Chapter 5 – Financial Plan and Future Funding Options

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Financial Plan

Financial assumptions reflect economic growth forecasts from groups such as the Federal Reserve.

The region is currently dealing with a distressed regional economy as the result of economic struggles at the national level. The recession, which began in late 2007, has left a lasting impact on local and state governments across the country in the form of severely declining tax revenues and a significantly reduced level of resources.

The majority of the Atlanta region's transportation system, such as fixed-guideway transit, arterials, and limited-access highways, were built with federal funding. Uncertainty in how the federal government will manage the increasingly limited national transportation budget in the future is an important consideration for transportation plan development.

Over the past several years, ARC has tracked worsening trends impacting the financial capacity of the region to fully fund needed transportation plans and programs. These trends include a potential decline in future federal transportation funding for transit and roads, a further decline in the purchasing power of state motor fuel taxes, and cost inflation in the construction industry. Additionally, the economic downturn that began at year-end 2007 has contributed to significant reductions in the levels of funding for local governments – many of which depend on local SPLOSTs for capital infrastructure improvements – as well as for the State, which has been impacted by decreasing motor fuel sales tax revenue.

ARC must ensure that PLAN 2040 remains fiscally constrained per federal guidelines. A transportation plan is considered financially constrained if projected project costs do not exceed projected revenues. These requirements apply to both long-range and short-range transportation plans for constructing, operating and maintaining planned projects. Once the federal government completes the Conformity Determination process showing that PLAN 2040 meets all federal requirements – of which fiscal constraint is an obligatory component – projects can be funded and implemented as programmed in the plan.

PLAN 2040's financial assumptions and forecasts are developed in consultation with ARC's Financial Planning Team. Composed of representatives of major transit operators, federal and state agencies, and other stakeholders – the Financial Planning Team reviews major assumptions regarding the levels of future revenues and cost estimation methodologies. PLAN 2040 financial forecasts reflect this close working partnership.

Per federal planning requirements, in nonattainment and maintenance areas, the financial plan addresses financial strategies to ensure implementation of transportation control measures (TCM). All TCMs are now

either implemented or now under construction, with the I-85 HOV to HOT lanes conversion opening in the summer of 2011.

This chapter provides a broad overview of fiscal constraint, with more detailed funding and cost tables provided in Appendix B.[1]

Understanding Inflation

Revenue forecasts and future cost estimates are largely driven by inflation, which erodes the purchasing power of revenue sources while driving up future project costs. Because federal planning requirements stipulate that inflation be reflected for both costs and revenues, or year of expenditure, the inflation forecasts in PLAN 2040 are used to adjust both revenue sources and costs to current year (2012) dollars.

PLAN 2040 inflation forecasts differ for the TIP (2012-2017) and long-range (2018-2040) periods. Based on consultation with the Financial Planning Team, a rate of 2% is applied to the TIP period and 2.2% for the long-range period, which includes projects and programs for 2018 and beyond. PLAN 2040's long-range element is divided into two periods: 2018-2030 and 2031-2040. Since projects outside of the TIP period are not given a specific year for construction, a midpoint year is established to estimate inflation. For the 2018-2030 period, the year 2024 is used to inflate current year cost estimates. For the 2031-2035 period, 2034 is also used as a midpoint for inflation assumption purposes.

Forecasting Financial Resources

Funding forecasts are developed in consultation with the U.S. Department of Transportation, Georgia Department of Transportation, Georgia Regional Transportation Authority, Metropolitan Atlanta Rapid Transit Authority, and the State Road Tollway Authority. The Financial Planning Team met between 2009 and 2011 to discuss major funding trends and issues. A key component of these discussions was identifying the level of funding available to implement PLAN 2040.

Revenues to fund transportation plans and programs are anticipated from four primary sources – federal, state, local, and private funds.

Federal Funding

Federal motor fuel tax rates have remained constant since 1993 – 18.4 cents per gallon for gasoline and 24.4 cents per gallon for diesel. Over time, the real value of this funding source is falling.

[1] The revenue and cost data presented in this chapter, unless otherwise noted, is presented in its real value, fixed at the FY 2012 value of the US dollar. Appendix B provides additional information on Year-of-Expenditure (YOE) revenues and costs.

Federal transportation funding is authorized through transportation bill authorizations, covering a 5-year period. The last transportation bill, the *Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)* authorized the collection and expenditure of funds for transportation. Since a new reauthorization bill has not been approved, federal programs are currently funded through extensions of SAFETEA-LU.

Funding in the transportation bill comes from federal taxes on fuel, heavy-duty trucks, and, to a lesser extent, general funds. Tax revenues are tracked through the Highway Trust Fund (HTF) which is separated into two accounts – a highway account and a mass transit account. The highway account is by far the larger of the two accounts, comprising roughly 90% of the HTF.

Historically, the HTF has carried a positive net balance (or savings account) due to federal decisions to annually distribute or spend less than incoming tax revenues. The balance of the HTF has declined to the point where it is now insolvent, meaning that more money is going out rather than coming in. In the meantime, Congress has taken action by authorizing periodic injections of federal general fund revenues and rescinding underutilized funding from states in order to maintain solvency at current spending levels.

The obligation limits for Georgia in FY 2010 (the most recent annual funding released by the U.S. Department of Transportation) are used as the base to forecasting federal funds to which funding growth rates from the Congressional Budget Office's (CBO) March 2011 Baseline Forecast are applied. According to the CBO, Federal Highway Administration (FHWA) obligation authority will increase 1.635% annually, while Federal Transit Administration (FTA) funds will increase at a rate of 1.731% annually.

Estimates for the Atlanta region's share of statewide federal transportation funds is based in direct correlation to the region's share of the statewide population. In the interests of maintaining equitable funding, Georgia state law requires state and federal transportation funding to be balanced by Congressional District. The 18-county region, as reported by the 2010 U.S. Census Bureau, accounts for nearly 51.5% of Georgia's population. It is anticipated that the population share will grow to 59% by the year 2040, based on previous growth trends. PLAN 2040 assumes that the ARC region will receive this share of future transportation funding, consistent with state Congressional balancing requirements.

In current year 2012 dollars, as illustrated in Table 5-1, ARC forecasts that approximately $17.8 billion of federal highway funds and $4.1 billion of federal transit funds will be available to the region through the years 2012 to 2040. In total, ARC forecasts that the region should receive approximately $22 billion in federal funds – at their current year value - over the life of PLAN 2040. Federal planning requirements specify the calculation of PLAN 2040 revenue forecasts and costs in year-of-expenditure (YOE) dollars. Total YOE federal funds are forecast at $30.1 billion.

Table 5-1: Forecast Federal Funds

Source	2012 $ (current year)	YOE $
FTA	$4.15	$5.63
FHWA	$17.83	$24.51
Total	$21.98	$30.15

Sources: Congressional Budget Office/Federal Register/ARC

The available federal highway funds are net principal and interest payments on outstanding and anticipated GARVEE and GRB bonds during the RTP timeframe. The Georgia State Financing and Investment Commission and the State Road and Tollway Authority provided information on bond debt payment.

State Funding

Georgia's per capita spending for transportation is the 2nd lowest in the nation, only ahead of Tennessee.

The State of Georgia collects two types of taxes on motor fuels to help fund transportation investments.

- **Motor Fuel Excise Tax**: This is a tax based on the volume (gallons) of fuel purchased. The amount of the excise tax on gasoline is 7.5 cents per gallon, which has been used since 1971 and is not indexed for inflation. Since this tax is based solely on the volume of gasoline sold, revenues are strongly correlated with vehicle-miles traveled and the fuel economy of motor vehicles traveling on roads in the state. As such, improved engine technology and higher fuel efficiency of vehicles has counteracted the efficacy of this tax.

- **Prepaid Motor Fuel Sales Tax**: Georgia also collects a 4-percent sales tax on the average retail price of fuel, known as the Prepaid Motor Fuel Sales Tax. Three percent is dedicated to transportation and the remaining one percent is allocated to the State General Fund. Revenues from this tax rise and fall with the price of gasoline. However, frequent fluctuations in the revenue stream are minimized by the method that the State collects the sales tax. The Prepaid Motor Fuel Sales Tax is collected on a cent-per-gallon rate that is set using a weighted average indexed retail sales price for each type of fuel. The weighted indexed retail sales price is determined and published in the months of November and May in order that they are enacted at the beginning and mid-point of each fiscal year.

The counteracting effects of the two fuel taxes have contributed to a steady level of total state fuel tax revenue over the past ten years. However, this stability in revenue is making it increasingly difficult to meet the needs of a rapidly growing population in Georgia—and more specifically Metro Atlanta. The real value of the revenues generated by the Motor Fuel Excise Tax has dropped dramatically as motor vehicles have become more fuel-efficient and rising gas prices have reduced the level of demand—dropping -21.6 percent in the 2000-2009 period (an average annual rate of -2.6 percent).

Approximately 6.3 billion gallons of motor fuel were consumed in the state of Georgia in 2009 – representing a 3-percent drop in motor fuel consumption from the prior year. Subsequently, forecasts by leading researchers in the energy industry indicate a gradual decline in motor fuel consumption over the next 30 years due to the growing number of consumers purchasing motor vehicles that operate at higher fuel efficiencies or with alternative fuel technology.

As illustrated in Table 5-2, the 18-county Atlanta region is expected to receive up $9.75 billion in funding from state resources over the course of PLAN 2040. However, exact funding will vary from this amount as some state funding is used for facilities not on the Regional Strategic Transportation System (local roadway resurfacing via the Local Maintenance and Improvement Grant (LMIG)). State motor fuel funds are forecast to increase by 2.6%, with additional information provided in Appendix B.

Table 5-2: Forecast Net Funding from State Motor Fuel Taxes & the General Fund ($billions)

Source	2012 $ (current year)	YOE $
State	$9.75	$13.49

Source: ARC

To supplement motor fuel tax revenues, the state allocates general funds to the Georgia Department of Transportation that are typically earmarked for a particular use such as transit, airport aid, rail, and ports and waterways. However, these funding allocation sums have been significantly reduced since the onset of the financial downturn in FY 2008. For example, in FY 2009, roughly $25.1 million in general fund expenditures was allocated to the Georgia Department of Transportation. However, the state reduced this allocation from the state general fund to $10.3 million in FY 2010 and further reduced it to $6.9 million in FY 2011.

The state funding amounts illustrated in Table 5-2 are net amounts after debt service payments on bonds that have been issued by the State of Georgia for the construction of roads and transit facilities. Bond transportation funding is a valuable tool enabling needed facilities to be built sooner than the traditional pay as you go method. Bonds can be backed and transportation projects funded from a variety of anticipated state revenue sources including state motor fuel funds, federal transportation funds, toll revenue, or any combination of these sources. It is important to note, however, that bonds obligate future funds reducing the flexibility of future revenues. A balance must be maintained that allows needed projects to be built in a timely manner while still preserving sufficient future funds to meet currently unanticipated needs.

Local Funding

Local governments provide the majority of total transportation funding at 39%. The primary source of this funding is from sales taxes and local government general funds.

Local funding for transportation comes primarily from two sources: Special Purpose Local Option Sales Taxes (SPLOST or local imposts) and local general fund expenditures. In the Atlanta region, local areas typically dedicate a portion of SPLOST revenues to fund transportation, with dedicated funds typically ranging from 30% to 100% of total SPLOST revenues. In FY 2009 alone, SPLOST revenues in the Atlanta region generated nearly $500 million. In addition, most counties have a long-term history of approving

and renewing SPLOST programs which typically run for around 5 years. SPLOST programs are subject to voter approval and run for a limited period, and are therefore not a dedicated guaranteed source of transportation funding. Similarly, local general fund expenditures for transportation must go through an annual budgeting process and compete against other uses. This makes general funds also a potentially unstable source of transportation funding. SPLOST (including MARTA) and local general fund revenue historically account for roughly 95% of all local transportation funding.

Local revenues reasonably expected to be available for transportation investments over the next 22 years (through year 2040) were based on an evaluation of historic funding levels from four sources – general funds, special assessments, SPLOST, and miscellaneous funds. FHWA reports historical local transportation expenditures from general funds, special assessments, and miscellaneous sources in the FHWA Statistics Reports series. For PLAN 2040, this data source was supplemented by local government budget research. For local imposts (or SPLOST) applied to transportation, a survey of local entities was conducted to determine the current level of transportation expenditures. In addition, historical information on SPLOST data is available through the Georgia Department of Revenue.

As illustrated in Table 5-3, $6.6 billion (current year) of local funds can reasonably be anticipated for the implementation of transportation strategies through the year 2040. This amount does not include local transit funding. Not all of these funds are allocated in the RTP as most local governments only formulate five-year capital budgets to identify potential projects. PLAN 2040 does not assume the availability of major new local funding sources, such as a regional transportation sales tax, in the constrained plan. Additional information is available in Appendix B.

Table 5-3: Forecast Local Funding (non-transit) ($billions)

Source	2012 $ (current year)	YOE $
State	$6.6	$9.0

Source: ARC

Transit Funding

Regional transit operators have streamlined services in response to a constrained funding environment. Systems such as GRTA have adjusted to present economic conditions by eliminating routes with limited ridership.

The U.S. Department of Transportation requires a commitment for operating support from state, regional, or local governments before allowing federal funds to be spent on the construction and implementation of transit projects. The majority of transit operating funds must come from state and local funding resources as federal transit operating funds are very limited. In Georgia, as required by the Georgia Constitution, state motor fuel tax revenues cannot support transit or any transportation purpose other than roadways and bridges. Since there is not a dedicated state funding source for transit, the stability of state general

funds allocated to transit as well as locally derived transit funds are crucial to the future of Georgia's transit systems.

MARTA Resources

Adequate funding resources are available for MARTA over the life of the RTP to support MARTA sponsored projects in the plan. MARTA is the only transit system in the region supported by a multi-jurisdiction sales tax, in the form of a 1-percent sales tax levied in the City of Atlanta, Fulton, and DeKalb Counties. As forecasted by MARTA through a contract with Georgia State University, the sales tax generates approximately $13.7 billion (current year 2012 dollars) from 2012 through year 2040. Additionally, MARTA is expected to receive $5.6 billion in farebox receipts and other non-federal revenues over the same period.

One of the more noticeable effects of the recent economic downturn has been depressed retail sales, which in turn has negatively impacted sales tax revenues across the country. The challenging fiscal climate, in addition to the sharp cost increases in the nonresidential construction industry worldwide in the years 2004-2008, has induced the authority into making significant cuts in service. In response to MARTA's financial challenges, the state granted MARTA a temporary three-year suspension of its "50/50 Rule - granting MARTA a greater degree of discretion to apply its revenues in a flexible manner.

PLAN 2040 recommends that the legislature continue to allow MARTA flexibility in allocating sales tax revenues between operations and capital. This action in the future allows MARTA the flexibility to address distribute funds where needed, allowing the region to respond to volatile economic conditions. MARTA approved a fare increase in late June 2011. This fare increase will allow MARTA to stabilize financial conditions and restore some previously eliminated services. These restoration of these routes, and associated changes in revenues, will be reflected in future RTP update conformity determinations.

Local Transit Funding (non-MARTA)

Several local jurisdictions in the Atlanta region operate their own transit systems – including Cob Community Transit in Cobb County, and Gwinnett County Transit. Local funding for these systems depend on local general fund support. Due to the impact of the decline in the real estate market assessments, general fund property tax revenues for the region's local governments has decreased; thus in turn negatively impacting available funding for local transit services.

For planned new systems, more financing options are available – including state support, farebox returns, and local Tax Allocation Districts. In total, there will be an estimated $2.4 billion (current year 2012 dollars) in local funding available for the operation and expansion of local transit systems in the Atlanta region over the course of PLAN 2040.

Private Funding

PLAN 2040 places increased reliance on the use of public private partnerships (P3) to implement transportation projects. Since the adoption of the last RTP, Envision6, the Georgia Department of Transportation has been aggressively pursuing P3's. In PLAN 2040, several major projects in the TIP and long-range periods are planned to be implemented using this financing tool. In total, $3.2 billion (current year 2012 dollars) in private funding will contribute to the total resources of PLAN 2040.

P3's will play a prominent role in the construction and operation of future managed lanes projects in the region –with the NW Corridor project slated to be the earliest managed lane project to be completed using P3. Consisting of managed lanes improvements on I-75/I-575 in Cobb and Cherokee Counties, over $1 billion in private resources will be secured to implement the project within the FY 2012-2017 TIP

period. Additional phases within the proposed managed lanes network are to be completed in the long range period with over $2.1 billion in private resources to be allocated towards the construction and operations of managed lanes facilities on I-85 North (Gwinnett/Barrow), I-75 South (Clayton), I-285 (Cobb, Fulton, DeKalb), and SR 400 (Fulton).

P3 funding also expands opportunities to implement transit investments. Negotiations regarding the development of the proposed Multimodal Passenger Terminal are currently underway with a private consortium. Approximately $150 million in private resources will be used to implement this critical project, which is to be located in the heart of Downtown Atlanta and to serve as a foundation of the region's transit expansion strategy.

Forecasting Project Costs

ARC's Costing Tool considers the cost of recent projects in developing future costs. This tool helps local governments develop cost estimates for future projects. Examination of projects such as the $48 million Sugarloaf Parkway Extension in Gwinnett County, opened in December 2010, allow planning level cost estimates to be developed.

In 2007, USDOT introduced a planning requirement (Federal register, Vol. 72, No. 30) mandating that revenue and cost estimates included in an RTP be converted to their year of expenditure (YOE) dollar values through applying a forecasted inflation rate. In coordination with the Financial Planning Team – ARC staff conducted a review of two construction inflation rate indexes – producer price index for highway construction and the core consumer price index – both provided by the Bureau of Labor Statistics. After evaluating both indices over a twenty-year period and researching forecasts performed by the Survey of Economic Forecasters and the CBO, it became apparent that there will be weak inflationary pressure over the coming years as the global economy recovers from the Recession and the market absorbs excess capacity. Given these trends, ARC forecasts that the long-range average annual inflation rate will be roughly 2.2 percent beyond 2018.

The first step ARC undertook in updating project costs was to place all cost information from *Envision 6* into current year dollars. All cost estimates contained in *Envision 6* were in 2007 dollars based on the costing tool and results of engineering and special planning studies.

To update *Envision 6* cost estimates to reflect current conditions, ARC developed an updated costing tool. ARC reviewed the GDOT online construction bid database to obtain current Atlanta area representative project cost information for a variety of project types, i.e., roadway widenings (by number of lanes), new location roadways, intersection improvements, and bridges. Project types were further broken into urban and rural categories. The bid tabulations (by project type) were then used to develop typical roadway costs on a per lane mile basis. To further refine the costing tool, discussions were held with GDOT

personnel, local government DOT, local Public Works personal, transportation contractors, suppliers and design professionals.

ARC then used the updated costing tool to re-cost applicable projects in *Envision 6*. The spike in construction costs during the real estate boom in the years 2004-2008 led to a sharp increase in construction costs – averaging an increase of 10 percent annually. However, the subsequent downturn showed an abrupt halting in construction cost increases, as construction costs have increased at an average of less than 1 percent annually since 2008.

In addition to using the updated costing tool, ARC staff conducted extensive outreach with local jurisdictions and project sponsors to further refine cost estimates. Often this resulted in additional cost increases due to increasing project scope or previously unidentified costs such as environmental mitigation. This pushed the overall average cost increase to over 30%. Ultimately, the increases led to a multi-billion dollar funding shortfall (in current year dollars) making it necessary to remove projects from *Envision 6* in order to develop a fiscally constrained plan.

Understanding the Transportation Improvement Program (TIP)

Inclusion in *PLAN 2040* means that a major regional project has been identified as a regional priority for funding and is part of the region's financial plan. The Transportation Improvement Program (TIP) represents the implementation of recommendations from the long-range plan into a short-term program of improvements and consists of the regionally approved list of priority projects to be advanced during a three to four-year timeframe. A project's presence in the TIP represents a critical step in the authorization of funding for a project. It does not, however, represent a commitment of funds, an obligation to fund, or a grant of funds. Specific TIP projects are identified in Appendix A-1.

As required by federal law, the TIP document must list all projects that intend to use federal funds, along with regionally significant projects that do not necessarily receive federal funding. Projects of all surface transportation modes are included in a TIP – i.e. bicycle, pedestrian, freight-related, and innovative air quality projects, as well as the more traditional highway and transit projects. Regionally significant projects must be drawn from the region's long-range transportation plan, and all projects in the TIP must help implement the goals of the long-range plan. .

In 2010, the ARC Board approved a new set rules created to ensure the implementation and completion of TIP projects by their respective sponsors. These rules were published in a document titled *RTP/TIP Blueprint 2010*, which is available on ARC's website. With the intent of serving as a convenient guide for regional project sponsors, the *Blueprint* carefully outlines the standard practice and procedures governing the programming and implementations of projects in the region's TIP.

Financial Plan Balancing

PLAN 2040 presents the challenge of balancing the region's needs in the face of widening funding gaps. The Atlanta Regional Commission has worked closely with its regional planning partners – US DOT, GDOT, MARTA, GRTA, SRTA, and local governments – to prioritize projects according to need and impact relative to achieving the stated objectives of PLAN 2040:

- Increase mobility options for people and goods.
- Foster a healthy, educated, well trained, safe and secure population.
- Promote places to live with easy access to jobs and services
- Improve energy efficiency while preserving the region's environment

- Identify innovative approaches to economic recovery and long term prosperity

A significant portion of these projects were derived from regional system plans that have been completed over the past five years, such as the Managed Lanes System Plan, Concept 3, and the Regional Freight Plan.

Current Year (2012) Dollars

Table 5-4 illustrates the costs of the projects included in the constrained RTP by category – which result in a total sum of $60.9 billion (in current year 2012 dollars) over the life of PLAN 2040. As discussed in earlier chapters, the region faces the challenge of the rebuilding and preserving its aging infrastructure; thus, the largest funding category is Road/Bridge Preservation. Operation of the existing MARTA system represents the next largest funding category, followed by highway expansion and transit operations and capital replacement outside of the MARTA network.

An item of note is the growing financial contribution from local sources in the Atlanta region, which represents the largest funding category in the constrained plan – accounting for over $27 billion in funding. Innovative financing also plays an increased role in PLAN 2040, with $3.3 billion in funding from private resources through P3's.

Table 5-4: PLAN 2040 Funding for Major Program Areas in Current Year (2012) Dollars ($millions)

Project Types	Federal	State	Local	Private	Totals
System Modernization					
Transit	$3,297,000,000	$355,000,000	$19,184,000,000		$22,836,000,000
Roadway/Bridge Preservation	$8,884,000,000	$5,189,000,000	$2,333,000,000		$16,406,000,000
System Optimization and Safety	$1,504,000,000	$231,000,000	$1,819,000,000		$3,554,000,000
Demand Management					
Bicycle and Pedestrian	$911,000,000	$6,000,000	$666,000,000		$1,583,000,000
Other Programs/Initatives	$468,000,000	$11,000,000	$94,000,000		$573,000,000
System Expansion		$0			
Managed Lanes Expansion	$994,000,000	$1,181,000,000		$3,177,000,000	$5,353,000,000
Transit Expansion	$999,000,000	$305,000,000	$2,035,000,000	$150,000,000	$3,490,000,000
Roadway Expansion	$4,670,000,000	$1,047,000,000	$1,456,000,000		$7,173,000,000
Totals	**$21,727,000,000**	**$8,325,000,000**	**$27,588,000,000**	**$3,327,000,000**	**$60,967,000,000**

Source: ARC

Table 5-5 illustrates in more detail how funding from each of the federal sources are financially constrained in PLAN 2040.

Table 5-5: Federal-Aid Funding Balances in Current Year (2012) Dollars

Source	Revenues	PLAN 2040 Costs	Balances
FTA	$4,151,000,000	$4,005,000,000	$146,000,000
FHWA	$17,828,000,000	$17,721,000,000	$107,000,000
Total	**$21,979,000,000**	**$21,726,000,000**	**$253,000,000**

Source: ARC

Year-of-Expenditure Dollars – Meeting Federal Financial Constraint Requirements

PLAN 2040 Balancing

While PLAN 2040 reports current year (2012) dollars throughout most of the Plan, federal regulations are explicit that funds must be balanced using inflated year-of-expenditure (YOE) dollars. PLAN 2040 YOE costs are $83.68 billion (see Table 5-6). Federal funds comprise $29.3 billion of forecast revenues.

Table 5-6: PLAN 2040 Funding for Major Program Areas in Year-of-Expenditure Dollars ($millions)

Project Types	Federal	State	Local	Private	Totals
System Modernization					
Transit	$4,308,000,000	$448,000,000	$26,141,000,000		$30,897,000,000
Roadway/Bridge Preservation	$12,511,000,000	$7,327,000,000	$3,867,000,000		$23,704,000,000
System Optimization and Safety	$1,881,000,000	$279,000,000	$2,534,000,000		$4,694,000,000
Demand Management					
Bicycle and Pedestrian	$1,171,000,000	$7,000,000	$970,000,000		$2,148,000,000
Other Programs/Initatives	$565,000,000	$11,000,000	$113,000,000		$689,000,000
System Expansion		$0			
Managed Lanes Expansion	$1,452,000,000	$1,293,000,000		$4,374,000,000	$7,119,000,000
Transit Expansion	$1,559,000,000	$383,000,000	$3,185,000,000	$191,000,000	$5,319,000,000
Roadway Expansion	$5,890,000,000	$1,304,000,000	$1,915,000,000		$9,110,000,000
Totals	**$29,337,000,000**	**$11,052,000,000**	**$38,726,000,000**	**$4,565,000,000**	**$83,680,000,000**

Source: ARC

Federal funds, a core consideration of financial constraint, are balanced based on expected revenues from the Federal Highway Administration and the Federal Transit Administration. As illustrated in Table 5-7, PLAN 2040 meets federal financial constraint requirements with balances for both FTA and FHWA funds.

Table 5-7: Federal-Aid Funding Balances in Year-of-Expenditure Dollars

Source	Revenues	PLAN 2040 Costs	Balances
FTA	$5,634,000,000	$5,536,000,000	$98,000,000
FHWA	$24,514,000,000	$23,799,000,000	$48,313,000
Total	**$30,148,000,000**	**$29,335,000,000**	**$146,313,000**

Source: ARC

FY 2012-2017 Transportation Improvement Program Balancing

The FY 2012-2017 Transportation Improvement Program meets federal financial constraint requirements. Federal planning rules require that costs not exceed revenues for the first four years of the TIP. ARC and GDOT closely coordinated on developing forecasts and balancing the ARC TIP with expected revenues in the Statewide Transportation Improvement Program (STIP). Financial balancing for FHWA programs within the TIP period is determined in consultation with GDOT, as GDOT is responsible for balancing these funding programs statewide. Beyond the TIP period, ARC forecasts available resources based on historic levels and expected growth rates, considering the relative funding distributions expected for the Atlanta region.

FHWA funding is balanced for the FY 2012-2017 TIP as illustrated in Table 5-8. For financial balancing purposes, the TIP is divided into 2 tiers. Federal planning requirements hold the first 4 years of the TIP (Tier 1) to a higher standard of certainty than subsequent years. Tier 2 illustrated expected project costs and funding for FY 2016-2017. Project costs in the first four years of the TIP (FY 2012-2015), consistent with federal financial balancing requirements, do not exceed available revenues for each year.

Table 5-8: FY 2012-2017 Yearly TIP Balances - Federal Highway Administration Funds ($YOE)

Program Category	2012	2013	2014	2015	2016*	2017*	2012-2017 Total
Bridge (Off-System)	$2,023,000	$2,973,000	$1,483,000	$610,000	$172,000	$3,226,000	$10,487,000
Bridge (On-System)	$12,223,000	$15,248,000	$5,993,000	$23,407,000	$40,303,000	$28,436,000	$125,610,000
Bridge Discretionary	$0	$0	$0	$2,581,000	$0	$0	$2,581,000
Congestion Mitigation and Air Quality	$39,443,000	$33,429,000	$39,504,000	$39,400,000	$33,600,000	$39,400,000	$224,776,000
Congestion Mitigation/Air Quality (100%)	$0	$6,150,000	$0	$0	$6,150,000	$0	$12,300,000
Federal Earmark Funding	$3,587,000	$6,786,000	$492,000	$2,865,000	$226,000	$0	$13,956,000
High Priority Projects from TEA-21	$7,227,000	$8,981,000	$2,820,000	$0	$0	$0	$19,028,000
Interstate Maintenance	$7,695,000	$9,095,000	$7,695,000	$11,746,000	$27,611,000	$7,695,000	$71,537,000
Minimum Guarantee	$5,130,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000	$10,000,000	$55,130,000
National Highway System	$132,712,000	$85,804,000	$61,807,000	$95,747,000	$239,680,000	$31,422,000	$647,172,000
Recreational Trails	$427,000	$427,000	$427,000	$427,000	$428,000	$428,000	$2,564,000
SAFETEA-LU Earmark	$15,008,000	$13,387,000	$26,597,000	$946,000	$950,000	$0	$56,888,000
STP - Enhancements	$9,613,000	$9,692,000	$8,892,000	$8,892,000	$8,892,000	$8,892,000	$54,873,000
STP - Rail Hazard Elimination	$1,475,000	$1,510,000	$1,544,000	$1,578,000	$1,539,000	$1,539,000	$9,185,000
STP - Rail Protective Devices	$1,475,000	$1,510,000	$1,544,000	$1,578,000	$1,539,000	$1,539,000	$9,185,000
STP - Safety	$21,249,000	$21,742,000	$22,237,000	$22,731,000	$10,389,000	$10,389,000	$108,737,000
STP - Statewide Flexible (GDOT)	$108,318,000	$168,843,000	$135,981,000	$146,180,000	$449,118,000	$245,084,000	$1,253,524,000
STP - Urban (>200K) (ARC)	$162,576,000	$82,815,000	$77,592,000	$81,229,000	$79,931,000	$77,070,000	$561,213,000
Surface Transportation Priorities (Earmark)	$500,000	$0	$0	$0	$0	$0	$500,000
Transportation Enhancement	$475,000	$0	$0	$0	$0	$0	$475,000
Transportation, Community and System Preservation	$1,361,000	$0	$0	$0	$0	$0	$1,361,000
Total Cost Per Year	**$532,519,000**	**$478,393,000**	**$404,608,000**	**$449,916,000**	**$910,527,000**	**$465,118,000**	**$3,241,081,000**
Running Total Cost	**$532,519,000**	**$1,010,912,000**	**$1,415,520,000**	**$1,865,435,000**	**$2,775,963,000**	**$3,241,081,000**	
ARC Forecast	**$545,214,000**	**$555,158,000**	**$595,389,000**	**$606,431,000**	**$617,653,000**	**$629,060,000**	**$3,548,907,000**
Running Total Revenue	**$545,214,000**	**$1,100,372,000**	**$1,695,762,000**	**$2,302,193,000**	**$2,919,846,000**	**$3,548,907,000**	
Running Total Balance (Revenues Less Costs)	**$12,695,000**	**$89,460,000**	**$280,242,000**	**$436,758,000**	**$143,883,000**	**$307,826,000**	

** Fiscal years 2016 & 2017 are not considered to be a part of the federally-mandated 4-year regional TIP, and as such are not considered to be fiscally constrained, and have not been evaluated by USDOT as to their compliance with any of the other federal programming requirements.*

Source: ARC

FTA funding is balanced for the FY 2012-2017 TIP as illustrated in Table 5-9. Federal costs between FY 2012-2017 are $190 million less than expected revenues. ARC revenue forecasts do include assumptions for limited discretionary funding. FTA revenue forecasts includes assumptions for future TBD discretionary funded projects that are not yet programmed in the TIP. However, only discretionary projects with secured funding are included in the TIP period in order to maintain fiscal constraint. Project costs in first four years of the TIP (FY 2012-2015), consistent with federal financial balancing requirements, do not exceed available revenues for each year.

Table 5-9: FY 2012-2017 TIP Balances - Federal Transit Administration Funds ($YOE)

Program Category	2012	2013	2014	2015	2016*	2017*	Total
5307 Discretionary	$17,000,000	$0	$0	$0	$0	$0	$17,000,000
5309 Discretionary	$8,703,000	$1,550,000	$1,550,000	$1,550,000	$1,550,000	$1,550,000	$16,453,000
Bus - New (80/20)	$3,450,000	$3,700,000	$3,700,000	$3,700,000	$3,700,000	$3,700,000	$21,950,000
Clean Fuels	$840,000	$0	$0	$0	$0	$0	$840,000
Clean Fuels Formula Program	$1,563,000	$1,594,000	$1,600,000	$1,600,000	$1,600,000	$1,600,000	$9,557,000
Job Access and Reverse Commute	$981,000	$1,001,000	$1,000,000	$1,000,000	$1,000,000	$1,000,000	$5,983,000
New Freedom	$0	$0	$0	$0	$0	$43,000,000	$43,000,000
Rail Modern - Fixed Guideway (80/20)	$37,768,000	$38,330,000	$40,320,000	$40,320,000	$40,320,000	$40,320,000	$237,377,000
State of Good Repair	$19,680,000	$0	$0	$0	$0	$0	$19,680,000
Transit for Elderly/Disabled	$783,000	$799,000	$800,000	$800,000	$800,000	$800,000	$4,782,000
Transit Nonurbanized Area Formula	$723,000	$738,000	$760,000	$760,000	$760,000	$760,000	$4,501,000
Transit Urbanized Area Formula Program	$61,565,000	$62,797,000	$63,213,000	$63,213,000	$63,213,000	$63,213,000	$377,214,000
Total Cost Per Year	**$153,057,000**	**$110,508,000**	**$112,943,000**	**$112,943,000**	**$112,943,000**	**$155,943,000**	**$758,337,000**
Running Total Cost	**$153,057,000**	**$263,565,000**	**$376,508,000**	**$489,451,000**	**$602,394,000**	**$758,337,000**	
ARC Forecast	**$153,057,000**	**$153,826,000**	**$156,488,000**	**$159,197,000**	**$161,953,000**	**$164,756,000**	**$949,277,000**
Running Total Revenue	**$153,057,000**	**$306,883,000**	**$463,371,000**	**$622,568,000**	**$784,521,000**	**$949,277,000**	
Running Total Balance (Revenues Less Costs)	**$0**	**$43,318,000**	**$86,863,000**	**$133,117,000**	**$182,127,000**	**$190,940,000**	

** Fiscal years 2016 & 2017 are not considered to be a part of the federally-mandated 4-year regional TIP, and as such are not considered to be fiscally constrained, and have not been evaluated by USDOT as to their compliance with any of the other federal programming requirements.*

Source: ARC

Future Funding Options

Leaders and stakeholders realize that the continuing growth and prosperity that the region has enjoyed over the last fifty years will be dependent in part on its ability to renovate and expand its transportation infrastructure to meet future challenges. Identifying new and more sustainable sources of funding for regional transportation infrastructure has become a growing priority for ARC and its regional planning partners. This section briefly details some of the ongoing work in identifying new sources of funding for transportation in the Atlanta region.

Addressing Financial Challenges

Reliable and efficient transportation infrastructure is key to the region's prosperity, yet it is falling behind other regions, several of which have invested significantly to create and maintain modern, world-class systems. Symptoms of decline include the impacts of traffic congestion, painful cuts to public transit, an increasing backlog of deferred maintenance on roads and bridges, and aging buses, trains, and stations.
ARC urges the federal government, the State of Georgia, transit agencies, and local governments to develop innovative financing to support a world-class transportation system for this new century. The costs of congestion are serious, including lost time and fuel, decreased productivity, inefficient

freight movements, and pollution. Transportation user fees should reflect these costs in a more effective manner. Revenue sources such as the federal and state gas tax should be reevaluated to halt the continual declines in purchasing power. As vehicles become more fuel-efficient over time, alternatives to traditional financing mechanisms must be implemented.

PLAN 2040 allocates funds using performance-driven criteria. Transportation sponsors must prioritize efforts to maintain, enhance, and modernize the existing system. Major capacity projects should be given preference only where the benefits outweigh costs. Examples of enhancements and modernizations that should be pursued include more modern buses and trains that improve the passenger experience, better traveler information systems, targeted transit extensions and arterial improvements, and multimodal approaches such as integrating bicycling and pedestrian accommodations in roadway design.

PLAN 2040 recommends changing how transportation is funded by:

Pursuing public-private partnerships

Among various public-private partnership (P3) strategies, each has its pros and cons. PLAN 2040 recommends particular consideration of the design-build implementation strategy, which GDOT has used to reduce costs and shorten the duration of project development and construction.

ARC's recommendations address ongoing fiscal shortfalls and economic inefficiencies of the current system. These changes are vitally important to improve the economic growth, fiscal efficiency, and the safety and security of the region's transportation system.

The region needs to unite around its transportation priorities, particularly regarding the construction of major capital projects recommended in PLAN 2040, which have been carefully evaluated to improve operations, access, mobility, and economic opportunity. The "fiscally constrained" major capital projects, as required by federal regulations, have the highest priority to move toward completion.

Creating cost and investment efficiencies

To prioritize spending on system preservation, modernization, and expansion, project evaluation criteria should continue to be improved, including quantitative models to predict impacts. Performance criteria should guide how funds are allocated by the federal and state governments. State allocations should be based on need, including a reassessment of the state congressional district balancing requirements.

Implementing congestion pricing

Applying supply-and-demand economic principles can reduce congestion by providing an incentive for drivers to alter their travel behavior. Near-term implementation of congestion pricing on various parts of the transportation network, such as on I-85 North, will enhance mobility and help to fund needed improvements.

Implementing congestion pricing, such as the I-85 HOT lanes project, provides innovative solutions to mobility challenges

Reevaluating motor fuel tax levels

As primary sources of transportation funding, the levels of federal and state motor fuel taxes have not been sufficient to fund maintenance, operations, and capital improvements. Until a replacement for these sources are identified, the tax rates need to be reevaluated and indexed to keep pace with inflation.

Instituting a replacement for motor fuel taxes in the long term

Motor fuel taxes will likely need to be replaced within 20 years as vehicles become more fuel-efficient or switch to alternative energy sources. One "pay as you drive" strategy is to fund transportation through fees based on vehicle miles traveled (VMT). If implemented carefully, VMTs are a more efficient user fee than motor fuel taxes, which do not require users to pay the full costs of their road use.

Fast Fact:
Additional jobs supported in 2040 from implementing PLAN 2040: 145,000

Transportation Investment Act of 2010

Potential revenues from the Transportation Investment Act are not included in the financially constrained element of PLAN 2040. If approved in 2012, PLAN 2040 will be amended to include these projects

The Transportation Investment Act was signed into law in June 2010, putting the future of Georgia's transportation in the voters' hands. Elected officials in each of the state's 12 regions will develop a list of projects to be funded by a one percent sales tax. Georgians will vote on the tax in the 2012 primary elections. The potential regional sales tax is forecast to generate approximately $8.7 billion over 10 years. However, PLAN 2040 does not assume this as a revenue source for the constrained RTP.

Should the tax pass in a region, all revenue collected there would stay in that region. Local governments would share 15 percent of the revenues to be spent on any projects they choose. The other 85 percent will be used to fund the list of projects created by each region's transportation roundtable.

The Transportation Investment Act required each of the regions to have a roundtable of elected officials that will develop a project list that will be available to voters before they go to the polls. The roundtables include the chairperson of each county commission in the region and one mayor from each county in the region.

Other Future Funding Alternatives

ARC has researched various potential sources of revenue for funding the capital, maintenance, and operating costs of existing and future transportation infrastructure to serve the Region's growing needs. The resulting report - *Bridging the Gap 2010: Investigating Solutions for Transportation Funding Alternatives in the Atlanta Region* - is intended to help evaluate and estimate potential revenue from financial alternatives available at the Federal, State, Regional, and local levels that could be available to fund the Plan 2040 RTP. Presented to the region's policy makers, this document highlights several alternatives to help fill the region's funding gap.

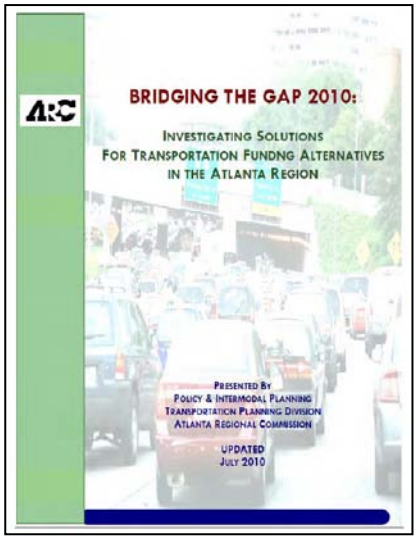

Table 5-10 shows the potential yield of various funding alternatives. While significant regional discussion has been held on the mechanism will only partially fulfill the Region's transportation needs; thus underlining the urgent need to identify other potential funding sources for the region's transportation infrastructure.

In support of PLAN 2040, a discussion of funding options was held during 2010. A report, Bridging the Gap 2010: Investigating Solutions for Transportation Funding Alternatives in the Atlanta Region, was presented alternative transportation funding options for the region to consider both now and in future RTP updates.

Table 5-10: Potential Funding Sources for Transportation - 2010-2040

Potential Funding Mechanism	Tax Levied	Revenue Generated (2010-2040)
Motor Fuels Excise Tax Rate Increases (additional *State* revenue)	1-cent	$1.2 billion
	2-cent	$2.4 billion
	3-cent	$3.6 billion
Prepaid Motor Fuel Sales Tax Increases (additional *State* revenue)	1% Increase	$5.8 billion
	2% Increase	$11.6 billion
	4% Increase	$23.3 billion
Regional Vehicle Registration/License Plate Fees	5-Dollar Fee	$650.8 million
	10-Dollar Fee	$1.3 billion
Transportation Investment Act (10-County ARC/2013-2022)	1% Sales Tax	$7.9 billion
Regional Millage Rate Increase		
Net M&O	(0.5 Mils/1 Mil)	$3.9 billion/$7.9 billion
Industrial	(1 Mil/2 Mils)	$417 million/$833 million
Commercial	(1 Mil/2 Mils)	$2.2 billion/$4.4 billion
Regional Vehicle Ad Valorem Tax Increase	(1 Mil/2 Mils)	$513 million/$1.0 billion
Regional Income Tax Increase (levied by MPO counties)	0.5% Increase	
If Incomes Grow at 1% Annually		$12.3 billion
If Incomes Grow at 2% Annually		$18 billion
If Incomes Grow at 3% Annually		$26.8 billion
Statewide Income Tax Increase-Regional Share	0.5% Increase	
If Incomes Grow at 1% Annually		$11.4 billion
If Incomes Grow at 2% Annually		$16.8 billion
If Incomes Grow at 3% Annually		$25.3 billion
Regional Vehicle Miles Traveled Tax	1.5 Cents/Mile	$25.3 billion
	2 Cents/Mile	$33.7 billion
Parking Fees* (Annually for 20 Years in City of Atlanta)		
Transactional Tax	($1 x 200,000 spaces)	$75.9 million-$181.1 million
Ownership Tax	(10% for 50,000 spaces at $90/month)	$5.4 million-$13.4 million

Source: ARC