

TENNESSEE DEPARTMENT OF TRANSPORTATION

DATA VISUALIZATION PORTFOLIO

UPDATED JUNE 2021

ABOUT

ACKNOWLEDGEMENTS

Veronica Allen
Chris McPhilamy
William Brewer
Catherine Brown

Tara Boyd
Courtney Cotton
Eric Goodwin
Catherine Hawkins

Meredith Hoos
Keith Pratt
Marshall Wilson

METHODOLOGIES

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SOURCES

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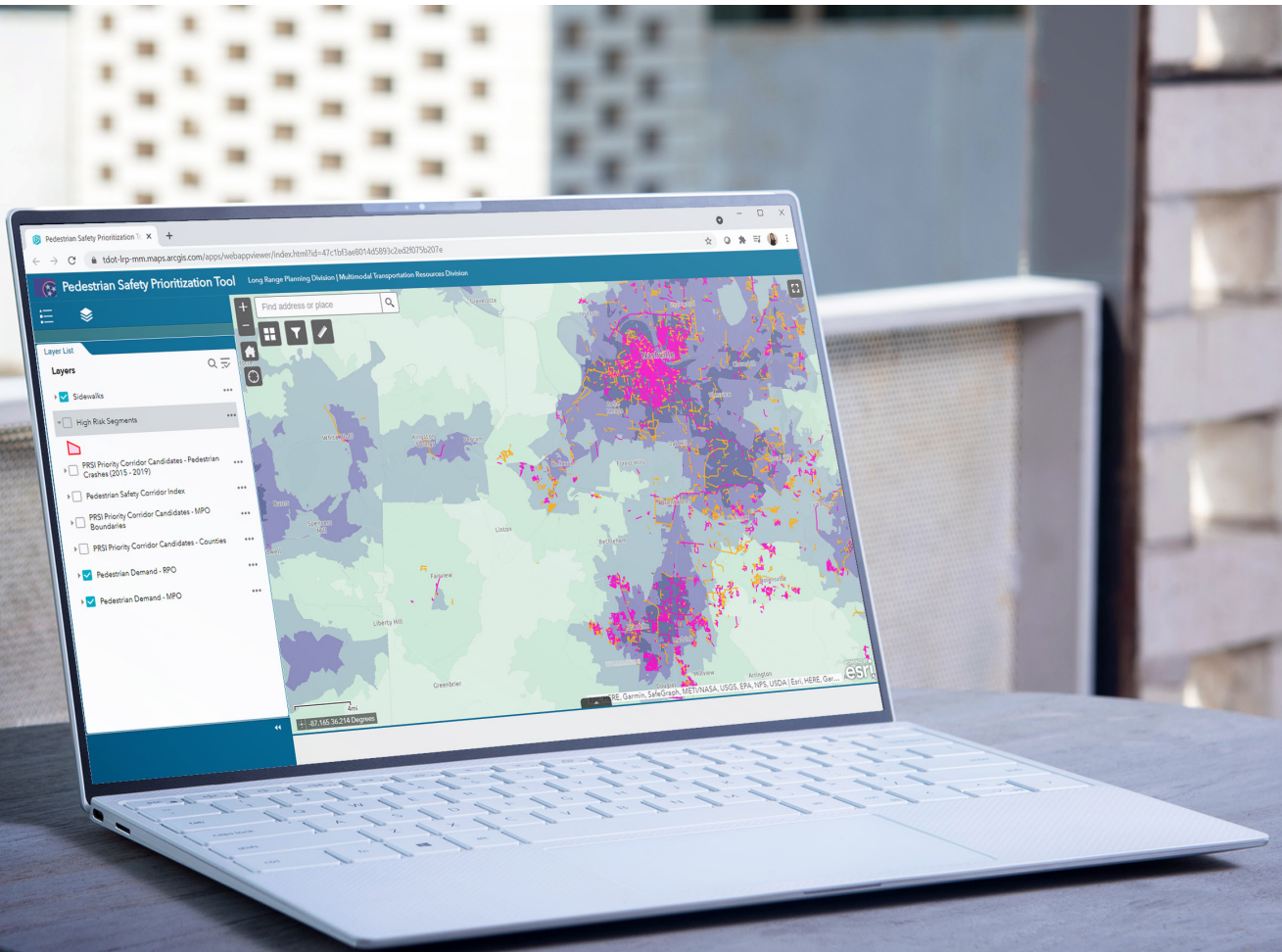
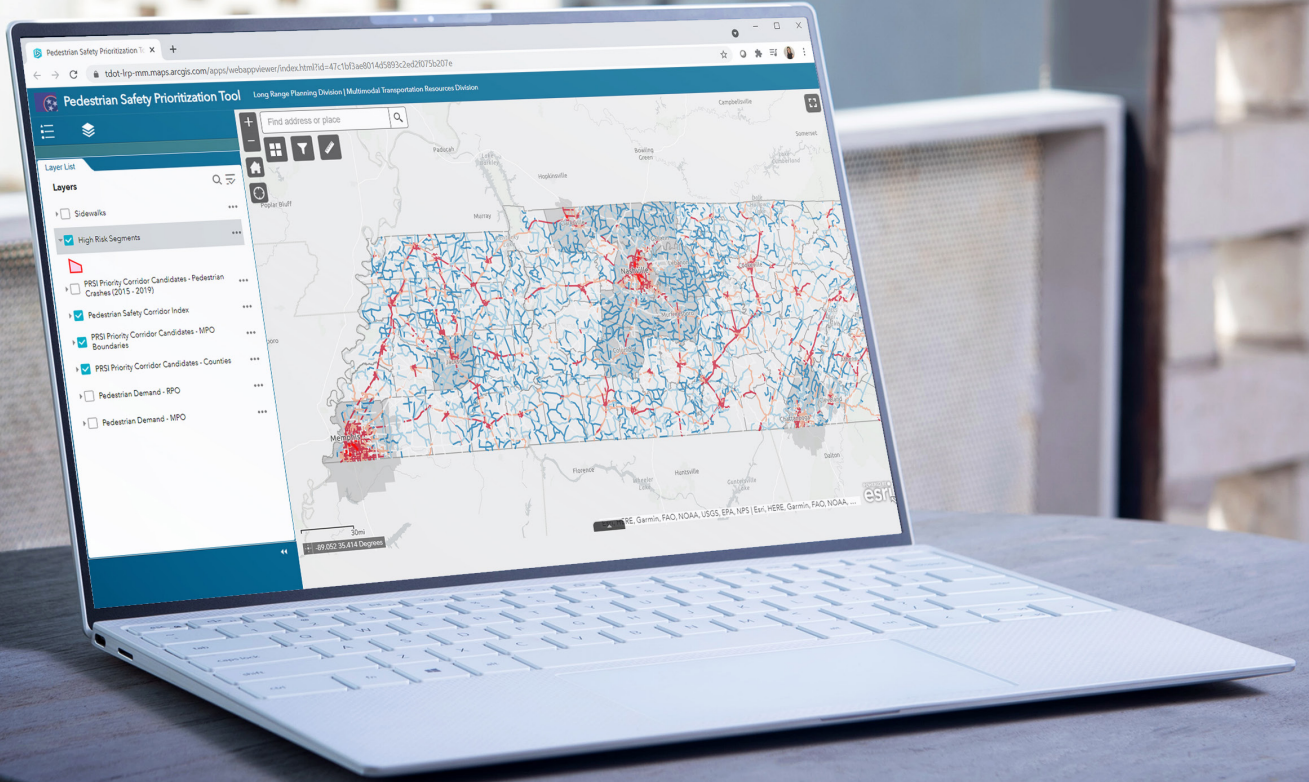
PEDESTRIAN ROAD SAFETY INITIATIVE

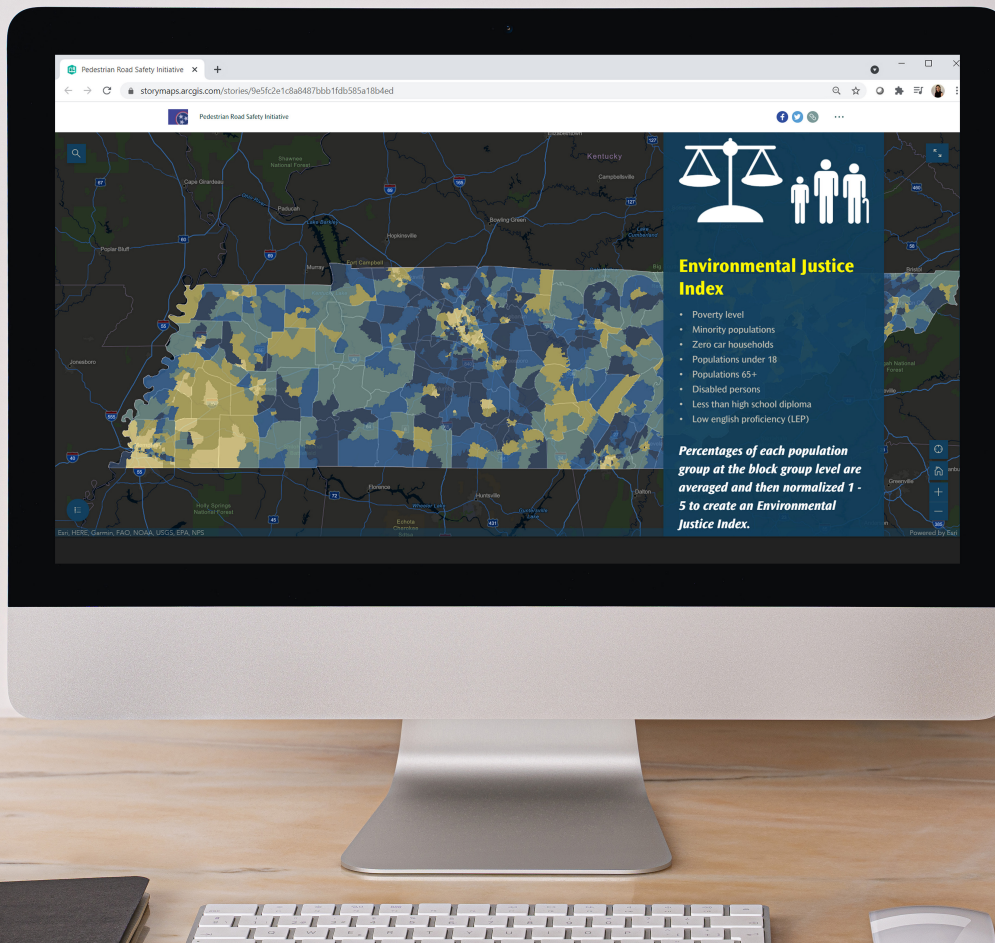
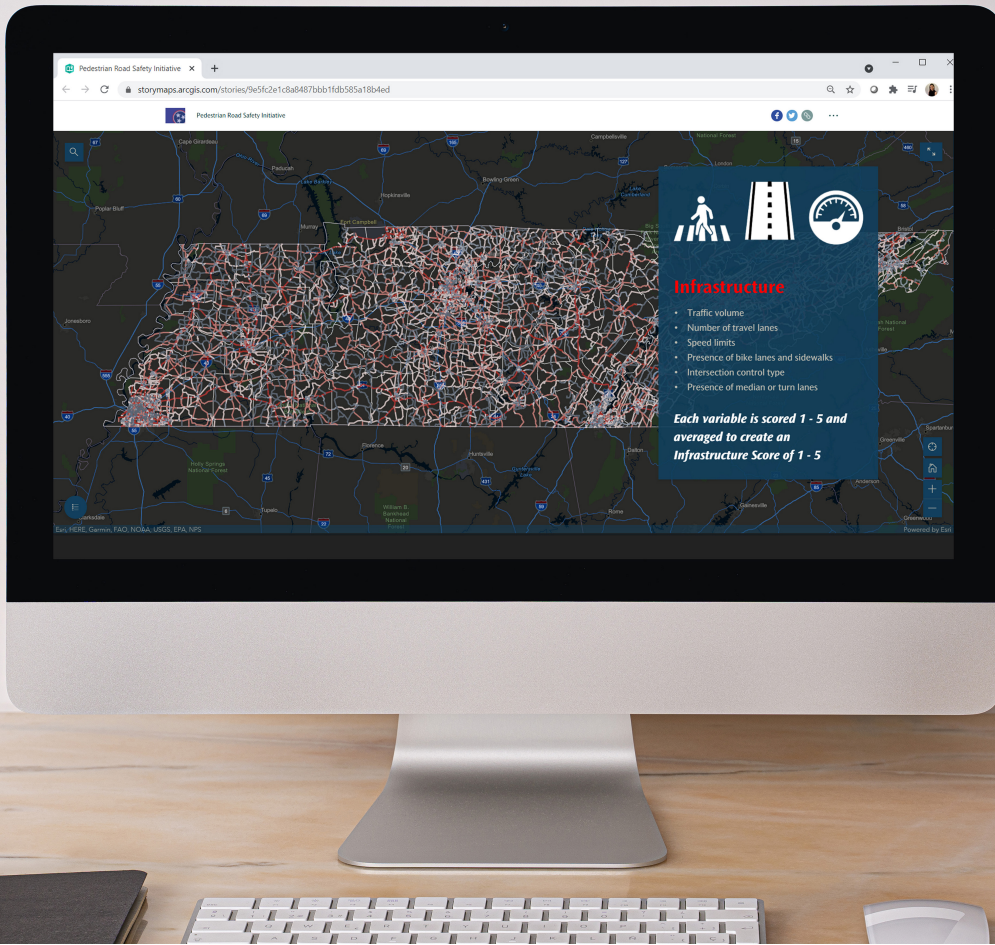
PURPOSE

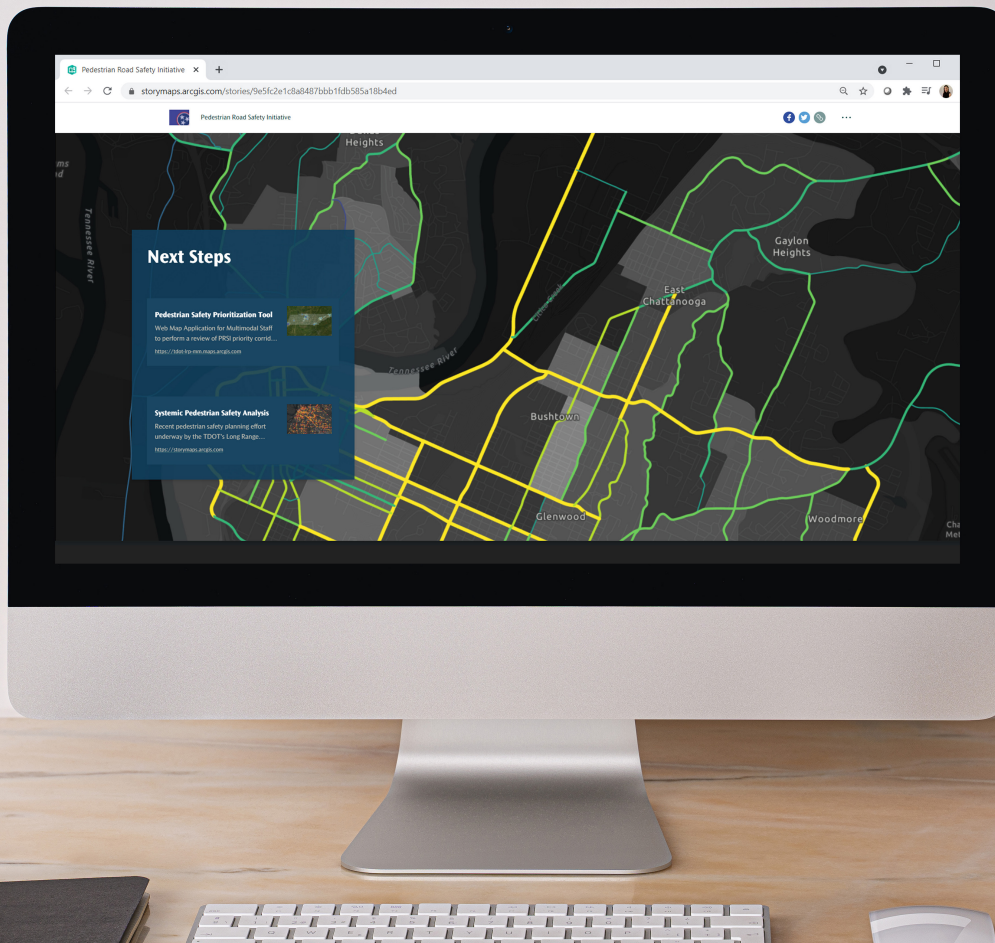
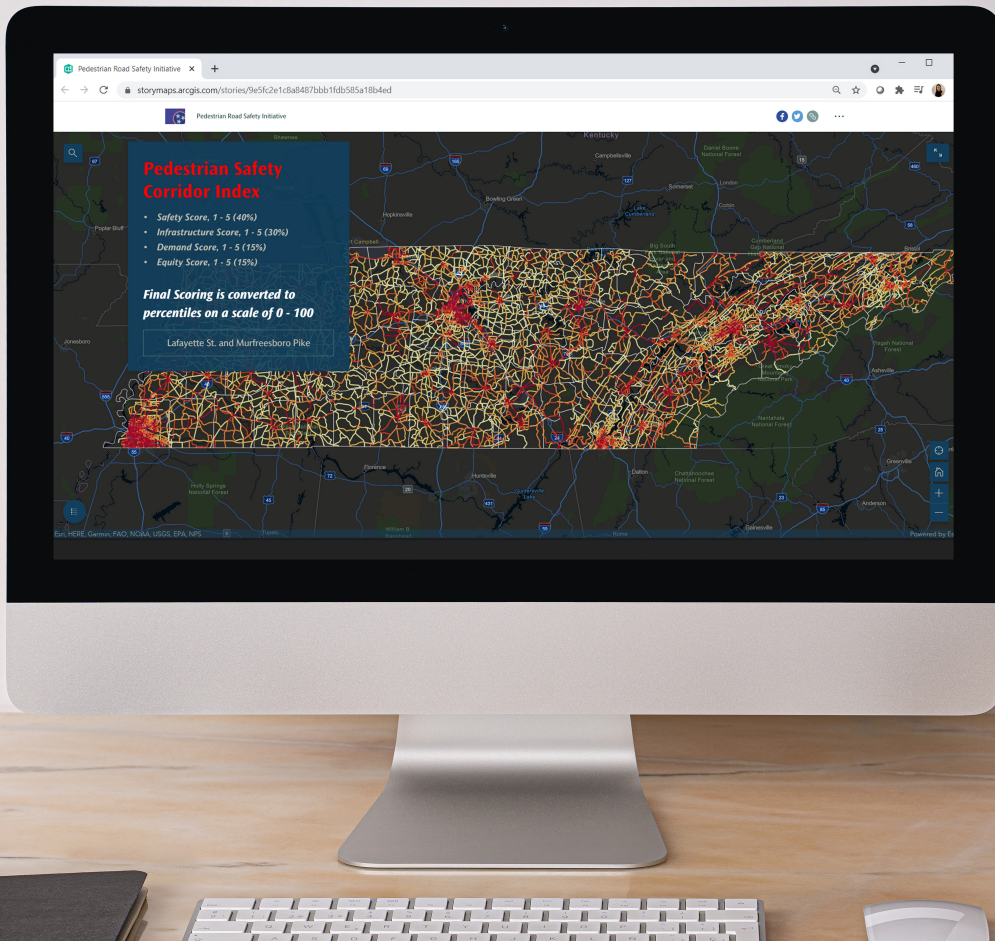
TDOT manages an annual Pedestrian Road Safety Initiative (PRSI), which receives federal funding through the Highway Safety Improvement Program. A PRSI first, staff within TDOT developed an ArcGIS data-driven analysis without the assistance of researchers or consultants. The methodology was designed through a multicriteria evaluation and relied heavily on the Tennessee Roadway Information Management System (TRIMS), historical crash data, socioeconomic datasets from the US Census, and other features such as land use, transit, and points of interest. The intent was to take on a more systemic approach - which is a broader view and evaluates risk across an entire roadway system. The challenge of working on a statewide scale includes the following considerations: urban and rural context, the presence of vulnerable road users, the level of pedestrian activity or exposure, and the risk factors associated with the roadway infrastructure. These reasons led the project team to identify the following criteria in the analysis: pedestrian safety - crash frequency and severity; pedestrian demand - features that influence the propensity of walking or level of activity; equity - a census-based environmental justice index of vulnerable users of the road; and infrastructure - roadway assets that could impact the level of pedestrian ease or comfort.

OUTCOME

This systemic approach allows planners, engineers, and decision makers to not only identify a safety concern based on an evaluation of crash and roadway data at the system level, but also establish common characteristics (risk factors) of locations where severe crashes frequently occur. The inclusion of the demand and equity components simply reinforces this approach. The emphasis on implementation will involve deploying countermeasures to address the underlying circumstances at many of the locations experiencing the risk factors. Lastly, the project team created an ArcGIS Online dashboard, storymaps, and web mapping applications that currently serve as resources for transportation professionals, and the public, to become more informed on the research involved and the factors that may impact the safety of pedestrians in Tennessee.







COVID IMPACT ON TRANSPORTATION

PURPOSE

To explore the relationship between the COVID-19 pandemic and its impact on statewide crashes, including vehicle non-motorist, pedestrian, bicycle, ATV, truck and bus data from 2019 - 2021. This project also explored transportation fatalities by age, restraint and land use, statewide impacts on mass ridership and national vs. Tennessee vehicle miles traveled, year over year. These data provided leadership with critical knowledge in order to make informed decisions.

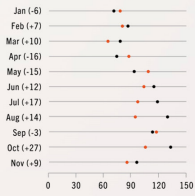
OUTCOME

Tennessee has seen a significant reduction in crashes across the state since the COVID-19 pandemic took hold of the world in March 2020. A comparison of crashes from 2019 - 2021 reveals that there is still a noticeable reduction a year since the beginning of the statewide pandemic response. Crashes plummeted in March 2020, accompanying a major reduction in traffic. The crash totals from March 2021 reveal that there is still a significant reduction in crashes, though the degree of reduction has decreased by more than half. This comparison demonstrates the ongoing impact of the pandemic on transportation in Tennessee. Although there has been an increase in traffic in 2021, the continued reduction in crashes indicates that many Tennesseans continue to limit their travel and work from home. A greater number of non-motorist-involved crashes occurred in March 2021 than in 2019, though the difference was minimal. There are several possible explanations for this small increase in crashes such as warmer weather, creating more non-motorist traffic, and communities potentially partaking in recreational activities that were previously inaccessible or restricted.

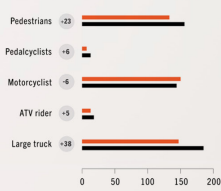
COVID-19 IMPACT ON TENNESSEE TRANSPORTATION

2019 2020

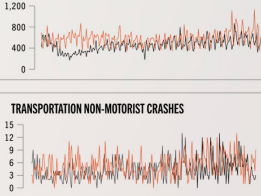
TRANSPORTATION FATALITIES



TRANSPORTATION FATALITIES BY TYPE



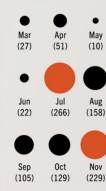
TRANSPORTATION MOTORIST CRASHES



TRANSPORTATION NON-MOTORIST CRASHES



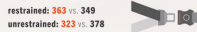
TDOT EMPLOYEE COVID CASE COUNT



TRANSPORTATION FATALITIES BY LAND USE



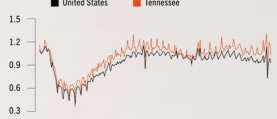
TRANSPORTATION FATALITIES BY SEATBELT USE



TRANSPORTATION STATEWIDE IMPACT ON RIDERSHIP: PERCENT CHANGE FROM 2019 - 2020



NATIONAL VS. TN PASSENGER VEHICLE MILES TRAVELED ESTIMATES



TENNESSEE FATALITY ANALYSIS REPORT

Stay-at-home orders, travel restrictions, and telecommuting led to a significant reduction in traffic from March through mid-August, although there was a considerable spike in traffic fatalities in April and May. Total fatality numbers during the pandemic were higher in 2020 than in 2019, with overall increases in rural and urban fatalities. Crash categories which have seen significant increases in fatalities include non-motorist and urban crashes. This suggests that a reduction in urban traffic has not made for safer driving in those who are still on the road, and may even have led to a substantial increase in 2020.



TOTAL FATALITIES



FATALITIES BY LAND USE



FATALITIES BY TYPE



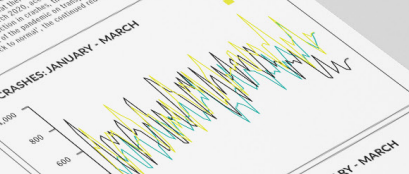
MONTHLY CRASH COUNTS: TOTAL AND NON-MOTORIST

Tennessee has seen a significant reduction in crashes since the start of the COVID-19 pandemic. Total crashes in March 2020 were 1,358, a 40% decrease from the 2,281 total crashes in March 2019. Non-motorist crashes in March 2020 were 110, a 27% decrease from the 150 total non-motorist crashes in March 2019. The reduction in crashes is likely due to a combination of factors, including a decrease in traffic volume, a change in driver behavior, and a change in the mix of vehicles on the road. The continued reduction in crashes indicates that many Tennessee drivers are now driving more safely.

2020 VS. 2021 ALL CRASH TOTALS AND PERCENT CHANGE



ALL CRASHES: JANUARY - MARCH



2020 VS. 2021 NON-MOTORIST CRASH TOTALS AND PERCENT CHANGE



NON-MOTORIST CRASHES: JANUARY - MARCH



FREIGHT MOVEMENT IN TENNESSEE

PURPOSE

Freight transportation is a critical part of economic development, job creation, and global growth for Tennessee. Approximately 430 million tons (\$756 billion worth of goods) was moved via Tennessee's infrastructure in 2018. Tennessee has a history of success with attracting and retaining industries from diverse freight sectors such as automotive, manufacturing, and transportation industries. The purpose of the study is to investigate a range of multimodal solutions to address future travel demands, with emphasis on managing congestion, improving safety, maximizing the potential for freight diversion, and preserving and enhancing the corridor's economic benefits. For more info visit tinyurl.com/i65multimodalcorridorstudy.

OUTCOME

TDOT completed an update to the state's Long Range Transportation Policy Plan that includes a more robust Multimodal Freight Plan, organized statewide and regional freight advisory committees, and completed an update to the Statewide Travel Demand Model. TDOT also completed major corridor studies on I-24, I-75, I-65, and I-55/I-75/I-26 and is in the process of completing a corridor study for I-40/I-81.

I-65, a major freight corridor in Tennessee, runs from the Alabama state line to the Kentucky state line. The I-65 corridor study was completed in 2017. The purpose of the study is to investigate a range of multimodal solutions to address future travel demands, with emphasis on managing congestion, improving safety, maximizing the potential for freight diversion, and preserving and enhancing the corridor's economic benefits.

I-24 is one of the Tennessee's primary freight assets, providing a connection from the southeastern U.S. to north of Tennessee. The I-24 corridor study produced 12 possible improvement strategies to improve freight mobility. Some of these strategies include the relocation or reconstruction of key freight facilities such as rail yards or locks/dams, improved signage on major interchanges, and the continued support of the statewide freight advisory committee.

FREIGHT MOVEMENT IN TENNESSEE



TN TDOT
Tennessee Department of Transportation



HIGHWAYS

430 MILLION TONS
of freight shipped, valued at
\$756.5
BILLION

67% of freight volume and
66% OF FREIGHT VALUE
IS SHIPPED BY TRUCKS*

TENNESSEE
RANKS
#9 IN THE NATION
for transportation and logistics employment &
#3 IN THE NATION
for trucking employment



RAILROADS

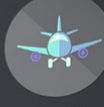
6 OF 7

CLASS I RAILROADS &
2,500 TOTAL MILES

OF FREIGHT RAIL**

208 MILLION TONS
OF RAIL CARGO CARRIED IN TENNESSEE:
#13 IN THE NATION**

MEMPHIS
IS ONE OF ONLY FOUR
U.S. CITIES HOME TO 5 CLASS ONE RAILROADS.
SHIPMENTS FROM MEMPHIS
BY RAIL CAN REACH
45 STATES, CANADA AND MEXICO WITHIN 2 DAYS***

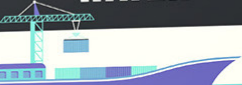


AIR

MEMPHIS INTERNATIONAL AIRPORT IS
**1ST IN NORTH AMERICA &
2ND IN THE WORLD**
BUSIEST CARGO AIRPORT



WATER



TENNESSEE HAS
950 MILES
of navigable waterways
11TH IN THE NATION

PORTS & WATERWAYS SUPPORT
**81,000 JOBS &
\$13.2 BILLION**
IN ECONOMIC IMPACT IN TENNESSEE**

*Airports Council International, 2016
**Inland Rivers, Ports, & Terminals Inc., 2016

INFRA GRANT PROPOSALS

PURPOSE

TDOT requested \$27,106,200 in INFRA grant funding for the SR 28 Upper Cumberland Connector Project – roadway improvements to a segment of State Route 28 (SR 28) in Fentress and Cumberland counties in Tennessee. Additionally, TDOT requested \$43,551,593 million in 2021 INFRA grant funding for the I-40 at Donelson Pike (SR-255) Interchange Reconstruction and relocation of Donelson Pike (SR-255), near Nashville International Airport (BNA). This multimodal project is integral to the vision of the airport, as well as the mission of TDOT to provide safe and reliable transportation for people, goods, and services in a manner that supports the economic prosperity of the state of Tennessee. Finally, TDOT requested \$47,381,400 in 2021 INFRA grant funding for the I-240 Airways Boulevard Interchange near Memphis International Airport. The proposed modifications for the I-240 and Airways Boulevard interchange will improve traffic flow and mobility as well as improve safety for all roadway users.

OUTCOME

The SR 28 Connector improvements are part of a comprehensive program to improve the corridor to stimulate economic development among distressed counties on the northern Cumberland Plateau in Tennessee. This project is part of additional US 127/SR 28 improvements by TDOT, mentioned specifically by the Upper Cumberland Comprehensive Economic Development Strategy (2019) as important to connecting employees between the two counties.

Based on its schedule, the I-40 at Donelson Pike (SR-255) Interchange Reconstruction and relocation of Donelson Pike (SR-255) project would be one of the first 2021 INFRA projects able to deploy funds and begin construction quickly, stimulating economic activity to continue the rebound of the COVID-19 downturn, ensuring funds are obligated well ahead of the September 30, 2024 deadline for FY 2021 INFRA fund expenditures.

Regarding the I-240 Airways Boulevard Interchange project, careful attention has been taken to minimize the necessity of additional right-of-way and to avoid relocations of residents or commercial establishments. The proposed improvements in the study area will require some minor additional right-of-way; however, no relocations will be necessary. Numerous retaining walls throughout the project area are required, as well as landscaping and lighting elements since the interchange reconstruction is the preferred route entrance into the Memphis International Airport.



4.3. Capital Uses of Funds

Funds will be obligated beginning in 2022, well in advance of the September 30, 2024 INFRA deadline for obligation of funds. Construction will be completed, and the project will close in July 2025 (Table 2).

TABLE 2: CONSTRUCTION EXPENDITURES BY YEAR (IN MILLIONS, 2020)

FY 2022	\$31.58
FY 2023	\$31.58
FY 2024	\$31.58
FY 2025	\$10.55

Total \$105.29



2021 INFRA Grant - I-240 Airways Interchange

Given the rapid growth of Middle Tennessee, the project is of the utmost importance to maintaining mobility and supporting the economy of the state, the city of Nashville, and the airport. During peak hours, the I-40/Donelson Pike interchange experiences significant volumes, delays and poor traffic operations. Much of Donelson Pike (SR-255) in the project area is estimated to operate at a level of service (LOS) D or worse, indicating unfavorable or poor progression, congestion, and delay.

In addition to providing access to Nashville International Airport, the interchange is a primary access point connecting the highly-populated Antioch and Donelson communities to downtown Nashville. Between 2010 and 2018, Davidson County's population has grown by over ten percent, compared to approximately seven percent growth for the state as a whole. Neighboring Wilson County to the east, a prominent suburban county that is home to commuters who utilize I-40 to travel to work in downtown Nashville every day, grew over 24 percent during this period, from approximately 114,000 people to nearly 141,000 people^{1, 2}.

Based on population projections from the University of Tennessee's State Data Center, this growth is not expected to slow down anytime soon. The State Data Center projects a growth of over 110,000 people in Davidson County between 2018 and 2040. Wilson County is expected to grow by a staggering 46 percent during this time period, from approximately 141,000 in 2018, to 205,000 in 2040³.

FIGURE 4: DAVIDSON COUNTY POPULATION (2010 - 2040)

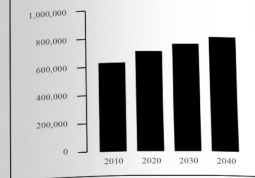


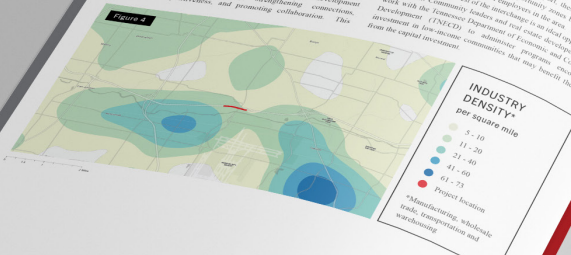
TABLE 1: PROJECT BENEFITS

- Economic vitality**
 Nashville is a major location for freight movement and a destination for visitors from across the globe. This project will improve freight flows, fluidity and simplify travel throughout the corridor and region, coinciding with the long-term vision for the state and airport, improving the economics of the airport and region.
- Traffic operations and safety**
 The interchange reconstruction will not only improve safety by reducing crashes, it will also make it easier to navigate in and around the airport and the various cargo facilities. Additionally, the design reconstruction will include pedestrian improvements on Donelson Pike.
- Connectivity and reliability**
 The proposed project is expected to reduce back-ups at various intersections along Donelson Pike and improve congestion on a route that connects the rapidly growing Nashville communities of Antioch and Donelson.

Additional statistics for Memphis International Airport in 2019 include the following:

- \$6.4 billion economic impact
- Supports 42,354 jobs and \$2.7 billion in payroll through its economic impact
- Memphis-Shelby County Airport Authority (MSCAA) employs (individually or through other contractors) 507 people.
- It shows collect approximately 15,000 people are employed by on-airport businesses
- \$96,000,000 worth average construction spending based on their construction spending from 2016-2019
- \$6,000,000 in economic impacts from General Aviation visitors alone

The continued development of flight facilities and related industries is also viewed as a positive benefit as a result of the airport. It has been identified as regional, national, and international planning office as a flight hub (Figure 4). In the airport vicinity, Memphis International Airport City Master Plan had out a clear vision: "The winning process for the plan focused on four development principles: building community, strengthening consensus, increasing competitiveness, and promoting collaboration. This from the capital investment."



subregion - of which the I-240 Airways Interchange is one of the most heavily traveled interstate and highway corridors in Nashville-Davidson County and the region. I-40 carries long distances through trips and the bulk of commuter trips that originate in eastern Davidson County and western Wilson County. The Donelson-Hermitage-Old Hickory community has several major employment centers, including the non-airport-oriented Opryland Hotel, Open Arms Mall/Music Valley area, the Nashville International Airport, Summit Medical Center, and various businesses in the

Donelson - Hermitage - Old Hickory

The Donelson-Hermitage-Old Hickory community contains some of the most heavily traveled interstate and highway corridors in Nashville-Davidson County and the region. I-40 carries long distances through trips and the bulk of commuter trips that originate in eastern Davidson County and western Wilson County. The Donelson-Hermitage-Old Hickory community has several major employment centers, including the non-airport-oriented Opryland Hotel, Open Arms Mall/Music Valley area, the Nashville International Airport, Summit Medical Center, and various businesses in the

Nashville International Airport

Directly adjacent to the project site, Nashville International Airport (NVA) is one of the fastest-growing airports in the country. The airport's 10 percent growth in passenger volume from 2017-2019 was the highest of the 100-largest airports in the U.S.⁴ In 2019, Nashville International Airport served over nine million enplaned passengers. The airport is a major regional economic engine, generating over \$7 billion in economic activity per a 2019 study - a contribution to the economy that has more than doubled since 2012.⁵

Donelson - Hermitage - Old Hickory

The Donelson-Hermitage-Old Hickory community contains some of the most heavily traveled interstate and highway corridors in Nashville-Davidson County and the region. I-40 carries long distances through trips and the bulk of commuter trips that originate in eastern Davidson County and western Wilson County. The Donelson-Hermitage-Old Hickory community has several major employment centers, including the non-airport-oriented Opryland Hotel, Open Arms Mall/Music Valley area, the Nashville International Airport, Summit Medical Center, and various businesses in the

Donelson area. In addition, the Grand Ole Opry, Nashville Shores, the River Park, Percy Foreman Lake, and country and bluegrass venues are located in the area. The Donelson-Hermitage-Old Hickory community is also experiencing rapid redevelopments as many families have been moving into the area to take advantage of Nashville's growth and the close proximity to Nashville International Airport.

Antioch - Priest Lake

The Antioch-Priest Lake community is located in the southeast portion of Metro Nashville. Antioch-Priest Lake provides employment, housing and retail, which - given its geographic location in the region - is quite competitive. Development and services in this area are relatively high and there is significant investment in this area has historically been one of the most challenging to address in Metro Nashville. Many commuters travel from Antioch to other areas within Metro Nashville for work, commerce, and other activities. This project will improve their access to jobs, shopping, and other services.



RPO PROJECT RANKINGS STORYMAP

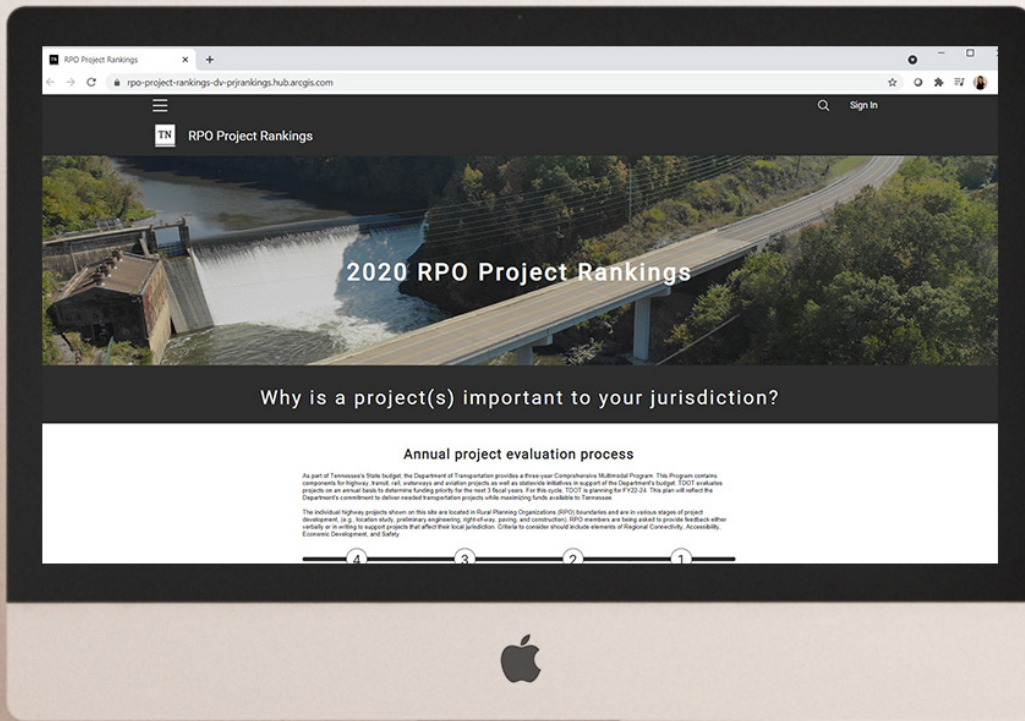
PURPOSE

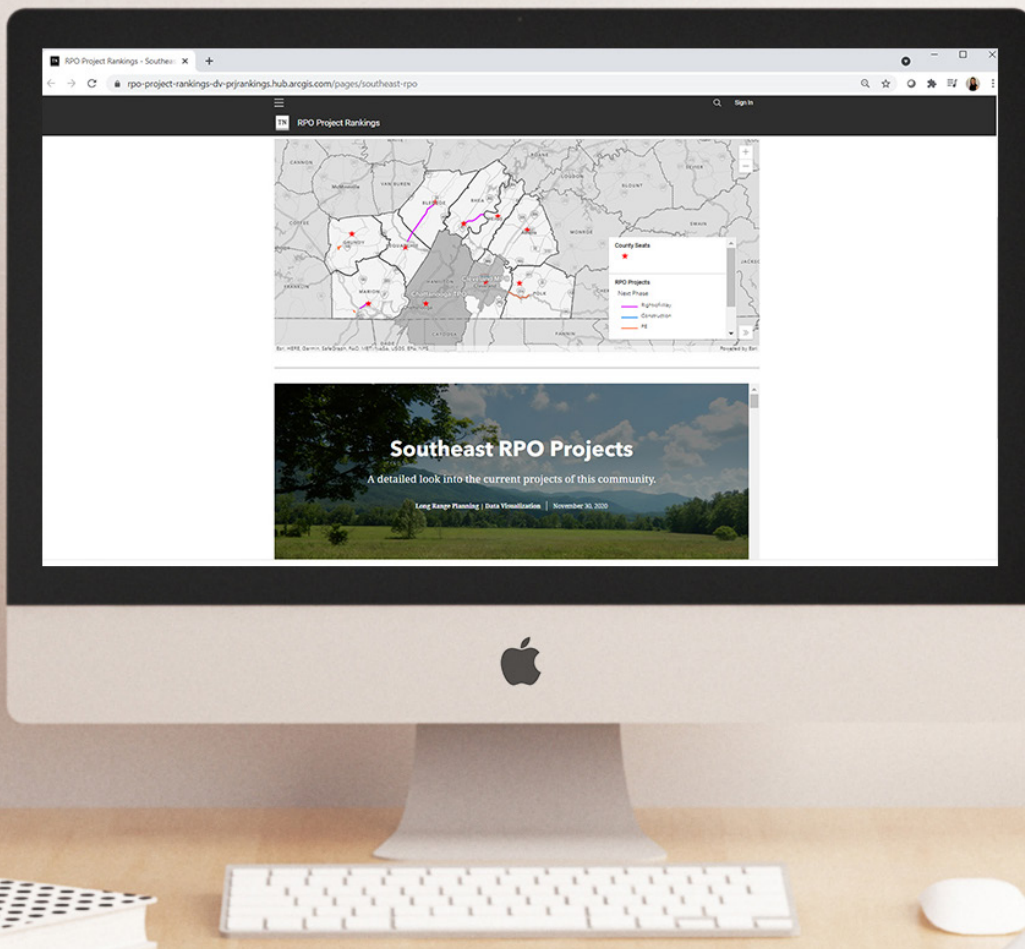
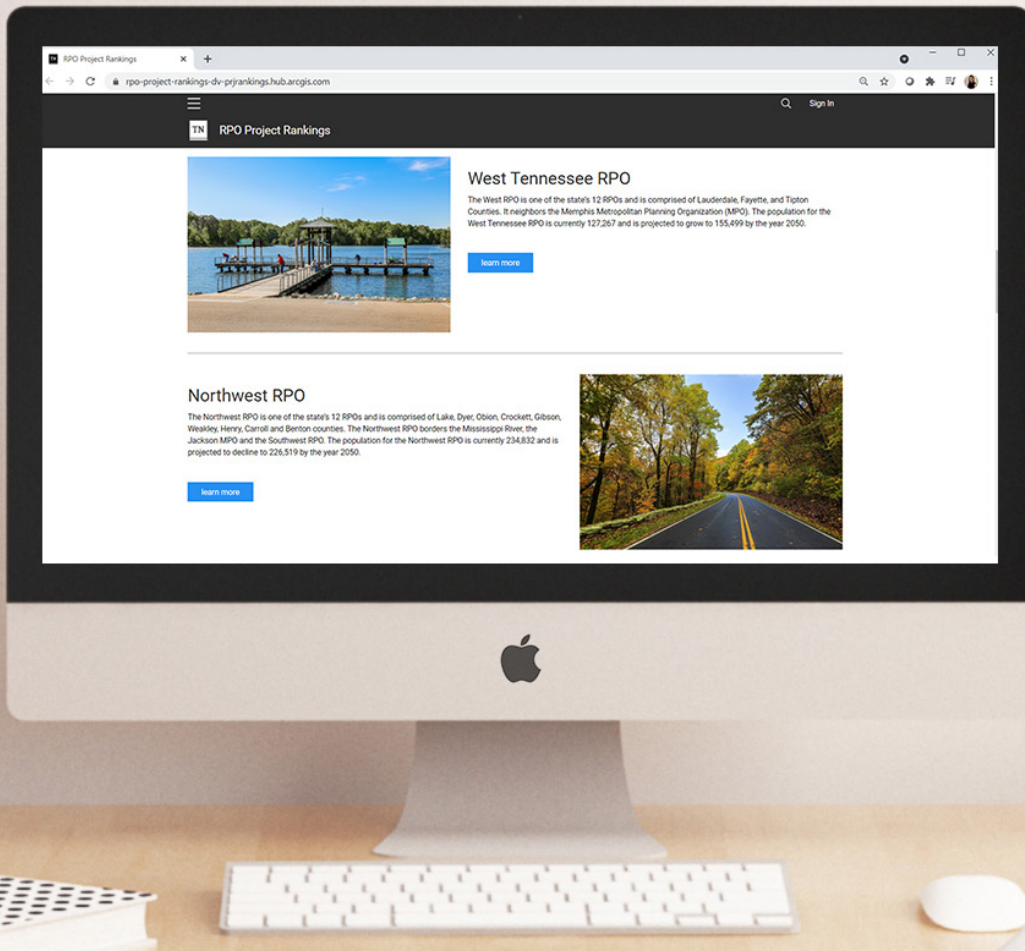
As part of Tennessee's State budget, TDOT provides a three year comprehensive multimodal program. This program contains components for highway, transit, rail, waterways and aviation projects as well as statewide initiatives in support of the department's budget. TDOT evaluates projects on an annual basis to determine funding priority for the three fiscal years, this cycle being FY22-24. This plan reflects the department's commitment to deliver needed transportation projects while maximizing funds available to Tennessee.

The individual highway projects in this project are located in Rural Planning Organizations (RPO) boundaries and are in various stages of project development, (e.g., location study, preliminary engineering, right-of-way, paving, and construction).

OUTCOME

RPO members provided feedback to support projects that affected their local jurisdictions. Criteria to consider include elements of regional connectivity, accessibility, economic development, and safety. By enabling local and regional stakeholders to easily view project details in an interactive web mapping platform, project ranking meetings were held virtually without compromising the efficiency and integrity, leading to higher engagement with rural communities to enable transportation decisions.





RURAL REGIONAL TRANSPORTATION PLANS

PURPOSE

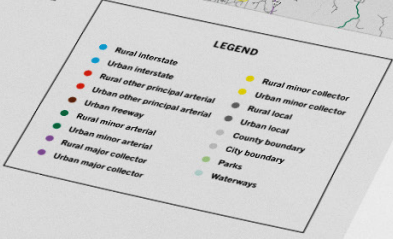
In conjunction with 12 Rural Planning Organizations (RPOs) across the state, TDOT collaborates in planning efforts for the development of Rural Regional Transportation Plans. The purpose of the plans is to increase the efficiency and effectiveness of the state's rural transportation infrastructure investments and to increase the economic competitiveness of the state's rural regions. These plans stem from recommendations contained within TDOT's 25-Year Long Range Transportation Policy Plan as related to RPOs. Tennessee's RPOs are Center Hill, Dale Hollow, East Tennessee North, East Tennessee South, First Tennessee, Middle Tennessee, West Tennessee, Northwest Tennessee, South Central East, South Central West, Southeast Tennessee, and Southwest Tennessee.

OUTCOME

Identifying needs and making a range of recommendations for rural Tennessee's transportation system is a goal of TDOT's Long Range Planning Division. Once completed, the Rural Regional Transportation Plans will be used for additional future studies, identification for county-level transportation plans, as well as any additional needs recognized. There are currently 6 plans completed; 4 plans in progress and 2 remaining to be completed by the end of 2022.



FUNCTIONAL CLASS IN SOUTH CENTRAL EAST



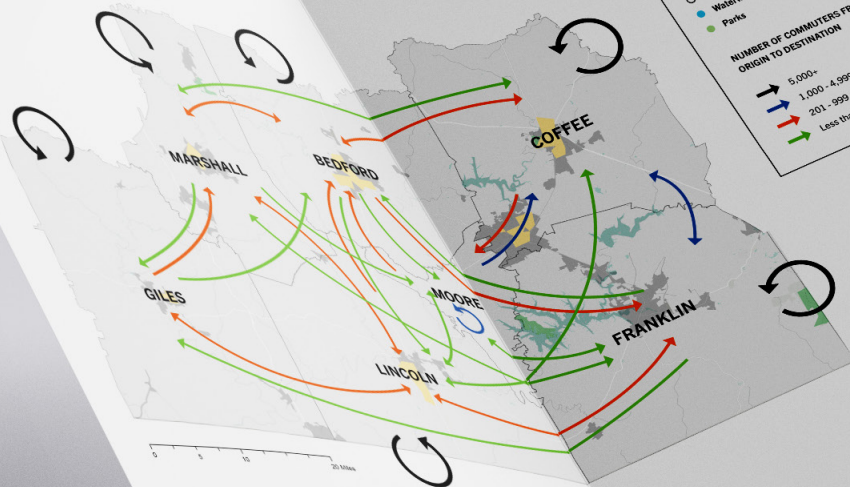
AVERAGE OF SINGLE-UNIT AND MULTI-UNIT TRUCK SHARES PER FUNCTIONAL CLASS

TYPE	RURAL SYSTEM				URBAN SYSTEM			
	INTERSTATE	FREEWAY	OTHER PRINCIPAL ARTERIAL	MINOR ARTERIAL	OTHER PRINCIPAL ARTERIAL	MINOR ARTERIAL	MAJOR COLLECTOR	MINOR COLLECTOR
Single Unit	3.3%	n/a	2.0%	2.4%	3.0%	1.3%	1.9%	1.0%
Multi Unit	29.3%	n/a	6.1%	5.8%	6.8%	3.1%	2.3%	1.1%

SOUTH CENTRAL EAST RPO FUNCTIONAL CLASSIFICATION

FUNCTIONAL CLASS	ROADWAY LENGTH (MILES)	DVMT
Interstate	65.41	2,218,915
Principal Arterial	247.80	2,168,756
Minor Arterial	309.86	1,526,307
Major Collector	935.83	921,527
Minor Collector	842.90	621,594
Local	4,383.93	1,048,847
Total	6,386.13	6,556,945

COMMUTING PATTERNS IN SOUTH CENTRAL EAST



STRATEGIC HIGHWAY SAFETY PLAN

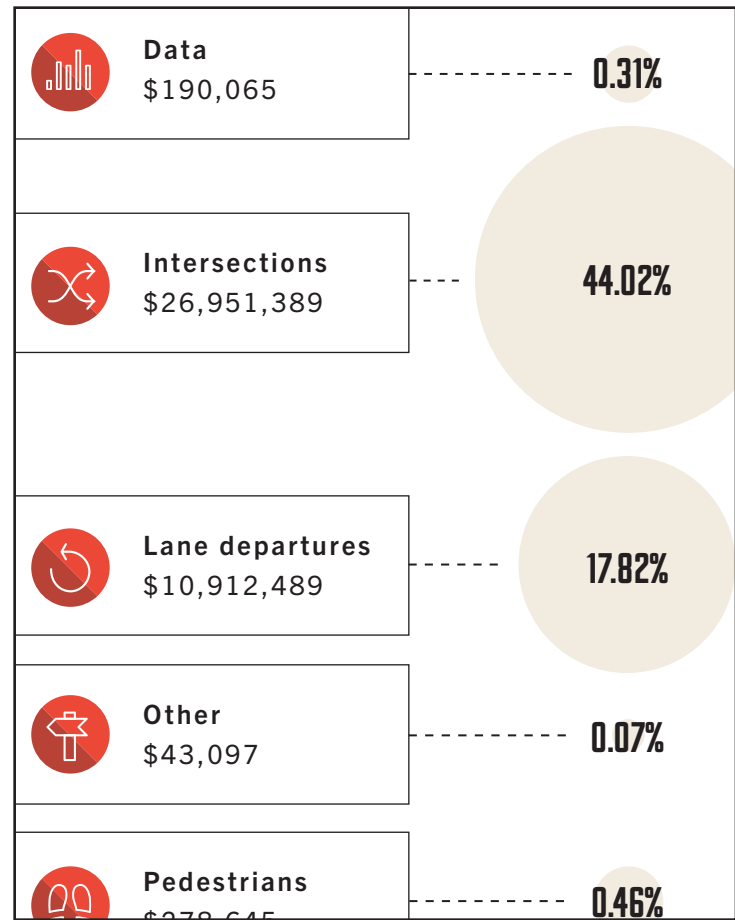
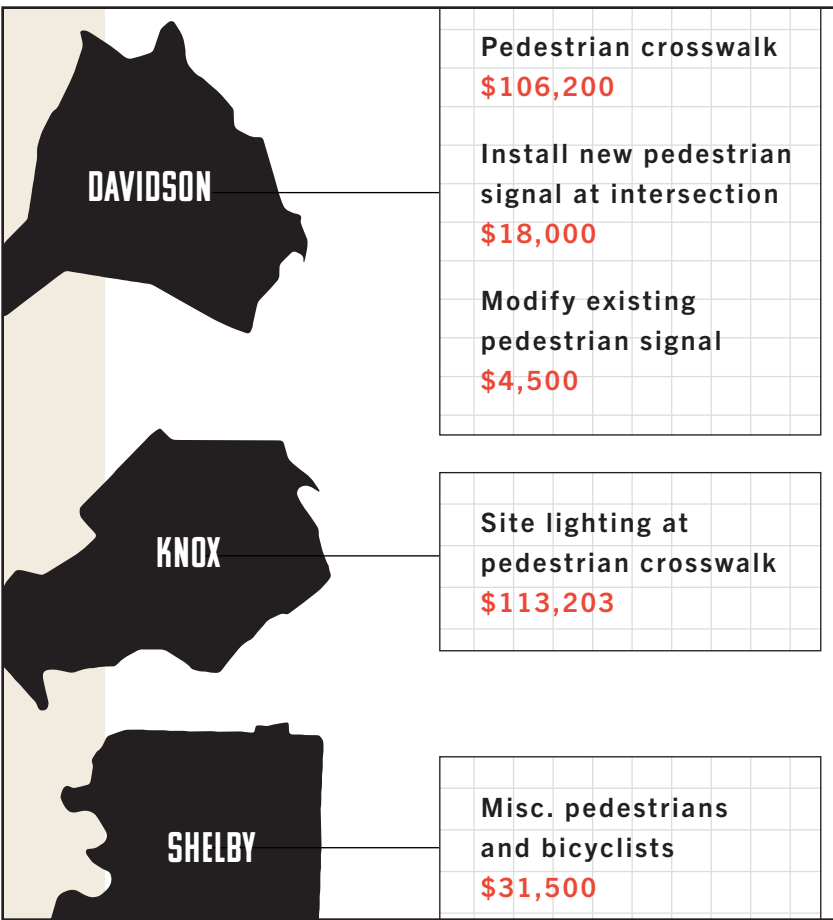
PURPOSE

The intent of Tennessee's update to the Strategic Highway Safety Plan (SHSP) is to develop a comprehensive safety road map for the state, identify concerns related to crashes that result in fatalities and serious injuries, and provide strategies to mitigate or eliminate these concerns. The SHSP builds off the foundation set forth by the Tennessee's original SHSP in 2004 and subsequent updates, and uses a data-driven approach with collaboration from various agencies and organizations statewide with the following goals: determine predominant factors and trends associated with severe crashes; develop a comprehensive list of safety strategies to combat identified safety concerns; identify current programs, initiatives, and projects (actions) in line with safety strategies; and identify potential actions and associated challenges with their implementation. The SHSP update follows guidance provided by the Federal Highway Administration and meets all current federal requirements needed for obligation of funds under the Highway Safety Improvement Program.

OUTCOME

Tennessee has maintained its commitment to the Toward Zero Deaths (TZD) vision. TZD is the result of a national collaboration of safety professionals from various agencies and organizations using a data-driven approach to develop standard strategies focused on providing safer roadways that are regularly refined, implemented, and evaluated. The vision set forth by TZD is a surface transportation network free of fatalities through a sustained and even accelerated decline in transportation-related deaths and injuries.

Historic, statewide vehicular fatality and serious injury data was used to identify key contributing factors that then were grouped into emphasis areas. Through contributions from various safety stakeholders, a multifaceted set of strategies and actions were developed that relate to the four E's of transportation safety: engineering, enforcement, education, and emergency response. Multi-faceted solutions are essential to the reduction of severe crashes, as their cause can be the result of one or more factors (human, infrastructure, environmental, etc.) that may not be solved through the use of only one of the four E's.



SYSTEMIC PEDESTRIAN SAFETY ANALYSIS

PURPOSE

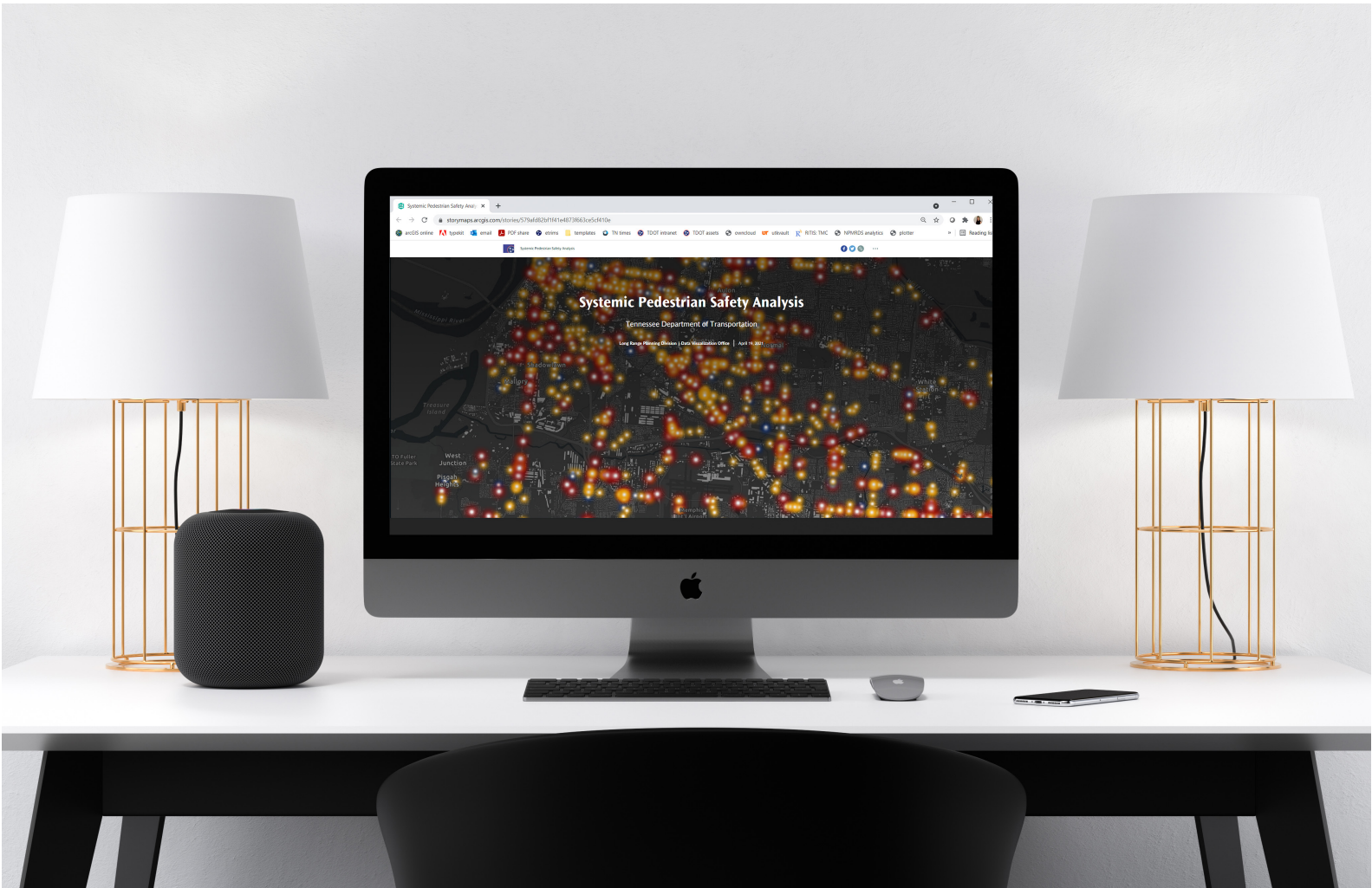
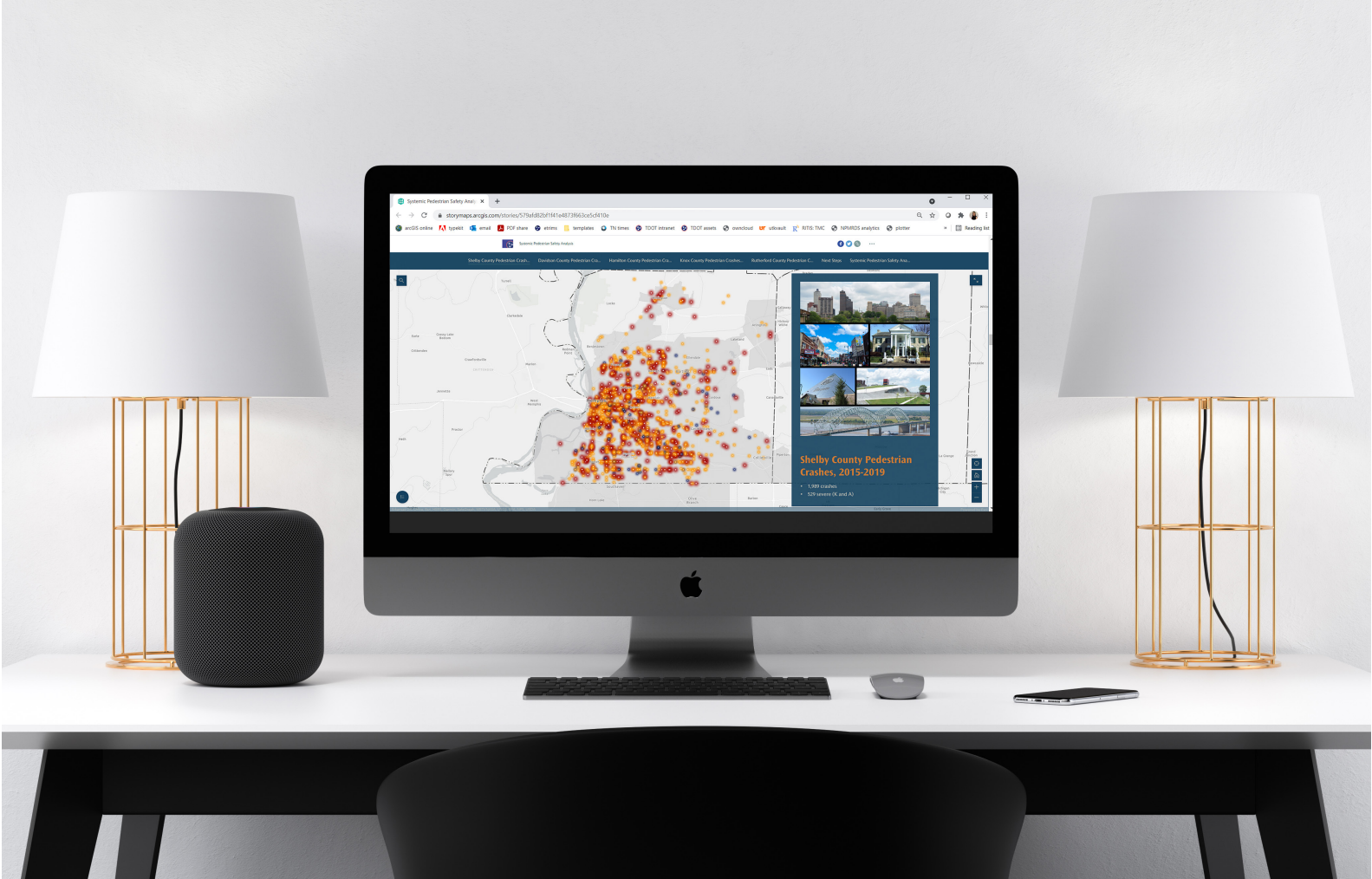
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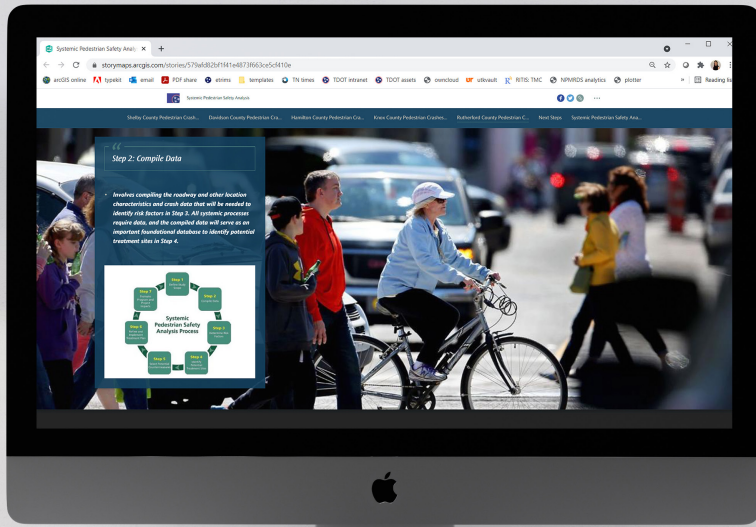
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OUTCOME

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Step 2: Compile Data

Analyses compiling the roadway and other location characteristics and crash data that will be needed to identify critical areas in Step 3. All systems processes require data, and the compiled data will serve as an important foundational database to identify potential treatment sites in Step 4.



MULTIMODAL ACCESS GRANT

PURPOSE

The Multimodal Access Grant is funded and managed by TDOT, using state funds. Its purpose is to support the needs of pedestrians, cyclists, and transit riders through the provision of infrastructure that addresses accessibility and gaps on State routes. It is competitively awarded, with Counties, Cities and Towns competing in funding rounds each year. The grant is in high demand - in 2020 over 80 applicants proposed over \$54M of work, and 18 communities were successfully awarded over \$14M.

Mapping is used to highlight certain characteristics of awardees during the selection process, as well as to illustrate the geographic spread of the projects proposed for funding each year.

A range of characteristics is used during the selection process, such as: economic wellbeing of the applicant county or city; whether the applicant is in within a Metropolitan Planning Area or a Regional (rural) Planning Area; and the history of awards in previous years. These are displayed on custom maps created for the purpose.

A map is also produced showing the proposed final selection of awards. This map is presented to senior TDOT management as part of the final selection process, enabling them to quickly understand the geographic spread of awards across the state.

OUTCOME

Mapping is used to easily show geographic characteristics used during project selection. This helps explain and increase the transparency of the selection process.

Mapping shows the relative location of awardees across the state, allowing quick identification of the spread of funding, and comparison with previous award years. This gives senior management confidence about the equitable distribution of awards, across both past years and geographically.

TRUCK PARKING IN TENNESSEE

PURPOSE

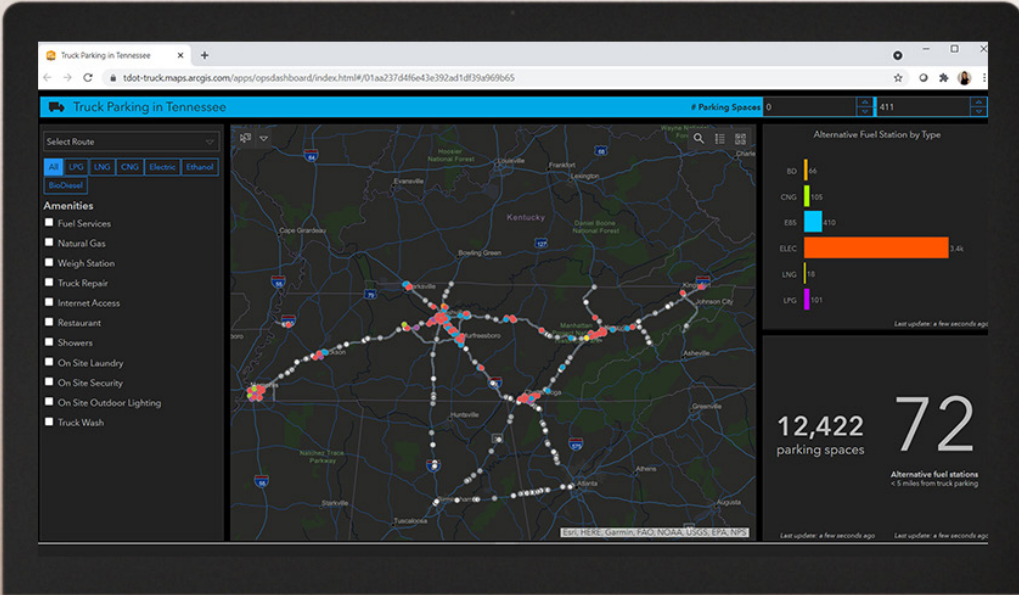
TDOT was awarded \$250,000 in grant funding from the Federal Highway Administration (FHWA) to study freight flows and truck parking as part of the National Economic Partnership (NEP) Pilot Program. TDOT was one of only four pilots selected. Truckers struggle daily to find safe truck parking to meet hours of service laws and to rest properly. Sometimes, they will search up to one hour per day to try to find a space that provides safety, as well as needed amenities such as food, fuel, showers, maintenance, and security. TDOT needed to identify all public and private truck parking spaces as part of this grant program.

OUTCOME

As part of the grant, the first step was to take a survey of all public and private truck parking spaces within a 0.25 mile radius of all interstates in Tennessee and portions of I-65, I-20, I-59, and I-75 in Alabama and Georgia. The NEP pilot covered the greater Chattanooga region, as well as freight avenues in a wider area of the tri-state region. TDOT hired a consultant to work with Georgia Tech on surveying all the private truck parking spots and any available amenities that were located at each spot. Public truck parking spaces were coordinated and obtained from the three state DOTs. The survey found that in the tri-state area there were 12,781 public and private truck parking spaces.

The second step was to map all the spaces, along with the number of available amenities. TDOT's Data Visualization Office served as the project lead for this portion of the project. They created a static map, along with the capabilities for the map to live in a virtual setting in the future. The circles they used, and the color intensity represented the number of spaces and amenities at each location. The bigger the circle, the more spaces that were available. The more intense the color, the more amenities that were available.

Overall, this project was a success and will serve as a base to build on for future work related to truck parking. The maps that TDOT Data Visualization created also provides an easy way to see where future truck parking is needed at a glance.



TENNESSEE STATE TRANSPORTATION MAP

PURPOSE

The state tourism map or transportation map has been published nearly every year since 1918. It provides an accurate and up to date account of state highway infrastructure across the Tennessee. Updated annually, this map circulates nearly 20,000 copies every year. The purpose of this continual project is to provide to the state and the nation the most up to date information on the Tennessee transportation network.

OUTCOME

Prior to 2020, the transportation map has been maintained by hand using traditional digital methods. While modern in nature, they still represented a static snapshot of the data. In 2020, TDOT released the first ArcGIS Pro digital map, which is comprised entirely of authoritative data sources from agencies that created and compiled data in real time using ArcGIS software. This modernization has allowed for efficient and timely updates, and most importantly always reflect the most current available information for all data sources. Future development will see this product into a basemap that will serve as the foundation for all future TDOT online mapping products.





TENNESSEE DEPARTMENT OF TRANSPORTATION
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