The Capital Area MPO
2030 Long Range Transportation Plan

Executive Summary

This report provides a summary of the 2030 update of the Capital Area Long-Range Transportation Plan (LRTP). The LRTP is the long-range guide for major transportation investments for the North Carolina Capital Area Metropolitan Planning Organization (CAMPO). At the time of this report's adoption, the Capital Area MPO's geographic coverage encompasses the entirety of Wake County, North Carolina. Beginning in October 1st, 2005 the Capital Area MPO will have expanded its planning boundary to include parts of Franklin, Harnett, Johnston, and Granville counties. The LRTP recommends major transportation projects, systems, policies and strategies designed to maintain our existing systems and serve the region's future travel needs. The Capital Area MPO LRTP is integrated with land use and air quality strategies and goals for the urban area.

Official endorsements of the 2030 Long Range Transportation Plan by the Transportation Advisory Committee (TAC), USDOT, and the Environmental Protection Agency (EPA) are required in order for the MPO to receive federal funds for its transportation investment needs. The plan emphasizes improvements to existing highway facilities, as well as the construction of new highway, transit, and bicycle and pedestrian facilities.

The currently adopted 2025 LRTP was a major transportation plan update that was approved in April, 2002. It included an extensive amount of work developing goals and objectives, testing several scenarios of investment and land use strategies (including use of a peer review panel), developing financial revenue forecasts needed to apply fiscal constraint to the LRTP's proposed actions. The 2025 LRTP is documented in a report dated April 17, 2002 that is available at the Capital Area MPO office. Excerpts of the report are available on the Capital Area MPO website at (http://www.raleigh-nc.org/campo).

The primary objective of 2030 LRTP update is to validate, and refine as necessary, the 2025 LRTP by testing it against newly prepared projections of socio-economic data now forecasted out to the year 2030. These forecasts were prepared with the close cooperation of the MPO's member governments' planning staffs as well as with those of the Durham-Chapel Hill-Carrboro (DCHC) Urban Area MPO and of the abutting counties of Franklin, Granville, Harnett, and Johnston.

The first section of this report includes a summary of the socio-economic data forecasts, the resulting forecasts of trip-making and daily travel data, (by vehicle-miles and vehicle-hours) assuming completion of projects contained in the 2030 LRTP, and the resulting levels of severe traffic congestion expected by the year 2030.

The second section includes maps and tables showing roadway, transit, and incidental bicycle improvement projects recommended for completion by the years 2010, 2020, and 2030.

The third section includes appendices that provide additional detailed information about the socio-economic data and revenue forecasts.

The 2030 LRTP includes an update of the previous revenue forecasts to ensure that the LRTP continues to meet the federal requirement of being fiscally constrained to the amount of revenue expected to be available over the 26-year planning period (2005-2030). Due to continuing delay

associated with the reauthorization of federal transportation funding (as of August, 2004), it is very difficult to project future federal funding. Therefore, the revenue forecasts assume minimal increases in current funding levels through 2020. For the 2020 to 2030 planning horizon, an increase of approximately $100 Million per year is assumed from a variety of local, state, and federal revenue increases. Other desired projects that are needed by 2030 but which cannot be afforded given the anticipated revenue stream are listed as "2040+ (Un-funded)" projects.

The expected revenues through 2030 are not adequate to meet the increase in travel demand from continuing urban development in this fast-growing region. Projected resources will barely keep pace with the growing operating and maintenance needs of the existing-plus-committed systems, which include repair, bus replacement, reconstruction of portions of the system, and some investment in emerging Intelligent Transportation Systems.

The gap between the region's transportation needs and available funding presents several challenges that the Capital Area MPO, along with other Triangle region stakeholders, must soon address:

- Aggressive pursuit of both short and long term non-traditional funding sources as well local revenue options.
- Advancement of LRTP components to implementation through the Transportation Improvement Program (TIP) consistent with the air quality conformity project implementation schedule.
- Monitor regional growth to ensure the Long Range Plan stays abreast of the region's needs
- Initiate feasibility studies for post-year projects (projects not included in the 2030 LRTP)
- Continue working with the DCHC MPO and neighboring counties to solve the region's air quality problems and meet the new 8-Hour Air Quality Standard

Failure to address these challenges may result in deterioration of the transportation infrastructure, degradation in mobility, and harm to the regional economy.

The Capital Area MPO
2030 Long Range Transportation Plan

Our Vision

A multi-modal transportation network that is compatible with our growth, sensitive to the environment, improves quality of life and is accessible to all. The *2030 Transportation Plan Update* commits our region to transportation services and patterns of land use that contribute to a more attractive place where it is easier for people to pursue their daily activities.

Transportation Goals and Objectives

One of the major challenges of the 2030 LRTP is to develop a transportation system that provides improved mobility while preserving existing infrastructure. The 2030 LRTP should also support regional and local land use goals and work toward the region's attainment of national air quality standards.

The Capital Area MPO Transportation Advisory Committee considered many sources of information in developing the final goals and objectives. Ultimately, the overarching goal of the transportation strategy remains to maintain and improve upon the safety and efficiency of the existing system.

GOAL ONE: **DEVELOP A REGIONAL TRANSPORTATION NETWORK THAT IMPROVES QUALITY OF LIFE AND THE ENVIRONMENT.**

Objective A: Encourage local and state governments to manage growth more proactively by linking land use patterns, plans and policies with transportation networks.

Explanation: *Our region's transportation facilities are not adequate for the existing and planned development patterns. Current growth management policies contribute to transportation problems. Local and state governments are reactive instead of proactive, and there is not enough emphasis on regional coordination between land use and transportation development. Land use policies and the resulting development patterns must better address transportation issues and implications.*

Objective B: Encourage equitable funding from Federal and state sources for a system that satisfies the region's transportation needs.

Explanation: *Due to the area's dramatic growth, there is a substantial need for transportation improvements, especially for highway construction. Primary funding sources for highway construction and improvements are the state and Federal gasoline taxes. A significant amount of the gasoline taxes that are collected here are not used to fund local projects. This objective expresses the desire to increase the proportion of state gasoline tax revenue that is used to fund projects in this MPO. There is also a desire to improve the state distribution formulae to insure that Federal highway funds are spent in areas of critical need.*

GOAL TWO: **PROVIDE CONVENIENT, SAFE, RELIABLE AND AFFORDABLE TRANSPORTATION CHOICES, AND PROVIDE PUBLIC EDUCATION ON THOSE CHOICES.**

Objective A: Provide policies and infrastructure that make walking and bicycling more viable modes of transportation.

(Goal Two Continued)

Explanation: *Local land use plans have not adequately integrated the walking and bicycling modes of transportation. The region needs to develop more facilities, policies and programs to enhance the viability of these modes of transportation.*

Objective B: Promote the benefits of walking and bicycling as practical modes of transportation.

Explanation: *New efforts are needed to encourage and promote bicycling and walking as viable modes of transportation. Promoting the health, environmental and economic benefits of these modes of transportation would assist the region with realization of those benefits.*

Objective C: Increase funding for alternative modes of transportation.

Explanation: *Funding for alternative transportation modes (including transit) is inadequate. Alternative transportation modes require a higher level of funding in order to provide people a choice of transportation other than the single occupancy vehicle. Innovative ways of providing increased funds should be explored.*

Objective D: Promote land use policies that encourage transit alternatives in local and regional plans.

Explanation: *The local land use plans and policies and their implementation do not adequately accommodate transit-oriented development or other alternative transportation modes. Local and regional plans and policies should support transit alternatives.*

GOAL THREE: ENHANCE CONNECTIVITY BY DEVELOPING A MULTI-MODAL TRANSPORTATION NETWORK THAT PROMOTES ECONOMIC GROWTH THAT IS COMPATIBLE WITH THE ENVIRONMENT AND LAND USE PATTERNS.

Objective A: Improve mobility by planning facilities that enhance interconnectivity and accessibility.

Explanation: *Due to the region's growth, there is a need to plan for and design interconnected facilities. Planning for accessible facilities requires points to be interconnected. These points should be linked to provide timely travel for all people in a seamless manner.*

Objective B: Improve the coordination of the metropolitan area governments, public and private transportation agencies, freight carriers and transportation users in order to plan for a seamless, interconnected transportation network.

Explanation: *There is a need to better coordinate the interconnectivity and the inter-modal efficiency of the region. The majority of current and future transit in the Triangle will be directly reliant upon the adequacy of the roadway system. The inclusion of transit specific accommodations into roadway projects is essential to increasing the efficiency of the roadway system and the "rubber tire" (bus) transit system(s). An effort to seamlessly coordinate service provided by various transit agencies is necessary. Transit route redirection, due to the rail/transit relationship in the near future, will require careful coordination. The key element in this redirection will be the coordination of people and goods movement, which will necessitate the review and possible reformation of transit systems in the region. This review, redirection, and seamless integration will require involvement of all parties including the public.*

Objective C: Develop a better process for identifying, evaluating and prioritizing transportation projects.

(Goal Three Continued)

Explanation: *The process for locating and prioritizing transportation improvements is not always successful. It does not adequately address public input, is not always equitable or technically defensible. The process for selecting projects to be funded needs to be reviewed. The objective is to ensure that appropriate ways of evaluating the need for each project are used. It was felt that public input was only received when the project had been under study for some time. It would be better to engage the public during the early stages of the planning process. The location of all projects and potential environmental and social impacts need to be communicated to the public clearly and efficiently so that the maximum amount of meaningful public input is received. As the Triangle evolves it will become increasingly important to select and prioritize projects based on geographic equity.*

GOAL FOUR: DEVELOP AN EFFICIENT TRANSPORTATION NETWORK THAT IS BOTH AFFORDABLE AND RELIABLE FOR THE MOVEMENT OF PEOPLE AND GOODS.

Objective A: Identify new and alternative funding sources for constructing and maintaining transportation infrastructure.

Explanation: *Funding sources are inadequate and are not effectively or efficiently addressing the need for transportation improvements and maintenance. There is heavy reliance on state and federal funds and too little promotion of innovative funding sources. Additional funding sources, to handle the tremendous increase in travel demand forecasted in our metropolitan area. These new funding sources can be locally added revenues, statewide efforts, regional efforts or private initiatives. This shortfall may require the users of a facility to consider paying fees for specific improvements. There is a need to research alternative methods to fund new facilities, programs and transportation system management tools.*

Objective B: Maximize the highway system efficiency using means other than adding general-purpose traffic lanes.

Explanation: *When evaluating major expansion of the transportation systems, non-traditional methods of improving system efficiency should be addressed. New technologies should be tested in our transportation system. Improvements to transit services and public education programs should work toward common goals to improve transportation efficiency. The metropolitan area needs improvements to provide better access to transportation facilities and programs. New intelligent transportation technologies should assist with allowing balanced access and mobility.*

The Capital Area MPO
2030 Long Range Transportation Plan

About Our Home

The Capital Area Metropolitan Planning Organization (CAMPO) grew from a collaborative project between Cary, Raleigh, Garner, and Wake County known as the Greater Raleigh Urban Area Thoroughfare Plan of 1964. Since that time, the other nine towns in Wake County have joined the MPO, which now has boundaries contiguous with those of the county itself. Federal legislation requires the Capital Area MPO to serve as the coordinating agency between local governments, NCDOT, and FHWA.

The **Capital Area Metropolitan Planning Organization** is comprised of three parts: a **Transportation Advisory Committee** (TAC), a **Technical Coordinating Committee** (TCC), and a **staff** that serves the members of these boards. The MPO is responsible for carrying out an annual work program approved by the CAMPO standing committees, part of which must address updating the **Metropolitan Transportation Improvement Program** (a seven-year project programming schedule) and a **long-range transportation plan** (a minimum twenty-year forecast of projects and programs). It is primarily this last task that we are interested in, so it is worthwhile to detail the requirements of a federal long-range transportation plan:

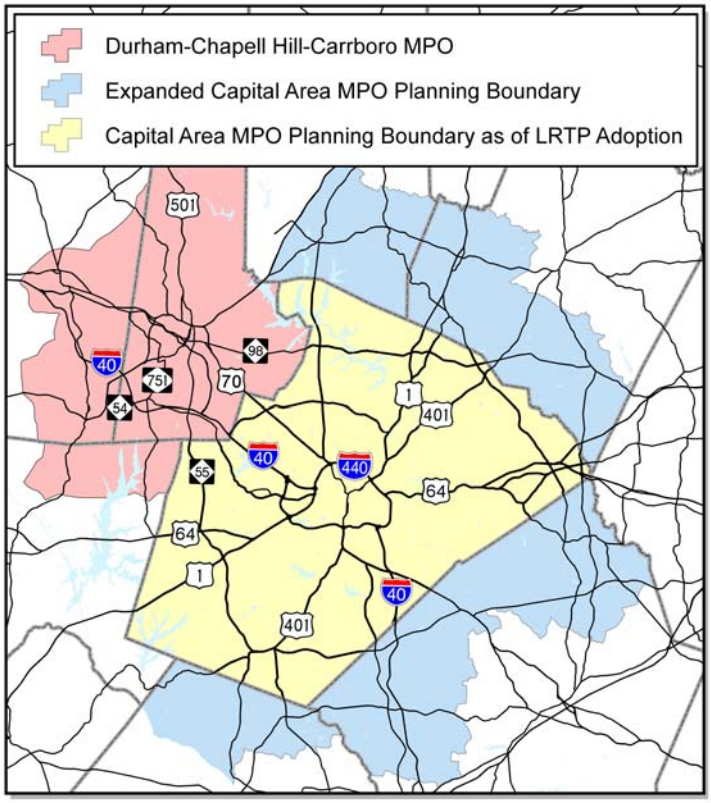


Figure 1-1: The Capital Area MPO Planning Boundary

- The plan must be "multimodal."
- The plan must have a horizon of at least 20 years (2030, in our case).
- The plan must be financially constrained; that is, the sum of all projects and programs can't cost more than the forecasted revenues.
- The plan must be sensitive of air quality such that the forecasted emissions coming from all vehicles on the future transportation system cannot exceed our emissions "budget."
- The plan must involve the public in the decision-making process, ensuring that we make special attempts to contact those traditionally overlooked in the transportation planning process, namely low-income and minority populations.

Coupled with these requirements, our citizen population of 700,000 in 13 governments, rapid growth, modest history of regional cooperation, and the divide between the agencies responsible for land development (municipalities) and major transportation infrastructure (State of North Carolina) will make this transportation plan a challenging exercise.

The Capital Area enjoys an ideal **climate**, including a mild winter, distinct seasonality, and an abundance of sunshine. During at least eight months out of the year the weather is pleasant when everyday activities require venturing outside. As you can see from Figure 1-2, the Capital Area experiences fewer frigid days and more mild summer days than the national average. In our case mediocrity is a blessing, especially if one wishes to take a walk, go for a bike ride, or enjoy a day at one of the many nearby lakes or parks.

Our benign climate, and our generally flat-to-rolling topography, is conducive to outdoor activities. Recent rises in population suggest that these beneficial features also seem attractive to newcomers seeking refuge from the extreme cold winters of the north and the unbearable heat of the more southerly states.

OUR WEATHER	Capital Area	National
Annual days with precipitation	112	110
Annual days with mostly sun	220	213
Annual snowfall (inches)	7	24.2
Annual days < 32° F	82	88.0
Annual days > 90° F	25	37.9
Average high temp in July °F	87.7°	86.8°
Average low temp in January °F	30°	26.5°

Figure 1-2: The Capital Area's Weather

The Triangle Area's thriving economy and lack of climactic extremes has drawn many new businesses to this area, as a result population growth in Wake County and the surrounding areas has been significant. Over the past thirty years, the population of Wake County has nearly doubled. Between 1980 and 1990 the population grew by 40%, and during the most recent decade (1990-2000) the census reported an increase in population nearing 50%. Although this growth has invigorated certain sectors of the economy it has had some negative impacts, namely our region's water quality, open space, air quality, and the transportation system.

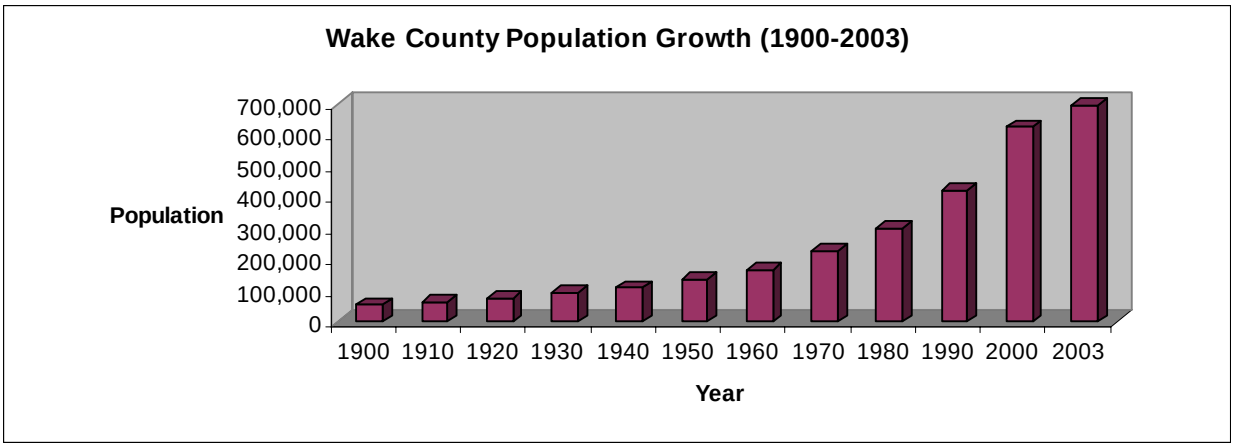


Figure 1-3: Wake County Population Growth

Neusie, spokesfish for the Neuse River ad campaign.

Figure 1-4: Neusie

Water quality is an emerging issue in the region. New development clears the land and increases the potential for runoff "blowing out" small streams, adding a lot more sediment, clay, and sand that affects aquatic wildlife. Sedimentation from construction projects and pollutants carried by direct surface runoff and exacerbated by increasing amounts of impervious surface have been found to be two of the largest threats to the piedmont's water resources. Some significant steps have been taken to reduce discharge into our streams. The Neuse River Rule requires that 50-foot riparian buffer be preserved on tributaries to the Neuse. An $800 million bond package was passed in 1998 to improve wastewater treatment and build facilities across the state that will decrease the harmful affects downstream in North Carolina's **estuaries**. A stormwater fee is now being collected in the City of Raleigh, the proceeds of which will be utilized to help better control runoff. Even with these precautionary measures 117 stream miles in Wake County are considered "impaired" meaning that water quality has been seriously degraded. Full, on-site mitigation of runoff is being considered in Raleigh and other areas; and educational efforts for the general public are also being undertaken.

Raleigh is called the "City of Oaks" due to its forest canopy, which is rather extensive for an urban area home to over 250,000 people. The entire Triangle[1] sits within the "eastern forest zone," a dense swath of forest that begins in the coniferous forests of Canada and extends southward parallel to the Atlantic Seaboard. This combined with the piedmont's rural heritage result in the "country" character of much of the hinterlands surrounding Raleigh and Durham. There is little question that the open space inherent in this setting provides a "green feel" to the Capital Area, no doubt contributing to our economic success. We are in grave danger of losing that aspect of our community should our development patterns continue as they have in the recent past. The **open space** preservation effort has many strong advocates in the Triangle including the Triangle Land Conservancy (TLC), The Eno River Association, and The Haw River Assembly. The TLC recently released *State of Open Space 2000*, which tells us that, while urban area increased by 69% between 1987 and 1997, forested area (-8%), cropland (-23%) and other open space types (-22%) were lost to us. The majority of publicly owned open space we have in the Triangle Region is tied up in lake properties, one large park (Umstead), or is associated with our Universities. The majority of open space remains on privately owned land holdings, therefore if open space it to be preserved in the Triangle it will be done so by way of partnerships with landowners facilitated by nongovernmental organizations such as those listed above. These partnerships have already begun thanks in large part to TLC and our member communities; it is planned that the Capital Area will preserve over 5,300 acres of open space and 13 miles of greenway in the next five years, at a cost of just over $20 million.

Our **air quality** has been a topic of much discussion at technical, public, and political levels. The Triangle has been recently named as the 23th worst metro area in the country for **ozone** pollution (behind other notables such as Los Angeles, New York, Charlotte, and Atlanta) by the American Lung Association[2]. Currently everyone seems to know what a "green," "orange," or "red" day means. A decade ago, this was not the case. The Capital Area MPO was at its limit in terms of allowable pollutant levels based on its 1999 air quality conformity determination, and this year has been a challenge for us. The new and tougher eight-hour standard was used during the analysis of this plan and has set the bar even higher for meeting

[1] The Triangle Region is usually thought of as Johnston, Wake, Durham, Chatham, Lee, and Orange counties. The Capital Area is considered to be Wake County only. Unless otherwise noted, these designations will apply in this report.

[2] While we recognize the importance that external variables such as prevailing weather patterns, topography, climate, and even the number of monitoring stations play in the ALA's assessment, the basic message is valid.

our emissions goals. Discussions of **greenhouse gases** (primarily carbon dioxide) and global warming have not yet entered into the local environmental limelight, probably due to their unregulated status.

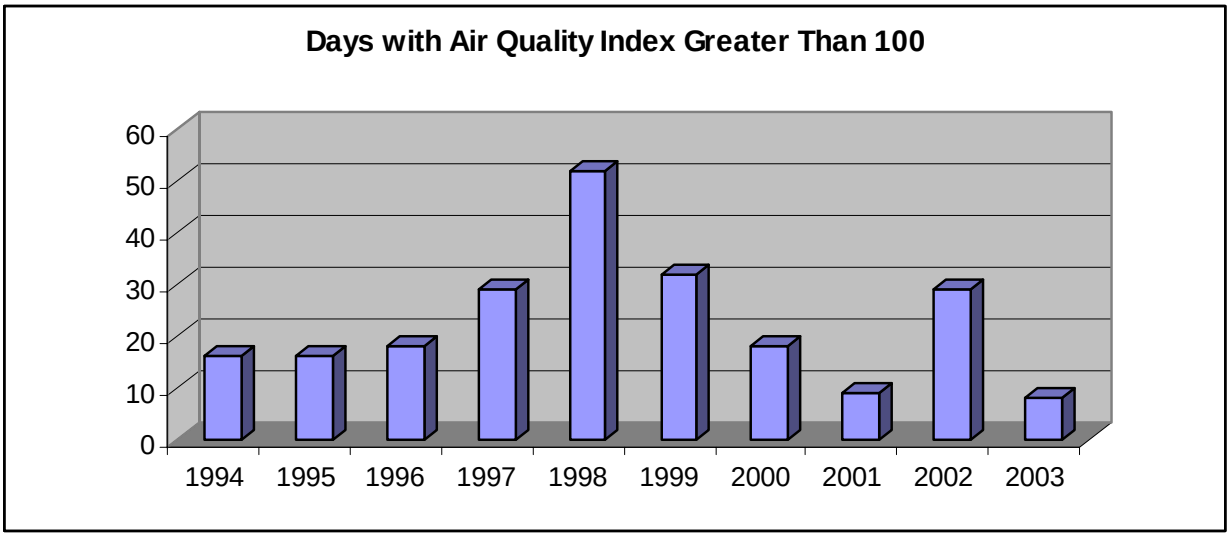


Figure 1-5: Raleigh-Durham-Chapel Hill Metropolitan Area Air Quality Index History Graph

The Capital Area is fairly diverse, not only in terms of rural, suburban, and urban land uses, but also in terms of ethnicity. Figure 1-6 below illustrates the demographic cross-section of Wake County. Since 1990 the population of Wake County has grown significantly, with certain ethnicities growing more rapidly than others.

In brief, the Capital Area, like many urban areas around the country, is becoming more diverse. The population is aging too, as demonstrated by the growth rates of the total population when compared against those persons over 18 years of age. Attracted by our good economy, many people move here to start their careers, or are simply lured by ample employment opportunities. Hispanic populations have increased most dramatically – a six-fold increase over just 10 years. While the population has a whole has grown more steadily. These factors have contributed greatly to our overall economic success – and explain to a large extent why we are regularly experiencing traffic congestion, the rapid decline in open space, overcrowding in our schools, and inadequate capacity in sewage and water treatment services.

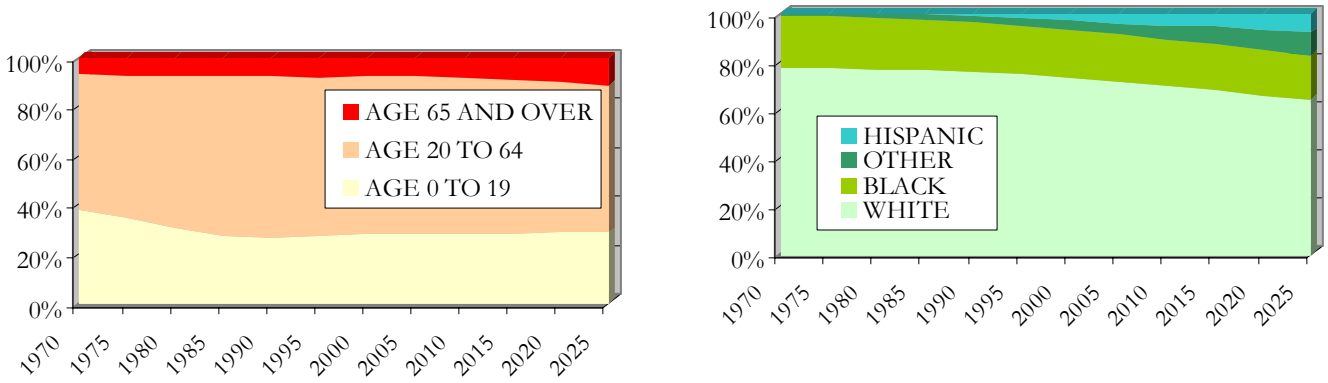
But what about the next 25 years – do we expect to see more of the same? The answer is an unqualified *yes*. The population will continue to diversify[1]. Our lives will be enriched by an enhanced cultural mix, and this diverse population will continue to grow. This growth presents opportunities, but also challenges that will require a lot of listening and forward thinking.

Wake County Census Data	Total Population	Population Over 18	White	Black	Native American	Asian	Other or Multi-Race	Hispanic
1990 Census	423,380	325,565	324,011	88,057	1,148	8,177	1,987	5,396
Census 2000	627,846	470,249	454,544	123,820	2,364	21,461	25,869	33,985
Percent Change, 1990 to 2000	**48%**	**44%**	**40%**	**41%**	**106%**	**162%**	**1202%**	**530%**

Figure 1-6: The Capital Area MPO Population

[1] Source: Woods & Poole Data Pamphlet, 2001

Figure 1-7: An Aging Population



Of all the strengths of our region, it is perhaps our **economy** that comes first to the minds of many people. The Capital Area and the Triangle Region have benefited from the presence of high-technology firms in the Research Triangle Park (RTP), redeveloping central business districts, proximity of major universities, and government employment centers, but we must also recognize that for each of these jobs, many more tertiary services and accompanying jobs are created. Retail, services, real estate and financial services are all here in great numbers thanks in large part to our strong core businesses. That growth has not been evenly distributed; communities in the western portion of the region have had to deal with tremendous job growth, while those in the east have been growing residential subdivisions, but little basic employment.

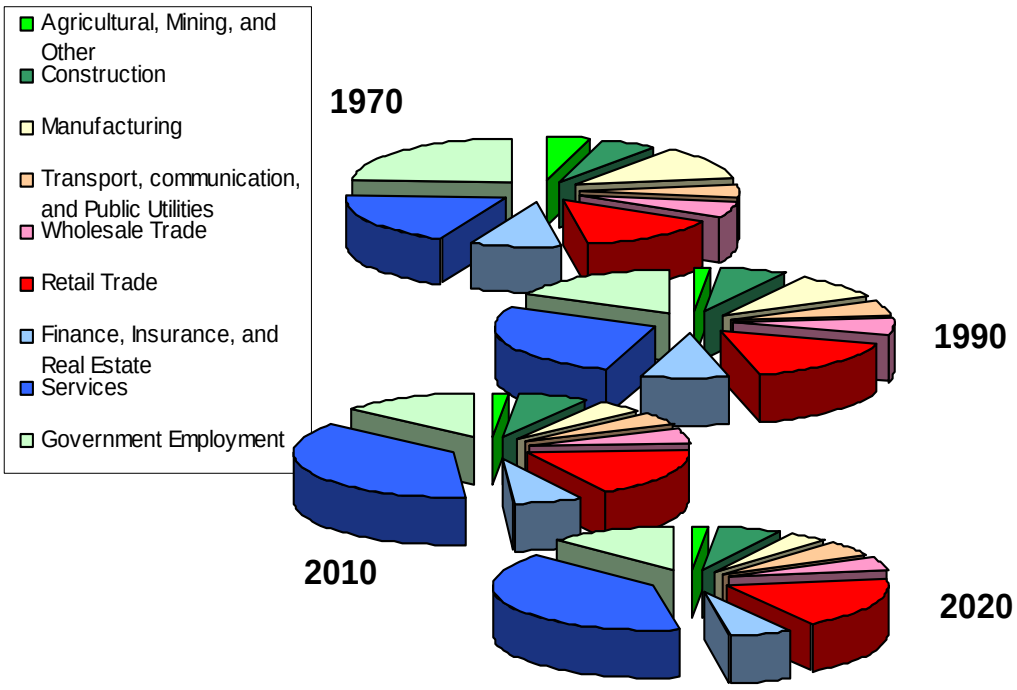


Figure 1-9: Employment in the Capital Area

We will continue to grow; of that there is no doubt. As we develop, farming, manufacturing, and government services will shrink as a percentage of the total employment. Retail and wholesale trade will increase tremendously, and construction job growth will hold fairly steady as well.

A strong economy will continue to fuel job growth and with it more residential development. This will bring to the fore traffic congestion, air quality problems, inadequate capacity of public services, significant housing shortages in the low and middle-income markets, and degradation of our environment. Without careful planning we may indeed "kill the goose that lays our golden eggs," meaning that we might lose much of what has made us so attractive to business development and that which fuels our economy. One indicator of this is that it is already becoming more difficult to recruit the high-tech jobs on which much of our economy relies (see Ericsson Recruiter quote in 2025 LRTP).

So, what does all this mean for the future of the Capital Area MPO, and how can we plan transportation intelligently for that future? Our computer models tell us that by 2030 we will have **more than doubled our existing vehicle miles of travel (VMT)**, population, and employment. Traffic congestion on our roadways will steadily increase into the foreseeable future, in spite of massive investments in the freeway, arterial, and transit components of the transportation system. Our future is clear, and it is filled with both opportunities and challenges:

- a continuing challenge to meet our **basic infrastructure needs** for roads, schools, and moderate income housing
- further challenges to meet **air quality** standards, particularly if tougher, new standards are enacted
- low-speed **accidents** will probably rise faster than the population rate
- the opportunity of to foster a **strong economy** focused on technology and support services
- the opportunities *and* challenges that come with increasingly diverse populations in terms of **ethnicity and culture**
- a loss of **open space** and degradation of **stream quality**
- more **traffic congestion** and demand for transit services

The purpose driving the completion of this update of the long-range transportation plan is to address the challenges laid out in this portion of the report. In the second section of the report, we will discuss in detail the demographic forecasts for the Triangle. The third section provides an in-depth summary of the transportation demand forecasting for the next twenty five years completed with the aid of the Triangle Regional Model. The fourth section of this report outlines the various elements of our 2030 Transportation Plan. The appendices include financial information, the environmental justice component, and an explanation of air quality conformity. Once approved by member governments this plan will be the official long range transportation plan for all jurisdictions within the Capital Area MPO's planning boundary. It will be largely up to member governments to nurture that plan, incorporate its premises and projects into their local plans, and to provide the continuing guidance needed to maintain and update our vision for the future.

Figure 1-10: Governor Easley on Transportation

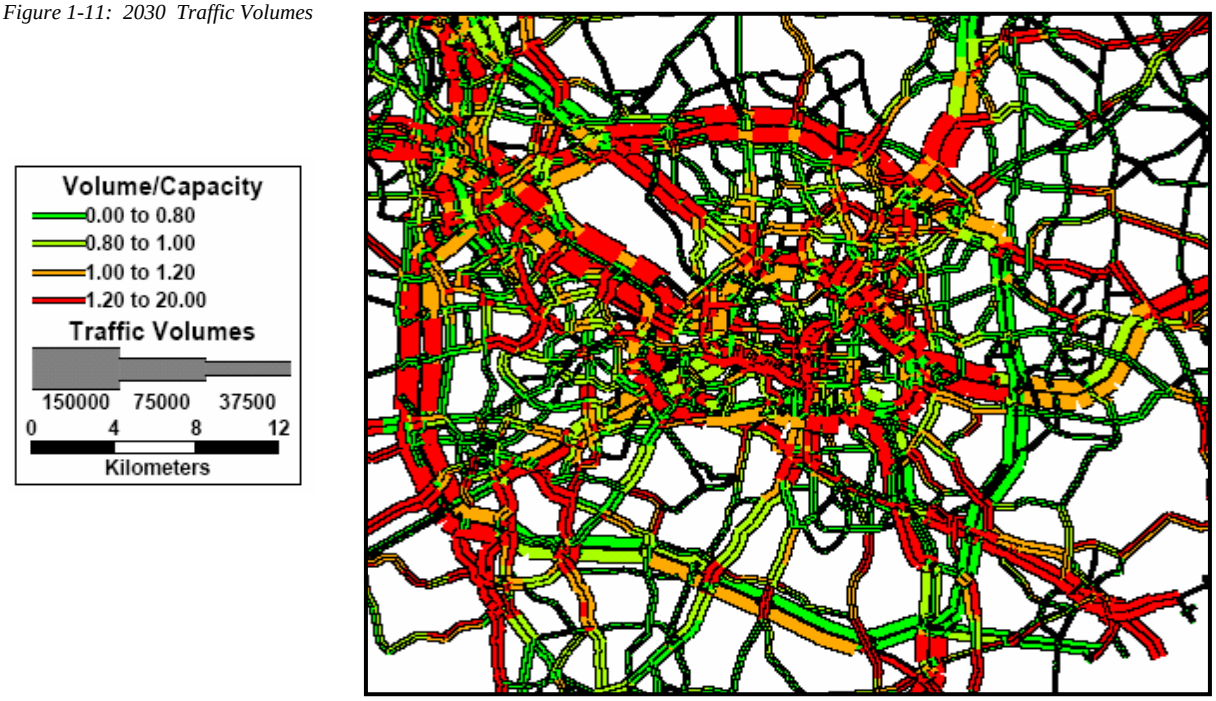
"We cannot afford to get caught behind the curve on transportation infrastructure. Those states that have fallen behind have never successfully recovered…Meeting transportation demands is a never-ending task, and we must continue to be creative and aggressive in our efforts to meet those demands."

Mike Easley
Governor of North Carolina

"We cannot afford to get caught behind the curve on transportation infrastructure...."

Beginning in October of 2005 the Capital Area MPO will have officially expanded its planning boundary. This increase in geographic area will undoubtedly result in changes in to this document. New members will bring with them new priorities and concerns. Accordingly the priorities of new member governments will be embraced and revenue assumptions, costs, anticipated completion dates, and geographic scope of the plan will be altered appropriately. The next CAMPO Long Range Transportation Plan is scheduled to begin in 2008.

Figure 1-11: 2030 Traffic Volumes



Socio-Economic & Demographic Forecasts

The forecasts of future population, households, and employment are essential components of effective transportation planning. Local jurisdictions and The Capital Area MPO staff were responsible for preparing these forecasts. It is assumed that implementation of the 2030 LRTP would have a significant impact on land use because most of the proposed transportation systems are either new capital highway projects or widening/expansion of existing highway infrastructure.

The socio-economic forecast for the proposed 2030 LRTP indicates that in the modeled portions in Wake, Johnson, Harnett, and Franklin counties, job levels are expected to grow 126% by 2030; and population is expected to increase by 113% over the same period. The growth forecasts for 2030 are shown in the general table below. In order to document the socio-economic forecasts utilized as inputs to the Triangle Regional Model and, inherently, the air quality conformity determination process, a map of the Traffic Analysis Zones (TAZs) and the housing, employment, and population forecasts is included in the CAMPO 2030 LRTP CD accompanying this report and on the Capital Area MPO website (www.campo-nc.us).

Population, Households, and Employment Forecasts for 2030

MPO Counties	2002 Totals	2010 Forecasts	2020 Forecasts	2030 Forecasts (Percent change of 2002 – 2030)
Population				
Wake	728,489	888,050	1,192,445	1,420,829 (95%)
Franklin (Partial)	10,416	23,234	43,532	63,830 (513%)
Harnett (Partial)	15,950	27,802	44,390	52,602 (230%)
Johnston (Partial)	41,551	76,190	126,997	162,461 (291%)
TRM Total	**796,406**	**1,051,276**	**1,407,364**	**1,699,722 (113%)**
Households				
Wake	280,794	345,682	470,116	563,291 (101%)
Franklin (Partial)	3,939	8,770	16,424	24,072 (511%)
Harnett (Partial)	6,001	10,481	16,754	19,857 (231%)
Johnston (Partial)	15,421	28,333	47,268	60,487 (292%)
TRM Total	**306,155**	**393,266**	**550,562**	**667,707 (118%)**
Employment				
Wake	391,815	510,717	695,115	869,658 (122%)
Franklin (Partial)	2,204	2,562	7,642	12,721 (477%)
Harnett (Partial)	1,998	9,907	12,091	14,679 (635%)
Johnston (Partial)	8,726	11,741	15,856	19,035 (118%)
TRM Total	**404,743**	**534,927**	**730,674**	**916,093 (126%)**

Figure 1-12: Socio-Economic & Demographic Forecasts

Population Forecast Graphs

The figures below illustrate the anticipated growth in Wake County and the portions of Franklin, Harnett, and Johnston counties included in the Triangle Regional Model. For the geographic extent of the modeled area within the collar counties refer to the TRM Boundary Graphic (Figure 3-1).

- By 2030 Wake County's projected total population is expected to grow over 95%.
- By 2030 the Region's projected total population is expected to grow 113%

Figure 1-13: Wake County Forecasted Population

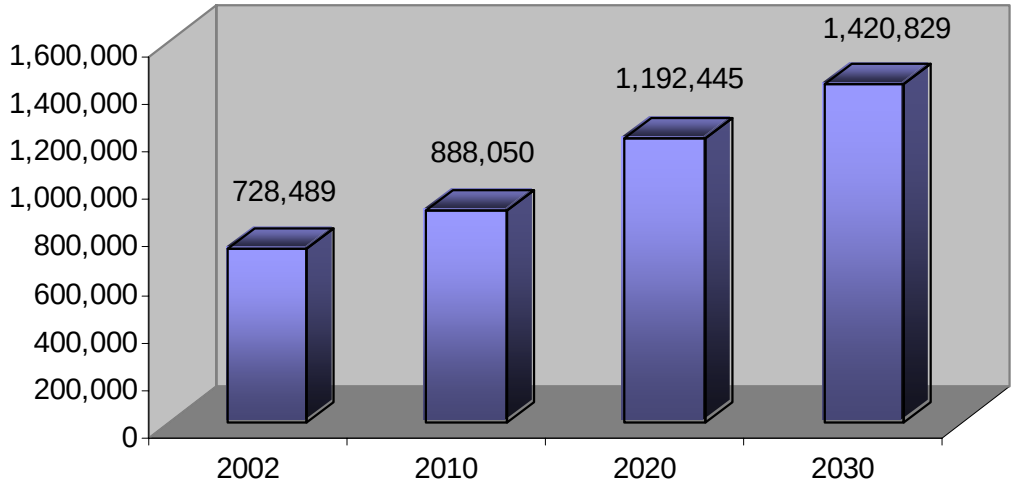
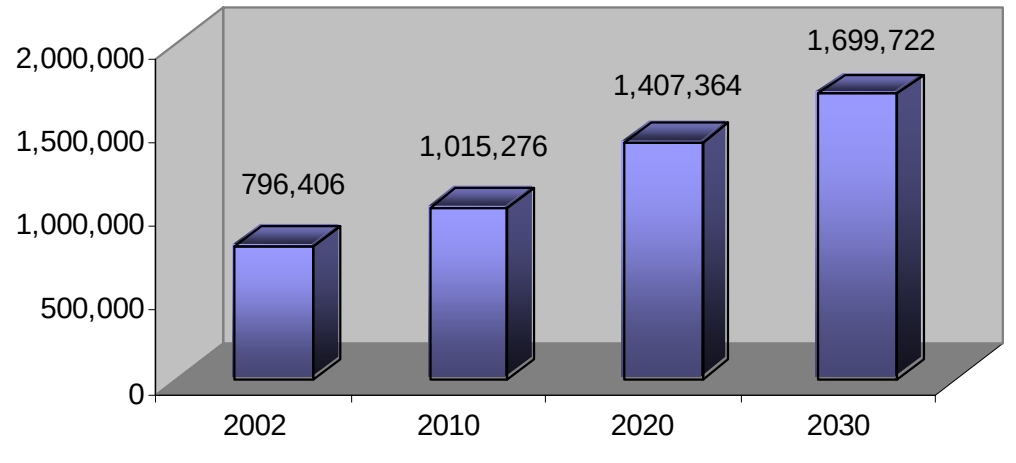


Figure 1-14: Forecasted Population Growth for Wake and Modeled Portions of Collar Counties



Employment Forecast Graphs

- By 2030 projected employment in Wake County is forecasted to grow by over 120%
- By 2030 projected employment in the relevant modeled area is forecasted to grow by over 125%

Figure 1-15: Wake County Employment Growth

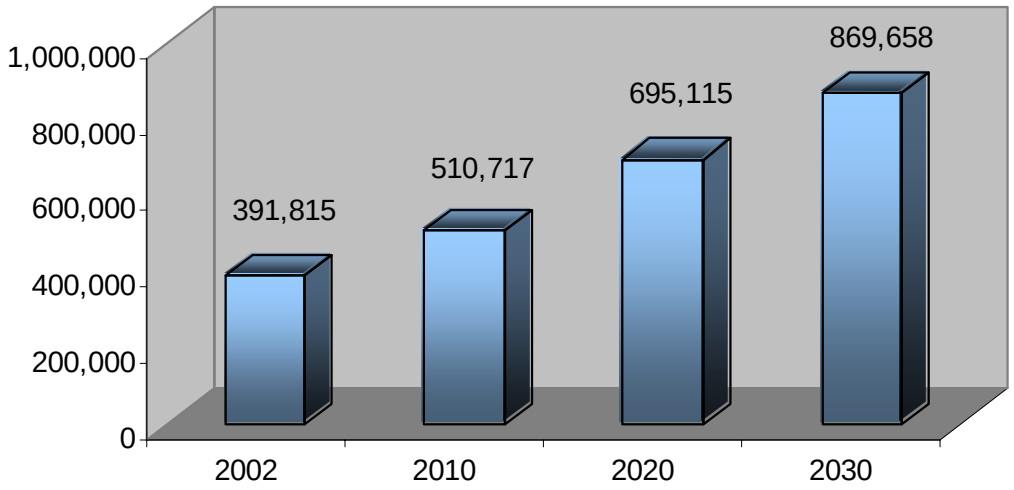


Figure 1-16: Employment Growth of Wake And Modeled Portions of Collar Counties