

# TOLL TECHNOLOGY TRANSFORMS MOBILITY FOR CUSTOMERS

2016 NATIONAL TOLL TECHNOLOGY SURVEY



# INTRODUCTION

The Dallas North Tollway, connecting Texas drivers from downtown Dallas to the surrounding communities, introduced the nation's first use of electronic toll collection (ETC) technology on a roadway in 1989. Since the opening of this first ETC system over 27 years ago, technology has played a critical role in tolling as today's toll facilities—highways, bridges and tunnels—continue to transition from cash to All-Electronic Tolling (AET) and high tech transportation systems.

As AET expands, people and goods travel more efficiently and the economy grows as a result. Across the United States, more and more agencies are turning to all-electronic tolling as a proven congestion-buster, delivering a safer, more predictable ride for users who absolutely have to reach their destination on time. Tolling has always been a choice—drivers almost always have the option of using an alternate route with no tolls. But AET has established itself as a cornerstone of highway operators' efforts to speed up traffic, by funding new lanes and drawing volume away from the general purpose lane.

This report by the International Bridge, Tunnel and Turnpike Association (IBTTA) shines a light on the dramatic changes that technology has brought about for toll operators and their customers. The report provides in-depth statistics and data showing how advancements in electronic tolling are rapidly transforming transportation and tolling by providing greater mobility, flow of traffic and safety to drivers.

The survey, conducted during the third quarter of 2016, collected technology-related data from 36 tolling agencies in 18 states, representing all regions of the country. These 36 agencies account for more than 80% of the industry's toll revenue in the U.S. The data presents a stunning picture of how technology has rapidly altered the transportation landscape in the last five years and forecasts the role it is likely to play well into the future.

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**36** <sup>IN</sup> **18** **=** **80%**  
TOLLING AGENCIES STATES OF THE INDUSTRY'S TOLL REVENUE IN THE U.S.

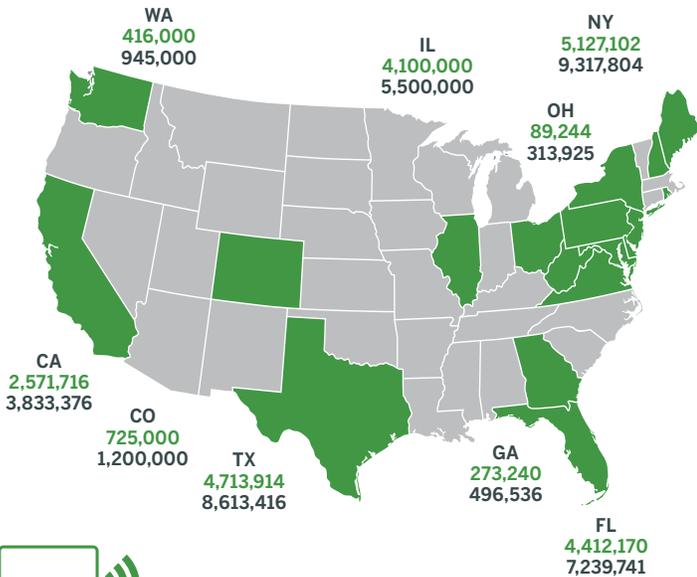
## The 36 Toll Agencies participating in the 2016 National Toll Technology Survey

Bay Area Toll Authority, Metropolitan Transportation Commission  
Central Florida Expressway Authority  
Central Texas Regional Mobility Authority  
Delaware Department of Transportation  
Delaware River & Bay Authority  
Delaware River Joint Toll Bridge Commission  
E-470 Public Highway Authority  
FDOT/Florida's Turnpike Enterprise  
Golden Gate Bridge, Highway & Transportation District  
Harris County Toll Road Authority  
Illinois Tollway  
Maine Turnpike Authority  
Maryland Transportation Authority (2011 and 2015 data)  
Metropolitan Washington Airports Authority  
Miami-Dade Expressway Authority  
MTA Bridges and Tunnels  
New Hampshire Department of Transportation - Bureau of Turnpikes  
New Jersey Turnpike Authority  
New York State Bridge Authority  
North Texas Tollway Authority  
Northwest Parkway LLC  
Ohio Turnpike and Infrastructure Commission  
Orange County Transportation Authority  
Pennsylvania Turnpike Commission  
Rhode Island Turnpike and Bridge Authority  
San Diego Association of Governments (2011 and 2015 data)  
State Road & Tollway Authority  
Tampa-Hillsborough Expressway Authority  
Texas Department of Transportation  
The Port Authority of New York & New Jersey  
Thousand Islands Bridge Authority  
Transportation Corridor Agencies  
Transurban, 495 Express Lanes, Northern Virginia  
Virginia Department of Transportation  
Washington State Department of Transportation  
West Virginia Parkways Authority

# ELECTRONIC TOLL ACCOUNTS AND TRANSPONDERS

## 2010 VS. 2015

### ETC TRANSPONDERS BY STATE

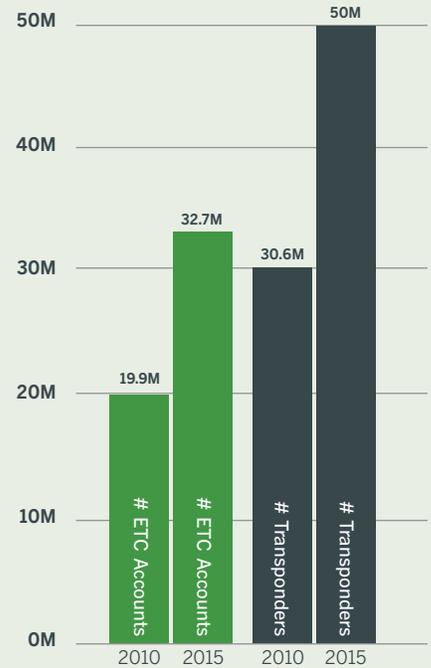


ME	122,365	342,956
NH	431,025	664,553
RI	105,113	218,188
NJ	3,822,000	5,074,000
PA	1,623,843	2,747,250
DE	249,842	434,449
MD	925,000	1,409,000
VA	832,006	1,787,140
WV	52,511	82,128

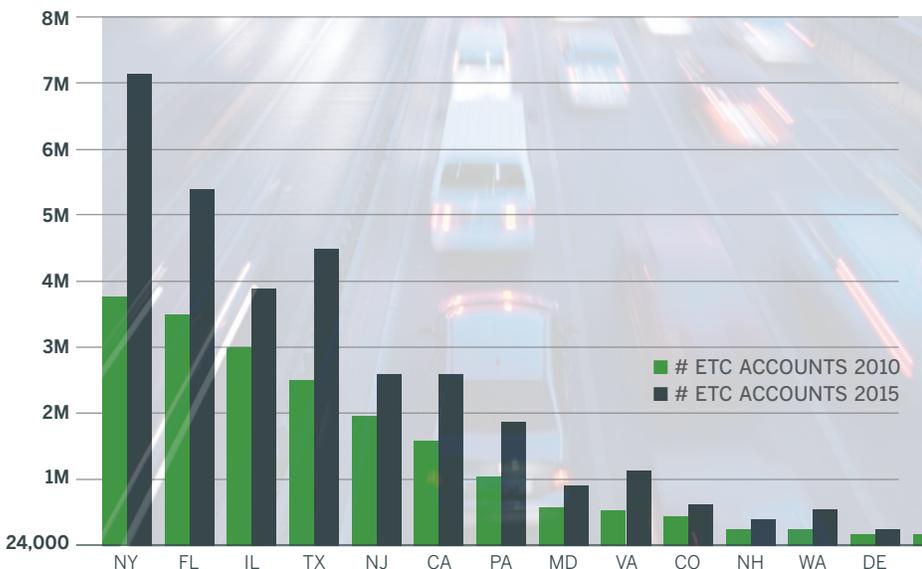


■ # TRANSPONDERS 2010 ■ # TRANSPONDERS 2015

### ETC ACCOUNTS/TRANSPONDERS



### ETC ACCOUNTS BY STATE

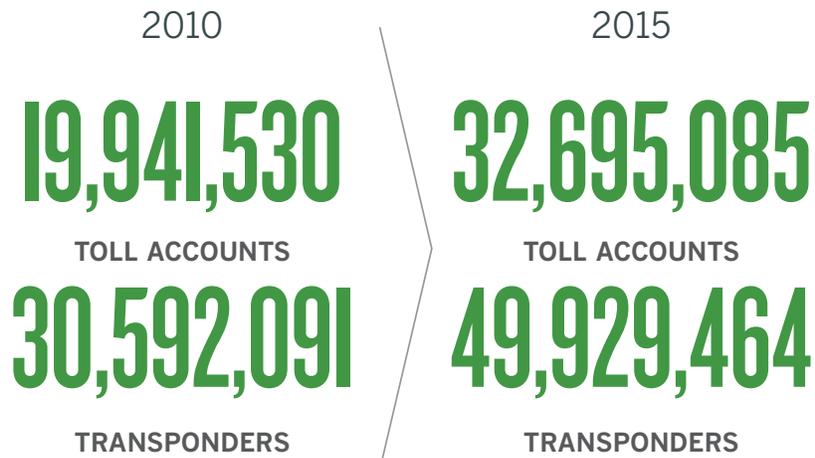


#### STATE Electronic Toll Accounts

CA	FasTrak
CO	ExpressToll
DE	E-ZPass DE
FL	SunPass, E-Pass
GA	Peach Pass
IL	I-PASS
MD	E-ZPass MD
ME	E-ZPass ME
NH	E-ZPass NH
NJ	E-ZPass NJ
NY	E-ZPass NY
OH	E-ZPass OH
PA	E-ZPass PA
RI	E-ZPass RI
TX	TxTag, EZ Tag, TollTag
VA	E-ZPass VA
WA	Good to Go! Pass
WV	E-ZPass WV

# FACTS & STATS

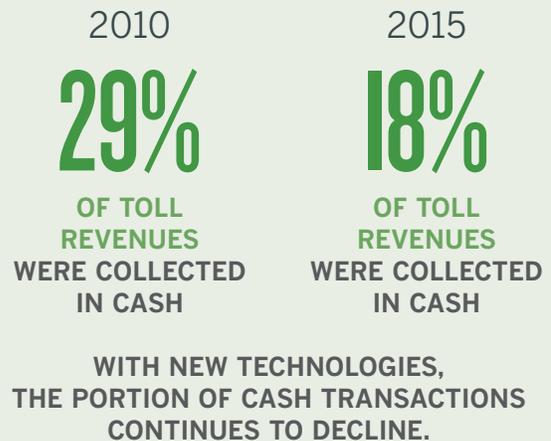
IBTTA's 2016 National Toll Technology Survey



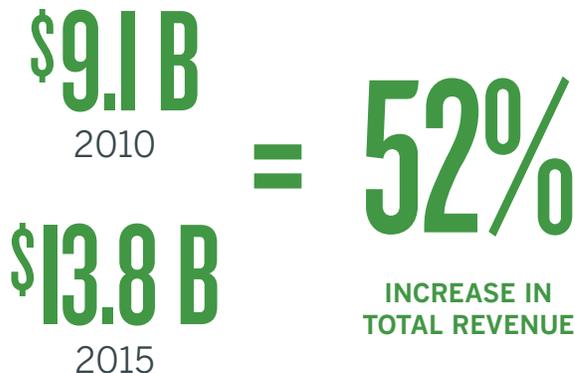
Between 2010 and 2015, there has been an increase of more than

**19.3 M**

electronic transponders on America's roads.



THE TOTAL TOLL REVENUE COLLECTED FROM THE 36 AGENCIES REPRESENTED IN THE SURVEY JUMPED FROM



During the same five-year period, the tolling industry experienced a

**76%** 

increase in revenues from cashless toll transactions.

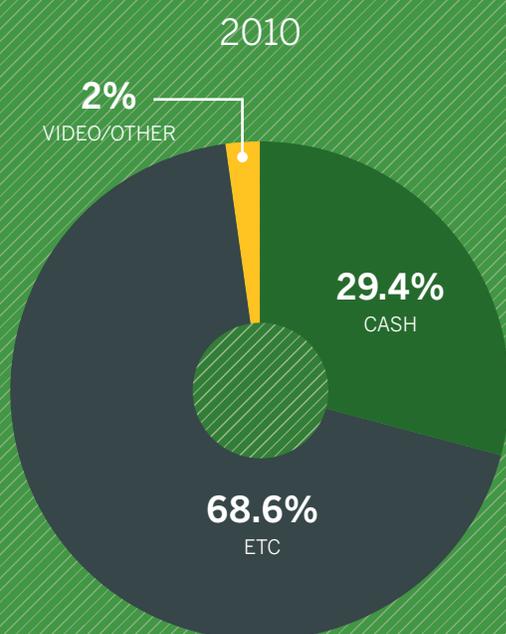
Cashless transactions are paid using transponders or video tolling technology and represent more than **\$11 billion** in revenue from the surveyed toll agencies in 2015.

# TREND IN TOLLING

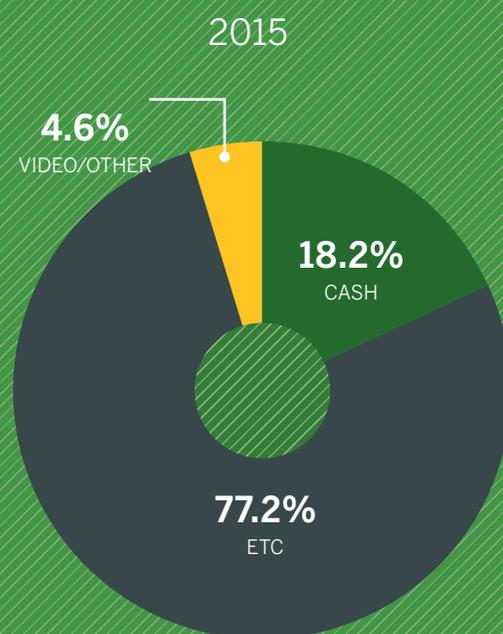
Today's toll highways, bridges and tunnels use more technology to speed transactions and enhance the motorist experience than a generation ago. Tolling is moving away from cash and embracing technology—all-electronic tolling (AET). Today, all toll roads in the state of Colorado use AET. In Washington State, all toll facilities are AET with the exception of the Tacoma Narrows Bridge (SR16). This October, Massachusetts plans to implement AET statewide. And, there

are numerous other examples of toll facilities in cities across the U.S. that offer AET facilities including the Golden Gate Bridge, the toll roads in Austin, Texas, the Triangle Expressway in the Raleigh/Durham/Chapel Hill Metro Area in North Carolina, the Miami-Dade Expressways in Miami, Florida, Florida's Turnpike roadways in Miami-Dade, Broward and Hillsborough Counties, and the toll roads in Orange County, Southern California, to name a few.

## TOLL REVENUE BREAKDOWN



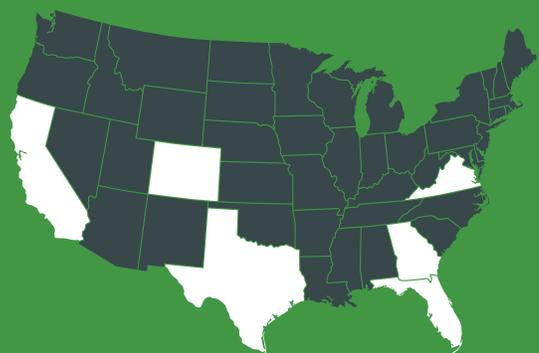
**\$9.1B**  
TOLL REVENUE 2010



**\$13.8B**  
TOLL REVENUE 2015

## AET AGENCIES – 2015 (SURVEYED AGENCIES ONLY)

AGENCY NAME	STATE
Golden Gate Bridge, Highway & Transportation District	CA
Orange County Transportation Authority	CA
Transportation Corridor Agencies	CA
E-470 Public Highway Authority	CO
Northwest Parkway LLC	CO
Tampa-Hillsborough Expressway Authority	FL
State Road & Tollway Authority – I-85 Toll Road (2015)	GA
Central Texas Regional Mobility Authority	TX
North Texas Tollway Authority	TX
Texas Department of Transportation	TX
Transurban, 495 Express Lanes, Northern Virginia	VA



# TOTAL TOLL REVENUE

2010 VS. 2015



## TOP 10

from *IBTTA's 2016 National Toll Technology Survey* based on 2015 Toll Revenues

1. MTA Bridges and Tunnels	\$1,805,845,640
2. The Port Authority of NYNJ	\$1,543,507,000
3. New Jersey Turnpike Authority	
New Jersey Turnpike	\$1,106,123,000
New Jersey Garden State Parkway	\$416,946,000
4. Illinois Tollway	\$1,210,900,000
5. Florida's Turnpike Enterprise	\$977,841,000
6. Pennsylvania Turnpike Commission	\$919,545,342
7. Harris County Toll Road Authority	\$756,119,541
8. Bay Area Toll Authority, Metropolitan Transportation Commission	\$694,954,848
9. North Texas Tollway Authority	\$691,123,100
10. Maryland Transportation Authority	\$649,791,000

The amount of total toll revenue an agency collects is determined by the toll rates it charges and the number of vehicles that use its facilities.

# FORECAST FOR THE FUTURE

Over the course of the last five years, the 36 toll agencies participating in IBTTA's 2016 National Toll Technology Survey experienced a combined increase of \$4.7 billion in revenues. These tolling agencies represent geographic diversity and include every region of the country.

An IBTTA Report, [National Toll Facilities Usage Analysis](#), released earlier this year, showed the use of toll roads, bridges and tunnels by drivers increased by 7% between 2014 and 2015, a record-breaking rate of growth putting tolling usage on pace to double in less than 10 years.

**In 2010, 29% of all toll revenues were collected in cash. However, in 2015, tolls collected in cash dropped to 18%.**

This move to cashless tolling is one in a series of technological advances on toll roads that will continue to move people and goods safely, effectively and efficiently across America.

The rise in the use of electronic and video tolling, and the decrease in the use of cash on toll facilities, paints a clear picture of an increasingly high-tech future for tolling and transportation throughout the country.

While vehicle-mounted transponders provide instant payment, video or photos are used to capture images of the license plates of vehicles without transponders that pass through lanes at facilities. The registered owners of those vehicles then receive a bill for their tolled mileage or pay online.

As more tolling innovations make their way through the technology pipeline, and as the industry works toward achieving interoperability nationwide, drivers are looking at a user-financed future enhanced by technology that results in greater convenience and safety on America's highways, bridges and tunnels.

This report can be found online at [www.IBTTA.org](http://www.IBTTA.org)

## **Tolling is Moving America Forward**

Toll facilities are located in 35 states and territories and comprise almost 6,000 miles of roadways nationwide, according to a 2013 report from the U.S. Federal Highway Administration.

America's drivers continue to see the benefits of toll roads, including:

### **SAFETY**

Toll roads are typically monitored 24/7 from modern operations centers linked to dedicated maintenance, emergency response, and police personnel.

### **LOWER FATALITY RATES**

For example, the Pennsylvania Turnpike has had a fatality rate of 0.28 per 100 million vehicle miles over the last five years, compared to 1.12 for all national roadways. Similarly, the Turnpike's three-year rate is also 0.28 deaths per 100 million vehicle miles, compared to 0.56 for other interstate highways in the state.

### **ENVIRONMENT**

Electronic tolling improves air quality by eliminating vehicles idling at toll plazas.





TOLLING. MOVING SMARTER.

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The International Bridge, Tunnel and Turnpike Association (IBTTA) is the worldwide association for the owners and operators of toll facilities and the businesses that serve them. Founded in 1932, IBTTA has members in 22 countries on six continents. Through advocacy, thought leadership and education, members are implementing state-of-the-art, innovative user-based transportation financing solutions to address the critical infrastructure challenges of the 21st Century.

**JOIN THE CONVERSATION**

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