



DCHC MPO

ANNUAL REPORT FY2016

DRAFT

MARCH 2017

DURHAM • CHAPEL HILL • CARRBORO
METROPOLITAN PLANNING ORGANIZATION





DCHC
Metropolitan Planning Organization
Planning Tomorrow Today

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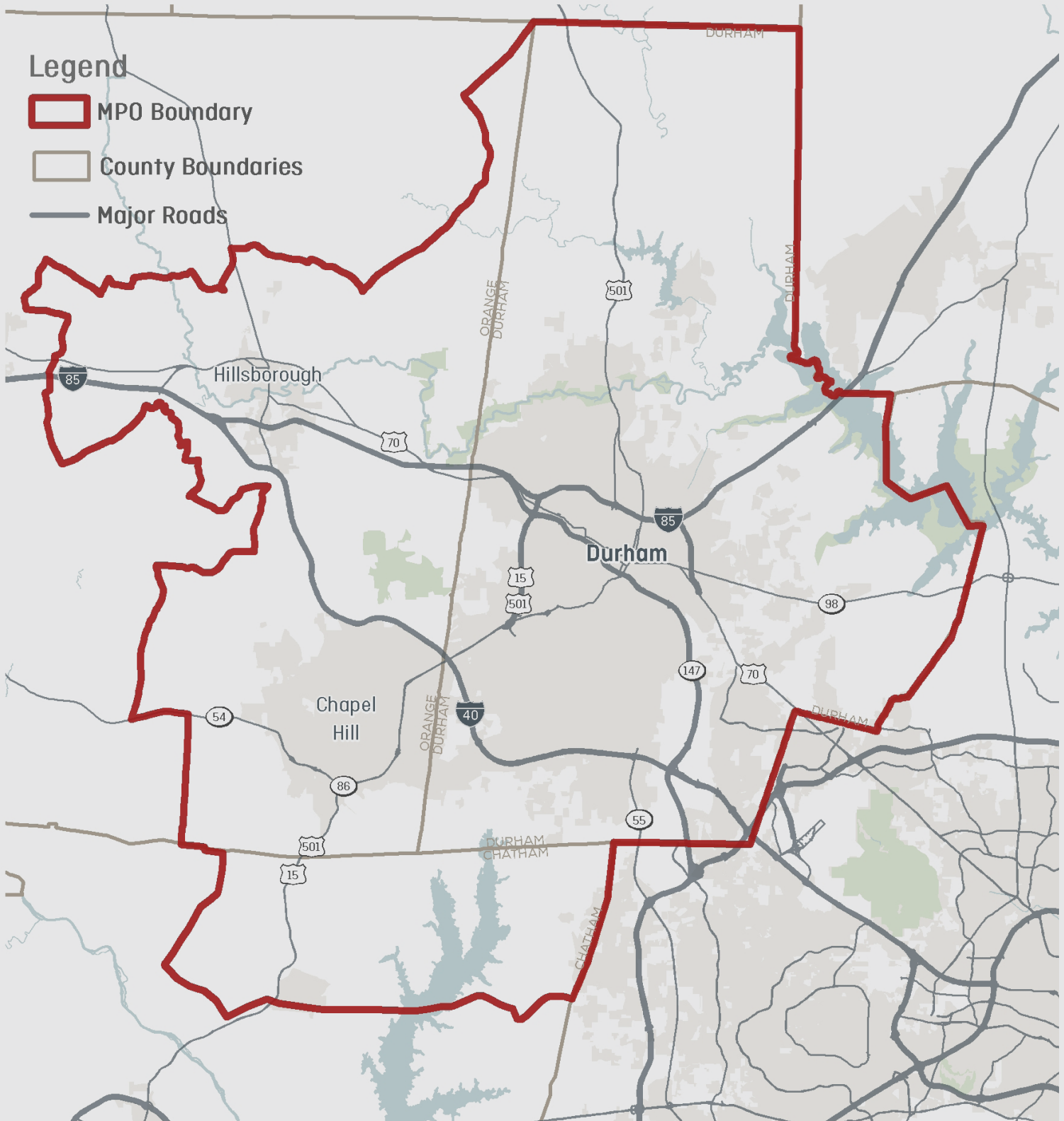
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DCHC MPO Service Area



WELCOME MESSAGE

The Durham - Chapel Hill - Carrboro Metropolitan Planning Organization (DCHC MPO) is pleased to present this, our second Annual Report. Last year's inaugural report was our first attempt to provide a snapshot of DCHC MPO's role in stewarding the region's transportation planning and investment during the past year. It laid out the many trends influencing travel, how DCHC responds to those trends in a fiscally responsible manner, and provided an outlook for things to come. This year's report will continue that effort. I expect you will see that there is much to be discussed.

The DCHC region includes all of Durham County and portions of Orange and Chatham Counties, including Chapel Hill, Carrboro, and Hillsborough. DCHC brings together the region's local governments, transit operators, the North Carolina Department of Transportation, and the general public to create a clear transportation vision for our region and set priorities for federal transportation funding to help achieve that vision.

Our region, like many other successful regions, is presented with a diverse set of transportation opportunities and challenges. Now more than ever we are hearing from the public an interest in using transportation to further not just travel needs, but economic, environmental, and quality of life ones as well. This report attempts to address that interest and provide details on how DCHC is working every day to use transportation to help make this region one of the nation's best in which to live, work, study, and visit.

I hope this report furthers your interest in transportation planning and implementation. DCHC relies on public participation both to create plans that reflect our collective desires, and to see those plans through to creation. We encourage your involvement and contributions as we shape the future of our transportation system, and thus our region.

[SIGNATURE HERE?]

Felix Nwoko, Ph.D.
MPO Manager, DCHC MPO



REPORT SUMMARY

This page summarizes the Annual Report, providing a snapshot of what the MPO is doing now to make our region's transportation system better. The MPO's actions are guided by key trends, established goals, and policy requirements, with the aim of creating a more inclusive, efficient transportation system that improves quality of life and economic outcomes.



KEY MESSAGES

▶ A VISION DRIVEN BY PUBLIC INVOLVEMENT & DETAILED ANALYSIS

All MPO work stems from a clear vision statement that is based on public involvement and vetted by strong data and analysis. Public participation and community surveys are just as important as advanced analytical planning tools like CommunityViz in providing essential information needed to plan for the future.

▶ A REGION GROWING TOGETHER

The region is characterized by widespread, rapid population and economic growth, and communities are increasingly diverse and urban oriented. By 2040 it is expected that 75% of the region's population will live in urban areas. These shifts have long term implications for the future of transportation, and for the MPO.

▶ CONNECTING COMMUNITIES

The MPO is dedicated to ensuring that our swiftly growing communities are more connected than ever. Accessible and affordable transportation options that link Durham and Chapel Hill are a vital resource for the region's young people, seniors, and non-vehicle owners. Mobility for all residents is an essential step in building an equitable future.

▶ THE FUTURE IS MULTI- MODAL

A sophisticated multi-modal (i.e. car, bus, train, bicycle, and pedestrian) transportation network can address the challenges associated with rapid growth, and cater to shifting demographics and consumer preferences. Synchronized investment in all modes of transportation infrastructure will ensure a high quality of life for all residents, and that the region remains a competitive and attractive destination.

▶ STRATEGIES MUST BE SAFE & SUSTAINABLE

MPO projects are designed to protect residents across the region, as well as the environment. Bicycle, pedestrian, transit, and vehicular safety are fundamental to all programs, as are the principles of environmental justice and resilience.



OUR REGION

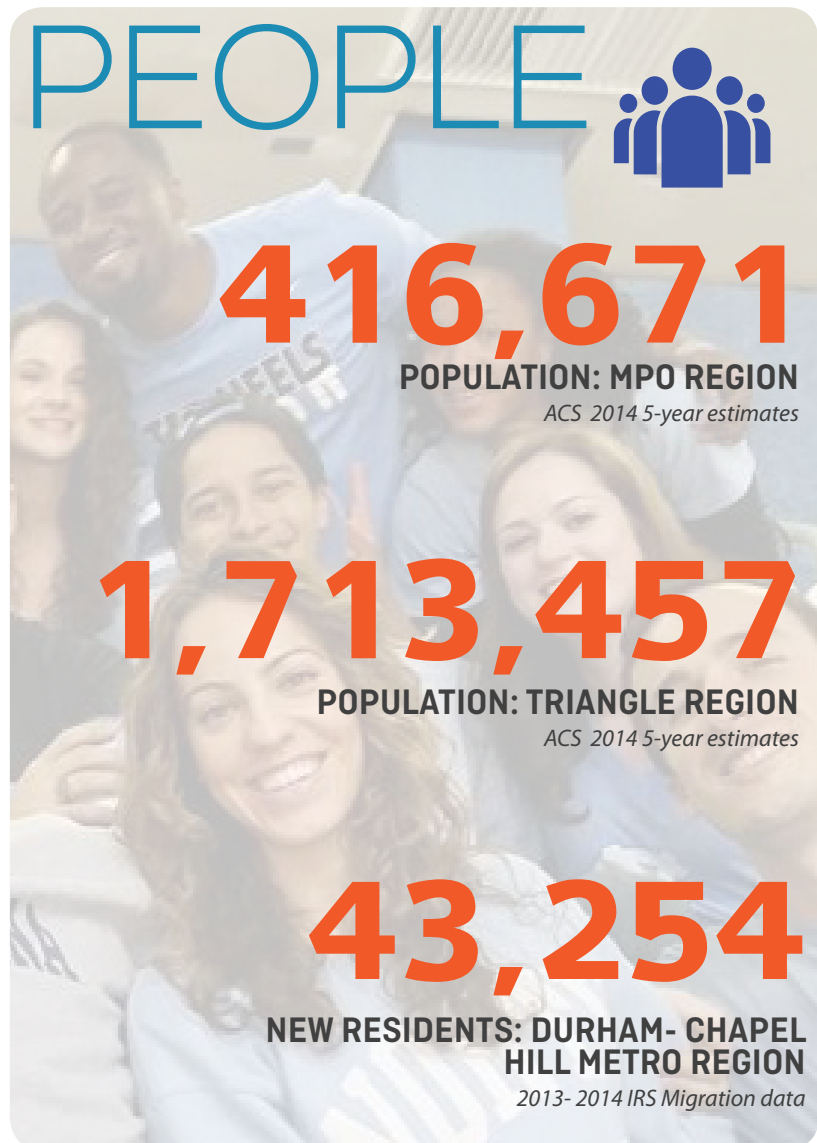
OUR REGION: PEOPLE AND PLACES

The DCHC MPO region, and the larger Triangle region, is composed of a diverse range of communities, from small to large. Collectively, it has one of the strongest and fastest growing economies in the United States. Growth has improved quality of life for many people and brought new customers to the businesses. However, it has also created transportation challenges. This section covers some key trends that influence our changing region.

PEOPLE

Migration - new residents both moving here *and* staying here - has been the driving force behind the region's growth for more than a generation. A dynamic economy, top notch educational institutions, and reputation for offering a high quality of life are factors that attract people from near and far.

- ▶ Between 2013 and 2014, the Durham- Chapel Hill Metropolitan Region welcomed over 40,000 new residents
- ▶ By 2040, the MPO region is expected to add over 230,000 residents
- ▶ Twenty percent of Triangle residents will be 65 or older in 2030, compared to 10% in 2000
- ▶ Continued population growth will lead to expected increases in travel; the MPO anticipates that vehicle miles travelled (VMT) will double between 2010 and 2040
- ▶ The Triangle region is attractive to residents of all ages from millennials to seniors; it is critical that a wide range of transportation options be provided to meet a variety of needs.



PLACES

The MPO area includes Durham; Chapel Hill; the small but growing towns of Hillsborough and Carrboro; and most portions of Durham, Chatham, and Orange Counties. More than three quarters of the MPO area's population is concentrated in Durham and Chapel Hill, and along the roads that connect them. The MPO is focused on improving multi-modal access between Durham and Chapel Hill, and mobility along the major routes throughout the region including US 15/501, NC 54, and NC 751.

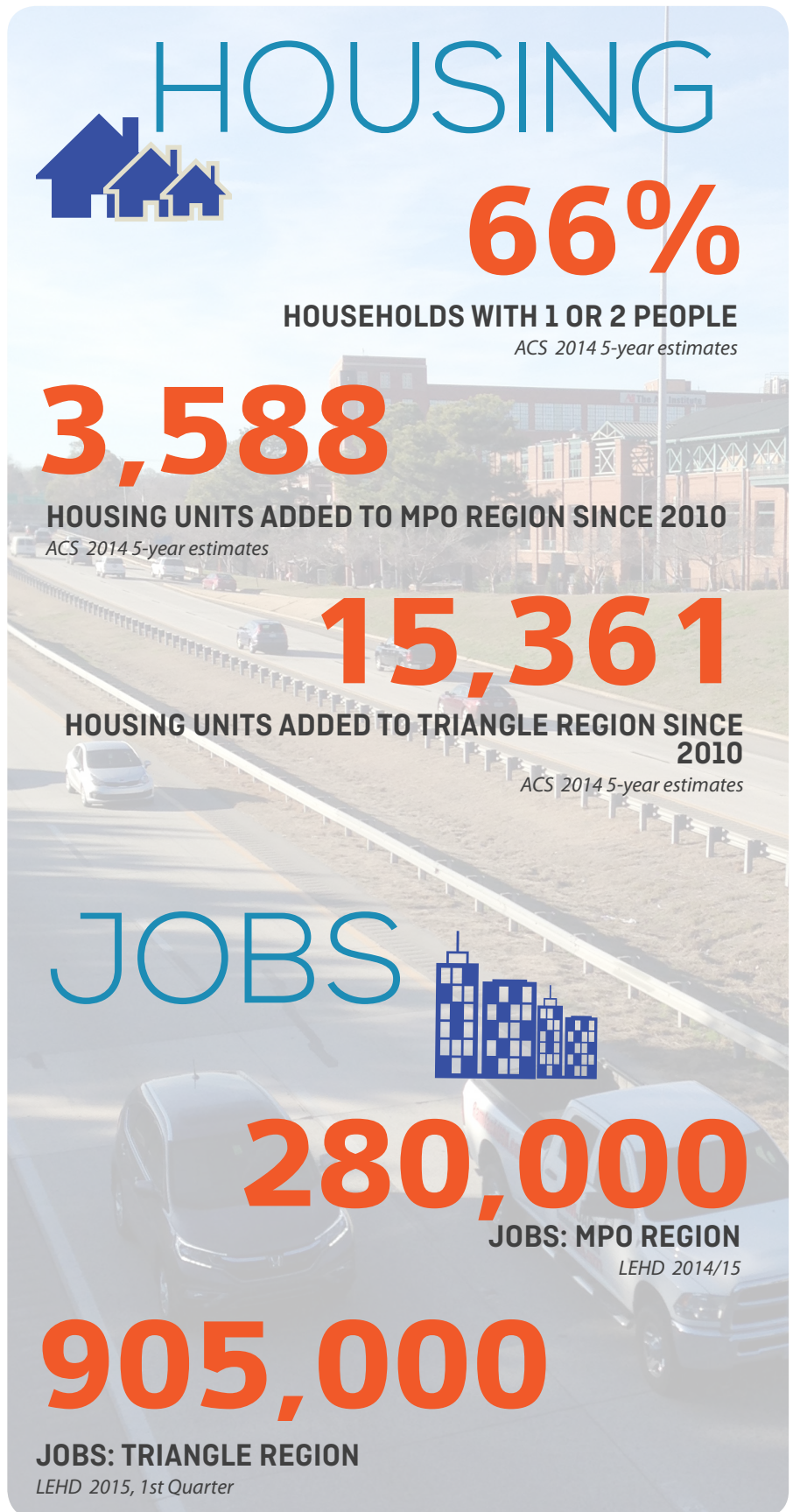
► Households in the MPO area tend to be on the smaller side. Over half only have one to two persons in residence, due to high in-migration of students and retirees.

► Many new housing units continue to be added to the marketplace since 2010, over 3,500 have been added in the MPO region and over 15,000 in the greater Triangle region; growth is occurring in both existing developed areas and along the region's periphery.

► By 2040, 75% of North Carolina residents are expected to be living in urban areas; the growth and development occurring in the MPO's downtowns and city centers reflects this trend.

► The Triangle region consistently rates among the highest metro areas for both job growth and quality of life. In fact, some sources predict that this region will eclipse areas such as Boston, Seattle, and San Francisco as the premier destination for high tech employment⁶.

⁶ http://money.cnn.com/galleries/2007/biz2/0704/gallery.jobs_markets.biz2/3.html



OUR REGION: TRENDS AFFECTING TRANSPORTATION

The DCHC MPO relies on timely and reliable data to inform decisions about where and how to invest limited transportation dollars. The MPO monitors the condition and use of highways, streets, sidewalks, bike lanes, and transit. In addition to these standard transportation indicators, the MPO tracks development and demographic trends to get a sense of where the region is heading and to build and apply better tools that allow planners to spot future needs and evaluate projects. This section introduces some key trends affecting transportation in the DCHC region.



REGIONAL GROWTH

The MPO area and broader Triangle region are among the fastest-growing parts of the United States. From 2010 to 2015, the three-county area population increased by 40,000. Approximately two-thirds of that growth was inside the region's five cities and towns. This population growth also came with an increase in driving. Daily vehicle miles travelled (VMT) in each of the DCHC counties has increased faster than population growth. This increase may be based in part on a rise in employment within the counties, but also serves to show how auto-dependent our region continues to be.

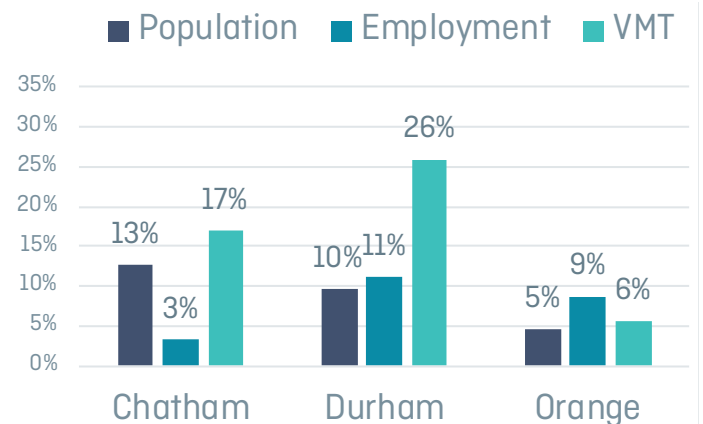
This rapid growth is expected to continue. The MPO area is expected to add another 231,000 people by 2040⁶, and that growth will occur in cities and in rural areas. This growth has many transportation implications, and more transportation choices will be necessary to avoid gridlock in the future.

6 DCHC DRAFT 2040 Socioeconomic Data. http://www.dchc-mpo.org/index.php?option=comp_content&task=view&id=88&Itemid=35

CHANGE IN POPULATION 2010-2015

County			Municipality		
Chatham	8,032	12.6%	Carrboro	976	5.0%
Durham	25,837	9.5%	Chapel Hill	2,336	4.1%
Orange	6,100	4.6%	Durham	22,601	9.9%
			Hillsborough	377	6.2%
			Pittsboro	672	18.0%

CHANGE IN POPULATION, EMPLOYMENT AND VMT, 2010-2015





DOWNTOWN & CITY CENTER REDEVELOPMENT

The MPO area is experiencing an increase of infill development in the region's downtowns and city centers. Infill closes the geographic gap between housing, jobs, and services, and reduces stress on the highway system. The MPO supports infill development by investing in transit, bicycle, and pedestrian infrastructure.

Employment has more than tripled in downtown Durham since 1993, growing from 3,800 jobs to about 16,000 in 2013, with many more on the horizon⁶. Major new mixed use infill projects have been built throughout the region, offering combinations of retail, office, and housing within the same development. Surveys indicate that nearly 30% of Triangle residents would prefer to live in compact, walkable neighborhoods with a mix of uses. This suggests a market in 2040 of between 600,000 and 900,000 Triangle residents looking to live in these kinds of neighborhoods.

One example of this development style is in downtown Chapel Hill. Carolina Square (seen top left) is set to open in 2017. This mixed use development - anchored by a 21,000 ft² 'metro-style' Target - will provide 159,000 ft² of office space; 42,000 ft² of additional retail space; a 0.6 acre park; an 8,500 ft² arts, lab, and performance space; and 246 residential units. A development of this size will have a dramatic impact on Chapel Hill's downtown landscape and livability. DCHC will help ensure that new and existing students, employees, tenants, and residents have their transportation needs met. Part of the MPO's job is to facilitate new transportation connections and services that will support market demand and increase access to opportunities for all residents, and doing so for downtown developments requires multi-modal solutions.

⁶ Ohnesorge, Lauren K. "Durham by the numbers: Downtown workforce quadrupled since 1993." June 3, 2014. <http://www.bizjournals.com/triangle/blog/2014/06/durham-by-the-numbers-downtown-work-force.html>



MULTIMODALISM

Population and job growth continues in the region. While much of this new development is located in existing downtowns and city centers, there is still growth occurring along the region's periphery, contributing to sprawl. Many residents cross city and county lines to reach major employment centers such as UNC, Duke, and Research Triangle Park. These circumstances increasingly lead to roadway congestion. Like many MPOs around the country, DCHC is turning to transportation strategies using all modes of transportation to help alleviate crowded roadways and offer residents more transportation options.

Demographic changes including an aging and diversifying population and a growing urban population (75% of North Carolina residents are expected to live in urban areas by 2040⁶), are influencing travel demand and modal choice. There is a growing desire among residents for active transportation options, and as ride sharing programs such as Uber, Lyft, and ZipCar expand across the region, vehicle ownership is no longer essential to mobility. These trends suggest that non-motorized multi-modal options will need to be expanded. Consumer preferences among young generations mean that the region will need to offer a sophisticated multi-modal network to remain a competitive destination for young professionals and students. A multi-modal network is also a more equitable network, serving populations at all income levels, and ensuring that mobility in the region is not reserved to vehicle owners.

Cycling, walking, and transit options are often dependent on each other for success. It will therefore be important to ensure that major transit infrastructure investments are being well-aligned with investments and plans for bicycle and pedestrian improvements. Major initiatives currently under consideration or in the early planning stages include the Durham Orange Light Rail line, the Durham Wake Commuter Rail Line, and continuing expansions to local and regional bus routes (like the new GoTriangle Carrboro-to-Durham express route that launched in August 2016). Additionally, regional partners like Wake County Transit, with their ambitious Wake County Transit Plan, and NCDOT with their Strategic Planning Office of Transportation (SPOT) Project Prioritization process are also focusing on multimodalism.

6 http://www.walkbikenc.com/mobility_post/existing-conditions/



SAFETY

As automobile safety features improve and advances are made in roadway design and engineering, traffic fatalities continue to decline. The impending introduction of autonomous and semi-autonomous vehicles (AV/ SAV) to our roadways will add a new component to the transportation mix that is forecast to result in significant improvements to safety and drastic reductions in injuries and fatalities. While we are still at least five years away from commercially-available AVs, it will be critical to begin to plan for the shifts in transportation patterns that will likely result from their introduction to the market.

Bicycle and pedestrian safety improvements are also becoming increasingly important issues in the DCHC region, especially as it becomes more urbanized and more development occurs in city centers and downtowns, where residents are more likely to depend on non-motorized transportation options.

Investments are being made in safety across the full transportation spectrum. Separated or contraflow bike lanes, raised pedestrian street crossings; and multi-use paths separated from vehicle traffic are all recent improvements made by DCHC constituent agencies.



FISCAL SUSTAINABILITY & RESPONSIBILITY

Recent federal transportation policy and legislation has focused on ensuring the sustainability of funding for transportation investments as well as on making sure funding is being well-spent. December 2015 saw passage of the Fixing America's Surface Transportation (FAST) Act, authorizing \$305 billion in transportation-related spending over the next five fiscal years. The FAST Act is notable in that it extends the length of federal funding authorization, adding a level of funding reliability at the local level that did not previously exist.

The FAST Act also continues requirements for fiscal responsibility in transportation spending through practices such as performance based planning and programming (PBPP). The performance-based standard was first introduced as part of 2012's Moving Ahead for Progress in the 21st Century (MAP-21) authorization. The goal of PBPP is to help planning agencies make transportation investments that will meet established goals. This is accomplished by first identifying agency goals and objectives and performance measures. Monitoring, evaluating, and reporting on these performance measures over time will demonstrate whether goals and objectives are being met through transportation policy and investment.⁶

⁶ http://www.fhwa.dot.gov/planning/performance_based_planning/pbpp_guidebook/pbppguidebook.pdf



ACCOMPLISHMENTS

MPO VISION

“ A seamless integration of transportation services that offer a range of travel choices and are compatible with the character and development of our communities, sensitive to the environment, improve quality of life, and are safe and accessible for all. ”



MPO ANNUAL ACCOMPLISHMENTS

The MPO has a long list of accomplishments each year. Some are annual projects designed to advance the organization's key missions. Others are special projects that create cost-effective solutions, expanded transportation options, and regional improvements whose impacts extend beyond our borders. This section highlights several of the MPO's current work efforts.

DCHC continues to comply with federal and state regulations and requirements by completing vital tasks necessary for the region to maintain eligibility for and access to federal and State funds.

In a time of financial austerity for transportation, efficiency and effectiveness have never been more important. DCHC is committed to investing in cost-effective solutions to transportation problems so that our dynamic region continues to thrive.



Investing in projects that will provide people with more choices is a major emphasis of DCHC.

All sides of the Triangle are growing together. As the boundaries between regions blur, DCHC, CAMPO, and NCDOT must work together on solutions that benefit the entire Triangle region. DCHC is collaborating with these partners on a range of regional solutions.

2016 ACCOMPLISHMENTS

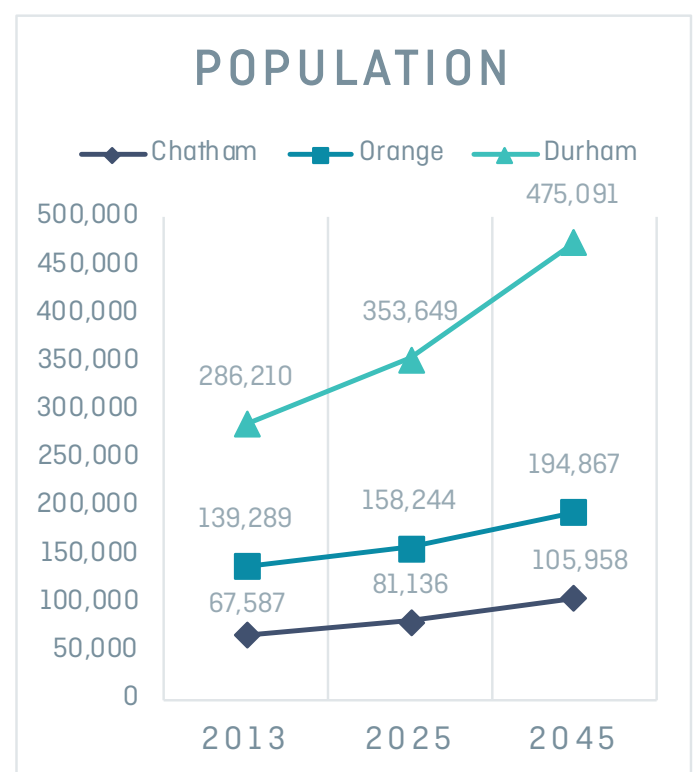
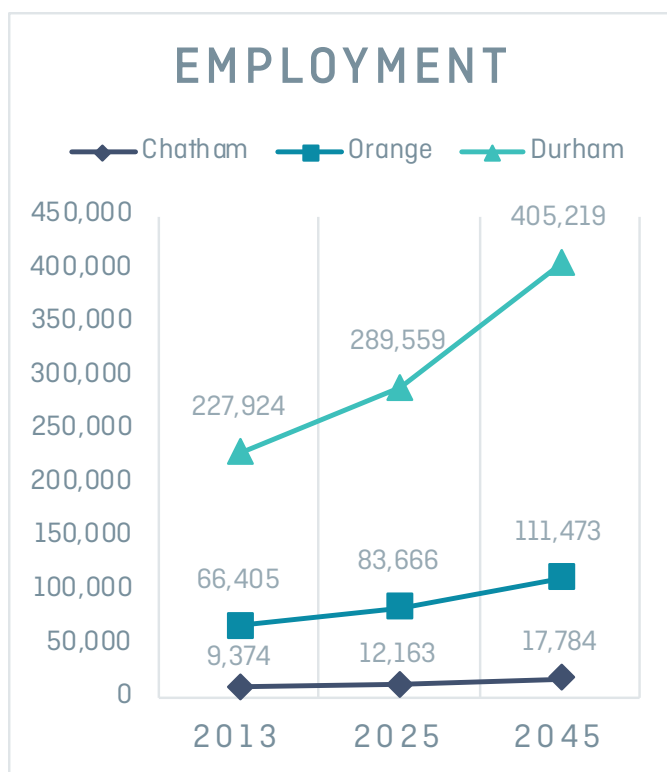
DCHC continues working on and improving upon the analysis, documentation, and services that inform their core missions. Listed below are examples of some of the ways the MPO achieves this.

2045 METROPOLITAN TRANSPORTATION PLAN

The long-range Metropolitan Transportation Plan (MTP) provides a list of all highway, transit, and non-automobile transportation projects that the MPO plans to fund. The 2045 MTP is currently being developed in partnership with the Triangle J Council of Government (TJCOG) and the Capital Area MPO (CAMPO). The draft report lists eight goals that are critical for long-term regional success:

1. Protect Environment and Minimize Climate Change
2. Connect People
3. Promote Multi-modal and Affordable Travel Choices
4. Manage Congestion & System Reliability
5. Improve Infrastructure Condition
6. Ensure Equity & Participation
7. Promote Safety & Health
8. Stimulate Economic Vitality

The 2045 MTP forecasts the amount and type of growth that will occur in the region between now and 2045. These forecasts assist in identifying the types of transportation investments needed to serve long-term growth. Demographic and socio economic analysis and projections/forecasts are on-going and being refined.



VISUALIZATION AND INTERACTIVE MAPPING

DCHC continues efforts to enhance capability and user experience in visualization and interactive mapping. The MPO has recently released to the public two different interactive mapping tools: the Travel Time and Speed Dashboard, and the Traffic Volume Dashboard.

DCHC Metropolitan Planning Organization
Planning Tomorrow Today

Dashboard Analysis Admin

MS2

Filters & Settings: Year 2015 Period AM Functional Class I-4 Month All Day Of Week All Pane Yearly

Travel Time Index

1.02 in 2015

Most Congested Segments

Rank	TTI	Name
1	4	INFINITY RD
2	4	INFINITY RD
3	3.85	ANGIER AVE
4	3.85	ANGIER AVE
5	3.52	FARRINGTON RD
6	3.52	FARRINGTON RD
7	3.39	CLIVE BRANC
8	3.39	CLIVE BRANC
9	3.38	MONCURE PT.
10	3.38	MONCURE PT.

Planning Time Index

1.05 in 2015

Average Speed Profile

Quick Search Advanced Search Map Search Tools

TCDS Quick Search

County	Select County
Community	CHAPEL HILL
Located On (Road)	Select On Road
Location ID	Select Location ID
Count Year	

Search Clear

Station Data

Station Type	Continuous	Short	WIM
Total	0	110	0
AAADT	0	94	0
Volume	0	75	0
Class	0	75	0
Speed	0	75	0
Gap	0	0	0
WIM	0	0	0

Community: CHAPEL HILL

Traffic Volume Index and Growth Rate

TCDS Locations Legend:

- Short
- Continuous
- WIM
- Located Short
- Located Continuous
- Located WIM

General Legend:

- Clear Located
- Reload Map
- Drive Times
- Show Labels
- City
- County
- 2010 Daily V/C
- 2010 Speed Limit
- MPO Boundary

Map Data Points (Volume, Year):

- 17,000 (13)
- 18,000 (13)
- 12,000 (13)
- 8,400 (13)
- 8,900 (13)
- 8,400 (13)
- 8,400 (13)
- 8,700 (13)
- 11,000 (13)
- 12,000 (13)
- 7,600 (13)
- 13,934 (14)
- 8,264
- 6,909 (14)
- 5,505 (14)
- 8,231 (14)
- 7,500 (11)
- 2,000 (13)
- 6,800 (13)
- 8,400 (13)
- 1,900

CHAPEL HILL TRANSIT NORTH-SOUTH CORRIDOR STUDY

Chapel Hill conducted the North-South Corridor Alternatives Analysis, "North-South Corridor Study," to evaluate the best methods for moving more residents and commuters along the Martin Luther King, Jr. Boulevard and 15-501 South Corridor. The study was finalized in Summer 2016, recommending a combination mixed traffic/ dedicated lane bus rapid transit (BRT) route through the Town. The study was funded through a combination of federal and local funds funnelled through the DCHC MPO.

Project Budget for 2045 MTP recommendations: **\$68 Billion**
 Project Budget for North-South Corridor BRT: **\$62 Million**

TRAFFIC INCIDENT MANAGEMENT PROGRAM AND ASSESSMENT REPORT

Traffic congestion continues to grow in Central North Carolina. This growth is spurred by the influx of new residents and businesses to the region. Because of this growth our region has some of the most congested corridors in the state of North Carolina. Congestion levels will only increase with continued growth if no additional traffic management solutions are implemented.

Traffic Incident Management (TIM) practices and strategies are a key to successful and safe mobility. The Mission of the DCHC TIM Program is to plan, inform, and partner with our member agencies and responder entities to develop a comprehensive approach to save lives, increase mobility and be a resource for program success. The purpose of the TIM Assessment Report is to set the direction and focus of the DCHC MPO Traffic Incident Management Program, which complements the DCHC Congestion Mitigation Plan.

A major goal for this assessment was to bring our regional incident responders together to facilitate better communication, cooperation and coordination for response to major incidents that affect the mobility of our local roadways. During this assessment a strategic plan and direction was also created. An objective of this strategic plan is to introduce and document an incident responder Memorandum of Understanding (MOU) that builds the foundation for improved traffic incident management in our region. It is expected that this MOU will be able to formalize and strengthen existing relationship among TIM Stakeholders.



DURHAM-ORANGE LIGHT RAIL TRANSIT

The proposed Durham-Orange Light Rail Transit Project is a 17.1-mile light rail transit line which extends from UNC (UNC Hospitals Station) to east Durham (Alston Avenue/NCCU Station). The Durham-Orange Light Rail alignment connects a range of educational, medical, employment, and other important activity centers, park-and-ride lots, transfer centers, the Durham Amtrak Station, and the Durham Station. In February 2016 the Federal Transit Administration (FTA) and GoTriangle prepared a combined Final Environmental Impact Statement and Final Section 4(f) Determination of Record to evaluate the proposed light rail project. This combined document responds to substantive feedback received during the public comment period. DCHC is a financial contributor and an active stakeholder in this project.



REGIONAL FREIGHT PLAN



FROM: www.ourtransitfuture.com

Freight and urban good management is identified as an area of key planning consideration for MPOs by federal transportation legislation (MAP-21). The DCHC MPO is developing a Regional Freight Plan for the Triangle region, jointly funded by the DCHC MPO, the Capital Area Metropolitan Planning Organization (CAMPO) and NCDOT. This partnership recognizes the importance and need for these agencies to jointly address freight issues in the region. The purpose of the plan is threefold: 1) to conduct a comprehensive regional study of freight, goods movement, and services mobility needs; 2) to develop a framework to proactively address freight and goods movement mobility needs and challenges in our region; and 3) to examine all modes of a freight transportation system with emphasis on trucks, rail and air cargo and to develop freight recommendations for the 2045 joint Metropolitan Transportation Plan. It is envisioned that the plan will guide freight investments in a manner that supports the region's goals

for safety, social equity, economic productivity, sustainability, and livable communities.

TRANSPORTATION SAFETY/ SECURITY PLAN

The DCHC MPO is developing a Transportation Safety / Security Plan to improve transit safety, pedestrian/ bicyclist safety and highway safety. The plan will provide a snapshot of the accident types, severities and locations using the National Transit Database (NTD) operated by the Federal Transit Administration, the Traffic Engineering Accident System (TEAAS) and Intelligent Traffic Systems (ITS) architecture maintained by NCDOT. The plan will identify safety and security deficiencies in the area, and will guide development of new strategies and campaigns for improving the overall safety on our facilities in the region.

REGIONAL TOOL MANAGED LANE STUDY

DCHC, CAMPO and NCDOT are developing a strategy and implementation plan that outlines a holistic tolling and managed lanes strategy for the region. The strategy includes technological evaluation; operational structures; and the development of appropriate performance measures to evaluate future tolling decisions. The strategy also provides an assessment of how the recommendations impact the regional multi-modal transportation network. The study will identify financing and partnering mechanisms for funding the toll road infrastructure and operational/collection requirements. The study will include an outreach strategy to educate and gain input from targeted stakeholder groups, and the general public. Ultimately, this study will identify the feasibility and necessity of using either tolling or other managed lane concepts or technologies to achieve regional objectives associated with the Metropolitan Transportation Plan. The project duration is 19 months beginning in November 2016 and concluding with consultant recommendations by June 2018.

SAFETY ANALYSIS AND DRAFT REPORT

The MPO completed analyses related to bike and pedestrian safety, transit safety and vehicular safety. Other safety related accomplishments include participating in the North Carolina Safety education initiatives and regional bike and pedestrian safety programs.

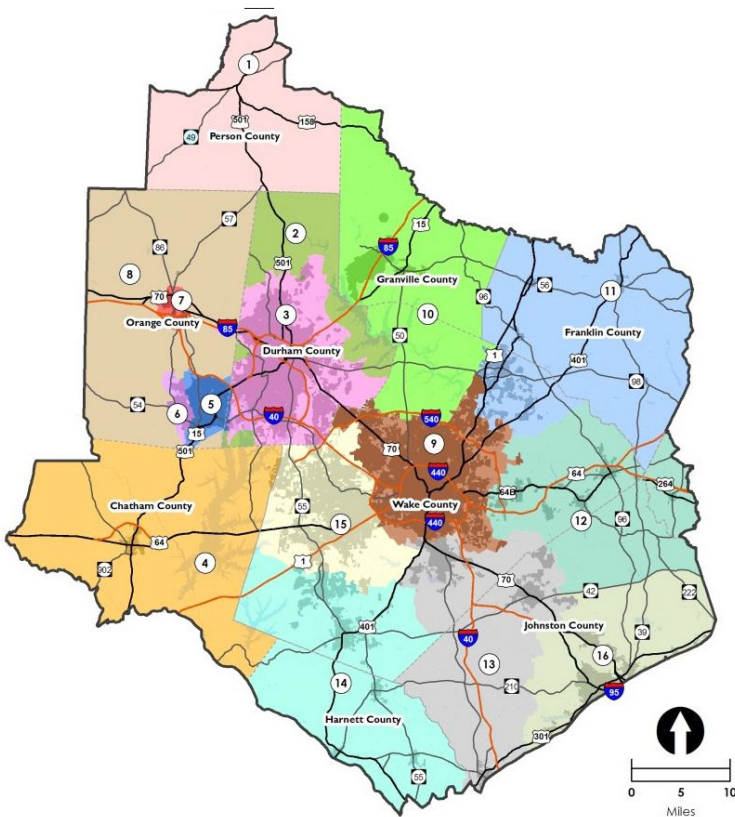
COMMUNITY VIZ

CommunityViz is a GIS-based tool that projects where future growth will occur based on current development and assumptions about what makes some locations more attractive than others. It can be used for a small area or an entire region. In the Research Triangle Region, an initial forecast of future growth to the Year 2040 was used to allocate growth for the region’s 2040 Metropolitan Transportation Plan. The model has been refined to create Version 2.0 [TCV2]. The MPO is developing forecasts for population and employment in the year 2045 for use in the Community Visualization land use model (CV 2.0) and Triangle Regional Model (TRM v6).

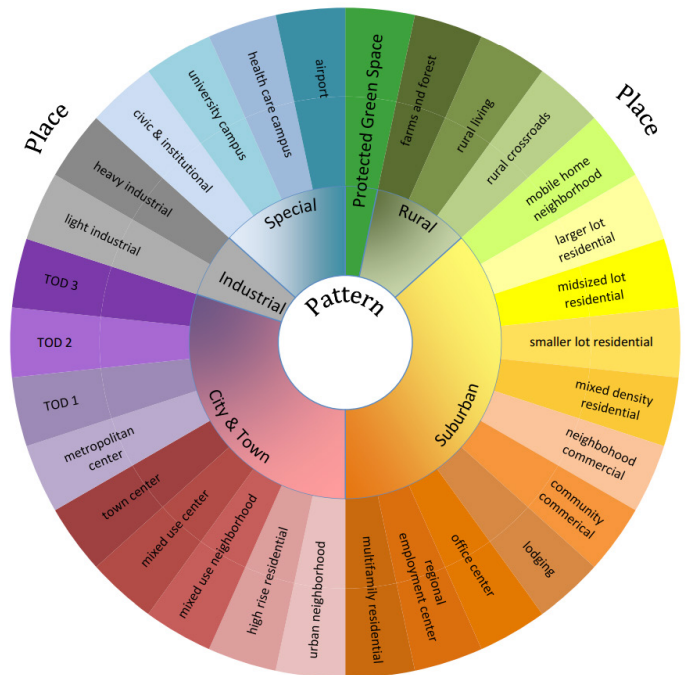
CommunityViz uses five major elements in its allocation:

- **Development Constraints** - Special conditions that restrict the amount of development a parcel can receive
- **Place Types** - Each parcel of land is assigned one of 30 different CommunityViz place types spanning a range of residential, commercial, industrial and mixed-use development possibilities
- **Development Status** - Parcels of land receive one of 5 development status assignments: developed, committed, undeveloped, under-developed, and re-developable. This status influences future growth allocation
- **Land Suitability** - Measure of how “attractive” a parcel or grid cell is for new growth, relative to all the other parcels or grid cells in the county.
- **Growth Allocation & Control Totals** - The final step is to assign new growth to parcels or grid cells based on their relative suitability. Growth is based on control totals that are developed for each county, and for each of the categories of growth that are forecast

Triangle CommunityViz Development Pattern & Place Type Wheel



Study Area & Sub-Region Boundaries Map





COMPREHENSIVE TRANSPORTATION PLAN

The Comprehensive Transportation Plan (CTP) is a long range, multi-modal transportation plan that identifies roadway, transit, bicycle, and pedestrian improvements to be implemented in the future. The CTP is developed cooperatively between NCDOT and DCHC and emphasizes incorporating local land use plans and community and statewide goals (like Strategic Corridors). The CTP planning process and document are required by the state of North Carolina and are similar to the Metropolitan Transportation Plan (MTP), although the CTP evaluates transportation needs beyond a 20-year time horizon and is not restricted by expected funding levels (as is the MTP). It is important to note that CTP recommendations are just concepts and any project will go through a rigorous environmental review process before final alignments or designs can be determined.



The draft CTP was submitted to NCDOT for their internal review. The first step of this process, called the peer review, is complete and staff is making suggested modifications so the process can move to the management review step. Public outreach meetings and local engagements are planned from November 2016 to January 2017.

CONNECT 2045

Connect 2045 is the second major scenario analysis initiative between the DCHC and CAMPO to promote community-based regionalism. CommunityViz software was used throughout the planning process to measure and evaluate the impacts of competing development scenarios and major investments in the regional transportation system.

Connect 2045 creates scenarios and examines them across a range of performance measures. This kind of scenario development is distinct from a forecast or plan. Scenarios describe different ways that the future *might* look, while a forecast attempts to predict the way the future *will* look, and plans define what the future *should* look like. To that end, Connect 2045 is in the process of evaluating seven different scenarios that blend different growth patterns and different transportation investments. The Triangle J Council of Government (TJCOG) has been responsible for coordinating many activities and tasks of the two MPOs and of local government staff.

Connect 2045 Scenario Matrix
Initial scenarios -- details of scenarios still to be developed

		 Mobility Investment Foundation		
		Constrained	Moderate/Plans	Aspirational
	Development Foundation	By Right	Scenario #1	Scenario #2
	Community Plans	Scenario #3	Scenario #4	Scenario #5
	AIM-High		Scenario #6	Scenario #7

TRIANGLE TRAVEL SURVEY

The Triangle Travel Survey is a study of day-to-day household travel activity and typical travel patterns for the region’s residents. The study area includes all of Durham, Orange, and Wake Counties and portions of seven other counties including Chatham, Harnett, Johnston, Franklin, Granville, Nash, and Person. Beginning in February 2016, letters were mailed to approximately 76,000 randomly selected households throughout the region asking for their participation in the travel survey. The survey continued through May, and analysis is currently underway. The information gathered is vital for the regional transportation agencies to understand how the system is impacted by growth, development, and changes in communities across the area, so that each agency may prioritize future transportation improvements.



MPO ADA TRANSITION PLAN

The MPO continues to oversee the development of the DCHC MPO ADA Transition Plan. ADA transition plans outline a jurisdiction's assessment plans for bringing their infrastructure into compliance with the requirements of the Americans with Disabilities Act (ADA). Specific tasks underway include an update of 508 compliance, which ensures access to electronic and information technology, preparation of an ADA roundtable with key stakeholders, and an assessment of existing ADA programs within the MPO.

PUBLIC INVOLVEMENT PROCESS

DCHC continues to provide the public with complete information, timely notice, and full access to key decisions and opportunities for early and continuing involvement in the 3C (continuing, comprehensive, and cooperative) planning process. Also, the MPO continues to assess the effectiveness of its Public Involvement Process and to develop and enhance the process of regional involvement supporting the objectives of the Public Involvement Policy (PIP) and application of federal regulations (such MAP-21). Staff continues to apply innovative techniques to improve MPO public participation, especially for those plans and programs that use social media. DCHC continues to oversee the update and the maintenance of the MPO website, and provide management support for MPO visualization efforts.



OTHER ACHIEVEMENTS AND ONGOING EFFORTS

METROPOLITAN TRANSPORTATION IMPROVEMENT PROGRAM (MTIP)

CONGESTION MANAGEMENT PROCESS (CMP)

MOBILITY REPORT CARD (MRC)

TRIANGLE REGIONAL MODEL (TRM)

NEPA & PROJECT PLANNING

ITS STRATEGIC DEPLOYMENT PLAN

ROUTINE MANAGEMENT & OPERATIONS

ADDITIONAL REGIONAL HIGHLIGHTS

TOWN of CARRBORO

Traffic Calming
Downtown Parking Study
Vision 2020
Climate Action Plan
Comprehensive Bike Plan
Safe Routes to School

CITY of DURHAM

Bike/Ped Plan
Durham-Orange Light Rail Transit
2018-2027 TIP
Comprehensive Transportation Plan



Photo source: Governors Village www.villagenc.com

CHATHAM COUNTY

Bicycle Signage Study
American Tobacco Trail Connections

ORANGE COUNTY

Short-Range Transit Planning
Transportation Improvement Program

TOWN of HILLSBOROUGH

Pedestrian Retrofit Feasibility Study



OUTLOOK FY 2017

OUTLOOK FY 2017

Major work efforts in FY 2017 will be the continuation of the development of the 2045 Metropolitan Transportation Plan (MTP), development of the 2018-2027 Metropolitan Transportation Improvement Program (MTIP), implementation of Final Rule and FAST ACT, and the continuation of routine planning and special and/ or mandated projects and programs. Introduced below are special emphasis projects and new initiatives for the FY 2016-17 Unified Planning Work Program (UPWP).

HIGHLIGHTS FROM THE FY 2017 UNIFIED PLANNING WORK PROGRAM

► TRIANGLE REGIONAL MODEL (TRM)- MAJOR MODEL ENHANCEMENT

This project seeks to improve the region's travel modeling capabilities through enhancements to small area precision, improvements in non-motorized models, increased sensitivity to travel demand management policies, network quality checks, improved transit ridership forecasting, incorporating tools for policy analysis and responding to policy questions, improving HOV/HOT tools, parking sensitivity enhancements, and technical enhancements relative to trip generation, destination choice, and mode choice.

► TRAVEL BEHAVIOR SURVEY (TBS)- HOUSEHOLD SURVEY

This project involves a survey of households in the region that will be used to calibrate the region's travel model. In FY 2016-17 work will continue on tabulation and analysis of the data collected for the TBS. To supplement the household survey, and to meet the MPO's goal of better understanding and increasing the use of transit and non-motorized travel, a transit survey of bus riders and surveys of cyclists and pedestrian activity and facilities will also be conducted.

► COMMUNITY VIZ UPDATE

This project aims to develop a scenario planning tool that can examine the pros and cons of various transportation and land use scenarios. Working with CAMPO, the DCHC MPO seeks to implement a partnering strategy and create a spatial data planning model framework. The model will be used by DCHC staff to identify regional goals and community values, and explore alternatives for growth, development, and transportation investment. Results will inform the development of the 2045 MTP.

► DATA COLLECTION AND DATA MANAGEMENT

The MPO is required to perform continuous data monitoring and maintenance for a number of transportation and traffic conditions including traffic volume and turning movement counts, travel time and speed surveys, and pedestrian and bike counts. Specific outputs to support a more comprehensive and systematic data collection and management process include: the design of work flow processes and data access strategies to support routine access to relevant information; continued design and updating of a centralized database for information that will be used by transportation and land use models; development of presentation tools for data; and adjustment of the travel demand model.

► FREIGHT PLANNING/ URBAN GOODS MOVEMENT- REGIONAL FREIGHT PLAN

This plan will improve the movement of goods in the Triangle region. Jointly funded by CAMPO, DCHC, and NCDOT, work will continue on the development of the regional freight plan as mandated by federal regulations. The freight plan will guide freight-related investments in a manner that supports the region's goals for safety, social equity, economic productivity, sustainability, and livable communities.

► VISUALIZATION AND INTERACTIVE MAPPING

Continue effort to enhance capability and user experience.

► AMERICANS WITH DISABILITIES ACT (ADA) TRANSITION PLAN

The ADA Transition Plan will help to identify system needs for people with disabilities. This includes a schedule for providing features like curb ramps for walkways and other accessibility improvements. The Transition Plan and its identified needs will be fully integrated into the MTIP and the MPO will continue to update the Transition Plan and programmatic assessment, as needed.

► PERFORMANCE MEASURES AND TARGETS

Federal regulations now require the MPO to transition to performance-based planning and programming. To support this transition, the DCHC MPO will collect performance data and select and report performance targets for the MPO planning area. This task also includes continuous monitoring and evaluation of the MPO's transportation systems.

► SPECIAL STUDIES

There are many locations around the region whose unique transportation conditions require detailed study. These special studies provide insight on issues, opportunities and constraints at these locations, often providing implementation strategies that inform future regional investment and prioritization. Upcoming special studies include:

- NC 54 West Corridor Study (Carrboro to Graham)
- US 15-501 Corridor Study (University Drive to Franklin Street)
- ITS Regional Deployment Plan
- I-40 /540 Hot Spot Traffic Study
- NC 98 Corridor Study
- Regional Toll Study



FINANCIAL REPORT

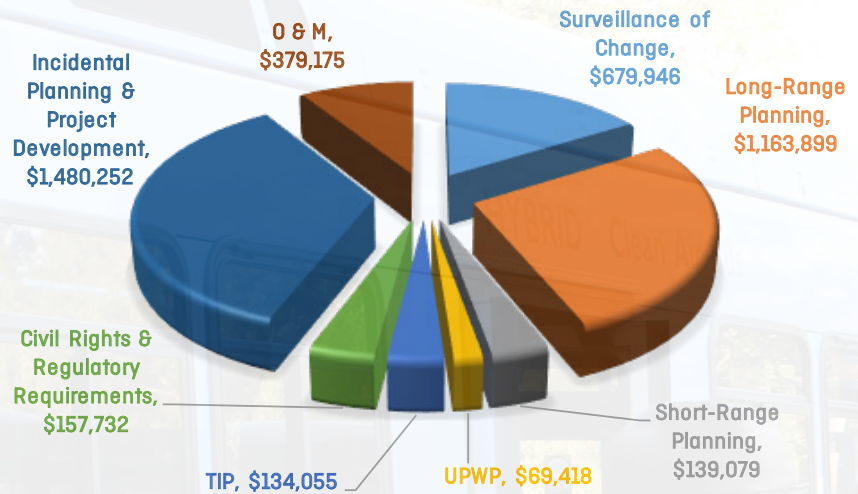
The Federal Highway Administration (FHWA), Federal Transit Administration (FTA), the State of North Carolina, and local governments will invest over \$4 million in transportation planning in the DCHC region in the 2016-2017 fiscal year. DCHC uses a large portion of its federal funds to support core MPO requirements, as well as distributing those funds to local governments and transit agencies. The local governments use these funds to meet some of their special needs and to participate in regional transportation planning.

In FY 2016 - 2017, the region's transit agencies receives \$1,000,000 of the region's allocation of federal funds.

Chapel Hill Transit, GoDurham (DATA), and GoTriangle (TTA) will use the funds for a variety of projects and tasks. Additionally, GoTriangle has received a transit-oriented development Planning Pilot Program Grant from FTA that provides \$1.7 million dollars of federal money, matched by over \$500,000 in local funds.

Local funds are also an important part of the region's planning budget. Each federal program requires a match from state and local sources. Typically, the match is 20 percent. In FY 2016-2017, local and state sources will contribute over \$840,000 to the region's \$4.2 million planning budget. A further breakdown of funding allocation and expenditures is provided here.

DCHC EXPENDITURES



FY 2016 - 2017 FEDERAL FUNDING ALLOCATION

ORGANIZATION TYPE	FEDERAL FUNDS ALLOCATED
Durham Chapel Hill Carrboro MPO	\$ 1,669,520
Local Governments	\$ 448,066
Triangle J Council of Governments (TJCOG)	\$ 55,000
Transit Agencies	\$ 1,053,060
Total	\$ 3,362,846

FY 2016 LPA BUDGET- UNIFIED PLANNING WORK PROGRAM (UPWP EXPENDITURE)

Approved LPA budget for FY16 UPWP	\$ 1,893,962
LPA Expenditures of Planning Funds in FY16	\$ 1,728,912
LPA Balance in FY16*	\$ 165,049

*Amount brought forward to FY16 for US 15-501 Corridor Study (\$300,000) and ITS program (\$100,000)

DCHC BUDGET & EXPENDITURE SUMMARY

SUB RECIPIENT	FISCAL YEAR 2016 FUNDINGS			TOP EXPENDITURES
	Local/State	Federal	Total	
Surveillance of Change	\$135,989	\$543,957	\$679,946	Collection and monitoring of travel volume, safety, demographic, and other critical planning data.
Long-Range Transportation Planning	\$232,779	\$931,120	\$1,163,899	Travel surveys, travel model updates, public involvement, financial planning, and more.
Short-Range Transportation Planning	\$27,816	\$111,263	\$139,079	Transit development plans, service performance evaluation, public involvement, safety
Planning Work Program	\$13,884	\$55,534	\$69,418	Develop the annual work program.
Transportation Improvement Program	\$26,811	\$107,244	\$134,055	Develop and manage the region's short-range Transportation Improvement Program (TIP).
Civil Rights & Regulatory Requirements	\$31,547	\$126,185	\$157,732	Comply with Title VI and Environmental Justice regulations and conduct public involvement.
Incidental Planning , Project Development	\$296,050	\$1,184,202	\$1,480,252	Environmental analysis, special studies, application and data development, and regional planning.
Management & Operations	\$75,835	\$303,340	\$379,175	Administration of DCHC.
Total	\$840,712	\$3,362,846	\$4,203,557	










SUMMARY & EXPENDITURE FOR THE MPO SUB-RECIPIENTS

SUB RECIPIENT	FISCAL YEAR 2016 FUNDINGS			TOP EXPENDITURES
	Local/State	Federal	Total	
Durham and GoDurham (DATA)	\$112,966	\$451,861	\$564,826	Metropolitan Transportation Plan (MTP) activities, congestion management, bike and hike map, pre-TIP planning.
Durham County	\$10,761	\$43,042	\$53,803	Transit planning for the MTP, regional and statewide planning
Orange County	\$8,660	\$34,640	\$43,300	L RTP activities
Chapel Hill	\$75,499	\$302,000	\$377,499	Bicycle and pedestrian inventory, MTP planning, ongoing special studies.
Carrboro	\$6,735	\$26,941	\$33,676	Town parking plan, other studies
Hillsborough	\$23,961	\$95,842	\$119,083	Special studies
TJCOG	\$13,750	\$55,000	\$68,750	Regional and statewide planning
Chapel Hill Transit	\$63,100	\$252,400	\$315,500	SPOT process, regional planning, special studies
GoTriangle (TTA)	\$704,385	\$2,375,615	\$3,080,000	Continued special studies (includes TOD Development Planning Pilot Program - \$2,225,000) bus and rail planning
Total	\$1,374,097	\$5,054,461	\$6,428,557	



ACKNOWLEDGEMENTS

MPO MEMBERS

 <p>DURHAM 1869 CITY OF MEDICINE</p>	<p>City of Durham (Lead Planning Agency)</p>		<p>County of Durham</p>		<p>Town of Hillsborough</p>
	<p>Town of Chapel Hill</p>		<p>County of Orange</p>		<p>NC Department of Transportation</p>
	<p>Town of Carrboro</p>		<p>County of Chatham</p>		<p>GoTriangle</p>

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DCHC MPO ANNUAL REPORT FY2016

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