

2040 FINANCIAL RESOURCES FORECAST

AKRON METROPOLITAN AREA TRANSPORTATION STUDY
806 CITICENTER BUILDING
146 SOUTH HIGH STREET
AKRON, OHIO 44308

September 2016

This report was prepared by the Akron Metropolitan Area Transportation Study (AMATS) in cooperation with the U.S. Department of Transportation, the Ohio Department of Transportation, and the Village, City and County governments of Portage and Summit Counties and Chippewa and Milton Township in Wayne County. The contents of this report reflect the views of AMATS, which is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official view and policies of the Ohio and/or U.S. Department of Transportation. This report does not constitute a standard, specification or regulation.

Introduction

The Financial Resources Forecast projects funding levels expected to be available within the AMATS area between now and 2040. These projections will be used to develop a financially constrained Regional Transportation Plan known as *Transportation Outlook 2040*. The term “financially constrained” means that the anticipated revenues are sufficient to cover the costs of proposed investments or projects. The Plan must prioritize transportation needs based on the projected availability of funds to remain financially constrained.

All funding references in this forecast are denoted in year of expenditure dollars. Projects that will be recommended in the Plan will also be listed in year of expenditure dollars. With the consideration of inflation, revenues expressed in year of expenditure dollars are always larger numbers than constant current dollars. For example, the revenue needed to cover a project’s cost that is scheduled in the later years of the Plan will be more than the revenue needed to cover that same project’s cost if it were earlier in the Plan.

Developing a financial forecast that covers such an extended timeframe is a challenging task, especially considering current economy uncertainty. Thus, assumptions were developed and a financial forecast was completed in consultation with the Ohio Department of Transportation (ODOT), area transit operators and AMATS local member communities.

Federal Legislation

Congress passed Fixing America’s Surface Transportation Act, also known as FAST Act, on December 4, 2015. This transportation bill authorizes \$305 billion for highway, highway safety and transit projects over a five year period. FAST Act eliminates earmarks and consolidates funding into four core programs: National Highway Performance System program, Surface Transportation Program, Highway Safety Improvement Program, and CMAQ program – plus metropolitan planning.

FAST Act continues to emphasize fixing the existing transportation system before expanding it. It also encourages alternative forms of transportation such as public transit, pedestrian and bicycle facilities. AMATS has collaborated with ODOT in order to use historic data to forecast the federal and state funds available funding between now and 2040.

Funding Programs

The following is a brief list of the federal transportation funding programs. The percentage listed after each program is the typical portion of a project eligible for federal funds. The remaining percentage must be covered by state or local funds.

Federal and State

- National Highway Performance Program (NHPP) – 80%
- Surface Transportation Program (STP) including Transportation Alternatives (TA) – 80%
- Highway Safety Improvement Program (HSIP) – 90%
- Congestion Mitigation/Air Quality (CMAQ) – 80%

Transit

- FTA Section 5307 Urbanized Area Formula Program – 80%
- FTA Section 5310 Elderly and Disabled Program – 80%
- FTA Section 5339 Bus and Bus Facilities Program – 80%

Revenue Sources

Federal

The federal Highway Trust Fund provides the revenue for both highway and transit funding programs. Taxes on gasoline and diesel fuels are the main source of income for the Trust Fund. Currently the federal gasoline tax is 18.4 cents per gallon and 24.4 cents per gallon on diesel. The federal gasoline tax has not been increased since 1993 and has not been adjusted based on inflation. The cumulative rate of inflation between 1993 and 2016 is 66.3%, according to usinflationcalculator.com.

The Highway Trust Fund periodically faces a shortfall given that inflation continues to increase while the gasoline tax remains unchanged. On several occasions the Highway Trust Fund has had to be infused with revenue from the General Fund to stay solvent. However, these transfers are not a viable long-term solution and indicate that federal highway funding requires extensive structural reform.

State

Federal funds are not the only source of revenue for implementing transportation projects in the AMATS area. In order to receive federal funding, a matching of state or local dollars must be included, which is typically 20%. State or local entities sponsoring a project will provide the funding needed to match federal dollars. State funds are generated from the state fuel tax. The state collects a fuel tax which has been 28 cents per gallon for gasoline or diesel since July 2005. ODOT receives a portion of the state fuel tax revenue. The remaining revenue is shared by counties, municipalities, townships, and other state agencies. Some projects are solely funded with state and/or local funds (i.e. they do not include any federal funding).

Local – Highway

As mentioned above, local funds are often needed to match federal or state funding for a project. However, local funds can also be used as stand-alone funds for projects such as resurfacings. As described above, counties, municipalities, and townships receive a portion of their funds from state fuel taxes. The Ohio Bureau of Motor Vehicles (BMV) also collects license plate registration fees and permissive taxes dedicated to transportation funding. These fees and taxes are distributed back to locals as well. Finally, locals can also use general revenue funds. General funds are acquired differently for each community and vary greatly from year to year; therefore, they were not estimated in this report.

Local – Transit

Transit receives its local funds through a county-wide sales tax, passenger fares, advertising and local contracts. These funds can be used to pay for transit projects or as a match for federal funding.

Ohio Turnpike

The Ohio Turnpike is a self sustaining entity. The majority of Ohio Turnpike commission's revenue comes from tolls. Other revenue sources include special toll permits, concessions, fuel tax allocations, and investments. These funds are used to cover all expansion and operating expenses of the turnpike. In recent years some of these funds have been used on non-turnpike roadways as well. These funds could continue to be received in the future.

Forecast Methodology

As mentioned above, AMATS collaborated with ODOT to develop fiscal projections. Historic data was used to forecast funding for: Federal and state (highway), local (highway), turnpike, and federal and local (transit). Any "one-time" funding such as TIGER grants were not included due to their uncertainty from year to year. The following general assumptions have been made in developing the forecast:

- Highway Trust Fund (with possible transfers from the general fund) will remain viable to fund federal programs
- Existing federal and state funding programs will remain (at least in some similar form)
- Revenue for local match for federal and state programs will be available

The general forecast methodology included a two-step process. The first step was to determine the base year amount by calculating an average from historic data. The second step was to project growth rates through the life of the long range plan.

Federal and State – Highway

ODOT provided historical data for federal and state fund expenditures between State Fiscal year 2005 and 2016 for the AMATS area which includes Summit and Portage Counties, and Chippewa and Milton Townships of Wayne County. AMATS compiled this historic data for federal and state funds and listed them in Table 1 on page 4. Please note that the state column also includes state bonds. An average for those twelve years was calculated and is included at the bottom of the table.

The growth rates used to project federal and state funding were based on estimates provided by ODOT. These growth rates were applied to the historical average and compounded to determine the financial forecast projections for short, medium, and long term years of the Plan. These are shown in Table 2 on page 5. The federal forecast is projected to be approximately \$2 billion and the state is projected to be approximate \$1.4 billion.

Local – Highway

Historical data from the BMV for license plate registration fees and permissive taxes was obtained for 2013 to 2015 for Summit, Portage, and Wayne Counties. All of Summit and Portage County data was used. Since only a portion of Wayne County is in the AMATS area this county's data had to be adjusted. In Wayne county BMV fees were multiplied by a $2/16^{\text{th}}$, the number of townships in the AMATS area.

Historic fuel tax data distributed to the counties, municipalities, and townships was obtained for

2010 to 2015 from the Ohio Department of Taxation. The total for Summit and Portage Counties was used; however, since only a portion of Wayne County is in the AMATS area this county had to be adjusted. For fuel tax in Wayne County, the county and township values were multiplied by a 2/16th then the Doylestown and Rittman amounts were added to estimate the amount in the AMATS area.

Table 1 shows a listing of this data along with the historical average. The historical averages for the BMV and fuel columns in Table 1 were added to obtain the overall local average on Table 2. A 0% growth rate was applied to that historical average and all years were totaled to determine the 2040 financial forecast. The local highway forecast is projected to be approximately \$1.3 billion, as shown on Table 2.

Ohio Turnpike

The Ohio Turnpike portion of forecasted funding was determined from the Ohio Turnpike and Infrastructure Commission’s Annual Reports. The expenses for “maintenance of roadway and structures” and “traffic control, safety, patrol and communications” were added together to estimate the cost of maintaining the turnpike. The statewide total was multiplied by 34/241 since 34 miles of the total 241 miles are within the AMATS area. This adjusted total for each year from 2005 to 2015 is listed in Table 1 along with the resulting historical average.

Given that the Ohio Turnpike is a self sustained entity, AMATS assumes a growth rate of 5.47% that generates at least the amount needed to maintain the Ohio Turnpike as shown in the *Highway Preservation Needs* report (July 2016). The Ohio Turnpike forecast is projected to be approximately \$353 million between now and 2040. Any money not used for turnpike maintenance could be used on other state projects in the future. See Table 2 for details.

Table 1: Highway Funds spent by Fiscal Year by Category

Year	Federal	State	Local - BMV	Local - Fuel	Turnpike
2005	\$102,204,863	\$38,233,645			\$6,736,515
2006	\$84,330,689	\$80,829,636			\$6,416,689
2007	\$109,997,767	\$102,722,284			\$7,380,822
2008	\$62,117,118	\$29,166,471			\$7,487,759
2009	\$55,429,521	\$55,314,881			\$7,227,187
2010	\$48,457,874	\$16,928,996		\$25,611,462	\$7,417,079
2011	\$44,395,413	\$13,579,876		\$24,890,832	\$7,199,959
2012	\$81,300,178	\$23,426,990		\$24,706,602	\$7,071,436
2013	\$64,262,909	\$13,542,559	\$28,149,188	\$24,765,095	\$6,920,622
2014	\$77,132,599	\$109,394,339	\$28,547,491	\$25,115,484	\$7,104,589
2015	\$94,716,012	\$23,298,130	\$30,425,702	\$24,534,659	\$6,975,925
2016	\$109,471,305	\$201,067,705			
Total	\$933,816,250	\$707,505,512	\$87,122,381	\$149,624,134	\$77,938,581
Average	\$77,818,021	\$58,958,793	\$29,040,794	\$24,937,356	\$7,085,326

*State funds include state bonds

Table 2: Highway Funding Level Projections for 2017 to 2040

Term	Year	Federal	Growth Rate	State	Growth Rate	Local	Growth Rate	Turnpike	Growth Rate
	Average	\$77,818,021		\$58,958,793		\$53,978,149		\$7,085,326	
Short	2017	\$79,421,072	2.06%	\$59,548,381	1%	\$53,978,149	0%	\$7,472,893	5.47%
	2018	\$81,136,567	2.16%	\$59,548,381	0%	\$53,978,149	0%	\$7,881,660	5.47%
	2019	\$82,962,140	2.25%	\$59,548,381	0%	\$53,978,149	0%	\$8,312,787	5.47%
	2020	\$84,944,935	2.39%	\$59,548,381	0%	\$53,978,149	0%	\$8,767,496	5.47%
	2021	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$9,247,078	5.47%
	2022	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$9,752,894	5.47%
Medium	2023	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$10,286,377	5.47%
	2024	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$10,849,042	5.47%
	2025	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$11,442,484	5.47%
	2026	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$12,068,388	5.47%
	2027	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$12,728,529	5.47%
	2028	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$13,424,779	5.47%
	2029	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$14,159,115	5.47%
	2030	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$14,933,619	5.47%
Long	2031	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$15,750,487	5.47%
	2032	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$16,612,039	5.47%
	2033	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$17,520,718	5.47%
	2034	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$18,479,101	5.47%
	2035	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$19,489,908	5.47%
	2036	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$20,556,006	5.47%
	2037	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$21,680,419	5.47%
	2038	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$22,866,338	5.47%
	2039	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$24,117,127	5.47%
	2040	\$84,944,935	0%	\$59,548,381	0%	\$53,978,149	0%	\$25,436,334	5.47%
Total		\$2,027,363,417		\$1,429,161,134		\$1,295,475,584		\$353,835,617	

Federal and State – Transit

Federal and state funds received by METRO and PARTA between 2009 and 2015 are shown in Table 3 on page 6. This includes funds from state programs that were originally derived from federal funds, such as Ohio Transit Preservation Partnership Program. These historic values were used to calculate an average amount, shown at the bottom of Table 3, to act as a baseline for future projections. Stimulus and other “one-time” funds were not included in historical data because they are not indicative of future funding. Therefore, 2009 totals were adjusted to remove any stimulus funds impacting the projects in that year. Also, \$20 million was subtracted from the PARTA’s total in 2010, to remove the TIGER grant funding they received that year from the forecast equation.

The growth rates used to forecast transit funding were assumed to be the same as highway federal assumptions, which were just over 2% until 2020 and then 0% through 2040. The

METRO and PARTA averages were combined and the growth rate was applied to the historical average and compounded to determine the total cumulative 2040 forecast of available funds. The federal and state transit forecast is projected to be approximately \$380 million. The yearly projections of federal and state transit funding are shown in Table 4 on page 7.

Local – Transit

The majority of METRO and PARTA’s funding comes from local sources. Most of the local funds come from county-wide sales tax and passenger bus fares; however some of the funds also come from other sources such as advertising and local contracts. Funding data for METRO and PARTA are list from 2009 to 2015 on Table 3 below.

Given that both METRO and PARTA funds have increased yearly, an average percentage of 5% per year was calculated. This number was applied to the 2015 values to estimate 2016 data. This data can be found on Table 3.

The 2016 estimated totals for METRO and PARTA were added together and were used as the baseline for future projections. The growth rates used to forecast local transit funding were assumed to be 5% annually through 2020 and then 0% through 2040, similar to federal transit funding. The local transit funding forecast is projected to be just over \$1.8 billion, as shown on Table 4.

Table 3: Transit Funds spent by Fiscal Year by Category

Year	Federal & State		Local	
	METRO	PARTA	METRO	PARTA
2009	\$9,200,460	\$1,440,064	\$38,200,635	\$6,308,868
2010	\$6,223,200	\$2,156,280	\$40,166,284	\$6,625,173
2011	\$22,314,464	\$6,486,099	\$41,814,185	\$6,801,395
2012	\$15,718,000	\$1,307,400	\$44,796,197	\$7,319,193
2013	\$15,541,024	\$2,724,026	\$45,760,258	\$7,855,253
2014	\$6,391,400	\$1,878,138	\$48,490,752	\$8,387,917
2015	\$9,484,800	\$1,236,000	\$50,860,367	\$8,814,649
Average	\$12,124,764	\$2,461,144		
Estimated 2016			\$53,403,385	\$9,255,381

Table 4: Transit Funding Level Projections for 2017 to 2040

Term	Year	Federal & State	Growth Rate	Local	Growth Rate
	Baseline	\$14,585,908	N/A	\$62,658,767	N/A
Short	2017	\$14,886,378	2.06%	\$65,791,705	5%
	2018	\$15,207,923	2.16%	\$69,081,290	5%
	2019	\$15,550,102	2.25%	\$72,535,355	5%
	2020	\$15,921,749	2.39%	\$76,162,123	5%
	2021	\$15,921,749	0%	\$76,162,123	0%
	2022	\$15,921,749	0%	\$76,162,123	0%
Medium	2023	\$15,921,749	0%	\$76,162,123	0%
	2024	\$15,921,749	0%	\$76,162,123	0%
	2025	\$15,921,749	0%	\$76,162,123	0%
	2026	\$15,921,749	0%	\$76,162,123	0%
	2027	\$15,921,749	0%	\$76,162,123	0%
	2028	\$15,921,749	0%	\$76,162,123	0%
	2029	\$15,921,749	0%	\$76,162,123	0%
	2030	\$15,921,749	0%	\$76,162,123	0%
Long	2031	\$15,921,749	0%	\$76,162,123	0%
	2032	\$15,921,749	0%	\$76,162,123	0%
	2033	\$15,921,749	0%	\$76,162,123	0%
	2034	\$15,921,749	0%	\$76,162,123	0%
	2035	\$15,921,749	0%	\$76,162,123	0%
	2036	\$15,921,749	0%	\$76,162,123	0%
	2037	\$15,921,749	0%	\$76,162,123	0%
	2038	\$15,921,749	0%	\$76,162,123	0%
	2039	\$15,921,749	0%	\$76,162,123	0%
	2040	\$15,921,749	0%	\$76,162,123	0%
	Totals	380,001,132		1,806,812,926	

Conclusion

The FAST Act provides authorizations for highway, highway safety, and public transportation improvements through 2020. Beyond this point, funding availability becomes more uncertain. Increasing revenues, based on the previously mentioned assumptions and at the annual levels calculated, will provide a conservative estimate of future revenue projections.

Tables 1 and 3 list highway and transit historic data by funding source. Tables 2 and 4 show the resulting forecasted funding by funding source, for highway and transit respectively. It is understood that on a year-by-year basis, the forecasted revenues will vary from the actual revenues. However, over the forecast period these revenues are reasonably expected to be available.

This financial forecast anticipates that \$7.29 billion in funding from federal, state, and local sources is reasonably expected to be available for transportation investments in the AMATS area between now and 2040. The totals are summarized in Table 5 below. If additional revenue sources not identified in this forecast become available, they will be added to the forecast.

This financial analysis and forecast will guide the selection of projects to be recommended in *Transportation Outlook 2040* from among numerous “needs” that have been proposed in many prior reports. This process will ensure the effective and efficient use of available financial resources.

Table 5: 2040 Financial Forecast Summary

	Highway	Transit	Total
Federal	\$2,027,363,417	\$380,001,132	\$2,407,364,549
State	\$1,429,161,134		\$1,429,161,134
Local	\$1,295,475,584	\$1,806,812,926	\$3,102,288,510
Turnpike	\$353,835,617	N/A	\$353,835,617
Total	\$5,105,835,752	\$2,186,814,058	\$7,292,649,810