New Mexico Transportation by the Numbers

MEETING THE STATE'S NEED FOR SAFE, SMOOTH AND EFFICIENT MOBILITY



FEBRUARY 2019

TRIPNET.ORG

Founded in 1971, TRIP ® of Washington, DC, is a nonprofit organization that researches, evaluates and distributes economic and technical data on surface transportation issues. TRIP is sponsored by insurance companies, equipment manufacturers, distributors and suppliers; businesses involved in highway and transit engineering and construction; labor unions; and organizations concerned with efficient and safe surface transportation.

NEW MEXICO KEY TRANSPORTATION FACTS

THE HIDDEN COSTS OF DEFICIENT ROADS

Driving on New Mexico roads that are deteriorated, congested and that lack some desirable safety features costs New Mexico drivers a total of \$2.7 billion each year. TRIP has calculated the cost to the average motorist in the state's largest urban areas in the form of additional vehicle operating costs (VOC) as a result of driving on rough roads, the cost of lost time and wasted fuel due to congestion, and the financial cost of traffic crashes.

Location	VOC	Safety	Congestion	TOTAL
Albuquerque	\$698	\$291	\$1,069	\$2,058
Las Cruces	\$640	\$253	\$265	\$1,158
Santa Fe	\$652	\$289	\$527	\$1,468
NEW MEXICO STATEWIDE	\$1.2 Billion	\$726 Million	\$784 Million	\$2.7 Billion

NEW MEXICO ROADS PROVIDE A ROUGH RIDE

Due to inadequate state and local funding, 56 percent of major roads and highways in New Mexico are in poor or mediocre condition. Driving on rough roads costs the average New Mexico driver \$769 annually in additional vehicle operating costs – a total of \$1.2 billion statewide.

Location	Poor	Mediocre	Fair	Good
Albuquerque	26%	27%	12%	35%
Las Cruces	20%	31%	18%	31%
Santa Fe	23%	26%	18%	34%
NEW MEXICO STATEWIDE	31%	25%	12%	32%

NEW MEXICO BRIDGE CONDITIONS

Six percent of New Mexico's bridges are structurally deficient, meaning there is significant deterioration of the bridge deck, supports or other major components. Most bridges are designed to last 50 years before major overhaul or replacement, although many newer bridges are being designed to last 75 years or longer. In New Mexico, 48 percent of the state's bridges were built in 1969 or earlier.

Location	Number Structurally Deficient	Share Structurally Deficient	Total Bridges
Albuquerque	7	1%	492
Las Cruces	16	6%	250
Santa Fe	9	4%	249
STATEWIDE	251	6%	3,999

NEW MEXICO ROADS ARE INCREASINGLY CONGESTED

Congested roads choke commuting and commerce and cost New Mexico drivers \$784 million each year in the form of lost time and wasted fuel. In the most congested urban areas, drivers lose up to \$1,069 and more than one full working week each year in congestion. From 2013 to 2017, vehicle

miles of travel in New Mexico increased 18 percent, the fastest rate of growth in the nation during that period.

Location	Hours Lost to	Annual Cost Per Driver
Albuquerque	Congestion 42	\$1,069
Las Cruces	9	\$265
Santa Fe	22	\$527

NEW MEXICO TRAFFIC SAFETY AND FATALITIES

From 2013 to 2017, 1,772 people were killed in traffic crashes in New Mexico. Traffic crashes imposed a total of \$2.2 billion in economic costs in New Mexico in 2017 and traffic crashes in which roadway features were likely a contributing factor imposed \$726 million in economic costs each year.

NEEDED PROJECTS OF REGIONAL SIGNIFICANCE

The New Mexico Department of Transportation has identified approximately \$3 billion in needed but unfunded transportation projects throughout the state.

Route or	Project	Estimated		
Corridor	Description	Cost +/-		
	Southwest New Mexico and Border Region (District 1)			
NM 404/NM 213	El Paseo North Bypass. New four-lane corridor to match TXDOT improvements, including reconfiguration of NM 404/NM 213 Intersection.	\$75M		
NM 11	Deming truck bypass, including replacement/widening on NM 11.	\$100M		
NM 9 Corridor	147 mile route, parallel to NM/Mexico border crossings. Provides I-10 detour and connects all international land ports of entries.	\$350M		
I-10 Corridor	Reconstruct pavement and infrastructure to current design standards.	\$850M		
	Southeast New Mexico and Permian Basin (District 2)			
US 285	South of Carlsbad. Need to accommodate heavy oilfield truck traffic and improve safety.	\$45M		
NM 128	Jal to NM 31 north of Loving, 52 mile corridor. Need to accommodate heavy oilfield truck traffic and improve safety.	\$154M		
NM 31	Construction of 22 miles of NM 31 to connect US 285 near Loving with US 62 and NM 128 to accommodate heavy oilfield truck traffic and safety concerns.	\$70M		
US 380	Passing lanes, Roswell to Tatum, one passing lane in each direction every ten miles to state line.	\$30M		
US 70	Portalis to Clovis, pavement rehabilitation, turnouts and medians to accommodate commercial vehicles and increased traffic.	\$13M		
WIPP Routes	Current WIPP transport routes are congested with oilfield traffic. Secondary routes would need to be brought to good repair before being used as alternates, primary routes need repairs.	\$72M		

	Albuquerque Metro Area and Central Rio Grande Corridor - District 3	
I-25 / Gibson	Interchange reconfiguration to replace deficient bridges and geometry,	\$60M
Interchange	address ramp spacing and add auxiliary lanes.	700141
	Corridor development to improve traffic operations, congestion, safety	
I-25 / Los Lunas	7 / Los Lunas and economic development. Inculdes new interchange on I-25 (1 mi.	
Corridor Interchange	south of NM 6) to NM 47 with build out to the east including a new river	\$96M
	crossing.	
	Paseo del Volcan from US 550 to I-40. Expand the portion already	
PDV Corridor	constructed including north bypass loop around Albuquerque to relieve	\$120M
	congestion on I-40 and I-25 throughout the city.	
South Coors at NM	NM 45 from Eduardo/Old Coors to I-25/Coors Overpass and Rio Bravo to	
45	improve Coors and adress multimodal needs, congestion and traffic	\$45M
43	progression.	
Southorn SE Loon	Gibson Bypass would improve traffic flow across southeast Albuquerque	
Southern SE Loop Extension	(Gibson/Louisiana to Euban/Southern) and improve security and access at	\$40M
Extension	Kirkland Air Force Base.	
	Northwest New Mexico and Northern Rio Grande Corridor (District 5)	
I-25	Adding third lane to I-25 between Bernalillo and Santa Fe in each direction	\$250M
1-25	and pavement preservation.	ΣΖΟΙVΙ
NM 170	Adding shoulders and pavement preservation from Farmington to the	\$20M
INIVI 170	Colorado border (18 miles).	γεσινί
Los Alamos Bypass	Construction of a new 2-lane facility from NM599 to NM4 and bridge	\$67M
LOS Alamos bypass	crossing of the Rio Grande.	307101
US 491	Pavement preservation and shoulder widening for US 491 from Shiprock	\$18M
03 491	to Boulder (approx 15 miles).	ΣΙΟΙVΙ
	West-Central New Mexico, Gallup and Grants Area (District 6)	
I-40 Allison	93 miles of this corridor need repair, reconstruction and realignment	\$187M
Corridor/Interchange	including crossings, frontage roads and a median barrier.	Σ107 Ι VΙ
Allison Corridor/NM	Existing interchanges become congested daily. West bypass/interchange	
118 Gallup	would mitigate US 491/I-40 congestion, increase safety, remove one at-	\$57M
Interchange	grade rail crossing and promote additional economic development.	
	Corridor reconstruction to enhance safety, improve mobility, enhance	
	economic development and increase tourism in Cibola County.	
NN 547	Improvement (from NM122 to Mt. Taylor base) include	\$34M
	bicycle/pedestrian/shoulder improvements, roadway reconstruction and	
	realignment for 13.6 miles.	

TRANSPORTATION AND ECONOMIC DEVELOPMENT

Each year, \$123.5 billion in goods are shipped to and from sites in New Mexico, mostly by truck. The value of freight shipped to and from sites in New Mexico, in inflation-adjusted dollars, is expected to increase 110 percent by 2045.

The design, construction and maintenance of transportation infrastructure in New Mexico supports 26,300 full-time jobs across all sectors of the state economy. These workers earn \$802.3 million annually. Nearly 350,000 full-time jobs in New Mexico in key industries like tourism, retail sales, agriculture and manufacturing are completely dependent on the state's transportation network.

INTRODUCTION

New Mexico's roads, highways and bridges form vital transportation links for the state's residents, visitors and businesses, providing daily access to homes, jobs, shopping, natural resources and recreation. Modernizing New Mexico's transportation system is critical to quality of life and economic competitiveness in the Land of Enchantment. Inadequate transportation investment, which will result in deteriorated transportation facilities and diminished access, will negatively affect New Mexico's economic competitiveness and quality of life.

To accommodate population and economic growth, maintain its level of economic competitiveness and achieve further economic growth, New Mexico will need to maintain and modernize its roads, highways and bridges by improving the physical condition of its transportation network and enhancing the system's ability to provide efficient, reliable and safe mobility for residents, visitors and businesses. Making needed improvements to New Mexico's roads, highways, bridges and transit systems could also provide a significant boost to the state's economy by creating jobs in the short term and stimulating long-term economic growth as a result of enhanced mobility and access.

This report examines the condition, use and safety of New Mexico's roads, highways and bridges, and the state's future mobility needs. Sources of information for this report include the New Mexico Department of Transportation (NMDOT), Federal Highway Administration (FHWA), the American Association of State Highway and Transportation Officials (AASHTO), the Bureau of Transportation Statistics (BTS), the U.S. Census Bureau, the Texas Transportation Institute (TTI), the American Road & Transportation Builders Association (ARTBA) and the National Highway Traffic Safety Administration (NHTSA).

An urban area is defined as a region's municipalities and surrounding suburbs for pavement condition and congestion data; bridge and traffic fatality data include a region's major counties.¹

POPULATION, TRAVEL AND ECONOMIC TRENDS IN NEW MEXICO

New Mexico motorists and businesses require a high level of personal and commercial mobility. To foster quality of life and spur continued economic growth, it is critical that the state provide a safe and modern transportation system that can accommodate future growth in population, tourism, business, recreation and vehicle travel.

The rate of increase in vehicle travel in New Mexico is among the fastest in the nation. From 2000 to 2017, vehicle miles of travel (VMT) in New Mexico increased 30 percent, from 22.8 billion VMT to 29.7 million VMT, the seventh highest rate of growth in the nation during that time. ² From 2013-

2017, VMT in New Mexico increased 18 percent, the fastest rate of growth in the nation during that time.³

New Mexico's population grew to approximately 2.1 million residents in 2018, a 15 percent increase since 2000.⁴ New Mexico had approximately 1.5 million licensed drivers in 2016.⁵ From 2000 to 2017, New Mexico's gross domestic product (GDP), a measure of the state's economic output, increased by 26 percent, when adjusted for inflation.⁶ U.S. GDP increased 37 percent during the same period.⁷

CONDITION OF NEW MEXICO ROADS

The life cycle of New Mexico's roads is greatly affected by the state and local governments' ability to perform timely maintenance and upgrades to ensure that road and highway surfaces last as long as possible.

The pavement data in this report, which is for all arterial and collector roads and highways, is provided by the Federal Highway Administration (FHWA), based on data submitted annually by the New Mexico Department of Transportation on the condition of major state and locally maintained roads and highways. Pavement data for Interstate highways and other principal arterials is collected for all system mileage, whereas pavement data for minor arterial and all collector roads and highways is based on sampling portions of roadways as prescribed by FHWA to insure the data collected is adequate to provide an accurate assessment of pavement conditions on these roads and highways.

Statewide, more than half of New Mexico's major roads are in poor or mediocre condition.

Thirty-one percent of New Mexico's major locally and state-maintained roads are in poor condition and 25 percent are in mediocre condition.⁸ Twelve percent of New Mexico's major roads are in fair condition and the remaining 32 percent are in good condition.⁹

Thirty-two percent of New Mexico's major locally and state-maintained urban roads and highways have pavements rated in poor condition and 27 percent are in mediocre condition. ¹⁰

Fourteen percent of New Mexico's major urban roads are rated in fair condition and the remaining 27 percent are rated in good condition. ¹¹

Thirty percent of New Mexico's major locally and state-maintained rural roads and highways have pavements rated in poor condition and 25 percent are in mediocre condition. Twelve percent of New Mexico's major rural roads are rated in fair condition and the remaining 33 percent are rated in

good condition.¹³ The chart below details pavement conditions on major urban roads in the state's largest urban areas.¹⁴

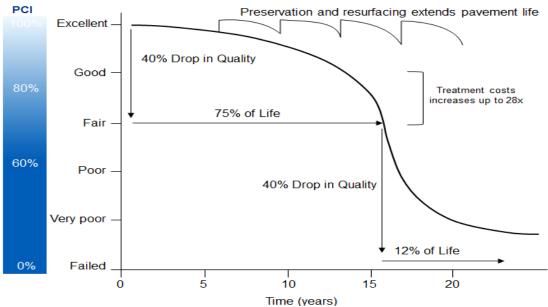
Chart 1. Pavement conditions on major roads in New Mexico's largest urban areas and statewide.

Location	Poor	Mediocre	Fair	Good
Albuquerque	26%	27%	12%	35%
Las Cruces	20%	31%	18%	31%
Santa Fe	23%	26%	18%	34%
NEW MEXICO STATEWIDE	31%	25%	12%	32%

Source: TRIP analysis of Federal Highway Administration data.

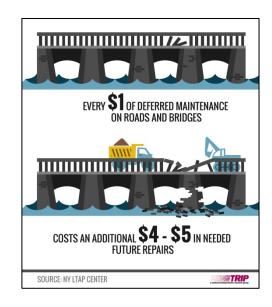
Pavement failure is caused by a combination of traffic, moisture and climate. Moisture often works its way into road surfaces and the materials that form the road's foundation. Road surfaces at intersections are more prone to deterioration because the slow-moving or standing loads occurring at these sites subject the pavement to higher levels of stress. It is critical that roads are fixed before they require major repairs because reconstructing roads costs approximately four times more than resurfacing them. As roads and highways continue to age, they will reach a point of deterioration where routine paving and maintenance will not be adequate to keep pavement surfaces in good condition and costly reconstruction of the roadway and its underlying surfaces will become necessary.

Chart 2. Pavement Condition Cycle Time with Treatment and Cost



Source: North Carolina Department of Transportation (2016). <u>2016 Maintenance Operations and Performance Analysis Report</u>

Long-term repair costs increase significantly when road and bridge maintenance is deferred, as road and bridge deterioration accelerates later in the service life of a transportation facility and requires more costly repairs. A report on maintaining pavements found that every \$1 of deferred maintenance on roads and bridges costs an additional \$4 to \$5 in needed future repairs. ¹⁶



THE COST TO MOTORISTS OF ROADS IN INADEQUATE CONDITION

TRIP has calculated the additional cost to motorists of driving on roads in poor, mediocre or fair condition. When roads are in poor, mediocre or fair condition – which may include potholes, rutting or rough surfaces – the cost to operate and maintain a vehicle increases. These additional vehicle operating costs (VOC) include accelerated vehicle depreciation, additional vehicle repair costs, increased fuel consumption and increased tire wear. TRIP estimates that additional VOC borne by New Mexico motorists as a result of deteriorated road conditions is \$1.2 billion annually, an average of \$769 per driver statewide. The chart below details additional VOC per motorist in the state's largest urban areas.

Chart 3. Vehicle operating costs per motorist as a result of driving on deteriorated roads.

Location	VOC
Albuquerque	\$698
Las Cruces	\$640
Santa Fe	\$652
NEW MEXICO STATEWIDE	\$1.2 Billion

Source: TRIP estimates.

Additional vehicle operating costs have been calculated in the Highway Development and Management Model (HDM), which is recognized by the U.S. Department of Transportation and more than 100 other countries as the definitive analysis of the impact of road conditions on vehicle operating costs. The HDM report is based on numerous studies that have measured the impact of various factors, including road conditions, on vehicle operating costs. The HDM study found that road deterioration increases ownership, repair, fuel and tire costs. The report found that deteriorated roads

accelerate the pace of depreciation of vehicles and the need for repairs because the stress on the vehicle increases in proportion to the level of roughness of the pavement surface. Similarly, tire wear and fuel consumption increase as roads deteriorate since there is less efficient transfer of power to the drive train and additional friction between the road and the tires.

TRIP's additional VOC estimate is based on taking the average number of miles driven annually by a motorist, calculating current VOC based on AAA's 2018 VOC and then using the HDM model to estimate the additional VOC paid by drivers as a result of substandard roads.¹⁹ Additional research on the impact of road conditions on fuel consumption by the Texas Transportation Institute (TTI) is also factored in to TRIP's vehicle operating cost methodology.

BRIDGE CONDITIONS IN NEW MEXICO

New Mexico's bridges form key links in the state's highway system, providing communities and individuals access to employment, schools, shopping and medical facilities, and facilitating commerce and access for emergency vehicles.

Six percent of New Mexico's locally and state-maintained bridges are structurally deficient.²⁰ This includes all bridges that are 20 feet or more in length. A bridge is rated structurally deficient if there is significant deterioration of the bridge deck, supports or other major components. Bridges that are structurally deficient may be posted for lower weight limits or closed if their condition warrants such action. Deteriorated bridges can have a significant impact on daily life. Restrictions on vehicle weight may cause many vehicles – especially emergency vehicles, commercial trucks, school buses and farm equipment – to use alternate routes to avoid posted bridges. Redirected trips also lengthen travel time, waste fuel and reduce the efficiency of the local economy. Bridges rated fair have been found to have some minor deterioration of the bridge deck, supports or other major components.

Most bridges are designed to last 50 years before major overhaul or replacement, although many newer bridges are being designed to last 75 years or longer. In New Mexico, 48 percent of the state's bridges were built in 1969 or earlier.²¹

The chart below details the number and share of bridges in the state's largest urban areas and statewide that are structurally deficient.

Chart 4. Number and share of bridges in poor, fair and good condition statewide and in New Mexico's largest urban areas.

Location	Number Structurally Deficient	Share Structurally Deficient	Total Bridges
Albuquerque	7	1%	492
Las Cruces	16	6%	250
Santa Fe	9	4%	249
STATEWIDE	251	6%	3,999

Source: TRIP analysis of Federal Highway Administration National Bridge Inventory (2017).

The service life of bridges can be extended by performing routine maintenance such as resurfacing decks, painting surfaces, insuring that a facility has good drainage and replacing deteriorating components. But, most bridges will eventually require more costly reconstruction or major rehabilitation to remain operable.

TRAFFIC SAFETY IN NEW MEXICO

A total of 1,772 people were killed in New Mexico traffic crashes from 2013 to 2017, an average of 354 fatalities per year.²²

Chart 5. Traffic Fatalities in New Mexico 2013 - 2017.

Year	Fatalities
2013	310
2014	383
2015	298
2016	402
2017	379
TOTAL	1,772

Source: National Highway Traffic Safety Administration.

Three major factors are associated with fatal vehicle crashes: driver behavior, vehicle characteristics and roadway features. It is estimated that roadway features are likely a contributing factor in approximately one-third of fatal traffic crashes. Roadway features that impact safety include the number of lanes, lane widths, lighting, lane markings, rumble strips, shoulders, guard rails, other shielding devices, median barriers and intersection design.

New Mexico's overall traffic fatality rate of 1.28 fatalities per 100 million vehicle miles of travel in 2017 is higher than the national average of 1.16.²³

The chart below details the number of people killed in traffic crashes in the state's largest urban areas between 2013 and 2017, and the cost of traffic crashes per driver.

Chart 6. Average fatalities between 2013 and 2017 and crash cost per driver.

Location	Average Fatalities 2013-2017	Safety Cost
Albuquerque	75	\$291
Las Cruces	21	\$253
Santa Fe	16	\$289
NEW MEXICO STATEWIDE	354	\$726 Million

Source: TRIP analysis.

Traffic crashes in New Mexico imposed a total of \$2.2 billion in economic costs in 2017.²⁴ TRIP estimates that roadway features were likely a contributing factor in approximately one-third of all fatal traffic crashes, resulting in \$726 billion in economic costs in 2017.²⁵ According to a 2015 National Highway Traffic Safety Administration (NHTSA) report, the economic costs of traffic crashes includes work and household productivity losses, property damage, medical costs, rehabilitation costs, legal and court costs, congestion costs and emergency services.²⁶

Improving safety on New Mexico's roadways can be achieved through further improvements in vehicle safety; improvements in driver, pedestrian, and bicyclist behavior; and, a variety of improvements in roadway safety features.

The severity of serious traffic crashes could be reduced through roadway improvements, where appropriate, such as adding turn lanes, removing or shielding obstacles, adding or improving medians, widening lanes, widening and paving shoulders, improving intersection layout, and providing better road markings and upgrading or installing traffic signals. Roads with poor geometry, with insufficient clear distances, without turn lanes, having inadequate shoulders for the posted speed limits, or poorly laid out intersections or interchanges, pose greater risks to motorists, pedestrians and bicyclists.

Investments in rural traffic safety have been found to result in significant reductions in serious traffic crashes. A <u>2012 report by TTI</u> found that improvements completed recently by TxDOT that widened lanes, improved shoulders and made other safety improvements on 1,159 miles of rural state roadways resulted in 133 fewer fatalities on these roads in the first three years after the improvements were completed (as compared to the three years prior).²⁷ TTI estimates that the improvements on these roads are likely to save 880 lives over 20 years.²⁸

TRAFFIC CONGESTION IN NEW MEXICO

Increasing levels of traffic congestion cause significant delays in New Mexico, particularly in its larger urban areas, choking commuting and commerce. Traffic congestion robs commuters of time and

money and imposes increased costs on businesses, shippers and manufacturers, which are often passed along to the consumer. Increased levels of congestion can also reduce the attractiveness of a location to a company when considering expansion or where to locate a new facility.

Based on TTI methodology, TRIP estimates the value of lost time and wasted fuel in New Mexico is approximately \$784 million a year. The chart below details the number of hours lost annually for each driver in the state's largest urban areas, and the per-driver cost of lost time and wasted fuel due to congestion.

Chart 7. Annual hours lost to congestion and congestion costs per driver.

Location	Hours Lost to Congestion	Annual Cost Per Driver
Albuquerque	42	\$1,069
Las Cruces	9	\$265
Santa Fe	22	\$527

Source: TRIP estimates based on Texas Transportation Institute Urban Mobility Report.

TRANSPORTATION AND ECONOMIC GROWTH

Today's culture of business demands that an area have well-maintained and efficient roads, highways and bridges if it is to remain economically competitive. Global communications and the impact of free trade in North America and elsewhere have resulted in a significant increase in freight movement, making the quality of a region's transportation system a key component in a business's ability to compete locally, nationally and internationally.

Businesses have responded to improved communications and the need to cut costs with a variety of innovations including just-in-time delivery, increased small package delivery, demand-side inventory management and e-commerce. The result of these changes has been a significant improvement in logistics efficiency as firms move from a push-style distribution system, which relies on large-scale warehousing of materials, to a pull-style distribution system, which relies on smaller, more strategic movement of goods. These improvements have made mobile inventories the norm, resulting in the nation's trucks literally becoming rolling warehouses.

Highways are vitally important to continued economic development in New Mexico. As the economy expands, creating more jobs and increasing consumer confidence, the demand for consumer and business products grows. In turn, manufacturers ship greater quantities of goods to market to meet this demand, a process that adds to truck traffic on the state's highways and major arterial roads.

Every year, \$123.5 billion in goods are shipped to, from and within sites in New Mexico, mostly by trucks.²⁹ Sixty-nine percent of the goods shipped annually to and from sites in New Mexico are carried by trucks and another 13 percent are carried by courier services or multiple-mode deliveries, which include trucking.³⁰ The value of freight shipped to and from sites in New Mexico, in inflation-adjusted dollars, is expected to increase 110 percent by 2045.³¹

The design, construction and maintenance of transportation infrastructure in New Mexico play a critical role in the state's economy, supporting the equivalent of 26,300 full-time jobs across all sectors of the state economy, earning these workers approximately \$802.3 million annually.³² These jobs include 13,102 full-time jobs directly involved in transportation infrastructure construction and related activities. Spending by employees and companies in the transportation design and construction industry support an additional 13,198 full-time jobs.³³

Transportation construction in New Mexico contributes an estimated \$146.3 million annually in state and local income, corporate and unemployment insurance taxes and the federal payroll tax.³⁴

Nearly 350,000 full-time jobs in New Mexico in key industries like tourism, retail sales, agriculture and manufacturing are dependent on the quality, safety and reliability of the state's transportation infrastructure network. These workers earn \$12.1 billion in wages and contribute an estimated \$2.2 billion in state and local income, corporate and unemployment insurance taxes and the federal payroll tax.³⁵

Local, regional and state economic performance is improved when a region's surface transportation system is expanded or repaired. This improvement comes as a result of the initial job creation and increased employment created over the long-term because of improved access, reduced transport costs and improved safety.

Increasingly, companies are looking at the quality of a region's transportation system when deciding where to re-locate or expand. Regions with congested or poorly maintained roads may see businesses relocate to areas with a smoother, more efficient and more modern transportation system. Highway accessibility was ranked the number one site selection factor in a 2017 survey of corporate executives by Area Development Magazine. Labor costs and the availability of skilled labor, which are both impacted by a site's level of accessibility, were rated second and third, respectively. ³⁶

NEEDED PROJECTS AND TRANSPORTATION FUNDING

Investment in New Mexico's roads, highways and bridges is funded by local, state and federal governments. A lack of sufficient funding at all levels will make it difficult to adequately maintain and improve the state's existing transportation system.

The New Mexico Department of Transportation has identified approximately \$3 billion in needed but unfunded transportation projects throughout the state. A list of needed projects is below.

Route or	Project	Estimated	
Corridor	Description	Cost +/-	
Southwest New Mexico and Border Region (District 1)			
NM 404/NM 213	El Paseo North Bypass. New four-lane corridor to match TXDOT	\$75M	
	improvements, including reconfiguration of NM 404/NM 213 Intersection.		
NM 11	Deming truck bypass, including replacement/widening on NM 11.	\$100M	
NM 9 Corridor	147 mile route, parallel to NM/Mexico border crossings. Provides I-10	\$350M	
	detour and connects all international land ports of entries.		
I-10 Corridor	Reconstruct pavement and infrastructure to current design standards.	\$850M	
Southeast New Mexico and Permian Basin (District 2)			
US 285	South of Carlsbad. Need to accommodate heavy oilfield truck traffic and	\$45M	
	improve safety.	\$45IVI	
NM 128	Jal to NM 31 north of Loving, 52 mile corridor. Need to accommodate	\$154M	
	heavy oilfield truck traffic and improve safety.		
NM 31	Construction of 22 miles of NM 31 to connect US 285 near Loving with US	\$70M	
	62 and NM 128 to accommodate heavy oilfield truck traffic and safety		
	concerns.		
US 380	Passing lanes, Roswell to Tatum, one passing lane in each direction every	\$30M	
	ten miles to state line.		
US 70	Portalis to Clovis, pavement rehabilitation, turnouts and medians to	\$13M	
	accommodate commercial vehicles and increased traffic.		
WIPP Routes	Current WIPP transport routes are congested with oilfield traffic.	\$72M	
	Secondary routes would need to be brought to good repair before being		
	used as alternates, primary routes need repairs.		

Albuquerque Metro Area and Central Rio Grande Corridor - District 3			
I-25 / Gibson	Interchange reconfiguration to replace deficient bridges and geometry,	\$60M	
Interchange	address ramp spacing and add auxiliary lanes.	\$00IVI	
	Corridor development to improve traffic operations, congestion, safety		
I-25 / Los Lunas	and economic development. Inculdes new interchange on I-25 (1 mi.	\$96M	
Corridor Interchange	south of NM 6) to NM 47 with build out to the east including a new river	۱۱۱۵۶۶	
	crossing.		
PDV Corridor	Paseo del Volcan from US 550 to I-40. Expand the portion already		
	constructed including north bypass loop around Albuquerque to relieve	\$120M	
	congestion on I-40 and I-25 throughout the city.		
South Coors at NM 45	NM 45 from Eduardo/Old Coors to I-25/Coors Overpass and Rio Bravo to		
	improve Coors and adress multimodal needs, congestion and traffic	\$45M	
	progression.		
Southern SE Loop	Gibson Bypass would improve traffic flow across southeast Albuquerque		
Extension	(Gibson/Louisiana to Euban/Southern) and improve security and access at	\$40M	
LXterision	Kirkland Air Force Base.		
Northwest New Mexico and Northern Rio Grande Corridor (District 5)			
I-25	Adding third lane to I-25 between Bernalillo and Santa Fe in each direction	\$250M	
	and pavement preservation.	7230IVI	
NM 170	Adding shoulders and pavement preservation from Farmington to the	\$20M	
INIVI 170	Colorado border (18 miles).	Ψ201V1	
Los Alamos Bypass	Construction of a new 2-lane facility from NM599 to NM4 and bridge	\$67M	
LOS Alamos bypass	crossing of the Rio Grande.	7071V1	
US 491	Pavement preservation and shoulder widening for US 491 from Shiprock	\$18M	
	to Boulder (approx 15 miles).	\$10W	
West-Central New Mexico, Gallup and Grants Area (District 6)			
I-40 Allison	93 miles of this corridor need repair, reconstruction and realignment	\$187M	
Corridor/Interchange	including crossings, frontage roads and a median barrier.	Ψ107.11.	
Allison Corridor/NM	Existing interchanges become congested daily. West bypass/interchange		
118 Gallup	would mitigate US 491/I-40 congestion, increase safety, remove one at-	\$57M	
Interchange	grade rail crossing and promote additional economic development.		
NN 547	Corridor reconstruction to enhance safety, improve mobility, enhance		
	economic development and increase tourism in Cibola County.		
	Improvement (from NM122 to Mt. Taylor base) include	\$34M	
	bicycle/pedestrian/shoulder improvements, roadway reconstruction and		
	realignment for 13.6 miles.		

The federal government is a critical source of funding for New Mexico's roads, highways, bridges and transit systems and provides a significant return in road and bridge funding based on the revenue generated in the state by the federal motor fuel tax.

Most federal funds for highway and transit improvements in New Mexico are provided by federal highway user fees, largely an 18.4 cents-per-gallon tax on gasoline and a 24.4 cents-per-gallon tax on diesel fuel. Since 2008 revenue into the federal Highway Trust Fund has been inadequate to

support legislatively set funding levels so

Congress has transferred approximately \$53

billion in general funds and an additional \$2

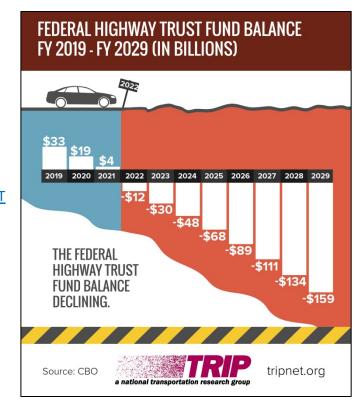
billion from a related trust fund into the federal

Highway Trust Fund.³⁷

Signed into law in December 2015, the

Fixing America's Surface Transportation Act (FAST

Act), provides modest increases in federal
highway and transit spending. The five-year bill
also provides states with greater funding
certainty and streamlines the federal project
approval process. But, the FAST Act does not
provide adequate funding to meet the nation's
need for highway and transit improvements and



does not include a long-term and sustainable funding source.

The five-year, \$305 billion FAST Act will provide a boost of approximately 15 percent in highway funding and 18 percent in transit funding over the duration of the program, which expires in 2020.³⁸ In addition to federal motor fuel tax revenues, the FAST Act will also be funded by \$70 billion in U.S. general funds, which will rely on offsets from several unrelated federal programs including the Strategic Petroleum Reserve, the Federal Reserve and U.S. Customs.

According to the 2015 Status of the Nation's Highways, Bridges and Transit: Conditions and Performance report submitted by the United States Department of Transportation (USDOT) to Congress, the nation faces an \$836 billion backlog in needed repairs and improvements to the nation's roads, highways and bridges.³⁹ The USDOT report found that the nation's current \$105 billion investment in roads, highways and bridges by all levels of government should be increased by 35 percent to \$142.5 billion annually to improve the conditions of roads, highways and bridges, relieve traffic congestion and improve traffic safety.

As New Mexico works to build and enhance a thriving, growing and dynamic state, it will be critical that it is able to address the state's most significant transportation issues by providing a 21st century network of roads, highways, bridges and transit that can accommodate the mobility demands of a modern society.

New Mexico will need to modernize its surface transportation system by improving the physical condition of its transportation network and enhancing the system's ability to provide efficient, safe and reliable mobility for residents, visitors and businesses. Making needed improvements to the state's roads, highways, bridges and transit systems would provide a significant boost to the economy by creating jobs in the short term and stimulating long-term economic growth as a result of enhanced mobility and access.

Despite the modest funding increase provided by the FAST Act, numerous projects to improve the condition and expand the capacity of New Mexico's roads, highways, bridges and transit systems will not be able to proceed without a substantial boost in state or local transportation funding. If New Mexico is unable to complete needed transportation projects it will hamper the state's ability to improve the condition and efficiency of its transportation system or enhance economic development opportunities and quality of life.

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¹ Bridge condition data and safety data for each urban area includes the counties noted: Albuquerque: Bernalillo County; Las Cruces: Dona Ana County; Santa Fe: Santa Fe County.

² U.S. Department of Transportation - Federal Highway Administration: Highway Statistics 2000, 2013 and 2017. https://www.fhwa.dot.gov/policyinformation/travel_monitoring/tvt.cfm

³ <u>Ibid.</u>

⁴ U.S. Census Bureau (2018).

⁵Highway Statistics (2016). Federal Highway Administration. DL-1C.

⁶ TRIP analysis of Bureau of Economic Analysis data.

⁷ Ibid

⁸ Federal Highway Administration (2018). Pavement condition data is for 2017.

⁹ <u>Ibid.</u>

¹⁰ Ibid.

¹¹ Ibid.

¹² Ibid.

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Selecting a Preventative Maintenance Treatment for Flexible Pavements. R. Hicks, J. Moulthrop. Transportation Research Board. 1999. Figure 1.

¹⁶ Pavement Maintenance, by David P. Orr, PE Senior Engineer, Cornell Local Roads Program, March 2006.

¹⁷ TRIP calculation.

- ¹⁸ Highway Development and Management: Volume Seven. Modeling Road User and Environmental Effects in HDM-4. Bennett, C. and Greenwood, I. 2000.
- ¹⁹ Your Driving Costs. American Automobile Association. 2018.
- ²⁰ Federal Highway Administration National Bridge Inventory. 2017.
- ²¹ TRIP analysis of Federal Highway Administration National Bridge Inventory data (2018).
- ²² Federal Highway Administration National Highway Traffic Safety Administration, 2012-2016.
- ²³ TRIP analysis of National Highway Traffic Safety Administration and Federal Highway Administration data (2018). Data is for 2017.
- ²⁴ TRIP estimate based on NHTSA report "The Economic and Societal Impact of Motor Vehicle Crashes, 2010 (Revised), 2016. P. 146.
- ²⁵ Ibid.
- ²⁶ The Economic and Societal Impact of Motor Vehicle Crashes, 2010 (Revised) (2015). National Highway Traffic Safety Administration. P. 1. https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812013
- ²⁷ Adding Highway Shoulders, Width, Reduce Crash Numbers and Save Lives (August 9, 2012). Texas Transportation Institute. https://tti.tamu.edu/2012/08/09/tti-study-analyzes-roadway-improvements/ ²⁸ <u>Ibid</u>.
- ²⁹ TRIP analysis of Bureau of Transportation Statistics, U.S. Department of Transportation. 2012 Commodity Flow Survey, State Summaries.
- 30 Ibid.
- ³¹ TRIP analysis of Federal Highway Administration's Freight Analysis Framework data (2018). Data is for 2016. https://faf.ornl.gov/fafweb/
- ³² American Road & Transportation Builders Association (2015). The 2015 U.S. Transportation Construction Industry Profile. https://www.transportationcreatesjobs.org/pdf/Economic Profile.pdf
- 33 Ibid.
- ³⁴ Ibid
- 35 Ibid.
- ³⁶ Area Development Magazine (2018). 32nd Annual Survey of Corporate Executives: Availability of Skilled Labor New Top Priority. http://www.areadevelopment.com/Corporate-Consultants-Survey-Results/Q1-2018/32nd-annual-corporate-survey-14th-annual-consultants-survey.shtml
- ³⁷ "Surface Transportation Reauthorization and the Solvency of the Highway Trust Fund," presentation by Jim Tymon, American Association of State Highway and Transportation Officials (2014).

 ³⁸ 2015 "Fixing America's Surface Transportation Act." (2015) American Road and Transportation Builders Association. http://www.artba.org/newsline/wp-content/uploads/2015/12/ANALYSIS-FINAL.pdf
 ³⁹ United States Department of Transportation (2015). 2015 Status of the Nation's Highways, Bridges, and Transit: Conditions and Performance. Executive Summary, Chapter 8.
 https://www.fhwa.dot.gov/policy/2015cpr/es.cfm#8h