public and key stakeholders on the enormity of the infrastructure issues faced by the state. The public education initiative needs to include the costs associated with maintenance, current funding mechanisms, and the importance of moving forward with a more sustainable approach to infrastructure.

Information and technical support is also needed on how priorities are developed in the current system and how Iowa's changing demographics may affect communities and entities that have vastly different capacities and resources. A part of the effort is to develop and communicate criteria that will impact funding, decision-making, and investment.

There needs to be a better analysis of "what's possible or what's necessary" as the state and Iowa's communities look to the future. For example, in order to increase efficiencies of Iowa's transportation system, it will be important to identify areas for increased partnerships and collaboration across jurisdictions, infrastructure sectors, modes, and state agencies. These collaborations may include expanded use of transportation corridors to meet other infrastructure needs, complete streets that accommodate vehicles, bicycles, transit vehicles, and pedestrians, or expanded use of shared governmental facilities.

A public engagement and education effort should make Iowans informed partners about the realities of the state's transportation infrastructure and work with them to address issues and priorities for Iowa's future economy.

## Infrastructure Planning Process

Across Iowa, economic strength and competitiveness depends, in part, on our state's infrastructure. In his 2008 Condition of the State address, Governor Chet Culver highlighted the need for a statewide infrastructure plan to ensure all of Iowa is ready for the economy of the future. At that time Iowans could not have foreseen the tragic disasters of 2008 or the seriousness of the economic recession, but their impacts underscored the need for integrated and strategic priorities for Iowa's infrastructure in future years.

Those challenges resulted in a short-term infusion of more than \$6 billion for Iowa over a three-year period through the American Recovery and Reinvestment Act of 2009 (ARRA), I-JOBS, and federal disaster recovery funds. These funds are being spent effectively and as expeditiously as possible on clear priorities for disaster recovery, jobs creation, economic recovery, and other infrastructure and non-infrastructure priorities for the near term.

Iowa also must be poised for the longer-term through strategic and visionary planning for the economy of the future. Iowa needs to continue to make investments in infrastructure, seeking value and success competing in an international economy. The planning process builds on the significant impact of past and current initiatives, opportunities, issues, and challenges.

Iowa Department of Economic Development (IDED) was charged with developing a plan for Iowa. Funding for the planning initiative was provided by US Department of Commerce, Economic Development Administration as part of the disaster recovery grant to the State of Iowa. Under a competitive Request for Proposals process, State Public Policy Group, Inc. (SPPG) was awarded a contract for managing, facilitating, and developing the issues-focused plan under the direction of IDED and project director Thomas W. Hart.

The planning activities span August 2008 through April 2010 when the statewide plan for infrastructure to support Iowa's future economy will be completed. The process for developing the infrastructure strategy was designed to challenge and encourage Iowans to suggest strategies that link infrastructure sectors and position Iowa to shape and fully participate in the economy of the future. With guidance from state leaders in the five sectors of focus, stakeholders with a diversity of perspectives and experiences from across Iowa were engaged in the activities to develop an issue-focused plan with relevance to the public, private, and nonprofit sectors throughout the state.

Five sectors of focus were determined by IDED: Buildings and Vertical Infrastructure, Energy, Natural Resources, Telecommunications, and Transportation.

Leadership of the project was provided by a Sector Chairs Group comprised of state agency directors representing each sector. Sector Chairs met regularly throughout the planning process to ensure consistency in the work of each Sector Committee and to address overarching issues.

The following individuals serve on the Sector Chairs group working closely with IDED and SPPG:

- Thomas W. Hart, Iowa Department of Economic Development, Project Director, Sector Chairs Group Chair, and Task Force Chair
- Joseph Cassis, Iowa Communications Network, Telecommunications Sector Committee Co-Chair
- Steve Flagle, The University of Iowa, Telecommunications Sector Committee Chair
- Richard Leopold, Iowa Department of Natural Resources, Natural Resources Sector Committee Chair
- Bret Mills, Iowa Department of Economic Development, Buildings and Vertical Infrastructure Sector Committee Co-Chair
- Joe O'Hern, Iowa Finance Authority, Buildings and Vertical Infrastructure Sector Committee Co-Chair
- Nancy Richardson, Iowa Department of Transportation, Transportation Sector Committee Chair
- Roya Stanley, Iowa Office of Energy Independence, Energy Sector Committee Chair

Additional individuals with special expertise related to the planning initiative participated on the Sector Chairs Group and the Task Force:

- Elisabeth Buck, Iowa Workforce Development
- Emily Hajek, Rebuild Iowa Office
- David Miller, Iowa Homeland Security and Emergency Management Division
- Jon Murphy, Iowa Office of the Governor

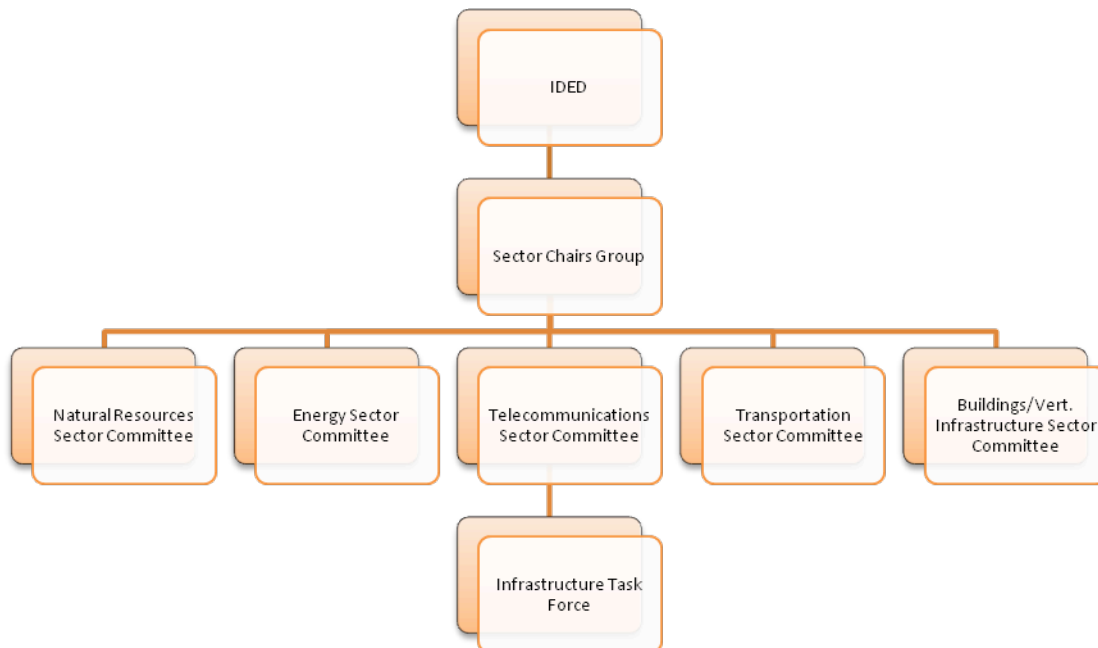
Each Sector Committee met four times in day-long deliberations between November 2009 and February 2010. Sector Committee membership was comprised of private, academic, issue-based, and public representatives providing a diversity of perspectives and strategic vision. Each committee was chaired by the respective member(s) of the Sector Chairs Group. Each of the five Sector Committees was responsible for defining the sector for purposes of this initiative, identifying issues, and developing recommendations based on research, experience, and information reviewed by each committee. Sector Committees were also charged with considering each sector's interaction and integration with the other sectors. Sector Committees were guided by the Essential Elements of Iowa's Future Economy and the common understanding of Iowa's economic situation and forecast described earlier in this report. The findings of each sector were detailed in five separate Sector Committee Reports.

Six community forums were held in Johnston, Coralville, Ottumwa, Dubuque, and Sioux City, with an ICN session conducted at 10 sites statewide. ICN sites were in Atlantic, Carroll, Clinton, Council Bluffs, Creston, Dubuque, Fairfield, Mason City, Storm Lake, and Urbandale. The forum in Dubuque was canceled due to winter weather, but rescheduled as an ICN site. These community forums were structured to elicit public input regarding the initial issues and ideas developed by the Sector Committees, and to inform the process going forward. Comments and suggestions from stakeholder proved very informational and beneficial to the overall process.

The input from these community forums was integrated into each Sector Committee Report and Recommendations. Sector Committee reports were completed by March 1, 2010, and forwarded to the Task Force.

The Infrastructure Planning Task Force is charged with developing the statewide strategic plan, outlining priorities to achieve a strong and competitive economy. The Task Force, chaired by project director Thom Hart, includes all members of the Sector Chairs Group and several individuals from each Sector Committee and will meet three times during March and April. The plan and recommendations of the Infrastructure Task Force will be presented to IDED in May 2010.

Below is a graphic depiction of the relationship of all components of the process for developing the Infrastructure Strategy for Iowa's Future Economy.



The Infrastructure Strategy for Iowa's Future Economy will outline the Task Force's consensus direction for Iowa's buildings and vertical infrastructure, energy, natural resources, telecommunications, and transportation as sectors integrate with one another and as they impact the economic strength and competitive position for Iowa. This information should be of practical value to policymakers at all levels, state and local government agencies, the private sector, non-profit organizations, issue-based organizations, and the public.

The planning process created a clear understanding that Iowa's infrastructure as it exists and is funded today is neither sustainable nor affordable. The Infrastructure Strategy provides insights for all stakeholders as they shape their future.

## Conclusion

Members of the Transportation Infrastructure Sector Committee have focused on the fact that Iowa's current infrastructure is not sustainable or affordable. To address the issues of Iowa's future economy will require a coordinated, integrated, and strategic planning process that takes into consideration all infrastructure sectors. This report is one of five sector reports to be considered by the Infrastructure Strategy Task Force. Especially now, in these times of economic and disaster recover, shared priorities, smart growth planning, and targeted investments are critical elements for Iowa's future.

For Iowa to be more competitive in the global economy, better coordinated planning and strategic investments must become a high priority. With these considerations, Iowa's quality of life will continue to improve and its population will grow and prosper.

## Supporting Documents

### Transportation Committee Sector Meeting Notes

- November 24, 2009
- January 13, 2010
- January 19, 2010
- February 23, 2010

### Presentations

- *Transportation Funding and Financing*, Stuart Anderson, Planning, Programming, and Modal Division Director, Iowa Department of Transportation
- *Transportation Infrastructure Presentation to the Transportation Sector Committee*, Omar Smadi, Ph.D., Institute for Transportation, Center for Transportation and Research, Iowa State University
- *Iowa's Economy in a Difficult Time*, David Swenson, Department of Economics, Iowa State University

### Reports and Papers

- *Status of Iowa's Transportation System*, Stuart Anderson, Planning, Programming, and Modal Division Director, Iowa Department of Transportation
- *Trucking Industry & Economics Update*, Bob Costello, Chief Economist and Vice President, American Trucking Association