

NC Community Transportation Systems Operating in Service Areas that Contain Both Urbanized and Non-Urbanized (rural) Areas

OVERVIEW

Issue: Census 2010, the redefinition of Urbanized Area by the US Census in 2013, and MAP-21 have come together to force changes in funding and reporting for community transportation systems that operate in urbanized areas

Impacts: Most community transportation systems operating within urbanized areas will begin reporting to the Urban National Transit Database. The state will need to reduce 5311 funding to the impacted systems. However, the systems are eligible for 5307 funding.

Action Items:

1. Meet with MPO's and transit systems to discuss 5307 funding for newly urbanized areas
2. Determine funding options if there is a gap between the reduction of 5311 and the introduction of 5307 funds

Questions:

1. How do the affected transit systems receive 5307 funds?
2. When are 5307 allocations determined?
3. Can there be more than 1 designated 5307 recipient in an urbanized area?

DISCUSSION

Prior to Fiscal Year 2009 (verify start date), consolidated urban and community transportation systems whose service area is centered on an urbanized area based on Census 2000 received State of North Carolina funds for administrative expenses, rather than 5311 funds, since 5311 funds are for other than urbanized areas¹. These systems are listed in Table 1.

TABLE 1 Systems Identified in FY2009 as Operating in Both Urbanized and Non-Urbanized Areas
NOT SURE EXACTLY WHO WAS INCLUDED IN THIS LIST
Henderson County, North Carolina
New Hanover County, North Carolina
Tar River Transit, Nash, Edgecombe, North Carolina
WPRTA, Alexander, Burke, Caldwell, Catawba, North Carolina

FY2009

In FY2009, funding for these systems was reconfigured to include Federal 5311 funds where appropriate. Two methods were utilized to determine the amount of 5311 that could be used.

1. Transit system certification- the transit system generates its own rural/urban apportionment
2. OpStats calculation- the transit system reports OpStats data for its rural and urban service to the state in separate reports. Statistics in the reports are compared to determine the rural/urban split.

FY2011

In FY2011, additional transit systems were identified as operating in both urbanized and non-urbanized areas. Table 2 lists the transit systems identified as being in urbanized and non-urbanized areas in FY2011.

TABLE 2 Systems Identified in FY2012 as Operating in Both Urbanized and Non-Urbanized Areas
Alamance County, North Carolina
Buncombe County, North Carolina
Cabarrus County, North Carolina
Cumberland County, North Carolina
Durham County, North Carolina
Gaston County, North Carolina
Guilford County, North Carolina
Haywood County, North Carolina
Henderson County, North Carolina
Mecklenburg County, North Carolina
New Hanover County, North Carolina
Onslow County, North Carolina
Orange County, North Carolina
Pitt County, North Carolina
Rowan County, North Carolina
Tar River Transit, Nash, Edgecombe, North Carolina
Union County, North Carolina
Wake County, North Carolina
Wayne County, North Carolina
WPRTA, Alexander, Burke, Caldwell, Catawba, North Carolina

The newly identified transportation systems were not previously required to track data by urbanized and non-urbanized areas, as they are single-county community transportation systems, and, in many cases, urban fixed route transportation is provided by another transit agency. Without these statistics, it was impossible to apply the 5311 allocation methods used for the previous group of consolidated urban and community transportation systems. Instead, ITRE

developed an allocation formula to determine the allowable percent of administrative subsidy that could come from 5311 funds.

The formula developed by ITRE has continued to be utilized because it has the advantages of 1) it only needs to be updated with every Census data release and 2) it does not place a large data collection requirement on the transportation systems. A discussion of the formula comes later.

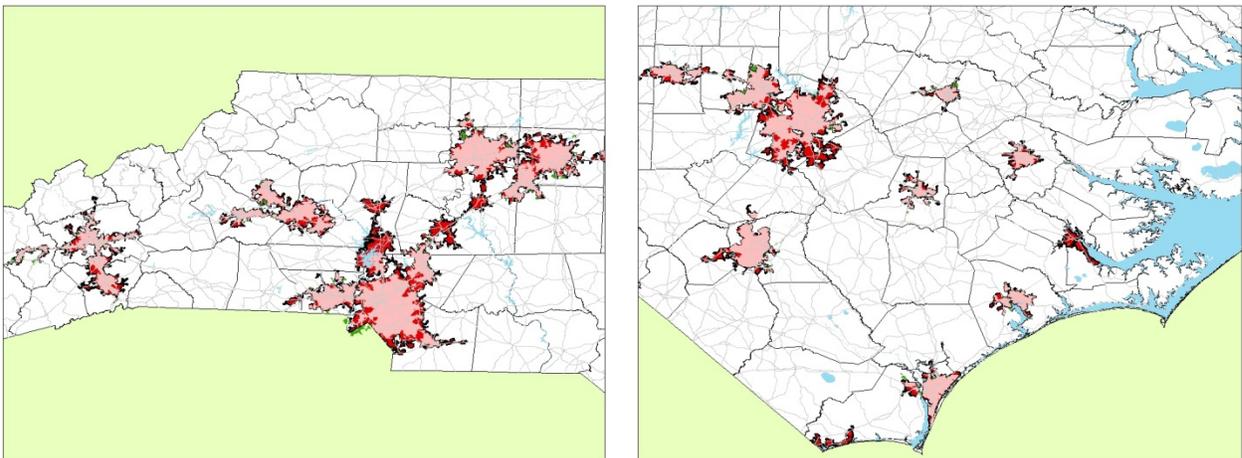
FY2011

In reporting data to the Rural NTD, ITRE noticed that some transit systems such as Salisbury Transit and Wilson City were neither being reported to the Rural NTD nor the Urban NTD. ITRE added data to the Rural NTD for the transit systems that fell into this gap. However, the Rural NTD asked ITRE to remove these systems because they were not receiving 5311 funds. These transit systems continued to be unaccounted for in Federal transit databases.

FY2012

The US Census released new geographical boundaries with urbanized areas in 2012. These boundaries are based on the Census 2010 data and a revised formula for determining urbanized area.ⁱⁱ The formula revision explains the delay in the release of the data. The new urbanized area formula and Census 2010 figures expanded the number of community transportation systems operating in urbanized areas. Figures 1 and 2 compare urbanized areas from Census 2000 to Census 2010, with pink indicating the area is urbanized in both censuses, red indicating it is newly urbanized in Census 2010, and green indicating it was removed from being urbanized in Census 2010.

FIGURE 1 and 2 Impacts of Census 2010 Urbanized Area Determination



Red = Newly urbanized in Census 2010
Pink= Urbanized in both Census 200 and 2010
Green= Urbanized in Census 200, not in 2010

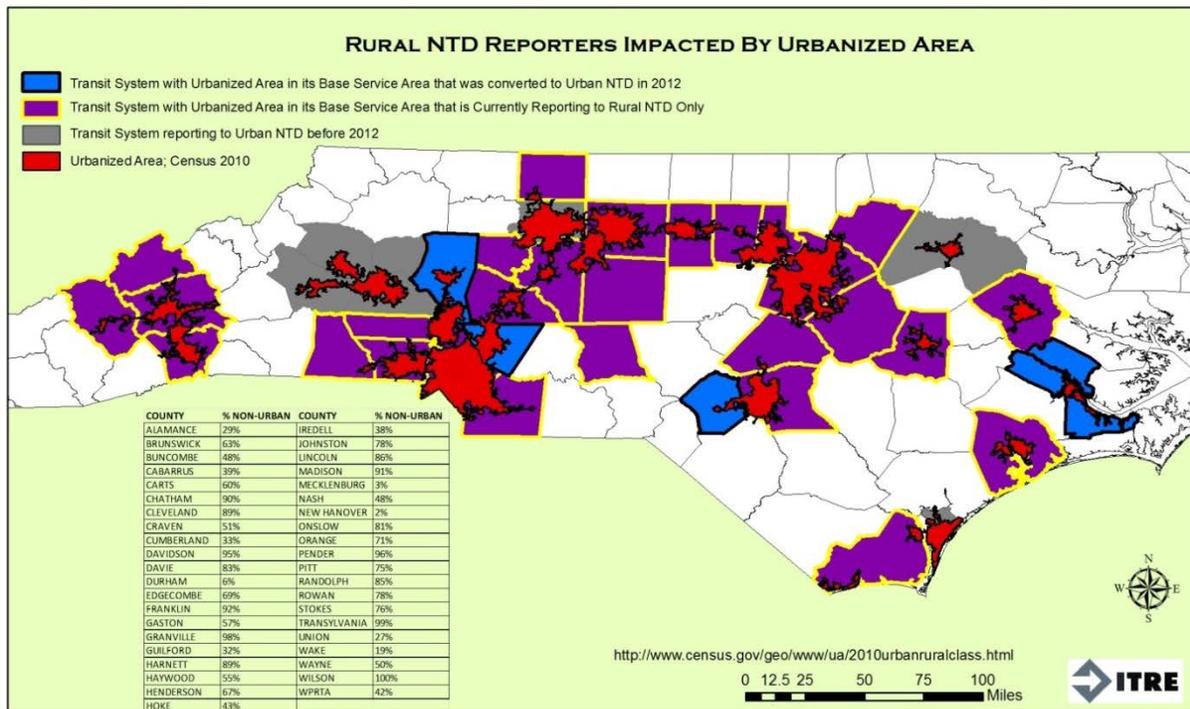
Notable impacts of Census 2010 and the reclassification of urbanized area include:

1. New Bern becoming an urbanized area which requires the formation of a Metropolitan Planning Organization (MPO)
2. Statesville being added to the Charlotte urbanized area
3. Salisbury being added to the in the Concord/Kannapolis urbanized area
4. Lexington being added to the Winston-Salem urbanized area
5. Calabash and Sunset Beach being added to the Myrtle Beach urbanized area

Also during FY2012, MAP-21 implementation decisions were being disseminated. One result of MAP-21 is that 16.85% of 5311 funds are to be distributed based on land area, revenue vehicle miles, and low income individuals. The revenue vehicle miles portion of the formula created a situation where it became important to determine revenue vehicle miles that were associated with other than urbanized service.ⁱⁱⁱ

Prior to FY2012, data for all community transportation systems in North Carolina that were at least in part funded by 5311 funds were being reported to the Rural National Transit Database. Figure 3 displays community transportation systems with urbanized areas in their service areas.

FIGURE 3 Rural NTD Reporters Impacted by Urbanized Area



The National Transit Database requested in FY2012 that Iredell, Cabarrus, Hoke, and CARTS (Craven, Jones, Pamlico) transition to the Urban NTD, as highlighted in blue. It was unclear how these four systems were selected while others were not selected for transition. The systems

highlighted in purple contain urbanized areas within their service boundaries, but they were not asked to transition in FY2012. ITRE contacted the four systems asked to report to the Urban NTD, shared with these systems that there is an allocation formula, and volunteered to assist with data entry. Hoke County was the only system to ask for assistance, but all four systems were provided the allocation formula.

FY2013

ITRE worked closely with the National Transit Database (NTD) to identify community transportation systems that may need to convert to the urban database. It was agreed that community transportation systems whose center, county seat, or primary population center is within an urbanized area should be converted to the Urban NTD. Figure 4 displays the 14 transit systems asked to convert in FY2013, along with reporters included in the Urban NTD prior to FY2013. Table 3 lists all of the counties that report to the Urban NTD.

ITRE has assisted Hoke, Rowan, and Union with entering data up to this point. ITRE expects to assist other systems as their reporting modules become available (see FY2014 section for more information).

FIGURE 4. Urban NTD Reporters

URBAN NTD REPORTERS

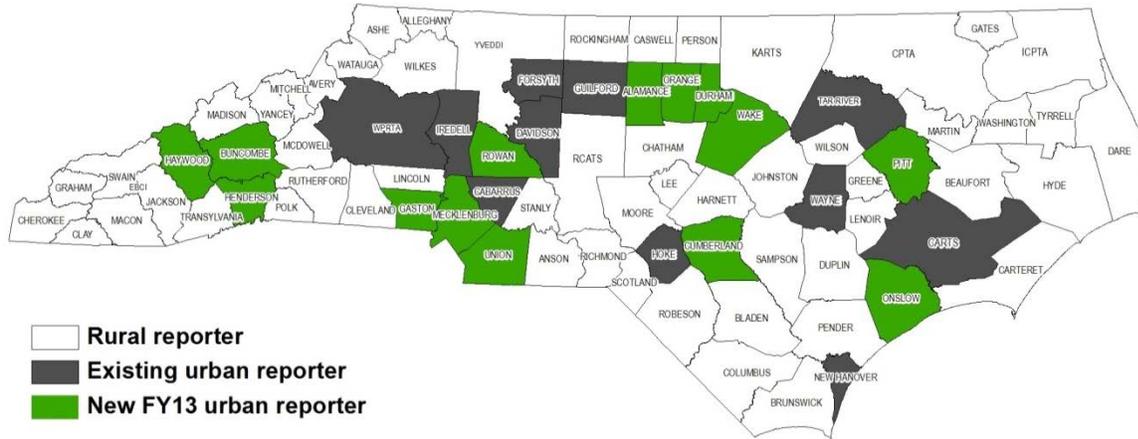


TABLE 3 Urban NTD Reporters as of FY2013 (n=24)
Alamance County, North Carolina
Buncombe County, North Carolina
Cabarrus County, North Carolina
CARTS, Craven, Jones, Pamlico, North Carolina
Cumberland County, North Carolina
Davidson County, North Carolina
Durham County, North Carolina
Forsyth County, North Carolina, reported by Winston-Salem WSTA
Gaston County, North Carolina
Guilford County, North Carolina
Haywood County, North Carolina
Henderson County, North Carolina
Hoke County, North Carolina
Iredell County, North Carolina
Mecklenburg County, North Carolina
New Hanover County, North Carolina
Onslow County, North Carolina
Orange County, North Carolina
Pitt County, North Carolina
Rowan County, North Carolina
Tar River Transit, Nash, Edgecombe, North Carolina
Union County, North Carolina
Wake County, North Carolina
Wayne County, North Carolina
WPRTA, Alexander, Burke, Caldwell, Catawba, North Carolina

FY2014

ITRE assisted NTD with organizing NTD reporting training for the systems that were transitioned to the Urban NTD in FY12 and FY13. The training was conducted via webinar February 25 and February 27, 2014. The FY2013 NTD reports had not been entered by the transit systems before the training because most reporters were waiting on NTD to assign reporter IDs. ITRE volunteered to assist the new FY2012 and FY2013 reporters with data entry and shared that there is an allocation formula for determining urbanized and non-urbanized service.

ALLOCATION FORMULA

As previously noted, the formula for allocating community transportation service data to urbanized and non-urbanized areas was developed because the transit systems were not collecting data necessary to make this determination.

The first step in determining an allocation formula is to define urbanized and non-urbanized service according to 5311 interpretations. Key highlights from FTA circular 9040.1F include:

The purpose of the Section 5311 program is to support public transportation for people living in any area outside of an urbanized area designated by the Bureau of the Census. An urbanized area consists of a core area and the surrounding densely populated area with a total population of 50,000 or more, with boundaries fixed by the Bureau of the Census. Areas not currently within the urbanized area are eligible for Section 5311 funding even if they are included within the metropolitan area planning boundary, which includes the surrounding area expected to be urbanized within 20 years and/or the air quality non-attainment boundary.

Since the goal of Section 5311 is to enhance the overall mobility of people living in nonurbanized areas, Section 5311 projects may include transportation to and from urbanized areas.

Joint Urbanized and Nonurbanized Projects. In some localities, a subrecipient receives both Section 5307 and 5311 funding to provide public transportation to urbanized and surrounding nonurbanized areas. These subrecipients should use Section 5311 funds only to assist the nonurbanized portion of those localities.

Because of the wide range of circumstances under which an operator may provide services in both urbanized and nonurbanized areas, FTA expects the subrecipient to develop a reasonable basis related to the service provided, for allocating operating costs between the two FTA funding sources. ^{iv}

However, the circular did not make it clear how to allocate service statistics among urbanized and non-urbanized areas. In May 2009, ITRE contacted FTA and was informed that as long as at least 50% of the service benefited rural (non-urbanized area) residents, then the service could be considered rural and 5311 eligible. According to FTA, this meant that, for instance, as long as

50% of the miles of a route were in non-urbanized areas, the entire route could be considered non-urbanized.

The choice then was to have the transit systems spend significant effort determining a statistic that was partially defined and would therefore vary greatly among transit systems or to develop a consistent measure that could be applied statewide. At this point, ITRE developed the rural/urban split methodology whose calculations are shown in Table 4.

The rural/urban split methodology begins by calculating the percent of the population that reside in non-urbanized areas. Next, a multiplier is assigned. A multiplier of 1 means that the percent non-urban population is the applicable value because the community does not have a separate urban fixed route provider. In this case, all trips in the community will be served by the community transportation system, which means that the urban/non-urban population is an appropriate method for determining the service percentage.

The multiplier is 2.5 if the community has a separate urban fixed route transportation system that is not operated by the community transportation system. In this case, it is assumed that most trips within the urbanized area will be performed by the urban fixed route transportation system. Thus, trips served by the community transportation system will be highly focused on the rural area.

The multiplier is 2 if the community has a separate urban fixed route transportation system, but the community transportation system provides ADA complementary paratransit service for the fixed route system. In this case, most of the urbanized area trips will be carried by the urban fixed route provider, but the final value is reduced because of the ADA service which by definition is almost always within the urbanized area.

The methodology has two distinct advantages compared to requiring individual transit systems to determine the rural/urban split. First, the calculation is consistently defined across the state. Second, because the calculation is based on Census data, it only needs to be updated every 10 years.

This rural/urban split calculation methodology is being used to allocate 5311 funds to community transportation systems whose primary service area includes urbanized areas. It is also being used to allocate urbanized and non-urbanized area service when the affected systems report to the Urban NTD.

TABLE 4. Rural/Urban Split Calculations Based on Census 2010

Geography	Percent Non-Urban Population	Multiplier	Estimated Non-Urban Trip Share Percent
ALAMANCE	29%	1.0	29%
BRUNSWICK	63%	1.0	63%
BUNCOMBE	24%	2.0	48%
CABARRUS	19%	2.0	39%
CARTS	60%	1.0	60%
CHATHAM	90%	1.0	90%
CLEVELAND	89%	1.0	89%
CRAVEN	51%	1.0	51%
CUMBERLAND	13%	2.5	33%
DAVIDSON	47%	2.0	95%
DAVIE	83%	1.0	83%
DURHAM	6%	1.0	6%
EDGECOMBE	69%	1.0	69%
FRANKLIN	92%	1.0	92%
GASTON	23%	2.5	57%
GRANVILLE	98%	1.0	98%
GUILFORD	13%	2.5	32%
HARNETT	89%	1.0	89%
HAYWOOD	55%	1.0	55%
HENDERSON	33%	2.0	67%
HOKE	43%	1.0	43%
IREDELL	38%	1.0	38%
JOHNSTON	78%	1.0	78%
LINCOLN	86%	1.0	86%
MADISON	91%	1.0	91%
MECKLENBURG	1%	2.5	3%
NASH	48%	1.0	48%
NEW HANOVER	2%	1.0	2%
ONslow	41%	2.0	81%
ORANGE	29%	2.5	71%
PENDER	96%	1.0	96%
PITT	30%	2.5	75%
RANDOLPH	85%	1.0	85%
ROWAN	39%	2.0	78%
STOKES	76%	1.0	76%
TRANSYLVANIA	99%	1.0	99%
UNION	27%	1.0	27%
WAKE	8%	2.5	19%
WAYNE	50%	1.0	50%
WILSON	99%	2.0	100%
WPRTA	42%	1.0	42%

Multipliers

1 = County has no urban fixed route or the Community Transportation system is the Urban provider

2 = County has an urban fixed route and the Community Transportation system provides ADA transportation for it

2.5 = County has urban fixed route and the Community Transportation system does not provide ADA transportation for it

The calculation steps are listed below:

1. Gather the population within Urbanized Area Population and the Total Population for each county using Census 2010 data.
2. Subtract the Urbanized Area Population from the Total Population to derive the Non-Urbanized Population.
3. Divide the Non-Urbanized Population into the Total Population to derive the Percent Non-Urban Population.
4. Determine the Multiplier for each county to adjust for individual differences. The Multiplier is essential because some counties have urban fixed route options for the urban population while other county Community Transportation systems are solely responsible for the mobility of the urban population.
 - a. It is assumed that Community Transportation systems in counties with fixed route options will provide a higher percent service to the non-urban population (Multiplier of 2.5).
 - b. It is assumed that Community Transportation systems in counties with fixed route options that perform the ADA service for the fixed route will provide a slightly lower percent service to the non-urban population (Multiplier of 2).
 - c. It is assumed that the Community Transportation system in a county with no fixed route option will provide the same percent of service to the non-urban area as the Non-Urbanized Population (Multiplier of 1).
5. Multiply the Percent Non-Urban Population by the Multiplier to determine the Estimated Non-Urban Trip Share Percent (5311 eligible trips).

ⁱ http://www.fta.dot.gov/grants/13093_3555.html

ⁱⁱ <http://www.census.gov/geo/reference/ua/urban-rural-2010.html>

ⁱⁱⁱ http://www.fta.dot.gov/documents/MAP-21_Fact_Sheet_-_Formula_Grants_for_Rural_Areas.pdf

^{iv} http://www.fta.dot.gov/legislation_law/12349_6519.html