



IDAHO'S TRANSPORTATION INFRASTRUCTURE: MOVING IDAHO FORWARD 2020



IDAHO'S TRANSPORTATION INFRASTRUCTURE: MOVING IDAHO FORWARD EXECUTIVE SUMMARY

IDAHO'S TRANSPORTATION SYSTEM AND INFRASTRUCTURE ARE VITAL TO THE STATE'S ECONOMY. The state's vast network of critical infrastructure. from its roads and bridges to the systems that support transit, bikes, and pedestrians, enables personal independence and spurs responsible growth in employment, job creation, business retention, and land development. However, Idaho must determine how to properly fund this essential system to ensure it is maintained and accommodates the state's unprecedented growth. In 2010, a task force appointed by Governor C.L. "Butch" Otter and led by then Lieutenant Governor Brad Little began addressing these issues. In 2011, the group released a report, Modernizing Transportation Funding in Idaho, which found the state was in need of an additional \$262 million annually for road and bridge preservation and restoration and \$281 million annually for safety and capacity enhancements. Since then, the Idaho Legislature has passed revenue enhancements and the state's population has grown significantly. These changes spurred a diverse group of stakeholders to reexamine Idaho's transportation infrastructure and identify alternatives available to meet the needs of the state now and in the future. These stakeholders engaged Idaho Policy Institute, a nonpartisan research organization, to conduct an independent analysis for this report.

Findings indicate:

- o Idaho needs an additional \$241.8 million per year in revenue:
 - \$236.5 million per year would enable efforts to meet preservation and restoration goals for Idaho's roads and bridges.
 - At least an additional \$5.3 million per year is needed to maintain existing transit equipment and infrastructure.
- o This additional revenue requirement *does not include* equipment replacement, safety enhancement, or unfunded expansion for all infrastructure (road, bridge, bike, pedestrian, and transit).
- o If funding is not available and maintenance is deferred, then this annual figure compounds, making the funding requirement significantly larger in the future.
- o Alternative revenue enhancement scenarios presented in this report need to be examined closely to determine whether they are appropriate for Idaho's transportation system.





BACKGROUND

Transportation infrastructure spurs responsible growth in employment, job creation, business retention, and land development. However, Idaho, like many states, is facing critical issues in its transportation system.

In 2010, a task force appointed by Governor C.L. "Butch" Otter and led by then Lieutenant Governor Brad Little began addressing the state's transportation infrastructure issues. In 2011, the group released a report, *Modernizing Transportation Funding in Idaho*.¹ Changes in the last decade brought together a diverse group of transportation stakeholders to reexamine the state of Idaho's transportation infrastructure. This group includes:

American Council of Engineering Companies of Idaho (ACEC of Idaho) Ada County Highway District (ACHD) Association of Idaho Cities (AIC) Community Planning Association of Southwest Idaho (COMPASS) Idaho Associated General Contractors (AGC) Idaho Association of Counties (IAC) Idaho Association of Highway Districts (IAHD) Idaho Forest Group Idaho Trucking Association Simplot Transportation Valley Regional Transit (VRT)

This group sought to answer the following:

- 1. What is the status of transportation infrastructure in Idaho?
- 2. What has changed since the Governor's Task Force reported on the issue in 2011?
- 3. What policy alternatives are available to improve transportation infrastructure in Idaho?

To answer these questions the group contracted with Idaho Policy Institute (IPI). Created in 2016, IPI strives to provide unbiased research for decision makers to assist them in addressing the difficult decisions of the day. IPI's research helps government leaders across the state navigate change and forge strong directions for Idaho's communities. IPI answered these questions through four main tasks.

TASK 1: STAKEHOLDER ENGAGEMENT

IPI conducted interviews with key stakeholders in Idaho's transportation system, including officials from Local Highway Technical Assistance Council (LHTAC), Idaho Transportation Department (ITD), Ada County Highway District (ACHD), Association of Idaho Cities (AIC), and others. Interviews focused on stakeholder perceptions regarding community needs and funding prioritization.

TASK 2: DATA COLLECTION AND FINANCIAL MODELING

IPI led an ongoing discussion with stakeholders in Idaho's transportation system, including LHTAC, ITD, ACHD, COMPASS, and others across the state to gather data regarding annual revenues and costs. Frequent meetings with stakeholders allowed IPI to collect and incorporate feedback throughout the research and model development.

TASK 3: EVALUATE IDAHO'S TRANSPORTATION INFRASTRUCTURE

IPI conducted an updated assessment of Idaho's transportation infrastructure, including the systems, challenges, and funding gaps that affect its health. This assessment includes road and bridge infrastructure as well as the infrastructure for public transportation, bicycles, and pedestrians.

TASK 4: ANALYSIS AND MODELING OF ALTERNATIVES

IPI considered alternative transportation funding policies and practices enacted in other states to create a set of alternatives for consideration in Idaho.

This report outlines IPI's findings. In addition, IPI has created the following resources:

- 1. An interactive online map indicating how different states address infrastructure needs, including policy alternatives.
- 2. An interactive financial modeling tool for decision makers to determine policy alternatives to help address current funding gaps in both the local and state transportation systems. Several scenarios are modeled relative to revenue needs, allowing for comparison between different funding alternatives.
- 3. A two-page infographic summarizing this report.

Although transportation stakeholders provided input throughout the course of this project, all decisions regarding reporting and associated resources are the product of IPI. Examining the state of Idaho's transportation infrastructure requires selecting a point in time due to the constant fluctuation of ongoing maintenance and expansion efforts. Unless noted otherwise, State of Idaho Fiscal Year 2018 (FY18) data were used in this study.

THE STATE OF IDAHO'S TRANSPORTATION INFRASTRUCTURE

Idaho's network of transportation infrastructure, from its roads and bridges to the systems that support transit, bikes, and pedestrians, enables employment, recreation, job creation, business retention, land development, personal independence, and overall well-being for Idaho's residents and visitors. Its use varies across the state; therefore the demand on the system and the associated impact on infrastructure varies across regions and jurisdictions. Impacts from environmental factors, such as freeze-thaw cycles, also affect the condition of Idaho's roads and bridges.

IDAHO HAS ONLY 15.5 RESIDENTS PER LANE MILE

THE AVERAGE STATE HAS 40 RESIDENTS PER LANE MILE As a relatively large state, with a small population, Idaho faces a unique challenge. When compared to other states, Idaho has more land area with transportation infrastructure with fewer residents, and revenue sources, to fund infrastructure projects. For instance, Idaho has 15.5 residents per lane mile, while the typical state has 40 residents per lane mile.² Another unique funding challenge stems from the state's area of non-taxable public lands. Roughly two-thirds of Idaho's land is owned by the federal and state government, ranking it one of the highest public land percentages among states.³

Idaho has 24,470 paved lane miles under the control of local jurisdictions and an additional 12,315 paved lane miles maintained by the state.⁴ Ninety-one percent of Idaho's state system paved roads (those roads maintained by ITD) are estimated to be in good or fair condition.⁵ The American Society of Civil Engineers (ASCE) grades Idaho's local roads as a C- while the state system roads receive a C.⁶ Having sub-par roads create additional costs for all Idahoans. Per year, the average Idaho motorist incurs approximately \$427 in costs for repairs and maintenance due to driving on roads in need of repair.⁷



Across the state of Idaho, there are 3,761 bridges (20 feet or greater in span) with 5.9 million square feet of bridge deck in the local system and 11.9 million square feet in the state system.⁸ Among these bridges, 6% are in poor condition, 19% are in fair condition, and 75% are in good condition.⁹ Compared to the state's roads, the ASCE ranks Idaho's bridges lower with a D grade.¹⁰ Figures 1 and 2 indicate the age of the bridges on the state and local systems.



FIGURE 1: AGE OF STATE BRIDGES

Source: Idaho Transportation Department 2020



FIGURE 2: AGE OF LOCAL BRIDGES

Source: Idaho Transportation Department 2020

Nearly 45% of bridges (20 feet and over in span) will be 50 years or older by 2021 (697 on the state system and 1,027 on the local system). In general, bridges have a 50-60 year design life.¹¹

Trucks moved 256 million tons of freight in Idaho in 2018.¹² Table 1 displays data on freight originating in Idaho and moving out of state, freight originating and terminating in Idaho, and freight arriving in Idaho from out of state. In 2018, there were 24,227 registered commercial trucks in the state.¹³

TABLE 1: FREIGHT TONNAGE MOVED IN IDAHO

Idaho to Out of State	Idaho to Idaho	Out of State to Idaho	Total
92,005,312	70,988,747	93,430,019	256,424,078

Source: Idaho Transportation Department 2020

Throughout Idaho, 42 out of 44 counties have some form of public transportation, with a total of 80 public transportation providers whose annual operating expenditures total \$25.6 million.¹⁴ Public transportation includes traditional fixed-route buses, demand response service, ridesharing, and car and bike sharing. Per year, Idahoans take over 3.7 million trips on public transportation.¹⁵ However, users of public transportation in Idaho face several challenges. These include long travel times, limited or nonexistent late night and weekend service, infrequent and unreliable service, inaccessibility, and areas that lack public transportation service altogether.¹⁶ Lack of transit information and technology barriers also present difficulties for public transit users in Idaho.¹⁷

These challenges in Idaho's public transportation system can be detrimental to economic development efforts.¹⁸ Providers of public transportation face their own challenges, including lack of funding, inflexible funding, aging fleets, and difficulty procuring matching local funds.¹⁹ Within the next ten years, transit ridership is expected to increase by at least 28% statewide as the population continues to grow (estimated by applying projected population growth to current ridership trends).²⁰

Idaho's national ranking for the quality of bicycle and pedestrian infrastructure slipped in recent years to 33rd out of 50 states.²¹ Of Idaho's commuters, 3.6% walk or bike to work, equating to over 10 million trips annually.²² Regarding fatalities among bicycle commuters, Idaho has 4.2 fatalities per 10,000 commuters, third lowest out of all 50 states.²³ Federal Highway Administration (FHWA) spending on biking and walking projects in the state is only \$1.60 per capita, ranking 43rd.²⁴ However, from 2017-2019 the state legislature did make bike and pedestrian projects eligible for funding. As a result, \$4 million was allocated by the state and local systems to improve bicycle and pedestrian infrastructure.²⁵



CHANGES SINCE THE GOVERNOR'S TASK FORCE

In 2011, the Governor's Task Force report estimated a \$262 million annual funding shortfall for the operation, preservation, and restoration of the state and local systems and \$281 million for safety and capacity enhancement.²⁶ Since then, several legislative actions created new transportation revenue streams or increased existing funding measures.

The most wide-ranging funding measure, House Bill 312, was enacted in 2015.²⁷ HB 312 increased the fuel tax by seven cents, raised annual vehicle registration fees, created electric and hybrid vehicle registration fees, and established a Strategic Initiatives Program, among other revenue enhancements.²⁸ New funding collected under HB 312 is limited to "road and bridge maintenance and replacement projects both at the state and local level."²⁹

In FY18, HB 312 provided an additional \$109 million to be utilized, with \$65.4 million going to ITD (for the state system) and \$43.6 million to local jurisdictions.³⁰ Most of the new revenue came from enhancements in the gasoline tax (\$50 million), passenger car and truck registration fees (\$36.8 million), and special fuels (including diesel) tax (\$21.2 million).³¹ The Strategic Initiatives Program Fund is no longer a reliable revenue source since it was allowed to sunset.

Other transportation-related legislation since the release of the Governor's Task Force report include House Bill 547, enacted in 2014,³² and Senate Bill 1206, enacted in 2017.³³ HB 547 (2014) allocated portions of cigarette tax revenue (\$4.7 million annually) to cover the state match of Grant Anticipation Revenue Vehicle (GARVEE) debt service and to the state highway account for the maintenance and repair of the state highway system.³⁴ SB 1206 (2017) authorized an additional \$300 million in GARVEE bonds, extended the state surplus eliminator for state and local highway jurisdictions for two years, and allocated 1% of state sales tax revenue to transportation projects on the state's system.³⁵ Local jurisdictions are ineligible to participate in the GARVEE program.

Beyond state policy changes, one of the most significant factors impacting Idaho's transportation system is the state's growing population. Between 2010 and 2019, Idaho's population grew by 14%, from 1,567,582 to 1,787,065 people; such growth is projected to continue.^{36,37} As of 2018, 1.25 million licensed drivers³⁸ and 1.8 million registered vehicles³⁹ marked 17% and 31% increases, respectively, since the beginning of the decade.

IN THE PAST DECADE, IDAHO HAS EXPERIENCED TREMENDOUS GROWTH



FUNDING AND FINANCING TRANSPORTATION INFRASTRUCTURE IN IDAHO

A diverse array of revenue and financing mechanisms fund Idaho's transportation infrastructure.

The **federal fuel taxes** on gasoline (18.4 cents per gallon) and diesel (24.4 cents per gallon) are paid by Idahoans at the pump in addition to state fuel taxes. These excise taxes make up the largest portion of the Federal Highway Trust Fund's (Trust Fund) revenue.⁴⁰ Idaho receives more allocations from the fund than its residents contribute. For instance, in FY18, Idahoans paid \$229 million into the Trust Fund while the state received \$319 million in allocations.⁴¹ In other words, for every dollar contributed, Idaho received \$1.39.



FOR EVERY **\$1** CONTRIBUTED TO THE FEDERAL HIGHWAY TRUST FUND

State fuel taxes consist of 32 cents per gallon for both gasoline and diesel fuel. In 2018, gasoline tax revenues brought in \$202 million and special fuel taxes (including diesel) brought in \$78 million, in addition to the \$50 million gasoline tax and \$21 million special fuel tax revenue from HB 312 enhancements.⁴² This tax is paid by all those purchasing fuel within Idaho and is not limited to Idaho residents.

The state **passenger vehicle registration** fee is \$69 for vehicles one or two years old, \$57 for vehicles three to six years old, and \$45 for vehicles over seven years old. Registrations for passenger cars and trucks brought in \$59 million in 2018, in addition to \$37 million from HB 312 revenue enhancements.⁴³

Truck registration fees are based on weight and miles driven in the state. The most common truck weight is 80,000 pounds. The registration fee for trucks of this size is divided across five tiers: \$480 for under 7,500 miles, \$1,100 for 7,501 to 20,000 miles, \$1,700 for 20,001 to 35,000 miles, \$2,300 for 35,001 to 50,000 miles, and \$3,360 for over 50,000 miles.⁴⁴ Idaho ranks second highest in the country for fees in this weight range.⁴⁵ State truck registrations collected \$54 million in revenue in 2018.⁴⁶

Cigarette and sales tax revenues contributed \$6.9 million and \$15.7 million, respectively, to the Transportation Expansion and Congestion Mitigation (TECM) fund for a total of \$22.6 million in 2018.⁴⁷ This funding is only for the state system and the annual amount is dictated after revenue distributions are made to other efforts outside of transportation.

Local jurisdictions—cities, counties, and highway districts—also received **property tax revenues** of \$138.7 million for transportation-related projects in 2018.⁴⁸ Additional sources of local funding include **local impact fees** (\$26 million), **general fund transfers** (\$20 million), **proceeds from bond sales** (\$17.5 million), and **local option registrations** (\$11 million), among other funding sources.⁴⁹

GARVEE, a financing mechanism created by Congress, allows states to borrow against future federal highway allocations in order to build large infrastructure projects. GARVEE allows Idaho to more quickly and efficiently address important projects by accessing

funding quickly, rather than deferring the projects and, consequently, constructing at a higher cost at a later date. GARVEE is currently legislatively limited to certain routes on the state system.

Taken together, revenue enhancements and population growth have helped chip away at the \$543 million funding gap identified by the Governor's Task Force report in 2011. It is worth noting the Task Force's report concentrated on the network of roads, bridges, and highways and did not explicitly address alternative modes of transportation such as public transit and bicycle and pedestrian infrastructure nor did it include costs associated with maintaining and operating unpaved roadways. The report's estimated shortfall of \$262 million for the operation, preservation, and restoration of the state and local systems was not intended as a static gap but as an annual need, and over the last decade unmet obligations have been compounded by both the costs associated with deferred maintenance and inflation.

NEED FOR MORE REVENUE

By looking more comprehensively at Idaho's transportation system, this report and accompanying financial model account for more funding needs and changes over recent years, as well as the impact of inflation on long-term funding sustainability and deferred maintenance on restoration needs over time. As a result, the annual revenue gap published in this report cannot be directly compared to the gap identified in 2011, although the numbers have a shared foundation.

IPI's financial modeling estimates that Idaho needs an additional \$241.8 million per year in revenue for maintenance and operations of existing infrastructure.

This figure does not include unfunded expansion nor unfunded safety needs. Of this, \$236.5 million is needed to meet the preservation and restoration goals for Idaho's roads and bridges, including the associated operations of those assets. This number is based on the amount of work that is currently being done on roads and bridges within both the state and local systems compared to the work that ideally should be done to meet the systems' preservation and restoration goals. The model includes an estimated operations funding gap based on the one used in the 2011 Governor's Task Force report.

At least an additional \$5.3 million in annual funding is needed to maintain existing transit equipment and infrastructure based on IPI's modeling.⁵⁰



EACH YEAR IDAHO NEEDS AN ADDITIONAL **\$241.8 MILLION** IN REVENUE FOR RESTORATION AND MAINTENANCE



THIS FIGURE DOES NOT ACCOUNT FOR SAFETY AND CAPACITY ENHANCEMENT NEEDS

In regards to roads and bridges, the annual funding need, or gap, estimated by the model represents the cost of work that ideally should be done in a given year but is forgone due to budgetary limitations. This deferred maintenance contributes to deteriorating roads and bridges across the state, costing motorists in Idaho over \$530 million annually in the resulting vehicle repairs.⁵¹ In addition, the costs associated with deferred maintenance increase rapidly with each additional year. Essentially, the more deteriorated the road, bridge, or bus the more costly it is to fix or completely restore (or replace) it. This finding highlights the importance of proactively addressing the funding gap early to ensure the transportation system does not fall into worse condition in the future.

The gap estimated by the dynamic financial model *does not include* unfunded safety or capacity (i.e., expansion) enhancement needs for any transportation infrastructure (roads, bridges, bike, pedestrian, or public transportation). These specific issues are discussed in greater detail in the Limitations section of the report. It is also difficult to project the impact of federal regulatory changes, such as additional Americans with Disability Act (ADA) requirements, which can have a significant impact on the cost of infrastructure projects. While the 2011 Governor's Task Force report estimated an unfunded expansion and unfunded safety gap of approximately \$281 million, the data necessary to update or model this gap is limited. In part, this limitation occurs because transportation planners are prioritizing the maintenance gap identified above and, thus, most transportation jurisdictions across the state do not include unfunded expansion in their planning efforts. The expansion gap highlighted in the Governor's Task Force report remains a pressing issue for funding Idaho's transportation system.

ALTERNATIVES

Modernizing how Idaho funds the maintenance and operations of its transportation system and provides for safety and capacity enhancement requires examination of current funding mechanisms and close consideration of new alternatives. In some cases, limited efficiencies could be gained through re-prioritizing maintenance and restoration and facilitating transit-oriented development, but doing so will have a minimal impact. Even with these changes, additional funding is still necessary to meet the transportation needs of the state. Potential alternatives, listed below, are for consideration by decision makers and are not recommendations. Each needs to be examined closely to determine whether it is appropriate for Idaho's transportation system. In addition, all alternatives should be measured for its impact across the system and its ability to provide for sustainable, longterm solutions.

FUNDING AND FINANCING ALTERNATIVES			
Current User Eees	Modify Fuel Tax		
Current Oser Fees	Modify Registration Fees		
Now Lloor Foos	Implement Vehicle Miles Traveled Fee		
New Oser rees	Implement Tolling		
Statowida Eupding	General Fund Use		
Statewide Funding	Modify Sales Tax		
Local Funding	Expand Local Option Tax		
	Modify Impact Fee Structure		
Financias	Expand Public-Private Partnerships		
Financing	Enable State Infrastructure Bank		
Expand Medee	Dedicate Funding for Transit		
Expand Modes	Dedicate Funding for Bike/Ped		

CURRENT USER FEES

A fuel tax is a fairly straightforward approach to revenue funding in that a tax is levied on all vehicle fuel, including gas, diesel, and other fuels, the revenue of which is used to fund transportation. In order to analyze the role of a fuel tax, economic efficiency, social equity, revenue adequacy and sustainability, and political and administrative feasibility must be evaluated.⁵² The more a motorist consumes fuel, the more tax they pay. So motorists with more fuel-efficient vehicles or those who travel less pay less. Therefore, the dependability of fuel tax as a revenue source will likely decrease given continued advances in fuel efficiency leading experts to recommend that it be supplemented or replaced as a main source of transportation funding.⁵³ In addition, a significant change in fuel price (i.e., an increase) or in one's income (i.e., a decrease) may impact a consumer's choice regarding purchasing fuel and/or encourage them to take an alternative form of transportation. For these reasons, an increase in the fuel tax rate could be a reasonable short-term solution, but only while a transition toward alternative sources of revenue is implemented.⁵⁴ Another related approach involves indexing Idaho's existing fuel tax. Currently, the state's fuel tax rate does not change with inflation. However, if the fuel tax were to be indexed to inflation, it would not mitigate the impact of increased fuel efficiencies nor be an appropriate approach in circumstances of deflation.⁵⁵ Critics of indexing argue that tax increases should be voted on by legislators and not automatically increased.⁵⁶

State **vehicle registration fees** are another standard and main source of transportation funding for every state. Idaho is one of three states, along with Montana and Oklahoma, that charge different fee ranges based on a vehicle's age. Other states have a flat-rate registration fee or charge fees based on a vehicle's weight or value.⁵⁷ Idaho's registration fee range (\$45-\$69) is comparable to flat-rate neighboring states Wyoming (\$30), Nevada (\$33), Oregon (\$43), and Utah (\$43), and narrower than Montana's age-based range (\$28-\$217).⁵⁸ Washington's base fee is \$30 but increases depending on a vehicle's type and weight, location, plate type, and other factors.⁵⁹ As mentioned, Idaho enacted legislation requiring an additional fee for hybrid and electric vehicles (\$140 for electric vehicles and \$75 for plug-in hybrid vehicles).⁶⁰ Over 20 states have implemented such fees to help compensate for the reduction in fuel tax revenue associated with such vehicles.⁶¹

NEW USER FEES

A fee on **vehicle miles traveled** (VMT), also called a **mileage-based user fee** (MBUF), is essentially a tax on individual vehicles for every mile driven. The mileage each individual car drives can be accounted for through time or mileage permits, odometer changes, or automated mileage reporting from a device installed in the car, either with or without location data attached.⁶² Although a VMT fee could present an opportunity for more sustainable transportation funding, there are challenges to its implementation.⁶³ It would require long-term government policy stability, widespread public acceptance, adequate technology, and efficient enforcement and invoicing.⁶⁴ Both changes to the systems currently in place and a long transition period would be required for a successful VMT fee implementation.⁶⁵

Tolls present an opportunity to increase transportation revenue while also managing congestion on freeways and highways.⁶⁶ Tolling has several disadvantages, such as unevenly impacting low-income drivers and public perceptions that drivers are being double-taxed.⁶⁷ The revenue share from tolls varies across states where tolling has been implemented.⁶⁸

STATEWIDE FUNDING

There are several options to utilize existing or new **sales taxes** to increase transportation revenue. These include diverting revenue from an existing tax or fee toward transportation, raising a tax that already exists to provide transportation revenue, or creating a new tax entirely.⁶⁹ These options could involve a general sales tax or a tax specifically on vehicle sales and/or parts.⁷⁰

Revenue from the state's **general fund** could be utilized to fund infrastructure needs. It could also be utilized to capitalize a state infrastructure bank.

LOCAL FUNDING

Local option taxes can generate revenue for transportation infrastructure projects. Local option taxes can include sales tax, vehicle registration fees, income, payroll and employer taxes, property taxes, local system development changes, local development impact fees, and local transportation operation fees.⁷¹ However, under Idaho statutes, only resort cities may implement local option taxes,⁷² and thus it does not benefit other communities. Therefore, state-level policy changes would be required to enable individual non-resort communities to decide whether to implement a local option tax as a new source of transportation funding. In addition, by its nature, local option tax only serves the needs of

the community in which the tax is levied. Finally, the revenue generated by a local option tax can be impacted by the size of a jurisdiction, what is being taxed, and other factors.

Modifying the structure of development **impact fees** at the local level could raise additional funding to support road, bridge, bike, pedestrian, and public transportation infrastructure. Although these funds are limited and are not necessarily applied equally from one jurisdiction to the next, they can enable support for expansion needs associated with population growth. In some cases, jurisdictions with impact fees may waive those fees to encourage desired development.

Property taxes collected by local jurisdictions (including highway districts, cities, and counties) are utilized across the state to support transportation infrastructure. This revenue source is limited, however, by a cap on the increases in additional revenue that can be collected by a jurisdiction each year (3% plus growth factors for new construction and annexation). In addition, it can be challenging for rural areas with a small population to levy enough tax to complete much more than basic maintenance.

In addition to standard state-wide registration fees, individual counties are able to charge county administrative and mail fees, **highway district registration fees**, and **local option sales taxes** (taxes dependent on city or county of sale and or/purchase price). However, only one county collects highway district registration fees due to the complexity of implementing the policy.

FINANCING

A **public-private partnership** (PPP or P3) is a way to combine public funding with private investment or enable project cost-sharing across sectors in order to increase the flexibility and efficiency of transportation projects.⁷³ PPPs can facilitate expedited completion for high priority projects. Idaho's STAR program (Sales Tax Anticipated Revenue) is a current PPP program that went into effect in 2007. The program provides commercial real estate developers with an opportunity for a sales tax rebate in exchange for their payment for transportation infrastructure improvements required by the new development. The program is limited to certain types of projects \$8 million to \$35 million in value and they must be approved by ITD. One method to encourage PPPs is to have additional enabling state legislation in place.⁷⁴ A positive association was observed between laws that enable PPPs and the amount of private investment in a state.⁷⁵

A **state infrastructure bank** (SIB) enables a state's transportation department, or other entity, to issue direct loans to local jurisdictions, facilitating a variety of credit enhancement products to be used for transportation infrastructure.⁷⁶ The benefits of SIBs include accelerated project delivery, financial plan completion, and lower borrowing costs.⁷⁷ Since 1997, at least 39 states have established SIBs.⁷⁸

The **Transportation Infrastructure Finance and Innovation Act** (TIFIA) is a federal program to provide credit assistance for qualified transportation infrastructure projects at the regional and national level.⁷⁹ Projects must be creditworthy to access TIFIA funds⁸⁰ and the anticipated cost of the project must be at least \$10 million for transit, local, and rural projects, \$15 million for intelligent transportation system projects, and \$50 million for all other surface transportation projects that qualify.⁸¹ Additionally, TIFIA credit assistance is limited to one-third of anticipated program costs.⁸² The establishment of a SIB in Idaho would allow infrastructure projects to access TIFIA funding by providing a low risk option for debt repayment and demonstrating a designated revenue source for repayment.⁸³

Small, rural communities in Idaho would likely not qualify for TIFIA assistance directly, but a SIB capitalized with a TIFIA loan could make low-cost financing available for up to 80% of project costs to Idaho's rural communities.

In addition, consideration could be given to expanding current financing, such as GARVEE, to increase local jurisdictions access to financing opportunities.

DEDICATED FUNDING

Although Idaho has access to dedicated federal funding for all infrastructure types, including the Transportation Alternatives Program that supports bike, pedestrian, and public transportation infrastructure, not all infrastructure has dedicated funding from state sources. For instance, when it comes to funding bicycle and pedestrian infrastructure specifically, many states have **dedicated funding sources**, though Idaho does not.⁸⁴ Some states, including Colorado and Iowa, use lottery revenue.⁸⁵ Other funding options that Idaho could employ are school zone speeding fines, naming rights, local planning assistance grants, a specialty bicycle/pedestrian license plate, and bond proceeds.⁸⁶ Bicycle registration or user fees are other options, though they are not typically recommended.⁸⁷ A dedicated funding source is also an option for public transportation. Funding is often dedicated from parking fees, lottery revenue, or development impact fees.⁸⁸

OPERATIONS AND LAND USE

Another option is to **restructure road maintenance**. Some states are pursuing the option of converting paved roads to unpaved or gravel ones in the past decade as a result of the 2008 financial crisis. However, this must be examined closely as it is only a suitable option in certain circumstances. Factors such as road condition, safety, number of residents along the road, social and economic aspects of the road, traffic volume/vehicle distribution and type, and life-cycle cost analysis must be taken into consideration.⁸⁹ Land use, maintenance capability, environmental issues, availability/quality of suitable unpaved road-wearing coarse aggregate sources, public issues, and network significance of the road are additional issues to consider.⁹⁰ Best practices for the conversion of paved roads to gravel include stakeholder outreach, investigative work prior to construction, and use of reclaimers and chemical treatments for the final surface.⁹¹ One barrier to implementation is the lack of management tools and guidance documents.⁹² While negative public perception can act as another barrier, effective communication can help work toward public acceptance.⁹³ Finally, there are still significant costs associated with upkeep and maintenance of gravel roads; therefore a thorough cost-benefit analysis should be undertaken prior to any conversion efforts.

Prioritization of funding is implemented in order to better appropriate revenue. A constantly evolving process, prioritization takes into account several different factors, including a project's needs, objectives, and budget.⁹⁴ Metrics including the amount of use and the overall benefits of the projects in question are also used when prioritizing the infrastructure most in need of maintenance or restoration and informing any expansion efforts.⁹⁵ For instance, a level of service approach focuses on transportation facilities with the worst operating conditions from the traveler's perspective. Roadway level of service primarily measures traffic volume and travel time, but can also consider other factors such as distance traveled, road conditions, and safety hazards.⁹⁶ Many systems in the state have successfully implemented prioritization processes using a variety of metrics. For instance,

ITD has processes in place to evaluate optimum time for bridge and road preservation, maintenance, and restoration. As another example, LHTAC-managed funds use an application process where applications consider a number of factors including roadway condition, safety, importance of project, and financial need of agency. Already in use by many Idaho entities, prioritization can continue to play an important role in enhancing how Idaho entities allocate and use funding.

Transit-oriented development (TOD) encourages development that fully integrates planning for the entire transportation system by facilitating development both close to and well-served by transit options as well as being conducive to transit riding.⁹⁷ In addition, TOD enables locating mixed-use development near transit resulting in decreased demand for parking and better use of existing parking during the day.⁹⁸ TOD calls for planning transportation investments with the entire systems in mind in efficiently and effectively integrate modes and establish a multimodal system. **Required land use planning** contributes to this type of development when zoning and urban planning are utilized to better organize both residential and commercial areas.⁹⁹ Such planning efforts can increase efficiencies in future development.

Options also include **carrying on with current funding and financing** and **pursuing further research** regarding transportation infrastructure funding, financing, and operational strategies. Looking forward, **examining how we move people and things** around cities and throughout the state will open doors to innovations while **planning for the future** of transportation in Idaho.



LIMITATIONS

COVID-19 IMPACT AND CARES ACT

The impact of COVID-19 stretches around the world, across countries, economies, and sectors. Transportation is no exception. The recent economic disruption will affect transportation infrastructure funding and many state transportation departments are already bracing their budgets.¹⁰⁰ The heads of transportation departments from Pennsylvania to Kansas to New Mexico are expressing concern about the long-term revenue losses facing their states.¹⁰¹ A reduction in motor vehicle usage, and therefore a decrease in fuel tax revenue, is behind a large part of the funding shortage, in addition to fewer vehicle registrations and rentals, among others.¹⁰² Depending on the state, the funding shortfall could range anywhere between \$100 million to over \$1 billion.¹⁰³ That said, Idaho has not seen projected revenue decreases for the first quarter of FY21.

Idaho has recently received funds under the CARES Act, passed in March 2020. Of the \$1.25 billion allotted to the state, Idaho Transportation Department received \$27.3 million from the Federal Transit Administration.^{104, 105} Those funds, however, cannot be allocated to transportation infrastructure as they must be spent on purposes COVID-19 related only. ITD indicated it will use the funds specifically for rural transit and intercity bus operations throughout the ongoing pandemic.¹⁰⁶

DATA AVAILABILITY AND EXISTING BUDGET CONSTRAINTS

As mentioned, without including all expansion needs in long-range plans, small and large transportation jurisdictions across the state, as well as the state itself, will be unable to fully estimate the revenue required to meet the needs of a growing population and economy. Some agencies and organizations may encounter difficulty quantifying their needs beyond their existing funds or budget, since it is common to plan for the money that exists and avoid envisioning projects or uses for money that may never be received. However, it is helpful to have ideas ready for where to use funds if or when those funds become available. Lists of unfunded projects at both the local and state levels help prepare for such scenarios. Additionally, preparation is useful for a scenario in which a local option tax or ballot measure occurs or when federal grants or stimulus funding becomes available.

The dynamic financial model estimates expansion needs for public transportation on current ridership trends. However, current bus ridership numbers are relatively low in many places across the state due to inadequacy and unreliability of service (likely related to revenue limitations), not lack of demand. The estimate essentially includes the *operating* total amount necessary to keep pace with the growing population, but it does not estimate the revenue required statewide for addressing the backlog of capital needs (such as new buses and vans) for public transportation. Therefore, the expansion numbers the model generates for public transportation are likely much lower than the actual need, indicating a need for a thorough statewide assessment of public transportation needs regarding equipment, infrastructure, management, and operations.

There is also a need for a robust assessment of bicycle and pedestrian infrastructure across the state to determine the extent of required funding. A significant amount of data related to bicycle and pedestrian infrastructure aren't readily available, such as bike lane

miles, sidewalk miles, the number of streets with bicycle and pedestrian infrastructure, and the percentage of commuters who walk. More up-to-date information is needed to adequately analyze and project bicycle and pedestrian infrastructure needs in Idaho.

The dynamic financial model developed in conjunction with this report provides an opportunity to mitigate these limitations. For instance, as more data becomes available the model can be utilized by stakeholders to outline the impact of changes, whether it be in revenue or spending. It can also provide information in regard to adoption of the alternative scenarios outlined in the report.

CONCLUSION

As Idaho continues to experience significant population growth, the state must balance the needs of its current population while projecting its future needs. This will require not only maintaining current transportation infrastructure, but also identifying and securing the technology, operations, regulations, funding, financing, and energy required to modernize it. However, revenue instability (i.e., declining fuel tax revenues, flat rates not accounting for inflation, etc.) will continue to hinder Idaho's ability to maintain its transportation infrastructure in good repair and prevent the state from any expansion efforts or significant operational changes. This includes not only roads and bridges, but also its public transit systems and bicycle and pedestrian infrastructure.

Ultimately, without adequate investment in its transportation system, Idaho's economy and its people will be negatively impacted. Engaging Idaho residents and key transportation stakeholders in the development of alternatives will determine the revenue and financing sources best equipped to support the state's transportation system in the long run. This effort is critical to Idaho's future economic competitiveness and vitality.



ENDNOTES

- 1 Governor's Task Force on Modernizing Transportation Funding in Idaho. (2011). *Final report. https://apps.itd. idaho.gov/Apps/info/Task_Force_Final_Report_Low_Res.pdf*
- 2 Federal Highway Administration. (2018). *Table PS-1 Selected measures for identifying peer states*. https://www. fhwa.dot.gov/policyinformation/statistics/2018/ps1.cfm; U.S. Census Bureau. (2019). *State population totals and components of change: 2010-2019*. https://www.census.gov/data/tables/time-series/demo/popest/2010s-state-total.html
- 3 Idaho Parks and Recreation. (2017). *A profile of Idaho land use*. https://parksandrecreation.idaho.gov/sites/de-fault/files/uploads/documents/SCORTP/Update/4.%20Profile%20of%20Idaho%20Land%20Use.pdf
- 4 Local data provided by LHTAC and state data provided by ITD
- 5 Idaho Transportation Department. (2019). *Fiscal Year 2019 annual report*. <u>https://apps.itd.idaho.gov/Apps/</u> info/2019_Annual_Report.pdf

Condition takes into account pavement's roughness, cracking, rutting/faulting. If all 3 are good the section is good, If 2 or more are poor the section is poor. With all other combinations the section is fair. An overview of this methodology can be reviewed here: https://www.fhwa.dot.gov/policyinformation/presentations/hisconf/thu01_hpms_and_tpm-part_1_overview_of_performance_measures-pavement_condition_max_grogg.pdf

- 6 American Society of Civil Engineers. (2018). *Idaho 2018 report*. <u>https://www.infrastructurereportcard.org/state-item/idaho/</u>
- 7 Ibid.
- 8 Local data provided by LHTAC and state data provided by ITD
- 9 Data provided by ITD and LHTAC
- 10 American Society of Civil Engineers. (2018). *Idaho 2018 report*. <u>https://www.infrastructurereportcard.org/state-item/idaho/</u>
- 11 Idaho Transportation Department. (2019). *Fiscal Year 2019 annual report*. <u>https://apps.itd.idaho.gov/Apps/</u> info/2019_Annual_Report.pdf
- 12 ITD uses the Freight Analysis Framework version 4 or FAF4 from the Federal Highway Administration (FHWA). https://faf.ornl.gov/fafweb/ExtractionO.aspx. The FAF web site using Kilotons. We convert to Short Tons which is standard tonnage reporting in the US.
- 13 Federal Highway Administration. (2018). *Table MV-9 Truck and truck-tractor registrations*. <u>https://www.fhwa.dot.gov/policyinformation/statistics/2018/mv9.cfm</u>
- 14 Idaho Transportation Department. (2018). *Idaho public transportation plan*. <u>https://apps.itd.idaho.gov/apps/pt/</u> <u>SWPTP/Statewide_Plan_Final.pdf</u>
- 15 Ibid.
- 16 Ibid.
- 17 Ibid.
- 18 McNichol, E. (2019). It's Time for States to Invest in Infrastructure. Center on Budget and Policy Priorities. https://www.cbpp.org/research/state-budget-and-tax/its-time-for-states-to-invest-in-infrastructure
- 19 Ibid.
- 20 Ibid.
- 21 League of American Bicyclists. (2019). *Bicycle friendly state report card: Idaho*. <u>https://bikeleague.org/content/state-report-cards</u>
- 22 League of American Bicyclists. (2019). *Bicycle friendly state report card: Idaho*. <u>https://bikeleague.org/content/</u> state-report-cards; U.S. Census Bureau. (2018). *American Community Survey 2018 5-year estimates*.
- 23 League of American Bicyclists. (2019). *Bicycle friendly state report card: Idaho*. <u>https://bikeleague.org/content/</u> <u>state-report-cards</u>
- 24 Ibid.

FHWA spending is based upon projects coded using any of three project types associated with bicycling and walking projects through the Federal Highway Administration (FHWA)'s Fiscal Management Information System. To calculate per capita spending League of American Bicyclists used a five-year average for fiscal years 2011-2016 and the 2015 5-year ACS state population estimate."

- 25 League of American Bicyclists. (2018). *Idaho 2018 progress report*. <u>https://bikeleague.org/sites/default/files/</u> BFS_Progress_Report_2018_Idaho.pdf
- 26 Governor's Task Force on Modernizing Transportation Funding in Idaho. (2011). *Final report. https://apps.itd. idaho.gov/Apps/info/Task_Force_Final_Report_Low_Res.pdf*
- 27 Idaho Legislature. (2015). *House Bill 312*. <u>https://legislature.idaho.gov/sessioninfo/2015/legislation/h0312/</u>
- 28 Vote Smart. (2015). *Idaho H 312 Increases gas tax and vehicle registration fees*. <u>https://votesmart.org/</u> <u>bill/19740/52071/increases-gas-tax-and-vehicle-registration-fees</u>
- 29 Idaho Legislature. (2015). House Bill 312. https://legislature.idaho.gov/sessioninfo/2015/legislation/h0312/
- 30 Idaho Transportation Department. (2019). *History of registration fees, fuel tax and revenue distribution in Idaho.* <u>https://apps.itd.idaho.gov/Apps/Fund/WEBPAGE_FY_STATE_RAISED_HUR.pdf</u>
- 31 Ibid.

- 32 Idaho Legislature. (2014). *House Bill 547.* https://legislature.idaho.gov/sessioninfo/2014/legislation/h0547/
- 33 Idaho Legislature. (2017). Senate Bill 1206. https://legislature.idaho.gov/sessioninfo/2017/legislation/s1206/
- 34 Idaho Legislature. (2014). House Bill 547. https://legislature.idaho.gov/sessioninfo/2014/legislation/h0547/
- 35 Association of Idaho Cities. (2017). *End of session wrap-up.* <u>https://idahocities.org/blogpost/1235530/273443/</u> End-of-Session-Wrap-Up
- 36 U.S. Census Bureau. (2019). Quick Facts: Idaho. https://www.census.gov/quickfacts/ID
- 37 Frey, W. H. (2020). Even before coronavirus, census shows U.S. cities' growth was stagnating. *Brookings* https:// www.brookings.edu/research/even-before-coronavirus-census-shows-u-s-cities-growth-was-stagnating/
- 38 Federal Highway Administration. (2018). *Table DL-201 Licensed drivers by state, 1949-2018*. <u>https://www.fhwa.</u> <u>dot.gov/policyinformation/statistics/2018/dl201.cfm</u>
- 39 Federal Highway Administration. (2018). *Table MV-1 State motor-vehicle registrations*. <u>https://www.fhwa.dot.gov/policyinformation/statistics/2018/mv1.cfm</u>
- 40 Tax Policy Center. (2020). *Key elements of the U.S. tax system: What is the Highway Trust Fund, and how is it financed?* <u>https://www.taxpolicycenter.org/briefing-book/what-highway-trust-fund-and-how-it-financed</u>
- 41 Federal Highway Administration. (2018). *Table FE-221 Comparison of Federal Highway Trust Fund highway account receipts attributable to the states and federal-aid apportionments and allocations from the highway account.* <u>https://www.fhwa.dot.gov/policyinformation/statistics/2018/fe221.cfm</u>
- 42 Idaho Transportation Department. (2019). *History of registration fees, fuel tax and revenue distribution in Idaho.* <u>https://apps.itd.idaho.gov/Apps/Fund/WEBPAGE_FY_STATE_RAISED_HUR.pdf</u>
- 43 Ibid.
- 44 International Registration Plan. (2020). Jurisdiction data: Idaho fee schedule. https://www.irponline.org/page/Jurisinfo
- 45 Ibid.
- 46 Idaho Transportation Department. (2019). *History of registration fees, fuel tax and revenue distribution in Idaho.* <u>https://apps.itd.idaho.gov/Apps/Fund/WEBPAGE_FY_STATE_RAISED_HUR.pdf</u>
- 47 Data provided by ITD
- 48 Idaho Transportation Department. (2019). *Annual road and street financial report summary 2010 to 2018.* https://apps.itd.idaho.gov/Apps/Fund/Local_Local_Finance_YR_COMP18.pdf
- 49 Ibid.
- 50 Idaho Transportation Department. (2018). *Idaho Public Transportation Plan*. <u>https://apps.itd.idaho.gov/apps/pt/</u> <u>SWPTP/Statewide_Plan_Final.pdf</u>
- 51 American Society of Civil Engineers. (2018). Report card for Idaho's infrastructure. https://www.infrastructurereportcard.org/state-item/idaho/
- 52 Zhao, Z., Guo, H., Coyle, D., Robinson, F., & Munnich, L. (2015). Revisiting the fuel tax-based transportation funding system in the United States. Public Works Management & Policy, 20(2), 105-126
- 53 Ibid.
- 54 Ibid.
- 55 Cammenga, J. (2019). State gasoline tax rates as of July 2019. Tax Foundation. <u>https://taxfoundation.org/state-gas-tax-rates-2019/</u>
- 56 Tax Policy Center. (2014). *Reforming state gas taxes*. <u>https://www.taxpolicycenter.org/sites/default/files/alfresco/publication-pdfs/413286-Reforming-State-Gas-Taxes.PDF</u>
- 57 National Conference of State Legislatures. (2020). *Vehicle registration fees by state*. <u>https://www.ncsl.org/re-search/transportation/registration-and-title-fees-by-state.aspx</u>
- 58 Ibid.
- 59 Ibid.
- 60 Idaho Transportation Department. (2020). *Fact sheet: Registering vehicles in Idaho*. <u>https://itd.idaho.gov/wp-content/uploads/2020/06/Registration-Fact-Sheet_DMV.pdf</u>
- 61 Hartman, K. & and Pula, K. (2019). *New fees on hybrid and electric vehicles*. National Conference of State Legislatures. <u>https://www.ncsl.org/research/energy/new-fees-on-hybrid-and-electric-vehicles.aspx</u>
- 62 Western Road Usage Charge Consortium. (2020). *RUC West*. <u>https://www.rucwest.org/</u>
- Vavrova, M., Chang, C. M., & Bina, L. (2017). A framework to analyze the feasibility of vehicle miles traveled fees to finance a sustainable transportation system. *In Journal of the Transportation Research Forum 56*(3), pp. 57-74.
 Ibid.
- 65 Miller, T., & Hansen, M. (2016). *Getting more out of state transportation infrastructure spending.* Working paper, Mercatus Center at George Mason University. <u>https://www.mercatus.org/system/files/Mercatus-Miller-Transporta-tion-Infrastructure-Spending-v1-%281%29.pdf</u>
- 66 Miller, T., & Hansen, M. (2016). *Getting more out of state transportation infrastructure spending*. Working paper, Mercatus Center at George Mason University. <u>https://www.mercatus.org/system/files/Mercatus-Miller-Transporta-tion-Infrastructure-Spending-v1-%281%29.pdf</u>
- 67 BATIC Institute. (2020). *Transportation funding and financing: Tolls.* <u>http://www.financingtransportation.org/</u><u>funding_financing/funding/state_funding/tolls.aspx</u>

- 68 Cammenga, J. (2019). *How are your state's roads funded*? Tax Foundation. https://taxfoundation.org/states-road-funding-2019
- 69 Pulipati, S. B., Mattingly, S. P., & Casey, C. (2017). Evaluating state level transportation revenue alternatives. *Case Studies on Transport Policy, 5*(3), 467-482.
- 70 Ibid.
- 71 Dearman, A. (2014). *Innovation or insolvency: Oregon's options for transportation funding*. Oregon Chapter of the American Planning Association. <u>http://www.oregonapa.org/wp-content/uploads/2014/12/</u> <u>Transportation-Funding-Paper-Dec2014.pdf</u>
- 72 Idaho Statute Title 50: Municipal Corporations, Chapter 10: Finances, § 50-1044. 1978. <u>https://legislature.idaho.gov/statutesrules/idstat/title50/t50ch10/sect50-1044/</u>
- 73 Miller, T., & Hansen, M. (2016). *Getting more out of state transportation infrastructure spending.* Working paper, Mercatus Center at George Mason University. <u>https://www.mercatus.org/system/files/Mercatus-Miller-Transporta-tion-Infrastructure-Spending-v1-%281%29.pdf</u>
- 74 Ibid.
- 75 Albalate, D., Bel i Queralt, G., & Geddes, R. R. (2018). Do public-private partnership enabling laws increase private investment in infrastructure. *UB Economics-Working Papers, 2018, IR18/15.*
- 76 Federal Transit Administration. (2015). *State Infrastructure Banks (SIBs)*. <u>https://www.transit.dot.gov/funding/</u> <u>funding-finance-resources/state-infrastructure-banks/state-infrastructure-banks-sibs</u>
- 77 Ibid.
- 78 Ibid.
- 79 United States Department of Transportation. (2014). Transportation Infrastructure Finance and Innovation Act. https://www.transportation.gov/buildamerica/financing/tifia
- 80 Congressional Research Service. (2019). "The Transportation Infrastructure Finance and Innovation Act (TIFIA) Program." United States Congress. https://fas.org/sgp/crs/misc/R45516.pdf
- 81 United States Department of Transportation. (2019). TIFIA Credit Program Overview. https://www.transportation.gov/buildamerica/financing/tifia/tifia-credit-program-overview
- 82 Ibid.
- 83 Ibid.
- 84 Alliance for Biking & Walking and The League of American Bicyclists. (2014). "State revenue sources that fund bicycling and walking projects." *Advocacy Advance*. <u>https://bikeleague.org/sites/default/files/StateRevenue-Sources_June2014%20(1).pdf</u>
- 85 Ibid.
- 86 Ibid.
- 87 Ibid.
- 88 Nelson\Nygaard Consulting Associates Inc. (2015). "Initiative: Dedicated transit funding" in *Ohio Statewide Transit Needs Study*. Ohio Department of Transportation. <u>http://www.dot.state.oh.us/Divisions/Planning/Transit/</u> <u>TransitNeedsStudy/Documents/InitiativePaper-DedicatedTransitFunding.pdf</u>
- 89 Fay, L., Kroon, A., Skorseth, K., Reid, R., & Jones, D. (2016). *Converting paved roads to unpaved*. Transportation Research Board of the National Academies. <u>https://westerntransportationinstitute.org/wp-content/</u> <u>uploads/2018/01/4W5228_NCHRP_Unpaved_Roads.pdf</u>
- 90 Ibid.
- 91 Ibid.
- 92 Ibid.
- 93 Ibid.
- 94 Marcelo, D., Mandri-Perrott, C., House, S., & Schwartz, J. (2016). Prioritizing infrastructure investment: a framework for government decision making. *The World Bank*. <u>https://openknowledge.worldbank.org/bitstream/handle/10986/24511/Prioritizing0i0ment0decision0making.pdf</u>
- 95 Ibid.
- 96 Thurston Regional Planning Council. (2016). *What moves you: Appendix O. Level of service standard and measurements*. <u>https://www.trpc.org/DocumentCenter/View/2798/Appendix-O--Level-of-Service-Standard-and-</u> <u>Measurement#:-:text=Level%20of%20service%20(LOS)%20is,and%20LOS%20F%20the%20worst.</u>
- 97 Jacobson, J., & Forsyth, A. (2008). Seven American TODs: Good practices for urban design in transit-oriented development projects. *Journal of transport and land use, 1*(2), 51-88.
- 98 Ewing, R. (2020). *TOD vs. TAD vs. Sprawl: No contest* [Panel presentation]. Urban Land Institute Idaho, Boise, ID..
- 99 Cheshire, P., & Sheppard, S. (2002). The welfare economics of land use planning. *Journal of Urban economics,* 52(2), 242-269. <u>https://www.brown.edu/Departments/Economics/Faculty/Matthew_Turner/ec2410/readings/</u> <u>Cheshire_Sheppard_JUE2002.pdf</u>
- 100 AASHTO. (2020). COVID-19 will create long-term impact on state DOT revenues. AASHTO Journal. <u>https://aash-tojournal.org/2020/05/29/covid-19-will-create-long-term-impact-on-state-dot-revenues/</u>
- 101 Ibid.
- 102 Ibid.

- 103 Ibid.
- 104 Russel, B. (2020). "How Idaho's spending its \$1.25B in CARES Act funds and how you can apply for it." *Idaho Press.*

https://www.idahopress.com/coronavirus/how-idahos-spending-its-1-25b-in-cares-act-funds-and-how-you-can-apply/article_85cda05b-45c5-5326-ac43-7e6d17fd90a1.html

105 KIVI Staff. (2020). "ITD getting \$27.3 million for COVID-19 response." *East Idaho News*. <u>https://www.eastidahone-ws.com/2020/04/itd-getting-27-3-million-for-covid-19-response/</u>

106 Ibid.

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