MEMORANDUM

Date: November 9, 2018

To: The Honorable Chairman and Members
Pima County Board of Supervisors

From: C.H. Huckelberry
County Administrator

Re: **Failure of Proposition 463 to Repair our Roads**

While some would like to conclude that road repair is a problem unique to Pima County, it is not; 14 of Arizona's 15 counties have significant road repair issues and demands. In fact, the needs for road repair in Arizona's rural counties are more acute than those in urban counties such as Pima, Pinal and Maricopa.

Maricopa County's road repair problems have been ameliorated by their adoption of a Regional Transportation Authority sales tax 20 years before Pima County and through disproportionate and unfair distribution of Highway User Revenue Funds (HURF). Maricopa County receives more than three times the amount received by Pima County per unincorporated area resident, and more than two times the amount per county-maintained road mile.

The attached recently released TRIP Report, "The Bumpy Road Ahead: America's Roughest Rides and Strategies to Make Our Roads Smoother," indicates this is also a national problem. The report concludes that one-third of the nation's urban major roads are in poor condition, up from one-quarter in 2015. What is of interest is that Tucson has fallen off the top list of urban areas in TRIP's annual study and analysis, even while the estimated annual cost to Tucson motorists of driving on roads that have poor pavement conditions has increased. In the 2015 report, Tucson ranked 4th in the nation for large cities with the worst road conditions and highest annual costs to motorists resulting from those poor road conditions ($586 per motorist per year). In this 2018 report, while Tucson is now ranked 25th, the estimated annual cost to motorists has increased to $661 a year. The report defines Tucson as the city proper, plus surrounding suburban areas. The City of Tucson's estimate for the percent of road miles in poor or failed condition is similar to that of unincorporated Pima County at 70 percent.

More importantly, the Appendix indicates the national magnitude of this problem is estimated to be $420 billion and the lack of adequate maintenance of the nation's transportation infrastructure threatens economic development and prosperity. It also, clearly indicates the Federal Highway Trust Fund is broke and accumulating significant deficits estimated to be $161 billion by the year 2028.

Meanwhile, across the nation this week voters approved 79 percent of 346 state and local transportation investment related ballot measures, according to the attached report from the American Road and Transportation Builders Association. Similar to the County's bond measure, many of these ballot measures included funding for road repair, reconstruction and maintenance.

While the County has sought transportation revenue increases for 13 years through requests to the Arizona Legislature to increase the State's gas tax and have exhausted other options, (particularly related to the County's ability to levy a half-cent sales tax based on unanimous vote of the Board of Supervisors as well as the most recent attempt to ask voters to approve $430 million in property tax supported bonds), the problem remains.

We will continue to explore every option available to the County and the Board of Supervisors to increase transportation investment to reduce or eliminate our pavement preservation financial backlog.

CHH/anc

Attachments

c: Carmine DeBonis, Jr., Deputy County Administrator for Public Works
Ana Olivares, Director, Transportation Department
Nicole Fyffe, Executive Assistant to the County Administrator

Bumpy Road Ahead:

AMERICA'S ROUGHEST RIDES AND STRATEGIES TO MAKE OUR ROADS SMOOTHER

OCTOBER 2018

TRIP
a national transportation research group

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.

EXECUTIVE SUMMARY: KEY FACTS ABOUT OUR NATION'S URBAN ROADS

Keeping the wheel steady on America's roads and highways has become increasingly challenging as drivers encounter potholes and pavement deterioration. One-third of the nation's major urban roadways – highways and major streets that are the main routes for commuters and commerce – are in poor condition. These critical links in the nation's transportation system carry 70 percent of the approximately 3.2 trillion miles driven annually in America. Road conditions could deteriorate even further as the rate of vehicle travel continues to increase and local and state governments find they are unable to adequately fund road repairs.

In this report, TRIP examines the condition of the nation's major roads, including pavement condition data for America's most populous urban areas, recent trends in travel, the latest developments in repairing roads and building them to last longer, and the funding levels needed to adequately address America's deteriorated roadways.

For the purposes of this report, an urban area includes the major city in a region and its neighboring or surrounding suburban areas. Pavement condition data are the latest available and are derived from the Federal Highway Administration's (FHWA) 2016 annual survey of state transportation officials on the condition of major state and locally maintained roads and highways, based on a uniform pavement rating index. The pavement rating index measures the level of smoothness of pavement surfaces, supplying information on the ride quality provided by road and highway surfaces. Following are the major findings of the TRIP report.

THE NATION'S URBAN ROADS ARE INCREASINGLY DETERIORATED

One-third (33 percent) of the nation's major urban roads are rated in poor condition, providing drivers with a rough ride. The charts below detail the top 20 U.S. urban areas with the highest share of major roads in poor condition. The report's Appendix includes pavement condition data for all U.S. urban areas with a population of 200,000 or more.

Rank	Large Urban Areas - 500K+	State	Poor Share	Mid-Sized Urban Areas - 200K-500K	State	Poor Share
1	San Francisco--Oakland, CA	CA	71%	Antioch, CA	CA	57%
2	San Jose, CA	CA	64%	Concord, CA	CA	56%
3	Los Angeles--Long Beach--Anaheim, CA	CA	57%	Madison, WI	WI	49%
4	Milwaukee, WI	WI	54%	Oxnard, CA	CA	48%
5	Honolulu, HI	HI	54%	Round Lake Beach--McHenry--Grayslake, IL--WI	IL-WI	44%
6	Akron, OH	OH	49%	Jackson, MS	MS	44%
7	Cleveland, OH	OH	49%	Santa Rosa, CA	CA	43%
8	New York--Newark, NY--NJ--CT	NY-NJ-CT	46%	Green Bay, WI	WI	43%
9	Providence, RI--MA	RI-MA	46%	Stockton, CA	CA	43%
10	Philadelphia, PA--NJ--DE--MD	PA-NJ-DE-MD	43%	Victorville--Hesperia, CA	CA	42%
11	Seattle, WA	WA	41%	Appleton, WI	WI	41%
12	Sacramento, CA	CA	41%	Santa Clarita, CA	CA	41%
13	Riverside--San Bernardino, CA	CA	40%	Laredo, TX	TX	40%
14	Memphis, TN--MS--AR	TN-MS-AR	40%	Lafayette, LA	LA	40%
15	Bridgeport--Stamford, CT--NY	CT-NY	40%	Lubbock, TX	TX	39%
16	Fresno, CA	CA	40%	Fayetteville--Springdale--Rogers, AR--MO	AR-MO	38%
17	Denver--Aurora, CO	CO	40%	Thousand Oaks, CA	CA	38%
18	Baton Rouge, LA	LA	38%	Canton, OH	OH	38%
19	Colorado Springs, CO	CO	37%	Little Rock, AR	AR	38%
20	Oklahoma City, OK	OK	37%	Modesto, CA	CA	37%

ROUGH URBAN ROADS COME WITH HIGH COSTS TO DRIVERS

The average motorist in the U.S. is losing $599 annually – a total of $130 billion nationally – in additional vehicle operating costs (VOC) as a result of driving on roads in need of repair. These costs include additional repair costs, accelerated vehicle deterioration and depreciation, increased maintenance costs, and additional fuel consumption. The chart below details the top 20 U.S. urban areas (500,000+ population and 200,000-500,000 population) where motorists pay the highest annual vehicle operating costs as a result of driving on rough roads. The report's appendix includes VOC data for all urban areas with a population of 200,000 or more.

Rank	Large Urban Areas - 500K+	State	VOC	Mid-Sized Urban Areas- 200K-500K	State	VOC
1	San Francisco--Oakland, CA	CA	$ 1,049	Jackson, MS	MS	$ 944
2	San Jose, CA	CA	$ 983	Antioch, CA	CA	$ 942
3	Milwaukee, WI	WI	$ 944	Concord, CA	CA	$ 923
4	Los Angeles--Long Beach--Anaheim, CA	CA	$ 921	Madison, WI	WI	$ 910
5	Tulsa, OK	OK	$ 898	Laredo, TX	TX	$ 858
6	Oklahoma City, OK	OK	$ 897	Appleton, WI	WI	$ 855
7	Cleveland, OH	OH	$ 887	Oxnard, CA	CA	$ 852
8	Honolulu, HI	HI	$ 851	Lubbock, TX	TX	$ 801
9	Akron, OH	OH	$ 837	Green Bay, WI	WI	$ 795
10	Riverside--San Bernardino, CA	CA	$ 795	Fayetteville--Springdale--Rogers, AR--MO	AR-MO	$ 782
11	El Paso, TX--NM	TX-NM	$ 788	Santa Clarita, CA	CA	$ 780
12	Baton Rouge, LA	LA	$ 755	Santa Rosa, CA	CA	$ 776
13	Fresno, CA	CA	$ 755	Little Rock, AR	AR	$ 771
14	Sacramento, CA	CA	$ 754	Victorville--Hesperia, CA	CA	$ 768
15	Memphis, TN--MS--AR	TN-MS-AR	$ 746	Thousand Oaks, CA	CA	$ 765
16	Denver--Aurora, CO	CO	$ 739	Lafayette, LA	LA	$ 765
17	Philadelphia, PA--NJ--DE--MD	PA-NJ-DE-MD	$ 732	Stockton, CA	CA	$ 743
18	Detroit, MI	MI	$ 732	Shreveport, LA	LA	$ 727
19	Bridgeport--Stamford, CT--NY	CT	$ 730	South Bend, IN--MI	IN-MI	$ 720
20	Providence, RI--MA	RI-MA	$ 724	Fort Wayne, IN	IN	$ 719

TRAVEL AND POPULATION GROWTH ARE FURTHER STRAINING TRANSPORTATION NETWORK

Vehicle travel in the U.S. increased 16 percent from 2000 to 2016, while the nation's population grew 15 percent from 2000 to 2017. Travel by large commercial trucks increased 29 percent from 2000 to 2016. The additional travel increases the amount of road, highway and bridge investment needed to improve conditions and meet the nation's transportation needs.

A SIGNIFICANT BOOST IN FUNDING IS NEEDED TO IMPROVE ROADWAY CONDITIONS

The U.S. Department of Transportation's (USDOT) semi-annual report on the condition, use and funding needs of the nation's surface transportation program found that the current backlog in needed road and highway rehabilitation is $419.5 billion and that the nation's current $41 billion annual investment in maintaining the condition of roads and highways should be increased by 33 percent to $61 billion annually to improve the condition of America's roads and highways.

TRANSPORTATION INVESTMENT STRENGTHENS THE ECONOMY

The design, construction and maintenance of transportation infrastructure in the U.S. play a critical role in the nation's economy, supporting the equivalent of four million full-time jobs across all sectors of the nation's economy. Approximately 63 million full-time jobs in the U.S. in key industries like tourism, retail sales, agriculture and manufacturing are dependent on the quality, safety and reliability of America's transportation infrastructure network.

INTRODUCTION

From rural to suburban to urban, America's roads give us the freedom to pursue our chosen lifestyles and allow for the tremendous movement of goods and services on which our modern lives depend.

But, the daily pounding that urban roadways endure from cars and trucks has taken a toll. From coast to coast, major streets and freeways in most U.S. communities are showing significant signs of distress. The result of this increasing stress, coupled with other factors, is that one-third (33 percent) of urban streets and highways have rough pavements that provide a ride that many drivers find unacceptable. One result of driving on these rough roads and highways is that the cost to own and maintain a vehicle increases because cars and trucks require more maintenance, wear out more quickly, and consume more fuel.

This report examines the level of smoothness on the nation’s major roads and the costs to motorists of driving on roads that have pavements in poor condition. Pavement condition data is from the Federal Highway Administration (FHWA), which annually gathers data on the condition of the nation's major roads. These data are submitted annually to the FHWA by state departments of transportation. Although the data are gathered by the states, the roads and highways for which condition data are provided in this report are mostly maintained by state or local governments. The urban areas in the report are defined as the city proper and the surrounding suburban areas.

This report also looks at the current level of annual investment in maintaining pavements, the amount needed annually to keep roads in their current condition, and the amount needed annually to improve their condition. The report concludes with a series of recommendations for improving the condition of the nation's roads.

U.S. VEHICLE TRAVEL TRENDS

Increases in vehicle travel since 2000 have resulted in a significant increase in wear and tear on the nation's roads. Vehicle travel growth, which slowed significantly as a result of the Great Recession and subsequent slow economic recovery, has since returned to pre-recession growth rates. From 2000 to 2016, vehicle travel in the U.S. increased by 16 percent.[1] The rate of growth in U.S. vehicle miles of travel has accelerated since 2013, increasing by six percent between 2013 and 2016.[2]

Travel by large commercial trucks, which place significant stress on paved road and highway surfaces, continues to increase at a rate approximately double the rate for all vehicles, and is anticipated to continue to grow at a significant rate through 2030. Travel by large commercial trucks in the U.S. increased by 29 percent from 2000 to 2016.[3] The level of heavy truck travel nationally is anticipated to increase by approximately 56 percent from 2018 to 2045, putting greater stress on the nation's roadways.[4]

U.S. URBAN PAVEMENT CONDITIONS

The pavement data in this report, which is for all urban arterial and collector roads and highways, is provided by the FHWA, based on data submitted annually by state departments 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. The "ride quality" of highways and roadways is typically evaluated using the International Roughness Index (IRI), although some roads were also rated by the Present Serviceability Rating (PSR). While there may be some variance in how

transportation officials apply these indices, the FHWA data are the only national source of pavement condition ratings based on a consistent criterion.

Using this information, TRIP categorizes the condition of a region's roads and highways into poor, mediocre, fair or good condition. The FHWA has found that a road surface with an IRI rating below 95 provides a good ride quality, a road with an IRI from 95 to 170 provides an acceptable ride quality, and a road with an IRI above 170 provides an unacceptable ride quality.[5] Based on the PSR scale, road surfaces rated 3.5 or higher are in good condition, a rating of 3.1 to 3.4 indicates a road is in fair condition, roads between 2.6 to 3.0 are rated in mediocre condition, and roadways that receive a PSR rating of 2.5 or less are in poor condition. The FHWA finding is based on a study that measured driver reactions to various road conditions to determine what level of road roughness was unacceptable to most drivers.[6] The scale used to rate the condition of road and highway pavements are indicated in the following chart.

Chart 1. Pavement condition rating score, based on IRI and PSR data.

	IRI	PSR
Substandard (Poor)	Above 170	2.5 or Less
Mediocre	120-170	2.6-3.0
Fair	95-119	3.1-3.4
Good	0-94	3.5 or Higher

Source. TRIP, based on FHWA data.

An analysis of 2016 pavement data found that 33 percent of the nation's major urban roads – Interstates, freeways and other major routes – had pavements that were in poor condition.[7] These are roads and highways that provide an unacceptable ride and are in need of resurfacing or more significant repairs. TRIP's analysis of FHWA data from 2016 also found that 25 percent of these major

urban routes were in mediocre condition and 14 percent were in fair condition.[8] The remaining 28 percent of major urban highways and roads were found to provide good ride quality.[9]

TRIP calculated the share of major roads in each urban area that have pavements in poor, mediocre, fair or good condition. Drivers on roads rated as poor are likely to notice that they are driving on a rougher surface, which puts more stress on their vehicles. Roads rated as poor may have cracked or broken pavements. These roads often show significant signs of pavement wear and deterioration and may also have significant distress in their underlying foundation. Road or highway surfaces rated poor provide an unacceptable ride quality and are in need of resurfacing and some need to be reconstructed to correct problems in the underlying structure.

Roads rated as being in either mediocre or fair condition may also show some signs of deterioration and may be noticeably inferior to those of new pavements, but can still be improved to good condition with cost-effective resurfacing or other preservation treatments, which will extend the service life of the road.

Although road deterioration is often accelerated by freeze-thaw cycles, found most often in the nation's northern and mid-western regions, the urban areas with the highest share of poor pavement conditions include urban areas from a variety of geographic areas.

The chart below details the top 20 large urban areas (population of 500,000 or above) with the highest percentage of major roadways that provide poor ride quality, in order of rank. The report Appendix includes the share of pavement in poor, mediocre, fair and good condition for all U.S. urban areas over 500,000 population.

Chart 2. Large urban areas (500,000+ population) with highest share of major roads and highways in poor condition.

Rank	Large Urban Areas - 500K+	State	Poor Share
1	San Francisco--Oakland, CA	CA	71%
2	San Jose, CA	CA	64%
3	Los Angeles--Long Beach--Anaheim, CA	CA	57%
4	Milwaukee, WI	WI	54%
5	Honolulu, HI	HI	54%
6	Akron, OH	OH	49%
7	Cleveland, OH	OH	49%
8	New York--Newark, NY--NJ--CT	NY-NJ-CT	46%
9	Providence, RI--MA	RI-MA	46%
10	Philadelphia, PA--NJ--DE--MD	PA-NJ-DE-MD	43%
11	Seattle, WA	WA	41%
12	Sacramento, CA	CA	41%
13	Riverside--San Bernardino, CA	CA	40%
14	Memphis, TN--MS--AR	TN-MS-AR	40%
15	Bridgeport--Stamford, CT--NY	CT-NY	40%
16	Fresno, CA	CA	40%
17	Denver--Aurora, CO	CO	40%
18	Baton Rouge, LA	LA	38%
19	Colorado Springs, CO	CO	37%
20	Oklahoma City, OK	OK	37%

Source: TRIP analysis of FHWA data.

The chart below details the top 20 mid-sized urban areas (population of 200,000-500,000) with the highest percentage of major roadways that provide poor ride quality, in order of rank. The report Appendix includes the share of pavement in poor, mediocre, fair and good condition for all U.S. urban areas with population between 200,000-500,000.

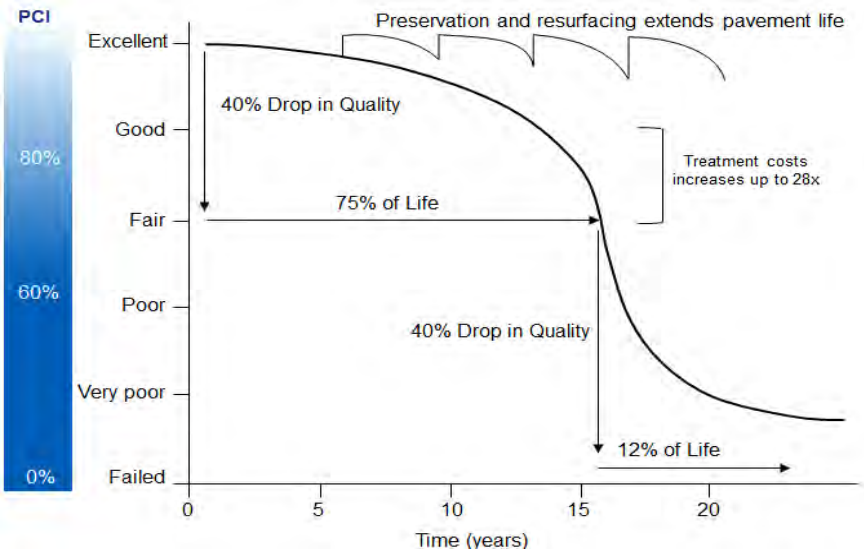
Chart 3. Mid-sized urban areas (200,000-500,000 population) with highest share of major roads and highways in poor condition.

Rank	Mid-Sized Urban Areas - 200K-500K	State	Poor Share
1	Antioch, CA	CA	57%
2	Concord, CA	CA	56%
3	Madison, WI	WI	49%
4	Oxnard, CA	CA	48%
5	Round Lake Beach--McHenry--Grayslake, IL-	IL	44%
6	Jackson, MS	MS	44%
7	Santa Rosa, CA	CA	43%
8	Green Bay, WI	WI	43%
9	Stockton, CA	CA	43%
10	Victorville--Hesperia, CA	CA	42%
11	Appleton, WI	WI	41%
12	Santa Clarita, CA	CA	41%
13	Laredo, TX	TX	40%
14	Lafayette, LA	LA	40%
15	Lubbock, TX	TX	39%
16	Fayetteville--Springdale--Rogers, AR--MO	AR	38%
17	Thousand Oaks, CA	CA	38%
18	Canton, OH	OH	38%
19	Little Rock, AR	AR	38%
20	Modesto, CA	CA	37%

Source: TRIP analysis of FHWA data.

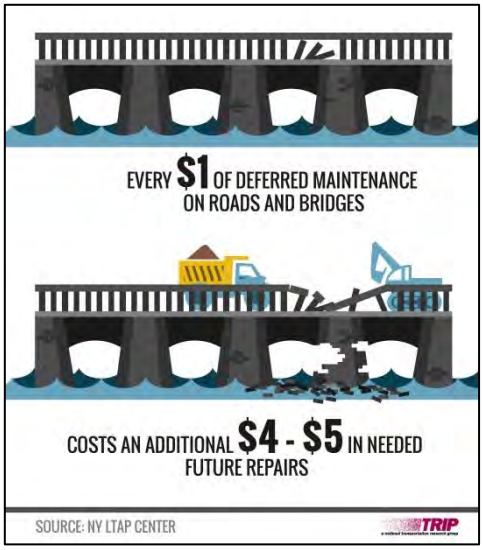
Pavement failure is caused by a combination of traffic, moisture and climate. Moisture often works its way into road surfaces and the materials that form the road's foundation. Road surfaces at intersections are more prone to deterioration because the slow-moving or standing loads occurring at these 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.[10] 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 4. Pavement Condition Cycle Time with Treatment and Cost



Source: North Carolina Department of Transportation (2016). [2016 Maintenance Operations and Performance Analysis Report]

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.[11]



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.

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.[12] 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 2017 VOC and then using the HDM model to estimate the additional VOC paid by drivers as a result of substandard roads.[13] 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.

TRIP estimates that driving on roads in need of repair costs the average driver $599 annually in extra vehicle operating costs - $130 billion nationwide. Individual driver operating costs may be somewhat higher or lower depending on the amount of travel by an individual driver and the type of vehicle driven, as larger vehicles tend to have greater increases in operating costs due to substandard roads.

The chart below details the large urban areas (population of 500,000 or more) with the highest annual additional vehicle operating cost per driver as a result of driving on rough roads. The report's Appendix includes vehicle operating costs for all U.S. urban areas with a population of 500,000 or more.

Chart 5. Large urban areas (500,000+ population) with the highest per-driver vehicle operating costs due to rough roads.

Rank	Large Urban Areas - 500K+	State	VOC
1	San Francisco--Oakland, CA	CA	$ 1,049
2	San Jose, CA	CA	$ 983
3	Milwaukee, WI	WI	$ 944
4	Los Angeles--Long Beach--Anaheim, CA	CA	$ 921
5	Tulsa, OK	OK	$ 898
6	Oklahoma City, OK	OK	$ 897
7	Cleveland, OH	OH	$ 887
8	Honolulu, HI	HI	$ 851
9	Akron, OH	OH	$ 837
10	Riverside--San Bernardino, CA	CA	$ 795
11	El Paso, TX--NM	TX-NM	$ 788
12	Baton Rouge, LA	LA	$ 755
13	Fresno, CA	CA	$ 755
14	Sacramento, CA	CA	$ 754
15	Memphis, TN--MS--AR	TN-MS-AR	$ 746
16	Denver--Aurora, CO	CO	$ 739
17	Philadelphia, PA--NJ--DE--MD	PA-NJ-DE-MD	$ 732
18	Detroit, MI	MI	$ 732
19	Bridgeport--Stamford, CT--NY	CT	$ 730
20	Providence, RI--MA	RI-MA	$ 724

Source: TRIP analysis.

The chart below details the mid-sized urban areas (population of 200,000 to 500,000) with the highest annual additional vehicle operating cost per driver as a result of driving on rough roads. The report's Appendix includes vehicle operating costs for all U.S. urban areas with a population of 200,000-500,000.

Chart 6. Mid-sized urban areas (200,000-500,000 population) with the highest per-driver vehicle operating costs due to rough roads.

Rank	Mid-Sized Urban Areas - 200K-500K	State	VOC
1	Jackson, MS	MS	$ 944
2	Antioch, CA	CA	$ 942
3	Concord, CA	CA	$ 923
4	Madison, WI	WI	$ 910
5	Laredo, TX	TX	$ 858
6	Appleton, WI	WI	$ 855
7	Oxnard, CA	CA	$ 852
8	Lubbock, TX	TX	$ 801
9	Green Bay, WI	WI	$ 795
10	Fayetteville--Springdale--Rogers, AR--MO	AR	$ 782
11	Santa Clarita, CA	CA	$ 780
12	Santa Rosa, CA	CA	$ 776
13	Little Rock, AR	AR	$ 771
14	Victorville--Hesperia, CA	CA	$ 768
15	Thousand Oaks, CA	CA	$ 765
16	Lafayette, LA	LA	$ 765
17	Stockton, CA	CA	$ 743
18	Shreveport, LA	LA	$ 727
19	South Bend, IN--MI	IN	$ 720
20	Fort Wayne, IN	IN	$ 719

Source: TRIP analysis.

THE LIFECYCLE OF PAVEMENT

Paved roadway surfaces are considered to have five stages in their life cycle. Each of these stages has a significant impact on the smoothness of the road surface.[14] The first stage is the initial design of the roadway, including the road's dimensions, type of materials, thickness of base and driving surfaces, and drainage system for the road, all of which have a significant impact on the quality and performance of the pavement surface. The second stage is the actual construction or reconstruction of the road or highway surface. The quality of the construction process has a significant impact on the longevity of the pavement surface. The third stage is the first few years in use when a roadway surface starts to experience some initial deterioration as a result of traffic volume, rain, snow, solar radiation and temperature changes. At this stage, a road surface appears to still be in good condition and

generally provides a smooth ride to motorists. The fourth stage begins when the rate of deterioration accelerates and visible signs of distress such as potholes, cracking and other distresses, which have a negative impact on driving performance, occur. If roads are not repaired at stage four, they will fall into stage five – disintegration and systematic structural failure – at which point they will need costly reconstruction to replace the affected sections of highway or roadway.

Chart 7. The five stages in the life cycle of a paved roadway surface

STAGE 1	Design
STAGE 2	Construction
STAGE 3	Initial Deterioration
STAGE 4	Visible Deterioration
STAGE 5	Disintegration and Failure

Source: *At the Crossroads: Preserving our Highway Investment, 2005*. National Center for Pavement Preservation

Most drivers first notice that a road is deteriorating when they are jarred by driving over a surface that is rutted or uneven or when the pavement has cracked and a pothole or faulting has formed. But, these visible signs of pavement distress are usually the final stage in a process of deterioration.

STRATEGIES FOR A SMOOTHER ROAD

Improving the smoothness of the nation's highways and roads is a key priority for transportation agencies. Significant progress has been made over the last decade in pavement materials, roadway surface design and pavement maintenance.

Increasingly, state and local transportation agencies are using improved pavement materials and construction practices to increase the long-term drivability of pavements. Transportation agencies also are putting more emphasis on providing earlier maintenance of pavement surfaces to extend their service life and delay the need for costly and traffic-delaying reconstruction. While these techniques

may sometimes result in a higher initial cost, it is likely that this approach to pavement management will result in smoother pavements and lower long-term costs.

A solid, stable and consistent foundation below the surface of a road or highway is critical in maintaining a smooth driving surface.[15] When constructing or reconstructing a roadway, it is critical that the pavement's sub-base be adequate to support the roadway surface upon which cars and trucks will be driving. If a roadway's foundation is deficient, it will likely negatively impact pavement smoothness and increase the rate of pavement deterioration.

Once a new pavement has been built, some transportation agencies are putting greater emphasis on doing early preservation treatments on these pavements to extend the life span of roadway surfaces and to delay the need for more significant pavement rehabilitation. These initial surface treatments include sealing a road surface to prevent moisture from entering cracks in the pavement, or applying thin pavement overlays, which improve ride quality, correct small surface irregularities and improve surface drainage and friction. For pavement preservation strategies to be most effective, they must be applied while the pavement surface is still in good condition, before any structural damage occurs.

The timing of the maintenance and rehabilitation of road surfaces is critical, impacting the cost-effectiveness of the repairs and ultimately the overall quality of a regional road network. It is estimated that a pavement preservation program can reduce the life cycle costs of a pavement surface by about one-third over a 25-year period.[16] The preventive maintenance approach may require several applications of minor sealing or resurfacing to a pavement surface over its lifetime, but reduces costs by delaying the need for more costly reconstruction.

A 2005 book from the National Center for Pavement Preservation (NCPP), ***At the Crossroads: Preserving our Highway Investment,*** recommended that transportation agencies adopt a pavement preservation strategy for the maintenance of the nation's roads and highways.[17] Instead of a reactive

approach to roadway pavement maintenance that provides repairs to the road surfaces in the worst condition, the book recommends using a proactive approach that provides initial maintenance to pavements still in good condition, to significantly delay the need for costly reconstruction.

The NCPP book noted that preventive maintenance can only be performed on road surfaces that are structurally sound. All other road and highway surfaces first need to be reconstructed before a preventive maintenance approach will be effective. The book recommends that transportation agencies implement a preventive maintenance program for roads and highways that are structurally sound and in good condition. It also suggests that transportation agencies should continue to make surface repairs to roads and highways that are not structurally sound to maintain them in reasonable condition until there is adequate funding for the reconstruction of these roads, at which point transportation agencies can then implement a preventive maintenance program for these improved roads.[18]

A report by FHWA found that an over-reliance on short-term pavement repairs will fail to provide the long-term structural integrity needed in a roadway surface to guarantee the future performance of a paved road or highway. The 2010 report, *"Beyond the Short Term: Transportation Asset Management for Long-Term Sustainability, Accountability and Performance,"* warned that transportation agencies that focus only on current pavement surface conditions will eventually face a highway network with an overwhelming backlog of pavement rehabilitation and replacement needs.[19]

IMPROVED PAVEMENT MATERIALS

Since the late 1980s, there has been significant research into developing pavement materials and construction practices that will provide a road surface that is more durable and can better withstand various climates and traffic loads. The resulting pavements have been found to last longer, require less maintenance and have a lower life cycle cost.[20] A variety of pavement designs and

materials have been developed since then that can be tailored to the individual requirements of various sections of roads and highways, including high performance concrete pavements and improved hot- and warm-mix asphalt pavements. Some pavement designs now call for varying material compositions in different pavement layers and thicker bottom layers, which resist bottom-up cracking and provide a sturdier base for the top layer of pavement, which can be resurfaced periodically.[21]

EFFECTIVE POTHOLE PATCHING

When a road or highway deteriorates to the point where potholes form, care should be taken to ensure that the temporary patch lasts until repairs can be made. Some temporary pothole repairs quickly show failure, creating the need for repeated patches, causing traffic delays and increasing pavement life cycle costs.

The FHWA studied a variety of pothole patching techniques to determine the best practice. The study was based on assessing 1,250 pothole patches at eight locations under varying weather conditions over a four-year period. The study found that 56 percent of the patches were still functioning by the end of the study period.[22] It also found that the most critical issue in pothole patching is the quality of the materials used to fill in the pothole. "The cost of patching the same potholes over and over because of poor-quality patching material quickly offsets any savings from the purchase of less expensive mix," the FHWA report concluded.[23] Higher grades of pothole patching material typically have aggregate mixes that are less susceptible to moisture damage and are more durable. More durable pothole patching materials are more expensive than other patching materials.

Other key variables impacting the effectiveness of pothole patches include adequate compaction of pothole fill material following the repair, the preparation of the site for repair by removing loose material and underlying moisture, the subsequent levels of precipitation at the location, and the amount of and vehicle mix of traffic on the road.

THE COST OF NEEDED ROAD, HIGHWAY AND BRIDGE IMPROVEMENTS

The U.S. Congress requires the U.S. Department of Transportation to provide a semi-annual comprehensive report on the condition, use and funding needs of the nation's surface transportation program. The most recent report, the 2015 Status of the Nation's Highways, Bridges, and Transit: Conditions & Performance, found that the nation has a significant backlog in needed road and highway rehabilitation and would need a large boost in investment to improve the condition of the nation's roads and highways.

The USDOT report estimates that the current backlog in needed road and highway rehabilitation is $419.5 billion.[24] The report found that the current level of investment in preserving roads and highways is inadequate to improve the condition of the nation's roadways. The U.S. DOT report found that the nation current $41 billion annual investment in maintaining the condition of roads and highways by all levels of government should be increased by 33 percent to $61 billion annually to improve the condition of the nation's roads and highways.[25]

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 the United States. 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 nation's highways and major arterial roads.

Every year, $28 trillion in goods are shipped to and from sites in the U.S., mostly by trucks.[26] Seventy-three percent of the goods shipped annually to and from sites in the U.S. are carried by trucks and another 14 percent are carried by courier services or multiple-mode deliveries, which include trucking.[27]

The design, construction and maintenance of transportation infrastructure in the U.S. play a critical role in the nation's economy, supporting the equivalent of four million full-time jobs across all sectors, earning these workers approximately $156 billion annually.[28] These jobs include two million 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 two million full-time jobs.[29]

Transportation construction in the U.S. contributes an estimated $28.4 billion annually in state and local income, corporate and unemployment insurance taxes and the federal payroll tax.[30]

Approximately 63 million full-time jobs in the U.S. in key industries like tourism, retail sales, agriculture and manufacturing are dependent on the quality, safety and reliability of America's transportation infrastructure network. These workers earn $2.5 trillion in wages and contribute an

estimated $462 billion in state and local income, corporate and unemployment insurance taxes and the federal payroll tax.[31]

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.

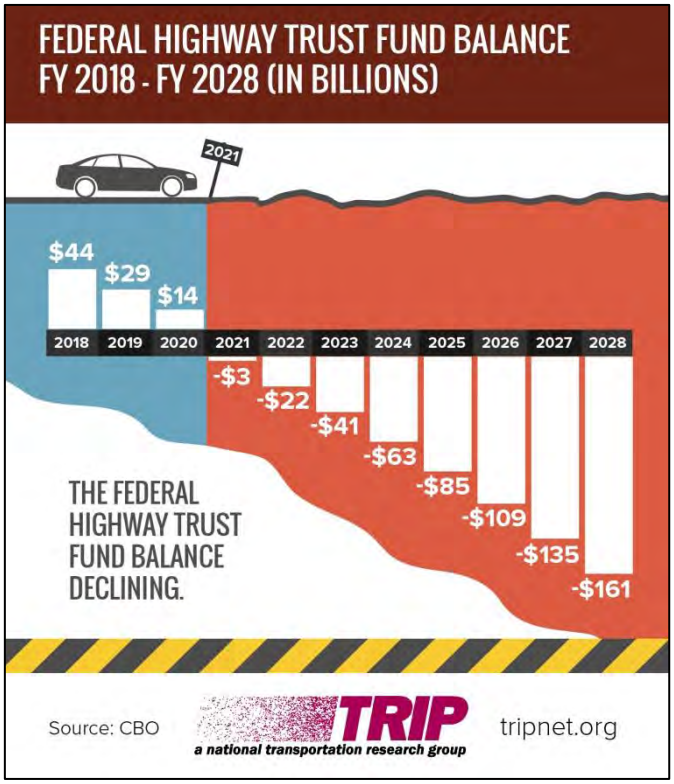
Increasingly, companies are looking at the quality of a region's transportation system when deciding where to re-locate or expand. Regions with congested or poorly maintained roads may see businesses relocate to areas with a smoother, more efficient and more modern transportation system. Highway accessibility 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.[32]

TRANSPORTATION FUNDING

Investment in the nation'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 America's existing transportation system.

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

Most federal funds for highway and transit improvements 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.[33]



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.[34] 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.

President Trump's infrastructure plan, released in February 2018, would provide $200 billion in new federal grants and loans over 10 years to leverage $1.5 trillion in total project spending on infrastructure, including surface transportation. State and local governments and the private sector

would be required to raise the additional $1.3 trillion to access the federal grants and loans provided under this initiative. Congress has not yet crafted a transportation program in response to the Trump proposal and would need to identify a long-term, sustainable source of funding to support increased funding for the federal Highway Trust Fund.

RECOMMENDATIONS FOR SMOOTHER URBAN ROADS

Increasing the smoothness of urban roads, thus reducing the additional vehicle operating costs paid by motorists for driving on deteriorated roads, requires that transportation agencies pursue an aggressive program of constructing and reconstructing roads to high smoothness standards, conducting maintenance before roadways reach unacceptable condition and using the best practices for repairing damaged pavements.

The following practices can help to provide a smooth ride on the nation's roadways.

- ✓ Implement and adequately fund a pavement preservation program that postpones the need for significant rehabilitation by performing initial maintenance and preservation on road surfaces while they are still in good condition.
- ✓ Consider using pavement materials and designs that will provide a longer-lasting surface when critical routes are constructed or reconstructed.
- ✓ Resurface roads in a timely fashion using pavement material that is designed to be the most durable given local climate and the level and mix of traffic on the road.
- ✓ Maintain an aggressive pothole patching program that uses the best material available.
- ✓ Invest adequately to insure that 75 percent of local road surfaces are in good condition.

# # #

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Appendix A - TRIP Urban Roads Report 2018

Pavement Conditions and Extra Vehicle Operating Costs for Urban Areas with Population of 500K or More

Urban Area	State	Poor Share	Mediocre Share	Fair Share	Good Share	VOC
Akron	OH	49%	12%	14%	25%	$837
Albany--Schenectady-Troy	NY	15%	20%	20%	45%	$352
Albuquerque	NM	27%	27%	13%	32%	$696
Allentown	PA-NJ	27%	27%	20%	25%	$555
Atlanta	GA	8%	12%	14%	66%	$269
Austin	TX	16%	32%	8%	44%	$507
Bakersfield	CA	26%	27%	19%	28%	$579
Baltimore	MD	36%	23%	14%	27%	$693
Baton Rouge	LA	38%	27%	15%	21%	$755
Birmingham	AL	18%	18%	15%	49%	$487
Boston	MA-NH-RI	14%	13%	8%	65%	$306
Bridgeport--Stamford	CT-NY	40%	29%	15%	16%	$730
Buffalo - Niagara Falls	NY	15%	25%	21%	39%	$382
Cape Coral	FL	6%	45%	3%	46%	$384
Charleston--North Charleston	SC	12%	27%	19%	43%	$405
Charlotte	NC-SC	21%	23%	23%	33%	$551
Chicago	IL-IN	28%	35%	14%	22%	$627
Cincinnati	OH-KY-IN	25%	25%	14%	36%	$574
Cleveland	OH	49%	26%	7%	19%	$887
Colorado Springs	CO	37%	25%	16%	21%	$702
Columbia	SC	18%	34%	23%	25%	$548
Columbus	OH	24%	24%	14%	39%	$557
Dallas--Fort Worth--Arlington	TX	21%	31%	20%	28%	$609
Dayton	OH	28%	24%	25%	22%	$649
Denver--Aurora	CO	40%	28%	14%	18%	$739
Detroit	MI	32%	45%	6%	17%	$732
El Paso	TX-NM	35%	32%	9%	25%	$788
Fresno	CA	40%	29%	15%	15%	$755
Grand Rapids	MI	29%	25%	6%	41%	$594
Hartford	CT	32%	30%	16%	21%	$644
Honolulu	HI	54%	27%	10%	9%	$851
Houston	TX	24%	28%	11%	38%	$610
Indianapolis	IN	22%	22%	15%	42%	$575
Jacksonville	FL	4%	33%	8%	55%	$297
Kansas City	MO-KS	26%	27%	17%	30%	$667
Knoxville	TN	6%	37%	19%	37%	$388
Las Vegas--Henderson	NV	14%	18%	17%	51%	$379
Los Angeles--Long Beach--Anaheim	CA	57%	22%	11%	10%	$921
Louisville/Jefferson County	KY-IN	26%	26%	17%	31%	$628
McAllen	TX	22%	30%	7%	43%	$573
Memphis	TN-MS-AR	40%	17%	14%	29%	$746
Miami	FL	8%	48%	4%	40%	$427
Milwaukee	WI	54%	18%	12%	16%	$944

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Pavement Conditions and Extra Vehicle Operating Costs for Urban Areas with Population of 500K or More

Urban Area	State	Poor Share	Mediocre Share	Fair Share	Good Share	VOC
Minneapolis--St. Paul	MN-WI	25%	19%	18%	39%	$600
Mission Viejo--Lake Forest--San Clemente	CA	32%	33%	18%	17%	$682
Nashville-Davidson	TN	8%	27%	13%	52%	$338
New Haven	CT	33%	24%	15%	28%	$621
New Orleans	LA	37%	22%	14%	27%	$716
New York--Newark	NY-NJ-CT	46%	23%	13%	18%	$719
Ogden--Layton	UT	8%	17%	33%	43%	$339
Oklahoma City	OK	37%	31%	11%	20%	$897
Omaha	NE-IA	32%	18%	11%	38%	$635
Orlando	FL	21%	6%	4%	69%	$383
Philadelphia	PA-NJ-DE-MD	43%	28%	11%	17%	$732
Phoenix--Mesa	AZ	23%	29%	20%	27%	$550
Pittsburgh	PA	25%	22%	18%	36%	$495
Portland	OR-WA	12%	13%	20%	55%	$309
Providence	RI-MA	46%	25%	10%	19%	$724
Raleigh	NC	10%	16%	25%	49%	$348
Richmond	VA	26%	35%	19%	20%	$640
Riverside--San Bernardino	CA	40%	38%	12%	9%	$795
Rochester	NY	11%	18%	24%	47%	$305
Sacramento	CA	41%	29%	12%	18%	$754
St. Louis	MO-IL	22%	29%	17%	32%	$611
Salt Lake City--West Valley City	UT	9%	16%	45%	31%	$382
San Antonio	TX	29%	31%	11%	29%	$710
San Diego	CA	34%	30%	19%	17%	$694
San Francisco--Oakland	CA	71%	16%	6%	6%	$1,049
San Jose	CA	64%	18%	9%	9%	$983
Sarasota--Bradenton	FL	4%	47%	5%	44%	$371
Seattle	WA	41%	23%	17%	19%	$684
Springfield	MA-CT	15%	20%	12%	53%	$366
Tampa--St. Petersburg	FL	16%	22%	10%	51%	$424
Toledo	OH-MI	19%	19%	16%	46%	$468
Tucson	AZ	33%	28%	15%	24%	$661
Tulsa	OK	36%	37%	6%	21%	$898
Virginia Beach	VA	32%	30%	17%	22%	$686
Washington	DC-VA-MD	30%	25%	17%	29%	$562

Appendix B - TRIP Urban Roads Report 2018

Pavement Conditions and Extra Vehicle Operating Costs for Urban Areas with Population between 200K and 500K

Urban Area	State	Poor Share	Mediocre Share	Fair Share	Good Share	VOC
Aberdeen--Bel Air South--Bel Air North	MD	7%	18%	20%	55%	$278
Anchorage	AK	21%	22%	18%	39%	$423
Ann Arbor	MI	17%	35%	4%	44%	$475
Antioch	CA	57%	28%	8%	7%	$942
Appleton	WI	41%	36%	8%	14%	$855
Asheville	NC	15%	17%	20%	48%	$420
Atlantic City	NJ	29%	31%	8%	32%	$591
Augusta-Richmond County	GA-SC	10%	19%	24%	48%	$381
Barnstable Town	MA	11%	16%	17%	57%	$295
Boise City	ID	11%	20%	7%	62%	$321
Bonita Springs	FL	2%	14%	6%	78%	$138
Brownsville	TX	15%	33%	14%	38%	$512
Canton	OH	38%	11%	8%	43%	$668
Chattanooga	TN	19%	25%	20%	36%	$503
Columbus	GA-AL	11%	16%	12%	61%	$344
Concord	CA	56%	27%	10%	8%	$923
Conroe--The Woodlands	TX	20%	25%	9%	46%	$531
Corpus Christi, TX	TX	14%	16%	18%	53%	$398
Davenport	IA-IL	26%	17%	12%	45%	$545
Denton--Lewisville	TX	13%	21%	18%	49%	$415
Des Moines	IA	16%	22%	18%	44%	$438
Durham	NC	20%	21%	23%	37%	$522
Eugene	OR	6%	8%	16%	70%	$188
Evansville	IN-KY	16%	25%	22%	36%	$530
Fayetteville	NC	11%	21%	22%	46%	$383
Fayetteville--Springdale--Rogers	AR-MO	38%	25%	24%	13%	$782
Flint	MI	35%	31%	5%	29%	$701
Fort Collins	CO	22%	25%	18%	35%	$509
Fort Wayne	IN	32%	18%	15%	35%	$719
Green Bay	WI	43%	20%	8%	29%	$795
Greensboro	NC	17%	29%	21%	33%	$521
Greenville	SC	18%	33%	23%	26%	$531
Gulfport	MS	21%	22%	15%	42%	$603
Harrisburg	PA	16%	25%	19%	40%	$405
Hickory	NC	11%	18%	25%	47%	$370
Huntington	WV-KY-OH	17%	21%	13%	49%	$473
Huntsville	AL	16%	18%	19%	46%	$465
Indio--Cathedral City	CA	30%	23%	15%	33%	$593
Jackson	MS	44%	19%	12%	26%	$944
Kalamazoo - Battle Creek	MI	25%	36%	5%	35%	$590
Kennewick--Pasco	WA	11%	17%	19%	53%	$297
Killeen	TX	20%	22%	16%	42%	$526
Kissimmee	FL	6%	10%	7%	76%	$193
Lafayette	LA	40%	24%	16%	21%	$765

Appendix B - TRIP Urban Roads Report 2018

Pavement Conditions and Extra Vehicle Operating Costs for Urban Areas with Population between 200K and 500K

Urban Area	State	Poor Share	Mediocre Share	Fair Share	Good Share	VOC
Lakeland	FL	9%	12%	12%	68%	$249
Lancaster	PA	21%	19%	21%	39%	$439
Lancaster--Palmdale	CA	30%	40%	13%	18%	$668
Lansing	MI	22%	38%	6%	33%	$571
Laredo	TX	40%	28%	14%	18%	$858
Lexington-Fayette	KY	17%	18%	13%	53%	$435
Lincoln	NE	17%	24%	13%	47%	$446
Little Rock	AR	38%	21%	28%	12%	$771
Lubbock	TX	39%	24%	5%	32%	$801
Madison	WI	49%	26%	13%	12%	$910
Mobile	AL	15%	16%	15%	54%	$423
Modesto	CA	37%	30%	14%	19%	$716
Murrieta--Temecula--Menifee	CA	28%	28%	19%	25%	$610
Murrieta--Temecula--Menifee	CA	28%	28%	19%	25%	$610
Myrtle Beach--Socastee	SC-NC	30%	32%	16%	22%	$678
Nashua	NH-MA	6%	51%	24%	19%	$431
Norwich--New London	CT-RI	21%	31%	18%	31%	$504
Oxnard	CA	48%	31%	12%	10%	$852
Palm Bay--Melbourne	FL	17%	23%	6%	55%	$421
Palm Coast--Daytona Beach--Port Orange	FL	13%	39%	7%	40%	$468
Pensacola	FL-AL	4%	20%	11%	65%	$232
Peoria	IL	31%	23%	10%	36%	$591
Port St. Lucie	FL	6%	26%	17%	51%	$307
Portland, ME	ME	28%	24%	17%	31%	$617
Poughkeepsie--Newburgh - Middleton	NY-NJ	13%	23%	19%	46%	$341
Provo--Orem	UT	7%	18%	52%	24%	$380
Reading	PA	37%	27%	21%	16%	$668
Reno	NV-CA	23%	30%	13%	34%	$564
Roanoke	VA	14%	27%	18%	41%	$434
Rockford, IL	IL	32%	29%	15%	25%	$639
Round Lake Beach--McHenry--Grayslake	IL-WI	44%	13%	13%	30%	$716
Salem	OR	8%	17%	12%	62%	$257
Santa Clarita	CA	41%	32%	17%	10%	$780
Santa Rosa	CA	43%	26%	11%	19%	$776
Savannah	GA	10%	13%	11%	66%	$305
Scranton-Wilkes Barre	PA	34%	20%	19%	27%	$606
Shreveport	LA	36%	27%	15%	23%	$727
South Bend	IN-MI	31%	21%	19%	30%	$720
Spokane	WA	31%	28%	14%	27%	$583
Springfield	MO	21%	22%	16%	41%	$558
Stockton	CA	43%	21%	13%	24%	$743
Syracuse	NY	22%	19%	15%	43%	$429
Tallahassee	FL	9%	23%	11%	58%	$319
Thousand Oaks	CA	38%	39%	12%	12%	$765

Appendix B - TRIP Urban Roads Report 2018

Pavement Conditions and Extra Vehicle Operating Costs for Urban Areas with Population between 200K and 500K

Urban Area	State	Poor Share	Mediocre Share	Fair Share	Good Share	VOC
Trenton	NJ	34%	31%	12%	22%	$670
Victorville--Hesperia	CA	42%	28%	15%	16%	$768
Visalia	CA	30%	22%	15%	33%	$594
Wichita	KS	26%	16%	10%	48%	$549
Wilmington	NC	17%	26%	21%	36%	$509
Winston-Salem	NC	12%	25%	25%	38%	$435
Winter Haven	FL	3%	20%	10%	66%	$215
Worcester	MA-CT	15%	16%	13%	55%	$349
York	PA	23%	30%	16%	30%	$515
Youngstown	OH-PA	22%	14%	10%	54%	$468

Appendix A - TRIP Urban Roads Report 2018

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Pavement Conditions and Extra Vehicle Operating Costs for Urban Areas with Population of 500K or More

Urban Area	State	Poor Share	Mediocre Share	Fair Share	Good Share	VOC
Akron	OH	49%	12%	14%	25%	$837
Albany--Schenectady-Troy	NY	15%	20%	20%	45%	$352
Albuquerque	NM	27%	27%	13%	32%	$696
Allentown	PA-NJ	27%	27%	20%	25%	$555
Atlanta	GA	8%	12%	14%	66%	$269
Austin	TX	16%	32%	8%	44%	$507
Bakersfield	CA	26%	27%	19%	28%	$579
Baltimore	MD	36%	23%	14%	27%	$693
Baton Rouge	LA	38%	27%	15%	21%	$755
Birmingham	AL	18%	18%	15%	49%	$487
Boston	MA-NH-RI	14%	13%	8%	65%	$306
Bridgeport--Stamford	CT-NY	40%	29%	15%	16%	$730
Buffalo - Niagara Falls	NY	15%	25%	21%	39%	$382
Cape Coral	FL	6%	45%	3%	46%	$384
Charleston--North Charleston	SC	12%	27%	19%	43%	$405
Charlotte	NC-SC	21%	23%	23%	33%	$551
Chicago	IL-IN	28%	35%	14%	22%	$627
Cincinnati	OH-KY-IN	25%	25%	14%	36%	$574
Cleveland	OH	49%	26%	7%	19%	$887
Colorado Springs	CO	37%	25%	16%	21%	$702
Columbia	SC	18%	34%	23%	25%	$548
Columbus	OH	24%	24%	14%	39%	$557
Dallas--Fort Worth--Arlington	TX	21%	31%	20%	28%	$609
Dayton	OH	28%	24%	25%	22%	$649
Denver--Aurora	CO	40%	28%	14%	18%	$739
Detroit	MI	32%	45%	6%	17%	$732
El Paso	TX-NM	35%	32%	9%	25%	$788
Fresno	CA	40%	29%	15%	15%	$755
Grand Rapids	MI	29%	25%	6%	41%	$594
Hartford	CT	32%	30%	16%	21%	$644
Honolulu	HI	54%	27%	10%	9%	$851
Houston	TX	24%	28%	11%	38%	$610
Indianapolis	IN	22%	22%	15%	42%	$575
Jacksonville	FL	4%	33%	8%	55%	$297
Kansas City	MO-KS	26%	27%	17%	30%	$667
Knoxville	TN	6%	37%	19%	37%	$388
Las Vegas--Henderson	NV	14%	18%	17%	51%	$379
Los Angeles--Long Beach--Anaheim	CA	57%	22%	11%	10%	$921
Louisville/Jefferson County	KY-IN	26%	26%	17%	31%	$628
McAllen	TX	22%	30%	7%	43%	$573
Memphis	TN-MS-AR	40%	17%	14%	29%	$746
Miami	FL	8%	48%	4%	40%	$427
Milwaukee	WI	54%	18%	12%	16%	$944

Appendix A - TRIP Urban Roads Report 2018

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Pavement Conditions and Extra Vehicle Operating Costs for Urban Areas with Population of 500K or More

Urban Area	State	Poor Share	Mediocre Share	Fair Share	Good Share	VOC
Minneapolis--St. Paul	MN-WI	25%	19%	18%	39%	$600
Mission Viejo--Lake Forest--San Clemente	CA	32%	33%	18%	17%	$682
Nashville-Davidson	TN	8%	27%	13%	52%	$338
New Haven	CT	33%	24%	15%	28%	$621
New Orleans	LA	37%	22%	14%	27%	$716
New York--Newark	NY-NJ-CT	46%	23%	13%	18%	$719
Ogden--Layton	UT	8%	17%	33%	43%	$339
Oklahoma City	OK	37%	31%	11%	20%	$897
Omaha	NE-IA	32%	18%	11%	38%	$635
Orlando	FL	21%	6%	4%	69%	$383
Philadelphia	PA-NJ-DE-MD	43%	28%	11%	17%	$732
Phoenix--Mesa	AZ	23%	29%	20%	27%	$550
Pittsburgh	PA	25%	22%	18%	36%	$495
Portland	OR-WA	12%	13%	20%	55%	$309
Providence	RI-MA	46%	25%	10%	19%	$724
Raleigh	NC	10%	16%	25%	49%	$348
Richmond	VA	26%	35%	19%	20%	$640
Riverside--San Bernardino	CA	40%	38%	12%	9%	$795
Rochester	NY	11%	18%	24%	47%	$305
Sacramento	CA	41%	29%	12%	18%	$754
St. Louis	MO-IL	22%	29%	17%	32%	$611
Salt Lake City--West Valley City	UT	9%	16%	45%	31%	$382
San Antonio	TX	29%	31%	11%	29%	$710
San Diego	CA	34%	30%	19%	17%	$694
San Francisco--Oakland	CA	71%	16%	6%	6%	$1,049
San Jose	CA	64%	18%	9%	9%	$983
Sarasota--Bradenton	FL	4%	47%	5%	44%	$371
Seattle	WA	41%	23%	17%	19%	$684
Springfield	MA-CT	15%	20%	12%	53%	$366
Tampa--St. Petersburg	FL	16%	22%	10%	51%	$424
Toledo	OH-MI	19%	19%	16%	46%	$468
Tucson	AZ	33%	28%	15%	24%	$661
Tulsa	OK	36%	37%	6%	21%	$898
Virginia Beach	VA	32%	30%	17%	22%	$686
Washington	DC-VA-MD	30%	25%	17%	29%	$562

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Appendix B - TRIP Urban Roads Report 2018

Pavement Conditions and Extra Vehicle Operating Costs for Urban Areas with Population between 200K and 500K

Urban Area	State	Poor Share	Mediocre Share	Fair Share	Good Share	VOC
Aberdeen--Bel Air South--Bel Air North	MD	7%	18%	20%	55%	$278
Anchorage	AK	21%	22%	18%	39%	$423
Ann Arbor	MI	17%	35%	4%	44%	$475
Antioch	CA	57%	28%	8%	7%	$942
Appleton	WI	41%	36%	8%	14%	$855
Asheville	NC	15%	17%	20%	48%	$420
Atlantic City	NJ	29%	31%	8%	32%	$591
Augusta-Richmond County	GA-SC	10%	19%	24%	48%	$381
Barnstable Town	MA	11%	16%	17%	57%	$295
Boise City	ID	11%	20%	7%	62%	$321
Bonita Springs	FL	2%	14%	6%	78%	$138
Brownsville	TX	15%	33%	14%	38%	$512
Canton	OH	38%	11%	8%	43%	$668
Chattanooga	TN	19%	25%	20%	36%	$503
Columbus	GA-AL	11%	16%	12%	61%	$344
Concord	CA	56%	27%	10%	8%	$923
Conroe--The Woodlands	TX	20%	25%	9%	46%	$531
Corpus Christi, TX	TX	14%	16%	18%	53%	$398
Davenport	IA-IL	26%	17%	12%	45%	$545
Denton--Lewisville	TX	13%	21%	18%	49%	$415
Des Moines	IA	16%	22%	18%	44%	$438
Durham	NC	20%	21%	23%	37%	$522
Eugene	OR	6%	8%	16%	70%	$188
Evansville	IN-KY	16%	25%	22%	36%	$530
Fayetteville	NC	11%	21%	22%	46%	$383
Fayetteville--Springdale--Rogers	AR-MO	38%	25%	24%	13%	$782
Flint	MI	35%	31%	5%	29%	$701
Fort Collins	CO	22%	25%	18%	35%	$509
Fort Wayne	IN	32%	18%	15%	35%	$719
Green Bay	WI	43%	20%	8%	29%	$795
Greensboro	NC	17%	29%	21%	33%	$521
Greenville	SC	18%	33%	23%	26%	$531
Gulfport	MS	21%	22%	15%	42%	$603
Harrisburg	PA	16%	25%	19%	40%	$405
Hickory	NC	11%	18%	25%	47%	$370
Huntington	WV-KY-OH	17%	21%	13%	49%	$473
Huntsville	AL	16%	18%	19%	46%	$465
Indio--Cathedral City	CA	30%	23%	15%	33%	$593
Jackson	MS	44%	19%	12%	26%	$944
Kalamazoo - Battle Creek	MI	25%	36%	5%	35%	$590
Kennewick--Pasco	WA	11%	17%	19%	53%	$297
Killeen	TX	20%	22%	16%	42%	$526
Kissimmee	FL	6%	10%	7%	76%	$193
Lafayette	LA	40%	24%	16%	21%	$765

Appendix B - TRIP Urban Roads Report 2018

Pavement Conditions and Extra Vehicle Operating Costs for Urban Areas with Population between 200K and 500K

Urban Area	State	Poor Share	Mediocre Share	Fair Share	Good Share	VOC
Lakeland	FL	9%	12%	12%	68%	$249
Lancaster	PA	21%	19%	21%	39%	$439
Lancaster--Palmdale	CA	30%	40%	13%	18%	$668
Lansing	MI	22%	38%	6%	33%	$571
Laredo	TX	40%	28%	14%	18%	$858
Lexington-Fayette	KY	17%	18%	13%	53%	$435
Lincoln	NE	17%	24%	13%	47%	$446
Little Rock	AR	38%	21%	28%	12%	$771
Lubbock	TX	39%	24%	5%	32%	$801
Madison	WI	49%	26%	13%	12%	$910
Mobile	AL	15%	16%	15%	54%	$423
Modesto	CA	37%	30%	14%	19%	$716
Murrieta--Temecula--Menifee	CA	28%	28%	19%	25%	$610
Murrieta--Temecula--Menifee	CA	28%	28%	19%	25%	$610
Myrtle Beach--Socastee	SC-NC	30%	32%	16%	22%	$678
Nashua	NH-MA	6%	51%	24%	19%	$431
Norwich--New London	CT-RI	21%	31%	18%	31%	$504
Oxnard	CA	48%	31%	12%	10%	$852
Palm Bay--Melbourne	FL	17%	23%	6%	55%	$421
Palm Coast--Daytona Beach--Port Orange	FL	13%	39%	7%	40%	$468
Pensacola	FL-AL	4%	20%	11%	65%	$232
Peoria	IL	31%	23%	10%	36%	$591
Port St. Lucie	FL	6%	26%	17%	51%	$307
Portland, ME	ME	28%	24%	17%	31%	$617
Poughkeepsie--Newburgh - Middleton	NY-NJ	13%	23%	19%	46%	$341
Provo--Orem	UT	7%	18%	52%	24%	$380
Reading	PA	37%	27%	21%	16%	$668
Reno	NV-CA	23%	30%	13%	34%	$564
Roanoke	VA	14%	27%	18%	41%	$434
Rockford, IL	IL	32%	29%	15%	25%	$639
Round Lake Beach--McHenry--Grayslake	IL-WI	44%	13%	13%	30%	$716
Salem	OR	8%	17%	12%	62%	$257
Santa Clarita	CA	41%	32%	17%	10%	$780
Santa Rosa	CA	43%	26%	11%	19%	$776
Savannah	GA	10%	13%	11%	66%	$305
Scranton-Wilkes Barre	PA	34%	20%	19%	27%	$606
Shreveport	LA	36%	27%	15%	23%	$727
South Bend	IN-MI	31%	21%	19%	30%	$720
Spokane	WA	31%	28%	14%	27%	$583
Springfield	MO	21%	22%	16%	41%	$558
Stockton	CA	43%	21%	13%	24%	$743
Syracuse	NY	22%	19%	15%	43%	$429
Tallahassee	FL	9%	23%	11%	58%	$319
Thousand Oaks	CA	38%	39%	12%	12%	$765

Appendix B - TRIP Urban Roads Report 2018

Pavement Conditions and Extra Vehicle Operating Costs for Urban Areas with Population between 200K and 500K

Urban Area	State	Poor Share	Mediocre Share	Fair Share	Good Share	VOC
Trenton	NJ	34%	31%	12%	22%	$670
Victorville--Hesperia	CA	42%	28%	15%	16%	$768
Visalia	CA	30%	22%	15%	33%	$594
Wichita	KS	26%	16%	10%	48%	$549
Wilmington	NC	17%	26%	21%	36%	$509
Winston-Salem	NC	12%	25%	25%	38%	$435
Winter Haven	FL	3%	20%	10%	66%	$215
Worcester	MA-CT	15%	16%	13%	55%	$349
York	PA	23%	30%	16%	30%	$515
Youngstown	OH-PA	22%	14%	10%	54%	$468

American Road & Transportation Builders Association

TRANSPORTATION INVESTMENT ADVOCACY CENTER

VOTERS ACROSS THE NATION DEMONSTRATE SUPPORT FOR TRANSPORTATION INVESTMENT

Voters in 31 states Nov. 6 once again showed their support for transportation infrastructure investments, approving 79 percent of 346 state and local ballot measures. In the most closely watched initiative (Proposition 6), California voters turned back an effort (55 percent to 45 percent) to repeal an increase in the state gasoline and diesel motor fuels tax that had been previously approved by the legislature as part of a 2017 transportation funding law. That decision by voters will help preserve more than $50 billion for urgently-needed highway, bridge, transit improvements in California over a 10-year period.

In total, the 272 approved initiatives are expected to generate over $30 billion in one-time and recurring revenue, according to the analysis conducted by the American Road & Transportation Builders Association's Transportation Investment Advocacy Center™ (ARTBA-TIAC).

The 2018 preliminary results reaffirmed the trend of recent years demonstrating strong voter support for investments to maintain and improve their state/local transportation networks. Including 2018, voters have approved 78 percent of nearly 1,700 transportation investment ballot measures tracked by ARTBA-TIAC since 2009.

Voters in California preserved the $5.2 billion annual transportation investment supported by the gas and diesel fuel tax increase. The repeal attempt was part of a larger effort by Congressional leaders to increase Republican voter turnout in several key California Congressional districts.

A proposed state gas tax increase in Missouri met unexpected resistance at the polls, with voters rejecting the measure 54 percent to 46 percent. Opponents of the measure questioned why $288 million of the estimated $412 million in new annual revenue would be directed to state highway police, which may have been a contributing factor in the defeat.

In Colorado, voters rejected two measures to provide new transportation investments. Proposition 109, a measure to provide one-time funding with a $3.5 billion bond, was rejected 39 percent to 61 percent. Proposition 110, which would have increased the state sales tax by 0.62 percent for 20 years and provided an initial jumpstart with a $6 billion bond, also failed, 40 percent to 60 percent. Both measures were placed on the ballot through voter referendum. The Colorado Department of Transportation estimates it is facing a $25 billion transportation funding gap over the next 25 years. Despite the loss, voters are not done with transportation funding; 2018 legislation authorized a $2.3 billion bond ballot measure for roadways and transit improvement for the November 2019 ballot, which would only appear if both 2018 ballot measures failed.

Some additional highlights include:

- Statewide measures to protect transportation funds from being diverted to non-transportation purposes passed in Connecticut and Louisiana.
- Florida approved nearly $25 billion in new transportation investment revenue, the most through

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local ballot measures.

- Of the 337 local ballot measures, most (229) asked voters to approve property tax increases, primarily in Ohio (165) and Michigan (49) where many municipalities consistently ask voters to renew ongoing taxes to pay for local roads and infrastructure repairs.
- Sales/income taxes generated the most approved revenue ($27.53 billion).

Earlier in the year, voters approved 192 measures for an additional $6.4 billion in transportation revenue. The market impact of these ballot measures is difficult to project as revenue approved ranges from immediate one-time investment to a contribution made annually for as long as 30 years.

The complete report and an interactive map showing the state-by-state results can be found at **www.transportationinvestment.org**.

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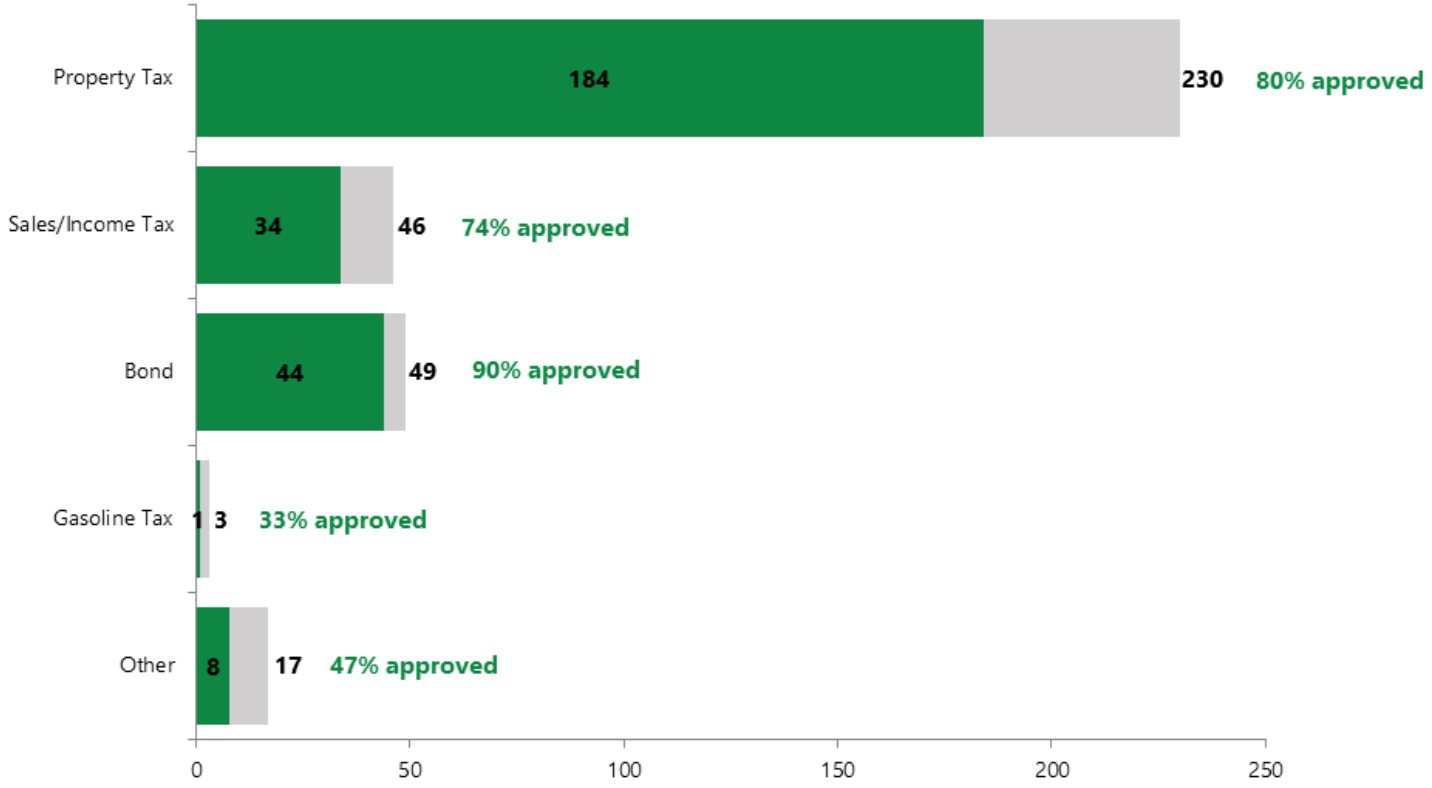
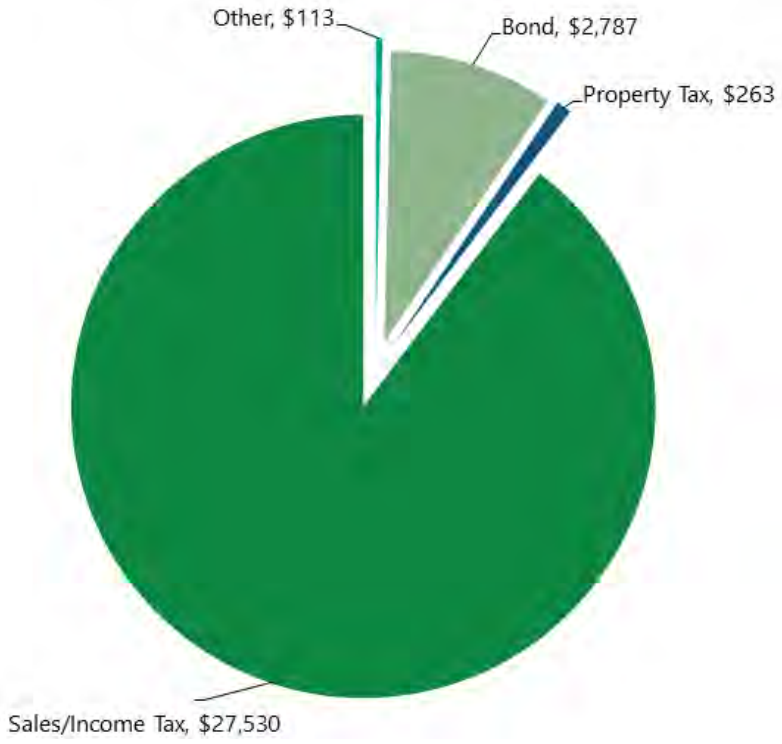
Nov. 6, 2018 Type of Ballot Measure, by Number and Percent Approved



Nov. 6, 2018 Revenue Approved by Type of Measure, in $ Millions



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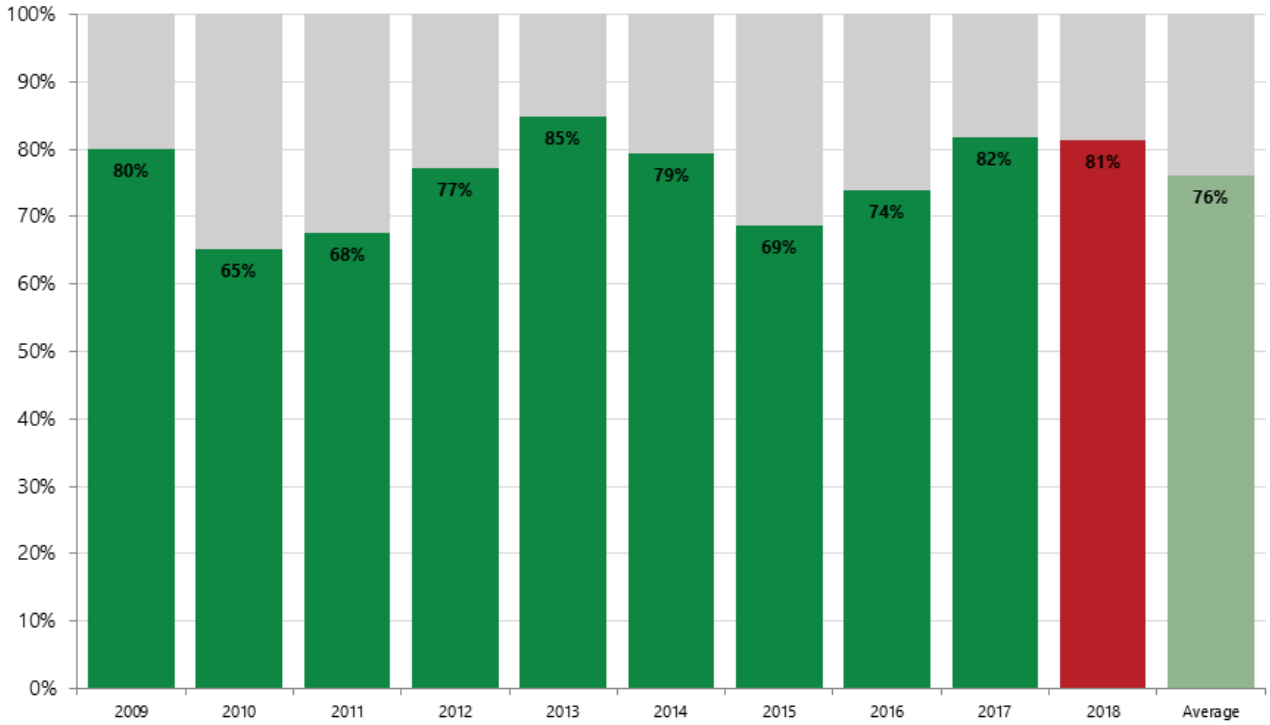
Nov. 6, 2018 Revenue Approved by New vs. Renewing Measure, in $ Millions

Percent of Ballot Measures Approved 2009-2018



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American Road & Transportation Builders Association

Nov. 6, 2018: State & Local Transportation Investment Ballot Measures

State	Location	Type	Mode	Description	Renewal/New	Anticipated Revenue Generated	Result	% Yes	% No	ARTBA-TIAC's Stance
Alabama	Franklin County	Sales/Income Tax	Roads and Bridges	Reallocate an existing 0.25 percent sales tax, previously used for public schools, for costs associated with the construction, maintenance and repair of roads and bridges in the county. Tax would last for 30 years.	Renewal	$600,000 annually	Win	71	30	✔
Alabama	Mobile County	Property Tax	Transportation	Request for voters to approve the county's 2018 'Pay As You Go' program, funded through an ongoing property tax. The $60 million local portion would be matched with $29,329,600 in federal funds.	Renewal	$89,329,600	Win	74	26	✔
Arizona	City of Yuma	Sales/Income Tax	Roads	Half-percent sales tax increase for 20 years to maintain local roads.	New	$10 million annually	Loss	48	52	✘
Arizona	Clarkdale	Bond	Roads	Request for voters to approve $6 million in bonds to fund street repairs and improvements.	New	$6 million	Loss	30	70	✘
Arizona	Flagstaff	Sales/Income Tax	Roads	Proposition No. 420: Increase the local sales tax by 0.23 percent to construct an overpass over the railroad to connect two streets.	New	$131.5 million over 20 years	Win	51	49	✔
Arizona	Flagstaff	Sales/Income Tax	Transportation	Proposition 419: Renewal of a 0.426 percent sales tax increase for 20 years, with $61 million of the revenue allocated to building new streets and $96 million for street widening projects.	Renewal	$157 million	Win	64	36	✔
Arizona	Pima County	Bond	Roads	Proposition 463: Request for approval of $430 million in bonds for road reconstruction and repair.	New	$430 million	Loss	43	57	✘
Arizona	Scottsdale	Sales/Income Tax	Transportation	Question 1: Sales tax increase of 0.1 percent, to last 10 years and generate $70 million in total. Will be used to match $170 million in state funds.	New	$240 million	Win	54	46	✔
California	Del Norte County	Other	Harbor	Measure C: Citizens initiative to increase the transient occupancy tax (hotel tax) by 2 percent and impose a 2 percent tax on RV parks to pay off a $5.425 million U.S. Department of Agriculture harbor repair loan and additional harbor projects.	New	$262,000 annually	Win	56	44	✔
California	Dixon	Sales/Income Tax	Roads	City of Dixon Measure N: Impose a 0.5 percent sales tax for ten years to fund street repairs and transportation infrastructure. **Requires 2/3 majority approval.**	New	$1,400,000 annually	Loss	38	63	✘
California	Eureka	Sales/Income Tax	Roads	Measure I: Quarter-cent sales tax increase for local road repair and maintenance. The measure is expected to generate $2.2 million annually for existing roads.	New	$44 million	Win	62	38	✔
California	King City	Sales/Income Tax		City of King Measure K: Increase the local sales tax by one-half percent for general city expensive, including street repairs.	New		Win	57	43	✔
California	Los Gatos	Sales/Income Tax	Transportation	Measure G: Sales tax increase of 0.125 percent for 20 years, with $48 million for traffic mitigation improvements, $28 million for pavement management, and $5-10 million for a bicycle/pedestrian.	New	$86 million	Win	54	46	✔
California	Marin County	Sales/Income Tax	Transportation	Measure AA: Extend the current half-cent sales tax (set to expire in 2025) until 2049.	Renewal	$827 million	Win	75	25	✔
California	Marina	Other		Measure P: Increase the transient occupancy tax (hotel tax) by 2 percent.	New		Win	68	32	✔
California	Marina	Sales/Income Tax		Measure N: Raise the city sales tax by 0.5 percent through March 31, 2034. Revenue deposited into general fund, and could be used for road maintenance.	New		Win	51	49	✔
California	Monterey	Sales/Income Tax	Infrastructure	Measure S: Continuation of a 1 percent sales tax for infrastructure repairs for eight years.	Renewal	$9 million annually	Win	82	18	✔
California	Mountain View City	Other	General Fund	Measure P: Update the business license tax to charge $100 for businesses with one employee, $200 for 2-25 employees, $400 for 26-50 employees, and $150 per employee for companies with 50+ employees.	New	$6.1 million annually	Win	69	31	✔
California	Paradise	Sales/Income Tax		Measure V: Half-cent city wide sales tax increase for an additional 10 years to pay for public safety issues, including addressing a $32 million shortfall in road funding.	Renewal	$1.4 million annually	Win	69	31	✔
California	Paso Robles	Sales/Income Tax	Roads	Measure K: Request that revenue from the 6-year half-cent sales tax increase in companion Measure N be used for repairing and maintaining the city's streets and sidewalks.	New	$4,750,000 annually	Win	54	46	✔
California	Rincon Ranch	Property Tax	Roads	Measure RR: Levy $6.92 per acre and $199.50 per parcel of land to fund road repairs. **REQUIRES 2/3 SUPERMAJORITY VOTE**	New		Win	67	33	✔
California	San Benito County	Sales/Income Tax	Transportation	Measure G: Implement a one cent tax to fund transportation investment and close a $1.8 billion funding gap	New	$132,000 annually	Win	68	32	✔
California	San Mateo County	Sales/Income Tax	Transportation	Half-percent sales tax increase for 30 years to address transportation improvement projects identified in the San Mateo County Congestion Relief Plan.	New	$840 million total	Win	66	34	✔
California	Statewide	Gasoline Tax	Transportation	Repeal the 12 cent gasoline tax and new vehicle registration fees established by SB1. A vote yes is to repeal funding and would be a transportation fund loss.	New	n/a	Win	45	55	✔

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American Road & Transportation Builders Association

Nov. 6, 2018: State & Local Transportation Investment Ballot Measures

State	Location	Type	Mode	Description	Renewal/New	Anticipated Revenue Generated	Result	% Yes	% No	ARTBA-TIAC's Stance
Colorado	Arvada	Bond	Roads	Ballut Issue 3F: Request for permission to sell $79.8 million in bonds to improve two major highway corridors. Repayment of the bond would cost up to $125 million.	New	$125 million	Win	67	33	✔
Colorado	Carter Lake Heights PID	Property Tax	Roads	Property tax imposition of 18.213 for the improvement and maintenance of local roads.	New	$19,000 annually	Win	91	9	✔
Colorado	Durango	Property Tax		Ballot Question 2A: Increase the local sales by 0.55 percent and local property tax by 5.4 mills for city projects, including improving and maintaining local streets.	New		Loss	39	61	✘
Colorado	Evans City	Sales/Income Tax	Streets	1 percent sales tax increase for road improvements, to last seven years.	New	$2.8 million annually	Loss	46	54	✘
Colorado	Lakewood	Other	Transportation	Measure 7G: Request to retain excess revenue under the Taxpayer's Bill of Rights cap through 2025 (normally returned to residents), to be partially used to fund transportation projects.	New	n/a	Win	61	39	✔
Colorado	Larimer County - Autumn Creek PID	Property Tax	Roads	Property tax imposition of 25.21 mills for the maintenance of roads.	New	$13,000 in the first year	Win	52	48	✔
Colorado	Littleton	Property Tax	Other	Question 7B: Question on whether to include South Metro (not Central) to Littleton. If yes, revenue saved on fire services would be used to fund $3.1 million of street improvements annually.	New		Win	59	41	✔
Colorado	Pueblo West	Sales/Income Tax	Roads	Ballot Issue 6A: 1 percent sales tax increase for road repairs.	New	$1.6 million annually	Loss	31	66	✘
Colorado	Riviera Estates PID	Property Tax	Roads	Property tax imposition of 27.29 mills for the improvement and maintenance of local roads.	New	$20,000 annually	Win	55	45	✔
Colorado	Soaring Peaks Ranches	Property Tax	Roads	Property tax imposition of 25.63 mills for the improvement and maintenance of local roads.	New	$25,000 annually	Win	100	0	✔
Colorado	Statewide	Bond	Transportation	Prop. 109: $3.5 billion in bonds for transportation improvements.	New	$3.5 billion	Loss	39	61	✘
Colorado	Statewide	Property Tax	Transportation	Prop. 110: Increase the state sales tax by 0.62 percent for 20 years to fund transportation construction projects. If approved, the measure will immediately be used to fund a $6 billion bond.	New	$767 million in the first year	Loss	40	60	✘
Connecticut	Durham	Bond	Roads	Question 3: Request for $2.1 million in bonds for road culvert replacement and road pavement work. Bond would be repaid with a property tax increase, estimated at $23.58 per $100,000 of assessed real property value for 20 years.	New	$2.1 million	Win	57	43	✔
Connecticut	East Hartford	Bond	Roads	Request for authorization of a $15 million appropriation and bond for the planning, design, construction and reconstruction of town roads and parking lots.	New	$15 million	Win	84	16	✔
Connecticut	Middletown	Bond	Infrastructure	Request for authorization of a $16.350 million bond for road, sidewalk and streetlight improvements.	New	$16.350 million	Win	79	21	✔
Connecticut	Montville	Bond	Roads	10-year, $10 million plan to improve local roads.	New	$10 million	Win	n/a	n/a	✔
Connecticut	Somers	Bond	Roads and Bridges	Issue $4 million bond for road and bridge improvements.	New	$4 million	Win	74	26	✔
Connecticut	Statewide	Other	Infrastructure	Prohibit lawmakers from using revenue dedicated to the state's Special Transportation Fund for anything not related to transportation spending.	New	n/a	Win	89	11	✔
Connecticut	Tolland	Bond	Roads	Issue $5 million bond for road improvements.	New	$5 million	Win	63	37	✔
Connecticut	Torrington	Bond	Roads and Bridges	Issue $38 million bond for road and bridge improvements and pavement projects.	New	$38 million	Win	76	24	✔
Florida	Broward County	Sales/Income Tax	Transportation	1 percent sales tax increase for 30 years to fund transportation projects and upgrades. Revenue would be used to leverage up to $3 billion from federal, state and other sources. Expected to generate $16 billion over 30 years.	New	$357 million in the first year	Win	60	40	✔
Florida	Collier County	Sales/Income Tax	Infrastructure	Increase the county sales tax by 1 percent from 6 to 7 percent. Funding will be allocated to a list of 18 infrastructure projects	New	$490 million	Win	51	49	✔
Florida	Hillsborough County	Sales/Income Tax	Transportation	1-cent sales tax increase, to raise about $280 million annually for 30 years. Of that revenue, 45 percent would be used to enhance and implement new transit services, while the remaining revenue would be used for local road projects.	New	$280 million in the first year	Win	57	43	✔
Florida	Miami Beach	Bond	Infrastructure	$439 million General Obligation bond (G.O. Bond) to fund critical infrastructure needs, with $198 million dedicated to neighborhood and infrastructure projects.	New	$198 million	Win	73	27	✔
Florida	Okaloosa County	Sales/Income Tax	Transportation	Half-cent sales tax increase for 10 years to pay for transportation infrastructure projects. The revenue retained by the county-- $12.7 million-- would be used on 28 infrastructure projects.	New	$12.7 million	Win	63	37	✔
Florida	St. Lucie County	Sales/Income Tax	Transportation	Half-cent sales tax increase for 10 years, with $13.1 million will be used for county road improvements projects, $8.6 million for bridge projects, $5.981 million for intersection improvements, and $20.656 million for repaving.	New	$18.5 million annually	Win	56	44	✔

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American Road & Transportation Builders Association

Nov. 6, 2018: State & Local Transportation Investment Ballot Measures

State	Location	Type	Mode	Description	Renewal/New	Anticipated Revenue Generated	Result	% Yes	% No	ARTBA-TIAC's Stance
Florida	Statewide	Other	Other	Amendment 5: Amendment to require a 2/3 vote in each chamber of the state legislature to enact or increase taxes/fees. A vote yes would make it harder to increase transportation funding in the future.	New	n/a	Loss	66	34	✗
Georgia	Baldwin County & Milledgeville	Sales/Income Tax	Transportation	The sales tax would increase by 1 percent to fund road and transportation projects.	New	$35.2 million in five years	Loss	47	53	✗
Georgia	Carroll County	Sales/Income Tax	Roads	Raise the sales tax by 1 cent to be allocated to road maintenance and repair.	New	$16.5 million annually	Loss	41	59	✗
Georgia	Forsyth County	Sales/Income Tax	Roads	1 percent sales tax increase for six years, with a percentage used for planned transportation projects.	Renewal	$166 million	Win	65	35	✓
Georgia	Habersham County	Sales/Income Tax	Roads	1 percent sales tax increase for transportation projects.	New	$35.5 million	Loss	46	54	✗
Georgia	Lee County	Sales/Income Tax	Transportation	1-cent sales tax increase to maintain roads.	New	$17 million	Win	53	47	✓
Idaho	Ada County	Other	Roads	Increase vehicle registration fees from $40 to $70 to fund road repairs.	New	$7 million	Loss	47	53	✗
Idaho	Clarkia	Property Tax	Roads	Two-year property tax increase for the construction and maintenance of local roads and bridges.	New	$83,000	Pending	n/a	n/a	
Idaho	Fremont County	Other	Overpass	Advisory poll of voters on whether the county should consider building wildlife crossings over U.S. highway 20 in the county.	New	n/a	Loss	19	81	✗
Idaho	Hayden	Other	Roads	Increase the base budget from property tax revenues by $1,633,000, with the difference divided between road maintenance and law enforcement.	New	$980,000 for roads annually	Loss	30	70	✗
Illinois	Barrington	Sales/Income Tax	Transportation	1 percent sales tax increase for street repairs and other projects.	New	$1 million annually	Win	51.0	49.0	✓
Illinois	Green Oaks	Property Tax	Roads	Property tax increase of 0.0928 percent to address deteriorating local roads. The expected $259,917 annually would be used to leverage a $2 million bond.	New	$2 million	Win	50.5	49.5	✓
Illinois	Peoria County	Sales/Income Tax	Roads	Increase sales tax by .5 percent to fund road repairs over the next 12 years	New	$33.2 million	Loss	38	62	✗
Kansas	Topeka	Sales/Income Tax	Streets	Half-cent sales tax renewal for 10 years. Would cover 52 percent of the forecasted $24 million needed annually for street projects.	New	$12.48 million	Win	62	38	✓
Louisiana	Iberia Parish	Sales/Income Tax	Roads	10 year renewable 3/4 cent sales tax to fund repairs on 400 miles of roads and ca only be used for road based projects	New	$3.375 million annually	Loss	37	63	✗
Louisiana	St. Charles Parish	Property Tax	Roads	Renewal of a 5.9 mills levy for 10 years for acquiring, constructing and maintaining public roads and bridges.	Renewal	$7,481,000 annually	Win	68	32	✓
Louisiana	Statewide	Other	Transportation	This Constitutional amendment would remove the authority of the Transportation Trust Fund to fund state police for traffic control purposes.	New	n/a	Win	56	44	✓
Maine	Augusta	Bond	Roads	Borrow $1,576,000 to pay for the reconstruction, renovation, repair and improvement of city streets, sidewalks and related facilities over the next 20 years. The bond is expected to accrue $680,000 in interest.	New	$1,576,000	Win	71	29	✓
Maine	Statewide	Bond	Transportation	Authorize $106 million bond issuance for: (a)bridge rehabilitation and repair, (b) road repairs, (c)bicycle and pedestrian infrastructure, (d) bus and ferry transit and (e) upgrade the International Marine Terminal.	New	$106 million	Win	68	32	✓
Maryland	Baltimore County	Bond	Infrastructure	Question K: Authorize a $68,384,000 bond for projects including streets and highways, bridges and storm drainage systems.	New	$68,384,000	Win	82	18	✓
Maryland	Prince George's County	Bond	Infrastructure	Question A: Authorize a $148,287,000 bond.	New	$148,287,000	Win	86	14	✓
Michigan	Beaverton	Property Tax	Roads	Property tax increase of 2 mills for 25 years for road improvements.	New	$32,518.17 in the first year	Win	63	37	✓
Michigan	Benona	Property Tax	Roads	Property tax increase of 2 mills for four years to maintain and/or improve public roads.	New	$314,852 in the first year	Win	62	38	✓
Michigan	Berkley	Property Tax	Roads	Capital Improvement Project Millage: Increase the property tax by 2 mills for 10 years, primarily to be used for road rehabilitation and reconstruction.	New	$1,142,783 in the first year	Win	70	30	✓
Michigan	Berrien Township	Property Tax	Roads	Levy $40 per parcel of property for four years to maintain, repair and replace township roads.	New	$97,500 in the first year	Win	61	39	✓
Michigan	Big Rapids Township	Property Tax	Roads	Renewal of a 1.5 mills property tax for six years for road construction, maintenance and repair.	Renewal	$226,000 in the first year	Win	70	30	✓
Michigan	Birch Run Village	Property Tax	Streets	Renewal of a 1.5-mill levy for eight years for road maintenance of major and local streets.	Renewal	$95,535 in the first year	Win	72	28	✓
Michigan	Blackman Township	Bond	Roads	Request for a bond of up to $18,985,000 for the acquisition, construction and improvement of local roads, paid for with a property tax increase (the first year is estimated to increase by 2.55 mills).	New	$18,985,000	Win	55	45	✓

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State	Location	Type	Mode	Description	Renewal/New	Anticipated Revenue Generated	Result	% Yes	% No	ARTBA-TIAC's Stance
Michigan	Calvin Township	Property Tax	Roads	2.5-mills property tax increase for five years for road construction, improvement and maintenance.	New	$209,087 in the first year	Loss	43	57	✗
Michigan	Cheshire Township	Property Tax	Roads	Raise from 1.9629 mill tax to a two-mill tax to be levied for six years and used for the maintenance and improvement of existing roads	Renewal	$125,790	Win	71	29	✓
Michigan	Crawford County	Property Tax	Roads	Renew a 4-year 1-millage levy to repair primary roads in the county	Renewal	$532,878	Win	52	48	✓
Michigan	Denmark Township	Property Tax	Roads	Property tax increase of 1 mill for six years for the maintenance and improvement of local roads.	New	$106,601 in the first year	Loss	48	52	✗
Michigan	Exeter Township	Property Tax	Roads	1.25-mill levy for five years.	New	$171,000 annually	Win	55	45	✓
Michigan	Farmington Hills	Property Tax	Roads	2.75-mills levy for paving, rehabilitating and repairing public roads.	New	$9,272,000 in the first year	Win	59	41	✓
Michigan	Fenton City	Property Tax	Roads	Property tax increase of 5 mills for 10 years to improve roads and streets in the city.	New	$2,050,000 in the first year	Loss	44	56	✗
Michigan	Flat Rock City	Property Tax	Roads	Property tax increase of 1 mill for road repair, replacement and maintenance.	New	$280,000 in the first year	Win	53	47	✓
Michigan	Forsyth Township	Property Tax		Property tax increase of 1.6 mills for 10 years for road improvements.	New	$293,630 in the first year	Win	59	41	✓
Michigan	Franklin Township	Property Tax	Roads	Renewal of a 2-mills levy for 10 years for road improvements and maintenance.	Renewal	$53,570 in the first year	Win	53	47	✓
Michigan	Grattan Township	Property Tax	Roads	Property tax increase of 1 mill for five years for public gravel road repair, maintenance and improvements.	New	$182,359 in the first year	Loss	44	56	✗
Michigan	Grosse Ile	Property Tax	Roads	Impose a 2-mills property tax increase for 12 years to fund bonds that will pay for construction, improvements and maintenance to township roads.		$1.2 million annually	Loss	46	54	✗
Michigan	Humboldt Township	Property Tax	Roads	Property tax increase of 2.009 mills for 10 years for the maintenance and improvement of primary and secondary roads within the township.	New	$58,886.89 in the first year	Win	61	39	✓
Michigan	Huntington Woods City	Bond	Roads and Sewers	Request to authorize a $7,845,000 bond (requiring a property tax increase of 0.77-mill to fund the bond) to acquire and construct sewer and road improvements.	New	$7,845,000	Win	84	16	✓
Michigan	Independence Township	Property Tax	Roads	Request for a new additional levy of 2 mills for four years to fund the improvement, rehabilitation and repair of public roads.	New	$3,167,648 in the first year	Win	51	49	✓
Michigan	Ionia County	Property Tax	Roads	Implement a six-year one-mill tax for road improvements	New	$1.5 million annually	Pending	n/a	n/a	
Michigan	Kawkawlin Township	Property Tax	Roads	Renewal of a 1-mill property tax for an additional four years for the construction, maintenance and improvement of local roads.	Renewal	$140,000 in the first year	Win	64	36	✓
Michigan	Laketown Township	Property Tax	Roads	Renew a two-mill tax levied for two years to provide operating funds for the Fire department, funds for the repair and construction of roads, and repair and maintain drains.	Renewal	$791,022	Pending	n/a	n/a	
Michigan	Leighton Township	Property Tax	Roads	Establish a one-mill tax for five years to provide funding for road improvement and maintenance	New	$235,693	Pending	n/a	n/a	
Michigan	Leighton Township	Property Tax	Roads	Levy a .9834- mill tax for five years	Renewal	$229,942	Pending	n/a	n/a	
Michigan	Leslie Township	Property Tax	Roads	Property tax increase of 0.5 mills for five years to improve, maintain and repair local roads.	New	$48,685 in the first year	Loss	47	53	✗
Michigan	Linden	Property Tax	Roads	Property tax increase of 5 mills for 10 years to improve, replace, resurface and reconstruct city roads.	New	$520,000 in the first year	Loss	49	51	✗
Michigan	Marine City	Property Tax	Streets and Infrastructure	Increase the local property tax by 3.2893 mills for five years to address road repairs	New	$313,000	Loss	46	54	✗
Michigan	Midland County	Property Tax	Roads	Establish a 1 mill tax to fund road maintenance and construction	New	$3.3 million annually	Win	80	20	✓
Michigan	Northville City	Bond	Streets	Request to authorize a $3,050,000 bond to pave, replace, grade, resurface, reconstruct and improve streets.	New	$3,050,000	Win	68	32	✓
Michigan	Otsego Township	Property Tax	Roads	Renewal of a 1.5-mills levy for five years for road maintenance and improvements.	Renewal	$259,809 in the first year	Win	65	35	✓
Michigan	Overisel Township	Property Tax	Roads	Levy a two-mill tax for four years to fund road reconstruction projects	Renewal	$273,000	Pending	n/a	n/a	
Michigan	Pipestone Township	Property Tax	Roads	Levy $60 on each parcel of real property for four years to maintain, repair and replace township roads.	New	$84,000 in the first year	Win	56	44	✓
Michigan	Reynolds	Property Tax	Roads	Property tax increase of 1 mill for five years for road improvements, maintenance and repair.	New	$72,705 in the first year	Win	51	49	✓
Michigan	Richland	Property Tax	Roads	Property tax increase of 1 mill for five years for the maintenance and repair of local roads.	New	$61,000 in the first year	Loss	49	51	✗
Michigan	Saline City	Property Tax	Streets	Authorize a property tax levy of 1 mill for five years for street and right-of-way repairs and improvements.	New	$434,743 in the first year	Win	56	44	✓
Michigan	Sodus Township	Property Tax	Roads	Renewal and increase of a 2-mills property tax to last four years for road improvements.	Renewal	$143,988 in the first year	Win	66	34	✓
Michigan	Springvale Township	Property Tax	Roads	Renewal of a 1-mill levy for four years to accelerate the repairing and improvements to local roads.	Renewal	$92,000 in the first year	Win	68	32	✓
Michigan	Valley Township	Property Tax	Roads	Replace an existing two-mill tax for four years to fund road improvement projects	New	$150,088	Pending	n/a	n/a	

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Nov. 6, 2018: State & Local Transportation Investment Ballot Measures

State	Location	Type	Mode	Description	Renewal/New	Anticipated Revenue Generated	Result	% Yes	% No	ARTBA-TIAC's Stance
Michigan	Van Buren County	Property Tax	Roads	3-mill levy for 12 years to maintain, repair and reconstruct the primary road system.	New	$10,432,956 in the first year	Loss	37	63	✗
Michigan	Village of Milford	Property Tax	Roads	Replace an existing levy with a new levy of 2.9 mills for 14 years to defray the cost of major and local road maintenance.	Renewal	$708,792 in the first year	Win	64	36	✓
Michigan	Wakeshma Township	Property Tax	Roads	Property tax increase of 3 mills for 10 years for local road repairs, upgrades, construction, improvement and maintenance.	New	$202,900 in the first year	Win	65	35	✓
Michigan	Watson Township	Property Tax	Roads	Renew a two-mill tax for four years to fund road improvement projects	Renewal	$127,324	Pending	n/a	n/a	
Michigan	White Pigeon Township	Property Tax	Roads	Property tax increase of 0.75 mill for five years for road improvements.	New	$148,620 in the first year	Win	58	42	✓
Michigan	Wilson Township	Property Tax	Roads	Property tax increase of 2 mills for four years to provide funds for road maintenance and construction.	New	$157,407 in the first year	Win	64	36	✓
Michigan	Winterfield	Property Tax	Roads	Property tax increase of 2 mills for four years for road improvements.	Renewal	$85,032.57 in the first year	Win	68	32	✓
Michigan	Zeeland Township	Property Tax	Roads	Property tax renewal and increase (from 0.9764 to 1 mill) for six years for the repair, construction and/or reconstruction of roads, bridges and/or drainage structures.	Renewal	$403,312 in the first year	Win	62	38	✓
Minnesota	Lake Shore	Bond	Roads	Request for up to $1.595 million in general obligation bonds to pay for street reconstruction projects.	New	$1,595,000	Loss	47	53	✗
Missouri	Platte City	Sales/Income Tax	Streets	Extend existing 3/8 cents transportation sales tax for additional 20 years.	Renewal	$2.5 million annually	Win	74	26	✓
Missouri	Statewide	Gasoline Tax	Infrastructure	Gradually increase the state gas tax by 10 cents per gallon to fund the maintenance and repair of roads and bridges.	New	$412 million annually by 2027	Loss	46	54	✗
Nevada	Douglas County	Other	Roads	Question on whether the Douglas County Board of Commissioners should increase the existing privelege of new real property development to the max allowed by the state to fund road construction and maintenance projects or bonds.	New	n/a	Loss	43	57	✗
Nevada	Fernley	Other	Roads	Would residents support asking the legislature to increase the state diesel tax by 5 cents-per-gallon in order to fund road repairs. If approved by voters the Council would draft a bill that could go before the state legislature.	New	n/a	Loss	49.8	50.2	✗
New Mexico	Burnalillo County	Bond	Transportation	Bond Question No. 4: Authorize $8.5 million for transportation infrastructure improvements.	New	$8.5 million	Win	74	26	✓
New Mexico	Grant County	Bond	Roads	Road Construction and Repair Bonds: Authorize $4 million in bonds to construct or repair public roads.	New	$4 million	Win	81	19	✓
North Carolina	Charlotte	Bond	Transportation	$118.08 million bond for transportation projects.	New	$118.08 million	Win	69	31	✓
North Carolina	Town of Cornelius	Bond	Transportation	$24 million bond for transportation improvements.	New	$24 million	Win	70	30	✓
North Carolina	Town of Holly Springs	Bond	Transportation	$40 million bond for transportation projects.	New	$40 million	Win	60	40	✓
North Carolina	Winston-Salem	Bond	Streets and Sidewalks	Resurface and repair local roads and streets.	New	$43,700,000	Win	66	34	✓
North Dakota	Bismarck	Sales/Income Tax	Roads	Levy an additional half-cent sales tax for the construction and reconstruction of major arterial roadways to sunset after 10 years and limited to a pre-determined list of projects.	New	$17 million	Win	55	45	✓
Ohio	Andover	Property Tax	Roads & bridges	2-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Win	71	29	✓
Ohio	Ashtabula Twp	Property Tax	Roads & bridges	1-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Win	76	24	✓
Ohio	Athens Twp	Property Tax	Road maintenance	1.5-mill Levy for 5 years for the purpose of road maintenance	Renewal		Win	74	26	✓
Ohio	Auburn	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	73	27	✓
Ohio	Bailey Lakes	Property Tax	Streets, roads & bridges	5-mill Levy for 5 years for the purpose of streets, roads & bridges	New		Pending	50	50	
Ohio	Bainbridge	Property Tax	Streets, roads & bridges	1-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	75	25	✓
Ohio	Bazetta	Property Tax	Streets, roads & bridges	3-mill Levy for 5 years for the purpose of streets, roads & bridges	New		Win	54	46	✓
Ohio	Berlin	Property Tax	Streets, roads & bridges	2-mill Levy for 4 years for the purpose of streets, roads & bridges	Renewal		Pending	n/a	n/a	
Ohio	Berlin	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Pending	n/a	n/a	
Ohio	Bexley	Property Tax	Streets, alleys, sidewalks & similar improvements	3.5-mill Levy for cpt years for the purpose of streets, alleys, sidewalks & similar improvements	Replacement		Win	69	31	✓
Ohio	Bloom	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	New		Win	55	45	✓
Ohio	Brady	Property Tax	Streets, roads & bridges	1-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	78	22	✓
Ohio	Burlington	Property Tax	Streets, roads & bridges	3-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	64	37	✓

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Ohio	Butler	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	79	21	✔
Ohio	Cardington	Property Tax	Streets, roads & bridges	1-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	66	34	✔
Ohio	Carroll County	Property Tax	Roads & bridges	1.7-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Win	60	40	✔
Ohio	Chester	Property Tax	Streets, roads & bridges	1-mill Levy for cpt years for the purpose of streets, roads & bridges	Renewal		Win	77	23	✔
Ohio	Clark	Property Tax	Streets, roads & bridges	2.5-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Pending	n/a	n/a	
Ohio	Concord	Property Tax	Roads & bridges	2.5-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Win	75	25	✔
Ohio	Concord	Property Tax	Roads & bridges	0.4-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Win	67	33	✔
Ohio	Coshocton	Property Tax	Streets, roads & bridges	2.4-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	66	34	✔
Ohio	Crane	Property Tax	Streets, roads & bridges	2.8-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	72	28	✔
Ohio	Cumberland	Property Tax	Streets, roads & storm drains	5-mill Levy for 5 years for the purpose of streets, roads & storm drains	New		Loss	44	56	✘
Ohio	Deercreek	Property Tax	Streets, roads & bridges	3-mill Levy for 5 years for the purpose of streets, roads & bridges	Replacement		Win	55	45	✔
Ohio	Delaware	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	68	32	✔
Ohio	Delaware	Property Tax	Roads	0.8-mill Levy for 5 years for the purpose of roads	Renewal		Win	60	40	✔
Ohio	Denmark	Property Tax	Roads & bridges	1-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Win	69	31	✔
Ohio	Dresden	Property Tax	Streets, roads & bridges	2-mill Levy for cpt years for the purpose of streets, roads & bridges	New		Loss	48	52	✘
Ohio	East	Property Tax	Roads & bridges	1-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Win	69	31	✔
Ohio	East Sparta	Property Tax	Streets, roads & bridges	5-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	60	40	✔
Ohio	East Union	Property Tax	Streets, roads & bridges	1.5-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	62	38	✔
Ohio	Elk	Property Tax	Streets, roads & bridges	1-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	72	28	✔
Ohio	Elkrun	Property Tax	Roads	1-mill Levy for 5 years for the purpose of roads	New		Win	52	48	✔
Ohio	Elmore	Property Tax	Streets, roads & bridges	2.5-mill Levy for 3 years for the purpose of streets, roads & bridges	Renewal		Win	78	22	✔
Ohio	Euclid	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	New		Loss	40	60	✘
Ohio	Farmersville	Property Tax	Streets & roads	1.5-mill Levy for 5 years for the purpose of streets & roads	Renewal		Win	72	28	✔
Ohio	Farmington	Property Tax	Streets, roads & bridges	2.5-mill Levy for cpt years for the purpose of streets, roads & bridges	New		Loss	45	55	✘
Ohio	Franklin	Property Tax	Streets, roads & bridges	1-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	70	30	✔
Ohio	Franklin	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	Replacement		Win	64	36	✔
Ohio	Franklin	Property Tax	Roads	2.5-mill Levy for 3 years for the purpose of roads	Renewal		Win	78	22	✔
Ohio	Geneva	Property Tax	Roads & bridges	1-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Win	67	33	✔
Ohio	Geneva on the Lake	Property Tax	Streets, roads & bridges	0.9-mill Levy for 5 years for the purpose of streets, roads & bridges	New		Win	55	45	✔
Ohio	German	Property Tax	Roads	1-mill Levy for 5 years for the purpose of roads	Replacement		Win	74	26	✔
Ohio	German	Property Tax	Roads	0.5-mill Levy for 5 years for the purpose of roads	Renewal		Win	69	31	✔
Ohio	German	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	New		Loss	47	53	✘
Ohio	Gilead	Property Tax	Streets, roads & bridges	1-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	60	40	✔
Ohio	Goshen Township Outside Road District	Property Tax	Roads & bridges	2-mill Levy for cpt years for the purpose of roads & bridges	New		Loss	49	51	✘
Ohio	Grafton	Property Tax	Roads & bridges	1-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Win	64	36	✔
Ohio	Green	Property Tax	Roads, culverts & bridges	1.5-mill Levy for 5 years for the purpose of roads, culverts & bridges	Renewal		Win	73	24	✔
Ohio	Hamilton	Property Tax	Streets, roads & bridges	1.25-mill Levy for cpt years for the purpose of streets, roads & bridges	New		Win	59	41	✔
Ohio	Harrison	Property Tax	Roads	1-mill Levy for 5 years for the purpose of roads	Replacement		Win	67	33	✔
Ohio	Harrison Township Road District	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	66	34	✔

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State	Location	Type	Mode	Description	Renewal/New	Anticipated Revenue Generated	Result	% Yes	% No	ARTBA-TIAC's Stance
Ohio	Hartville	Sales/Income Tax	General municipal operation, municipal services & facilities improvements, capital improvements, police operations & streets	0.5 percent income tax increase, which would also go towards street improvements.	New		Loss	33	67	✗
Ohio	Island Creek	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	New		Win	53	47	✓
Ohio	Jackson	Property Tax	Streets, roads & bridges	2-mill Levy for 4 years for the purpose of streets, roads & bridges	New		Win	51	49	✓
Ohio	Jackson	Property Tax	Roads & bridges	2-mill Levy for cpt years for the purpose of roads & bridges	Replacement		Win	64	36	✓
Ohio	Jefferson	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	Replacement		Win	68	32	✓
Ohio	Knox	Property Tax	Roads	1-mill Levy for 5 years for the purpose of roads	Renewal		Win	72	28	✓
Ohio	Lake Township Road District	Property Tax	Streets, roads & bridges	1.25-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	63	37	✓
Ohio	Lawrence Township Road District	Property Tax	Streets, roads & bridges	1-mill Levy for 5 years for the purpose of streets, roads & bridges	Replacement		Win	56	44	✓
Ohio	Lenox	Property Tax	Roads & bridges	2-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Win	70	30	✓
Ohio	Leroy	Property Tax	Roads	1.5-mill Levy for 5 years for the purpose of roads	Renewal		Win	61	39	✓
Ohio	Liberty	Property Tax	Streets, roads & bridges	2.5-mill Levy for 12 years for the purpose of streets, roads & bridges	Replacement		Win	53	47	✓
Ohio	Liberty	Property Tax	Purchasing road equipment	0.9-mill Levy for 5 years for the purpose of purchasing road equipment	New		Loss	46	54	✗
Ohio	Liberty	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	Replacement		Win	74	26	✓
Ohio	Lodi	Property Tax	Road maintenance including dust control	1.5-mill Levy for 5 years for the purpose of road maintenance including dust control	Replacement		Win	70	30	✓
Ohio	Loramie	Property Tax	Roads	2-mill Levy for 5 years for the purpose of roads	Renewal		Win	68	32	✓
Ohio	Mad River	Property Tax	Streets, roads & bridges	1.7-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	65	35	✓
Ohio	Madison	Property Tax	Roads	0.5-mill Levy for 5 years for the purpose of roads	Renewal		Win	62	38	✓
Ohio	Madison	Property Tax	Roads	2-mill Levy for 5 years for the purpose of roads	Renewal		Win	57	43	✓
Ohio	Madison	Property Tax	Streets, roads & bridges	1.5-mill Levy for 3 years for the purpose of streets, roads & bridges	New		Win	62	38	✓
Ohio	Malta	Property Tax	Streets & alleys	1-mill Levy for 5 years for the purpose of streets & alleys	Renewal		Win	73	27	✓
Ohio	Mantua	Property Tax	Streets, roads & bridges	3.85-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	71	29	✓
Ohio	Marietta	Sales/Income Tax	Fire service, city streets, capital improvements, general municipal operations, municipal services and facilities	0.15 percent income tax increase, which would also be used on city streets.	New		Win	56	44	✓
Ohio	Marion	Property Tax	Roads & bridges	1.5-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Win	73	27	✓
Ohio	McClure	Property Tax	Streets, roads & bridges	1.5-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	70	30	✓
Ohio	Mechanisburg	Property Tax	Streets, roads & bridges	5-mill Levy for 5 years for the purpose of streets, roads & bridges	New		Win	53	47	✓
Ohio	Meyers Lake	Property Tax	Streets, roads & bridges	5-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	67	33	✓
Ohio	Miami	Property Tax	Streets, roads & bridges	1-mill Levy for cpt years for the purpose of streets, roads & bridges	New		Win	64	36	✓
Ohio	Middlefield	Sales/Income Tax	Infrastructure repairs, maintenance & improvements	0.25 percent income tax increase for infrastructure repairs, maintenance and improvements.	New		Win	52	48	✓
Ohio	Middlefield	Property Tax	Streets, roads & bridges	2.5-mill Levy for 4 years for the purpose of streets, roads & bridges	New		Win	52	48	✓
Ohio	Midvale	Property Tax	Streets, roads & bridges	5-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	68	32	✓
Ohio	Mifflin	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	Replacement		Win	66	34	✓

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State	Location	Type	Mode	Description	Renewal/New	Anticipated Revenue Generated	Result	% Yes	% No	ARTBA-TIAC's Stance
Ohio	Milford	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	68	32	✔
Ohio	Millersport	Property Tax	Streets, roads & bridges	5-mill Levy for 5 years for the purpose of streets, roads & bridges	New		Win	58	42	✔
Ohio	Monroe	Property Tax	Roads	1.5-mill Levy for 5 years for the purpose of roads	New		Win	52	48	✔
Ohio	Monterey	Property Tax	Roads	1-mill Levy for 5 years for the purpose of roads	Replacement		Win	73	27	✔
Ohio	Montville	Property Tax	Streets, roads & bridges	1-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	69	31	✔
Ohio	Montville	Property Tax	Streets, roads & bridges	1.5-mill Levy for 5 years for the purpose of streets, roads & bridges	New		Loss	43	57	✘
Ohio	Moorefield	Property Tax	Streets, roads & bridges	1-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	73	27	✔
Ohio	Morgan	Property Tax	Roads, streets & bridges	3-mill Levy for 3 years for the purpose of roads, streets & bridges	Renewal		Win	65	35	✔
Ohio	Munson	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	74	26	✔
Ohio	Napoleon	Property Tax	Streets, roads & bridges	3-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	70	30	✔
Ohio	Nelson	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	66	34	✔
Ohio	New Holland	Property Tax	Streets	0.7-mill Levy for 5 years for the purpose of streets	Renewal		Pending	50	50	
Ohio	New Jasper	Property Tax	Streets, roads & bridges	1.5-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	75	25	✔
Ohio	Newark	Property Tax	Streets, roads & bridges	1-mill Levy for 5 years for the purpose of streets, roads & bridges	Replacement		Win	66	34	✔
Ohio	Newbury	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	67	33	✔
Ohio	Newton Falls	Property Tax	Streets & bridges	2-mill Levy for cpt years for the purpose of streets & bridges	New		Loss	48	52	✘
Ohio	Nimishillen	Property Tax	Streets, roads & bridges	1-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	58	42	✔
Ohio	Northfield Center	Property Tax	Roads	2.78-mill Levy for 5 years for the purpose of roads	Renew/Increase		Win	65	35	✔
Ohio	Ontario	Sales/Income Tax	Maintain & repair city streets	0.25 percent income tax increase to maintain and repair city streets.	New	$600,000 annually	Loss	36	64	✘
Ohio	Orange	Property Tax	Roads & bridges	0.9-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Win	65	35	✔
Ohio	Orwell	Property Tax	Roads & bridges	0.5-mill Levy for 5 years for the purpose of roads & bridges	Replacement		Win	79	21	✔
Ohio	Ottoville	Property Tax	Streets, roads & bridges	1.95-mill Levy for 5 years for the purpose of streets, roads & bridges	Replacement		Win	75	25	✔
Ohio	Painesville	Property Tax	Streets, roads & bridges, sidewalks, walkways, trails, bicycle pathways or similar improvements	1.95-mill Levy for cpt years for the purpose of streets, roads & bridges, sidewalks, walkways, trails, bicycle pathways or similar improvements	New		Win	52	48	✔
Ohio	Paint	Property Tax	Streets & roads	1-mill Levy for 5 years for the purpose of streets & roads	Renewal		Pending	n/a	n/a	
Ohio	Paris	Property Tax	Roads & bridges, equipment & payroll	2-mill Levy for 5 years for the purpose of roads & bridges, equipment & payroll	Renewal		Win	75	25	✔
Ohio	Parkman	Property Tax	Streets, roads & bridges	0.9-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	65	35	✔
Ohio	Perkins	Property Tax	Streets & roads	2.75-mill Levy for the purpose of streets & roads.	Renewal	$1 million annually	Win	70	30	✔
Ohio	Perry	Property Tax	Streets, roads & bridges	2.5-mill Levy for 5 years for the purpose of streets, roads & bridges	Replacement		Loss	47	53	✘
Ohio	Perry	Property Tax	Streets, roads & bridges	1.5-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	78	22	✔
Ohio	Perry	Property Tax	Roads	3-mill Levy for 5 years for the purpose of roads	New		Win	61	39	✔
Ohio	Perrysburg	Property Tax	Streets, roads & bridges	1.5-mill Levy for 5 years for the purpose of streets, roads & bridges	New		Win	59	41	✔
Ohio	Pierpont	Property Tax	Roads & bridges	3-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Win	75	25	✔
Ohio	Pitsburg	Property Tax	Roads	2-mill Levy for 5 years for the purpose of roads	Renewal		Win	74	26	✔
Ohio	Poland	Property Tax	Streets, roads & bridges	2.03-mill Levy for 7 years for the purpose of streets, roads & bridges	New		Win	52	48	✔
Ohio	Portage	Property Tax	Streets, roads & bridges	1-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	72	28	✔
Ohio	Porter	Property Tax	Roads & bridges	1-mill Levy for 5 years for the purpose of roads & bridges	Replacement		Win	74	26	✔
Ohio	Prairie	Property Tax	Streets, roads & bridges	4-mill Levy for 5 years for the purpose of streets, roads & bridges	New		Win	67	33	✔
Ohio	Pultney	Property Tax	Roads & bridges	4-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Win	61	39	✔
Ohio	Rarden	Property Tax	Roads	5.5-mill Levy for 5 years for the purpose of roads	Replacement		Win	63	37	✔

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State	Location	Type	Mode	Description	Renewal/New	Anticipated Revenue Generated	Result	% Yes	% No	ARTBA-TIAC's Stance
Ohio	Richland	Property Tax	Streets, roads & bridges	1-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Pending	n/a	n/a	
Ohio	Riley	Property Tax	Township road repair	3-mill Levy for 5 years for the purpose of township road repair	Renewal		Win	68	32	✔
Ohio	Ripley	Property Tax	Streets, roads & bridges	1.5-mill Levy for 5 years for the purpose of streets, roads & bridges	New		Pending	50	50	
Ohio	Riverside	Property Tax	Streets, roads & bridges	8-mill Levy for cpt years for the purpose of streets, roads & bridges	New		Loss	49	51	✘
Ohio	Rose	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	60	40	✔
Ohio	Royalton	Property Tax	Roads	1-mill Levy for 5 years for the purpose of roads	Renewal		Win	73	27	✔
Ohio	Rush	Property Tax	Roads & bridges	1.5-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Win	61	39	✔
Ohio	Russell	Property Tax	Streets, roads & bridges	2.75-mill Levy for cpt years for the purpose of streets, roads & bridges	Renewal		Win	73	27	✔
Ohio	Sagamore Hills	Property Tax	Streets, roads & bridges	1-mill Levy for cpt years for the purpose of streets, roads & bridges	New		Win	65	35	✔
Ohio	Salem	Property Tax	Roads & bridges	2-mill Levy for 5 years for the purpose of roads & bridges	New		Win	56	44	✔
Ohio	Salt Creek	Property Tax	Maintain & improve township roads, equipment & buildings	2.5-mill Levy for 5 years for the purpose of maintain & improve township roads, equipment & buildings	Renewal		Win	62	38	✔
Ohio	Salt Creek	Property Tax	District road improvement	1-mill Levy for 5 years for the purpose of district road improvement	New		Win	56	44	✔
Ohio	Salt Creek Township Road District	Property Tax	Roads & bridges	2.5-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Win	62	38	✔
Ohio	Saltcreek	Property Tax	Streets, roads & bridges	1.5-mill Levy for 5 years for the purpose of streets, roads & bridges	Replacement		Win	62	38	✔
Ohio	Sandusky	Property Tax	Streets, roads & bridges	0.5-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	72	28	✔
Ohio	Sharon	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	72	28	✔
Ohio	Spring Valley	Property Tax	Roads & bridges	1.5-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Win	73	27	✔
Ohio	Springfield	Property Tax	Streets, roads & bridges	1.5-mill Levy for 5 years for the purpose of streets, roads & bridges	Renew/Increase		Pending	n/a	n/a	
Ohio	Stock	Property Tax	Road & maintenance	1-mill Levy for 5 years for the purpose of road & maintenance	Renewal		Win	74	26	✔
Ohio	Struthers	Property Tax	Streets, roads & bridges	3-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal	$318,000 annually	Win	73	27	✔
Ohio	Sugarcreek	Property Tax	Road & bridge maintenance	1-mill Levy for 5 years for the purpose of road & bridge maintenance	Replacement		Win	61	39	✔
Ohio	Symmes	Property Tax	Streets, roads, bridges, sidewalks, walkways, trails, bicycle pathways or similar improvements	0.4-mill Levy for 7 years for the purpose of streets, roads, bridges, sidewalks, walkways, trails, bicycle pathways or similar improvements	New		Win	67	33	✔
Ohio	Trimble	Property Tax	Road maintenance	1.5-mill Levy for 5 years for the purpose of road maintenance	New		Win	56	44	✔
Ohio	Valley	Property Tax	Streets, roads & bridges	0.4-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	59	41	✔
Ohio	Virginia	Property Tax	Road improvements	2.5-mill Levy for 5 years for the purpose of road improvements	New		Win	58	42	✔
Ohio	Walnut	Property Tax	Streets, roads & bridges	3-mill Levy for cpt years for the purpose of streets, roads & bridges	New		Win	63	37	✔
Ohio	Walnut Creek	Property Tax	Streets, roads & bridges	1.5-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Pending	n/a	n/a	
Ohio	Warren	Property Tax	Road & bridge maintenance	2-mill Levy for 5 years for the purpose of road & bridge maintenance	Renewal		Win	58	42	✔
Ohio	Washington	Property Tax	Streets, roads & bridges	2.5-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	73	27	✔
Ohio	Washington	Property Tax	Road maintenance	1-mill Levy for 5 years for the purpose of road maintenance	Renewal		Win	67	33	✔
Ohio	Washington	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	Replacement		Win	61	39	✔
Ohio	Washington	Property Tax	Road maintenance	2-mill Levy for 5 years for the purpose of road maintenance	Renewal		Win	59	41	✔
Ohio	Washington	Property Tax	Streets, roads & bridges	2-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	72	28	✔
Ohio	Waverly	Property Tax	Streets, roads & bridges	1.5-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	70	30	✔
Ohio	Wayne	Property Tax	Roads	1.5-mill Levy for 5 years for the purpose of roads	Renewal		Win	69	31	✔
Ohio	Wayne	Property Tax	Roads	4-mill Levy for 5 years for the purpose of roads	New		Win	68	32	✔
Ohio	Wayne	Property Tax	Roads & bridges	4-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Loss	48	52	✘

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American Road & Transportation Builders Association

Nov. 6, 2018: State & Local Transportation Investment Ballot Measures

State	Location	Type	Mode	Description	Renewal/New	Anticipated Revenue Generated	Result	% Yes	% No	ARTBA-TIAC's Stance
Ohio	Wayne	Property Tax	Streets, roads & bridges	1-mill Levy for 5 years for the purpose of streets, roads & bridges	Renewal		Win	67	33	✔
Ohio	West Milton	Property Tax	Streets, including storm sewers	3-mill Levy for 5 years for the purpose of streets, including storm sewers	Renewal		Win	60	40	✔
Ohio	Windsor	Property Tax	Roads & bridges	2.5-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Win	69	33	✔
Ohio	Woodlawn	Sales/Income Tax	Construct, repair, improve & maintain streets & roads	0.3 percent income tax increase for five years to construct, repair, improve and maintain streets and roads.	New		Win	61	39	✔
Ohio	Worthington	Property Tax	Roads & bridges	2-mill Levy for 5 years for the purpose of roads & bridges	Renewal		Win	64	36	✔
Ohio	Xenia	Property Tax	Streets, roads & bridges	3.5-mill Levy for 10 years for the purpose of streets, roads & bridges	New		Loss	46	54	✘
Oklahoma	City of Moore	Sales/Income Tax	Streets	Renewal of a 3.75 percent sales tax for four years.	Renewal		Win	66	34	✔
Oregon	Gold Beach	Other	Streets	Measure 8-94: Request to impose a tax on motor vehicle fuel dealers to raise revenue for street repairs.	New		Loss	37	63	✘
Oregon	North Bend	Gasoline Tax	Roads	Institute a 4 percent gas tax to fund road projects.	New	n/a	Loss	45	55	✘
Oregon	Ridgewood Road District	Property Tax	Roads	Property tax increase of $3 per $1,000 assessed value for one year.	New	$60,700	Win	73	27	✔
Oregon	Springfield	Bond	Roads	Measure 26-296: $10 million bond (funded through an estimated property tax increase of about 50 cents per $1,000 assessed property value) for eight projects on existing roads.	New	$10 million	Win	55	45	✔
Pennsylvania	Philadelphia	Bond	Infrastructure	Request for a $181 million bond, with $5.171 million spent on transit and $36.932 million spent on sanitation.	New	$42.103 million	Win	72	28	✔
Rhode Island	Pawtucket	Bond	Streets & Sidewalks	Question 6: Request for $7 million bond to repair and rehabilitate roads and sidewalks throughout the city.	New	$7 million	Win	88	12	✔
Rhode Island	Pawtucket	Bond	Streets	Question 8: Request for $5 million bond to continue repaving projects.	Renewal	$5 million	Win	88	12	✔
Rhode Island	Pawtucket	Bond	Bridges	Question 11: Request for $1 million bond for bridge repairs throughout the city.	New	$1 million	Win	86	14	✔
South Carolina	Beaufort County	Sales/Income Tax	Transportation	Sales tax increase to raise revenue for local transportation projects, including widening Hilton Head Island bridges. Tax imposed for four years, or until goal ($120 million) is met.	New	$120 million	Win	58	42	✔
Texas	Arlington City	Bond	Street Improvements	Proposition A: Request for a $137,835,000 bond, to be used for local street improvements.	Renewal	$137,835,000	Win	75	25	✔
Texas	Austin	Bond	Transportation Infrastructure	Proposition G: Request for a $160 million bond, of which $66.5 million will be used for street reconstruction and $50 million for bridges and structures.	New	$116.5 million	Win	81	19	✔
Texas	Cibolo	Bond	Road Improvements	Proposition C: Request for a $1.1 million bond to address Tolle Road drainage issues and road improvements.	New	$1.1 million	Win	74	26	✔
Texas	Collin County	Bond	Roads	Proposition A: Funding for general transportation projects, including non-tolled, high-speed highways and freeways and related service and frontage roads. Package includes Prop B (see below).	New	$740 million	Win	69	31	✔
Texas	Corpus Christi	Bond	Streets	Proposition A: Request for a $52 million bond to address 23 street projects.	Renewal	$52 million	Win	64	36	✔
Texas	Corpus Christi	Bond	Streets	Proposition B: Request for a $22 million bond for 14 additional street projects. This proposition requires a 1-cent tax increase to fund the bond.	New	$22 million	Win	64	36	✔
Texas	Duncanville	Bond	Streets	Proposition B: Request for $6.6 million for street improvements.	New	$6.6 million	Win	86	14	✔
Texas	Edinburg	Bond	Roads and Drainage	Request for a $10 million bond for roadway improvements and $20 million to address drainage issues.	New	$30 million	Win	50.1	49.9	✔
Texas	Hutto	Bond	Roads and Drainage	Proposition A: Request for $70 million for constructing, improving, extending, expanding, upgrading and/or developing streets, roads and intersections.	New	$70 million	Win	71	29	✔
Texas	Longview	Bond	Streets and Infrastructure	Proposition B: Request for the issuance of $27,090,000 in bonds for street and road improvements.	New	$27,090,000	Win	67	33	✔
Texas	Pflugerville	Bond	Transportation	Proposition A: Request for a $21.1 million bond for transportation projects.	New	$21.1 million	Win	68	32	✔
Texas	Pilot Point	Bond	Infrastructure	Proposition B: Issue $4 million bond for roads, bridges, alleyways, pathways, screening walls and sidewalks within the city.	New	$4 million	Win	71	29	✔
Texas	Richland Hills	Sales/Income Tax	Roads	Prop A: Adopt a local sales tax of 3/8 percent for municipal street maintenance and repair.	New		Win	73	27	✔
Texas	Richwood	Bond	Streets	Prop 1: Request for a bond to perform construction projects on local streets and roads.	New	$3 million	Win	64	36	✔

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American Road & Transportation Builders Association

Nov. 6, 2018: State & Local Transportation Investment Ballot Measures

State	Location	Type	Mode	Description	Renewal/New	Anticipated Revenue Generated	Result	% Yes	% No	ARTBA-TIAC's Stance
Utah	Salt Lake City	Bond	Roads	Authorize an $87 million bond for street improvements, which would be funded with a property tax increase that would replace previous property tax increases used to fund two other bonds retiring in 2019.	New	$87 million	Win	68	32	✔
Utah	Statewide	Other	Gas Tax	Advisory question asking if the state should increase the state gas tax by 10 cents-per-gallon, with revenue deposited into the transportation fund, and general fund revenue redirected to education.	New	n/a	Loss	34	66	✘
Virginia	Arlington County	Bond	Transit	Request for approval of a $74,570,000 bond to finance capital projects for the metro system and other transit, pedestrian, road or transportation projects.	New	$74,570,000	Win	81	19	✔
Virginia	Loudon County	Bond	Roads	Question 1: Request for approval of a $152,585,000 bond for various road projects.	New	$152,585,000	Win	77	23	✔
Washington	City of Anacortes	Sales/Income Tax	Transportation	Authorize a 0.2 percent sales tax for ten years for transportation improvements. This measure would replace the current vehicle license fee.	New		Win	61	39	✔
Washington	City of Gig Harbor	Sales/Income Tax	Transportation	Authorize a 0.2 percent sales tax for ten years for transportation improvements.	New		Win	51	50	✔
Washington	City of Oakesdale	Property Tax	Streets	Proposition No. 2: Authorize a levy of $2.25 per $1,000 of real property value for street work and maintenance in 2019.		$41,000	Win	76	25	✔
Washington	City of Palouse	Property Tax	Streets	Proposition No. 1: Authorize a levy of $0.74 per $1,000 of real property value for street improvements in 2019.		$44,000	Win	77	23	✔
Washington	City of Sequim	Sales/Income Tax	Transportation	Renew a 0.2 percent sales tax to fund Transportation Improvement Projects.	Renewal	$700,000 annually	Win	77	23	✔
Washington	City of Tekoa	Property Tax	Streets	Authorize a levy of $0.84 per $1,000 of real property value for street maintenance in 2019.		$25,000	Win	53	47	✔
Washington	Covington	Sales/Income Tax	Transportation	Proposition No. 1: Authorize a 0.2 percent sales tax for ten years to fund transportation projects.	New	~ $600,000	Loss	48	52	✘
Washington	Town of Rosalia	Property Tax	Streets	Authorize a levy of $4.57 per $1,000 of real property value for street maintenace and improvements.		$95,000	Win	62	38	✔
Washington	Town of St. John	Property Tax	Streets	Proposition No. 1: Authorize a levy of $1.57 per $1,000 of real property value for street improvements and maintenance in 2019.		$50,000	Win	60	40	✔
Wisconsin	Buffalo County	Bond	Roads	Bond $4,000,000 for the purpose of restoring county roads and maintenance to a thirty (30) year pavement life cycle.	New	$4 million	Win	70	30	✔
Wisconsin	City of New Holstein	Property Tax	Roads	Increase the property tax for city services.		$1,652,031	Loss	42	58	✘
Wisconsin	LaCrosse County	Other	Roads	Premier Resort Area Tax (PRAT) of 0.5 percent as a sales tax on tourism-related goods and services.	New	n/a	Win	68	32	✔
Wisconsin	LaCrosse County	Bond	Roads	Bond for local roads and bridges.	New	Loss	Loss	26	74	✘
Wisconsin	LaCrosse County	Other	Roads	If the La Crosse County Board finds it necessary to increase local spending on roads and bridges due to insufficient state and federal funds, do you support imposing an annual vehicle registration fee ('wheel tax') of approximately $56 per auto	New	Loss	Loss	32	68	✘
Wisconsin	LaCrosse County	Other	Roads	The La Crosse County Board of Supervisors has determined that an expenditure of $5 million per year is necessary to address unmet road and bridge needs currently totaling $101 million. Do you support the County investing $5 million annually to	New	n/a	Win	78	22	✔
Wisconsin	Town of Arbor Vitae	Property Tax	Roads	14.398 percent property tax increase.		$953,433	Win	62	28	✔
Wisconsin	Town of Minocqua	Sales/Income Tax		Levy a 0.5% (one half cent on the dollar) sales tax on sales related to tourism for transportation-related infrastructure expenses.			Win	57	43	✔
Wisconsin	Town of Sugar Creek	Property Tax	Roads	Increase the town tax levy for 2018 (to be collected in 2019 and each and every year for five (5) years thereafter) by 51.6766 percent.		$704,427	Win	55	45	✔
Wisconsin	Town of Trenton	Property Tax	Roads	Property tax increase for roads.		$1,433,036	Loss	44	56	✘
Wisconsin	Village of Bloomfield	Property Tax	Roads	Property tax increase for roads.		$2,463,163	Loss	30	70	✘
Wisconsin	Village of Richfield	Property Tax	Roads	Property tax increase for roads.		$3,376,568	Win	51	49	✔

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State Overview of Ballot Measures, November 6, 2018

State	Number of Measures Introduced	Number of Measures Approved, by Type of Measure						Percent of Measures Passed	Value of Approved Measures
		Gasoline Tax	Sales/Income Tax	Bond	Property Tax	Other	Total		
Alabama	2	0	1	0	1	0	2	100%	$107.33 million
Arizona	6	0	3	0	0	0	3	50%	$528.50 million
California	16	1	10	0	1	3	15	94%	$1.92 billion
Colorado	12	0	0	1	5	1	7	58%	$128.18 million
Connecticut	8	0	0	7	0	1	8	100%	$90.45 million
Florida	7	0	5	1	0	0	6	86%	$24.89 billion
Georgia	5	0	2	0	0	0	2	40%	$183.00 million
Idaho	4	0	0	0	0	0	0	0%	n/a
Illinois	3	0	1	0	1	0	2	67%	$3.00 million
Kansas	1	0	1	0	0	0	1	100%	$12.48 million
Louisiana	3	0	0	0	1	1	2	67%	$74.81 million
Maine	2	0	0	2	0	0	2	100%	$274.41 million
Maryland	2	0	0	2	0	0	2	100%	$216.67 million
Michigan	49	0	0	3	29	0	32	65%	$100.98 million
Minnesota	1	0	0	0	0	0	0	0%	n/a
Missouri	2	0	1	0	0	0	1	50%	$50.00 million
Nevada	2	0	0	0	0	0	0	0%	n/a
New Mexico	2	0	0	2	0	0	2	100%	$12.50 million
North Carolina	4	0	0	4	0	0	4	100%	$225.78 million
North Dakota	1	0	1	0	0	0	1	100%	$17.00 million
Ohio	165	0	3	0	137	0	140	85%	$17.18 million
Oklahoma	1	0	1	0	0	0	1	100%	n/a
Oregon	4	0	0	1	1	0	2	50%	$10.06 million
Pennsylvania	1	0	0	1	0	0	1	100%	$42.10 million
Rhode Island	3	0	0	3	0	0	3	100%	$13.00 million
South Carolina	1	0	1	0	0	0	1	100%	$120.00 million
Texas	14	0	1	13	0	0	14	100%	$1.23 billion
Utah	2	0	0	1	0	0	1	50%	$87.00 million
Virginia	2	0	0	2	0	0	2	100%	$227.16 million
Washington	9	0	3	0	5	0	8	89%	$955.00 thousand
Wisconsin	12	0	1	1	3	2	7	58%	$110.03 million

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Regional Overview of Ballot Measures, November 6, 2018

Region	Number of Measures Introduced	Number of Measures Approved, by Type of Measure						Percent of Measures Passed	Value of Approved Measures
		Gasoline Tax	Sales/Income Tax	Bond	Property Tax	Other	Total		
Central	232	0	6	4	170	2	182	78%	$281.20 million
Northern	16	0	0	15	0	1	16	100%	$636.63 million
Southern	24	0	9	7	2	1	19	79%	$25.82 billion
Western	74	1	20	18	12	4	55	74%	$3.95 billion

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