ON TO 2050 Preview

DRAFT report – August 30, 2017

A prior draft of this document was available for public comment from June 19 to August 3, 2017. This version includes changes made per public feedback and committee comments. Note that its text and graphics are not final. A fully designed document will go to the Transportation Committee on September 29 and to the CMAP Board and MPO on October 11.

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Introduction

Metropolitan Chicago's transportation infrastructure, highly trained workforce, natural resources, and livable communities represent fundamental assets, but the region is also challenged by complex factors that require careful analysis and decisive action. These include our lackluster recovery from the recession, increasingly insufficient funding for infrastructure improvements, worsening flooding from development patterns and climate change, and a structural mismatch between costs and revenues at the state and local government levels. Such challenges limit the region's resources and threaten its long term prosperity, but a formidable array of forces -- from nonprofits to transportation agencies to governments to residents -- can take collaborative action to change the course of negative trends. We need strategies for overcoming obstacles, capitalizing on the region's assets, and achieving our regional vision: an enviable quality of life and economic vitality for all residents.

ON TO 2050, the region's next comprehensive plan, will recommend a variety of actions to achieve sustainable prosperity for all of metropolitan Chicago. This report is a preview of major recommendations prior to the draft plan's release for public comment in summer 2018. The preview is organized according to three overarching principles that support the regional vision and will be relevant across the ON TO 2050 plan's strategies:

> **Resilience.** A strong region requires communities, infrastructure, and systems that can thrive in the face of uncertain future economic, fiscal, and environmental shifts.
>
> **Inclusive Growth.** Long-term regional economic prosperity requires increased economic opportunity and improved quality of life for all residents.
>
> **Prioritized Investment**. Achieving regional goals in an era of limited resources requires coordination across multiple sectors to prioritize investments for infrastructure, land use, and the economy.

Each principle supports the others. *Resilience* will depend on robust investments and planning that make sense both now and various plausible scenarios of the future. In turn, achieving resilience will require *Inclusive Growth* to provide opportunity and strong quality of life for all of the region's residents, enabling their full participation in the economy and civic life. And the need for inclusive growth will likewise necessitate *Prioritized Investment* that ensures our resources are carefully targeted to achieve local and regional goals while broadening economic participation to increase and sustain prosperity. The three principles will inform every ON TO 2050 recommendation, cutting across CMAP's core areas of regional economy, land use, natural systems, governance, and mobility.

This report's preliminary recommendations build on GO TO 2040 policies that were adopted in 2010 and synthesize the policy development, analysis, and engagement completed as of now for

ON TO 2050. Each recommendation complements CMAP's core roles as a land use and transportation planning agency. This report also expands on the Emerging Priorities Report, adopted by the CMAP Board in October 2016, which identified 11 priority areas for further exploration in the development of ON TO 2050. That earlier report reflected an extensive engagement process that is still going strong, with CMAP having now completed an April-August 2017 period of broad public input on five "Alternative Futures." That recent phase -- which reached more than 30,000 residents who attended events (including 127 workshops and five larger forums), over 48,000 who interacted with the kiosks, and more than 8,000 who visited the plan's web pages (including surveys and videos) -- is described in an appendix to this report.

CMAP continues analyzing current conditions and trends, working with stakeholders to research and develop strategies, and making substantial progress to identify regionally significant projects and develop the Financial Plan for Transportation, while completing the regional socioeconomic forecast of population, households, and jobs. Although a limited number of new recommendations may emerge from these ongoing activities, the ON TO 2050 Preview Report establishes major directions for the plan, a draft of which will be released for public comment in June 2018 prior to anticipated adoption the following October.

Context

Over the last decade, the metropolitan Chicago region has experienced significant economic, demographic, technological, environmental, and fiscal changes, and the future promises even more substantive shifts. Recent federal and state fiscal trends and entrenched inequality pose a particular challenge to the region's economic vitality. To succeed, we must face today's problems, build on the region's many resources, and prepare for anticipated changes to come.

Despite recent population losses, CMAP forecasts that the region will add 2.3 million new residents and 920,000 new jobs by 2050, with renewed economic growth and implementation of GO TO 2040 and ON TO 2050 recommendations. Recently, population change has tilted toward stagnation and even slight decline, with increased outmigration to other regions and a lack of new residents from the rest of the nation and world. Unlike our peers, the region is also losing African American residents. Employment has grown, but at a slower rate than peer regions. At the same time, our region's transportation providers and local jurisdictions are working within an increasingly constrained fiscal environment. Initial forecasts for the ON TO 2050 Financial Plan for Transportation indicate that our system will have insufficient revenues for operations and maintenance unless new revenues are raised at the local, state, federal and, yes, the regional level. And even with reasonably expected new revenues, achieving a state of good repair and modernizing or strategically expanding the system would be problematic at best.

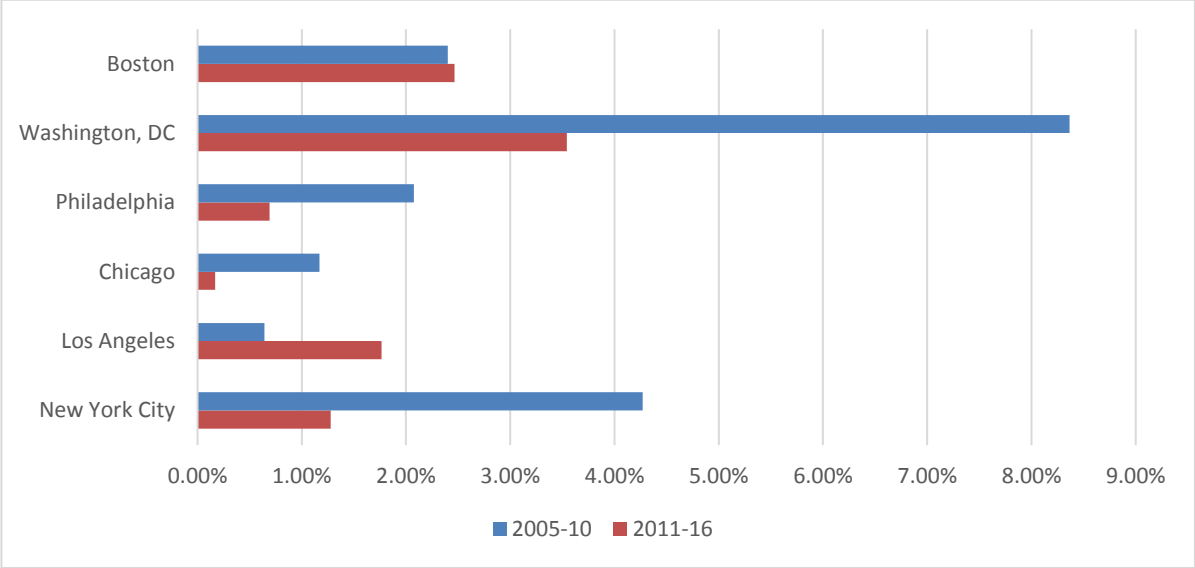
Recent patterns of land development have exacerbated funding constraints. While the region's population grew 4.6 percent from 2000-15 and total jobs remained essentially flat, our developed area expanded by nearly 12 percent. At the same time, opportunities for infill development remain untapped. This has affected how we get around: Residents traveling by car can reach 2-percent fewer destinations (like shopping, doctor's offices, etc.) within 15 minutes than in 2000, and transit riders can reach 13 percent fewer destinations within a 30-minute trip. Continued expansion of the region's developed area also brings new infrastructure and service costs, yet we struggle to maintain our existing infrastructure.

Nevertheless, the region has successes to build upon. Employers here have access to a diverse and well-educated workforce. The region's unemployment rate continues to improve, and our labor pool and gross regional product continue to grow. The region's economy is also diverse, with specializations across numerous service-based and goods-producing industries. Anticipated technological advances offer opportunities to continue to attract and train talent and grow new industries in the future. From 2001-15, an estimated 61,500 acres of conservation open space were permanently protected, representing 22 percent of the total protected areas of the region.[1]

[1] CMAP defines conservation open space using the CMAP Land Use Inventory (http://www.cmap.illinois.gov/data/land-use/inventory). Conservation open space could have a variety of land cover types and likely does not include lands protected specifically for agricultural production.

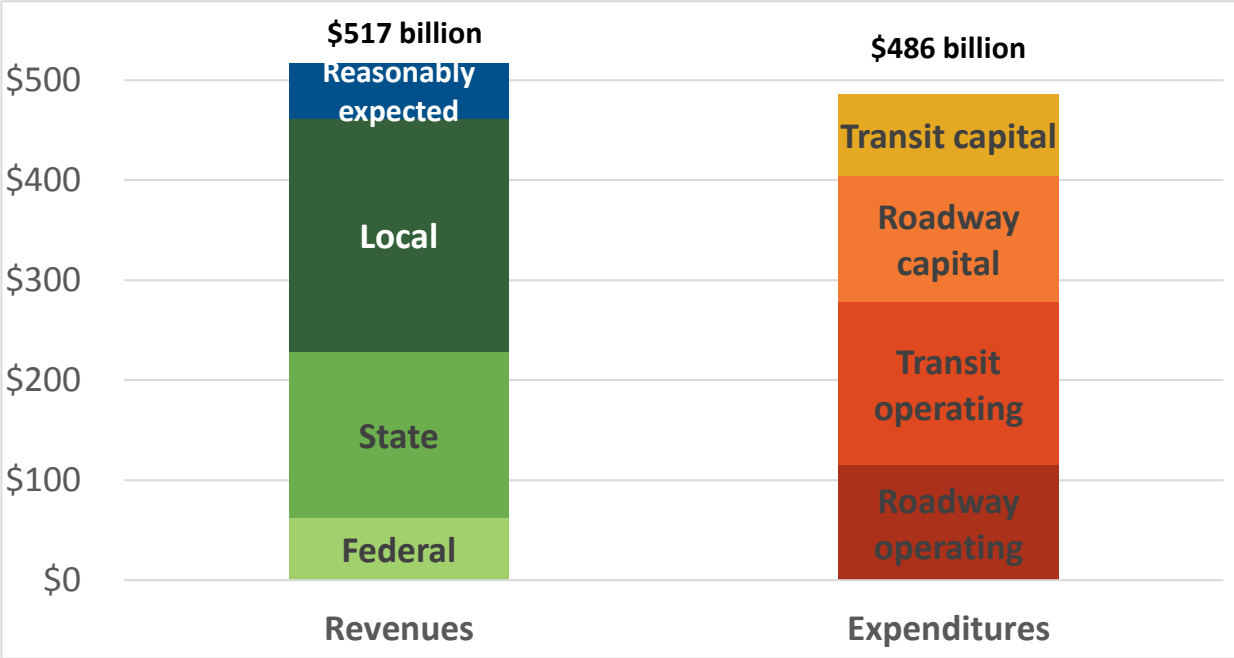
The region also has proven its ability to collaborate on addressing complex problems. Our stakeholders have created new workforce training initiatives to connect workers with growing industries, prioritized transportation modernization and reconstruction projects to speed commutes and address our worst bottlenecks, and built stormwater solutions across jurisdictions to reduce persistent flooding. Communities are beginning to reduce interjurisdictional competition, with a focus instead on promoting the region's assets.
To succeed in a changing future, the region will need to coalesce around initiatives that promote strong communities, a good quality of life, and economic opportunity and success.

Population growth in the Chicago region lags peer regions, 2005-16



Source: Chicago Metropolitan Agency for Planning analysis of U.S. Census Population Estimates Program data, 2005-16

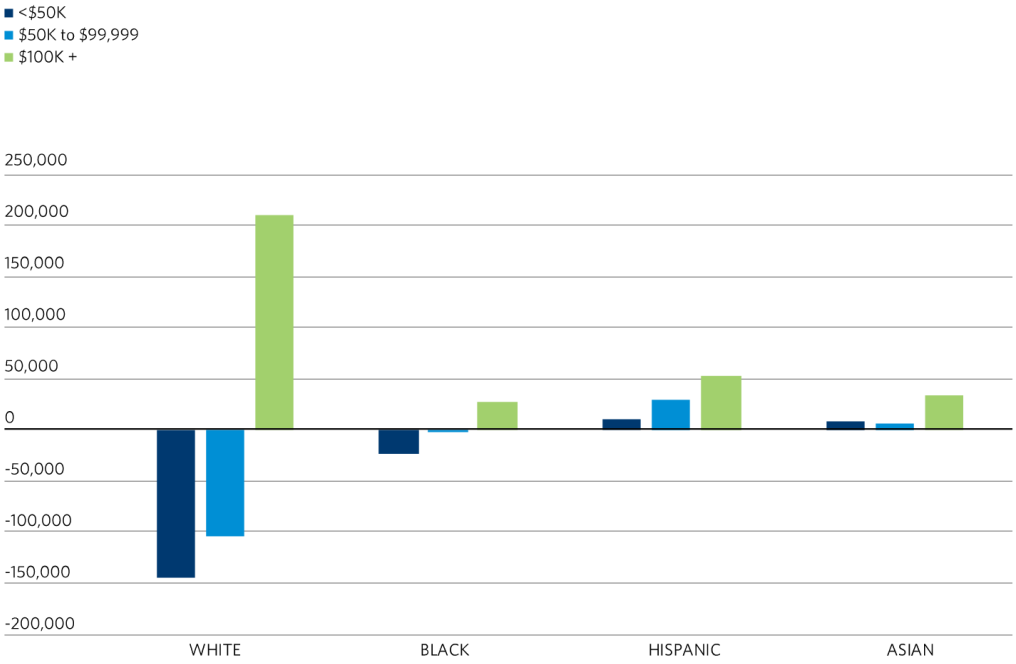
ON TO 2050 core revenues will not be sufficient to operate and maintain the transportation system, let alone achieve a state of good repair, modernize, or expand



Source: Chicago Metropolitan Agency for Planning analysis

Change in households in the Chicago region by income and race and ethnicity, 2005-2015

Source: Chicago Metropolitan Agency for Planning analysis of American Community Survey data, 1-year estimates, 2005 and 2015.



Alternative Futures Engagement

As part of ON TO 2050 engagement, CMAP has created five "Alternative Futures," each exploring macro-level economic, technology, environmental, and other trends that will shape the region in the decades to come. All futures considered a growing senior population and increased racial and ethnic diversity, and each considered the impacts of major trends on vulnerable populations. Each future features strategies for CMAP and partners to capitalize on related opportunities or to mitigate negative impacts – highlighting the role that each of the region's stakeholders has in shaping the future that we want. Strategies relevant to each future are emphasized across the three major sections of this report. The five futures are:

Changed Climate. By 2050, our climate will differ from today's in significant ways, causing widespread flooding, extreme temperatures, and extended periods of drought. These impacts will strain the region's infrastructure, natural systems, and communities, disproportionately affecting our most vulnerable residents. Shifting habitats and agricultural zones, drought, and water supply and quality issues will also present economic and environmental challenges. There may also be economic growth as residents and industries from areas more severely affected by climate change move to the Chicago region. These changes will force us to rethink how infrastructure, neighborhoods, and cities are built. *(Climate resilience strategies are highlighted in the Resilience section.)*

Walkable Communities. If today's trends continue, more people will want to live in walkable communities by 2050. To meet the demand, reinvestment will occur in many of the region's existing downtowns and commercial cores, and some communities will create new walkable, mixed-use centers. Residents in these areas will increasingly be able to bike, walk, and use transit and on-demand ride sharing services, leading to improved mobility and a decreased need for parking. But, as demand for these areas rises, affordable housing may become more scarce, particularly in communities with many amenities and good transit access. *(Strategies supportive of fostering walkable communities are in both the Resilience and Prioritized Investment sections.)*

Innovative Transportation. In 2050, innovative transportation technologies, such as accurate real-time information, smart infrastructure, and automated vehicles, will be widely available. These innovations will make travel for people and goods faster and more seamless across all modes. Goods movement in particular may benefit from increased use of on-demand services, driverless trucks, and high-tech coordination across modes such as rail, trucking, and shipping. Not all residents, however, would be able to afford new transportation technologies, resulting in disparities of access. *(Strategies related to technological advancements in transportation are included in the Prioritized Investment section.)*

Constrained Resources. By 2050, state and federal resources to fund infrastructure improvements and vital public services are likely to continue to stagnate or diminish. This

will increase the financial burden on local governments, which may need to institute new tolls, taxes, and fees to make ends meet. In particular, low capacity communities and disinvested areas may have even more difficulty providing adequate services, infrastructure, and maintenance. *(Strategies to strengthen municipal capacity are in the Resilience section, while strategies to increase transportation revenues at all levels are included in the Prioritized Investment section.)*

Transformed Economy. The economy has already shifted from primarily producing goods to providing services. In the future, artificial intelligence, machine learning, advanced materials, automation, and digitalization will transform the goods and services we produce and how we produce them. Most occupations, at all skill levels, should anticipate widespread changes as technological advancements require workers to have more training to enter and stay in the workforce. Historically marginalized communities will continue to suffer without enhanced educational and job opportunities. *(Strategies to provide more opportunities for upward mobility with adequate wages are included in the Inclusive Growth section.)*

As summarized in an appendix to this report, the public weighed in on these five futures from April through August 2017 via in-person workshops, interactive kiosks stationed around the region, web surveys, and topical forums. CMAP staff will use this feedback to refine ON TO 2050 recommendations and identify strategies that are especially important across a range of different futures.

Resilience

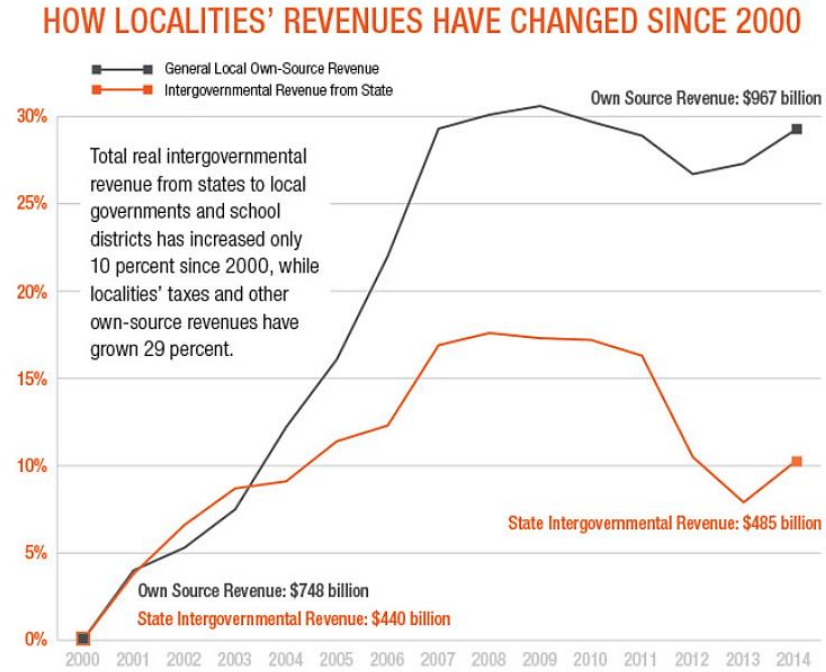
A strong region requires communities, infrastructure, and systems that can thrive in the face of uncertain future economic, fiscal, and environmental shifts.

Resilience refers to the ability of this region and its communities to prepare for and recover from acute shocks and chronic stresses by transforming our infrastructure, natural systems, and social structures to be more durable. In addition to recovering quickly from unanticipated problems, a resilient region should be able to "build back better" by capitalizing on opportunities that might arise from these challenges. For instance, if extreme heat causes pavement to buckle, reconstruction can yield not only a road more resilient to future climatic changes, but also stormwater infrastructure to help mitigate flooding and alternative modes of transportation to give residents more options for getting around in good weather and bad. All levels of government, from federal to local, can contribute to building regional and local resilience.

Although the term "resilience" is often used in reference to climate change, ON TO 2050 will call for other types of adaptation as well. The plan will take this same approach across many topic areas to think proactively about uncertain future conditions and how the region and its communities might prepare for or respond dynamically to them.

The Alternative Futures process embodied the concept of resilience, as each future considered trends likely to affect our region and the possible steps that could better prepare for impacts or capitalize on opportunities, with the ultimate goal of building a region that is responsive and flexible. For example, in a future where financial resources from the state and federal governments continue to be constrained and even decline, local governments can adjust revenue policies such as taxes, fines, and fees to tighten their belts now, helping ensure a continued high quality of life. With potentially revolutionary transportation technologies on the horizon, transportation agencies, the private sector, and county and local partners can lay the regulatory framework and infrastructure improvements today and enable these technologies to take root.

Local governments are already adapting to constrained state and federal revenues and will likely continue to shoulder more of the burden



NOTE: *Amounts adjusted for inflation*

Source: Maciag, Mike, and J.B. Wogan. "With Less State Aid, Localities Look for Ways to Cope." Governing: The States and Localities. Governing Magazine, February 1, 2017.

Increase the capacity of communities to achieve local and regional goals

The importance of municipal governments in providing for a high quality of life cannot be overstated. While municipalities in the region largely wish to move local and regional goals forward, some face substantial barriers, such as a lack of technical knowledge by staff or elected officials, low staffing levels, poor fiscal condition, lack of political will, or constituent opposition to plans and projects. These barriers can limit municipalities' abilities to plan proactively and make them reactive to shocks and stresses rather than resilient. While the CMAP Local Technical Assistance (LTA) program has had success helping communities across the region, ON TO 2050 will identify even more ways to ensure that all municipalities function effectively and efficiently, have adequate staff and financial resources, and are able to define and fulfill long-term local and regional goals. For example, CMAP should refine the LTA program's offerings to include related technical assistance and trainings and could also provide complementary guidance on such subjects, such as economic development, coordinated investment, plan implementation, or consolidation. ON TO 2050 will also propose strategies for municipalities to increase their capacity, such as partnering with adjacent or overlapping jurisdictions to share services or pursue joint purchasing, consolidating units of government or certain services to improve services or gain efficiencies, and implementing planning strategies

to improve investment prioritization, such as capital improvement plans or more detailed and transparent budgeting.

Address state and local tax policy

The State of Illinois and many local governments must address significant financial challenges stemming from rising expenditures and outdated, inequitable revenue structures. Reforms will be required to adequately fund infrastructure, services, and pension obligations. However, a lack of adequate solutions or action to date threatens the region's economic resilience by deterring households and businesses from making long-term investments. Businesses in particular have to consider shifting long-term tax liabilities as they plan for large-scale investments and expenditures. That uncertainty creates a disincentive for major investments and hinders the region's ability to attract and retain businesses. While many intractable issues at the state level are beyond the control of CMAP and partners, ON TO 2O50 will recommend that State of Illinois and local elected officials reform tax policies to ensure adequate revenues, predictability and reliability, and improve equity across households, businesses, and local governments. A future with decreased federal and state funding resources requires stable and efficient tax structures that promote business investment and local government resilience.

In particular, state and local tax structures affect the ability of the region's governments to promote land uses that are regionally beneficial and that meet local goals for quality of life. Under the current tax structure, communities with land use that emphasizes retail may have a stronger fiscal position than other communities in the region. Communities without sales tax-generating businesses have fewer options to raise municipal revenues. Moreover, the retail landscape is changing as consumers purchase more goods online and purchase more services, neither of which is included in the local sales tax base. ON TO 2050 will recommend state tax reforms, such as expanding the sales tax base, to ensure that communities can provide municipal services and infrastructure regardless of their land use mix. CMAP and other partners should also explore fiscal strategies to more fully support infill development and all land uses, particularly industrial development. Balancing the fiscal outcomes between various land uses can support regionally beneficial ones, as well as allow communities to pursue land uses that best support their goals.

Support walkable, mixed-use communities

Walkable, mixed-use communities promote livability and also contribute to regional resilience. For instance, compact development patterns are necessary to achieve cost-effective transit service, and they also facilitate walking and biking; transit and non-motorized options, in turn, improve mobility and public health and also reduce greenhouse gas emissions. Reinvesting in infill communities also makes efficient use of existing infrastructure and helps to preserve natural resources and agricultural land at the periphery of the region. ON TO 2050 will recommend planning for and reinvesting in mixed-use and transit-served areas in particular, and will also include placemaking strategies to apply in such locations and complete streets policies to facilitate multimodal travel. With increased demand for walkable communities, it

will also be necessary to ensure the addition or preservation of affordable housing so residents with lower incomes don't get priced out of transit-served areas. Creating walkable communities should also accommodate the region's growing senior population, offering options for these residents to stay within the communities they choose.

Plan for population shifts

The region will experience two substantive shifts through 2050, both of which have already begun. First, as the baby boomer generation ages, the region will have a near-term wave of senior citizens who will need new transportation and service options to help them get around and age in community. In the longer term, providing strategies to support seniors will remain imperative through 2050; for example, residents over 75, who may need added mobility and other services, are projected to increase by over 130 percent by 2050. CMAP and partners should help municipalities and transportation partners plan for an aging population and tailor services to this growing demographic. Municipalities are particularly important implementers, and can use CMAP's Aging in Place toolkit to guide their housing, transportation, social services, and other activities to support an aging population. Second, the region is expected to continue to become more diverse through 2050, with population shifting from a majority of white residents to a plurality. This shift is driven by growth in native born populations of all races as well as international immigration. Municipalities can utilize CMAP's Immigrant Integration Toolkit to help them plan for growing immigrant populations.

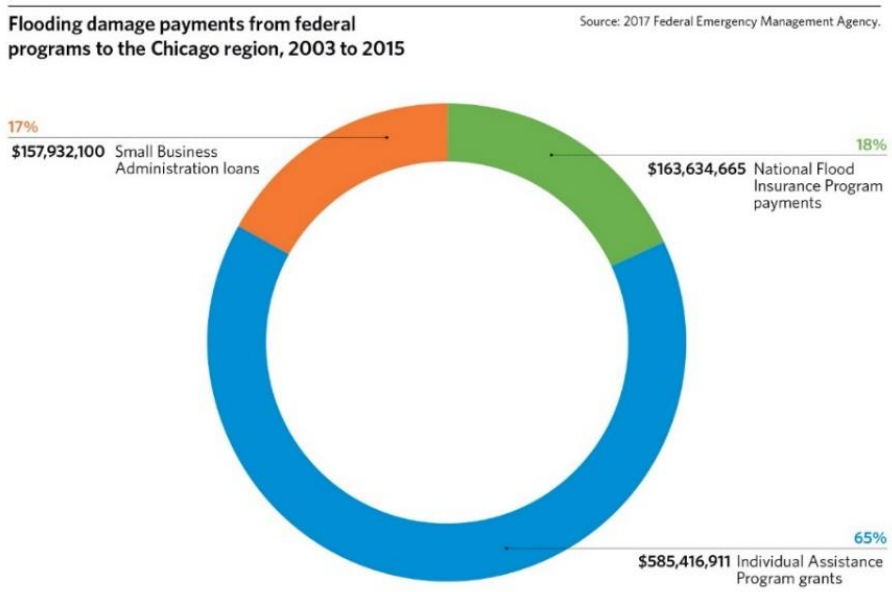
Incorporate climate change considerations into planning and development

GO TO 2040 provides a set of transportation and land use recommendations for federal, state, and local actors that can help reduce greenhouse gases, therefore limiting climate shifts. However, limited progress means that we must still prepare for a changing climate. Anticipated climate impacts for our region include more extreme temperatures and more intense and frequent storms and droughts. The sooner that planning efforts, infrastructure design, and developments can integrate climate change considerations, the better prepared our region will be in the long term. ON TO 2050 will emphasize the need for local planning efforts -- such as comprehensive plans, capital improvement plans, and regulatory updates to zoning, subdivision, and stormwater and floodplain regulations -- to assess climate risks and impacts and provide strategies for mitigating or preparing to face what lies ahead. In particular, planning efforts should seek to minimize impacts to lower-income residents, the elderly, populations of color, and others disproportionately affected by climate change.

During the Alternative Futures process, participants indicated that concern about potential lack of water as well as planning for stormwater management and water supply were their largest climate concerns. Both CMAP and its partners have a role in addressing water planning. Through its LTA program, CMAP should directly promote inclusion of climate considerations in local planning work and can also provide relevant data and other resources to partners. For example, CMAP can identify high-quality natural lands in the region that are prime for conservation (and essential to replenishing groundwater recharge areas and mitigating flooding

from climate change), which can then be used by conservation organizations, forest preserve districts, and governments for land acquisition and protection. In addition, CMAP can identify areas of intense flooding in the region while providing a toolbox of context-appropriate flood mitigation and funding solutions for municipalities, planners, developers, and others to apply in those affected areas. CMAP and partners can explore existing and new funding solutions to implement stormwater infrastructure projects, from small-scale green infrastructure to major flood control initiatives.

Flooding damage payments from federal programs totaled more than $900 million in the Chicago region between 2003 and 2015, but covered only a fraction of total damages



Plan for the regional transportation impacts of major land use change

Municipalities are and will remain the primary decision makers for land use and development. However, major stand-alone developments or cumulative smaller developments can have substantive impacts on the region's transportation network, land use, or service and infrastructure costs. For example, approval of many individual retail developments may lead to expansion of a road, or addition of a major manufacturer may require the state or county to upgrade a road to support related truck traffic. CMAP and stakeholders should evaluate options to improve the assessment of long term impacts from major and cumulative changes and refine subsequent allocation of infrastructure funds.

The region should pay particular attention to major freight facility developments, which can have significant impacts on our transportation system and land use patterns, generating substantial amounts of truck and rail traffic, affecting multiple jurisdictions, inducing major real estate developments, and often requiring costly new public infrastructure. At the same time, trends in freight technology, land use, and movement continue to change rapidly. Online

ordering of goods has led to new types of distribution facilities and resulted in more trucks on roads throughout the region. ON TO 2050 could adopt principles to assist municipalities and counties in planning for the impacts of these developments at the local scale. These principles could also frame future CMAP analysis of the broader regional impacts that major freight and other developments can have on regionally significant projects, land use patterns, the region's economy, and high-priority natural areas.

Beyond freight, major shifts in transportation and technology are already affecting land use. For example, residents' increasing preferences for biking, walking, and transit as well as living within walkable areas may reduce demand for parking and increase transit needs. CMAP and partners should identify best practices for communities to meet today's needs, while also designing for major changes in the region's transportation system and built environment.

Coordinate across jurisdictions to promote collaborative action

In a future with limited public resources, collaborating across jurisdictions to plan, provide services and infrastructure, and promote economic development will become increasingly critical. The region's local jurisdictions can leverage the expertise and capacity of each other to improve services and create efficiency. Many infrastructure issues, such as water resources coordination, can only be addressed effectively across jurisdictions. ON TO 2050 will highlight new opportunities for coordination and emphasize the benefits to the region's economy and quality of life.

In addition, coordinating on economic development issues can minimize competition and attract businesses to the state and region with less public cost. Recruitment should focus on the region's core infrastructure, human capital, and quality of life strengths. The region's counties have already begun discussing development of a coordinated regional entity to attract and retain new businesses, instead of focusing on competition between counties. This and similar efforts are critical to make the most effective use of the region's limited resources, promote new growth, and capitalize on our assets.

Inclusive Growth

Long-term regional economic prosperity requires increased economic opportunity and improved quality of life for all residents.

Today, high levels of economic inequality are limiting our region's capacity to grow. Inequality limits the ability of many talented and skilled residents to succeed, often due to factors such as the community they live in, their race or ethnicity, and/or their socioeconomic status. These external limits on opportunity can extend across generations, circumscribing the lifelong earnings and entrepreneurial potential of residents through decreased access to quality education, employment, housing, community, or transportation choices. These residents are not well connected to opportunities provided by the region's economy. As a result, a substantial portion of the region's human capital -- embodied in the talents and skills of these residents -- is being wasted.

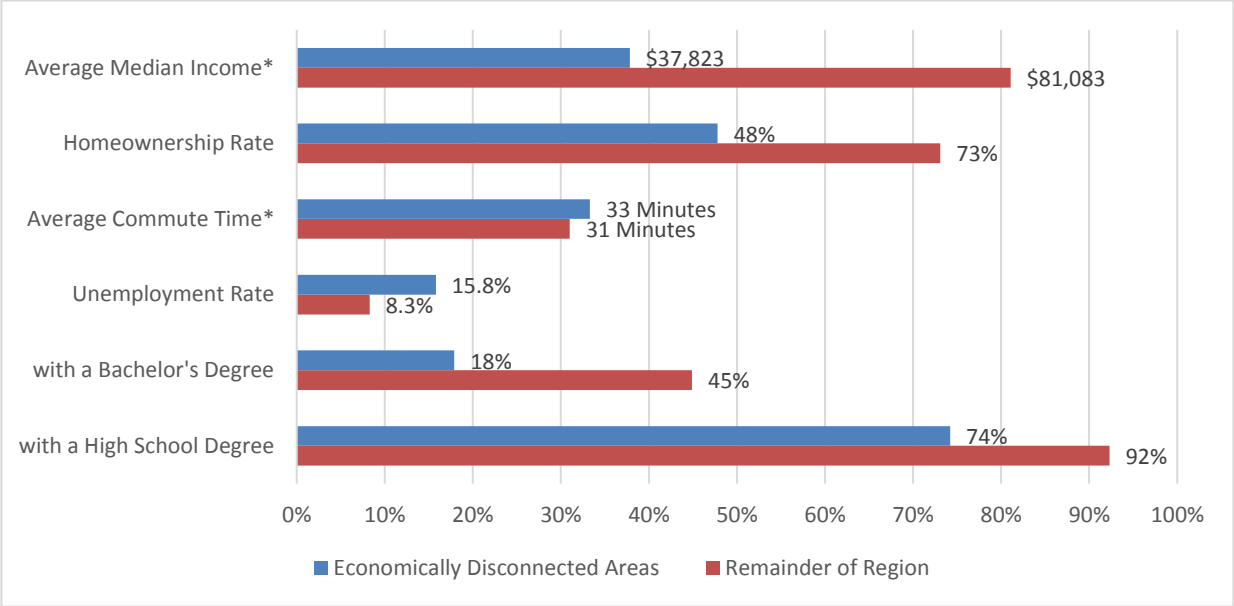
To compete in the future, the Chicago region must make full use of all its resources, including the full potential of its existing workforce, businesses, and infrastructure. Regions with lower degrees of economic inequality -- the gap between the highest and lowest wage earners -- experience stronger and more sustained economic growth, so decreasing inequality and increasing connections to the region's economy for under-engaged workers will provide benefits across the economy. Paired with other strategies to promote the competitiveness of our economic assets, emphasizing inclusive economic initiatives can help the region restart long-term economic growth and increase the prosperity of all its residents. These strategies can also help the region attract and retain a diverse set of residents. The region has recently lost population, particularly low and moderate income residents and African American residents. To grow, we must provide economic opportunity for all residents.

To focus efforts to promote inclusive growth, CMAP has identified economically disconnected areas (EDAs), which are places with concentrations of low-income residents who are also persons of color or have limited English proficiency. As shown in the following figure, outcomes -- whether employment, income, housing status, or commute -- for many residents of these areas differ sharply from the outcomes for residents that call other parts of the region home. These outcomes also differ across racial and ethnic groups, as the region's black and Hispanic residents often face the longest commutes, lower incomes, and less education. ON TO 2050 will also define other vulnerable groups -- such as the transit-dependent, elderly, or people with disabilities -- who may warrant special consideration for different planning topics, such as climate change or transit access.

Negative effects associated with EDAs also extend to overlapping communities, which often have lower property values and challenged commercial and residential markets. In turn, these communities struggle to provide a strong quality of life and needed services with limited

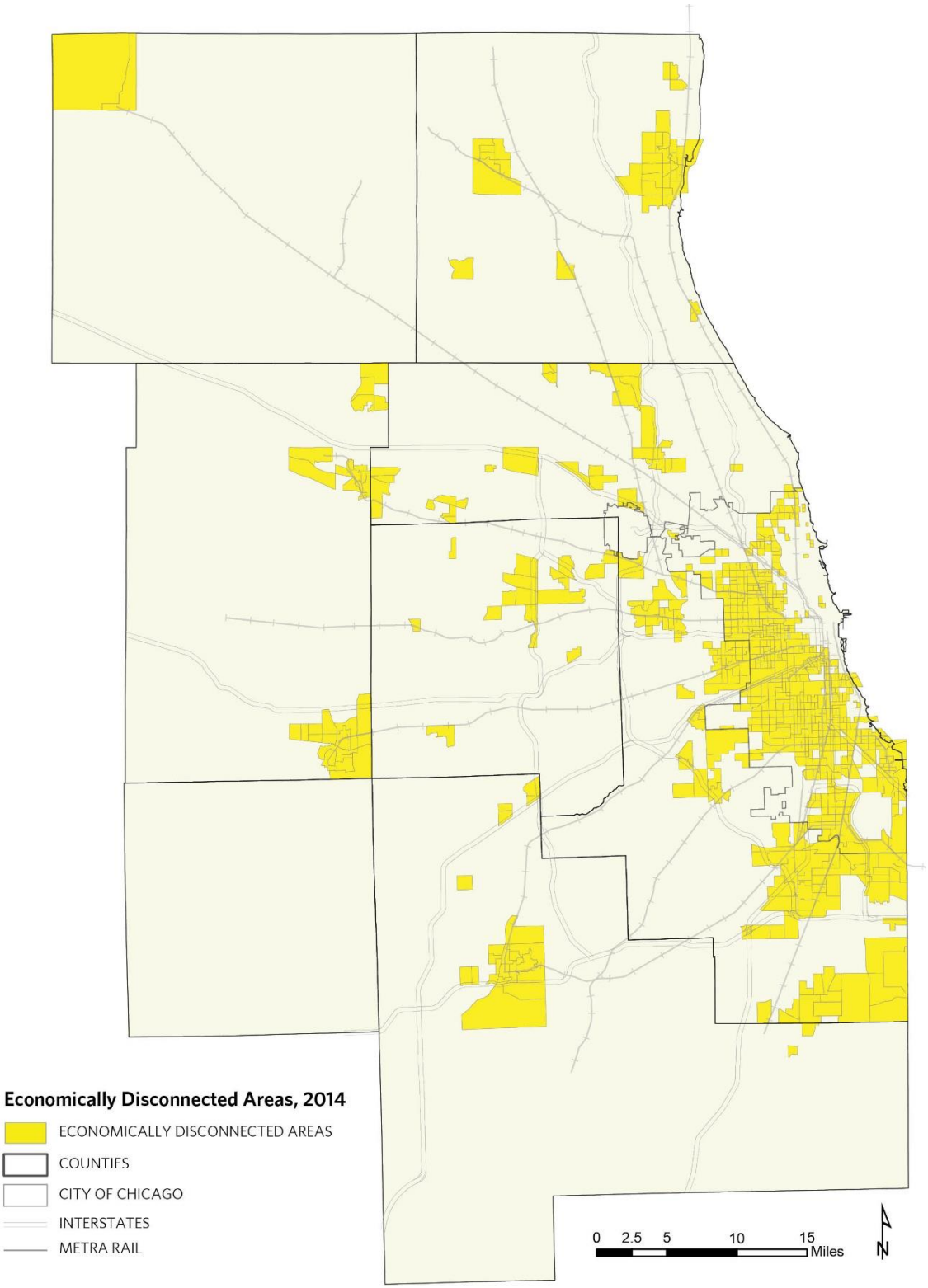
resources. These compounding issues require a broad set of solutions to help economically disconnected residents and their communities thrive.

Outcomes for economically disconnected areas and the remainder of the CMAP region



Source: Chicago Metropolitan Agency for Planning analysis of U.S. American Community Survey 5-year data, 2010-14.

*Note: Average median income is calculated across census tracts. The 2.3 minute disparity in commute time translates into an additional 18.4 hours, or 2.3 working days, over the course of a year.



Source: Chicago Metropolitan Agency for Planning analysis of American Community Survey data, 5-year estimates, 2010-2014

Consider disproportionate impacts in planning processes

As mentioned previously, in addition to those groups within EDAs, other populations may experience disproportionate impacts for different issue areas. The Federal Highway Administration requires metropolitan planning organizations, which includes CMAP, to assess the impact of transportation investments on "Environmental Justice" (EJ) populations, including low-income and residents of color, to ensure that the benefits and burdens of such investments are fairly distributed. These criteria are included in CMAP's evaluation of regionally significant projects, but there is much room to expand the concept in the agency's work. ON TO 2050 will specifically consider strategies for disproportionately impacted populations across topic areas, including inclusive growth, housing choice, land use planning, transportation planning and programming, and climate change. In addition, the plan will reinforce the importance of thoughtful and systematic inclusion of disproportionately affected groups in planning processes to ensure that there are legitimate avenues for input and that satisfactory and effective solutions are identified for all. In particular, the LTA program can advance this through continued evolution of thoughtful and creative outreach and engagement techniques.

Align priorities to target investments and technical assistance to economically disconnected areas

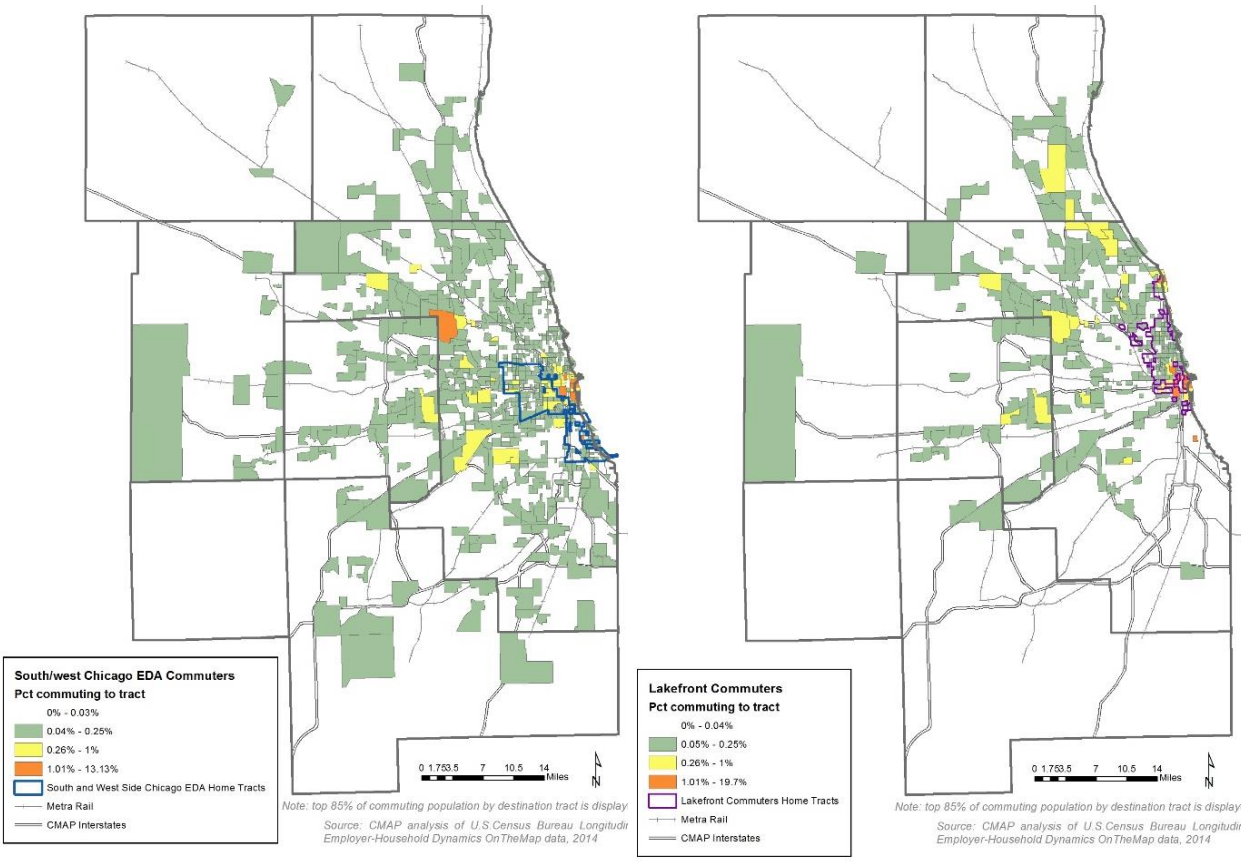
The region has a wealth of actors with the potential to address issues integral to promoting inclusive growth. These issues include transportation, K-12 education, job training, public safety and crime, public health, housing, and other policy areas affecting economic mobility and quality of life. Many organizations are already taking up this challenge, with substantive inclusive growth efforts underway by civic and government stakeholders. To reduce disparities and promote inclusive growth, CMAP and its partners should align priorities, strategies, and geographic areas to focus investments and assistance. CMAP should direct technical assistance and research within EDAs, as well as identify and support transportation projects that most benefit these areas. CMAP partners should take the lead in advancing efforts related to neighborhood safety, education, and public health, which are critically important to the vitality and success of our region. These efforts can both spur inclusive growth and promote better outcomes for resilience, transportation, housing, and economic growth.

Many EDA residents are dependent on transit or carpooling and do not have their own vehicle. EDA residents are 1.7 times more likely to carpool and 1.4 times more likely to use transit to reach their place of work. At the same time, these workers often commute to destinations that are dispersed and not easily reachable through transit. The map below highlights commute destinations for a subset of EDAs compared to a subset of commuters living along Chicago and Evanston's lakefront. CMAP, the region's transit providers, and other public agencies planning for transit modernization should emphasize improving these employment connections between EDAs and jobs through cost-effective existing transit or emerging transit service types.

Commute destinations for workers living in selected Chicago economically disconnected areas compared with selected lakefront commuters

South and Westside economically disconnected areas

Selected lakefront submarket



Source: Chicago Metropolitan Agency for Planning analysis of LEHD OnTheMap data, 2014.

Note: Each map shows destinations for 85 percent of workers commuting from the outlined area. South and West commuters are located within a subset of EDAs in the city of Chicago, equaling approximately 175,000 workers. Lakefront commuters are located within a "submarket 3" area in the joint CMAP and the DePaul Institute for Housing Studies analysis of regional housing markets, equaling approximately 273,000 workers. This submarket type is characterized by higher incomes and densities, younger residents, and higher cost housing.

Develop structural solutions to promote reinvestment in disinvested areas

EDAs strongly overlap with disinvested areas -- communities that experience a persistent, long-term lack of market investment, leading to declining property values, taxes, employment, and, frequently, population. This disinvestment often constrains the ability of any individual community to respond effectively to these declines, and high tax rates and low market potential limit private investment. Solutions for disinvested areas will differ substantially from typical, market-based planning and investment practices. These communities have strong assets in their residents, existing infrastructure, and businesses, but these are often insufficient to address the

systemic issues communities with significant disinvestment face. Among other solutions, CMAP and partners should build on existing community assets, identify unique regulatory and tax solutions to persistent vacancy and abandonment, build municipal and private sector capacity, and help communities establish strong partnerships with lending institutions. CMAP should also explore new federal, state, and local solutions to address systemic barriers to investment in these areas, while also promoting local best practices.

Promote housing choice

Housing choice is the ability for all households in the region to find a good, affordable home that fits each household's preferences, including proximity to jobs, transportation, and other amenities, throughout all stages of life. Currently, the region's housing supply does not meet demand for all housing choices, particularly demand by residents seeking housing in higher opportunity areas (i.e., communities with good access to jobs, good schools, and transit). The growing population of seniors seeking homes with universal design features or looking for walkable and mixed use options within their current communities may also face limited options. The barriers to housing choice are broad and require a coalition of CMAP and stakeholders to increase local capacity to address affordability or vacancy issues, revise building and zoning ordinances, educate residents on the benefits of choice, and identify changes to federal regulations.

Provide paths to jobs with meaningful economic opportunity

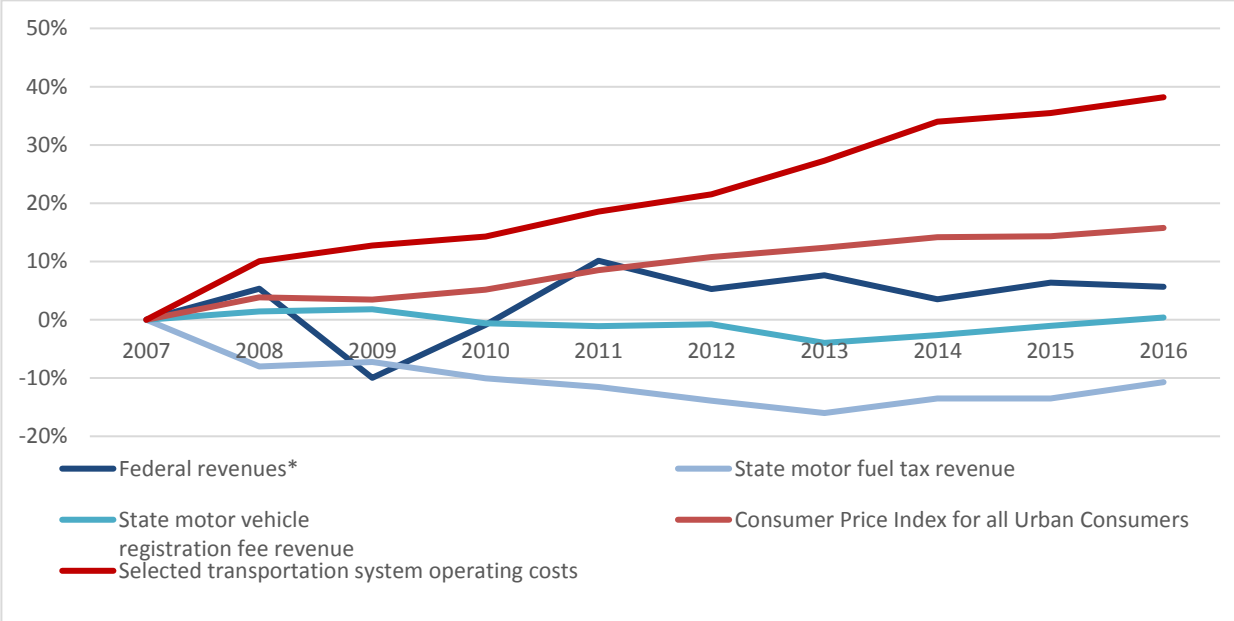
Not all employment is equal; workforce training efforts for lower-skilled residents, such as workers living in EDAs, should focus on growing industries and jobs that offer potential for increased earnings and skills over the long term. The region's Workforce Investment Boards already provide a national model of successful coordination with each other and the private sector. CMAP, civic groups, and other stakeholders should identify growing industries with potential for upward mobility to offer a refined focus for these job training efforts. Similarly, municipalities, counties, and the state should reorient economic development efforts on clusters that drive regional economic growth creating more and higher paying jobs, the types of jobs with the potential to promote inclusive regional growth.

Prioritized Investment

Achieving regional goals in an era of limited resources requires prioritization of investments across sectors, including infrastructure, land use, and our economy.

Limited public resources require the public sector to carefully set priorities for investment in infrastructure, services, new development, technical and funding assistance, and other areas. Transportation funding from the federal and state government has been stagnant or diminishing while costs have continued to rise, and this trend shows little sign of reversing. While this is one of the key challenges facing the region, there are a variety of funding solutions that regional and local partners can move forward to ensure the high quality of our transportation system. We can also maximize the potential of limited resources by prioritizing investment decisions based on the benefits they bring to the metropolitan area.

Federal and state transportation revenue to northeastern Illinois compared to inflation and operating costs, estimates for selected sources, percent change since 2007



Source: Chicago Metropolitan Agency for Planning analysis of Illinois Department of Transportation data, Illinois Office of the Comptroller data, Regional Transportation Authority data, and data derived from state/regional resources tables. Note: The 2009 federal transportation revenue excludes revenue from the American Recovery and Reinvestment Act. Transportation operating costs include those incurred by Illinois Department of Transportation's District One, Illinois Tollway, Regional Transportation Authority, and all transit service boards.

There are also opportunities to take advantage of emerging transportation, communication, and data processing technology to improve the operation of the region's transportation and infrastructure networks. Each of these technologies also has the potential for far-reaching land use and economic impacts, both positive and negative. Infrastructure investments that simultaneously solve multiple problems will be particularly valuable. For example, a

transportation improvement that simultaneously reduces congestion, increases bicycle and pedestrian access, improves public health, and supports local economic development achieves multiple goals. Similarly, a stormwater solution that both provides recreational opportunities, improves water quality, and reduces flooding is particularly important. Other examples abound and will be highlighted throughout ON TO 2050.

While CMAP has a particular responsibility concerning transportation funding, using all public resources effectively is crucial given current constraints. In fact, coordinating investment across topical areas -- for example, linking transportation investment with housing investment, and using public investment to spur beneficial private investment -- is especially valuable and is necessary to achieve regional goals. For example, well-connected and frequent suburban transit requires supportive land use change to increase density, particularly employment, in areas where more transit is desired. Such coordination is explored further in the recommendations offered below.

Increase transportation revenues at all levels

The federal, state, and local governments currently provide substantial funding to support the region's transportation system, but this revenue is insufficient to move the system to a state of good repair or make significant enhancements. Revenues from certain sources, such as the state motor fuel tax (MFT), are forecasted to decline through 2050 as vehicle travel levels off and fuel economy rises. Failure to increase the flat MFT has limited this source over time, as revenues fall behind cost increases. CMAP projects a $30 to 45 billion revenue shortfall by 2050 simply to maintain, operate, and administer the transportation system in the less than optimal condition it is in today; the available funding will not allow for reaching a state of good repair, or additional improvements, enhancements, or expansions to the system. While the region's transportation providers have embraced efficiencies of many types and delayed critical projects for some time, the region's transportation funding resources are increasingly inadequate.

Regional transportation, civic, and private sector stakeholders must take action to secure sustainable transportation funding that will support economic competitiveness and a high quality of life. The plan will call for new revenues at both the state and regional levels. At the state level, ON TO 2050 will echo GO TO 2040's call to raise and index the state motor fuel tax to inflation in the short term and will also recommend replacing the MFT with a vehicle miles traveled fee over the long term. The plan will also strongly advocate for a sustainable regional funding source that can further augment state and federal sources. Finally, the plan will also advocate expanding the sales tax base, instituting a federal cost of freight service fee, and increasing parking pricing. CMAP and transportation agencies should strongly encourage the state and federal governments to implement these revenue streams following the adoption of ON TO 2050.

Even if these new sources are extensively adopted, most revenues will need to be used simply to operate and maintain our current system. As such, ON TO 2050 will continue to allocate

revenues with an emphasis on the existing system. The proposed Financial Plan expenditure categories will include first operating and maintaining the existing system in its current condition, then pursuing state of good repair, followed by implementing modernization efforts to gain efficiencies and improve traveler experience. Only then will ON TO 2050 -- as did GO TO 2040 -- identify a very small number of expansion projects, weighing these projects against increasingly limited funding resources. CMAP will emphasize projects across pedestrian, bicycle, transit, and auto modes, as well as projects that provide a broad range of transportation, land use, economic, and environmental benefits. Prioritized investment in a small set of projects -- to ensure that every dollar is used as effectively as possible -- remains a top priority.

To fully implement needed transportation improvements, the region will also have to pursue project-specific revenue sources on a case-by-case basis. And ON TO 2050 will continue to emphasize the need to implement congestion pricing on our highways, utilize value capture to support infrastructure investments, and target use of public-private partnerships in a way that minimizes public risk. These funding sources will be required to generate additional state and federal investment in the system.

Clearly prioritize regionally significant projects

As the region's long-range transportation plan, ON TO 2050 is explicitly responsible for evaluating, prioritizing, and generating a fiscally constrained program of major transportation investments. These regionally significant projects must create as much regional benefit as possible within the funding constraints that exist. Defining regional benefit is clearly an important matter, and ON TO 2050 will use quantitative criteria to evaluate project benefits. These criteria include:

Regionally significant project evaluation criteria

	All Road Projects	Expressway Projects	Transit Projects
Addressing Existing Needs			
	Pavement & Bridge Condition Congestion Reliability Safety	Pavement & Bridge Condition Congestion Reliability Safety	Asset Condition Capacity constraint Reliability ADA deficiency
Achieving Regional Priorities			
	Degree to which project serves economically disconnected areas Infill supportiveness Economic impact Freight benefits Natural resources impact	Degree to which project serves economically disconnected areas Infill supportiveness Economic impact Freight benefits GHG emissions Emissions near economically disconnected areas Natural resources impact Change in jobs accessible	Degree to which project serve economically disconnected areas Infill supportiveness Economic impact Freight benefits GHG emissions Change in jobs accessible
Improving Travel			
		Congestion reduction for trucks and autos Commute time by auto Potential negative impact on transit ridership	Commute time by transit Increase in ridership

This process of project evaluation will be similar to what was conducted for GO TO 2040, but there are some differences. First, a broader range of projects, including major arterial expansions, Arterial Rapid Transit (ART) and Bus Rapid Transit (BRT) services, are now considered regionally significant projects, while GO TO 2040 only considered expressway expansions and rail improvements. Second, the fiscal situation for transportation since the adoption of GO TO 2040 has worsened, primarily because the federal government, region, and state have made no progress toward the new revenue sources recommended in GO TO 2040. It is expected, therefore, that ON TO 2050 will have even tighter fiscal limitations than GO TO 2040 despite the expanded universe of projects.

Strengthen the performance basis for other transportation programming decisions

Use of performance measures is important for all transportation decisions, not just those affecting large, regionally significant projects. CMAP has historically used performance measures related to congestion reduction, air quality, and others to evaluate projects for inclusion in the Congestion Mitigation and Air Quality (CMAQ) program and Transportation Alternatives Program (TAP). Using performance measures can also help meet resident needs.

For example, in the Alternatives Futures process, residents indicated their strong desire for transit improvements that aid speed, reliability, and frequency. Performance based programming aligns with these goals.

Furthermore, the federal transportation program has changed dramatically in recent years to emphasize performance tracking and now requires MPOs and states to set targets for traffic safety, pavement and bridge condition, travel time reliability, congestion, and transit asset condition. As a result, efforts are already underway, and the plan will continue to recommend increased use of performance measures for other programs, like the Surface Transportation Program (STP) and funds programmed by the Illinois Department of Transportation, among other agencies. The plan will also place new emphasis on strategies to improve performance on these measures as well as link investment to those outcomes.

The plan will also recommend that municipalities develop asset management systems to fully implement performance-driven investment and make the best use of the region's limited resources. Many municipalities lack the data and technical capacity to implement asset management. To overcome this barrier, CMAP and partners will assist with transportation data collection, pilot projects, and best practice training. Finally, ON TO 2050 will explore using additional criteria that measure co-benefits and relate to other regional goals, like health, infill and reinvestment, and the ability of all people to participate in the regional economy.

Plan for the transportation and land use impacts of emerging technologies

Emerging communications, data processing, and transportation technologies have great potential to change the way that we live, work, and move around the region. Residents today can already use technology to route and complete a multimodal trip, reducing dependence on automobiles and fostering walkable places. Retail shopping is increasingly occurring online, leading to new industrial development and more truck travel. New sensors and data processing are allowing transportation providers to quickly inform and reroute travelers. There is growing potential for connected and autonomous vehicles, which offer possible mobility benefits as well as negative land use change as residents are able to live further from job opportunities and amenities. New technology may also offer new opportunities to help seniors or residents with disabilities remain mobile and stay in their preferred community.

Technology will continue to change the shape of the region; we must continue to plan for the comprehensive impacts of these technologies. For example, communities may need additional strategies to protect vulnerable road users, like bikes and pedestrians, if on-demand delivery continues to place more trucks on the road or if autonomous vehicles proliferate. Transit may need to identify solutions to build on its strengths and remain competitive in a future with more autonomous or shared vehicle options. These same advances may offer new transit solutions for low to moderate density areas. To prepare, CMAP and other stakeholders should continue to evaluate emerging technologies, establish principles and best practices to ensure that implementation supports regional goals, and assist municipalities in planning for change.

Focus infill, capital, and assistance in priority areas
Prioritized investment extends beyond infrastructure to the types of communities we build and the programs and policies that we pursue. Development within existing communities takes advantage of existing infrastructure and provides significant regional benefits in terms of transportation, environmental, and fiscal outcomes. However, infill on vacant and previously developed land often faces substantial challenges such as difficulty in assembling parcels, dealing with multiple jurisdictions, remediating previously used land, site preparation, and coordinating with existing neighbors. ON TO 2050 will recommend effective and coordinated investment by the public sector to reduce these barriers, increasing the viability of reinvestment.

Reinvestment efforts should coordinate related transportation and land use efforts. For example, pursuing reconstruction of an intermodal truck corridor, while including green infrastructure along the corridor to address localized flooding problems and remediating nearby brownfields, would be more likely to spur successful industrial development than any of these investments in isolation. Similarly, local transit-oriented development (TOD) efforts should coordinate related transit and pedestrian improvements and plan for affordable housing and equitable TOD.

In addition, ON TO 2050 will recommend focusing reinvestment efforts, funding, and technical assistance in priority areas, particularly employment centers, transit-rich areas, downtowns and main streets, and disinvested areas. Identification of priority areas will, to the extent practical, build on local plans and goals, and help focus limited development, planning, and infrastructure funding resources. CMAP will develop a definition of these areas in concert with stakeholders and local governments, as well as encourage allocation of resources from housing, community investment, workforce training, and other entities to priority areas.

Consider short- and long-term goals for development at the edge of the region
Recognizing the central importance of local governments to our region's future, ON TO 2050 will have a particular focus on increasing municipal capacity, making fiscally sound development decisions, and investing in infrastructure to support that development. Development on agricultural, natural, and other open lands at the fringes of the region can be important to achieving community goals, but may also result in decreased market viability for agricultural uses, consumption and degradation of natural assets, and increased costs associated with constructing and maintaining new infrastructure and services. As a complement to ON TO 2050's continued emphasis on reinvestment in infill areas, ON TO 2050 will recommend that municipalities consider both the short- and long-term fiscal impacts of development and infrastructure expansion at the edge of the region's developed area. LTA may target planning assistance toward rural locations with high potential for growth to help communities strategically plan for conservation or sensitive development in these locations. The plan will also promote the use of conservation design, water supply coordination, and other

environmentally sensitive practices when development occurs in such locations, as well as the conservation of high quality natural areas across the region.

Much of the region's infrastructure is owned and maintained by its local governments. The plan will promote asset management by local governments to ensure sound management of infrastructure over its lifecycle, widespread use of capital improvement plans (CIPs), incorporation of mid- and long-term infrastructure costs into development decisions, and similar actions, all seeking to help municipalities make investments that meet both short- and long-term goals.

Moving Forward with ON TO 2050

The region must take critical steps to renew growth and promote vitality through 2050. While current funding, socioeconomic, and development trends offer significant challenges, the region has many paths forward to achieve economic vitality and a high quality of life. Our strong transportation network, economic diversity, well trained workforce, and vibrant communities offer a solid foundation on which to build. ON TO 2050 will focus on principles of resilience, inclusive growth, and prioritized investment to offer strategies to move the region forward.

The ON TO 2050 plan will primarily be presented on the web, with a companion print piece. The online format will enable innovative approaches to illustrating the intersections between the plan's comprehensive recommendations, providing detailed implementation guidance to key partners and improving the plan's accessibility. The web presentation will use mapping of key policy areas, along with locally relevant recommendations, to aid communities in implementing key plan directions. This approach will help CMAP to better focus technical assistance and communities to understand how major recommendations might interact at the local level as well as identify and learn from peers who face similar challenges or opportunities.

CMAP has developed a substantive bank of research and analysis, public outreach, and stakeholder input to cultivate the findings and recommendations within this document. Strategy development will conclude in fall 2017, and this report represents the initial effort to synthesize the most critical directions from work to date. Following completion of the Alternative Futures engagement process in late summer 2017, CMAP is now processing that public feedback to calibrate plan recommendations. In addition, CMAP will continue to engage with stakeholders and the public as strategy development work concludes and the draft plan is developed.

Strategy Papers

Climate Resilience
Emerging Transportation Technology
Energy
Highway Operations
Housing Supply and Affordability
Inclusive Growth
Integrating Green Infrastructure
Lands in Transition
Municipal Capacity
Public Health
Reinvestment and Infill
Stormwater and Flooding
Tax Policies and Land Use Trends
Transportation System Funding Concepts
Water

Snapshots

Demographic Shifts
The Freight System
Infill and Transit Oriented Development
Regional Economy and Clusters
Natural Resources
The Transit Network
Travel Trends

Additional Research Topics

Asset Management
Local Food
Highway System Performance
Non-motorized Transportation
Placemaking
Regional Economy
Traffic Safety
Transit Modernization

Items in italics are complete or in the final draft stage.