

The Transportation Modernization Act of 2023 (TMA) is an important first step in addressing Tennessee's transportation infrastructure needs. Two of the plan's new strategies -- **implementing choice lanes to address congestion** and **using public-private partnerships (PPPs) to build and operate them** -- will enable the Tennessee Department of Transportation (TDOT) to more effectively manage congestion in urban areas, create a new funding source through user fees, and leverage private capital and debt financing for infrastructure projects.

In this brief, we explain how choice lanes help manage congestion, how public-private partnerships are a proven tool, and we share best practices to consider for successful implementation.

The TMA is Critical to Help Manage Tennessee's Current and Future Growth

Tennessee has experienced tremendous growth, leading to increased need for new transportation investments.

In 2022, the state's population **exceeded 7 million** for the first time, and our **GDP growth ranked 1st in the nation**, skyrocketing from 24th just two years earlier.[i] Tennesseans are also driving more, with the total vehicle miles traveled (VMT) in 2021 surpassing pre-pandemic levels.[ii]

To manage this growth, TDOT estimates needing \$26 billion to address congestion across the state.[iii] Yet they anticipate having only \$500 million available per year for new construction projects, resulting in a **\$13.5 billion revenue gap by 2040**.[iv]

The TMA authorizes TDOT to **reduce project costs** through more efficient delivery models, **fund new transportation investments** through user fees from choice lanes and electric vehicle fees, and **leverage private investment** through public-private partnerships.

Tennessee's population has grown consistently, reaching 7 million for the first time in 2022.



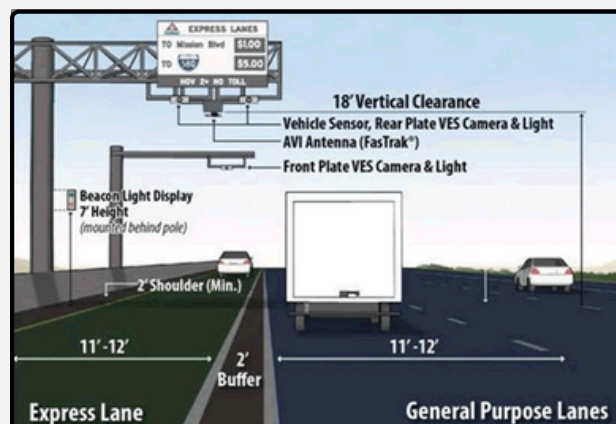
Source: US Census Bureau, Annual State Population Estimates 2010-2022

Choice Lanes are an Effective Tool to Manage Congestion

To ease congestion on Tennessee roads, the TMA will add a new, additional lane -- **a choice lane** -- that drivers may pay a fee to access. This one-time per-use fee will vary based on the time of day and will help to control traffic speeds.

How do Choice Lanes Work?

Choice lanes, sometimes called express or managed lanes, are separated from general-purpose travel lanes. They use strategies such as **pricing** -- paying a fee to enter -- and **restricting access to eligible vehicles** to achieve optimal traffic conditions like reliable free-flow speeds.



Source: FHWA Priced Managed Lane Guide

Choice lanes are a better solution than toll roads or adding unmanaged general-purpose lanes.

Alternative policies can be less equitable and less effective than choice lanes at managing congestion. **Toll roads** typically prioritize revenue collection over traffic management, and they can create an inequitable burden on low-income drivers as all road users must pay a toll. **Adding unmanaged general-purpose lanes** can have the unintended impact of increasing congestion as new lanes attract more drivers, in what's known as "induced demand."^[v] Studies have shown that new unmanaged lanes relieve congestion only temporarily, often for as few as three to five years.^[vi]

Choice lanes have demonstrated success in reducing congestion and lowering travel times for drivers in all lanes.

Choice lanes are currently operating in 11 states. Evidence from other states with choice lanes shows improved transportation outcomes, from increased speeds and reduced commute times to more balanced traffic volume -- meaning fewer bottlenecks in all lanes -- during both peak and non-peak travel periods.



Express lanes along I-75 in Georgia have **reduced rush-hour commute times by an hour** and **increased speeds in the general-purpose lanes by an average of 20 mph.**^[vii]



Florida's express lanes have **balanced traffic distribution during peak commute times**, with 71% of surveyed users shifting their time of travel at least once a week in response to lower fees at certain hours.^[viii]

Public-Private Partnerships are a Proven Tool to Construct and Manage Choice Lanes

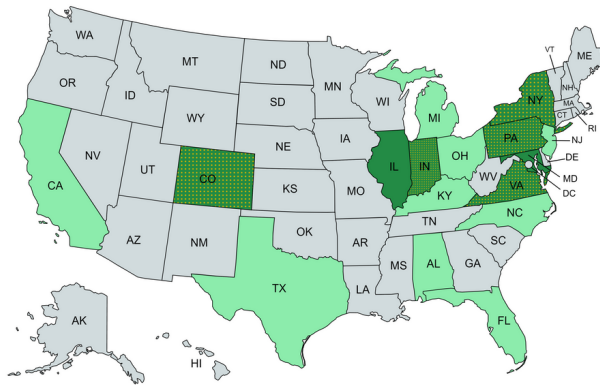
PPPs allow TDOT to leverage private sector dollars to finance, operate, and maintain choice lanes.

Tennessee is one of five states that does not use debt to finance transportation infrastructure projects, limiting TDOT's ability to meet the demand for new infrastructure needs.^[ix] PPPs leverage private sector dollars, allowing the private sector to issue debt for projects and collect the generated revenue needed to earn back their upfront investment.

Transportation projects in 17 states have been, or will be, delivered using PPPs.



States using PPPs have **benefitted from private sector expertise and innovation, achieved accelerated project delivery, and broadened their transit development opportunities.**^[x]



- Existing Projects
- New Build Projects
- Both New and Existing Projects

Source: FHWA Center for Innovative Finance Support

Successful and Equitable Implementation Depends on Appropriate Transparency and Oversight

When building and implementing choice lanes through PPPs, successful implementation depends on **ensuring all parties have the relevant experience and expertise**, a **focus on equity**, and a **commitment to transparency and oversight**.

Implementing choice lanes requires specific/relevant experience and expertise.

Choice lanes require new design and management considerations, from designing access points and road signage to fee collection and enforcement methods.^[xi] Ensuring both private partners and public agencies have the right experience and expertise can help to avoid increased costs and delays in revenue collection and reduce congestion more quickly for drivers.

When designed equitably, choice lanes can benefit all residents.

Policies like dynamic lane pricing, where the user fee is adjusted in real-time based on usage, are effective at managing congestion on choice lanes. But if equity is not a key consideration, the fee can become too expensive -- as a \$47 fee during peak demand in Virginia once demonstrated -- and can lead to higher-income drivers benefitting more from choice lanes.[xii] Allowing transit vehicles free access and dedicating a portion of choice lanes revenues to fund transit can help ensure all road users have affordable transportation options.



Supporting Transit Can Make Choice Lanes More Equitable

- ✓ Coordinate with transit authorities during project planning
- ✓ Prioritize transit users to maintain affordability and access
- ✓ Provide easy access points to existing lanes for new transit facilities and routes
- ✓ Dedicate a portion of fee revenue to fund transit services and development

Source: HOT for Transit? Transit's Experience of High-Occupancy Toll Lanes | Elsevier Enhanced Reader

Projects can deliver better results with transparent oversight and local collaboration.

Using private sector partners to manage and operate user-fee-funded lanes will introduce a new role for TDOT and other government agencies. This means that TDOT will be responsible for a different phase of the project-delivery process and more complex contracting. Maintaining **transparent processes, including project and partner selection and project planning and development** can help avoid costly delays and missteps.

Engaging local communities in the process provides additional benefits beyond easing congestion. Incorporating **local input into the project selection and design processes** will ensure that projects are consistent with regional objectives and existing transportation plans and projects.[xiii] Additionally, reinvesting revenue generated from choice lanes in the communities that use them, as Texas does, can further support local transportation services and projects. [xiv]

Policy Recommendations

Choice lanes and PPPs are important tools to help Tennessee meet our transportation needs. As implementation begins, we share best practices to consider to help achieve the best outcomes for all Tennesseans.

► Utilize choice lanes strategically, in partnership with other managed lane strategies, for maximum impact.

While effective at reducing congestion on their own, by using additional managed lane strategies such as access control and vehicle eligibility restrictions, choice lanes can also encourage carpooling or off-peak-time commuting to further relieve congestion, reduce commute times, and improve local air quality.

► Commit to transparent oversight of public-private partnerships and local engagement.

Following best practices, project oversight should regularly monitor the private partner's user fee collections, revenue management, debt financing efforts, and overall project maintenance to protect the public interest. Additionally, local input from cities and counties should be included in the project planning and development phases whenever possible to ease project implementation and increase impact.

► Address the equity concerns of choice lanes by prioritizing and investing in transit.

Including transit in implementation decisions -- such as allowing transit vehicles to use choice lanes and using earned revenues to support transit in the areas they operate -- can bolster equitable access and benefits for all Tennesseans.

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- [ii] Tennessee Department of Transportation. Highway Performance Monitoring System. 2019 to 2021. See <https://www.tn.gov/tdot/long-range-planning-home/longrange-road-inventory/longrange-road-inventory-highway-performance-monitoring-system.html>.
- [iii] Tennessee Department of Transportation. "Build with Us". Feb 14, 2023. See <https://www.tn.gov/content/dam/tn/tdot/build-with-us/2-23%20Challenges%20and%20Solutions%20White%20Paper.pdf>.
- [iv] Ibid. See also Tennessee Advisory Commission on Intergovernmental Relations. "Building Tennessee's Tomorrow". Jan 2023. See <https://www.tn.gov/content/tn/tacir/infrastructure/infrastructure-reports-/building-tennessee-s-tomorrow-2021-2026.html>.
- [v] Mogridge, Martin JH. "The Self-Defeating Nature of Urban Road Capacity Policy: A Review of Theories, Disputes, and Available Evidence." *Transport Policy*. Volume 4 Issue 1. Jan 1997. <https://www.sciencedirect.com/science/article/abs/pii/S0967070X96000303>.
- [vi] Cortright, Joe. "Reducing Congestion: Katy Didn't." *City Observatory*. Dec 16, 2015. See <https://cityobservatory.org/reducing-congestion-katy-didnt/>.
- [vii] Riggall, Hunter. "Georgia Looks to Express Lanes, Commuter Buses to Solve Traffic." *Marietta Daily Journal*. Oct 15, 2021. See <https://www.governing.com/community/georgia-looks-to-express-lanes-commuter-buses-to-solve-traffic>.
- [viii] U.S. Department of Transportation Federal Highway Administration. "Managed Lanes." Nov/Dec 2004. FHWA-HRT-05-002. See <https://highways.dot.gov/public-roads/novemberdecember-2004/managed-lanes>.
- [ix] Rall, Jaime. *Transportation Governance and Finance: A 50-State Review of State Legislatures and Departments of Transportation*. American Association of State Highway and Transportation Officials. Report No. TGF-3. 2022.
- [x] "Surface Transportation Public-Private Partnerships: Objectives and Evidence—Extended Findings," Bolaños, Lisardo, Morghan Transue, Porter Wheeler, Jonathan Gifford. 2019. *Transportation Research Record*. 2673(12), 290-300. doi.org/10.1177/0361198119858280. For sources on P3 usage across states, see U.S. Department of Transportation Federal Highway Administration, Center for Innovative Finance Support. "P3 Defined" See https://www.fhwa.dot.gov/ipd/p3/defined/new_build_facilities/projects_new_build.aspx AND https://www.fhwa.dot.gov/ipd/p3/defined/existing_facilities/projects_existing.aspx.
- [xi] U.S. Department of Transportation Federal Highway Administration. "Managed Lanes: A Primer." Aug 2008. See https://ops.fhwa.dot.gov/publications/managelanes_primer/managed_lanes_primer.pdf
- [xii] See "Traffic Congestion: Road Pricing Can Help Reduce Congestion, but Equity Concerns May Grow." US Government Accountability Office (2012). <https://www.gao.gov/products/gao-12-119> and also Washington State Transportation Center. "I-405 Express Toll Lanes Analysis: Usage, Benefits, and Equity." Oct 10, 2019. <https://depts.washington.edu/trac/research-news/freeway-and-arterial-management/i-405-express-toll-lanes-analysis-usage-benefits-and-equity/>. For more information on Virginia's high user fees, see Lazo, Luz. "Virginal to tweak 66 Express Lanes pricing to address tolls that have topped \$47." *Washington Post*. Apr 30, 2018. https://www.washingtonpost.com/local/trafficandcommuting/virginia-to-tweak-66-express-lanes-pricing-to-address-tolls-that-have-topped-47/2018/04/30/70441ab8-4c88-11e8-84a0-458a1aa9ac0a_story.html
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- [xiv] Texas Transportation Code §228.006. See <https://statutes.capitol.texas.gov/Docs/TN/htm/TN.228.htm#228.006>