



# STATE FUNDING AND BENEFITS OF PUBLIC TRANSPORTATION

Illinois Statewide Public Transportation Plan

AUGUST 2017



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# STATE FUNDING AND BENEFITS OF PUBLIC TRANSPORTATION

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## I. FUNDING PUBLIC TRANSPORTATION

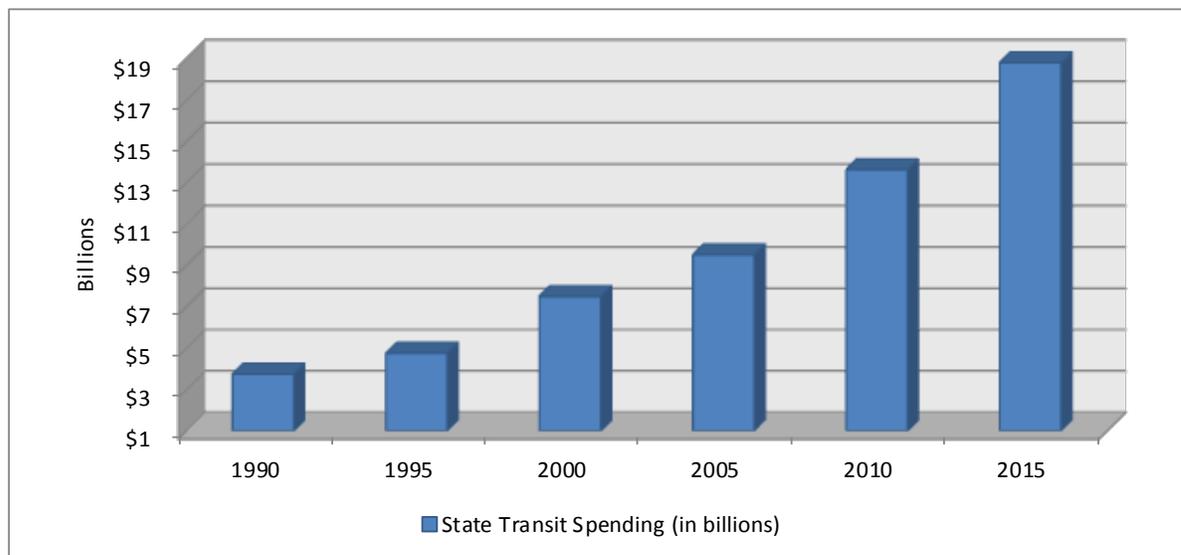
### A. State Funding of Public Transportation Services

This chapter examines the current status of state funding of public transit services. A brief comparative analysis of other state practices is presented, with an emphasis on the “major” state funding programs. In subsequent sections of this report, an examination of the economic benefits of state investment in public transportation is provided.

#### 1. History of State Investment in Public Transportation

States have had a long history of funding public transportation services. In FY 2015, the latest year in which data were available, the American Association of State Highway and Transportation Officials (AASHTO) found that \$18.8 billion was invested in public transportation (Figure 1).

Figure 1: State Transit Spending for Public Transportation, FY 1990 - 2015



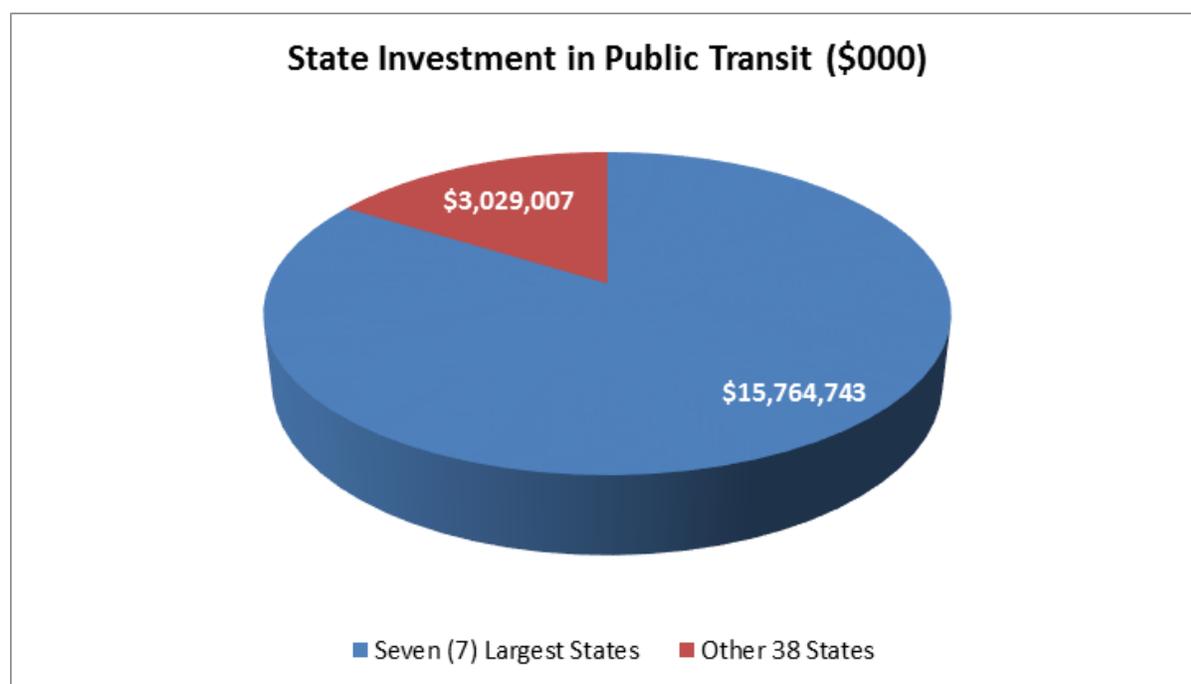
Source: Survey of State Funding in Public Transportation, Final Report: FY 2017 = FY 2015 Data, American Association of State Highway and Transportation Officials (2017).

This represents more than a 400 percent increase over funding in 1990. No less than 45 states provide some level of public transportation funding. The five states that provide no state financial assistance for public transportation include<sup>1</sup>:

- Alabama
- Arizona
- Hawaii
- Nevada
- Utah

Several states dominate investment in public transportation. Indeed, seven of the 45 states that provide public transit funding account for 83 percent of all public transit investment – a ratio that has held relatively constant since 2010. Of the total \$18.8 billion expended in FY 2015, these seven states account for \$15.8 billion.<sup>2</sup> These states are characterized by expenditures that exceed \$500 million per year. New York alone provides almost 25 percent of all state funding for public transit (Figure 2).

*Figure 2:* Comparative Investment by Seven (7) States with Largest Expenditures in Public Transit



**Source:** Survey of State Funding in Public Transportation, Final Report: FY 2017 = FY 2015 Data, American Association of State Highway and Transportation Officials (2017).

<sup>1</sup> Nevada has a sporadic history of providing some transit funding; the most recent year funding was provided was in FY 2013, where the state appropriated \$37,501 in state assistance. During the two most recent fiscal years in which data is available, no state funding was authorized.

<sup>2</sup> The District of Columbia is included in the AASHTO reported results, although removed from several analyses, particularly those measures of per capita spending. Additionally, the multistate coverage of the Washington Area Metropolitan Transit Authority does not permit meaningful comparison.

The states that have been in the top seven have been relatively constant since AASHTO began tracking state investment in public transportation. These states include:

- New York
- Illinois
- California
- Massachusetts
- Pennsylvania
- Maryland
- Connecticut

The relative ranking of top states has changed somewhat over time, although New York has historically always been the top-ranked state. While California has been the second ranked state during most of this decade, in FY 2014, Illinois moved into the second spot from the seventh spot (Table 1).

*Table 1:* Top Seven States, Investment in Public Transportation, FY 2013 – FY 2015

RANK	FY 2013		FY 2014		FY 2015	
	STATE	AMOUNT	STATE	AMOUNT	STATE	AMOUNT
1	New York	\$4,465,883,700	New York	\$4,786,084,700	New York	\$4,786,084,700
2	California	\$3,040,697,663	Illinois	\$3,118,234,749	Illinois	\$3,536,569,161
3	Maryland	\$1,522,123,479	California	\$2,259,430,056	California	\$2,898,424,596
4	Massachusetts	\$1,392,854,042	Massachusetts	\$1,550,905,555	Massachusetts	\$1,649,889,696
5	Pennsylvania	\$1,161,119,714	Pennsylvania	\$1,237,148,591	Pennsylvania	\$1,532,172,650
6	New Jersey	\$1,076,490,515	Maryland	\$906,699,174	Maryland	\$815,472,457
7	Illinois	\$854,683,301	Connecticut	\$465,086,221	Connecticut	\$515,278,413

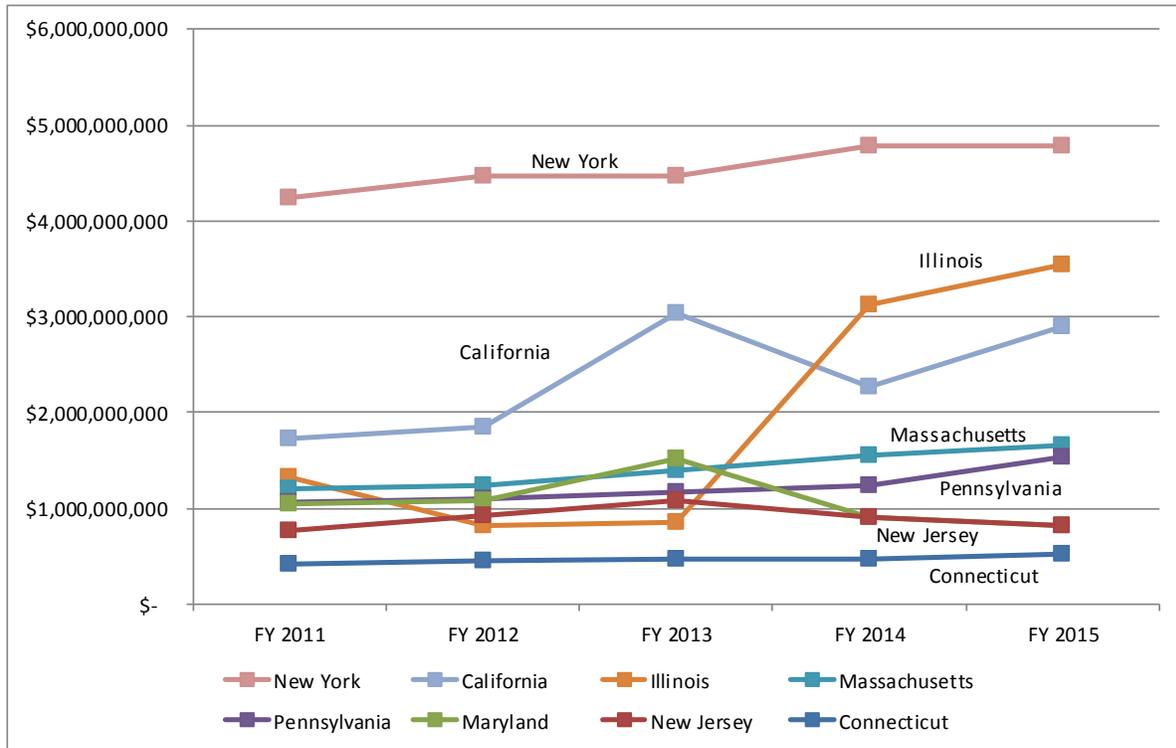
**Source:** Survey of State Funding in Public Transportation, Final Report: FY 2017 – FY 2015 Data, American Association of State Highway and Transportation Officials (2017).

While Illinois now ranks second among the states in terms of public transit funding, Illinois' relative ranking over the last five years has changed, ranking third in FY 2011, then falling to sixth in FY 2012 and FY 2013, finally rising to second in FY 2014 and FY 2015 (Figure 3).

## 2. State Funding vs. Federal Funding for Public Transportation

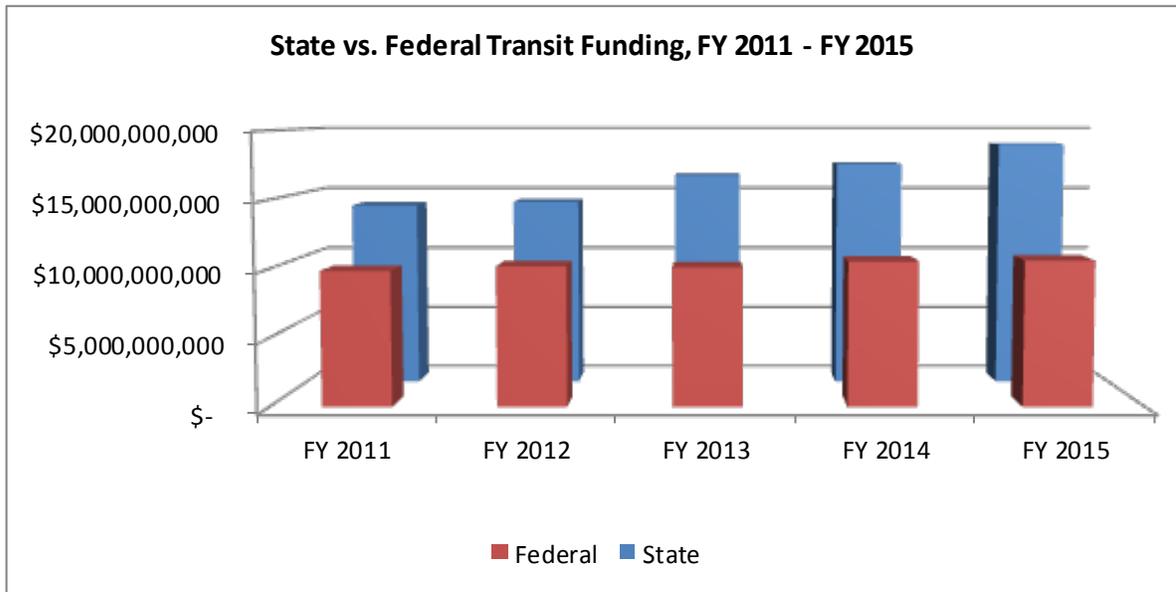
State funding of public transit surpassed federal funding in the early 1990s and the gap has continued to grow since that time. Over the last five years state funding has increased 34.4 percent. During this same period, federal funding has increased 7.7 percent (Figure 4).

Figure 3: Top Seven States, Public Transit Funding, FY 2011 - FY 2015



Source: Survey of State Funding in Public Transportation, Final Report: FY 2017 – FY 2015 Data, American Association of State Highway and Transportation Officials (2017).

Figure 4: State and Federal Funding for Public Transit, FY 2011 – FY 2015



Source: Survey of State Funding in Public Transportation, Final Report: FY 2017 – FY 2015 Data, American Association of State Highway and Transportation Officials (2017).

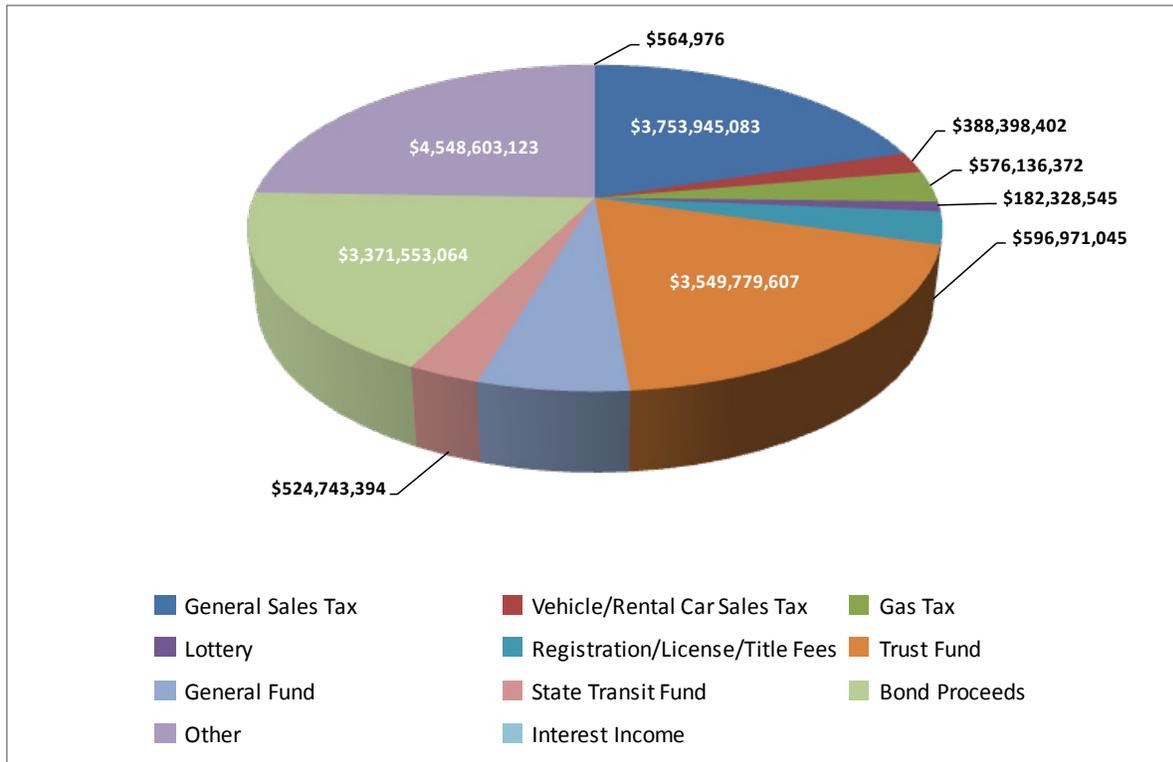
### 3. How the States Fund Public Transportation

There is no clear or consensus methodology employed by the states; AASHTO tabulated funding sources by the following categories (Figure 3):

- General Sales Tax
- Vehicle/Rental Car Sales Tax
- Gas Tax
- Lottery
- Registration/License/Title Fees
- Trust Fund
- Interest Income
- General Fund
- State Transit Fund
- Bond Proceeds
- Other

While multiple sources are cited, the top three sources (general sales taxes, trust fund revenues, and bond proceeds constitute the revenue source for greater than 57.4 percent of all state funding for public transportation.

Figure 5: Sources of State Transit Funding, FY 2015



Source: Survey of State Funding in Public Transportation, Final Report: FY 2017 – FY 2015 Data, American Association of State Highway and Transportation Officials (2017).

Within the "Other" category, a wide range of funding sources were cited, but detailed descriptions were not solicited. These other sources included:

- Corporate franchise tax
- Fuel users tax
- Diesel sales tax
- Parking revenues
- Rental car surcharges & document stamps
- Situs Tax/Electric Rail Fund
- Casino revenues/taxes
- Corporate income tax
- Toll authority revenues
- Gross receipts tax
- Payroll mobility tax
- Capital fund program
- State highway/road funds
- Recordation tax
- Other, undefined miscellaneous revenues and fees

Total percentages for all funding cited is documented in Table 2.

**Table 2:** Relative Percentages of State Funding for Public Transportation, FY 2015

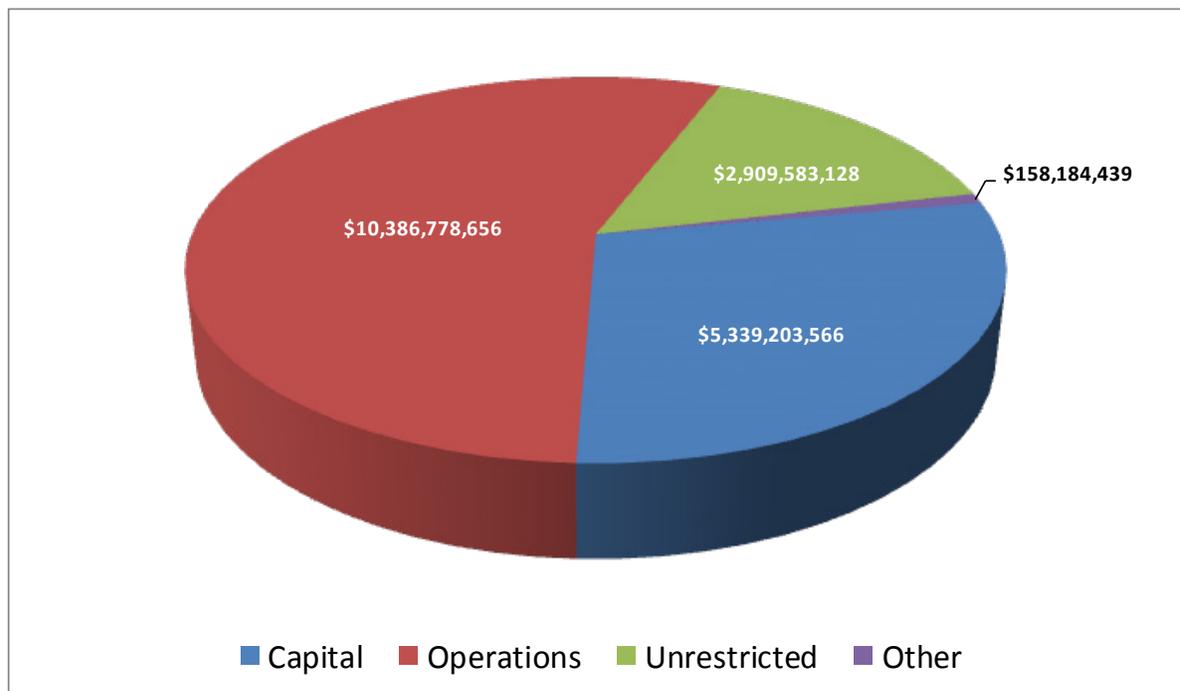
SOURCE OF STATE FUNDING	PERCENT
Other	24.46%
General Sales Tax	20.19%
Trust Fund	19.09%
Bond Proceeds	18.13%
General Fund	5.91%
Registration/License/Title Fees	3.21%
Gasoline Tax	3.10%
State Transit Fund	2.82%
Vehicle/Rental Car Sales Tax	2.09%
Lottery Funds	0.98%
<b>TOTAL</b>	<b>100.00%</b>

**Source:** Survey of State Funding in Public Transportation, Final Report: FY 2017 – FY 2015 Data, American Association of State Highway and Transportation Officials (2017).

#### 4. Uses of State Funds for Public Transportation

Of the 45 states that provide funds for public transportation, the majority (43) provide funding for operating assistance (state funding is either directed to operations and/or there are no restrictions on use of the funds).

**Figure 6:** Use of State Funding in Public Transportation, FY 2015



**Source:** Survey of State Funding in Public Transportation, Final Report: FY 2017 – FY 2015 Data, American Association of State Highway and Transportation Officials (2017).

Approximately 55 percent of all state funds are dedicated to operations; another 15.5 percent are unrestricted, meaning that the funds can be used for capital, operations, or other purposes. Only two states limit state public transportation funding to capital uses only (Idaho and Kentucky) (Table 3).

## ***B. Profiles of Key Peer States***

Given the amount of funding provided by the top seven states, these states essentially represent their own, separate peer group. Thus, in looking at state funding practices, there is little value to looking at all the states. Thus, only New York, California, Pennsylvania, Maryland, New Jersey, and Massachusetts are examined here.

### **1. New York**

New York State has historically always provided more state funds than any other state since AASHTO began monitoring state funding practices. Today, public transit funding is at a historic high, totaling almost \$4.8 billion annually.

While it is arguable that New York belongs in a class without peers due to its funding levels, there are similarities to Illinois. Comparable features include:

- Large number of transit systems (more than 100)
- One large, multi-modal legacy transit system with extensive rail coverage
- An “upstate” and “downstate” distinction in funding between metro transit service and other state transit agencies

#### **a. Sources of Funds**

There are several main funding sources for public transit in New York:

- Transportation trust fund
  - *Dedicated to MTA area*
  - *Dedicated to non-MTA areas*
- General fund allocation
- Payroll mobility tax

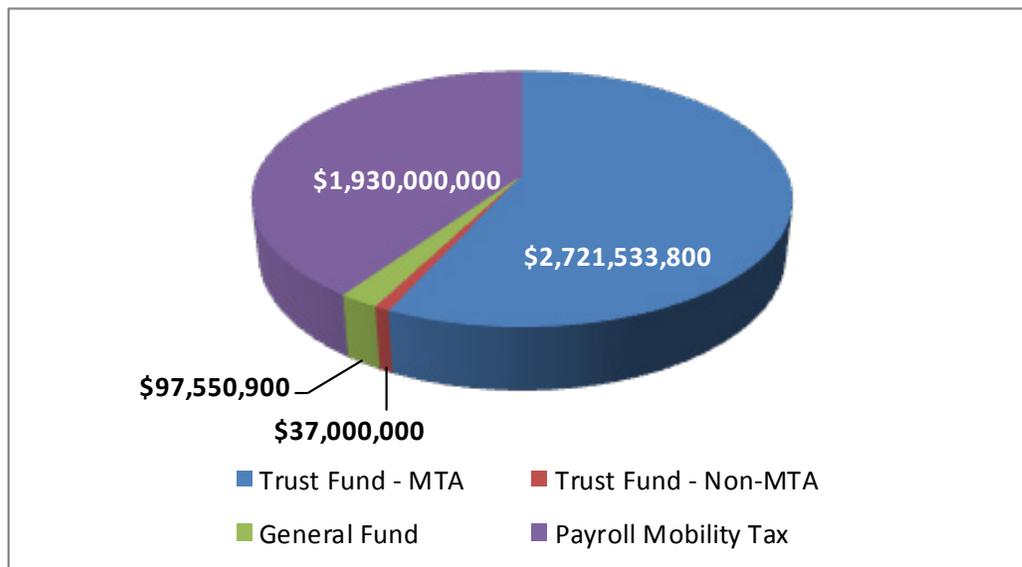
Table 3: Uses of State Funding in Public Transportation

STATE	TRANSIT FUNDING	CAPITAL	PERCENT	OPERATING	PERCENT	UNRESTRICTED	PERCENT	OTHER	PERCENT
Alabama			0.0%		0.0%		0.0%		0.0%
Alaska	\$185,858,364	\$28,519,118	15.3%	\$157,339,246	84.7%		0.0%		0.0%
Arizona			0.0%		0.0%		0.0%		0.0%
Arkansas	\$3,531,248		0.0%		0.0%	\$3,531,248	100.0%		0.0%
California	\$2,898,424,596	\$938,356,107	32.4%	\$387,125,500	13.4%	\$1,547,942,989	53.4%	\$25,000,000	0.9%
Colorado	\$14,000,000	\$11,000,000	78.6%	\$3,000,000	21.4%		0.0%		0.0%
Connecticut	\$515,278,413	\$184,450,000	35.8%	\$330,828,413	64.2%		0.0%		0.0%
Delaware	\$116,794,507	\$32,341,207	27.7%	\$84,453,300	72.3%		0.0%		0.0%
District of Columbia	\$546,129,790	\$198,527,000	36.4%	\$347,602,790	63.6%		0.0%		0.0%
Florida	\$271,179,216	\$53,793,881	19.8%		0.0%	\$214,968,890	79.3%	\$2,416,442	0.9%
Georgia	\$3,047,836	\$1,168,605	38.3%	\$339,258	11.1%		0.0%	\$1,539,973	50.5%
Hawaii			0.0%		0.0%		0.0%		0.0%
Idaho	\$312,000	\$312,000	100.0%		0.0%		0.0%		0.0%
Illinois	\$3,536,569,161	\$2,762,273,461	78.1%	\$774,295,700	21.9%		0.0%		0.0%
Indiana	\$59,140,747	\$-	0.0%	\$59,140,747	100.0%		0.0%		0.0%
Iowa	\$14,274,001	\$1,500,000	10.5%		0.0%	\$12,474,001	87.4%	\$300,000	2.1%
Kansas	\$11,000,000	\$-	0.0%	\$3,308,800	30.1%	\$7,691,200	69.9%		0.0%
Kentucky	\$1,713,412	\$1,713,412	100.0%		0.0%		0.0%		0.0%
Louisiana	\$4,955,000	\$123,875	2.5%		0.0%	\$4,831,125	97.5%		0.0%
Maine	\$1,147,845		0.0%		0.0%	\$1,147,845	100.0%		0.0%
Maryland	\$815,472,457	\$163,094,490	20.0%	\$652,377,967	80.0%		0.0%		0.0%
Massachusetts	\$1,649,889,696	\$283,609,863	17.2%	\$1,366,279,833	82.8%		0.0%		0.0%
Michigan	\$263,768,319	\$58,953,640	22.4%	\$204,814,679	77.6%		0.0%		0.0%
Minnesota	\$403,773,000		0.0%		0.0%	\$403,773,000	100.0%		0.0%
Mississippi	\$1,613,000	\$326,830	20.3%	\$1,286,170	79.7%		0.0%		0.0%
Missouri	\$1,530,875		0.0%	\$1,530,875	100.0%		0.0%		0.0%
Montana	\$334,820		0.0%	\$259,820	77.6%	\$75,000	22.4%		0.0%

STATE	TRANSIT FUNDING	CAPITAL	PERCENT	OPERATING	PERCENT	UNRESTRICTED	PERCENT	OTHER	PERCENT
Nebraska	\$4,872,884		0.0%	\$4,872,884	100.0%		0.0%		0.0%
Nevada			0.0%		0.0%		0.0%		0.0%
New Hampshire	\$998,983	\$438,067	43.9%	\$560,916	56.1%		0.0%		0.0%
New Jersey	\$357,738,903	\$321,285	0.1%	\$357,417,618	99.9%		0.0%		0.0%
New Mexico	\$6,643,800	\$543,000	8.2%	\$6,100,800	91.8%		0.0%		0.0%
New York	\$4,786,084,700	\$37,000,000	0.8%	\$4,127,562,700	86.2%	\$621,522,000	13.0%		0.0%
North Carolina	\$84,843,069	\$8,603,737	10.1%	\$43,831,927	51.7%	\$5,135,195	6.1%	\$27,272,210	32.1%
North Dakota	\$6,449,468		0.0%		0.0%	\$6,449,468	100.0%		0.0%
Ohio	\$7,300,000		0.0%	\$6,949,068	95.2%		0.0%	\$350,932	4.8%
Oklahoma	\$5,750,000		0.0%		0.0%	\$5,750,000	100.0%		0.0%
Oregon	\$37,439,321	\$8,102,032	21.6%	\$5,133,090	13.7%	\$24,204,199	64.6%		0.0%
Pennsylvania	\$1,532,172,650	\$460,745,327	30.1%	\$1,035,343,979	67.6%		0.0%	\$56,083,344	2.4%
Rhode Island	\$50,612,785	\$2,831,169	5.6%	\$47,781,616	94.4%		0.0%		0.0%
South Carolina	\$6,000,000		0.0%	\$600,000	10.0%	\$5,400,000	90.0%		0.0%
South Dakota	\$770,000		0.0%	\$770,000	100.0%		0.0%		0.0%
Tennessee	\$47,220,000	\$9,848,600	20.9%	\$24,975,500	52.9%	\$12,395,900	26.3%		0.0%
Texas	\$30,341,068		0.0%		0.0%	\$30,341,068	100.0%		0.0%
Utah			0.0%		0.0%		0.0%		0.0%
Vermont	\$8,496,969	\$1,053,266	12.4%	\$7,443,703	87.6%		0.0%		0.0%
Virginia	\$298,898,733	\$47,151,989	15.8%	\$186,649,735	62.4%		0.0%	\$65,097,009	21.8%
Washington	\$85,568,222	\$40,674,120	47.5%	\$42,819,573	50.0%	\$1,950,000	2.3%	\$124,529	0.1%
West Virginia	\$2,476,279	\$731,330	29.5%	\$1,744,949	70.5%		0.0%		0.0%
Wisconsin	\$110,737,500		0.0%	\$110,737,500	100.0%		0.0%		0.0%
Wyoming	\$2,596,155	\$1,096,155	42.2%	\$1,500,000	57.8%		0.0%		0.0%
<b>TOTAL</b>	<b>\$18,793,749,792</b>	<b>5,339,203,566</b>	<b>28.4%</b>	<b>\$10,386,778,656</b>	<b>55.3%</b>	<b>2,909,583,128</b>	<b>15.5%</b>	<b>\$158,184,439</b>	<b>0.8%</b>

**Source:** Survey of State Funding in Public Transportation, Final Report: FY 2017 – FY 2015 Data, American Association of State Highway and Transportation Officials (2017).

Figure 7: Sources of New York Public Transit Funding, FY 2015



**b. Distribution of Funds**

Funds are distributed to transit agencies using a variety of programs including:

- Section 18b/Statewide Mass Transportation Operating Assistance (STOA). First inaugurated in 1975 and funded with General Fund revenues, STOA requires a 100% local match. These operating funds are distributed on a formula that uses revenue passengers and vehicle miles. Approximately \$27.4 million were made available under this program in FY 2015.

Additionally, there is also the General Fund Operating Assistance program; no local match is required for these funds, again distributed by formula. Approximately, \$45.4 million were made available under this program in FY 2015.

- The Mass Transit Operating Assistance (MTOA) fund was started in 1981 and is divided into two sections:
  - *Downstate, encompassing the New York City metropolitan area*
  - *Upstate, which encompasses all other geographic areas of New York.*

The downstate component of the fund is provided through:

- *Assessment of a petroleum business tax (PBT) which is levied on any company that produces, refines, or imports petroleum for use in the state of New York*
- *A New York MTA Corporate Tax Surcharge*
- *A 0.25% sales tax in the New York City region*
- *The Long Lines tax.*

The upstate part of the fund is only funded by part of the PBT.

Like STOA, the MTOA Account has a component that requires a 100 percent local match (\$189,540,000) and a component that requires no matching component (\$1,829,819,700).

- The MTA Capital and Operating Assistance program is funded using a dedicated share (34%) of state trust fund. This is one of the few state sources that MTA can use for capital, however, operating assistance and debt service are also allowable uses (\$621,552,000).
- The Non-MTA Capital and Operating Assistance program provides dedicated funding for non-MTA systems. Approximately \$18.5 million is available to provide for 10 percent of the cost of Federally funded capital projects. Local transit systems must provide the remaining 10 percent match.

An additional \$18.5 million funds a 100% state-supported non-MTA capital program to address needs that exceed available Federal funds.

Together, these two programs provide \$37 million in state transit assistance to non-MTA systems.

- The Public Transportation System Operating Fund Upstate Account, like STOA and MTOA, has a component that require a local match (\$4,896,000) and a component that requires no local match (\$91,514,100). Funds are distributed by formula
- Additional Non-MTA Operating Assistance program – This program is funded from a portion of state trust fund that has been redirected to address operating assistance needs. Funds are allocated in two ways; first, a specific legislative line item in the state budget allocates some of the funds, with the remainder allocated pursuant to a revenue passenger and vehicle mile formula (\$34,749,000).
- Mobility Payroll Tax – In May 2009, the New York State Legislature approved a new regional payroll/mobility tax to provide funding for MTA operations and capital. Essentially, this tax is assessed in the 12-county Metropolitan Commuter Transportation District (New York City and seven surrounding counties). The rate is 0.34% of total payroll expenses for employed with the District. In addition the payroll tax, this fund is also supported with revenues derived from a DMV tax, taxicab medallions fees, and a fee on rental cars.

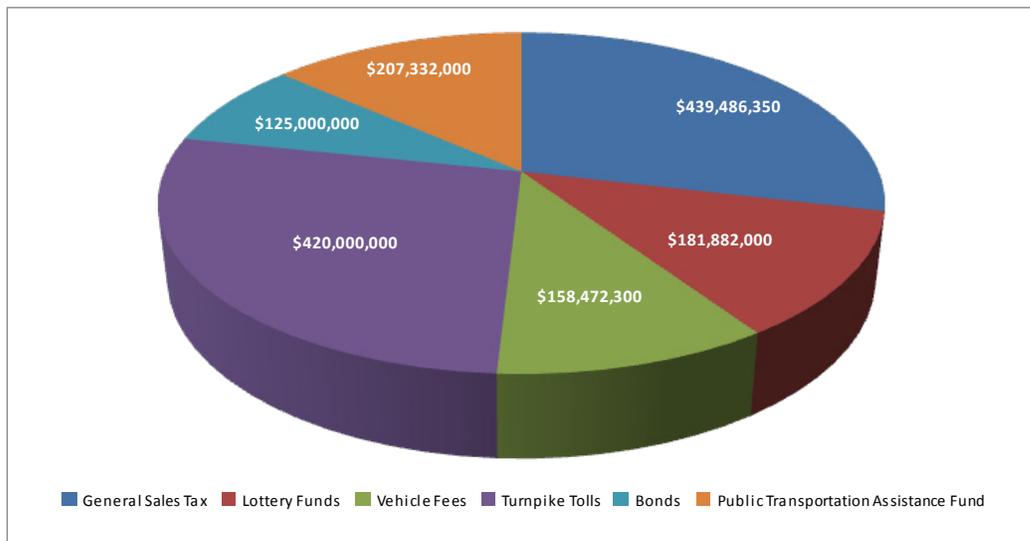
## 2. Pennsylvania

Funding for Pennsylvania's transit system changed recently with a major legislative overhaul of state transportation funding, signed into law on November 25, 2013. The legislation increases funding for all modes of transportation by \$2.3 billion annually. Known as Act 89, an additional \$480 million will be added to public transit funding.

### a. Sources of Funds

Funding is derived from four primary sources: the Public Transportation Trust Fund (PTTF) which is funded from toll collections; Act 44 funding, which includes an annual transfer of 4.4 percent of the sales tax collections; an annual transfer of \$89.6 million in lottery funds specifically to support free transit for senior citizens on fixed route public transportation, and the Public Transportation Assistance Fund (PTAF) which is an amalgamation of various tax revenues. In addition to Act 44 lottery funding, an addition of lottery funds are used for the shared ride Senior Citizens program. Finally, the state will periodically issue general obligation bonds to fund capital projects in the approved State Capital Budget, which can include public transportation projects (Figure 8).

Figure 8: Sources of Pennsylvania Public Transit Funding, FY 2015



## **b. Distribution of Funds**

Funds are distributed as follows:

- Section 1513 Operating Assistance – This funding is allocated by legislative formula; approximately \$892.5 million is authorized for urban transit and \$17.3 million is available for rural transit projects.
- Section 1514 Capital Asset Improvement Program – Authorized under Act 44, this program provides \$328.5 million annually for capital projects.
- Section 1514 Capital Asset Improvement Program (Bond Funds) – In FY 2015, \$125 million in bond funding was used to augment the Section 1514 program.
- Senior Citizen Share Ride Program – A longstanding program in Pennsylvania provides reimbursement of 85 percent of eligible fares for demand responsive transportation service for senior citizens. Approximately \$86 million is made available under this program.
- Section 1516 Intercity Transportation Program – This \$14.2 million program provides \$12.3 million for AMTRAK service, with the remaining \$2 million distributed to intercity bus carriers.
- Other – PennDOT administers a variety of smaller targeted transportation programs, as follows:
  - *Persons with Disabilities (PWD) Program (\$7.5 million)*
  - *Welfare to Work, Job Access, and New Freedom (\$1 million)*
  - *Community Transportation Service Stabilization (\$1.1 million)*
  - *Technical Assistance (\$15.7 million)*
  - *Capital Assistance for Community Transportation Systems (\$7.5 million)*

## **3. California**

California has almost 140 local transit systems operating a range of transit modes from heavy rail to local dial-a-ride systems.

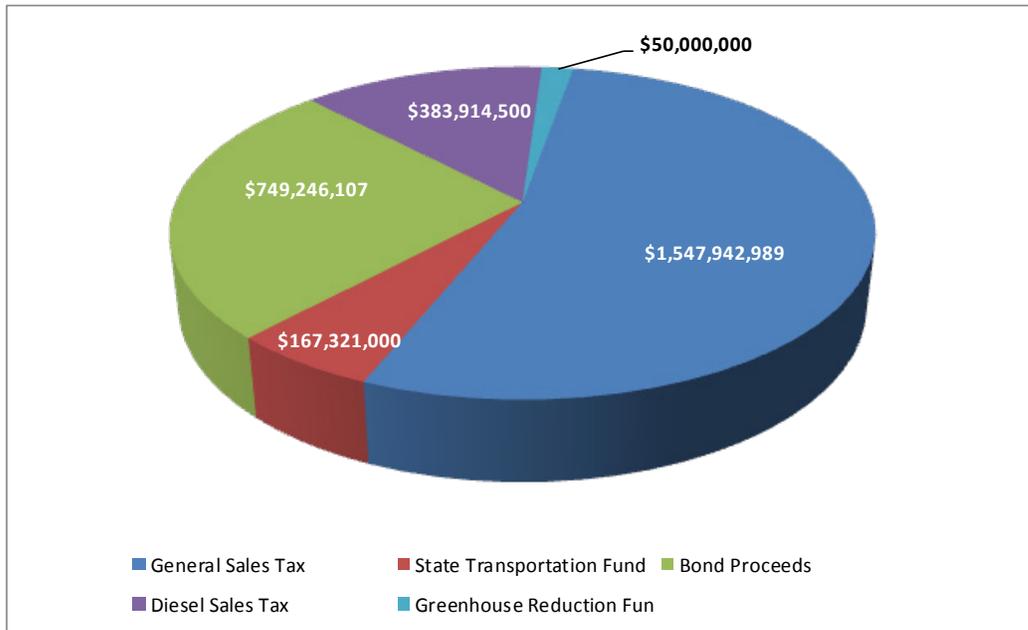
### **a. Sources of Funds**

Like other peers, California's state public transit funding is derived from a variety of sources and distributed through a multitude of programs.

Revenues are derived from several sources, including the state sales and use tax. There is also a sales tax on diesel fuel that used to fund the Public Transportation Account (PTA) and the State Transit Assistance (STA) program. Proposition 1B authorized funds for use for intercity, commuter and urban rail projects (Figure 9)

It should also be noted that transit is substantially supported by various individual county-based support measures.

Figure 9: Sources of California Public Transit Funding, FY 2015



**b. Distribution of Funds**

Funds are distributed as follows:

- Local Transportation Fund – These funds are collected by the state and returned to the county of origin. Funds are further apportioned within counties by population. Funds can be used for capital or operations (\$1,547,942,989)
- State Transportation Fund (TDA) – This funding is allocated by regional planning agencies based on a formula that includes population, prior year fare revenues, and local revenues (\$383,914,500)
- Low Carbon Transit Operations Program (LCTOP) – This program provides capital and operating assistance to transit agencies for projects that reduce greenhouse gas emissions and improve mobility (\$25,000,000).
- Transit & Intercity Rail Capital Program (TIRCP) – This program provides discretionary capital grants to local transit systems to fund transformative improvements to reduce greenhouse gases and for reduction of congestion/vehicle miles traveled throughout the state (\$25,000,000).
- Traffic Congestion Relief Program – This capital program is designed to provide capital funding to projects included in the governor’s budget to ease congestion and promote enhanced connectivity between transportation modes (\$39,039,000).
- Ferry Services – This small operating program is targeted for use in waterborne ferry services in the Bay Area.

- State Transportation Improvement Program – This capital program is divided into two components. First of the amounts available for programming, 75 percent is allocated to counties using a population-based formula. The remaining 25 percent is retained by the state for regional transit improvements (\$125,071,000).
- Proposition 116 Program – This proposition provides discretionary capital funds to local transit agencies for rail and fixed guideway projects.
- Proposition 1B - Public Transportation Modernization, Improvement, and Service Enhancement Account (PTMISEA) – This proposition provides capital funds through an allocation formula to eligible agencies (\$668,889,107).
- Proposition 1A - High Speed Passenger Train Bond Program – The program provides funding for capital improvements to intercity rail, commuter rail, and urban rail system that provided connectivity to the high-speed train system or that are part of the high speed system.

#### 4. Massachusetts<sup>3</sup>

Massachusetts is smaller geographically than Illinois, but does have a primary large, multi-modal transit system in the Massachusetts Bay Transportation Authority (MBTA). The remainder of the state is served by regional transportation agencies.

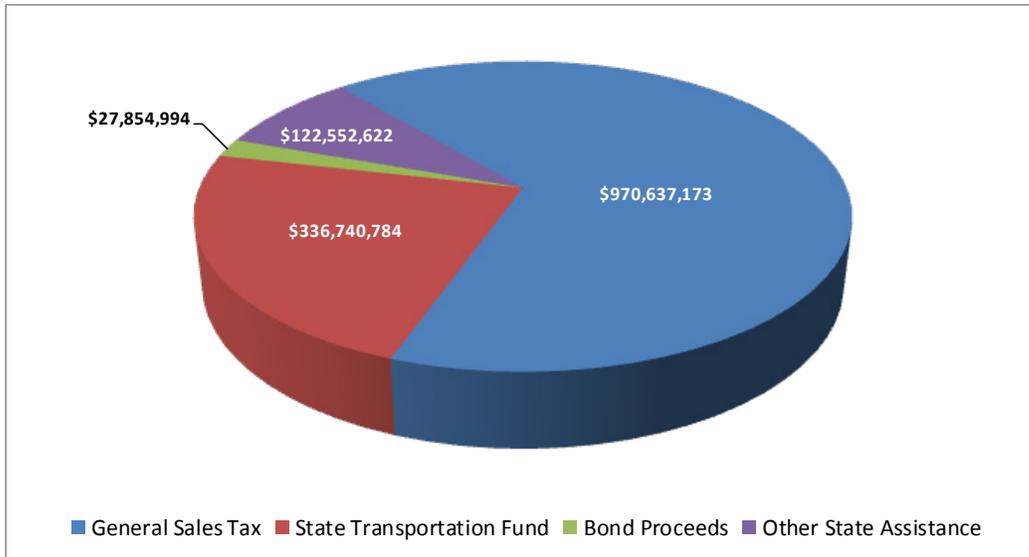
##### a. Sources of Funds

The Commonwealth Transportation Fund (CTF) receives annual funds from multiple revenue sources, including motor vehicle fuel taxes, motor vehicle sales taxes, vehicle registration fees, and miscellaneous smaller fines/fees.

The Massachusetts Transportation Trust Fund (MTTF) is another revenue source. This fund is comprised of some transfers from the CTF, as well as revenues from quasi-independent toll agencies for highways and bridges. Both the CTF and the MTF were created in by the 2009 Transportation Reform Law that consolidated many agencies under the Massachusetts Department of Transportation (Figure 10).

<sup>3</sup> Revenues exclude local assessments; while mandatory, these funds are not state funds, but rather local funds, dedicated to transit. Therefore, these funds (although reported by AASHTO) have been excluded.

Figure 10: Sources of Massachusetts Public Transit Funding, FY 2015



**b. Distribution of Funds**

Funds are distributed as follows:

- Operating and Capital Assistance for Regional Transit Authorities – This fund provides capital and operating assistance to the 15 regional transit authorities (not MBTA). This program is funded through the CTF, sales taxes, and municipal assessments (excluded from total) (\$108,840,909).
- MBTA Operating Assistance – Although titled as operating assistance, a portion of funding under this program is derived from bond funds and is used for capital purposes (\$255,754,869). The remainder and majority of the funding is dedicated to operations (\$1,093,189,795).<sup>4</sup>

<sup>4</sup> Again, local assessments have been removed from the total reported allocation of funding under this program.

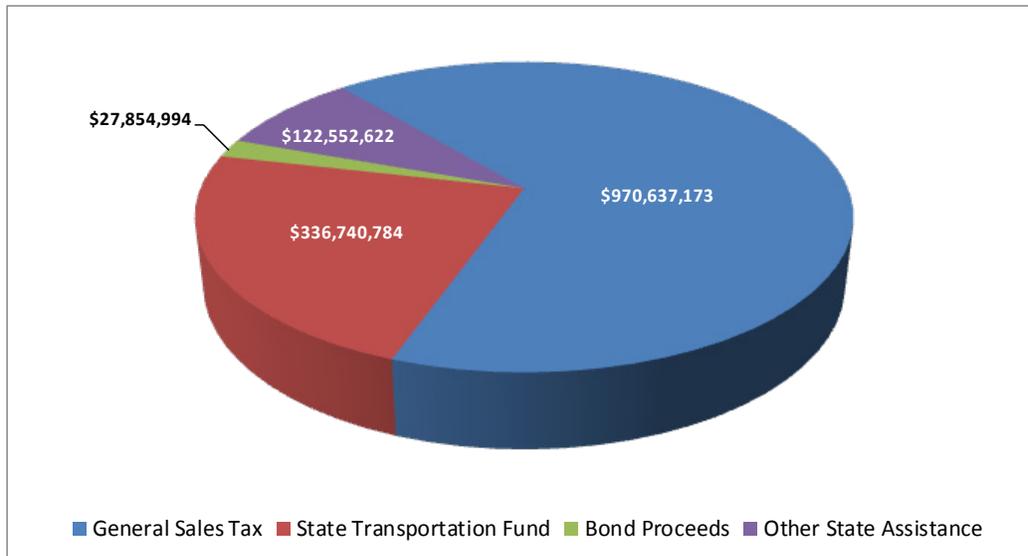
## 5. Maryland

Maryland, while a smaller state with fewer individual transit systems (22), has historically been one of the top tier states for state funding of public transportation. However, Maryland's funding has been falling over the last several years. An additional differentiating factor is the fact that the state transit agency runs the transit system in Baltimore.

### a. Sources of Funds

Transit is funded from the Transportation Tax Fund, which is comprised of the fuel tax revenues, vehicle registration and title fees, bond proceeds, and general fund allocations (Figure 11).

*Figure 11:* Sources of Maryland Public Transit Funding, FY 2015



## **b. Distribution of Funds**

Funds are distributed as follows:

- Large Urban Area Program: Baltimore – This funding program provides capital and operating assistance to large urban areas, including Baltimore and Annapolis, and Anne Arundel, Cecil, and Howard Counties (\$598,880,614).
- Large Urban Area Program: DC/MD Suburban Areas – The program provides operating funds to suburban bus systems in Montgomery, Prince Georges, and Howard Counties (\$55,729,071).
- State Coordination and Technical Assistance Program – This small program provides operating assistance for coordination projects (\$341,000).
- State ADA Services – Public transit systems that operate fixed routes are eligible to apply for State ADA funding. The State ADA funding program requires a minimum ten percent local match and can only be used for operating expenses (\$1,276,068).
- Statewide Special Transportation Assistance Program (SSTAP) – SSTAP is a state funded and individuals with disabilities. These funds are annually apportioned to the counties and the city of Baltimore based on a formula (60 percent divided equally among the jurisdictions and 40 percent based on combined population of elderly individuals and individuals with disabilities). Funds can be used for operating and capital with a local share required (minimum 25 percent for the net operating deficit and five percent for capital projects (\$4,305,938)).

## **6. Summary Observations about Peer States**

Clearly, each state has adopted unique approaches to addressing state support for public transportation. Among the common themes gleaned from this peer group:

- All the states have recognized the differential needs of larger, urbanized area transit systems and have developed dedicated programs to support the needs of these programs.
- Most peer state programs distinguish between capital and operating use.
- Gasoline taxes in these peer states are used primarily for highway purposes; only one peer state allocates gasoline taxes to transit (Maryland).
- Most peer states use bond proceeds to fund capital acquisitions.
- Allocation of general sales tax revenues provides the highest volume of transit funding among the peer states; allocation from state transportation trust funds ranks second.
- Operating assistance is funded at a rate almost seven times greater than capital investment in public transit.
- The vast majority of funding is distributed to transit systems on a formula basis.

## II. BENEFITS OF FUNDING PUBLIC TRANSPORTATION

### ***A. Economic Benefits of Transit***

A summary of the potential economic impacts that investment in public transit would bring to the state is presented in this chapter. The information emulates an approach used in North Carolina to assess impacts at the system level.

#### **1. Public Transit in Illinois**

Public transit is dominated by the various operating entities in the greater Chicago metropolitan area, including the Chicago Transit Authority, Pace Suburban Bus, Northeast Illinois Regional Commuter Railroad Corporation (Metra Rail), and Pace - ADA paratransit services. Together, these entities deliver over 625 million unlinked passenger trips per year.

In the downstate area, NTD data suggests that about 32 million annual unlinked passenger trips are provided in fixed route bus or commuter bus mode. An additional 6.6 million demand response trips are provided. This data served, in part, as inputs for the economic benefits analysis.

#### **2. The North Carolina Economic Impact Analysis Methodology**

The methodology used by the Institute for Transportation Research and Education (ITRE) for the North Carolina Department of Public Transportation was documented in a PowerPoint presentation provided to the consultant. The methodology incorporates an analytic approach first developed by Upper Great Plains Transportation Institute.<sup>5</sup>

This report cites potential economic benefits of transit:

- Cost reductions in personal expenditures when transit trip opportunities are available;
- Energy and environmental benefits;
- Benefits obtained through improved safety and security, particularly for older drivers; and
- Direct job creation by the transit system and parallel induced economic activity.<sup>6</sup>

The ITRE analysis argues that conducting such analyses is necessary in today's economic climate for the following reasons:

- Subsidized programs may face calls for reduced subsidies at any time;
- It is important to have data and statistics on hand to prove the value of the services;

<sup>5</sup> Godavarthy, Ranjit, Jeremy Mattson, and Elvis Ndembe, Upper Great Plains Transportation Institute at North Dakota State University, Cost-Benefit Analysis of Rural and Small Urban Transit: Final Report, prepared for the United State Department of Transportation, 21177060-NCTR-NDSU03, Fargo, ND (July 2014).

<sup>6</sup> Ibid.

- Intrinsic value is not enough;
- Client and agency testimonials are helpful; and
- Monetized benefits level the playing field between modes and other programs.<sup>7</sup>

This analysis also expands upon the Upper Great Plains Transportation Institute’s study in that it incorporates some of the modeling process for urban areas from a study conducted for the Florida Department of Transportation.

Both studies cited above have adopted the so-called “transit benefits assessment tree,” advocated by various researchers examining transit’s potential benefits. The tree used by in the ITRE/Great Plains analysis is a modification of one developed by HDR Decision Economics.<sup>8</sup> In this schematic, transit benefits:

***....are primarily categorized as transportation cost saving benefits, low-cost mobility benefits, and economic impact benefits. If transit is not provided in a community, then transit riders would have to either use a different mode or forego the trip. Transportation cost savings are the savings that result when individuals are able to use transit in place of another mode, and affordable mobility benefits are the benefits that result when trips are made that would otherwise be foregone in the absence of transit. Economic benefits result from the economic activity generated by transit operations.***

This tree is depicted in Figure 12.

The authors note that there are other potential economic benefits of transit; however, difficulties in quantification of these other benefits is often impossible to calculate. Thus, only factors addressed in the assessment tree are addressed in the computations.

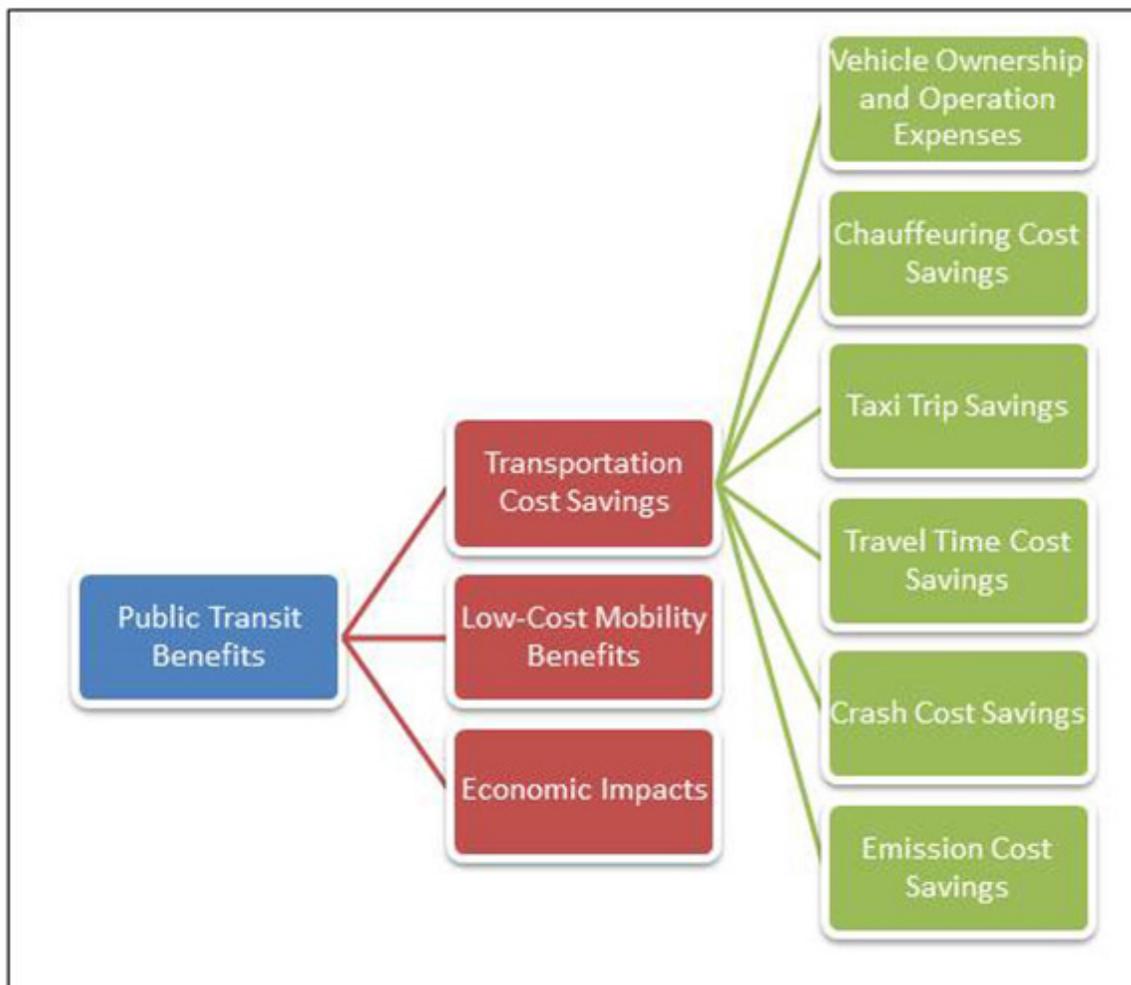
### 3. Transportation Cost Savings

NTD data for the latest available year were used for downstate transportation operations. Data were segregated by mode, consistent with the approach taken elsewhere in this study; thus fixed route mode data (primarily urban and small urban) and demand response data were examined in this analysis. Fixed mode data include NTD data for motor bus and commuter bus. Both fixed and demand modes include directly operated and purchased transportation. Ferry boat and vanpool modes were excluded from the analysis consistent with the research and approach adopted by North Carolina.

<sup>7</sup> Monast, Kai, Institute for Transportation Research and Education (ITRE), *Calculating the Benefits of Transit*, undated PowerPoint presentation.

<sup>8</sup> HDR Decision Economics, *Costs and Benefits of Public Transit in South Dakota*, prepared for the South Dakota Department of Transportation (2011).

Figure 12: Transit Economic Benefits Tree



Source: Godavarthy, et. al, op.cit., page 11.

In all cases, the research methodology provides a basis for quantification of cost savings to the traveler of using public transportation. In the absence of these services, other modes will be used or trips will not be undertaken altogether.

#### a. Vehicle Ownership and Operation Cost Savings

This element of the analysis assumes that if public transportation was not available, a portion of the riders would make the trip in their personal automobiles and some who do not own one would have to purchase one. Therefore, transit riders using personal automobiles for their trips would incur vehicle ownership and operating expenses, which can be considered savings if the rider instead used transit for making the trip. The savings can be calculated based on the savings per vehicle mile of the personal vehicle traveled.

#### **b. Avoided Chauffeuring Costs**

Many transit users, however, do not own or operate a personal automobile and therefore will not use the previously discussed alternative in order to take a trip. In these instances, it is likely that the individual will request a ride with a family member or other friend (referred to as “chauffeuring costs” in the literature; this does not mean limousine service in lieu of transit service). These trips provided by others do have a cost; the research methodology, based on individual travel study data, estimates the potential costs of these trips being provided by others.

#### **c. Taxi Trips /Shared Use Mobility**

Where available, taxicabs or shared use mobility (Lyft, Uber, car sharing, etc.) may provide essential mobility to individuals who do not have access to transit. These trips are more expensive than transit, thus, diversion of transit trips to this mode will involve additional costs to the individual. The difference between anticipated usage of taxicabs in lieu of transit use has been estimated.

#### **d. Additional Travel Time Costs**

In addition to out-of-pocket costs, there are additional costs associated with travel, such as the amount of time devoted to travel. Because travel times differ between transit and other modes, the methodology used took into account the value of this additional time.

Travel time comparisons were made with auto usage, chauffeured modes, taxicabs, walking, and bicycle alternatives to public transit usage.

Because some trips on transit may take longer than comparable trips on other modes, such as auto, values may be negative for this factor when one factors into wait time at the bus stop, walk time to the bus stop, etc. The expected result occurred in the fixed route mode analysis in Illinois. Due to the nature of demand response transportation, cost savings are shown.

#### **e. Crash Cost Savings**

Public transportation is a relatively safe mode of travel in comparison to automobile, pedestrian, or bicycle modes. Research indicates that the fatality rate for transit users is very low when compared to that of car occupants (one tenth of the rate for car occupants).<sup>9</sup> Measuring the value of transit requires an estimate of the value it provides by reducing crash costs.

The potential cost savings from using transit versus other alternatives is typically seen as an economic benefit of transit and is included in the analysis.

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<sup>9</sup> Litman, Todd, “Transportation Cost and Benefit Analysis: Techniques, Estimates and Implications, Second Edition,” Victoria Transport Policy Institute (2011).

#### **f. Environmental Emission Cost Savings**

Public transit, particularly with the use of newer, cleaner fuels and technology, can help reduce environmental emissions when enough passengers use the service. This effect is more pronounced in larger communities where there is a large demand for transit. However, for smaller urban and rural areas, the number of people riding transit can be low and, therefore, the environmental emissions cost savings are more modest. However, with increased transit demand and effective management of transit, these savings can be evident.

### **4. Forgone Trips**

This section of the analysis assumes that benefits accrue to the individual and others when transit trips are made. For example, if an individual who uses transit to commute to work did not have that option, there are likely to be costs in terms of lost productivity, lost wages, absenteeism, etc.

In looking at trip purposes, the following trip types were used:

- Work
- Medical
- Education
- Shopping, Recreation, and Tourism
- Other

#### **a. Work Trips**

The approach articulated in the North Carolina study estimates the benefit of providing work trips by the impact it has on reducing public assistance spending (this assumes that a non-working individual will have some impact on assistance programs offered by federal and state governments). If an individual cannot go to work because of a lack of transportation, he or she may be eligible for assistance from the government.

#### **b. Medical Trips**

Similarly, an individual who is unable to make doctor appointments or other medical trips may suffer from lack of preventive care, as well as providing adverse economic impacts on the health care provider. Based on research primarily aimed at Non-Emergency Medical Transportation (NEMT),<sup>10</sup> the research develops a methodology to quantify missed medical trips.

#### **c. Other Trips**

For purposes of this analysis, education, shopping, recreational, and all other trips were aggregated into a single category for cost estimation purposes.

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<sup>10</sup> Hughes-Cromwick, P., R. Wallace, H. Mull, J. Bologna, C. Kangas, J. Lee, and S. Khasnabis, "Cost Benefit Analysis of Providing Non-Emergency Medical Transportation: Final Report," . TCRP Web-Only Document 29, Transit Cooperative Research Program (TCRP), Transportation Research Board of the National Academies (2005).

## 5. Results of the Analysis

Emulating the North Carolina approach, estimated transportation costs saving impacts accrued due to the public transportation services provided in Illinois were calculated for the following categories.

### a. Transportation Cost Savings

This grouping includes costs savings associated with an entity's decision to provide public transit versus the cost of alternative modes used by the individual in the absence of available public transportation. In the downstate region, these costs are estimated to be approximately \$89 million per year based on FY 2015 dollars.

*Table 4:* Estimated Transportation Cost Savings, by Mode - Downstate Illinois

TRANSPORTATION COSTS SAVING CATEGORIES	FIXED ROUTE BENEFITS	DEMAND RESPONSE BENEFITS	TOTAL BENEFITS
Vehicle Ownership and Operations Savings	\$9,821,980	\$1,301,170	\$11,123,150
Chauffeur Cost Savings	\$21,196,352	\$16,407,615	\$37,603,967
Taxi Cost Savings	\$31,077,358	\$6,342,440	\$37,419,798
Travel Cost Savings	\$(8,493,906.89)	\$2,249,729.43	(\$6,244,177)
Crash Cost Savings	\$2,445,779	\$2,249,729	\$4,695,508
Emission Cost Savings	\$3,088,166	\$1,167,444	\$4,255,610
<b>TOTAL TRANSPORTATION COST SAVINGS</b>	<b>\$59,135,728</b>	<b>\$29,718,128</b>	<b>\$88,853,856</b>

**Source:** Godavarthy, et. al., and RLS & Associates, Inc. computations.

### b. Affordable Mobility Results

Additional economic impacts are felt when consideration of the costs of missed trips due to the absence of public transportation in a community. Table 5 summarizes the benefits of having transit available to provide this mobility in the community.

*Table 5:* Affordable Mobility Benefits, by Mode - Downstate Illinois

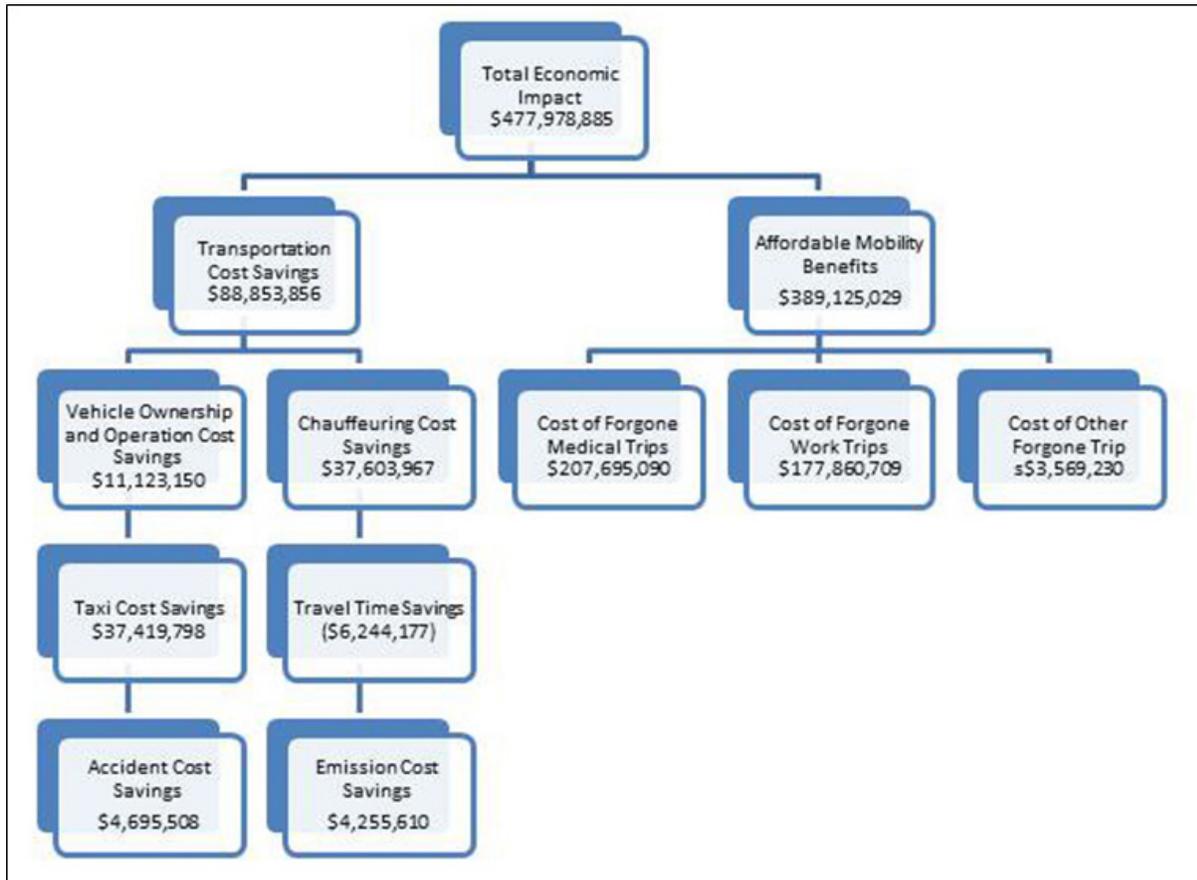
TRANSPORTATION COSTS SAVING CATEGORIES	FIXED ROUTE BENEFITS	DEMAND RESPONSE BENEFITS	TOTAL BENEFITS
Medical Trips	\$153,043,224	\$54,651,866	\$207,695,090
Work Trips	\$136,705,276	\$41,155,433	\$177,860,709
Other Trip Purposes	\$2,664,637	\$904,592	\$3,569,230
<b>TOTAL TRANSPORTATION COST SAVINGS</b>	<b>\$292,413,137</b>	<b>\$96,711,891</b>	<b>\$389,125,029</b>

**Source:** Godavarthy, et. al., and RLS & Associates, Inc. computations.

**c. Combined Results**

Based on this analysis, it is estimated that the public transportation systems in downstate Illinois create an economic impact of \$477,978,885 in terms of cost savings and ensuring access to work, health care, and other destinations.

Figure 13: Public Transit Benefits/Economic Impacts



Source: Godavarthy, et. al., and RLS & Associates, Inc. computations.

**B. Economic Contribution Analysis**

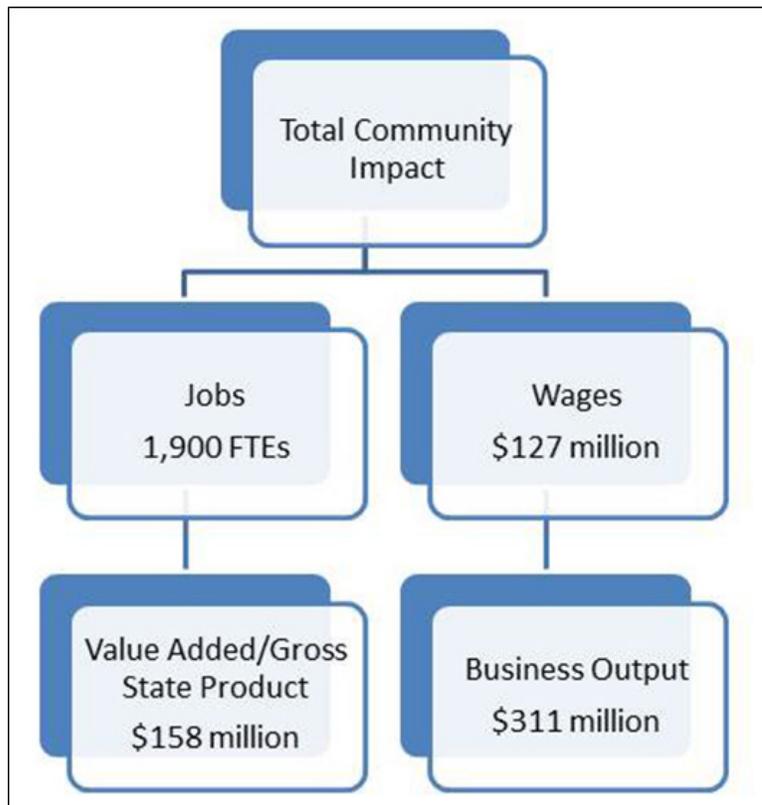
The foregoing process does not assess the economic impact that the actual operation of public transportation may have through the employment of operations, maintenance, and administrative personnel; the wages paid, and the direct and indirect impact of transit system expenditures may have on the local economy.

The North Carolina analysis provided such an assessment; this was made possible by the fact that the North Carolina Department of Transportation collects detailed employment and payroll data from all transportation systems in the state. For the Illinois analysis, the analysis relies solely on NTD data. FTA does not require rural reporters to submit labor data; thus this analysis was hindered due to lack of data.

Based on NTD data for those agencies that report, it is estimated that downstate transit system employ about 1,900 FTEs with annual estimated wages of \$127,063,060. Using multipliers from the North Carolina analysis, statewide impact of investment in transit will produce:

- Value added/gross state product - \$158 million
- Business output - \$311 million

Figure 14: Community Economic Benefits, Statewide



Source: Godavarthy, et. al., and RLS & Associates, Inc. computations.

### C. Conclusion

This analysis suggests a total economic impact of about \$948 million annually (2015 dollars) in economic benefits accrue to the state of Illinois as a result of public transportation.

