

# Regional Report Card



**Regional  
Transportation  
Authority**

November 2018

Prepared by the Division of Planning  
& Market Development



# PERFORMANCE MEASURES

RTA staff has undertaken the development of a performance measurement and reporting program to evaluate the impact and effectiveness of public transit in Northeastern Illinois. Overall regional performance is a function of five major areas:

- **Service Coverage** monitors both how much service is available to people in the region (in terms of population and land area) and how much of that service capacity is used.
- **Service Efficiency and Effectiveness** evaluates the level of resources spent on delivering service in relation to the level of service provided and the extent to which passengers are using that service.
- **Service Delivery** reflects the quality of the service delivered.
- **Service Maintenance and Capital Investment** indicates the allocation of capital funds and the replacement and maintenance of infrastructure components on a schedule consistent with their life expectancy.
- **Service Level Solvency** assesses financial condition to ensure that there are sufficient resources to meet current and ongoing budgetary needs (both operating and capital).

Service Coverage	Service Efficiency & Effectiveness	Service Delivery	Service Maintenance & Capital Investment	Service Level Solvency
<ul style="list-style-type: none"> <li>• Transit Capacity per Capita</li> <li>• Vehicle Revenue Miles per Square Mile</li> <li>• Passenger Trips</li> <li>• Passenger Trips per Capita</li> <li>• Passenger Trips per Vehicle Revenue Mile</li> <li>• Passenger Miles Traveled</li> </ul>	<ul style="list-style-type: none"> <li>• Operating Cost per Unit of Transit Capacity</li> <li>• Operating Cost per Vehicle Revenue Mile</li> <li>• Operating Cost per Passenger Trip</li> <li>• Operating Cost per Passenger Mile</li> </ul>	<ul style="list-style-type: none"> <li>• On-Time Performance</li> <li>• Reportable Safety and Security Incidents per Million Passenger Trips</li> </ul>	<ul style="list-style-type: none"> <li>• Ten-Year Capital Funding Needs</li> <li>• Miles Between Major Mechanical Failures</li> <li>• Percent of Vehicles Beyond Useful Life</li> </ul>	<ul style="list-style-type: none"> <li>• Fare Revenue per Passenger Trip</li> <li>• Fare Revenue Shortfall per Passenger Trip</li> <li>• Operations Funding Sources</li> <li>• Ten-Year Capital Expenditures</li> </ul>

# CONTENTS

PERFORMANCE MEASURES .....	1
CONTENTS.....	2
EXECUTIVE SUMMARY .....	3
SNAPSHOT.....	6
NOTES/METHODOLOGY.....	7
RESULTS .....	8
Service Coverage.....	8
Transit Capacity per Capita .....	8
Vehicle Revenue Miles per Square Mile .....	8
Unlinked Passenger Trips.....	9
Passenger Trips per Capita.....	9
Passenger Trips per Vehicle Revenue Mile .....	10
Passenger Miles Traveled .....	10
Service Efficiency and Effectiveness .....	11
Operating Cost per Unit of Transit Capacity .....	11
Operating Cost per Vehicle Revenue Mile .....	11
Operating Cost per Passenger Trip .....	12
Operating Cost per Passenger Mile .....	12
Service Delivery.....	13
On-Time Performance.....	13
Reportable Safety and Security Incidents per Million Passenger Trips .....	13
Service Maintenance and Capital Investment .....	14
Ten-Year Capital Funding Needs.....	14
Miles between Major Mechanical Failures.....	14
Percent of Vehicles beyond Useful Life .....	15
Service Level Solvency .....	16
Fare Revenue per Passenger Trip .....	16
Fare Revenue Shortfall per .....	16
Passenger Trip.....	16
Operations Funding Sources.....	17
Capital Expenditures .....	17

# EXECUTIVE SUMMARY

The regional report card was created in response to the enactment of the 2008 RTA Act amendment. In the interest of increased public accountability and transparency, the Act amendment required the development of performance measures for regional transit that are reported on an annual basis. With cooperation and input from the region's Service Boards (CTA, Metra, and Pace), a set of 20 measures were selected for reporting across five service areas: coverage, efficiency and effectiveness, delivery, maintenance and capital investment, and solvency. The results from each Service Board are aggregated for the purpose of describing the performance level of the Chicagoland transit system as a whole for the five-year period 2013-2017. Key points of 2017 performance include:

- The RTA system continues to offer increased service to its riders: CTA rail, Metra, Pace bus, and ADA Paratransit have recorded gains to vehicle hours and miles over the past five years.
- System ridership was down for the fifth consecutive year; CTA and Metra posted annual ridership losses of 3.7% and 2.3%, respectively, while Pace bus saw a gain of 1.4%. The system-wide 3.3% drop matches the largest single-year decline in the past decade and at 585.5 million, was the lowest recorded annual ridership since 2004.
- Capital investment continues to be significantly and negatively impacted by the lack of state funding and growing capital needs of the region; 2017 capital expenditure of \$725.6 million was less than one-fifth what is needed annually to bring the system to a state of good repair within the next ten years.

**Service coverage** indicators monitor how much service is available to the region's residents (supply) and how much of that supply is actually used by the public (consumption). This report describes supply in terms of transit capacity per area resident, which takes into account the number of seats available to be filled as well as the total number of vehicle revenue miles of service offered by the transit agencies. Both measures of service coverage increased in 2017; over the five-year period, transit capacity per resident fell by 2.0% as smaller vehicles were added into the regional fleet, while vehicle revenue miles increased by 2.4% as new service was introduced to the region.

Service consumption, as expressed by unlinked passenger trips and passenger miles traveled, decreased in 2017. Unlinked passenger trips, which peaked in 2012, decreased each year 2013-2017, ending the five-year period with an 8.9% net loss, a difference of 57.1 million trips. In 2017, each regional resident took an average of 70 trips on transit, compared to the peak of 77 trips in 2013. Fewer trips, spread over more service being supplied (as described above) resulted in reduced effectiveness as the region saw fewer passenger trips per vehicle revenue mile each year 2013-17, ending the five-year period 11.0% lower compared to 2013. Passenger miles traveled followed the same general trend as ridership, with a peak in 2012 followed by

five years of declines; however, this indicator ended the five-year period 7.6% lower, signifying that riders are traveling longer average distances in the transit trips they are taking.

**Service efficiency and effectiveness** measures evaluate the cost of supplying transit services. In 2017, regional operating costs increased by approximately \$54 million, a 2.1% increase that occurred in a year of 1.9% inflation. The regional inflation-adjusted operating cost per vehicle revenue mile was 0.6% lower in 2017 as costs remained roughly the same while more service was put into operation; over the five-year period, the operating cost per vehicle revenue mile increased 4.1%. The inflation-adjusted operating cost per unit of transit capacity was 1.1% lower in 2017 than 2016; however, compared to 2013, this adjusted cost was 7.3% higher, primarily due to increased operating cost.

Cost effectiveness measures trended unfavorably over one- and five-year bases as ridership and passenger miles traveled were down for each of the five years under review. After adjusting for inflation, the regional operating cost per passenger trip increased 3.6% in 2017, an increase of \$0.15 for the year. With the overall five-year ridership loss of 8.9%, the operating cost per passenger trip rose 17.0% since 2013 after adjusting for inflation. Since passenger miles traveled decreased at a less steep rate over the five-year period, the result of longer average passenger trip lengths, the cost effectiveness measure operating cost per passenger mile increased at a lower rate of 15.4%, adjusted for inflation. Cost effectiveness results were negatively impacted by cost increases and ridership losses, while cost efficiency measures were unfavorable to a lesser degree, as more service was introduced to the region.

**Service delivery** indicators focus on customer service and safety. On-time performance is a key indicator of service delivery, and although the Service Boards use different methodologies to assess on-time performance for each mode, weighting their values by ridership provides a regional measure that shows an on-time performance of 86% for 2017. The number of reportable safety and security incidents decreased by 36 events in 2017, a reduction of 5.2%, to roughly one incident per million passenger trips.

**Service maintenance and capital investment** indicators evaluate reliability and state of good repair of transit assets. Ten-year capital funding needed to achieve and maintain a state of good repair for all of the region's assets was determined in 2016 to be \$37.7 billion. A significant portion of that total, \$19.3 billion, is needed to address already past-due projects; known as the backlog, this amount illustrates the severity of deferred capital projects that has occurred over the years as federal and state funding has been inconsistent and inadequate. The region requires another \$11.1 billion for regular replacement of assets and \$7.1 billion for capital maintenance projects over the next ten years. The region has set a funding goal of \$2-3 billion annually to achieve a state of good repair and provide enhancements to the transit system over the next twenty years. Actual annual levels of capital expenditures over the past five years averaged \$793.6 million, which does not fulfill the annual needs for regular replacement and maintenance costs, or address backlog projects.

Actual capital expenditures totaled \$3.97 billion between 2013 and 2017. Of that amount, 37% of expenditures were for the purchase of new vehicles, an investment that resulted in the lowering of the number of vehicles in service beyond useful life. Significant reductions in this measure, from 29.8% in 2013 to 20.9% in 2017, reflect this investment allocation. However, the reliability measure, miles between major mechanical failures, did not show improvement and was actually 2.7% lower compared to 2016 and 15.5% lower over the five-year time period.

**Service level solvency measures** reflect the region's financial condition to ensure there are sufficient resources to meet current and ongoing budgetary needs. Regionally, there were improvements in fare revenues from 2013-2017, with net 5-year gain of 3.7%. Fare and pass price increases were last implemented at CTA (in 2013) and Metra (in 2012, 2015, 2016, and 2017); each Service Board has also made fare policy adjustments within the past five years that contributed to increased fare revenue receipts. Additionally, improved fare revenue has occurred since the implementation of the Ventra fare payment system as riders have relied more heavily on pay-as-you-go fare options in lieu of discounted monthly passes. However, only Metra reported improved fare revenue for 2017; compared to 2013, fare revenue has improved for CTA rail, Metra, and Pace bus, dial-a-ride, and ADA Paratransit. The average regional fare paid in 2017 was \$1.65, an increase of 2.9% from 2016 and 13.8% or \$0.20 higher compared to 2013. However, the fare revenue shortfall per passenger trip continued to increase, ending the five-year period 27.0% higher; compared to 2013, this represents an increase of \$0.58 that was required from public funding subsidies to cover the cost of each trip.

Capital expenditure is another measure of service level solvency. This indicator reached a ten-year high in 2008, the only year expenditures exceeded \$1 billion. The capital funding received year to year is inconsistent and has dropped by as much as 38% from one year to the next. Capital expenditure, totaling \$725.6 million in 2017, must be considered in relation to the \$37.7 billion 10-year need to achieve and maintain a state of good repair for the region's assets. Capital program funding remains a critical issue for each Service Board and for the RTA system as a whole.

# SNAPSHOT

Performance Measure	2017 Value	1-Year Trend	5-Year Trend
<b>SERVICE COVERAGE</b>			
Transit Capacity per Capita (trips)	329.6	↑	↓
Vehicle Revenue Miles per Service Area Square Mile	65,351	↔	↑
Unlinked Passenger Trips (Ridership)	585.5 million	↓	↓
Passenger Trips per Capita	70	↓	↓
Passenger Trips per Vehicle Revenue Mile	2.44	↓	↓
Passenger Miles Traveled	3.81 billion	↓	↓
<b>SERVICE EFFICIENCY AND EFFECTIVENESS</b>			
Operating Cost per Unit of Transit Capacity	\$0.143	↓	↑
Operating Cost per Vehicle Revenue Mile	\$10.73	↔	↑
Operating Cost per Passenger Trip	\$4.40	↑	↑
Operating Cost per Passenger Mile	\$0.68	↑	↑
<b>SERVICE DELIVERY</b>			
On-Time Performance	86.0%	↔	↓
Reportable Safety Incidents per Million Passenger Trips	0.87	↓	↑
Reportable Security Incidents per Million Passenger Trips	0.25	↑	↓
<b>SERVICE MAINTENANCE AND CAPITAL INVESTMENT</b>			
10-Year Capital Funding Needs	\$3.77 billion	↔	↔
Miles Between Major Mechanical Failures	21,413	↓	↓
Percent of Vehicles Beyond Useful Life	20.9%	↓	↓
<b>SERVICE LEVEL SOLVENCY</b>			
Fare Revenue per Passenger Trip	\$1.65	↑	↑
Fare Revenue Shortfall per Passenger Trip	\$2.75	↑	↑
Capital Expenditures	\$725.6 million	↑	↓

*Direction of arrows indicates 2017 value in comparison to 2016 (1-year) and to 2013 (5-year) figures. Arrow color indicates whether the change is favorable (green), unfavorable (red), or is equal (black) to comparison figure; changes totaling less than 1% are considered to be equal to the comparison data and are given black arrow. Operating costs for the 5-year trend have been adjusted for inflation.*

# NOTES/METHODOLOGY

1. This analysis is based on 2017 data submitted to the National Transit Database (NTD) by each Service Board. Annual data submission by transit agencies is a requirement of receiving federal funding and thus follows guidelines and procedures established by the Federal Transit Administration (FTA). Commuter rail safety and security incident data is collected from the Federal Railroad Administration (FRA).
2. Inflation adjustments have been made for operating cost measures utilizing the annual Consumer Price Index (Series ID CUURA207SA0, Chicago-Gary-Kenosha) provided by the Bureau of Labor Statistics.
3. Area resident (per capita) data is the sum of populations of the six counties that form the RTA service area (Cook, DuPage, Kane, Lake, McHenry, and Will). US Census Bureau Annual Estimates of the Resident Population: April 1, 2010 to July 1, 2017.
4. Twenty-year annual capital investment need and ten-year capital funding need by asset type are taken from the Capital Asset Condition 2016: Year 5 Assessment, released in December 2016.
5. Operating cost measures include those of each Service Board as well as annual operating expenses of the Regional Transportation Authority (RTA), which provides financial oversight, funding, and regional transit planning as well as services such as a Travel Information Center, travel training, and the issuance of reduced fare and free ride permits.
6. This report includes 2020 projections for several performance measures. Projections were determined by using each Service Board's projected annual budgetary data for operational (passenger trips, passenger miles, vehicle revenue hours, and vehicle revenue miles) and financial (operating cost and fare revenue) indicators, applied to 2017 data submitted by each Service Board to the National Transit Database. Financial projections include inflation adjustments, using inflation rates of 2.7% for 2018, 2.4% for 2019, and 2.0% for 2020, per the Federal Reserve Summary of Economic Projections (March 21, 2018). **Projections are reported to illustrate the direction of expected performance within the resources of the current year's operating and financial plan.**
7. Reportable incidents are now reported per million passenger trips and are separated into two distinct areas: safety and security.

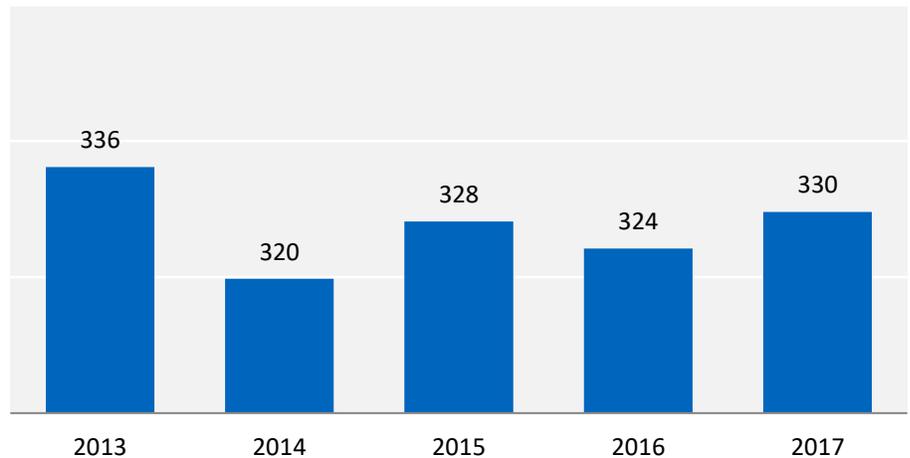
# RESULTS

## Service Coverage

### Transit Capacity per Capita

The amount of available service, as measured by average vehicle capacity and vehicle revenue miles, per person in the region.

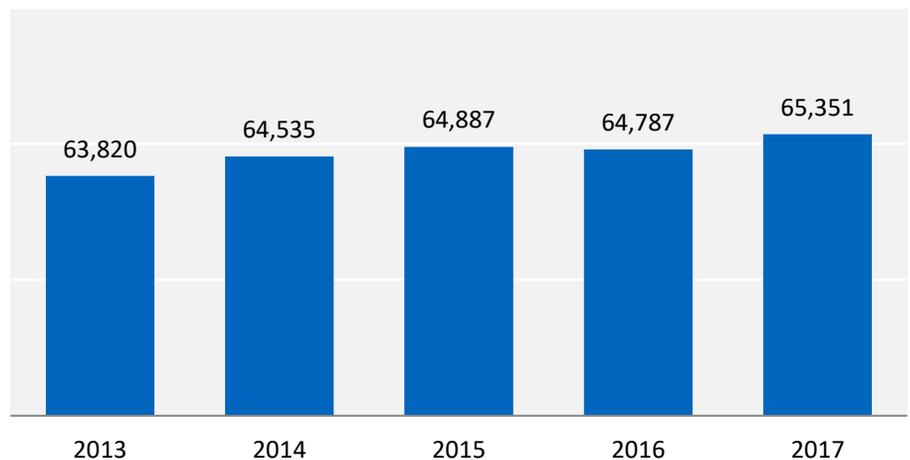
**TRANSIT CAPACITY PER CAPITA (TRIPS)**



### Vehicle Revenue Miles per Square Mile

The total number of miles traveled annually by CTA, Metra, and Pace per square mile of the six-county region.

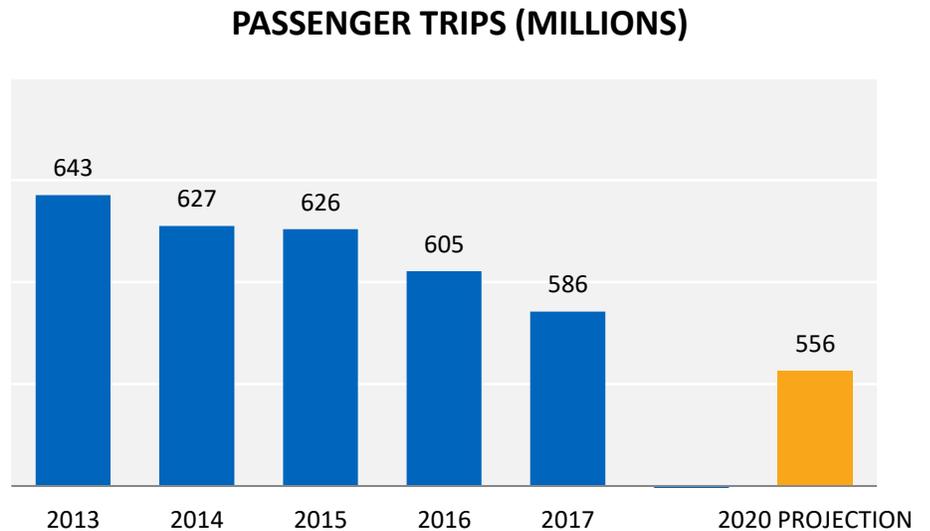
**VEHICLE REVENUE MILES PER SQUARE MILE**



## Service Coverage

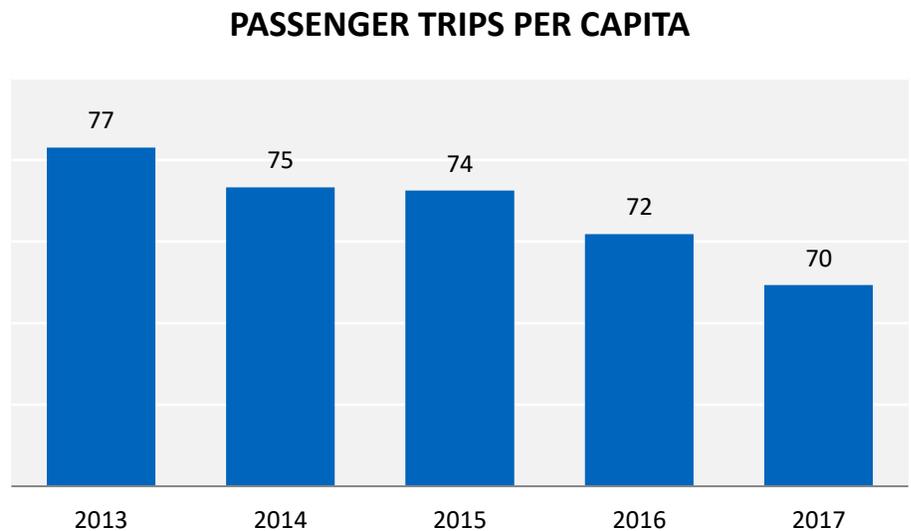
### Unlinked Passenger Trips

Also known as ridership, refers to the number of passengers who board public transportation vehicles. Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination.



### Passenger Trips per Capita

The average number of rides taken per resident annually.

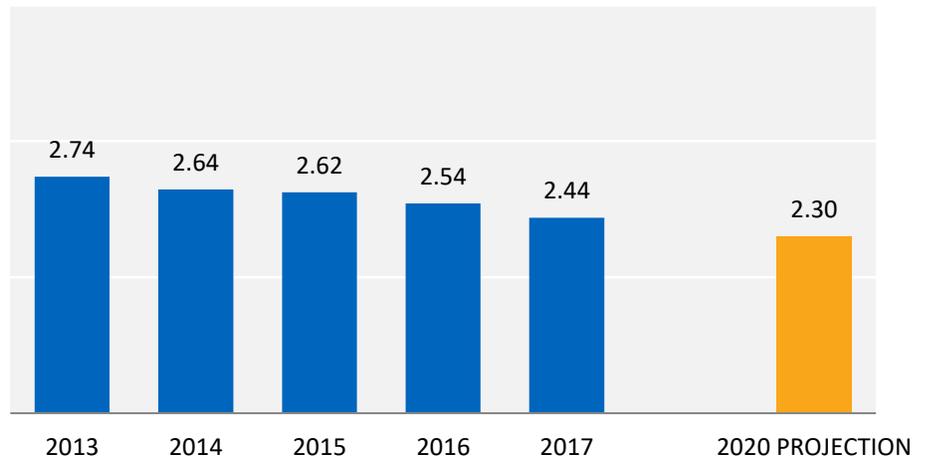


## Service Coverage

### Passenger Trips per Vehicle Revenue Mile

The number of passenger trips divided by the miles that vehicles travel while in revenue service.

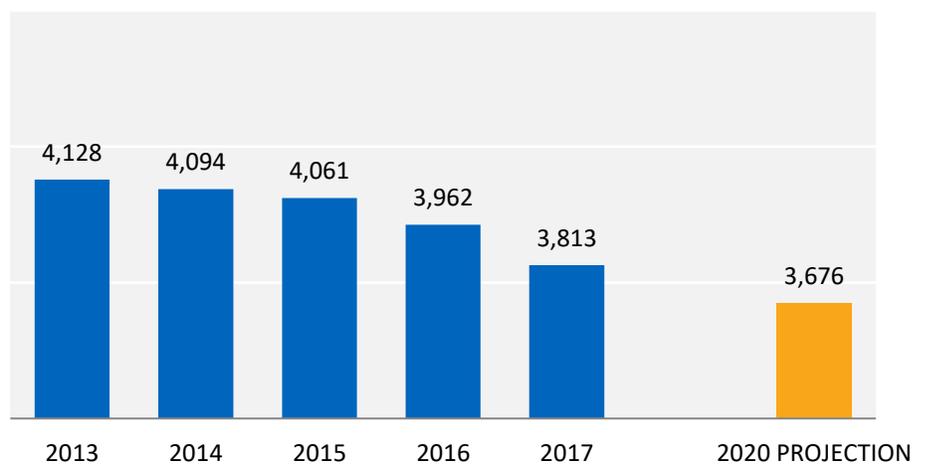
**PASSENGER TRIPS PER VEHICLE REVENUE MILE**



### Passenger Miles Traveled

The cumulative sum of the distances ridden by passengers.

**PASSENGER MILES TRAVELED (MILLIONS)**

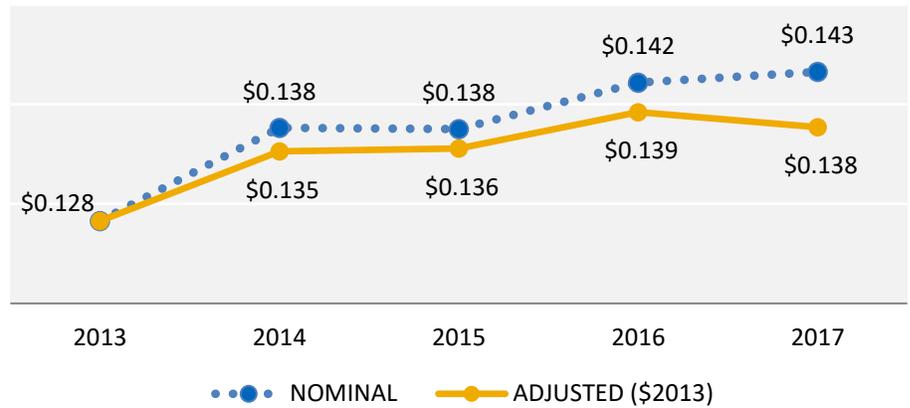


## Service Efficiency and Effectiveness

### Operating Cost per Unit of Transit Capacity

The average cost of providing a passenger seat (or space) for each mile of an individual trip, whether or not it is taken.

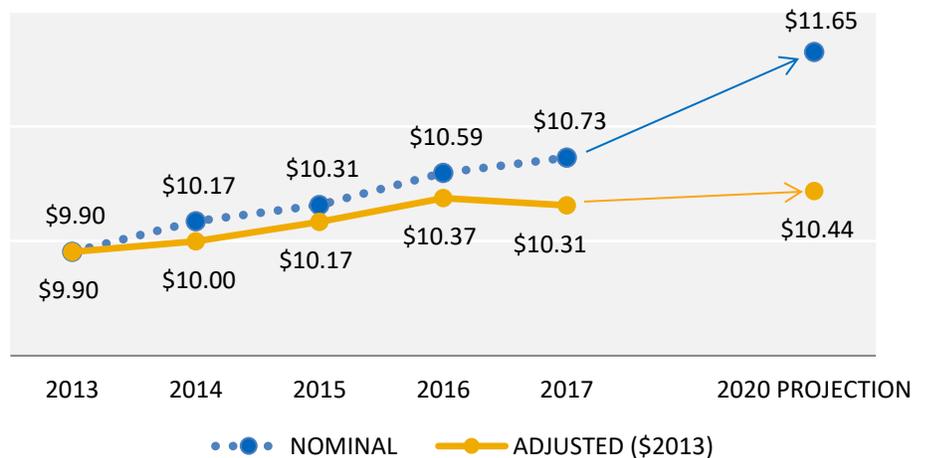
### OPERATING COST PER UNIT OF TRANSIT CAPACITY



### Operating Cost per Vehicle Revenue Mile

The average cost of providing each vehicle revenue mile of service.

### OPERATING COST PER VEHICLE REVENUE MILE

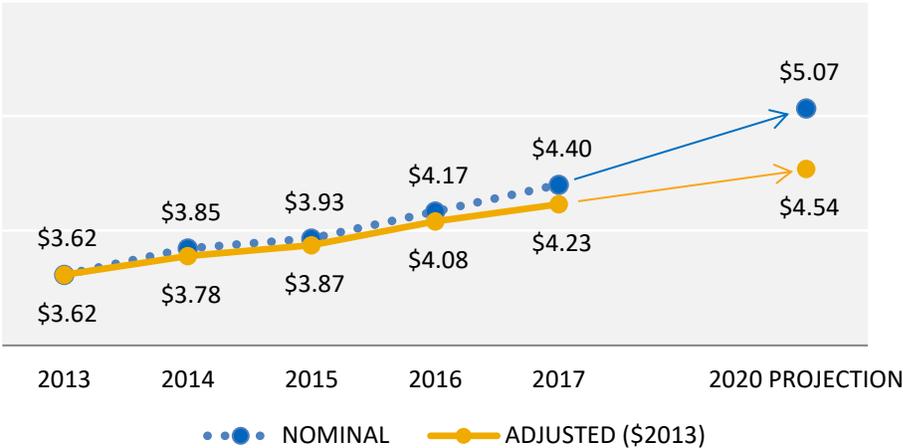


Service Efficiency and Effectiveness

Operating Cost per Passenger Trip

The total operating cost divided by the total number of unlinked passenger trips taken on public transit vehicles.

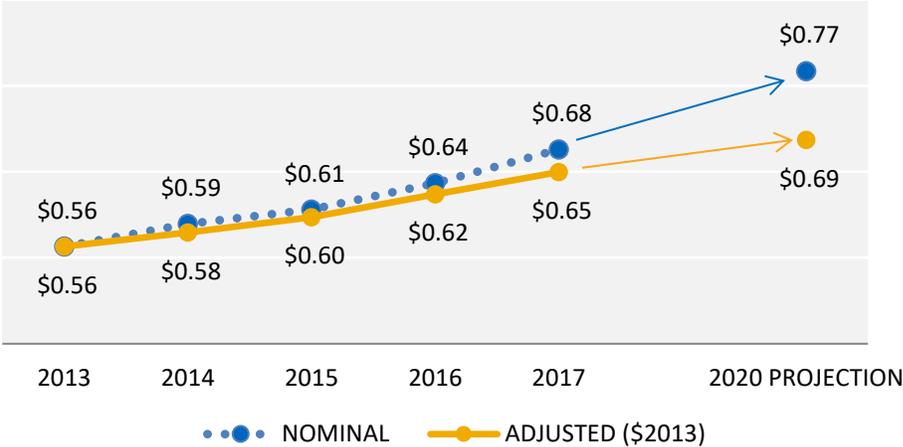
OPERATING COST PER PASSENGER TRIP



Operating Cost per Passenger Mile

The total operating cost divided by the total number of miles traveled by passengers.

OPERATING COST PER PASSENGER MILE

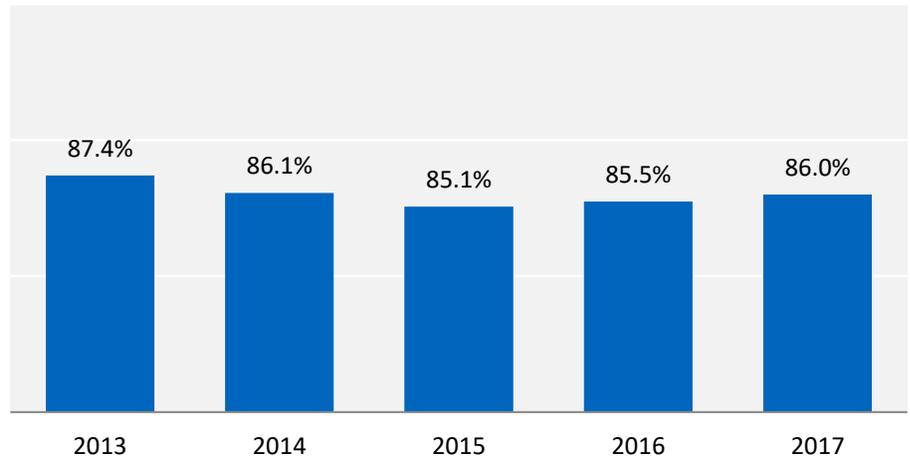


## Service Delivery

### On-Time Performance

The percentage of time that revenue service vehicles are considered on schedule, based on each Service Board's on-time performance measurement definition.

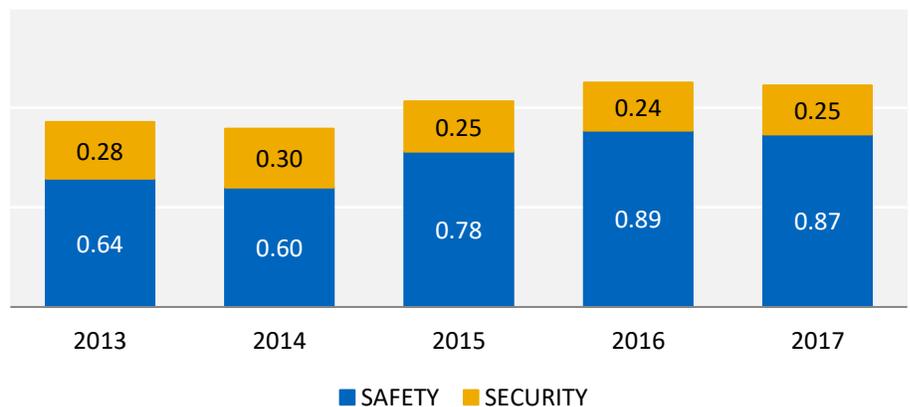
### ON-TIME PERFORMANCE



### Reportable Safety and Security Incidents per Million Passenger Trips

The number of major reportable safety and security incidents per million passenger trips taken.

### REPORTABLE SAFETY AND SECURITY INCIDENTS PER MILLION PASSENGER TRIPS

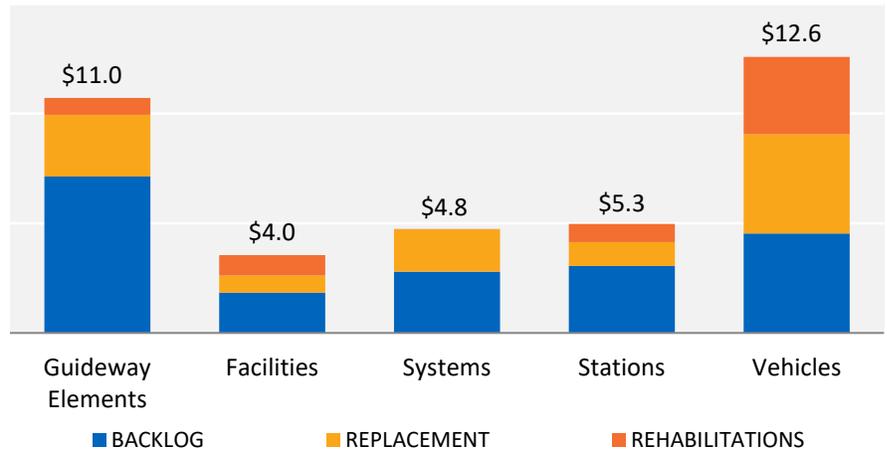


## Service Maintenance and Capital Investment

### Ten-Year Capital Funding Needs

The estimated cost of bringing RTA system-wide assets into a state of good repair over the next ten years. Last updated in 2015, capital needs were calculated to be \$37.7 billion, consisting of \$19.3 billion for backlog (already overdue) projects, and \$18.3 billion for regular replacement and maintenance projects.

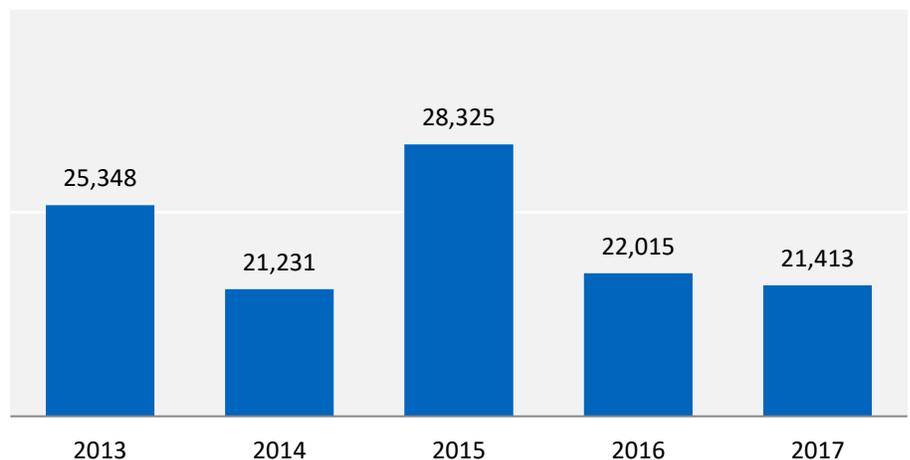
### TEN-YEAR CAPITAL FUNDING NEEDS



### Miles between Major Mechanical Failures

The average number of miles that vehicles travel while in revenue service between failures of some mechanical element or a safety concern that prevents a vehicle from completing a scheduled trip or from starting the next scheduled trip.

### MILES BETWEEN MAJOR MECHANICAL FAILURES

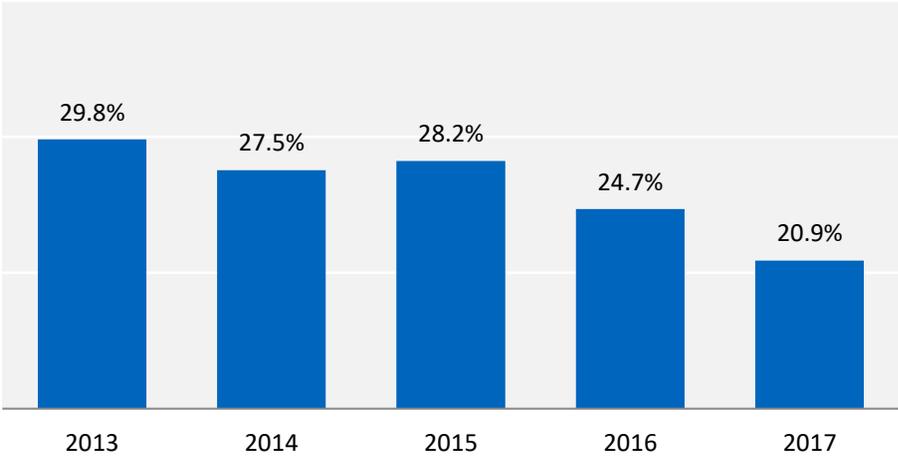


## Service Maintenance and Capital Investment

### Percent of Vehicles beyond Useful Life

The percentage of vehicles in the total vehicle fleet that have reached the end of their minimum useful life as defined by the Federal Transit Administration (4 years for new automobiles or vans, 12 years for new buses, and 25 years for new rail cars). This figure does not take into account rehabilitations that may be undertaken to keep vehicles in service beyond FTA guidelines.

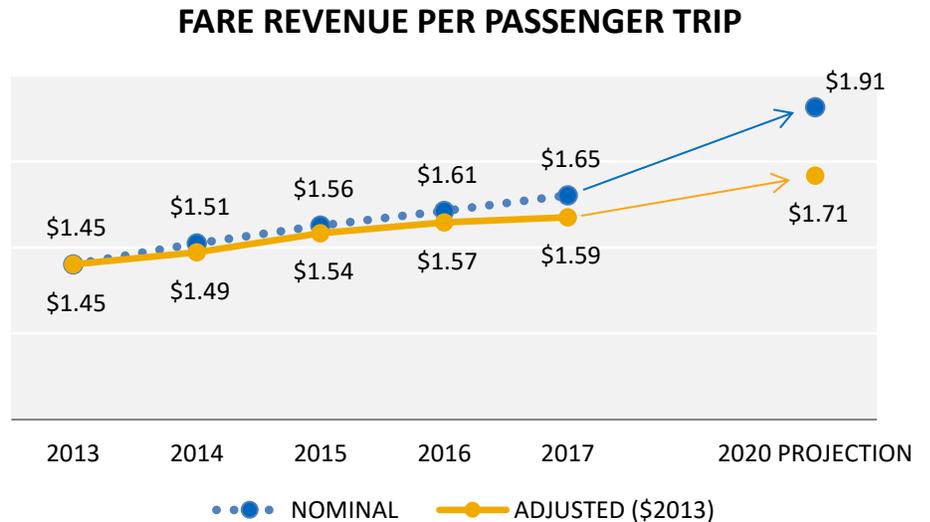
PERCENT OF VEHICLES BEYOND USEFUL LIFE



## Service Level Solvency

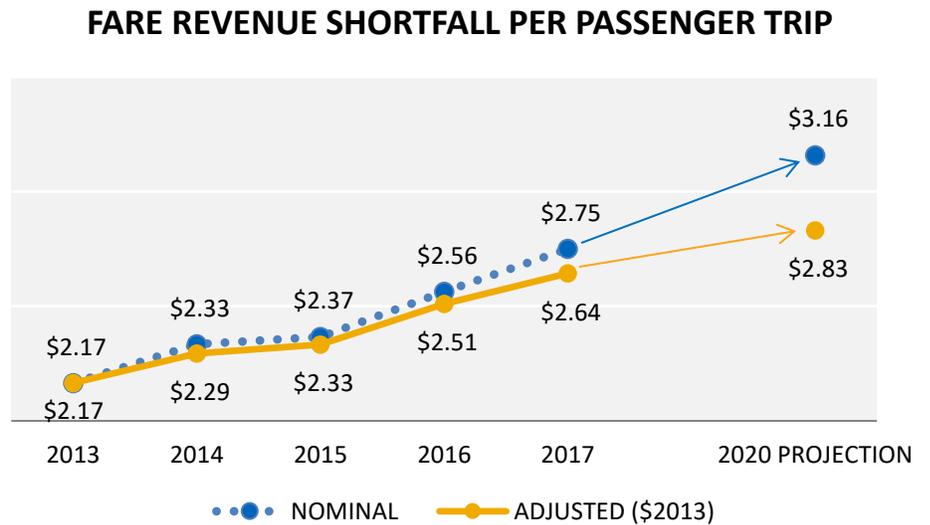
### Fare Revenue per Passenger Trip

The average fare paid by customers per trip.



### Fare Revenue Shortfall per Passenger Trip

The average cost of each trip that is not covered by the fare paid by customers. The balance of operating costs is covered by other directly-generated revenue (advertising, concessions, etc.) and public funding (local, state, and federal).

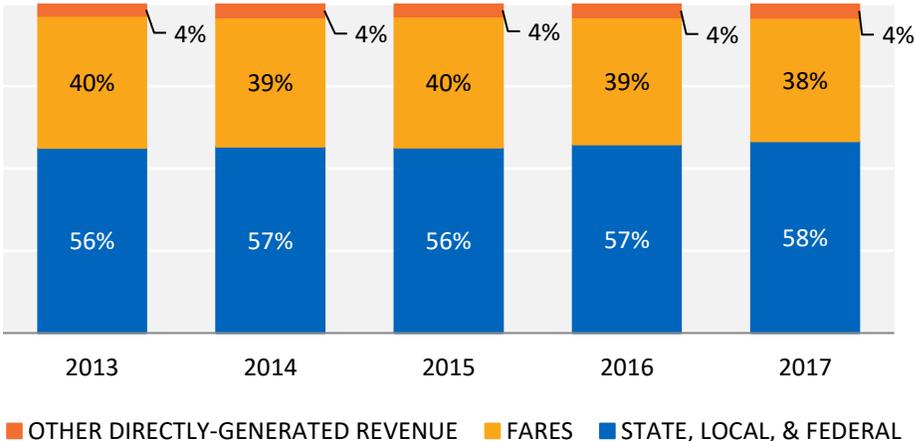


Service Level Solvency

Operations Funding Sources

Operating costs are covered through the balance between fare revenue, other directly-generated revenue (advertising, concessions, etc.) and all other revenue (local, state, and federal).

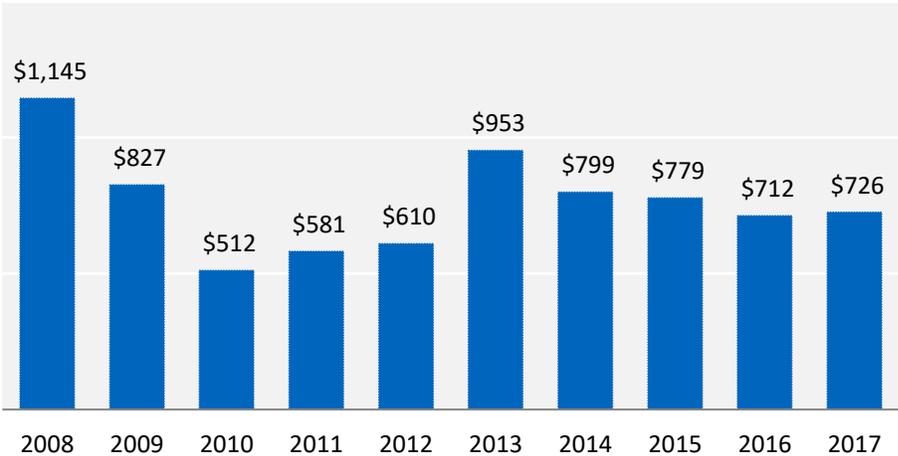
OPERATIONS FUNDING SOURCES



Capital Expenditures

The expenses related to purchasing or upgrading physical assets such as property, buildings, or equipment. Expenditures are shown over a 10-year time frame to illustrate the wide variability from year to year and over time.

TEN YEAR CAPITAL EXPENDITURES (MILLIONS)





175 West Jackson Boulevard, Suite 1650  
Chicago, Illinois 60604  
Phone: 312-913-3200  
[RTAChicago.org](http://RTAChicago.org)

Follow us on



Chicago Transit Authority  
567 W. Lake St.  
Chicago, IL 60661  
888-968-7282  
[www.transitchicago.com](http://www.transitchicago.com)



Metra  
547 W. Jackson Blvd.  
Chicago, IL 60661  
312-322-6777  
[www.metrarail.com](http://www.metrarail.com)



Pace  
550 W. Algonquin Rd.  
Arlington Heights, IL 60005  
847-364-7223  
[www.pacebus.com](http://www.pacebus.com)