

and local street and road networks. This study must analyze:

- a) The extent to which third-party navigation applications shift congestion from state highways to local streets;
 - b) The impact on local infrastructure;
 - c) Changes in traffic safety on local roads; and,
 - d) The effect on response times of emergency responders.
- 2) Requires Caltrans to submit a report based on the study to the relevant fiscal and policy committees of the Legislature by January 1, 2028. This report must contain policy recommendations, as part of which the following may be considered:
- a) Requiring data sharing between third-party navigation applications and local jurisdictions;
 - b) Establishing frameworks for third-party navigation applications to respect local traffic ordinances; and,
 - c) Establishing technological standards to prioritize safety and emissions reductions over marginal time savings.

COMMENTS:

- 1) *Purpose of the bill.* According to the author, “Third-party navigation apps like Google Maps, Apple Maps, and Waze have fundamentally altered how drivers move through California’s cities and towns. By continuously optimizing for the fastest route, these algorithms regularly divert traffic off state highways and onto streets and roads — often without regard for weight limits, access restrictions, school zones, or other conditions that local governments have established to protect their communities. AB 2015 requires Caltrans to conduct a study on the impact of third-party navigation apps on the state highway system and local street and road networks. Sending drivers down the fastest path — regardless of whether that path runs through a quiet residential block, past a school, or down a street that a community has worked for years to make safer — is a decision that deserves to be scrutinized, so California has the data and policy framework to align navigation technology with the transportation planning decisions of state and local governments.”

- 2) *Third-party navigation applications.* The origin of third-party navigation apps goes back to 1983 and the opening of the Global Positioning System (GPS) for civilian use. The first handheld GPS unit became available in 1989 and the first vehicle to come equipped with in-car GPS navigation hit the market in 1991. However, the use of third-party navigation applications was not widespread until the early 2000s, with the advent of navigation websites such as Mapquest and Google Maps.

The real revolution in third-party navigation apps, however, was in 2008, with the launch of Waze. Unlike traditional GPS devices, Waze utilized crowdsourced data, incorporating real-time, user-submitted travel information to optimize routing based on live traffic patterns. Five years later, in 2013, Google acquired Waze for approximately \$1 billion. Since then, this community-driven data model has become the industry standard for navigation apps.

As a result of this change in the industry, over the past decade navigation apps have increasingly harnessed the ability to dynamically divert traffic to avoid congestion. This ability has become increasingly important, as according to the *2025 Annual Urban Mobility Scorecard*, Americans lost an average of 63 hours sitting in traffic in 2024, equivalent to nearly eight full workdays. The same study found a 16% increase in national congestion costs over the previous five years, bringing the total cost up to \$269 billion annually.

Navigation apps though have been shown to make a measurable difference in congestion. According to a 2020 report by the London School of Economics, titled *Mitigating Traffic Congestion: The Role of Intelligent Transportation Systems*, providing drivers with route advice through navigation apps is a successful traffic management tool with the potential to reduce traffic externalities such as congestion, air pollution, and crashes. The report found that the use of navigation systems by individual drivers is associated with a significant decrease in unnecessary travel time and congestion costs, resulting in annual national savings of approximately 175 million hours in travel time and \$4.72 billion in travel costs. Furthermore, the study suggests that the congestion-mitigating effect of these systems is enhanced as commuters collectively increasingly utilize online traffic services and navigation applications. This finding is supported by a study from the UC Berkeley Institute of Transportation Studies, titled *Impact of Navigation Apps on Congestion and Spread Dynamics on a Transportation Network*, which found that traffic congestion can improve if even just 30-60% of users follow so-called dynamic routing. These findings together highlight that real-time information provided by navigation apps is a highly cost-effective intervention

for relieving congestion, especially compared to traditional physical infrastructure investments.

Furthermore, navigation apps are increasingly rolling out features aimed at helping drivers select more fuel efficient, and thus environmentally friendly routes. For example, Google Maps allows the user to select whether they are driving a gas, diesel, hybrid, or electric vehicle. The program then takes this information, along with local and real-time information such as average fuel/energy consumption, topographic features, road types, and traffic patterns to suggest the most energy efficient route. Thus, in addition to addressing traffic congestion, navigation apps may be able to aid in limiting vehicle emissions as well.

- 3) *Slow streets programs.* While navigation apps can help address traffic congestion at a macro level, local jurisdictions often have their own concerns with traffic and traffic safety. Increasingly, many jurisdictions have started adopting slow streets programs. These programs, also sometimes called safe streets programs, are generally focused on providing safe places for people to walk, cycle, skate, or otherwise get outside and exercise without having to worry about vehicular traffic at high speeds. Generally, these streets have specific exemptions for local access, deliveries, and emergency vehicles.

Slow streets are typically enforced through the installation of traffic diverters, narrowing streets, creating turn restrictions, or implementing other traffic calming measures. Signage, such as “Local Traffic Only” signs or other such signs redirecting the flow of traffic, is also used at main vehicle entry points to reduce vehicle congestion. Local jurisdictions have also at times identified stewards to take care of and monitor barricades.

These programs came to prominence in California during the COVID-19 pandemic. Following the implementation of lockdown measures in 2020, many cities across the state, including Los Angeles, Sacramento, Oakland, and San Francisco, moved to implement temporary Slow Streets programs to help facilitate alternative mobility and outdoor activity. Each city developed a unique program with common elements including a focus on neighborhood local streets and establishing network connections for increased mobility.

The implementation of slow streets was made permanent in 2021 with the passage of AB 733 (Nazarian, Chapter 587, Statutes of 2021). AB 733 authorized local authorities to implement a permanent Slow Streets program by providing for the closure or restriction of vehicular traffic on neighborhood local streets. Local authorities must adopt the program by ordinance and are

required to define the program and facilitate public engagement. Specifically, the locality must determine the closure or restriction is necessary for the safety and protection of the people who are to use that portion of the street, determine that the closure or restriction leaves a sufficient portion of streets in the surrounding area for other public uses, such as vehicular traffic, and clearly designates the streets with state-approved signage.

Furthermore, the locality must conduct an outreach and engagement process that at a minimum, includes notification to the residents and owners of property abutting any street being considered for inclusion in the program; provide advance notice of any closure or traffic restriction to residents and owners of abutting streets; maintain a public website with information about the program, including a list of streets that are in the program or being considered and instructions for participating in the public engagement process.

- 4) *Navigation apps move congestion to local roads.* While third-party navigation apps have been shown to ease traffic congestion on busy commuter routes, in practice this is accomplished by diverting traffic to local streets and roads. This has created a host of issues for local jurisdictions, particularly when traffic is diverted into regions with slow streets programs.

Many of these issues arise because these local streets and roads were usually not designed to optimize or even accommodate high levels of traffic flow. These streets may be narrow, have steep hills, or have tight or blind turns, all of which can create hazards for drivers unfamiliar with the area. Furthermore, these roads were often not built to withstand the increased traffic volumes or use by heavier vehicles that navigation apps often bring. This is problematic because both use frequency and vehicle weight are key factors that drive pavement degradation. Vehicle weight is particularly important, as the relationship between weight and damage is not linear. In fact, simply doubling the weight of a vehicle can increase damage to the road by 16 times. Thus, infrastructure damage on these roads increases substantially as more vehicles are rerouted onto them.

Finally, many local jurisdictions are simply facing increased traffic congestion, in some cases to extreme levels. For example, in the small town of Leonia, New Jersey, navigation apps were increasingly routing commuters through the town to avoid back ups ahead of the George Washington Bridge into New York City. As a result, businesses and private residences were being blocked as traffic piled up on local streets, with local residents reporting having to wait up

to 15 minutes to pull out of their driveways¹.

Altogether, these issues have caused many jurisdictions to try and undertake their own solutions to prevent navigation apps from rerouting traffic through their local streets and roads. The town of Leonia changed local laws to prevent through traffic on all side streets during rush hour. Other communities have told their residents to go into applications like Google Maps and report local routes as incorrect routing options². Forum sites such as Reddit and Nextdoor are also full of local residents suggesting methods to try and trick the apps into routing vehicles away from their streets or providing ways to create ad hoc traffic calming measures.

In California, many local jurisdictions are somewhat limited in the responses they can take. This is because state law generally restricts the ability of local jurisdictions to lower speed limits or close local roads. In most cases, local jurisdictions cannot lower local speed limits without performing a traffic study that demonstrates a clear safety need. Similarly, local jurisdictions are heavily restricted in their ability to close or limit access to local roads, with the slow streets program being one of the only primary exceptions.

- 5) *Balancing the benefits of navigation apps with local concerns.* AB 2015 seeks to take a first step towards balancing the concerns of local jurisdictions with the wider benefits of navigation apps on regional traffic patterns. It does so by requiring Caltrans to carry out a study investigating how third-party navigation apps impact local jurisdictions. Specifically, the study must look at how congestion is displaced to local streets and roads and how that displacement impacts local infrastructure, traffic safety, and emergency response abilities. Caltrans is then tasked with producing a set of policy recommendations centered on producing new standards or frameworks to allow greater coordination between navigation apps and local jurisdictions, and to place guardrails on the ability of navigation apps to reroute traffic through local streets and roads.

Moving forward, the Legislature may want to consider the tradeoffs between overall traffic and pollution mitigation created by navigation apps, and the acute stresses that traffic displacement can cause for local jurisdictions.

RELATED/PREVIOUS LEGISLATION:

¹ <https://www.npr.org/2018/05/08/609437180/new-jersey-town-restricts-streets-from-commuters-to-stop-waze-traffic-nightmare>

² <https://www.yourcommunitypaper.com/articles/google-maps-allows-residents-to-report-cut-through-traffic/>

AB 43 (Friedman, Chapter 690, Statutes of 2021) – Provided greater flexibility to Caltrans and local jurisdictions in setting speed limits.

AB 773 (Nazarian, Chapter 587, Statutes of 2021) – Authorized local jurisdictions to implement a slow streets program, as defined, as long as certain conditions are met.

FISCAL EFFECT: Appropriation: No Fiscal Com.: Yes Local: No

POSITIONS: (Communicated to the committee before noon on Wednesday, June 17, 2026.)

SUPPORT:

Streets for All (Sponsor)
Circulate Planning & Policy
City of South Pasadena

OPPOSITION:

None received

-- END --