



NASHVILLE MTA/RTA STRATEGIC PLAN



STATE OF THE MTA SYSTEM REPORT EXECUTIVE SUMMARY



Overview

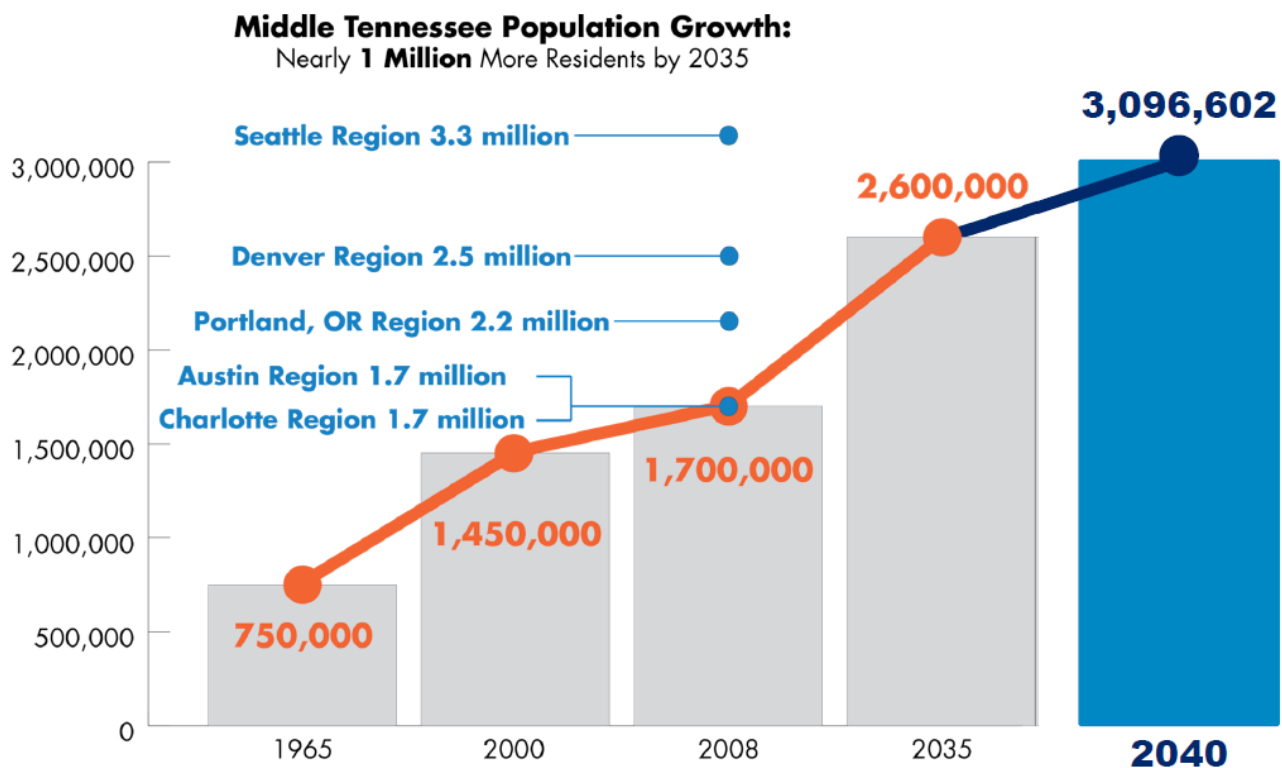
Since 1965, the Nashville region has grown from approximately 750,000 residents to more than 1.7 million. Looking forward, rapid growth will continue, and by 2035, the region is projected to have 2.6 million residents. This growth will mean that Nashville will become larger than either Portland or Denver is today, and nearly as large as Seattle is today. These are all cities that have developed very robust transit systems over the past few decades—transit systems that have made those cities much more livable and competitive.

Nashville MTA has a strong core network of bus routes and has taken important steps to improve transit service to support this growth; recent improvements have included the start of BRT lite and Music City Circuit services, and more frequent service on a number of routes. Still, the region's growth has outpaced both these improvements and general growth of the transit system.

Nashville MTA/RTA's Strategic Plan, nMotion2015, is a 20-year comprehensive plan designed to meet the Nashville area's vision for transit. The plan will look at how the transit system works today and identify opportunities to enhance the transit system, improve service, attract and retain new riders, and meet the growing needs of the Middle Tennessee region. Ultimately, the plan will provide a blueprint for transit projects and policies that will make the growing region a better place to live and do business.

The first step of nMotion was to assess the state of the existing transit system. This first State of the System Report provides an overview of existing Nashville MTA transit services and an evaluation of how well these services match transit demand in Davidson County, both today and 20 years in the future. Based on those findings, this report presents the key issues facing Nashville MTA and serves as a starting point for the strategies and recommendations that will inform the final strategic plan. A report on the state of the Regional Transportation Authority (RTA) system will be released in early August.

FIGURE 1 MIDDLE TENNESSEE POPULATION GROWTH



Source: Nashville Area MPO

Based on the assessment of existing transit services, the key challenges facing Nashville MTA are:

- **Nashville MTA provides small city service for an area that is no longer small.** Nashville has grown from a small city to a medium-sized city. The area’s population and employment, and associated travel levels, have grown much faster than Nashville MTA services. While Nashville MTA provided more than 10 million rides in 2014, this can be seen in the number of routes that are provided, in limited weekend service, and particularly in terms of services that operate infrequently with evening service that ends early.
- **Nashville MTA needs to catch up with the growth that has already occurred, as well as continue to expand at a faster pace to keep up with projected growth.** Nashville and the region will continue to grow rapidly—much more rapidly than Nashville MTA will be able to expand service based on current funding. In addition to population and employment growth in the region, the area’s demographics are also changing in ways that will lead to transit demand increasing faster than population growth.
- **Service is not attractive to most residents.** Because service coverage, service frequencies, and the hours and days of service are limited, transit service is generally not convenient for residents and employees who have other travel options. For those who rely on transit as their sole means of mobility, these limited travel options restrict their access to economic opportunity.

SPAN OF SERVICE	FREQUENCY OF SERVICE
The number of hours per day that buses operate (e.g., from 6:00 a.m. to 10:00 p.m.)	How often a bus runs (e.g., every 10 minutes, every 30 minutes)

- **More local funding is needed.** While Metro Nashville has significantly increased its general fund spending on public transportation, most cities with robust transit systems have identified dedicated funding sources. Transit investment in the Nashville area is lower than in most of Nashville’s current peer cities. Currently, Nashville MTA receives 50% of its funding from local sources, primarily from the City of Nashville. To build a great transit system, additional funding will be needed for both capital projects and ongoing operations.

How well does transit work today?

Nashville MTA provides transit service throughout much of the Davidson County. These services consist of fixed-route bus service for the general public and AccessRide paratransit service for those with special needs.

Regional Transportation Authority (RTA)
RTA operates nine regional bus routes to downtown Nashville and oversees the Music City Star regional rail. In addition, RTA’s rideshare program organizes vanpools and carpools for commuters throughout Middle Tennessee.
Nashville Metropolitan Transit Authority (Nashville MTA)
Nashville MTA operates 46 bus routes and the AccessRide program in Davidson County. The AccessRide program provides door-to-door specialized van service within Davidson County for persons with disabilities unable to use regular bus service.

Nashville MTA system is primarily a radial network, in which nearly all the routes operate to and from the Music City Central station in downtown Nashville. Nashville MTA operates 46 routes that are designed to provide service to the general public, spread across five different types of bus service:

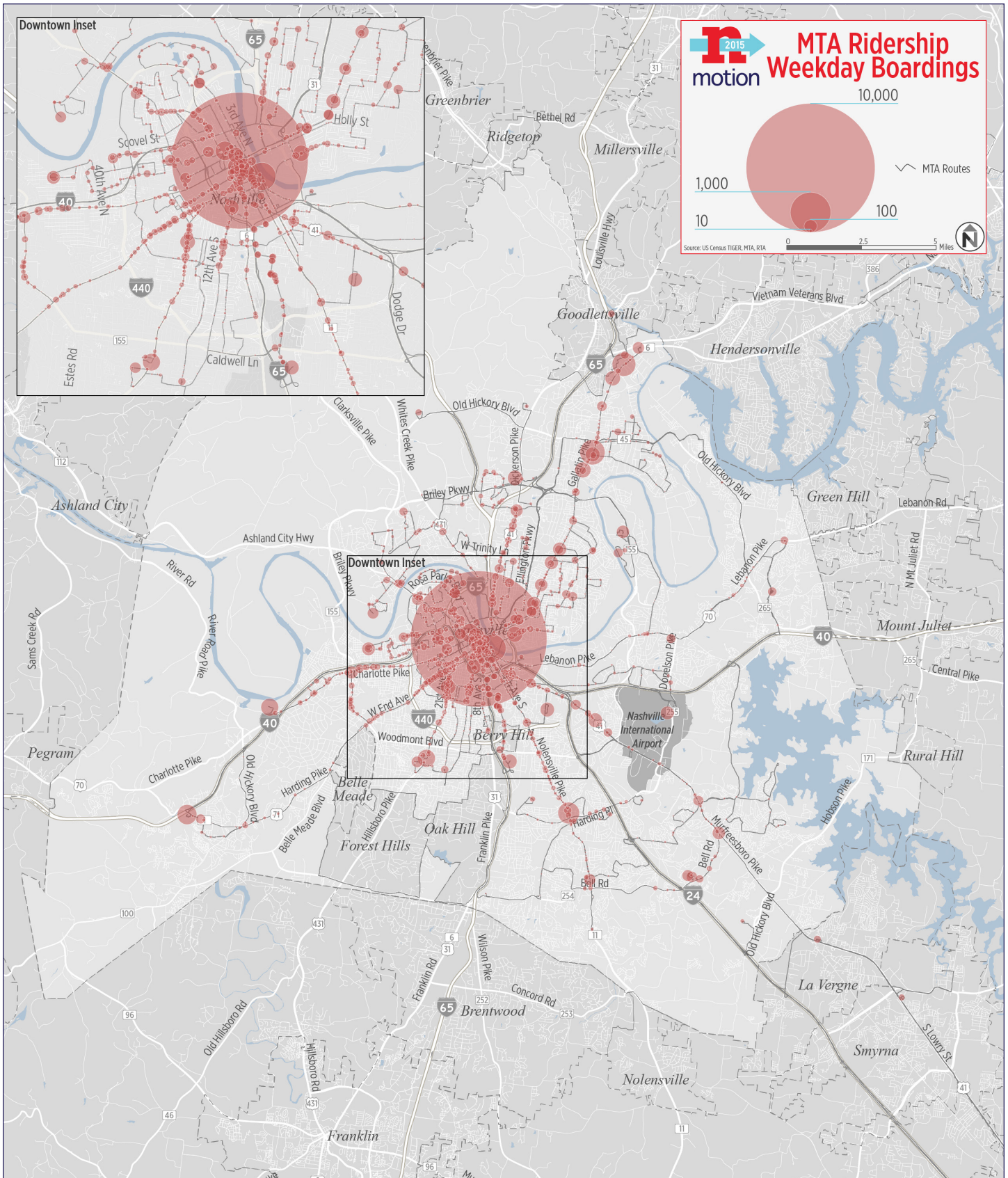
3 BRT Routes Provide fast service and a higher level of amenities than "regular" bus services, every 15 minutes during the day.	15 Most Frequent Routes Have daytime frequencies of 30 minutes or less.	13 Frequent Routes With daytime frequencies from 30 to 90 minutes; these include many neighborhood routes.	12 Limited Routes With, as the name implies, limited service; most of these routes are express routes that operate only on weekdays during peak periods.	3 Music City Circuit Routes Provide free service around downtown Nashville.
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The study team carefully evaluated the strengths and challenges of the current system and identified opportunities to improve how the system operates and where improvements are most needed:

Generally, Nashville MTA provides service to most areas where demand for transit is moderate to high. Given the level of funding available, Nashville MTA provides good, efficient service to the areas most in need of transit options. However, there are still **many areas that are not served**, and/or where service is "thin."

- **Service is too infrequent on most routes** to be convenient for most people. Most riders consider service that operates every 10 minutes or less as very convenient, and service that operates every 15 minutes or less as relatively convenient. Only nine routes provide service every 15 minutes or less, which is a particular issue for Nashville MTA.
- Nashville MTA's **services operate for more limited hours** than in most major metropolitan areas and generally can't accommodate alternative schedules and shifts. For many who work in the service and other industries that require night shifts, these limited service hours create real obstacles for accessing jobs in certain areas. In a city with such a vibrant nighttime music scene, service ends too early to accommodate many evening activities.
- Most of Nashville MTA's core service structure is **available seven days a week**. However, service on the weekend is more limited than during the week, with most routes arriving once per hour and service ending slightly earlier in the evening.
- As Nashville has grown and developed outward, a smaller proportion of trips are being made to and from Downtown, and more are being made between outer areas. Nashville MTA's radial service design means that **passengers who are traveling between outer areas must do so through Downtown**, which is inconvenient.
- Upward ridership and productivity trends show that **more people are looking at transit as a viable option** to meet their transportation needs. Nashville MTA carries approximately 33,000 passengers per weekday, 16,000 per Saturday, and 10,000 per Sunday. Existing ridership indicates that there is likely demand for more weekend service.
- The **backbone of Nashville MTA's system** currently consists of services in the Charlotte, Dickerson, Gallatin, Hillsboro, Murfreesboro, Nolensville, and West End corridors. Development of premium services in these and other high volume corridors would further increase ridership.

FIGURE 2 WEEKDAY RIDERSHIP BY STOP



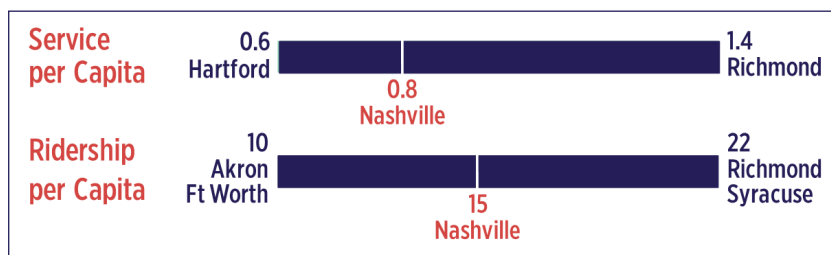
How do we compare to other cities?

Since 1965, the Nashville region has grown from approximately 750,000 residents to more than 1.7 million (see Figure 1). Today, the Nashville area is approximately the same size as the Austin and Charlotte areas. However, Nashville MTA offers only 34% to 46% of the service provided by its counterparts in those two cities.

Even when looking at 14 smaller cities—Albuquerque, Cincinnati, Dayton, El Paso, Fort Worth, Hartford, Indianapolis, Jacksonville, Louisville, Memphis, Richmond, Springfield, Mass., Syracuse, and Tampa—the amount of service that Nashville MTA provides is limited (see Figure 3). Compared to these cities, Nashville MTA ranks:

- **Tenth in the number of hours of service provided, which is the quantity of service provided to the people living in the service area**
- **Eleventh in ridership per capita, which is the extent to which the service area population uses transit services on all modes**

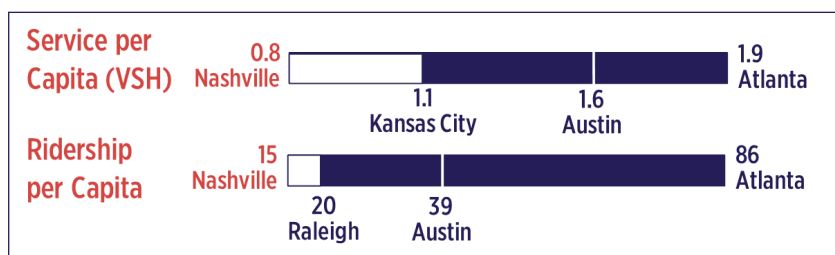
FIGURE 3 FIXED-ROUTE SERVICE AND RIDERSHIP COMPARED TO SMALL CITIES



Compared to a larger range of six cities that are more comparable to how Nashville has already grown and is growing—Atlanta, Austin, Charlotte, Denver, Kansas City, and Raleigh—the differences are even larger (see Figure 4). When looking at these “aspirational peers,” Nashville ranks:

- **Second to lowest in the number of hours of service provided**
- **Lowest in ridership per capita**

FIGURE 4 SERVICE AND RIDERSHIP COMPARED TO LARGER CITIES



What areas and populations will we need to serve in the future?

Looking forward, rapid growth will continue, and by 2035, the region is projected to have 2.6 million residents. As Nashville MTA improves its transit service during the next 20 years, service and capital investments must be made in support of and in response to current and future land use patterns. Population and employment densities determine how many people will be able to access transit. By extension, they also strongly influence the amount of service that will be required and, in turn, the types of riders who will use transit. Changing demographics are also driving demand for more and better transit, in particular by a number of key groups (see Figure 5 and Figure 6):

FIGURE 5 CHANGE IN HOUSEHOLDS, BY AGE

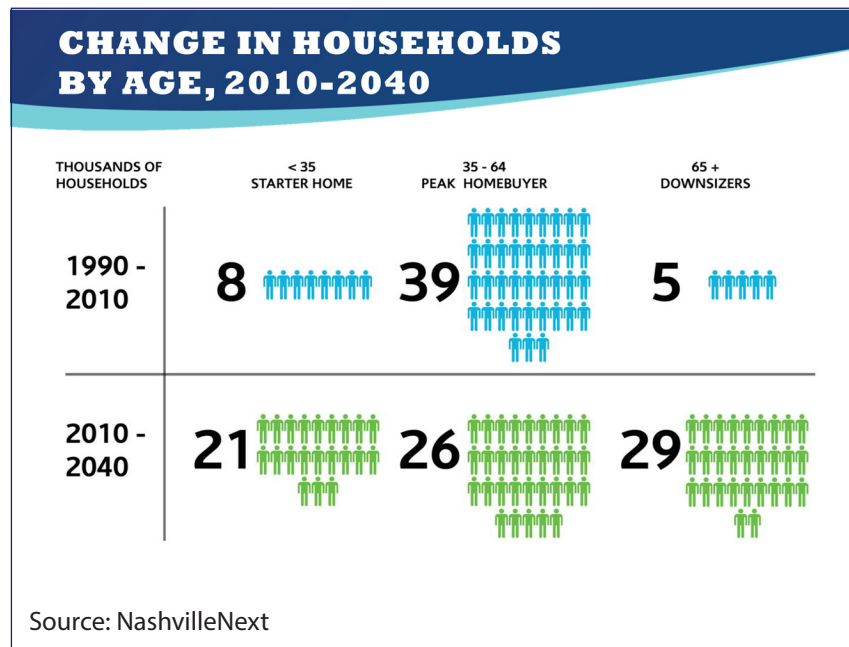
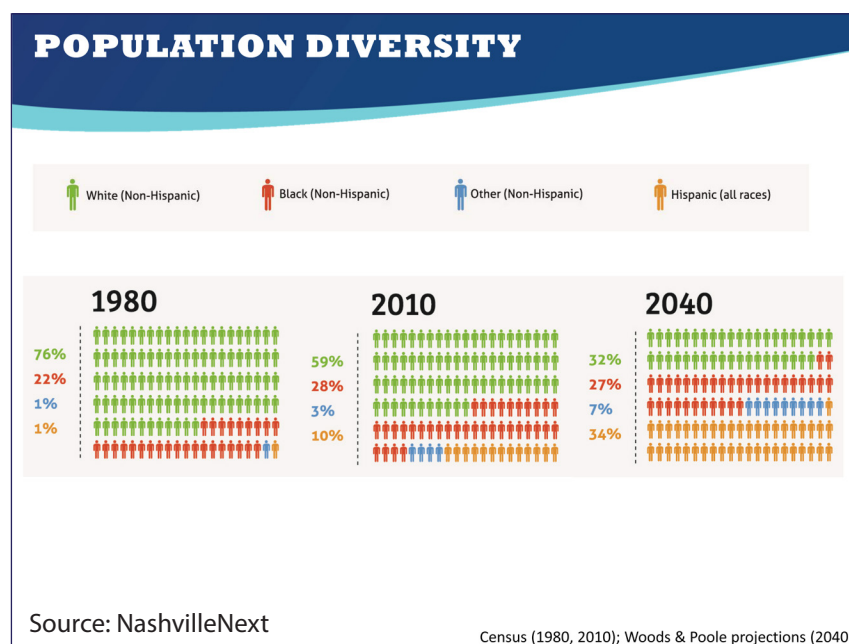
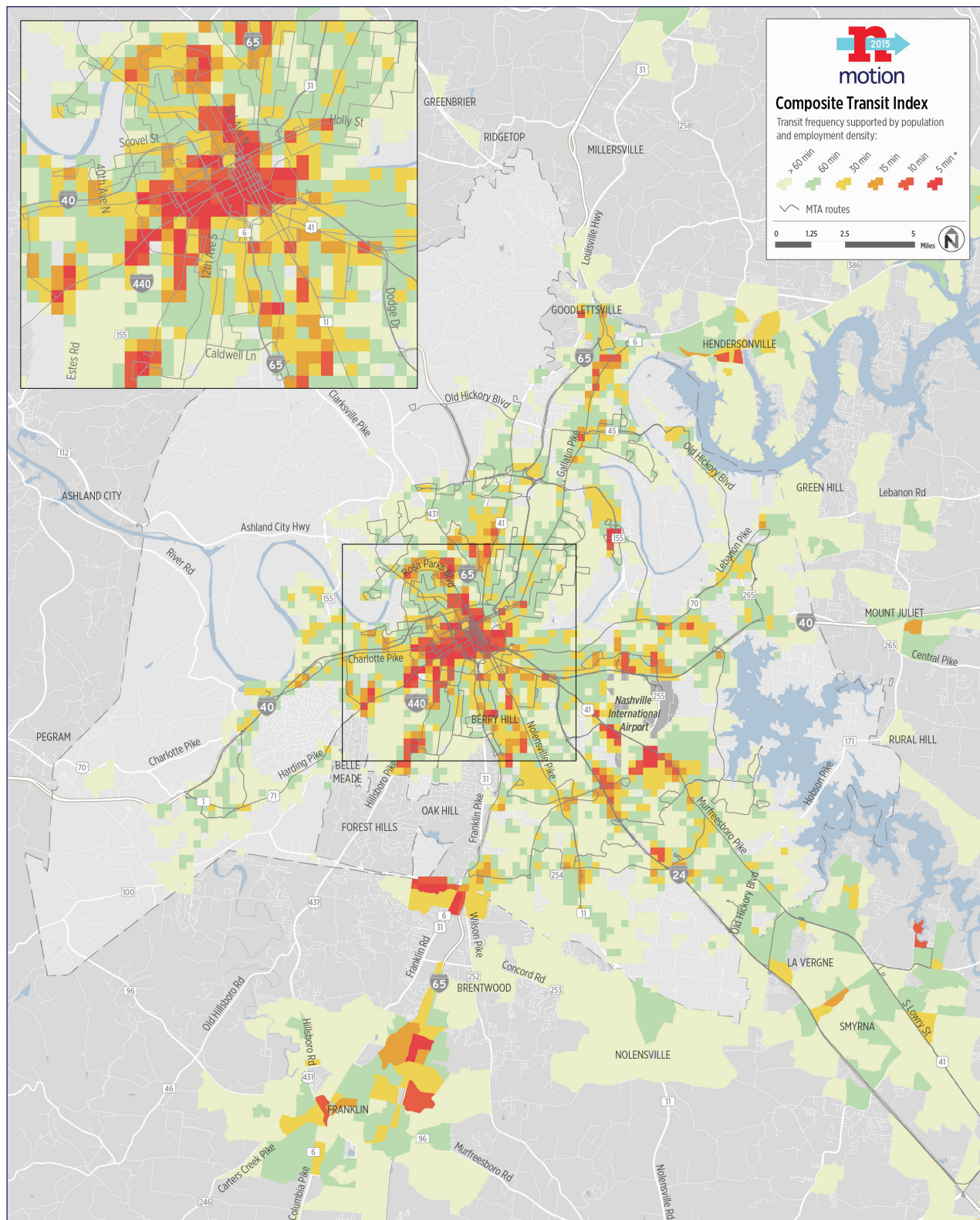


FIGURE 6 POPULATION DIVERSITY



Looking forward to 2040, and with expected changes to development patterns as a result of NashvilleNext, most new growth in Davidson County will occur within Nashville MTA's existing service area (see Figure 7). This indicates that higher service levels will be needed on existing routes, and that there will be demand for different types of High Capacity Transit in many corridors.

FIGURE 7 2040 TRANSIT DEMAND



NOTE: 2040 MAP ONLY SHOWS TRANSIT DEMAND WITHIN DAVIDSON COUNTY

What are our opportunities?

Based on the review of the existing system, analysis of the potential transit markets in Nashville and the region, and consideration of Nashville’s current and future peer cities, there are clear opportunities for improving transit service in the city and region. While much more information is provided about each of these (and other) opportunities in the State of the System Report, here are the resounding themes we’ve heard from the public so far. We’ll be examining and seeking input on these and other specific strategies and opportunities in the coming months to incorporate into the final plan plan.

Develop a High Capacity Transit Network

As Nashville has grown from a small city to a medium-sized city—with significant increases in population and employment— Nashville MTA services have not kept pace with this growth. Nashville MTA now must both catch up with the growth that has already occurred, and continue to grow much faster to keep pace with future growth. High Capacity Transit could be implemented in many ways, all of which would provide very high-quality service. These could include commuter rail, which would consist of new regional services that would also provide service within Davidson County, light rail, Bus Rapid Transit, Freeway Bus Rapid Transit, streetcar, and other types of premium bus service.

With the exception of a few express routes, MTA service is limited to the city limits of Nashville. Service coverage is focused on the more developed areas, which is generally appropriate. As a result of the city’s efforts to better plan growth in the future through NashvilleNext, there is now a vision for new development that is more concentrated in “centers” and along major corridors, and with a much greater emphasis on mixed-use development. Most new growth in Davidson County will occur within Nashville MTA’s existing service area, requiring higher service levels on existing routes and suggesting a demand for High Capacity Transit in many corridors, including:

Charlotte Pike	Airport corridor
Clarksville Pike/MetroCenter area	Murfreesboro Pike
Dickerson Pike	Nolensville Pike
Gallatin Pike	21st Avenue/Hillsboro Pike
Lebanon Pike	Broadway/West End Avenue

Provide service more often and at more times of day

There are two important factors that contribute to people’s ability and willingness to use transit: how often the bus comes (service frequency) and how many hours of the day the bus runs (service span). The lack of frequent service is one of the major issues facing Nashville MTA. Relatively little service operates frequently enough for most potential riders to consider service to be convenient, with only 18 routes operating at least every 30 minutes on weekdays.

Classification	Weekday Daytime Frequency (minutes)	Number of Routes
BRT Lite / Most Frequent	Up to 30	18
Frequent	30-90	13
Limited	Limited or Express	12
Circuit	15-40	3

Additionally, a significant amount of service is focused on the morning and evening rush hours, meaning that there are limited routes that operate throughout the day to serve trips that aren’t work-related. And finally, for a major urban transit system, Nashville MTA’s service ends quite early, by 10:00 p.m. in most cases and by 11:15 p.m. in all cases. These ending times are especially early considering the role nighttime entertainment plays in Nashville’s economy. To provide service that more people can use, Nashville MTA will need to increase frequencies and provide longer hours of service.

Create a Frequent Transit Network

Transit is most attractive when it is frequent enough that people don't need to consult a timetable, and can instead just go to a stop and know that the bus will arrive shortly. With only nine of MTA's routes running at a frequency of 15 minutes or better, creating a network of frequent routes would dramatically increase the convenience and legibility of the system. Over the past decade, there has been an increased emphasis on the development of Frequent Service Networks, and in particular the branding of Frequent Transit Networks to heighten public awareness of them.

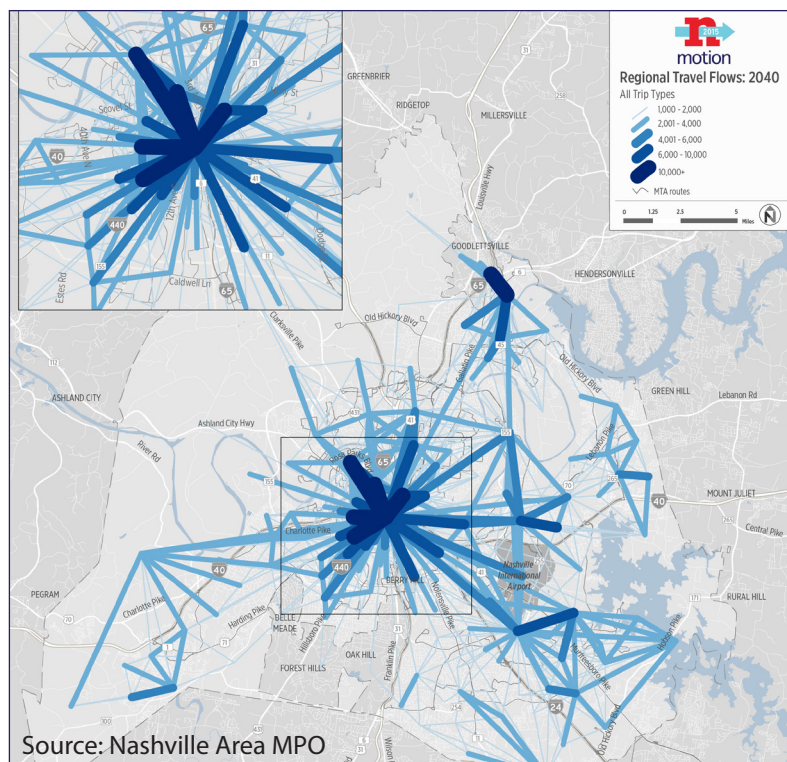
Frequent Transit Networks are designed to provide convenient service between an area's most important destinations, and consist of a number of inter-related elements:

- Frequent service, typically every 10 to 15 minutes or less from the beginning of the morning rush to early evening or later
- A sufficient number of routes to create a network that serves all high-demand locations
- Direct routes that operate along major arterials, consisting of a combination of premium services and local bus routes, and sometimes consisting entirely of local bus routes
- Special branding and information to make service visible and memorable

Make service more direct

As Nashville has grown outward, a smaller proportion of people's trips are being made to and from Downtown, and more are being made between outer areas. Through 2040, downtown Nashville will continue to be the focal point of the greatest number of trips; but trips between other areas will become more important (see Figure 8). Because of Nashville MTA's radial service design—with most trips operating to and from the Music City Central station in downtown Nashville—passengers who are traveling between outer areas must do so through Downtown, which is inconvenient. To become more convenient, Nashville MTA will need to develop more “crosstown” services to provide trips that don't require going through Downtown.

FIGURE 8 2040 PROJECTED TRIP PATTERNS (ALL TRIPS)



Offer premium services

Throughout the country, there has been an increased emphasis on the development of new types of higher-quality transit services. These include commuter rail, rapid transit, light rail, bus rapid transit (BRT), rapid bus/BRT lite, streetcar, and more. Nashville MTA/RTA has begun to develop premium services, such as the RTA Music City Star and the Nashville MTA BRT lite. However, most of the Nashville MTA's most important bus routes continue to provide regular local service.

To develop a great transit system, Nashville MTA and the region will need to significantly expand efforts to develop high-quality services. By developing a High Capacity Transit Network of BRT, BRT lite, and other high-quality services, the Nashville MTA can create more compelling transit service.

So what does all of this mean?

Since its inception, Nashville MTA has expanded and improved its services as resources have allowed. In recent years, those improvements have included the Music City Central, the Music City Circuit routes, and BRT Lite service. However, the MTA's resources have not grown nearly as fast as the region nor as fast as the demand for better transit. As a result, Nashville is a medium-sized city that is growing to become a large city, but with a transit system designed to serve a small city.

In addition to the region's incredible growth, demographic changes and shifts in attitudes mean that the demand for better transit is growing faster than just population and employment. Baby boomers who are growing older want to drive less and take transit more, millennials who will determine Nashville's future want many more travel choices, and minorities who traditionally use transit in very high numbers will comprise most of the county's population by 2040.

Longtime residents and businesses also desire better and more transit in increasing numbers. The Nashville Vital Signs report concluded: "The ability of our residents to move around the region in their cars is quickly deteriorating and will continue to do so unless we provide better transit options." As part of NashvilleNext, the city's residents made it clear that improving transit was their second-highest priority, and the plan's "preferred future" includes a much stronger transit system. In sum, the demand for better transit is being driven by growth itself and by people who understand that Nashville will need a much stronger transit system to sustain that growth and to prosper.

To achieve this, significant transit investments will be needed—both to address the issues described above and to develop a more robust system that will be attractive to a much broader cross section of Davidson County's residents, workers, and visitors.

What happens next?

A report on the state of the Regional Transportation Authority (RTA) system will be released in early August.

The next step in the development of the strategic plan is to finalize a set of principles that will guide decisions about the future of transit in Nashville. These principles are informed by the extensive feedback about values received to date from residents. At the same time, an initial set of approaches to improve transit is being created. These "Transit Strategies" cover opportunities including a High Capacity Transit Network, new types of premium services, walking and biking connections to transit, better information about transit services, and expanded hours and days of service. nMotion2015.org for more information and to learn about opportunities to get involved in planning Nashville's transit future.