

Section 3: Investment Needs by Mode

Guide for Needs Analysis

Where appropriate, the CAC used the recently completed State Long-Range Transportation Plan, MI Transportation Plan: Moving Michigan Forward (MITP), as a preliminary guide for their needs analysis. The MITP is a federally-required document, the product of nearly three years of effort to identify trends that impact transportation. It defines a vision for transportation, establishes goals, and suggests strategies to achieve those goals for the state trunkline, aviation, and public transportation systems. The general public and transportation customers were very much involved in the process of compiling this document.

Investment Options

As requested by the Task Force, the CAC subcommittees analyzed needed investment for each mode of transportation: Aviation; Highway, Road, and Bridge; Intermodal Freight; and Intermodal Passenger. The Task Force asked the subcommittees to identify investment options at various levels, including "do nothing," "good," "better," and "best."

The CAC focused their efforts on the outcomes of "do nothing," "good," and "better" levels of investment, feeling that the subjective nature of "best" would make it too difficult to quantify and that the items included at such an investment level might tend more toward "wants" than real transportation needs.

The Task Force, at its August meeting, unanimously concluded that the "do nothing" approach to Michigan's transportation needs is not an option, as the economic and financial impacts, as well as the anticipated deterioration in service, would be disastrous. Doing nothing to remedy the current financial crisis puts Michigan in the position of being unable to match up to \$1 billion a year in federal aid for transit, highways, and aviation starting as soon as 2010. Losing out on this federal aid would cost Michigan an estimated 17,000 jobs, further undermining the state's economy.

The following sections of this document are summaries of the CAC subcommittee reports as submitted to the Task Force on July 21, 2008. Each modal report, plus a complete description of the methodologies used to develop the needs estimates for each mode, is available by clicking "View Final Report" at www.michigan.gov/tf2.

Section A - Aviation

Most Michigan residents know of, and have relied on, commercial air travel for business and recreation. Equally important is the general aviation sector of the industry, which serves cargo, business, and private aircraft at the commercial and non-commercial airports in Michigan.

Airports, for both general aviation and commercial service, are critical to business, industry, and the public at large and have the potential to drive business location and commercial development in the 21st century as did highways in the 20th century. Taking the initiative to secure funding for this vital mode of transportation will ensure reliable, safe, and efficient transportation opportunities not only throughout Michigan but worldwide.

Aviation, both commercial and general, is big business in Michigan:

- Aviation contributes more than \$20 billion annually to the Michigan economy
- Michigan airports serve 50 million passengers each year
- Michigan airports move one billion pounds of air cargo each year
- More than 1,000 Michigan companies, employing one million people, operate their own aircraft
- Michigan ranks 5th nationwide in the number of registered business aircraft
- Business aviation is the fastest growing segment of the general aviation industry and comprises 85 percent of general aviation activity

Airports accommodate a wide variety of aviation activities that provide direct and indirect public benefit. In addition to the obvious role of accommodating airlines and the services they provide, airports also function as community gateways. These gateways provide access to a wide variety of aeronautical operations including:

Business Travel: Local airports allow corporate aircraft easy access to nearly every corner of Michigan. This provides a flexible, time-saving alternative to scheduled airlines. Business travel has become increasingly popular given the more stringent and time-consuming security screening process required for airline travel. In fact, an estimated 65 percent of non-airline operations are now attributable to business travel.

Law Enforcement: Airports provide a fueling and staging point for law enforcement aircraft that conduct surveillance, traffic patrol, and search & rescue.

Aeromedical Use: Perhaps nothing is more time critical than emergency medical care. Airports afford local residents immediate transportation options during the “golden hour” after a medical emergency. Aeromedical flights also facilitate rapid transport of life-saving organ donations.

Agricultural Operations: The importance of agricultural aviation is staggering. More than 300 million acres of crop land is treated each year using aircraft. Nearly 95 percent of the U.S. rice crop is planted by aerial applicator aircraft and 65 percent of all commercially applied crop protection is performed by agricultural pilots.⁶

Economic Development: Availability of a local airport is often one of the first criteria considered as companies look to site manufacturing or other corporate facilities. The job creation potential is significant. This is particularly true considering spin-off development such as hotels, restaurants, rental car companies, and retail.

Air Cargo: In this modern world, citizens are experiencing an increased reliance on Internet and catalog commerce. Consumer demand has skyrocketed for a variety of perishable foods and commodities. As a result, air cargo has become an essential element in the transportation chain. Small community airports throughout Michigan provide a vital link to national and international cargo hubs.

Emergency Response: Natural or man made disasters may wreak havoc on transportation infrastructure. Usually, reopening an airport is the first priority when addressing disaster relief needs as this reopens a direct, nation-wide link for first responders.

As outlined above, many public benefits are realized with a vibrant, well-developed airport system. Therefore, we must recognize the importance of investing in Michigan's aviation infrastructure to maximize the benefits enjoyed by all Michigan residents.

Infrastructure and Service Provided

Michigan relies on a comprehensive aviation system that includes:

- 17 Commercial Airports
- 30 Scheduled Airlines
- 235 Public-use Airports
- 18,600 Active Pilots
- 7,800 Registered Aircraft
- 6 Aircraft Manufacturers
- 31 Repair Stations
- 6 Military Aviation Facilities

Through the Federal Airport Improvement Program (AIP), the state administers funds used for capital projects at the 78 highest-priority airports, as determined by the 2008 Michigan Aviation System Plan (MASP). Capital projects include runway construction and rehabilitation, airport lighting, terminal construction, and land acquisition. Aviation safety requirements have also been addressed through the Airport Safety and Protection Bond Program (ASAP), which was authorized from FY 2002-2007, although bond payments for this program will continue until 2031.

In addition to the AIP and ASAP, there are a number of state and local programs designed to address Michigan's aviation needs that have been suspended or curtailed due to lack of funds. These programs include:

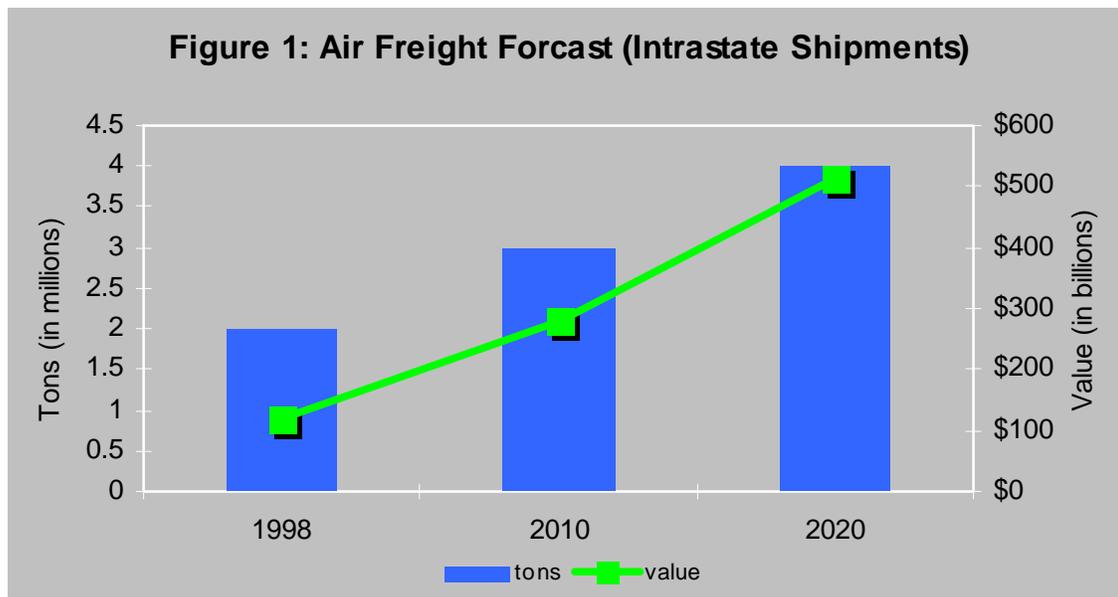
- All Weather Airport Access Program that helps provide safe access to airports through automated weather reporting
- Airport Rescue and Fire Fighting Training Program created to train emergency responders
- Airport Inspection Program used to ensure appropriate airport safety and practices
- Air Service Program intended to recruit and retain airline services

The airline system provides scheduled passenger services at 17 commercial service airports. In 2006, approximately 56 million passengers used Michigan airports, including 40 million airline passengers and roughly 16 million general aviation passengers. The majority of these airports are served by regional airlines such as Mesaba and Great Lakes, which provide connecting service. This service provides connections to major airlines operating at

large airports where access to the global airline transportation system is available. These regional air carriers typically operate 19- to 34-seat aircraft, which are better suited to smaller markets. The increasing use of regional jet aircraft, such as those used by Pinnacle, American Eagle, and other airlines, serve mid-sized regional airports and have a seating capacity of 50 to 90 seats.

Several airline operators provide on-demand or “charter” passenger and cargo transportation at various locations throughout Michigan. These services are available at any of Michigan’s public-use airports and may be accomplished with a variety of aircraft designed to suit passenger or shipper needs.

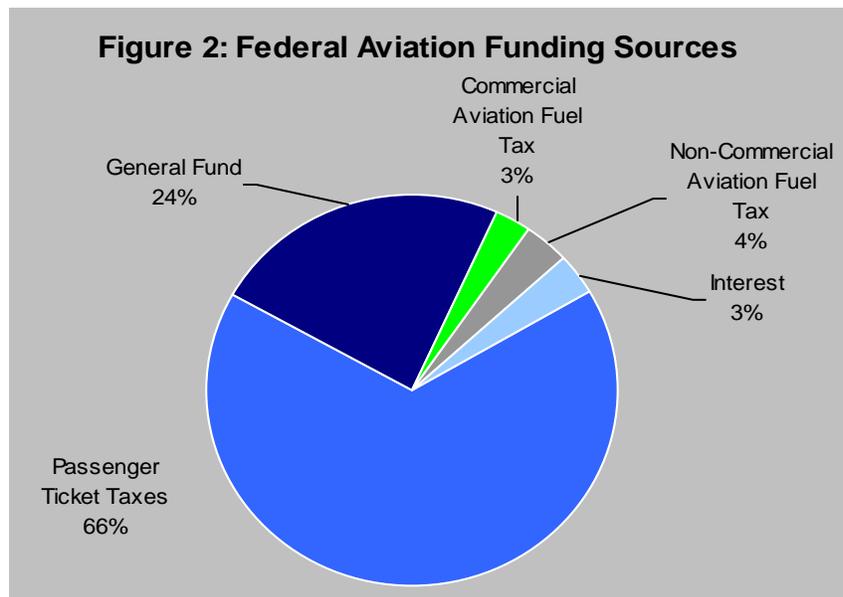
Air cargo moves via the cargo compartments of passenger aircraft, cargo-specific carriers, and certain types of general aviation aircraft. In 2006, approximately one billion pounds of air cargo moved via Michigan’s airport system. Air freight tonnage is much smaller than for other modes, but value of the cargo is quite high and expected to increase (Figure 1). Air cargo includes all types of goods including auto parts, flowers, produce, seafood, computer parts, U.S. mail, as well as commercial package expediting services such as UPS, FedEx, and others. As online purchasing continues to grow in popularity, the air cargo industry will play a vital role in meeting consumer demand. Air cargo service providers at Detroit Willow Run Airport and Oakland County International Airport (Pontiac) offer cargo services where scheduled passenger airline services are not available.



Current Funding and Funding History

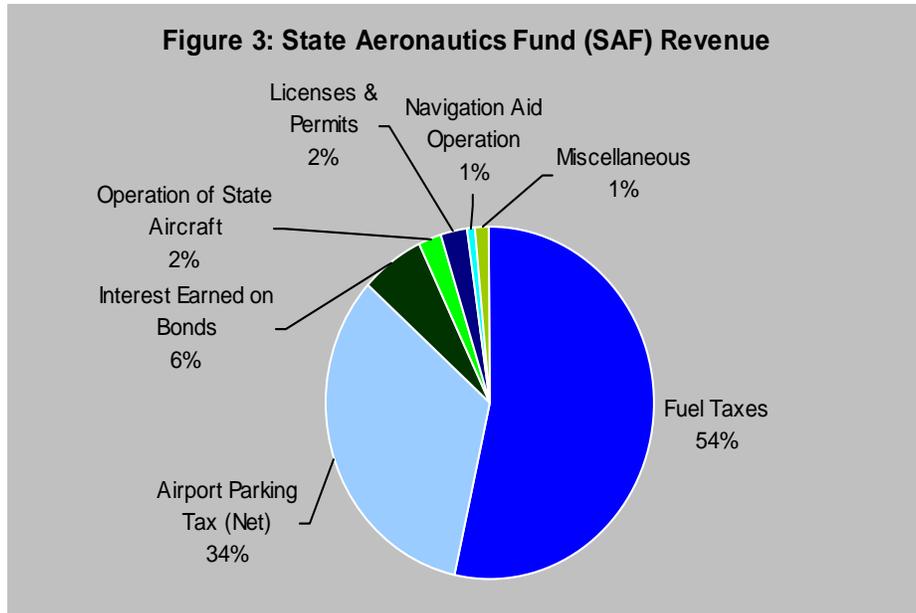
It is notable, when comparing the federal and state funding breakdowns, that approximately 25 percent of federal airport funding is generated from General Fund sources, an acknowledgement of the public benefit attributable to aviation and airports. This is not the case with state funding, however.

Federal Funds. Federal funding, derived from the Airport and Airway Trust Fund (AATF), is the primary funding source for airport capital projects. The AATF is derived from passenger ticket taxes, cargo taxes, commercial aviation fuel taxes, and non-commercial aviation fuel tax General Fund revenue (Figure 2).



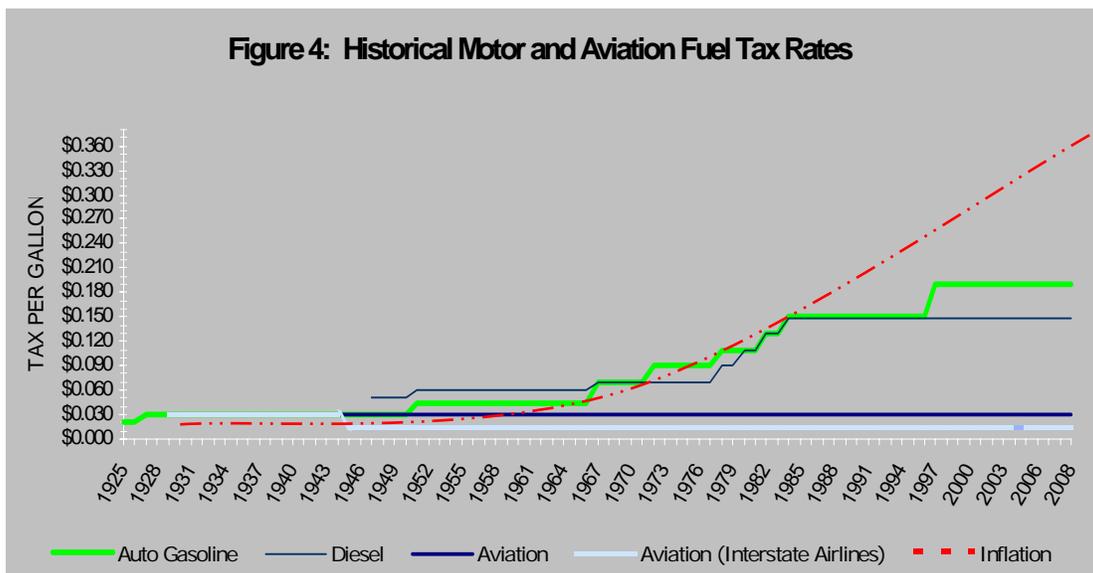
State Funds. The State Aeronautics Fund (SAF) is the primary repository for state aviation revenue and is used in conjunction with local revenue to match available federal aid (Figure 3). The SAF receives revenue from license, permit, and registration fees. State sales tax at the rate of six percent of the retail price is levied on sales of aviation fuel and other aircraft-related purchases.

The excise tax on aviation fuel is the single greatest source of revenue for the SAF. The tax has never been increased since its inception in 1929 and remains at three cents per gallon. The only change to the tax on aviation fuel was a one and one-half cent per gallon rebate to interstate airlines instituted with P.A. 327 of 1945, as indicated by the dark blue line (Interstate Airlines) on Figure 4.



Funding Outlook. Addressing aviation infrastructure and program needs creates many of the same challenges faced by other modes of travel. Cost increases for construction material have far outpaced the overall inflation rate. The asphalt and concrete used to construct runways and adjoining pavement cost far more now than it did just five short years ago. The Bureau of Labor Statistics Producer Price Index for highway and street construction has increased by more than 54 percent since 2003. Over the same period, the Consumer Price Index has risen by less than a third of that amount – only 15.4 percent.

While construction costs have increase dramatically, revenues have not kept pace. The result has been a stagnation of aviation revenue over the past two decades (Figure 4). Finding a solution to this funding crisis is of vital importance. In order to maintain an adequate airport system for Michigan residents and business interests, we must secure a stable revenue source to maintain investment in our aviation infrastructure.

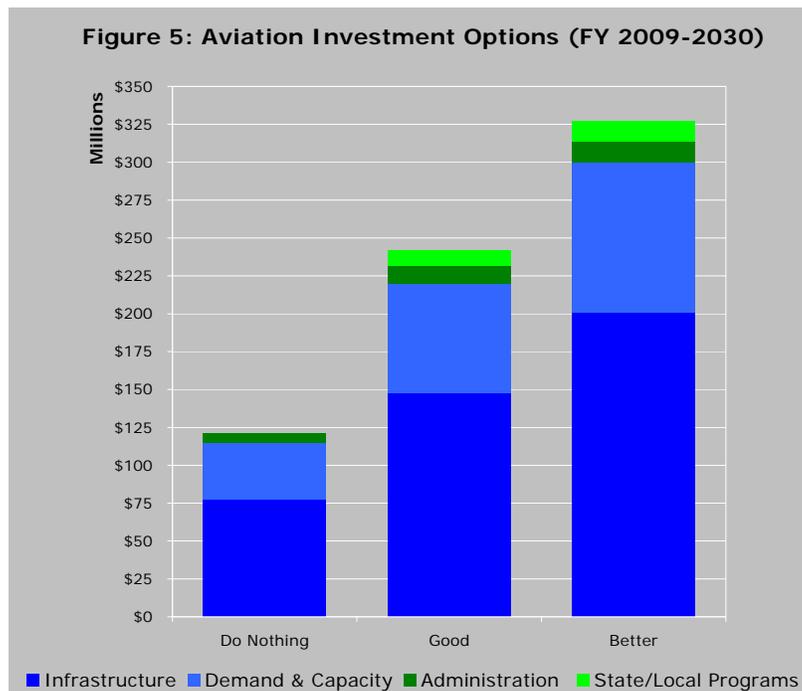


Capital and Maintenance Investment Needs

“Do Nothing” Investment: \$121 million annually

The “do nothing” scenario represents the current level of public investment in aviation infrastructure in Michigan, and is not sufficient to fund infrastructure needs adequately (Figure 5). Eventually, some airports will succumb to budgetary pressures worsened by the lack of state funding and this is particularly true with privately-owned, public-use airports.

If Michigan does not act to generate additional revenue for aviation, vital infrastructure and services will continue to deteriorate. The existing backlog of capital needs will not be addressed and an estimated \$16 million per year in federal dollars from capital programs will go unmatched. In addition, safety needs, as addressed by the All Weather Access, Airport Inspection, and Approach Marking programs will go unmet. Continuing to under fund initiatives such as the Air Service Program will potentially contribute to the cessation of commercial airline service at some air carrier airports, which could further damage Michigan’s already struggling economy.



“Good” Investment: \$242 million annually

The “good” investment level for aviation essentially doubles the investment in aviation infrastructure. Additional investment from state and local sources of \$63 million per year could leverage a total of \$163 million in federal funds to achieve this investment level, should the federal funds be made available. Any additional state investment not used to match federal funds would be used directly for investment in airport infrastructure and safety programs. This investment has the potential to create or retain 3,800 jobs per year.

A “good” investment level would allow for a modest increase in funding and a reinstatement of state and local programs on a reduced scale. This level of investment would help address the existing backlog of needed capital and safety improvements. The Air Service Program would be partially reinstated to help retain commercial airline service. An Aviation Economic Development Fund (AEDF) would be created to stimulate economic activity by providing a small pool of funds to address public aviation infrastructure needs as incentives to create or retain jobs. Critical safety and security programs would be reinstated at this level of investment. Michigan airports would be given the resources to get the maximum life out of their existing pavements and would be able to invest in preventative maintenance.

“Better” Investment: \$327 million annually

The “better” investment level requires an annual investment of \$327 million, comprised of \$197 million in potential federal funds and \$130 million from state and local sources. This level of investment would create or retain 5,200 jobs throughout the state.

With a “better” investment level, all backlogged maintenance, repair, and new capital needs would be met as outlined in the 2008 MASP. Funds for capital projects would also be available, including intermodal connectivity, precision instrument approaches, and general aviation terminals. Investment in curtailed state and local programs, such as All Weather Access and Airport Rescue and Fire Fighting Training, would be reinstated and maintained at an acceptable level. This investment level would allow the state to be much more proactive in the asset management approach to airport pavement preservation, as well as train emergency personnel, promote safety, and recruit and retain commercial airline service.

Section B - Highways, Roads, and Bridges

No other element of Michigan's transportation system impacts as many people as highways, roads, and bridges, which makes a well-maintained and efficient road system the essential backbone of Michigan's economy.

Investment in this element provides innumerable benefits economically in travel time savings and personal cost savings. Increased investment also ensures the greatest level of safety on this vital piece of infrastructure. A 2007 University of Michigan study, which evaluated MDOT's annual investment in transportation and the benefits of MDOT's Five-Year Highway Program, anticipated those investments would:

- Generate personal travel-time savings between \$28.3 to \$69.2 million per year from 2007 to 2011
- Create business savings worth \$18.9 to \$47.6 million per year
- Create 23,034 jobs
- Increase Gross State Product by \$1.4 billion in 2007

An efficient transportation system costs money, but a poor quality road and bridge infrastructure costs even more. Studies conducted by the Texas Transportation Institute conclude that deteriorating and increasingly congested roads have significant financial impacts; Poor roads cost Michigan drivers \$7 billion annually due to crashes, vehicle maintenance costs, lost time, and wasted fuel.

It is widely recognized that Michigan's roads are in need of improvement. A nationally publicized report found that Michigan:

- has the 8th worst road system based on overall performance
- is 16th in the nation based on the number of deficient bridges
- has the 4th worst rural interstate conditions
- has the 8th worst urban interstate conditions
- is 8th in congested roads in urbanized areas⁷

In another example, a 2007 survey of the nation's truckers concluded that Michigan has the third worst road conditions in the nation.⁸ Michigan was once a leader in transportation innovations – including the nation's first superhighway - and can be again by refocusing its priorities back into the infrastructure that the state's current economic foundation was built upon.

Infrastructure and Service Provided

In Michigan, there are three levels of road jurisdiction: state roads, under the jurisdiction of MDOT; county roads, under the jurisdiction of county road commissions (or the county Department of Public Services in the case of Wayne County); and city/village streets, under the jurisdiction of the local municipalities. By law, Michigan's townships do not have jurisdiction over roads (all roads in townships are either county roads or state highways). Figure 6 reveals the size of each system and the amount of traffic each carries.

⁷ *The Reason Foundation's 2007 Annual Report on the Performance of State Highway Systems*

⁸ *Overdrive Magazine's 2007 Highway Report Card Survey*

It should be noted that Michigan has the eighth largest public road system in the nation, the sixth largest local road system, the fourth largest county road system, and the 28th largest state highway system.

Roads. Although the state trunkline system accounts for only 8.1 percent of centerline miles, it accommodates more than half the travel on Michigan roadways. County roads account for 30.8 percent and city and village streets another 18.2 percent (Figure 6).

Figure 6: Distribution of the Highway, Road, and Bridge System

Agency	No. of Agencies	Centerline Road Miles	% of all MI roads	# of Bridges	% of all Bridges	Vehicle Miles of Travel (VMT)	VMT (% of system)
State	1	9,695	8.1%	4,414	40.8%	52.6 B	51.0%
County	83	88,961	74.4%	5,611	51.9%	31.7 B	30.8%
Municipal	533	20,914	17.5%	792	7.3%	18.8 B	18.2%
Total	617	119,570	100%	10,817	100%	103.1 B	100%

Michigan's Asset Management Council (MAMC), established in 2002, advises the State Transportation Commission on the condition of Michigan's highway assets. The MAMC projects that in 2015, due to reduced funding and the effect of inflation, only 70 percent of the state's federal-aid-eligible roads will be in good or fair condition - down from 85 percent in 2006 (Figure 7). Also by 2015, at current funding levels, 23,000 miles of road lanes will need rehabilitation or reconstruction on the federal-aid-eligible network alone.

Figure 7: Condition of Federal-Aid Eligible Roads in 2007

Condition	Improvement Needed	Lane Miles	Percent	Change from 2004
Good	Routine Maintenance	19,751	24%	-14% (Good & Fair)
Fair	Preventive Maintenance	43,222	51%	
Poor	Structural Improvement	21,581	25%	+88%
	TOTAL	84,554	100%	

Bridges. Overall bridge conditions are determined by the National Bridge Inventory (NBI) condition ratings for major structural elements, including deck, superstructure, and substructure. According to the NBI, most of Michigan's bridges are in fair or good condition at this time (Figure 8). Federal law requires that bridges be inspected and rated at least once every two years.

Figure 8: 2008 Bridge Conditions on the Federal-Aid System (Arterials and Collectors Only)			
Condition (as of Oct. 9, 2008)	Number of Bridges	% of Total	Change from 2003
Good	4,615	69%	-3%
Functionally Obsolete (FO)	1,177	18%	+2%
Structurally Deficient (SD)	903	13%	-2%

Bridges can be rated as functionally obsolete, structurally deficient, or in good condition. A functionally obsolete bridge is not necessarily in poor condition, but has width or height clearances below current design standards for the volume of traffic being served. A structurally deficient bridge has a condition rating of poor or worse, and while they generally are safe to drive on or under, they require attention. The majority of Michigan's bridges are classified in good condition, but the 31 percent of bridges that are rated as functionally obsolete or structurally deficient is unacceptable.

Current Funding and Funding History

Michigan's road system is funded from three main sources of revenue: federal, state, and local (Figure 9). For FY 2006-07 these sources generated a total of \$3.4 billion for the Michigan Transportation Fund (MTF). Bonding and tolls are responsible for smaller portions of the MTF revenue and are allocated to specific programs or infrastructure.

Figure 9: MTF Revenue Sources		
	Revenue	Percent
State funds	\$2,225 million	64.6%
Federal Funds	\$1,169 million	34.0%
Local Funds ⁹	\$47.5 million	1.4%
Total Road Funds	\$3,440 million	100%

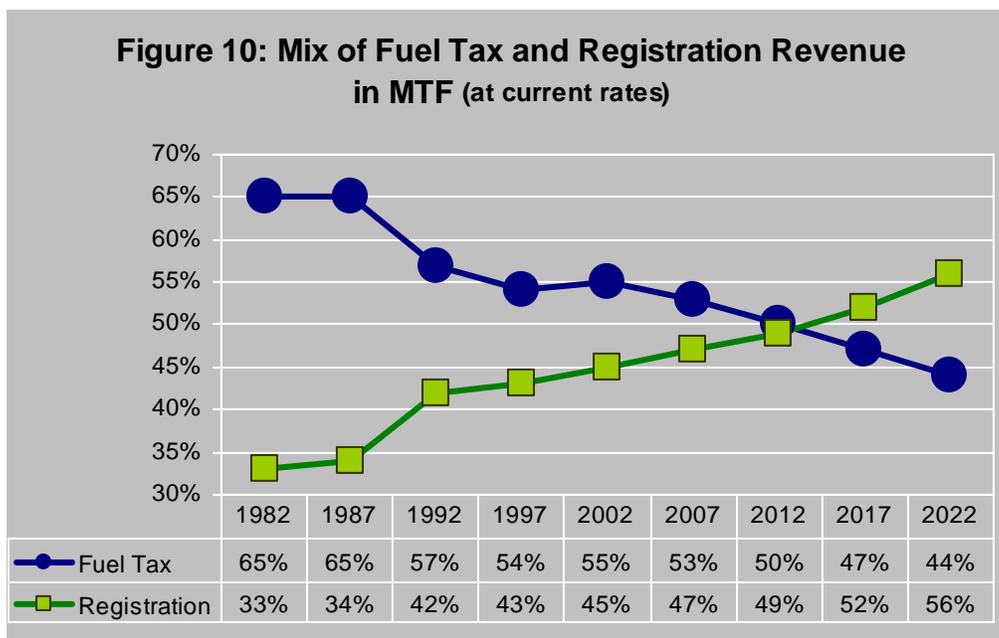
Federal funds. Federal transportation funds for highways are primarily generated by the federal gas tax of 18.4 cents per gallon. Funds are distributed to the fifty states and some territories through a variety of transportation program categories, all of which have clearly defined regulations for the use of the funds. The funds are authorized and their distribution defined by multi-year federal legislation.

The current transportation funding legislation, SAFETEA-LU (Safe, Accountable, Flexible, Efficient, Transportation Equity Act – A Legacy for Users) is scheduled to expire in 2009.

⁹ The "local funds" number represents only the funds generated locally and used on the MDOT system. It does not include funds raised locally and used on either city/village streets or county roads.

Michigan is a federal funding “donor” state, because it has historically received less in federal funds than it collects through federal fuel taxes. SAFETEA-LU was one of a series of federal highway authorization bills that helped address that disparity for the distribution of highway funds, bringing Michigan’s rate up to a 92 percent return on its federal funds collected for highways.

State funds. State funds for highway investment come chiefly from vehicle registration fees and motor fuel taxes, which includes the state's 19-cent per gallon gasoline tax and 15-cent per gallon diesel fuel tax (Figure 10). As of 2008, motor fuel taxes account for more than half of all state-generated transportation revenue, but that number is slipping due to reduced fuel consumption.



Funds generated by state fuel taxes and registration fees are protected by the Michigan Constitution; all such revenues must be spent on transportation related activity. The Constitution specifies that at least 90 percent of the funds must be spent on roads. The remainder may be spent on public transportation.

Between 1996 and 2007, over \$2.3 billion in state bond proceeds were used for the Highway Capital Program, particularly on the Build Michigan Program, Preserve First Program, and Jobs Today Program. These borrowing initiatives supplemented federal and state revenue to support improvements to MDOT’s trunkline system and also some local road projects.

Tolls are used to fund a small but vital portion of the state's transportation system, Michigan’s major bridges and border crossings. The Mackinac Bridge, Blue Water Bridge, and International Bridge are all funded with toll revenue. The Ambassador Bridge, a privately owned border crossing facility, also charges tolls, as do several ferry operations in Michigan.

Local funds. Local units of government, such as counties, cities/villages, and townships, participate in the cost of construction and reconstruction of roads. They also often participate in the cost of improvements within their boundaries on state trunklines and

county roads. These funds are typically generated through a local, dedicated property tax millage, or through contributions from the entity's general fund.

Funding Outlook. When fuel prices rise and as the state's economy continues to struggle, travel on Michigan roads has decreased, and fuel tax revenue has decreased as well. The improved fuel efficiency of motor vehicles exacerbates the problem. Growing construction costs - again due largely to rising fuel prices - and material costs erode the buying power of fuel tax revenue.

MDOT has used bonding in the past to sustain the highway program and improve state trunkline infrastructure, but that approach can no longer continue, as annual debt service on the bonds is very near the 25 percent maximum approved by the State Transportation Commission.

Due to the decline of revenues from fuel taxes, the importance of vehicle registration taxes is increasing. Revenue from vehicle registration taxes is projected to surpass the revenue from fuel taxes in 2012 (Figure 10). At both the state and federal level, there is increasing recognition that the gas tax, in its current form, is becoming a less reliable source of revenue for transportation projects than it has been in the past.

Capital and Maintenance Investment Needs

"Do Nothing" Investment: \$1.9 billion annually

Under a "do nothing" investment scenario for highways, roads, and bridges, Michigan's future investment will be considerably less than the \$3.2 billion invested in 2008, and the state can expect to lose more than 13,000 jobs as a result. The financial and practical impacts of this inadequate level of investment are so profound that this is clearly not an option for Michigan.

For starters, without additional state funds, Michigan will be unable to match up to \$1 billion per year in federal aid (Figure 11). The state trunkline system will deteriorate from today's 90 percent in good condition to about 65 percent in good condition by 2015; the local road system and local bridge condition are expected to deteriorate even more quickly. Current safety and operational programs will not have sufficient funds to continue in their current form. There will be no funds available to increase highway capacity at the state or local level, except for environmental or real estate work on a handful of ongoing projects. Maintenance work, such as snowplowing and pothole patching, will continue, but funds could run short, as they did in 2008 at both the state and local level.

"Good" Investment: \$6.1 billion annually

The "good" investment level essentially doubles current investment in highways, roads, and bridges. It would allow Michigan to continue to match current federal funding of \$1 billion each year to leverage an additional \$1.2 billion annually. It would retain more than 13,000 jobs and create more than 74,000 additional jobs. Finally, because every dollar invested in transportation results in \$5 to \$6 in direct and indirect economic benefits, the "good" investment level would generate between \$31 and \$37 billion in economic benefits.

The "good" level of investment is deemed the minimum necessary for Michigan to keep people and goods moving. It would allow the state to match anticipated federal aid, and would preserve 85 percent of state trunkline pavements and 90 percent of state trunkline bridges in good condition. At the local level, it would be sufficient to allow resurfacing,

pavement repairs, paving of some gravel roads, intersections improvements, modest road widenings, and would preserve 85 percent of local bridges in good condition. It would address congestion, particularly in urban areas, with funds for the highest-priority capacity improvements.

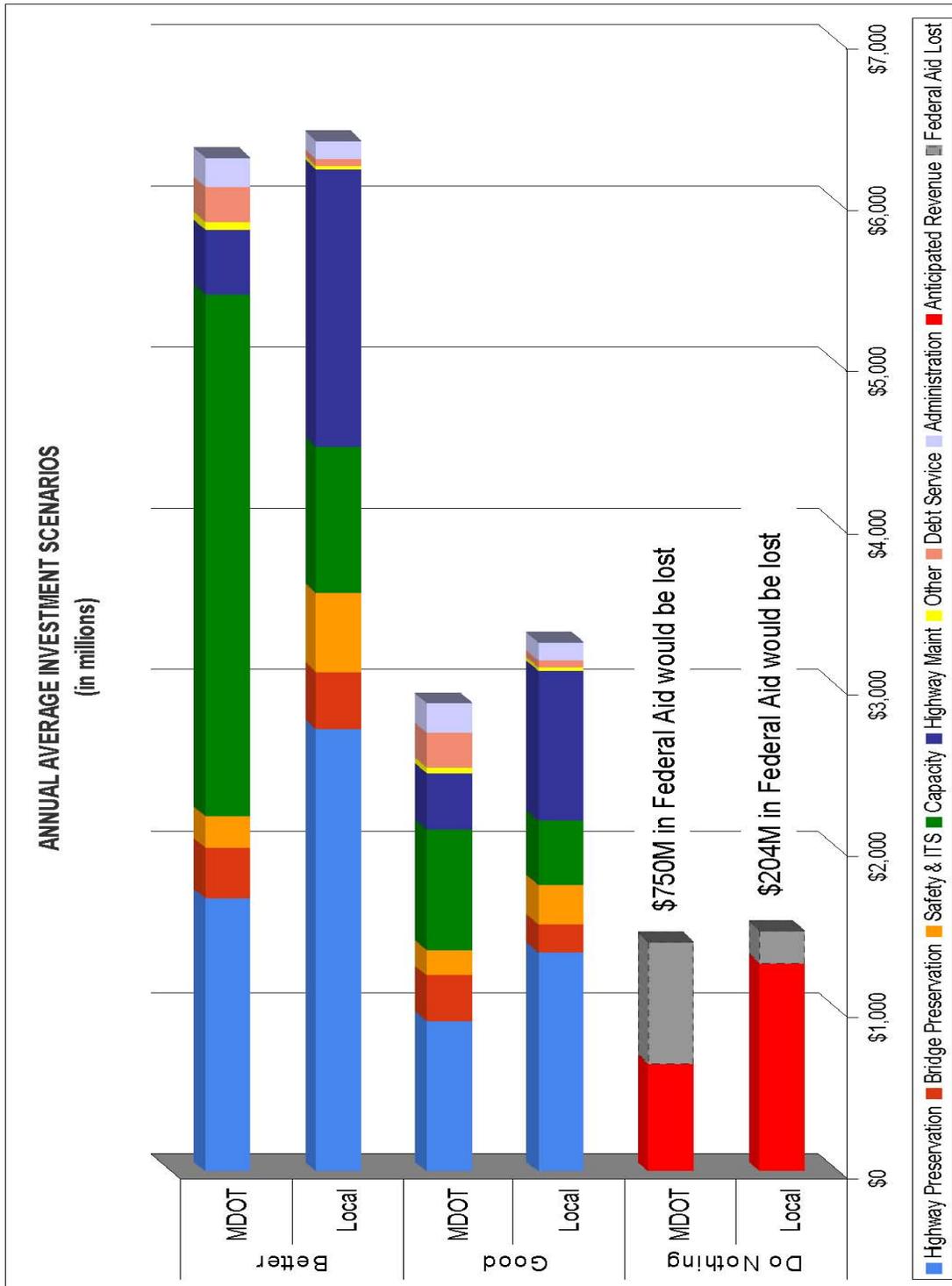
The “good” level of investment would increase safety programs to enable intersection safety projects and a variety of other safety and operational programs or improvements. It would allow highways to better serve tourists and commuters with improvements to rest areas, particularly for energy efficiency, and modest expansion of carpool parking lots. Routine maintenance of existing infrastructure at the state and local levels would be adequately funded at this level of investment.

“Better” Investment: \$12.7 billion annually

In addition to all of the improvements made possible by a “good” investment in Michigan’s transportation system, doubling this allocation would further strengthen the economy and ensure a competitive transportation system. A substantial increase in funding for transportation would provide a world-class system of highways, roads, and bridges throughout the state.

A “better” level of investment could potentially sustain more than 179,000 jobs, as well as generate economic benefits of \$76 billion per year. An expected 90 percent of pavements and bridges would be preserved in good condition at both state and local levels. Congestion would be addressed with essential highway capacity improvements, making funds available for highway projects that have already been identified and improve the design of existing intersection traffic bottlenecks. An expanded safety program would further improve safety for all drivers, and sidewalk and other improvements would be implemented to meet requirements of the Americans with Disabilities Act (ADA).

Figure 11: Highway, Road, and Bridge Investment Options



Section C - Intermodal Freight

The world's largest bilateral trade relationship exists between the United States and Canada, with Michigan positioned as a leader in international trade. Goods and people moving across Michigan's borders significantly impact the economies of Michigan and Ontario, and the economies of the United States, Canada, and other nations.

- By truck, Michigan is the #1 trading partner (among U.S. states) with Canada and the #3 trading partner (among U.S. States) with Mexico
- The Ambassador and Blue Water Bridges rank as the top two commercial crossings on the border between the U.S. and Canada
- In 2007, 5.2 million commercial trucks carried more than \$216 billion in annual trade across the border via the Michigan-Ontario border crossing network
- In 2007, 15.6 million passenger vehicles traveled across Michigan's international border crossings, which generated \$284 million in the local and regional economies of Michigan
- 221,500 Michigan jobs are supported by trade between the U.S. and Canada

The rapid and inexpensive movement of goods throughout the U.S. supply chain, particularly through Michigan's ports and critical trade corridors, helps to secure the state's economic future by maintaining our competitiveness in world markets. Explosive growth, improvements in the manufacturing process, and new technologies all contribute to this trend, but they also place a strain on the capacity of Michigan's trade gateways.

The U.S. Department of Transportation estimates that freight traffic will nearly double in the next 20 years. Growing demand and limited capacity will increase congestion, as well as freight transportation prices, and cause less reliable trip times as freight carriers struggle to meet delivery windows. Over time, these limitations can increase the cost of doing business, increase the cost of living for consumers, and decrease Michigan's productivity and competitiveness. Task Force members believe that intermodal freight will continue to grow and will require additional investigation and investment in the future.

Infrastructure and Service Provided

The most recent multi-modal freight data show that in 2003*, Michigan's transportation infrastructure moved 670 million tons of freight, valued at over \$1 trillion. Trucking accounted for nearly 70 percent of the tonnage moved, followed by rail at 18 percent, water at 12 percent, and air at just under one percent (Figure 12).

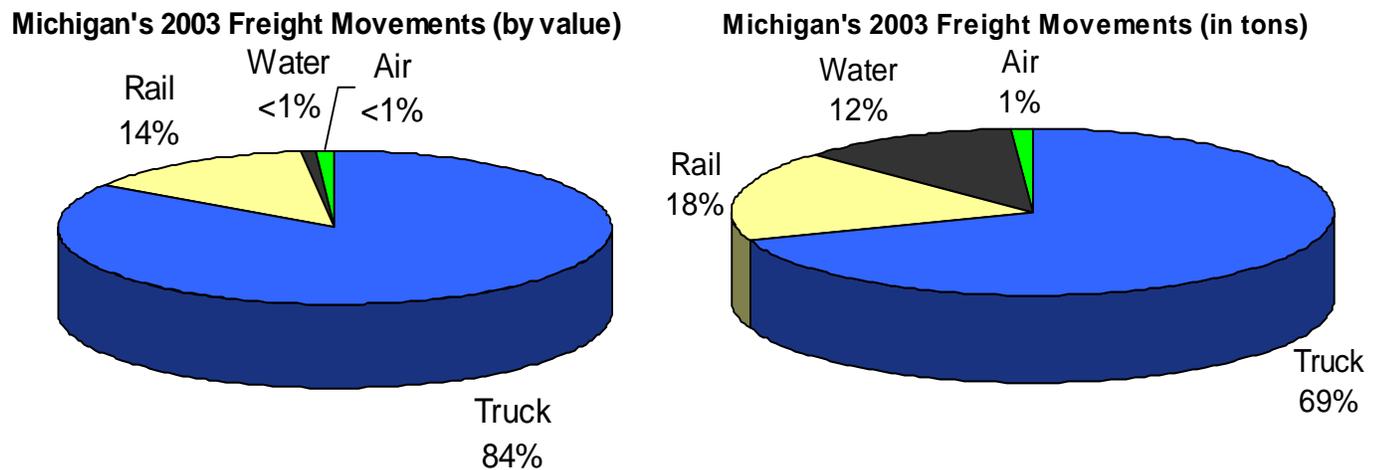
The infrastructure used to move freight has varied involvement from the public sector, depending upon the mode. For example, the public sector provides highways used by privately-owned trucking companies and their vehicles. Rail freight services are privately provided on rail lines, which are nearly all owned by the private sector. In Michigan, several hundred miles of rail line are owned by the state and operated by private companies.

Marine freight utilizes publicly-owned and maintained waterways - generally by the federal government - while terminals, docks, carriers, and services are primarily privately-owned. Some terminals and docks are owned by public sector authorities or agencies.

In aviation, the airways and most airports are controlled by the public sector, with freight services provided by private carriers. The public sector has a regulatory function in all modes, primarily dealing with safety issues.

** 2003 is the most recent year that freight data is available across all modes in will be used for consistency within this section of the preliminary report.*

Figure 12: Michigan Freight Movements in 2003



Trucking Cargo. Nearly every product consumed in the U.S. at some point is transported by truck. The trucking industry plays a key role in today's globally integrated economy, employing 8.6 million people nationwide. In Michigan, the trucking industry employs one in every 11 residents of the state. Trucks haul 69 percent of freight by volume and 84 percent by value compared to other modes, as motor carriers provide the final delivery from intermodal facilities. Trucking accounted for nearly 474 million tons of commodity movements in, out, within, and through Michigan in 2003, with an estimated value exceeding \$1 trillion (Figure 13). The heavy dependence of the U.S. economy upon the trucking industry has also contributed to increasing congestion on state and national highways, and Michigan is no exception.

Figure 13: Top Commodities Moved by Trucking in 2003

Commodity	Tons	Commodity	Value
Nonmetallic ores and minerals	111.4	Secondary traffic	\$344.5B
Secondary traffic	62.0	Transportation equipment	\$159.3B
Clay, cement, glass, stone	49.9	Machinery	\$100.3B
Food products	32.7	Fabricated metal products	\$62.2B
Farm products	31.6	Electrical equipment	\$57.9B

Source: MDOT State Long-Range Transportation Plan, 2005-2030, Freight Profile Technical Report

Rail Cargo. Michigan has approximately 3,600 miles of rail lines operated by 26 companies. MDOT manages 530 miles of rail lines that provide the only access to shippers in some rural parts of the state. It has been estimated that the use of rail freight saves taxpayers \$266 million annually on roadway investments. This industry specializes in cost-effective shipping of heavy products long distances, including coal, steel, fertilizer, lumber, ores, grain, and chemicals. MDOT operates a grade crossing program that provides federal and state funding for improvements at the state's approximately 4,800 public grade crossings where rail lines and state highways intersect.

In 2003, Michigan's railroads carried nearly 120 million tons of freight, and the estimated value of these rail flows exceeded \$162 billion. In 2006, the amount of freight moved by rail increased to 123 million tons with an estimated value exceeding \$278 billion (Figure 14).

Figure 14: Top Commodities Moved by Rail in 2003			
Commodity	Tons	Commodity	Value
Coal	19.41	Transportation equipment	\$80.52B
Chemical products	14.49	Misc or mixed shipments	\$22.99B
Transportation equipment	13.54	Primary metal products	\$20.43B
Paper and pulp products	7.93	Chemical products	\$13.45B
Primary metal products	7.81	Paper and pulp products	\$7.45B

Source: MDOT State Long-Range Transportation Plan, 2005-2030, Freight Profile Technical Report

Air Cargo. Although it makes up a relatively small percentage of the state's freight transportation, air cargo services are particularly important for high-value and time-sensitive commodities. In 2003, Michigan airports handled over 300,000 tons of air cargo. By 2007, the amount of cargo moved had increased to just over 350,000 tons. According to 2005 international trade statistics provided by the Foreign Trade Division of the U.S. Census Bureau and the U.S. Customs Service, air cargo accounted for less than one percent of total U.S. trade tonnage (imports and exports combined), yet accounted for nearly 37 percent of total trade value in dollar terms.

Marine Cargo. The Great Lakes and St. Lawrence River form a maritime transportation system extending 2,300 miles from the Atlantic Ocean to the western end of Lake Superior. Michigan's 3,200 miles of shoreline along four of the five Great Lakes contain nearly 40 commercial ports and 140 marine terminals that ship or receive cargo.

In 2003, Michigan's ports handled more than 78 million tons of freight valued at more than \$5 billion. Most of the waterborne commerce at Michigan's 40 commercial ports consists of bulk cargo. Stone, sand, iron ore, and coal accounted for 86 percent of the freight total. Cement, petroleum, and chemicals account for another 12 percent. These materials are used in the steel, construction, agriculture, and petroleum industries throughout the Great Lakes region. The steel industry alone accounts for about half of Michigan's total waterborne commerce.

Current Funding and Funding History

Traditional federal transportation funding received through the Federal Highway Administration (FHWA) cannot be spent for freight projects that are not a part of the highway system. For example, federal highway funds cannot be used for improving or expanding railroad lines or terminals. Because of this, much of the funding received for freight infrastructure comes from private investment or individual freight companies and shippers. For example, in 2006 the private sector investment in the maintenance of rights-of-way along state highways, plus investment in rolling stock in Michigan was over \$175 million.

In addition to the Capital Development Program (state-owned lines), there is the Michigan Rail Loan Assistance Program and the Freight Economic Development Program. MDOT's rail

programs, as well as the Grade Crossing Program, are currently funded with \$14.3 million in federal and state transportation dollars.

Historical allotments for the Grade Crossing Program have not increased since 1993, despite the rise in project costs of at least six percent per year. This program has also seen reduced allocations since 2006 and is anticipated to receive \$3.3 million less in 2009.

Funding Outlook. The cost of managing, moving, and storing goods - total logistics - has increased for the first time in over 25 years, attributed to fuel prices and the restricted system capacity across all modes of freight transportation. The fear is that total logistics costs could undermine future economic productivity, competitiveness, and economic growth within the state of Michigan.¹⁰

The U.S. Department of Transportation Freight Analysis Framework predicts that the volume of freight will almost double by 2035. The percentage of truck shipments will increase within, from, and to the state, while the percentage of air shipments are expected to remain the same. Rail and marine shipments are predicted to decrease. The American Association of State Highway and Transportation Officials (AASHTO) has calculated that nationally, without growth in the freight-rail system, 900 million tons of freight could be shifted to the highways by 2020, costing shippers \$326 billion and highway users \$492 billion in travel time, operating and accident costs, and necessitating \$21 billion in highway improvements (not including the cost of improvements to bridges, interchanges, local roads, new roads or system enhancements).

Capital and Maintenance Investment Needs

“Do Nothing” Investment: \$14 million annually

This “do nothing” scenario represents the current level of public investment in freight infrastructure in Michigan, and is not sufficient to fully fund Michigan’s freight infrastructure investment needs.

If additional investment is not made in freight transportation, MDOT estimates that it will be able to address 40 percent fewer grade crossings in FY 2010 versus 2005. MDOT has typically been able to add active-warning devices at 40 to 50 local crossings annually, but will be forced to address five to ten fewer locations in FY 2009 due to budget constraints. Federal funds allocated for trunkline grade crossings also will be reduced leading to a program funding reduction of \$2 million in FY 2009-2011 compared to FY 2008 funding levels. The Michigan Rail Loan Assistance Program (MiRLAP) will continue to be \$2.7 million short of \$15 million required by statute to assist short lines in track rehabilitation.

“Good” Investment: \$19 million annually

A “good” level of investment in freight transportation would allow the Grade Crossing Program to return to historical funding levels. An additional five to ten safety enhancement projects on local roads and state trunklines could be completed, as well as 10 to 20 crossing surface improvements at trunkline crossings annually. This would allow MDOT to annually address about five percent of the locations that would most likely warrant safety enhancements. Track rehabilitation efforts would be improved, but would continue on a

¹⁰ Association of American Railroads. *National Rail Freight Infrastructure Capacity and Investment Study, Sept 07.*

limited basis. Transportation investments would be focused on congestion mitigation on commercial trade routes that will have the most impact on systemic chokepoints.

This level of investment would also increase property management and emergency repairs on state owned rail, eliminate deferred track maintenance, and allow for MiRLAP to provide loans for three additional projects each year.

“Better” Investment: \$41 million annually

Increased funding to “better” would enable MDOT to improve trunkline crossing surfaces to meet the good pavement condition goal of 90 percent. A “better” investment would leverage \$5 million in private railroad investment for grade crossing safety. MDOT would be able to modernize existing warning devices at trunkline crossings, ensuring device reliability and uniformity for motorists at 10 to 20 locations per year. Additional funding would create a program to help upgrade the most critical crossing surfaces on local roads. A program to match railroad investments would support approximately 200 projects to improve crossing surfaces on local roads annually, about five percent of all local crossings.

Property management and emergency repairs on state-owned rail would be adequately addressed at the “better” investment level. Track rehabilitation projects would be performed on 15 to 20 miles of system each year. Economic development activity from rail lines would be expanded upon. Additional funding allocated to MiRLAP would promote short line modernization to allow higher capacity (286,000 pound railcars) and meet increased demand for rail service.

Additional investment would allow for congestion mitigation on freight routes to improve mobility performance. Trade corridors (I-94, I-75) would be selected as priorities, including the expansion of Customs Pre-Clearance participation and maximizing inspection facilities where MDOT has responsibilities. A “better” investment level would upgrade the remaining four percent of seasonal state highways and sections of county roads to Class A. The Transportation Economic Development Fund (TEDF) is intended to distribute funds between counties for the construction or reconstruction of access roads based on their percentage of the state’s total acreage of commercial forest, national park, and national lakeshore land. Funding for these roads has not increased from \$5 million since 1987, but would see increases with a “better” level of investment.

Section D - Intermodal Passenger

In Michigan, transit usage is up significantly for both local transit and intercity services. In early 2008, some local transit and intercity passenger rail services have experienced growth of 20 percent or more. Since bus transit is the backbone of any public transit system, Michigan has an excellent foundation on which to build. However, rail - light rail, commuter rail and intercity rail - are vital to building an effective system in the 21st century. Data gathered from other states shows that a serious investment in modern transit is not an option for Michigan - it is an urgent necessity.

Intermodal passenger ridership is increasing and citizens are demanding more transportation options, while fluctuating gas prices and the aging population accelerate the demand. A major contributor to the growing number in transit ridership is the increasing average price for unleaded gasoline. In 2006, it hit an all-time high of \$3.01. Two years later the average price increased by 35 percent to \$4.07. As the price of fuel increased, state residents drove less, switched to more fuel efficient vehicles, car pooled, or sought out alternative modes of transportation. A vast majority of riders of Michigan's intercity rail and bus system have another option to use in making the trip, but choose not to because of the convenience provided by the local system and the potential cost savings - in terms of both money and time - of leaving the car at home.

Further contributing to the increase in transit use is the increase in Michigan's senior population. By 2030, it is projected that much of the southern Lower Peninsula will see an increase in this age group of more than 100 percent. By 2035, there will be as many seniors and children in Michigan as there are working people to support them. Michigan's population is expected to increase by slightly less than eight percent by 2030, while the senior population is expected to grow at a rate 10 times the overall population growth. The growing number of seniors in the state that are choosing to continue to work, socialize, and stay active will put a strain on the already struggling infrastructure. When coupled with the projected statewide population increase, this growth will result in more drivers, more cars, more vehicle miles traveled (VMT), and more road congestion, pushing Michigan's residents to find other alternatives to driving.

Infrastructure and Service Provided

Michigan funds a transit system that is a compilation of local public and non-profit service providers. It includes local and county level bus systems, several multi-county bus systems, one fixed guideway system, and targeted services for the elderly and persons with disabilities. All 83 counties have some level of demand response service, 18 counties provide fixed-route service, and 60 counties offer county-wide service, providing 80 percent of our population with access to local transit.

Michiganders took just over 95 million trips on public transit in 2007, gaining access to jobs, medical care, education, shopping, recreation, and other services. Ridership grew 10.8 percent from 2005 to 2007. In 2007, an additional 1,611,734 passengers were transported through the Specialized Services Program, targeted to Michigan's aging senior population - a 7.4 percent increase since 2004.

Public Transportation. Public transit use has been steadily growing across the state. Michigan's public transit systems are categorized as urban and non-urban (rural) based on their service area population. There are 20 urban transit systems, in communities with

50,000 persons or more. All of Michigan's urban areas have a local public transit system. Over 88 million passenger trips were provided by these urban systems in 2007, which represents nearly 93 percent of the state's annual transit ridership.

There are 71 non-urban (rural) transit systems in Michigan, which include 12 systems that also operate in urban areas. These systems provided 7.1 million passenger trips in 2007, representing about seven percent of annual ridership. These systems have a total of 3,077 vehicles in their fleets, with 1,447 operating on fixed routes and 1,630 used for demand-response service.

Other elements of Michigan's public transit system include the MichiVan Commuter Vanpool Program, which used 148 vans carrying a total of 1,130 commuters in 2005. That number has since doubled to 304 vans carrying 2,622 riders as of October 1, 2008. In 2005, the Detroit People Mover carried more than 1.5 million passengers. Also, the two state-supported marine passenger services carried a combined total of approximately 894,000 passengers in 2005.

Intercity Rail and Bus. Intercity passenger services include both intercity bus and passenger rail. The primary carriers are the National Railroad Passenger Corporation (Amtrak), Greyhound Lines, Inc., and Indian Trails, Inc. The Upper Peninsula and most of the northern Lower Peninsula are limited to only intercity passenger bus service, while the southern portions of Michigan are served by both train and bus.

Increased local marketing, community involvement and awareness, and the increasing cost of gasoline have all contributed to ridership increases throughout the state. As a result, ridership for Michigan intercity passenger rail services reached an all-time high in 2008, with a total of 720,647 passengers.

Greyhound Lines and Indian Trails provide daily regular-route intercity bus service to 120 Michigan communities, with some service to rural areas supported by the state. There are 27 intercity bus passenger facilities, of which MDOT owns four. Local governments and local transit agencies own and/or operate 21 transportation facilities; Indian Trails owns and operates two transportation facilities. Also, 18 passenger facilities are categorized as intermodal facilities, serving more than one transportation mode.

Amtrak offers intercity passenger rail services along three major corridors in Michigan: the Pere Marquette (Grand Rapids-Chicago), the Blue Water (Port Huron-Chicago), and the Wolverine (Pontiac-Detroit-Chicago). These three passenger rail corridors serve 22 station communities and consist of 521 route miles in Michigan. The Pere Marquette and Blue Water offer one round trip per day and the Wolverine offers three daily round trips.

The Pontiac-Detroit-Chicago corridor is one of the original federally-designated High-Speed Rail Corridors. The corridor currently includes the only segment of track outside the Northeast Corridor that has the technical ability to handle speeds of 110 mph and currently operates at 95 mph. This segment of track extends over 45 miles of Amtrak ownership and is located west of Kalamazoo.

From 2002 to 2008, the Blue Water transported 766,615 passengers and operated 1.6 million train-miles. For this same period, the Pere Marquette transported 636,224 passengers and operated 898,000 train-miles. On the two state-supported routes, Amtrak transported 1,402,839 passengers and operated 2.5 million train-miles.

Michigan is also involved in the Midwest Regional Rail Initiative (MWRRI), in an effort to ensure Michigan is investing in an intercity passenger rail system that connects to an

equally developed system beyond its borders. This is especially critical in connecting to the Midwest's intercity passenger rail system hub in Chicago. The MWRRI will help address issues outside of Michigan's borders that can improve service within the state, such as finding ways to reduce rail congestion that impedes passenger travel.

Current Funding and Funding History

The Comprehensive Transportation Fund (CTF) has been the primary source of state funding for Michigan's public transportation programs since its creation in the 1970s. Over the past 10 years, appropriations from the CTF have provided an average of \$200 million annually to these programs.

The CTF provides funds for:

- Intercity bus operations and capital investment statewide
- Intercity rail operations for two of the state's three intercity rail services, and rail capital improvements, including the high-speed corridor
- Intercity rail and bus terminals
- Bus transit operations and capital investment for 79 transit systems
- Operations and capital support for two publicly-owned marine passenger services
- Public transportation services throughout the state for targeted populations (seniors, persons with disabilities, and transportation to work for low-income individuals)
- Preservation and maintenance of the state-owned rail freight lines
- Rail freight-based economic development
- Oversight of multi-modal programs including transit, intercity passenger, rail freight, and for-hire bus and limo regulation
- Debt service on CTF bonds that support routine capital investment for local transit, intercity bus and rail, and rail freight, as well as special projects for all forms of public transportation, including marine and aviation

The primary revenues to the CTF are sales tax contributions and transfers from the MTF. The annual contributions of MTF and sales tax to the CTF are set in statute. In general, the MTF distribution to the CTF is approximately two-thirds of CTF annual revenue, and the sales tax contribution is the other one-third. Currently, Public Act 51 of 1951, Section 10 (1) distributes 10 percent of funds from the MTF to the CTF, after certain specified deductions. The annual MTF distribution to the CTF equates to about eight percent of the MTF before deductions.

Under the General Sales Tax Act, two-thirds of the six percent sales tax is to be distributed as follows:

- 15 percent to cities, villages and townships
- 60 percent to the state school aid fund
- 25 percent as follows
 - Not less than 27.9 percent of the tax collections from motor vehicle related sales to the CTF
 - Balance to the General Fund

Historically, the state has provided operating funds to transit systems, but the percentage of operating funds provided by the state has declined steadily for several years, eroding the ability of local transit agencies to maintain - much less improve - service.

Under the current distribution formula, funding is distributed based on operating expenses. This creates a number of problems:

- Discourages expansion: When one transit agency's costs increase because of growth or expansion of service, it diminishes the amount of funding available for all other transit agencies. Growth in urban areas should not have a proportional negative impact on rural systems.
- Discourages cost-cutting efficiency: Transit systems should be rewarded for efficiency, not penalized with less funding.
- Makes funding less predictable: Because the final amount of funding distributed is not certain until all system audits have been submitted in a given fiscal year, it is not unusual for funding adjustments to be made even after the books have been closed. It is very difficult for transit systems to develop multi-year plans for service or facility improvements when they can not accurately forecast revenue.
- Devolves costs from the state to locals: Funds collected at the state level for public transportation have been used for other purposes in recent years, forcing local governments to make up the difference.

Prior to FY 2005, MDOT provided the required 20 percent matching funds for all federally-funded transit capital grounds using CTF revenues, but with increased federal funds coming to Michigan under TEA-21, SAFETEA-LU, and constrained CTF revenues, the CTF has not been able to keep up with federal match obligations. The CTF's match obligations for FY 2008 were \$30 million, as compared to the CTF appropriation of \$10.3 million. This represents an annual shortfall in the CTF that has been masked with bond proceeds and toll revenue credits. Several regional rapid transit projects that have or are close to receiving FTA approval will not be able to proceed because the CTF cannot provide the match needed to access federal grants.

CTF revenue for investment in intercity bus terminals has also been greatly reduced in the last five years as constrained CTF revenues have been redirected to continue support local transit and intercity operations. For example, the FY 2004 CTF appropriation for intercity terminals was \$2.8 million. In FY 2008, the appropriation dropped to \$300,000, which is shared by intercity bus and passenger rail programs.

Funding Outlook. For a number of reasons, it is very difficult to project the amount of revenue available for passenger transportation. At the state level, CTF revenues have been redirected to other purposes, and the win-lose nature of the distribution formula exacerbates the problem.

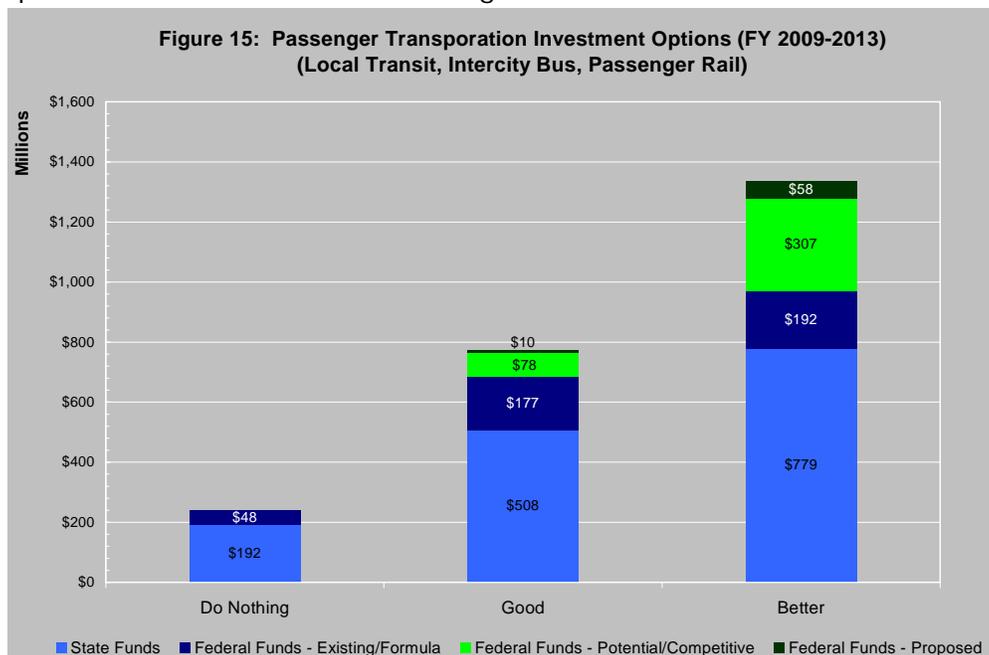
But federal revenue for passenger transportation is also unpredictable. The federal revenues that support local transit include both annual apportionments and Congressional earmarks. Although there has been significant discussion nationally about the merit of federal earmarking, in the area of passenger transportation, earmarked funds are fundamental to the program and can account for as much as 40 percent of federal funds available for transit in Michigan. Congressional earmarks vary widely from year to year and program size varies with them. Federal funding for rail passenger and marine passenger systems is also based on Congressional earmarks and special projects and is equally difficult to predict.

Capital and Maintenance Investment Needs

“Do Nothing” Investment: \$241 million annually

Continuation of the current level of investment in passenger transportation will lead to a reduction in local transit services. By 2013, Michigan transit agencies stand to lose up to \$112 million annually in federal allocations at a time when demand and ridership are at record highs (Figure 15). Without additional investment in public transportation:

- Rapid and/or regional transit projects in Michigan’s urban areas will not be possible.
- All transit systems will be forced to cut services at some point without at least modest growth in operating assistance to keep pace with expenses. The most immediate threat is to rural systems, many of which are barely able to survive at current levels.
- Systems will not be able to invest in new technologies that make operations safer, more convenient, more customer-friendly, and more attractive to potential riders. Procurements for things like on-board camera systems, more advanced fare collection equipment, and real-time bus information will be delayed or cancelled because of a lack of funds for such investment.
- Intercity passenger rail service will be discontinued because of a lack of funds to cover projected cost increases.
- Service will be lost that connects 14 Michigan communities and 232,000 passengers to the national rail network in Chicago.
- Infrastructure improvements to maintain existing intercity and passenger rail systems will be minimal.
- State contracts to support intercity bus service to rural parts of the state will be curtailed.
- Routine replacement of motor coaches will not be possible.
- Preventive maintenance on transit buses will be reduced.
- Transit buses will not be replaced with more fuel efficient and/or lower emission models when they reach the end of their useful lives.
- Passenger facilities will not be upgraded and expanded; only minor maintenance will be possible for some of the 44 existing terminals.



“Good” Investment: \$773 million annually

A “good” level of investment of \$508 million in state funds would create or retain more than 35,000 jobs, leverage \$265 million in federal aid, and encourage over \$4 billion in related economic benefits throughout the state.

Michigan’s largest urban areas would be economically competitive with other metropolitan areas through the introduction of rapid, regional transit to the state. Increasing state funds for passenger transportation enough to match federal funds and provide state operating assistance would make it possible to:

- Implement new rapid transit in the Grand Rapids area, an FTA-approved project, bringing economic benefits to the corridor.
- Develop new light rail transit on Woodward Avenue.
- Develop a new commuter rail demonstration project between Ann Arbor and Detroit, scheduled for start-up in 2010 as a first step to accessing \$100 million in federal funds allocated to the project under SAFETEA-LU.
- Develop the new commuter rail service between Ann Arbor and Howell now being planned by local and regional officials with MDOT assistance.

Because there is no federal program to expand passenger rail service in Michigan, a “good” level of investment would be needed to maintain existing passenger rail service in the state. Under Amtrak’s Strategic Pricing Initiative, the portion of the costs currently borne by Amtrak for intercity passenger rail service in Michigan would be passed on to the state, increasing the state’s obligations by at least \$20 million per year to maintain existing service levels. If a federal program were established, intercity passenger rail service could be expanded with a “good” level of investment, essentially doubling both capacity and frequency over 10 years - assuming 100 percent state-funded operations and 50 percent state-funded capital.

Local bus transit agencies would be able to maintain and increase service with increased frequency, expanded service areas, and/or increased use of alternative fuel technologies and information technologies to improve customer service. This level of investment would immediately increase the amount of state funding available for operating assistance to the maximums allowed for in P.A. 51, bringing much needed financial relief to cash-strapped local transit agencies.

Programs related to intercity bus services would be preserved at the “good” investment level. Existing state-supported intercity bus services would be preserved and routine replacement of motor coaches would be ensured.

Major intercity terminal improvements would be possible at the “good” investment level, including new stations in Dearborn, Troy, Jackson, Detroit/New Center, and Grand Rapids. This investment could also assist with ADA improvements that may be mandated at rail platforms, since federal funds are not available for intercity rail passenger stations.

Targeted transportation services for Michigan’s senior and low-income populations would be expanded. In particular, a “good” investment level would allow for an increase in Transportation to Work services targeted to low-income individuals.

Alternatives to single-car commuting would be expanded through continuation of MichiVan, the state’s vanpool program, and a reinstatement of the rideshare program that was cut in FY 2005 due to lost CTF allocations.

“Better” Investment: \$1,336 million annually

A “better” level of investment of \$779 million in state funds would create or retain more than 59,000 jobs, leverage \$557 million in federal aid, and encourage over \$7 billion in related economic benefits throughout the state. In addition to all of the items identified in the “good” investment scenario, this would allow the state to expand, enhance, and develop transit services and facilities as identified in the MI Transportation Plan (MITP).

At the “better” investment level, development of rapid/rail transit in corridors that may not be eligible for federal funds would be possible through the use of exclusive state funds. Experiences in other regions of the country indicate some portion of a regional rapid transit system will need to be constructed without federal funds in order to demonstrate the project’s feasibility and make it more competitive for federal funds, or to complete portions of the system that may not meet strict federal criteria.

Michigan's portion of the Midwest Regional Rail Initiative (MWRRI) could be implemented over 10 years with “better” investment, making it possible to travel by train between Detroit and Chicago in under four hours at a maximum speed of 110 mph. The “better” investment level would make it possible to significantly increased frequency of trains, improve feeder bus service, travel at higher speeds, and achieve better on-time performance.

The “better” scenario would provide greater funding stability for transit and spur economic growth. An increase in state investment in transit could lead to unprecedented growth in the system, providing service to meet the growing demand in ridership.

With a “better” level of investment, all existing intercity bus service would be preserved. This investment would provide for one small to moderate terminal project each year. This level of investment would also establish a new program that would provide capital assistance to innovative public-private partnerships for shuttle bus service.

A “better” level of investment could be used to help fund past applications to the New Freedom program and the Transportation to Work program which had to be declined previously for lack of available funds.

Figure A: Summary of Transportation Investment Scenarios

Investment Scenario	Aviation	Highway, Road & Bridge ¹¹	Intermodal Passenger	Intermodal Freight	Total Across Modes
Do Nothing	\$121M	\$1,900M	\$241M	\$14M	\$2,276M
State & Local Funds	\$16M	\$1,653M	\$193M	\$7M ¹²	\$1,869M
Federal Funds Leveraged (avg per year)	\$105M	\$247M	\$48M	\$7M	\$407M
Federal Funds at Risk (avg per year)	(\$16M)	(\$954M) ¹³	(\$112M)	(\$0)	(\$1,082M)
Jobs Lost ¹⁴	(416)	(13,532)	(3,516)	(N/A) ¹⁵	(17,464)
Good	\$242 M	\$6,136M	\$773M	\$19M	\$7,170M
State & Local Funds	\$79M	\$4,935M	\$508M	\$12M	\$5,534M
Federal Funds Leveraged (avg per year)	\$163M*	\$1,201M	\$265M*	\$7M	\$1,636M
Jobs Supported	3,800	87,000	35,100	250	126,150
Other Benefits	Not Available	\$37,000M	\$4,369M	\$31M	\$41,400M
Better	\$327M	\$12,696M	\$1,336M	\$41M	\$14,400M
State & Local Funds	\$130M	\$11,495M	\$779M	\$34M	\$12,438M
Federal Funds Leveraged (avg per year)	\$197M*	\$1,201M	\$557M*	\$7M	\$1,962M
Jobs Supported	5,200	179,000	59,000	600	243,800
Other Benefits	Not available	\$76,200M	\$7,449M	Not available	\$83,649M

¹¹ Current investment among road agencies is \$3.2 Billion (FY 08), putting the current total across modes at \$3.576 Billion. Doing nothing will result in a decrease in funds available for investment in highways, roads and bridges.

¹² This amount only reflects rail investment. Trucking and air cargo are in their respective columns. No other freight funds were identified.

¹³ Estimates of federal aid are subject to change based on decisions made by the federal government.

¹⁴ Aviation - One job is estimated to be supported for every \$60,000 spent. This figure includes direct and indirect jobs from construction expenditures, but does not reflect additional jobs created by increased passenger or cargo traffic as a result (Adapted from economic benefits studies of Detroit Metro and Willow Run Airports). Highway, Road, and Bridge - One job is estimated to be supported for every \$70,500 spent. (Adapted from U of M's Economic Benefits of MDOT's 2007-2011 Highway Program). Intermodal Passenger - One job is estimated to be supported for every \$32,000 invested in capital for transit. (Adapted from Cambridge Systematics Study, E-1).

Intermodal Freight - With no federal funds at risk, there will be no job loss.

¹⁵ The investment scenarios for intermodal freight were not included. Only rail investments were identified by the CAC Intermodal Subcommittee. Air and truck-cargo investment needs were included with their respective infrastructure, and no specific marine cargo investments were identified. Rail infrastructure supports over 4,000 jobs in the state, however, there was not a comparable calculation identified to accurately identify "jobs supported" by the investment scenarios as was done for other modes.

* Federal funds leveraged includes possible competitive federal grants that could be available.