### **DID YOU KNOW**

Parking is what cars do most of the time. It is estimated that on average, vehicles are parked 95 percent of the time. With the increase in car ownership, searching for a parking space in city centers has become more

painful than ever for most U.S. drivers. A recent study by IN-RIX, a specialist in connected car services and transportation analytics, indicates that motorists spend an average of 17 hours a year searching for a space to park on streets, in lots, or in garages.



The hunt adds up to an estimated \$345 per driver in wasted time, fuel, and emissions.

Here are some frequently asked questions in regard to parking:

- Where do Tennesseans park?
- How do engineers and planners determine the number of parking spaces?
- What is the current trend of parking in Tennessee?
- What will future parking be like in Tennessee?

If you have asked any of these questions, please look inside for answers!

### **ABOUT US**

The Tennessee Section of the Institute of Transportation Engineers (TSITE) is a professional organization of persons who are involved in the field of transportation and who share a common interest in improving the quality of the surface transportation system in Tennessee.

The mission of TSITE is the professional development and growth of traffic and transportation industry, promoting safe and efficient flow of people, goods, and services.



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ADVANCING TRANSPORTATION IN TENNESSEE



## PARKING TRENDS IN TENNESSEE

TENNESSEE
SECTION of the
INSTITUTE of
TRANSPORTATION
ENGINEERS

#### **VEHICLE OWNERSHIP**

In the 1960s, the average number of passenger vehicles in the United States was about 400 vehicles per 1000 people (VpTP). In 2012, the number rose to 440 VpTP. In Tennessee, there are about 840 VpTP on average with Chattanooga, Knoxville, and Nashville all hovering around that average. Memphis has slightly a lower average of 760 VpTP. With a considerable percentage of children comprising Tennessee's population, it is reasonable to assume that almost every driving adult has a car, or perhaps some adults have more than one car to offset the few who do not have vehicles. Tennessee car ownership has not changed much in the last 50 years, but will it in the next 50 years?

# WHERE DO TENNESSEANS PARK?

Today's cars are parked 95% of the time. So where do all driving Tennesseans park their cars? **At home** - Tennesseans park on driveways, on streets, in garages or in a multi-family residential parking



lot. **At work-** they park in office parking lots.



# DETERMINING PARKING SPACE

Finding a place to park in city centers has become a real struggle for many drivers in Tennessee. Providing sufficient parking spaces for all drivers is an important task for local authorities. So how do engineers and planners decide how many parking spaces are needed for cities in Tennessee? They typically use zoning requirements to determine how many parking spaces a development should provide. For example, in Knoxville an office building requires one parking space per 250 square feet of useable building space. Parking planning, design, and operation is driven by local conditions. It has to be planned and designed for a few city blocks, not for the entire city. One challenge planners face is the varying peak demand periods creating wasted space in some locations and not enough space in others.



#### **PARKING TREND**

Parking trends nationally and in Tennessee are leaning towards less parking spaces and relying on drivers to be more flexible. This trend recognizes that other modes of travel like walking, cycling, and riding public transportation are becoming more popular. Parking flexibility allows many cities in Tennessee to identify peak parking

demands at different times for different developments, and strategize on how parking spaces can be shared. We have not reached the



need for extreme parking requirements like many European and some U.S. cities. However, Tennessee drivers have seen increases in parking costs, for example, in downtown Nashville as a measure to encourage other modes of travel. Tennesseans will likely continue to see this trend toward a philosophy of using parking supply and pricing as a way to discourage personal automobiles.

#### **PARKING IN THE FUTURE**

Fifty years from now, some predict Tennesseans will be traveling in self-driving cars, but until then city engineers must rely on new technologies. Currently, the use of devices such as our smart phones can provide drivers with real-time parking locations or alternative modes of travel.

In the future, technology will be more prevalent, even more so than it is today.

