CMAP

GO TO 2040
UPDATE APPENDIX

Financial Plan for Transportation

DRAFT

October 2014

Table of Contents

Introduction **1**
Summary of the Financial Plan **3**
Trends Affecting Transportation Finance **5**
Core Revenues **7**
Reasonably Expected Revenues **8**
Expenditures **17**
Forecast Methodology **21**

Figures

Figure 1. GO TO 2040 update fiscal constraint, 2015-40 4
Figure 2. Annual vehicle miles traveled (AVMT) in Illinois, 1991-2012, in billions 5
Figure 3. Unlinked transit trips, 1997-2012, in millions 6
Figure 4. Illinois Tollway transactions, 2000-13, in millions 6
Figure 5. State motor fuel tax revenue compared to Consumer Price Index and national Construction Cost Index, 1991-2013 10
Figure 6. Estimated and projected average miles per gallon estimates for light duty vehicles statewide, 2004-40 11
Figure 7. State and county motor fuel tax revenue forecast, core, and reasonably expected revenues, 2015-40 12
Figure 8. GO TO 2040 update funding allocations 17

Tables

Table 1. Summary of financial plan revenue forecasts and expenditure allocations, 2015-40 3
Table 2. Core revenue forecasts, 2015-40 7
Table 3. Reasonably expected revenue forecasts, 2015-40 8
Table 4. Reasonably expected revenues action plan summary table 9
Table 5. Forecast of operating, administrative, and capital maintenance expenditures to a safe and adequate level, 2015-40 18

Introduction

The Chicago Metropolitan Agency for Planning (CMAP) initiated an update of GO TO 2040, the seven-county metropolitan Chicago region's official comprehensive plan, in accordance with federal law. As required by Moving Ahead for Progress in the 21st Century (MAP-21),[1] CMAP must prepare a financial plan, including expected revenue sources to carry out the operation, maintenance, and construction of the region's transportation system over the planning period. Specifically, federal regulations require that "for purposes of transportation system operations and maintenance, the financial plan shall contain system-level estimates of costs and revenue sources that are reasonably expected to be available to adequately operate and maintain Federal-aid highways . . . "[2]

MAP-21 requires that regional long-range transportation plans in areas noncompliant with air quality standards be updated every four years. The GO TO 2040 update financial plan compares estimated revenue from existing and proposed funding sources with the estimated costs of constructing, maintaining, administering, and operating the region's transportation system. CMAP expects that $371 billion will be available between 2015-40 to support the region's transportation network. Within the financial plan, expenditures are allocated to three major categories consistent with the original GO TO 2040 financial plan: (1) operations and maintenance to a safe and adequate level, (2) moving the system toward a state of good repair and systematic enhancements, and (3) major capital projects. Consistent with GO TO 2040, the update provides the fiscal constraint for transportation system investments. It does not provide an analysis of the costs associated with achieving the GO TO 2040 indicator targets.

Long-range financial forecasting requires determining a base set of assumptions regarding revenue and expenditure trends, understanding the future implications of current policies, and developing a robust, accurate, and straightforward methodology that is appropriate for a planning-level forecast. For the financial plan update, CMAP relied heavily on consultations with transportation implementers to prepare revenue and expenditure forecasts.

The process began in July 2013, when CMAP had its first of several meetings and follow-up communications with the Regional Transportation Authority (RTA) to discuss transit revenue and expenditure forecasting. In August 2013, a group of highway implementers representing the Illinois Department of Transportation (IDOT), the Illinois Tollway, and several county highway departments met to determine unit cost and lifecycle assumptions for highway capital maintenance expenditures. Staff from several municipalities also reviewed these assumptions. CMAP also consulted with staff from state and local highway departments regarding revenue and expenditure forecasting. Throughout the process, progress on the financial plan forecasts

[1] Moving Ahead for Progress in the 21st Century, 23 USC 134 (i)(2)(E)

[2] § 450.322 (f) (10).

were presented to the CMAP Transportation Committee.[3] In response to feedback received from the Transportation Committee, CMAP presented, in detail, the methodology used in the financial plan forecast to interested Transportation Committee members in February 2014.

[3] Interim staff memorandums can be found at http://www.cmap.illinois.gov/about/2040/update.

Summary of the Financial Plan

The fiscally-constrained financial plan for implementing the Regional Mobility chapter of the GO TO 2040 plan update is summarized in Table 1. Pursuant to federal regulations, revenue and cost estimates reflect "year of expenditure dollars," based on inflation rates developed cooperatively with transportation implementers using historical data. Details and definitions of each revenue and expenditure forecast can be found on page 21.

Table 1. Summary of financial plan revenue forecasts and expenditure allocations, 2015-40, in millions (year of expenditure dollars)

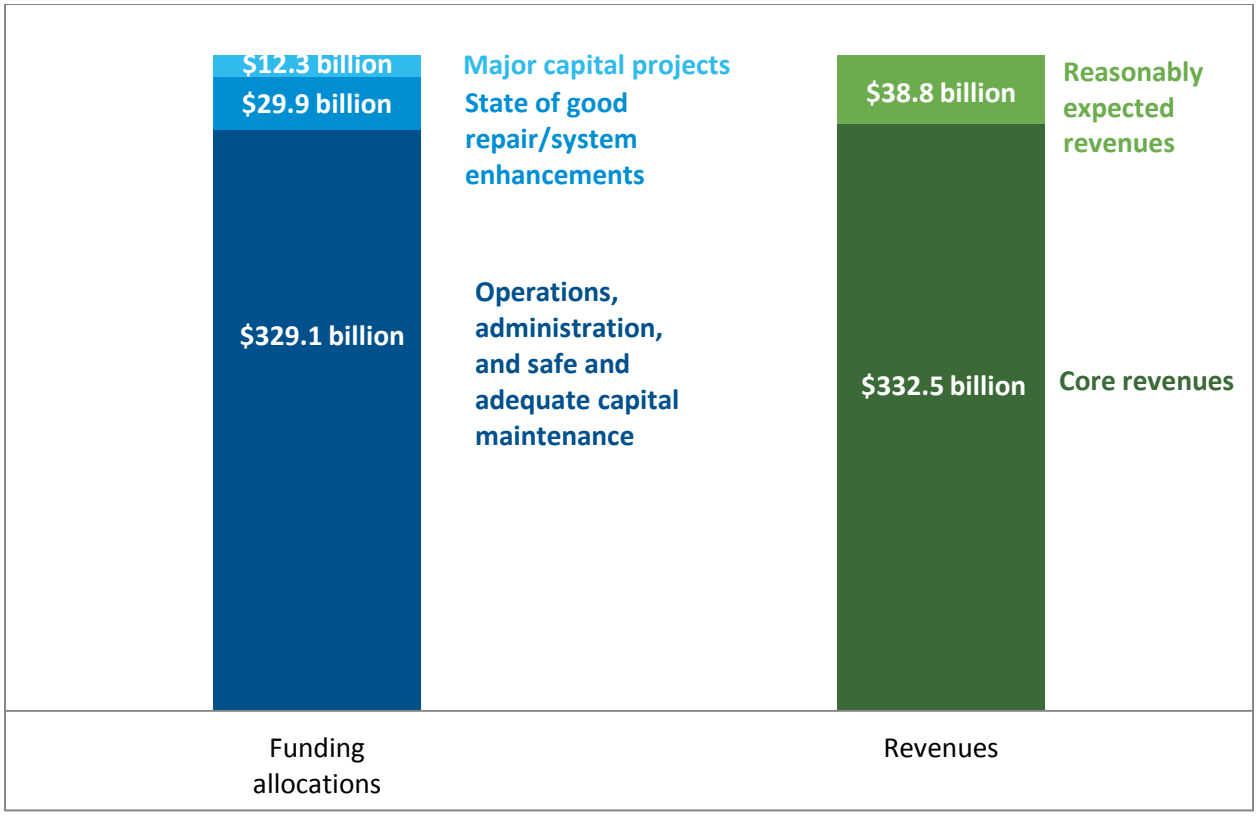
Federal revenues	$53,521
State revenues	$111,912
Local revenues	$167,107
Subtotal core revenues	**$332,540**
State motor fuel tax increase and long-term replacement	$17,300
Congestion pricing on the existing system	$11,700
Performance-based funding	$8,300
Variable parking pricing	$1,500
Subtotal reasonably expected revenues	**$38,800**
Total revenues	**$371,340**
Highway operating and administrative expenditures	$84,087
Transit operating and administrative expenditures	$113,266
Safe and adequate capital maintenance for highway	$100,759
Safe and adequate capital maintenance for transit	$31,006
Subtotal operating, administrative, and capital maintenance expenditures	**$329,118**
Subtotal moving the system toward a state of good repair/systematic enhancements	**$29,892**
Subtotal major capital projects	**$12,330**
Total expenditures	**$371,340**

Source: Chicago Metropolitan Agency for Planning analysis.

The financial plan forecasts indicate that the core revenues forecasted to be available over the planning horizon of 2015-40 will minimally exceed the $329.1 billion expenditures for operating, administering, and maintaining the transportation system by approximately $3.4 billion. This will only allow for modest investments to bring the system toward a state of good repair, as well as provide for additional enhancements and expansions to the system. GO TO 2040 prioritizes investments in maintaining the existing transportation system, as well as improvements and enhancements to achieve the goal of a modern, world-class transportation system. Pursuing major capital projects, while important, remains a lower priority than these other activities in the GO TO 2040 update. In order to fiscally constrain desired modernization and expansion activities within the long-range planning context, new sources of reasonably

expected revenues are included as major transportation policy priorities in the GO TO 2040 update.

Figure 1. GO TO 2040 update fiscal constraint, 2015-40



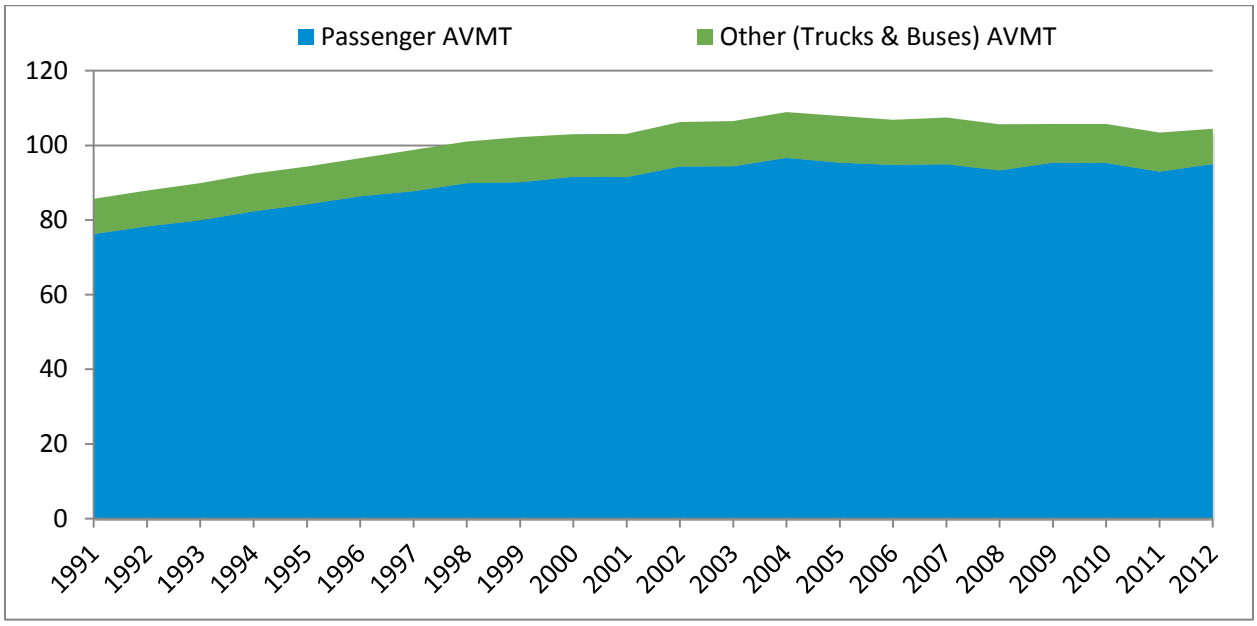
Source: Chicago Metropolitan Agency for Planning analysis.

Trends Affecting Transportation Finance

Future revenues and expenditures available for the transportation system will be affected by economic and demographic changes over the planning period. Accordingly, population forecasts generated for the GO TO 2040 update were used to produce the foundation of the financial plan forecast. Reviewing broader historical economic trends that have occurred in the region played a role in ensuring the accuracy of forecasting.

These economic and demographic trends can also drive changes in the utilization of the region's transportation system. For example, trends in roadway travel help guide motor fuel tax revenue forecasts. Figure 2 provides an overview of growth in vehicle miles traveled (VMT) in Illinois. While VMT grew steadily throughout the 1990s and early 2000s, it peaked in 2004 and has held fairly steady since then. Overall, the compound annual growth rate of VMT statewide was 0.9 percent between 1991 and 2012.

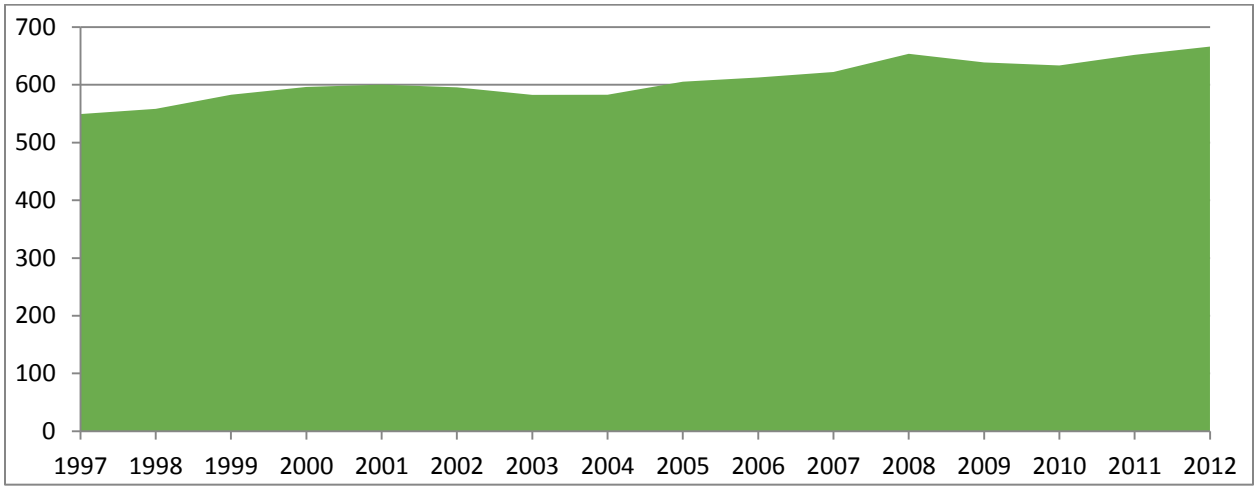
Figure 2. Annual vehicle miles traveled (AVMT) in Illinois, 1991-2012, in billions



Source: Illinois Department of Transportation, Illinois Travel Statistics.

The financial plan is also informed by trends in transit usage. CMAP analyzed data on unlinked transit trips and found that the compound annual growth rate was 1.3 percent between 1997 and 2012. Figure 3 provides an overview of growth in transit use in northeastern Illinois.

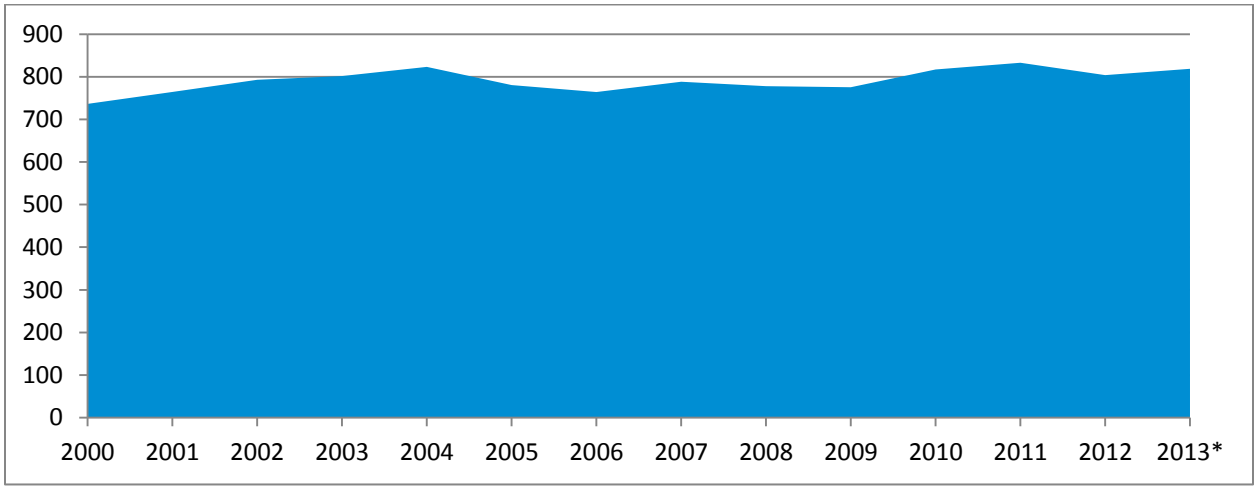
Figure 3. Unlinked transit trips, 1997-2012, in millions



Source: Regional Transportation Authority Mapping and Statistics (RTAMS).

Revenue generated on Illinois Tollway facilities are driven by toll transactions, as well as the toll rate. Figure 4 illustrates toll transactions, which have remained fairly stable since 2000.

Figure 4. Illinois Tollway transactions, 2000-13, in millions



**Projected.*
Source: Illinois Tollway.

Core Revenues

Forecasts of core revenues include funding sources the region currently receives for transportation purposes and do not include any new sources. The forecasts assume that northeastern Illinois will continue to receive revenues from federal, state, and local sources for building, operating, administering, and maintaining the current roadway and transit system. Table 2 summarizes the various sources of estimated revenues totaling $332.5 billion over the 26-year planning period.

Table 2. Core revenue forecasts, 2015-40, in millions (year of expenditure dollars)

Federal	Locally-programmed federal revenue	$11,011
	Federal transit revenue	$17,086
	State-programmed federal highway revenue	$25,424
State	Public Transportation Fund	$13,289
	State motor fuel tax (MFT)	$4,972
	Motor vehicle registration fees and other user fees	$26,737
	Tollway revenue	$51,255
	State bonding programs	$12,498
	Other state transit	$3,160
Local	RTA sales tax	$42,688
	Local allotment of state MFT	$7,298
	Collar County Transportation Empowerment Program	$5,267
	County option MFTs	$750
	Other local revenues	$61,183
	Real estate transfer tax (portion for CTA)	$1,609
	Transit passenger fares	$42,082
	Other transit operating revenue	$6,230
	Total core revenues	**$332,540**

Source: Chicago Metropolitan Agency for Planning analysis.

Reasonably Expected Revenues

Revenues from existing transportation funding resources are forecast to be sufficient to operate and maintain the roadway and transit system at a safe and adequate level in northeastern Illinois over the 2015-40 planning period. However, the expected funding will only allow for modest investments in performing maintenance at a level that brings the system toward a state of good repair and will not provide significant funding for additional enhancements or expansions to the system.

Fiscally constraining these activities within the long-range planning context will necessitate future policy changes to bring additional revenues to the region. Federal guidance permits the inclusion of these types of revenues, called "reasonably expected revenues," to be included in the financial plan: "All necessary financial resources from public and private sources that are reasonably expected to be made available to carry out the transportation plan shall be identified."[4] GO TO 2040 makes several policy recommendations regarding reasonably expected revenues, including increasing the state motor fuel tax by 8 cents and indexing the rate to an inflationary measure, implementing congestion pricing on a portion of the expressway system, and employing variable parking pricing.

GO TO 2040 also recommends the exploration of other innovative financing sources for implementing specific transportation projects. These strategies include value capture, congestion pricing on new expressway capacity, other user fees imposed by highway and transit implementers, and potential cost efficiencies resulting from public-private partnerships. As in the original plan, the GO TO 2040 update assumes these types of strategies may be instituted on a project-by-project basis to close a specific revenue gap or lower project costs. These funding sources serve to lower specific major capital project costs in the GO TO 2040 update. CMAP staff worked with regional transportation implementers to help incorporate these sources into major capital project costs.

Table 3 provides an overview of reasonably expected revenue forecasts included in the GO TO 2040 update. In addition to being incorporated into the financial plan, the options selected are major policy recommendations from the Regional Mobility chapter of the GO TO 2040 update.

Table 3. Reasonably expected revenue forecasts, 2015-40, in millions (year of expenditure dollars)

State motor fuel tax increase and long-term replacement	$17,300
Congestion pricing on the existing system	$11,700
Performance-based funding	$8,300
Variable parking pricing	$1,500
Total reasonably expected revenues	**$38,800**

Source: Chicago Metropolitan Agency for Planning analysis.

[4] § 450.322 (f) (10).

Federal guidelines allow financial plans to include revenues that are reasonably expected to be available during the planning period. Reasonably expected revenues will be necessary to make additional investments in the region's transportation system, but will only be realized through action by federal, state, regional, and local policymakers.

To move forward, the region must work collaboratively to protect its transportation assets. The region's financial challenges can become opportunities for bold, cooperative actions to enact policy changes. By acting in cooperation with one another, the region can ensure the long-term sustainability of the region's transportation system, which is a major contributor to the economy and the livability of northeastern Illinois. This section outlines policies that must be implemented to ensure the future viability of the region's transportation system. Table 4 identifies who would need to implement them, when they would be implemented, and what would be required legislatively.

Table 4. Reasonably expected revenues action plan summary table

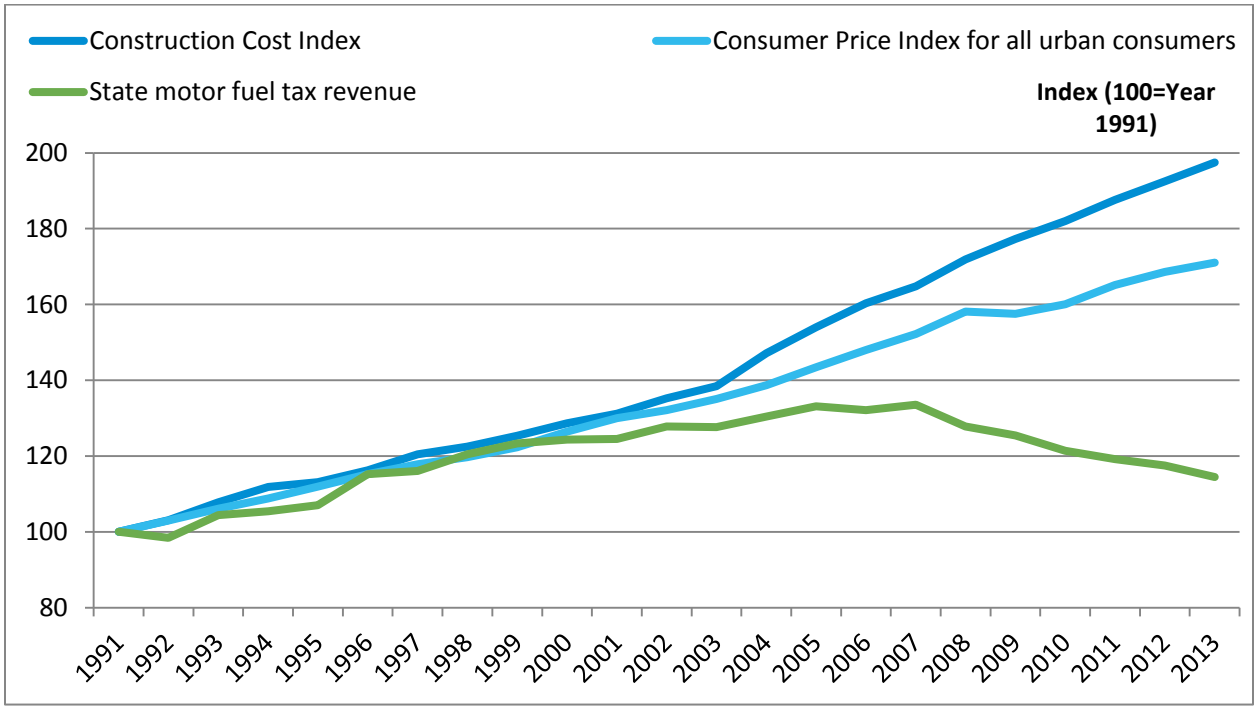
POLICY CHANGE	LEAD IMPLEMENTERS	TIMELINE FOR IMPLEMENTATION	LEGISLATIVE REQUIREMENTS
State motor fuel tax increase and replacement	MFT increase: Illinois General Assembly and Governor Long-term replacement: U.S. Congress and the President; Illinois General Assembly and Governor	MFT increase: Legislation in 2015, implementation in 2016, inflationary increases throughout planning period Long-term replacement: Research and advocacy through the 2020s, legislation and implementation by 2025	MFT increase: State legislation required Long-term replacement: State legislation required, federal legislation could play a supportive role
Congestion pricing on the existing system	U.S. Congress, President, IDOT, Illinois Tollway, potentially Illinois General Assembly and Governor	Research and advocacy over the next five years, legislation and implementation by 2020	Federal legislation required, state legislation could play a supportive role
Performance-based funding	IDOT	Research and analysis in 2014, implementation in 2015, continuation throughout planning period	None, policy could be implemented through administrative action
Variable parking pricing	Municipalities	Ordinances and implementation throughout planning period	None, policy could be implemented through local action

Source: Chicago Metropolitan Agency for Planning analysis.

State motor fuel tax increase and long-term replacement

The GO TO 2040 update continues the plan's recommendation that the state motor fuel tax (MFT) be increased by 8 cents and indexed to an inflationary measure. Although the rate has been increased nine times since its 1927 enactment, the state MFT has remained $0.19 per gallon since 1991. As a per-gallon tax, MFT revenues have failed to keep pace with inflation in construction costs over time. Figure 5 compares the growth in state motor fuel tax revenue to growth in inflation and construction costs. For this analysis, the consumer price index for all urban consumers is used for inflation, while the Engineering News Records' national construction cost index is used to measure construction costs.

Figure 5. State motor fuel tax revenue compared to Consumer Price Index and national Construction Cost Index, 1991-2013



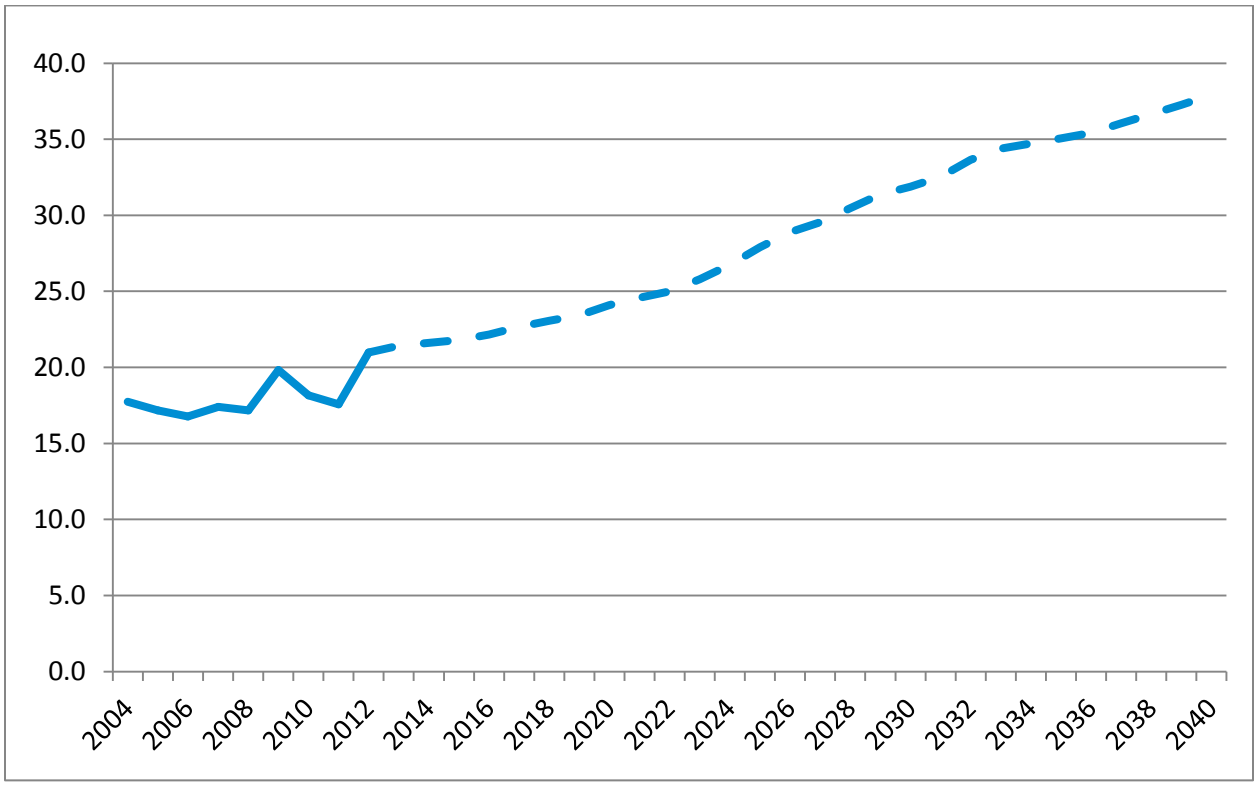
Source: Chicago Metropolitan Agency for Planning analysis of data from Illinois Department of Transportation, U.S. Bureau of Labor Statistics, and Engineering News Record.

GO TO 2040 originally forecast that this enhancement would generate an additional $19.4 billion if it were implemented in 2012. However, no increase has been enacted since the plan's adoption in 2010. In addition, state MFT revenues have been declining annually since 2007, when revenues reached a high of $1.4 billion statewide. While this decline is partially a result of a reduction in vehicle miles traveled, the consumption of motor fuel has declined even faster, primarily as a result of rising vehicle fuel economy.

As motor fuel consumption continues to slow and vehicle fuel economy rises, GO TO 2040's original assumption of a rate increase and inflationary index will be insufficient to keep

revenues growing with the cost of construction. Figure 6 charts the estimated average statewide vehicle fuel economy since 2004, as well as the projected growth in average fuel economy through 2040. The compound annual growth rate of MFT revenues under GO TO 2040's rate increase and inflationary index would be just 1.7 percent over the 2015-40 planning period due to changes in vehicle fuel economy.

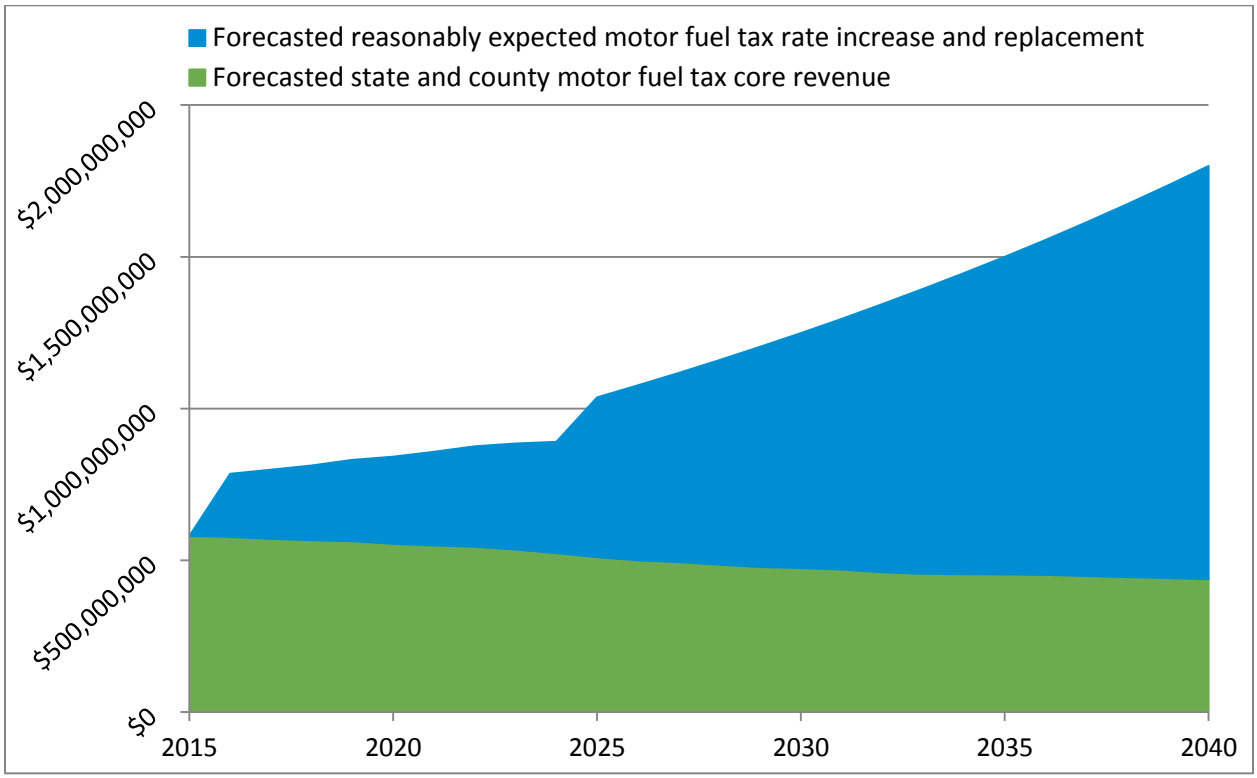
Figure 6. Estimated and projected average miles per gallon estimates for light duty vehicles statewide, 2004-40



Source: Chicago Metropolitan Agency for Planning analysis of National Highway Traffic Safety Administration (NHTSA) Corporate Average Fuel Economy (CAFE) Fuel Economy Fact Sheets; IDOT data; 2009 National Household Travel Survey data.

A replacement for the MFT, assumed to begin in 2025, would provide an annual revenue growth of roughly 3.7 percent for the remainder of the planning period. Revenues growing at this rate will account for both increases in construction costs as well as growth in the overall transportation system. The GO TO 2040 update does not specify what this replacement would be, only that it is necessary to provide adequate revenue to maintain and operate the transportation system. Figure 7 provides an illustration of the state and county motor fuel tax revenue forecast during the planning period.

Figure 7. State and county motor fuel tax revenue forecast, core, and reasonably expected revenues, 2015-40



Source: Chicago Metropolitan Agency for Planning analysis.

If the state MFT rate increase and indexing were implemented in 2016, followed by the enactment of a replacement for both state and county MFT revenues in 2025 that includes revenues from the reasonably expected state MFT rate increase, an additional **$17.3 billion** would be generated.

Action plan

The region will need to build a coalition that includes transportation implementers, as well as other stakeholders such as business and community groups, to lead an effort to promote a motor fuel tax rate increase to the Illinois General Assembly and the Governor. Increasing transportation revenues through the state motor fuel tax has found support in other states across the country. For example, in 2013, both Massachusetts[5] and Maryland[6] indexed their motor fuel tax rates to inflation, with Maryland also indexing transit fares to inflation. Legislation filed in the Illinois General Assembly in May 2013 signals recent legislative interest in reforming the state's transportation funding system. Reforms proposed in House Bill 3637 include eliminating the state MFT and replacing with a motor fuel sales tax and raising numerous vehicle registration fees.

[5] Transportation for America, Tracking State Transportation Funding Plans, http://t4america.org/maps-tools/state-plans-tracker.

[6] General Assembly of Maryland, Synopsis of House Bill 1515 of 2013, http://mgaleg.maryland.gov/webmga/frmMain.aspx?pid=billpage&stab=01&id=hb1515&tab=subject3&ys=2013RS.

With regard to a long-term replacement for the MFT, to the extent that transportation funding will continue to be user-fee based, a policy change is foreseeable in the next decade. Implementation by 2025 will likely occur in tandem with similar policy changes in other states and at the federal level. Other state governments and metropolitan planning organizations across the country are considering replacements for the MFT. Replacements currently being considered in Illinois and elsewhere across the U.S. include a fee on vehicle miles traveled or road usage and a sales tax on wholesale motor fuel. Both Pennsylvania[7] and Virginia[8] enacted legislation in 2013 that would increase transportation revenues and replace their flat per gallon motor fuel tax with a sales tax on the wholesale price of motor fuel.

With regard to vehicle miles traveled fees, in July 2013, the Oregon legislature voted to establish a road usage fee program.[9] In addition, a bill was introduced in the U.S. House of Representatives in December 2013 to establish a program that would distribute $30 million in competitive grants for road usage pilot programs that collect and report miles driven, determine payment, provide enforcement, and ensure privacy.[10]

Congestion pricing on the existing system

The implementation of congestion pricing, or "express toll lanes," will help manage traffic and give drivers the option to avoid congestion. Congestion pricing has existed in the U.S. since 1995, when the SR 91 Express Lanes opened in Orange County, California. Since then, express toll lanes have opened in regions across the country, including I-394 and I-35W in Minneapolis, I-95 in Miami, and I-25 in Denver. There are currently more than 25 express toll lanes or high occupancy toll facilities operating or under construction in the United States.[11]

GO TO 2040 originally assumed revenues from congestion pricing on a portion of existing expressways would begin to flow to the region in 2020. These revenues are separate from congestion pricing on the new capacity provided via major capital projects, which will be incorporated in the public costs of those projects. If congestion pricing on a selection of expressways equivalent to 25 percent of the region's existing expressway network occurred beginning in 2020 and revenue grew at a rate of 3 percent annually, CMAP forecasts that **$11.7 billion** would be generated.

---

[7] Transportation for America, Tracking State Transportation Funding Plans, http://t4america.org/maps-tools/state-plans-tracker.

[8] Virginia House Bill 2313, Summary as enacted with Governor's Recommendation, http://leg1.state.va.us/cgi-bin/legp504.exe?131+sum+HB2313.

[9] CMAP, Road Usage Fee Moves Forward in Oregon, July 17, 2013, http://www.cmap.illinois.gov/about/updates/-/asset_publisher/UIMfSLnFfMB6/content/road-usage-fee-moves-forward-in-oregon.

[10] CMAP, Legislation Would Establish VMT Fee Pilot Program, December 6, 2013, http://www.cmap.illinois.gov/about/updates/policy/-/asset_publisher/U9jFxa68cnNA/content/id/135558.

[11] See a map at http://www.cmap.illinois.gov/mobility/roads/congestion-pricing/instances.

Action plan

Since GO TO 2040 was adopted in 2010, CMAP has explored the benefits of implementing congestion pricing on five of the highway major capital projects recommended in the plan,[12] as well as the existing expressway network. As part of its campaign to implement congestion pricing, CMAP has met with business, civic, government, and philanthropic organizations to discuss the policy's many benefits. CMAP's campaign has also received significant media attention, including both news and editorial coverage.[13] To date, six suburban councils of governments have passed resolutions in support of congestion pricing in the region, and business owners have also written public letters of support.

Previous surveys in the Chicago region suggest that the public would accept congestion pricing. In a 2008 Illinois Tollway survey of its existing users, 54 percent said they would pay an extra toll if it would ensure congestion-free travel.[14] In that same survey, 58 percent of individuals given information about express lanes were in favor of the Tollway building them. A more recent survey from 2012 for the northwest corridor indicated that 78 percent of individuals would pay a higher toll if it meant they would not experience congestion. In the same survey, 68 percent said they would pay a toll that guarantees a reliable travel time.

Recent CMAP research has examined the revenue potential of congestion pricing the existing expressway network. Implementing congestion pricing on the existing expressway network requires legislative action at both the federal and state levels. While federal law allows the tolling of new Interstate facilities or reconstructed bridges and tunnels, it does not generally permit the tolling of facilities that are currently unpriced. However, higher levels of revenues can be generated from pricing non-tolled facilities than facilities that are already tolled. Therefore, amending federal law is a key part of the implementation process. In addition, implementers such as IDOT and the Illinois Tollway may benefit from the enactment of state legislation that authorizes or encourages congestion pricing prior to implementation.

Implementation of congestion pricing on the existing expressway network will likely be phased in over a period of years. The first step of the process would not likely impact the existing system, but instead focus on a project that expands the system such as a new managed lane or new expressway facility. Policymakers at the state and federal levels may respond to a groundswell of support that is organized from the many stakeholders, policymakers, businesses, and residents that support the implementation of congestion pricing. Because of its past research and outreach, CMAP is well-positioned to advocate for congestion pricing. CMAP will continue to organize support for congestion pricing and advocate for legislative changes at the state and federal level.

---

[12] CMAP, Congestion Pricing: An Analysis of the GO TO 2040 Major Capital Projects, October 2012, http://www.cmap.illinois.gov/documents/10180/24896/FY13-0028+CONGESTION+PRICING+STUDY.pdf.

[13] See http://www.cmap.illinois.gov/mobility/roads/congestion-pricing/resources for links to media coverage.

[14] Illinois Tollway, Chicago Regional Congestion Pricing Study, 2010, http://www.illinoistollway.com/construction-and-planning/community-outreach/chicago-regional-congestion-pricing-study.

Performance-based funding

The State of Illinois highway program is subject to a long-standing informal policy that directs 45 percent of transportation funds to northeastern Illinois and the remaining 55 percent downstate. This 55/45 Split is not a law -- it is an agreement established decades ago within the General Assembly and followed by IDOT.

In contrast to this approach, CMAP recommends that Illinois implement performance-based funding of highway and bridge projects in order to set transparent priorities for investments in maintaining, modernizing, and expanding our transportation system. While CMAP does not advocate for the implementation of a different arbitrary formula, it is reasonable to assume that the implementation of performance-based funding would result in increased funding for the region, which has the vast majority of the state's population and economic activity. A 5-percentage point increase in federal and state highway revenues toward northeastern Illinois would result in a net increase of **$8.3 billion** over the 2015-40 planning period, including both core and reasonably expected highway revenues.

Action plan

Performance-based funding is a top policy priority for CMAP. Over the past several years, staff has researched capital programming practices within the state and region, as well as best practices nationwide. This research has been compiled into a single compendium[15] and is also published on-line as an interactive "microsite."[16] Following the direction of the CMAP Board and MPO Policy Committee, staff is currently working to develop performance measures and collect data for application to CMAP's programming and planning activities, particularly the Congestion Mitigation and Air Quality Improvement (CMAQ) program. In a memorandum approved in October 2012, the CMAP Board and MPO Policy Committee also called on the state to establish a technical advisory group to implement performance-based funding on the state level.[17]

It is important to note that some of the research and analysis required to fully implement performance-based funding is underway as a result of federal requirements. IDOT's Technical Advisory Group, convened to help address the performance management requirements in MAP-21, has been meeting periodically since May 2012. While that effort is not designed to

---

[15] CMAP, Performance-Based funding for Transportation: A Compendium, April 2013, http://www.cmap.illinois.gov/documents/10180/17400/FY13-0093+Performance+Based+Funding+Compendium_FINAL.pdf/f5f03f5a-3fd4-4502-9ea8-97be10cf7342.

[16] See http://www.cmap.illinois.gov/mobility/strategic-investment/performance-based-funding.

[17] CMAP staff to CMAP Board and MPO Policy Committee, memorandum, Performance-Based Evaluation Criteria for Transportation Funding, October 3, 2012, http://www.cmap.illinois.gov/documents/10180/144110/BoardMemo--PerfBasedEvalCriteria10-03-2012.pdf.

address the specifics of implementing performance-based funding, it will help to catalog and assess available performance data.

The financial plan assumes that performance-based funding will be implemented in 2015. While there is a need for additional data collection and research, performance-based funding could be implemented in the near term. Doing so would not require a statutory change, although a robust performance-based funding process could benefit from a formal codification in law. Rather, IDOT could implement performance-based funding directly through its own administrative action. In fact, IDOT largely takes this approach today in selecting projects across its eight downstate districts; the arbitrary "55/45 split" applies to District 1 only.

Variable parking pricing

Local governments with commercial areas experiencing high demand for parking could implement variable parking pricing. This strategy is used to balance parking supply and demand by raising prices for parking during peak periods, helping improve traffic flow and increase the availability of parking. GO TO 2040 originally assumed that additional local funds would be generated for transportation purposes through pricing an additional 1.7 percent of off-street parking spaces annually during the planning period. An average rate of $1 per day was used and the forecast assumed that half of the revenues generated would be used for transportation. Assuming that an additional 1 percent of off-street parking spaces were priced annually during the planning period and that the $1 average rate is indexed to inflation**, $1.5 billion** would be generated between 2015-40.

Action plan

This could be implemented at any time through the passage of ordinances, as local governments have broad powers to regulate parking. While some municipalities have priced parking, no additional priced spaces have been added, to CMAP's knowledge, since the adoption of GO TO 2040. CMAP has continued to dedicate resources to implementing variable parking pricing. In April 2012, CMAP released a toolkit, "Parking Strategies to Support Livable Communities."[18] In addition, CMAP has been working with local governments to implement parking strategies, which may include pricing, through its Local Technical Assistance program, including projects in the Village of Hinsdale[19] and in Chicago's Wicker Park-Bucktown[20] neighborhood. Beginning in 2014, other projects will include parking strategies for Chicago's Loop, as well as for the City of Berwyn.[21]

---

[18] CMAP, Parking Strategies to Support Livable Communities, April 2012, http://www.cmap.illinois.gov/programs-and-resources/local-ordinances-toolkits/parking.

[19] See Innovative Parking Strategies for Hinsdale: http://www.cmap.illinois.gov/programs-and-resources/lta/hinsdale.

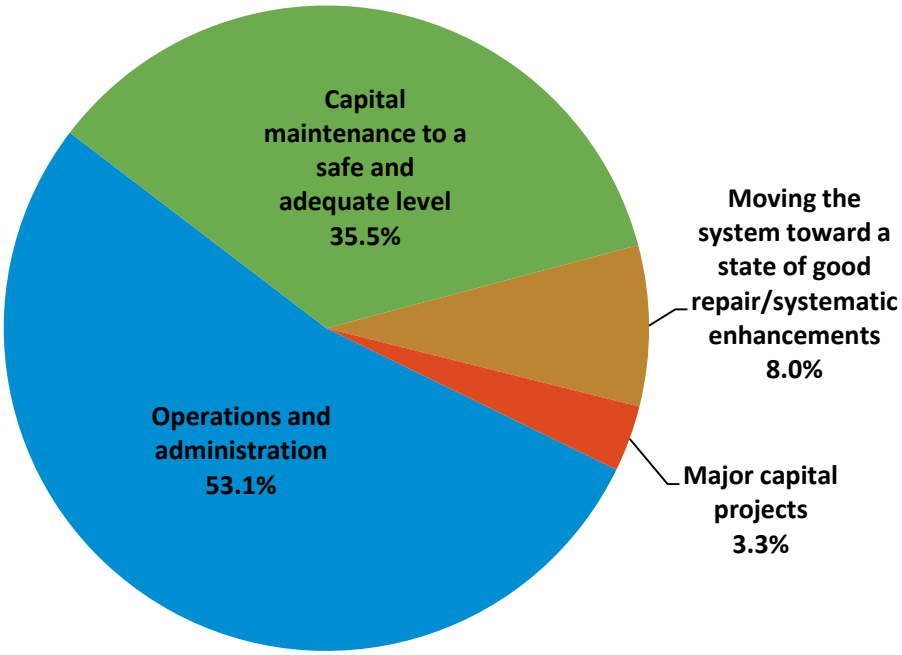
[20] See Innovation in Parking Management in Wicker Park-Bucktown: http://www.cmap.illinois.gov/programs-and-resources/lta/wpb.

[21] See Parking Strategies for Berwyn: http://www.cmap.illinois.gov/programs-and-resources/lta/berwyn-parking.

Expenditures

The financial plan update includes a plan for funding the operations, administration, maintenance, enhancement, and expansion of northeastern Illinois' transportation system. The total transportation expenditures must be constrained by the forecasted amount of future revenue, including core and reasonably expected revenues. As illustrated in Figure 8, the costs are allocated based on four categories.

Figure 8. GO TO 2040 update funding allocations



Source: Chicago Metropolitan Agency for Planning analysis.

Operating, administrative, and capital maintenance expenditures

Operating and administrative expenditures include the cost of administering, operating, and servicing debt for the region's roadway and transit system by state, county, township, municipal, and transit agencies. Forecasts for IDOT District 1, the Illinois Tollway, the RTA, and transit service boards were estimated from historical expenditures or were directly provided to CMAP by the implementing agencies. Local government operating forecasts were derived from U.S. Census of Governments data on highway operating expenses from 2007, the most recent year available.

Capital maintenance expenditures were estimated in consultation with highway and transit implementers. Because maintenance can be performed on a more aggressive or less aggressive basis, CMAP makes a distinction between expenditures for maintaining the transportation

system at a safe and adequate level and expenditures that go beyond this level, including state of good repair projects.

Similar to the original GO TO 2040 financial plan, expenditures were forecast assuming a safe and adequate level, which means performing sufficient maintenance to assure the safety of the system's users and the general public. Calculations of future maintenance costs at the safe and adequate level were based on actual current practice, meaning the typical cycles with which maintenance projects are performed today. While this results in a significant backlog of facilities that are in fair or poor condition at any given time, the resulting system condition remains safe and adequate. This category does not include funding to move the entire system to a state of good repair, but instead to attain a safe and adequate level of service.

This forecast is inclusive of expenditures for maintaining the existing system to a safe and adequate level that are completed in tandem with system expansions, namely the $8.5 billion in reconstruction activities associated with the constrained major capital projects. For example, if an existing roadway is rebuilt and has new lanes added, the capital maintenance allocation would include the reconstruction portion of those costs.

Investments that ensure that the existing transportation system is safe and adequate are a regional priority. These activities constitute the largest portion of the financial plan, totaling $329.1 billion between 2015-40, or 88.6 percent. Table 5 provides an overview of operating, administrative, and capital maintenance expenditure forecasts for the GO TO 2040 update.

Table 5. Forecast of operating, administrative, and capital maintenance expenditures to a safe and adequate level, 2015-40, in millions (year of expenditure dollars)

Highway operations and administration	$84,087
Transit operations and administration	$113,266
Highway capital maintenance	$100,759
Transit capital maintenance	$31,006
Total expenditures	**$329,118**

Source: Chicago Metropolitan Agency for Planning analysis.

Moving the system toward a state of good repair and systematic enhancements

Investing in moving the existing transportation system toward a **state of good repair** is a regional priority in GO TO 2040 and remains a regional priority in the GO TO 2040 update. Performing maintenance at levels necessary to assure a state of good repair means that facilities not in good or better condition would be brought up to that level and that maintenance would be scheduled such that no significant backlog would arise.

The capital maintenance estimates also do not provide for **systematic enhancements**, which include projects that improve system performance or expand its capacity but are not considered major capital projects. Examples of projects in this area may include:

- Arterial add-lanes projects
- Transit operational improvements
- Transit signal priority projects
- New or enhanced bus services
- Expansion of paratransit service
- Pedestrian or bicycle improvements
- Congestion pricing projects on existing facilities
- Interchange reconstructions that include operational improvements
- Signal interconnects
- Intelligent transportation systems
- Transportation demand management

Federal guidance indicates that Bus Rapid Transit (BRT) projects must be specified in the fiscal constraint in order to enable their eligibility for certain federal funding sources. Since most BRT projects under consideration in the region do not include expanding existing right of way or adding new lanes to existing expressway facilities, they are allocated under systematic enhancements rather than being assessed as major capital projects.

BRT is an evolving transportation mode. Given this changing framework, definitions and costs for BRT systems are not yet fully outlined. However, transit agencies in the region are currently evaluating BRT and enhanced bus services. Through their own planning and evaluation activities, the Chicago Transit Authority (CTA) and PACE have identified several projects for further planning and implementation in the near term. CTA and the Chicago Department of Transportation are currently evaluating arterial corridors for BRT potential and have already begun analysis of two projects. PACE is exploring projects with BRT components through its Arterial Rapid Transit (ART) program. BRT projects, such as those identified below, are considered fiscally constrained as systematic enhancements and can continue in all aspects of planning and implementation.

- Ashland Avenue BRT
- Central Loop BRT
- Milwaukee Avenue ART (Jefferson Park CTA Station to Golf Mill Mall)
- Dempster Street ART (Davis Street Station to the O'Hare Kiss-n-Fly)
- Cermak Street ART (Forest Park CTA Station to Yorktown)
- Harlem Avenue ART (Milwaukee Ave to 95th Street)
- Halsted Street ART (CTA 95th Street Station to 159th Street)
- 95th Street ART (95th Street CTA Station to Harlem Ave)
- J-route ART (From Oak Brook to O'Hare and Schaumburg)

As with safe and adequate costs, the costs of state of good repair or systematic enhancement projects completed in tandem with a major capital project are included under this category. Given available revenues, the GO TO 2040 update is unable to constrain the full cost of bringing the region's transportation system to a state of good repair and making all desired systematic enhancements. However, these activities are a regional priority, and the GO TO 2040 update allocates $29.9 billion for these types of activities.

Major capital projects

Capital maintenance, operations, administration, and systematic enhancements do not include expenditures on **major capital projects**, which are defined as large projects with a significant effect on the capacity of the region's transportation system, including extensions or additional lanes on the interstate system, new expressways, major new expressway-to-expressway interchanges, or similar changes to the public transit system. Arterial expansions and intersection improvements are not defined as major capital projects; neither are bus facilities, unless they involve adding a dedicated lane on an expressway.

Expenditures allocated to major capital projects only include the costs associated with expanding capacity, and also include future costs associated with operating or maintaining the additional capacity. To lower the public costs of major capital projects, implementers can include other project-specific financing sources. Examples include value capture, congestion pricing on new expressway capacity, other transportation user fees, or potential cost efficiencies resulting from public-private partnerships. For projects in which implementers have provided estimates from these innovative sources, total public costs of projects have been reduced.

Pursuing major capital projects, while important, remains a lower priority than investing the maintenance and modernization of the existing system, and so only $12.3 billion is allocated toward these activities.

Forecast Methodology

This section discusses the specific methodologies used for projecting revenues, operating and administrative expenditures, and capital maintenance expenditures to a safe and adequate level for the GO TO 2040 update over the 2015-40 planning period.

Core revenues

Locally-programmed federal revenue

Forecast: $11.0 billion	**Forecast assumptions for GO TO 2040 update**
Portion of annual federal apportionment that is sub-allocated to the Chicago region for programming. This includes the federal fund sources of CMAQ, Transportation Alternatives Program - Local, Surface Transportation Program - Local, Surface Transportation Program-Counties, and discretionary programs.	Revenues for 2015 were assumed to be 0.1percent greater than 2014 apportionments. This short-term growth rate was based on the difference between 2014 and 2013 apportionments (excluding discretionary). After 2015, a growth rate of 3.6 percent was assumed. This growth rate was based on the compound annual growth rate of locally-programmed federal apportionments combined with state-programmed federal highway apportionments between 2000-14.

Other federal transit revenue

Forecast: $17.1 billion	**Forecast assumptions for GO TO 2040 update**
Projection includes New Starts, bus and bus facilities, State of Good Repair, and Urban Formula programs.	Forecast was provided by the RTA. Revenues for 2015-18 are based on preliminary capital funding marks for 2014-2018 period. After 2018, revenues are forecast to grow at a rate of 2.4 percent.

State-programmed federal highway revenue

Forecast: $25.4 billion	**Forecast assumptions for GO TO 2040 update**
Portion of annual federal apportionment that is allocated to the State of Illinois for programming. This includes the federal fund sources of National Highway Performance Program, Surface Transportation Program-Urban, Highway Safety Improvement Program, Transportation Alternatives Program, Recreational Trails, and discretionary programs.	Forty-five percent of the statewide total annual apportionment was assumed to go to northeastern Illinois. Revenues for 2015 were assumed to be 0.1 percent greater than 2014 apportionments. This short-term growth rate was based on the difference between 2014 and 2013 apportionments (excluding discretionary). After 2015, a growth rate of 3.6 percent was assumed. This growth rate was based on the compound annual growth rate of locally-programmed federal apportionments combined with state-programmed federal highway funds between 2000-14.

State Public Transportation Fund

Forecast: $13.3 billion	Forecast assumptions for GO TO 2040 update
State funds equal to 30 percent of RTA sales tax and real estate transfer tax revenues.	Revenues from this matching fund equals 30 percent of forecasted RTA sales tax and real estate transfer tax estimates.

State motor fuel tax

Forecast: $5.0 billion	Forecast assumptions for GO TO 2040 update
Portion of state MFT retained by IDOT for the Road Fund and State Construction Account. The current rate is 19 cents per gallon (21.5 cents per gallon of diesel).	Using a methodology to account for increasing vehicle fuel economy, revenues decreased annually, with an average annual decrease of 1.4 percent. CMAP forecasted annual vehicle miles traveled (AVMT) and average miles per gallon (MPG) to estimate revenue. To forecast AVMT, CMAP used actual statewide AVMT data for passenger vehicles and for all other vehicles for 1991-2012 to calculate linear trendlines for AVMT. Average annual percent change in AVMT 2012-40 was 0.9 percent for passenger vehicles and 1.2 percent for other vehicles. For MPG for non-passenger vehicles, the average of AVMT divided by gallons of diesel sold was used as a base, and an annual 1.0 percent improvement was assumed. For MPG estimates for passenger vehicles over the planning horizon, CMAP created estimates based on National Highway Traffic Safety Administration rules for Corporate Average Fuel Economy (CAFE) standards, estimated standards for 1978 through 2025 model years for cars and light trucks, and information about vehicle fleet from the Federal Highway Administration's (FHWA) 2009 National Household Travel Survey. After accounting for various statutory deductions, the region is assumed to receive 45 percent of these revenues for the purposes of funding highway construction and maintenance projects.

State motor vehicle registration fees and other user fees

Forecast: $26.7 billion	Forecast assumptions for GO TO 2040 update
Annual vehicle registration fees, certificate of title fees, and operator's license fees collected by the State, excluding those used to fund the state capital program. Most of this revenue is deposited into the Road Fund and State Construction Account.	Fee revenues to the Road Fund and State Construction Account were assumed to grow at 3.0%, which was the compound annual growth rate between 2000-13.

Tollway revenue

Forecast: $51.3 billion	Forecast assumptions for GO TO 2040 update
Toll revenues forecasted to be collected on the 286 mile system. The current toll rate structure went into effect in 2012, and includes commercial vehicle toll increases between 2015-17. Following 2017, the commercial rate will be adjusted annually for inflation.	Toll revenue projections were derived from estimates prepared for the Illinois Tollway by CDM Smith in April 2013. The projection assumed that the annual adjustment in commercial vehicle toll rates beginning in 2017 would be 2 percent annually. CMAP also included an assumption of a passenger vehicle toll rate adjustment in 2030. Other operational revenues, such as concessions and miscellaneous income, were forecast by CMAP to grow at a rate of 0.5 percent annually.

State bonding programs

Forecast: $12.5 billion	Forecast assumptions for GO TO 2040 update
State bonding programs are typically funded with a variety of revenue increases, including fee increases on sources like vehicle registration and certificate of title.	Assumes that the region will receive $540 million as part of the current state capital program in 2015. For future programs, it is assumed that two more will be awarded during the planning period, with the first being 16 percent more than Illinois Jobs Now!, and the second being 16 percent greater than the first plan.

Other state transit

Forecast: $3.2 billion	Forecast assumptions for GO TO 2040 update
The State has provided the RTA with debt service assistance for SCIP I and SCIP II bonds since 1992 with General Revenue Funds. The State has provided $8.5 million annually to support Pace ADA since 2010. The State also provides reduced fare reimbursements to the service boards.	Revenues for debt service assistance are assumed to be flat through 2019, followed by annual reductions in funding until the bonds are fully repaid in 2035. Reduced fare reimbursements from the State are forecast to grow at a rate of 1.5 percent annually. ADA support is forecast to remain flat for the duration of the planning period.

RTA sales tax

Forecast: $42.7 billion	Forecast assumptions for GO TO 2040 update
The RTA sales tax is equivalent to 1.25 percent of sales in Cook County and 0.75 percent of sales in DuPage, Kane, Lake, McHenry, and Will Counties. The RTA receives two-thirds of the collar county revenues. The collar county 0.25 percent portion is listed under Collar County Transportation Empowerment Program.	Forecast was provided by the RTA. RTA sales tax revenues are assumed to grow 3 percent annually throughout the planning period.

Collar County Transportation Empowerment Program

Forecast: $5.3 billion	Forecast assumptions for GO TO 2040 update
One-third of collar county revenues generated from the RTA sales tax are returned to DuPage, Kane, Lake, McHenry, and Will Counties to be used for roads, transit, and public safety.	The revenues are assumed to be available for transportation purposes. Growth in revenues generated for the collar counties are based on projected population growth combined with inflationary assumptions. During the planning period, annual growth averages 3.4 percent.

Local allotment of state motor fuel tax

Forecast: $7.3 billion	Forecast assumptions for GO TO 2040 update
Counties, townships, and municipalities receive a disbursement of state MFT revenue. County share is based on motor vehicle registration fees received, township share is based on share of mileage of township roads, and municipal share is based on population.	State MFT revenue was forecasted using the methods explained above. County vehicle registrations and township road miles relative to the rest of the State are assumed to remain constant. Municipal population in the region relative to the rest of the State is forecast to increase according to historical trends at about 0.1 percentage points annually.

County option motor fuel taxes (those used for transportation)

Forecast: $0.75 billion	Forecast assumptions for GO TO 2040 update
DuPage, Kane, and McHenry counties impose a 4 cent per gallon MFT. County departments of transportation use these revenues for maintaining county roads. Any other local government imposing an MFT for transportation purposes is included in other local revenues.	The methodology for forecasting revenue for each county was similar to the forecast for the state MFT. For MPG, estimated 2012 MPGs for each county were used as the base (17.5, 15.9, 22.0 respectively), rather than the statewide base of 21.0. Growth in AVMT was calculated using growth rates in AVMT for each county for each air quality conformity analysis year.

Other local revenues

Forecast: $61.2 billion	Forecast assumptions for GO TO 2040 update
These are local revenues, such as property tax revenue, sales tax revenue, and impact fees used for transportation, excluding county MFTs, the RTA sales tax, state funds, and federal funds. Local governments with jurisdiction over transportation include counties, townships, and municipalities.	Revenues were calculated for municipalities and townships using 2007 U.S. Census of Governments data, which includes all local governments in the region. County revenues were obtained from recent county budget documents. Revenues were adjusted to the current year using the change in the FHWA National Highway Construction Cost Index and the U.S. Census of Governments Illinois Local Government Payroll data for highway. To forecast to 2040, growth rates for CMAP population forecasts for each locality were added to an annual 2.5 percent inflationary adjustment. Average annual growth regionwide was 3.6 percent.

Chicago Real Estate Transfer Tax (RETT)

Forecast: $1.6 billion	Forecast assumptions for GO TO 2040 update
The $1.50 per $500 of value of the City of Chicago's RETT is transferred to the CTA.	Revenues were forecast to grow at a rate of 3.5 percent annually.

Transit passenger fares

Forecast: $42.1 billion	Forecast assumptions for GO TO 2040 update
This includes passenger fares for the CTA, Metra, Pace, and Pace ADA.	Forecast was provided by the RTA. Revenues were forecast to grow at a rate of 3.2 percent annually.

Other transit operating revenue

Forecast: $6.2 billion	Forecast assumptions for GO TO 2040 update
This included other revenues for the RTA, CTA, Metra, Pace, and Pace ADA such as advertising revenue, investment income, and Medicaid reimbursements.	These revenues are assumed grow at a rate of 2.7 percent annually, which was derived from growth rates forecast by each service board.

Expenditures for operating and capital maintenance

Highway operations and administrative expenditures

Forecast: $84.1 billion	Forecast assumptions for GO TO 2040 update
Includes highway operations and administrative costs for IDOT District 1, Illinois Tollway, counties, townships, and municipalities. Also includes Tollway debt service and state debt service for Series A bonds.	IDOT District 1 expenditures were estimated using a linear trendline based on 2000-13 data. During the planning period, annual growth averaged 2.2 percent for IDOT District 1. Series A bond payments were forecast to grow 2.5 percent annually during the planning period, and it was assumed that 45 percent of these costs were attributable to the region. Illinois Tollway provided forecasts of operations expenditures, which include both operations on the existing system and operations for the Elgin O'Hare Western Access project. During the planning period, annual growth averaged 3.8 percent. Debt service payments include principle and interest on current debt and assume no future bond issuances. Local government highway operations expenditures were estimated from the local highway operations expenditures reported to the 2007 Census of Governments. Local expenditures were adjusted to the current year using the rate of change in the U.S. Census of Governments Illinois Local Government Payroll data for highway. CMAP used a 2 percent annual inflation factor to forecast local operating expenditures to 2040.

Transit operations and administrative expenditures

Forecast: $113.3 billion	Forecast assumptions for GO TO 2040 update
Includes operating and administrative costs for the RTA, CTA, Metra, Pace, and Pace ADA. As a counterpart to state revenues provided for this purpose, includes principal and interest payments on SCIP bonds. Also includes the portion attributable to interest payments for other RTA debt service obligations.	Operating expenditures were estimated using linear trendlines of 2007-15 actual and planned expenditure data, totaling $101.8 billion, with average annual growth of 2.7 percent. SCIP bond principal payments totaling $1.3 billion were included. The interest portion of debt service payments totaled $10.1 billion.

Highway capital expenditures

Forecast: $100.8 billion	Forecast assumptions for GO TO 2040 update
Capital maintenance costs for the interstate system, state highways, Illinois Tollway highways, and local roads.	Capital expenditures for the highway system are based on assumptions for unit costs and maintenance cycles. These assumptions are then applied to the inventory of highway assets in the region. CMAP staff met with a group of highway implementers representing state and county departments of transportation to determine unit cost and lifecycle assumptions. The assumptions were also reviewed by several municipal governments. Expenditures were inflated 3 percent annually.

Transit capital expenditures

Forecast: $31.0 billion	Forecast assumptions for GO TO 2040 update
Capital maintenance costs for the CTA, Metra, Pace, and Pace ADA.	In consultation with the RTA, transit capital costs were determined from the RTA's preliminary five-year capital budget for 2014-18. From that budget, an average annual capital expenditure was calculated. Expenditures were inflated 3 percent annually.

Chicago Metropolitan
Agency for Planning

233 South Wacker Drive, Suite 800
Chicago, IL 60606

312-454-0400
info@cmap.illinois.gov

www.cmap.illinois.gov

FY14-0104