



Iredell County Community Transportation Services Plan

Final Report





TABLE OF CONTENTS

| | | |
|------------|---|-------------|
| 1.1 | ADVISORY AND GOVERNANCE STRUCTURE..... | 1-1 |
| A. | Type of System and Oversight Board..... | 1-1 |
| B. | Transportation Advisory Board Composition..... | 1-1 |
| C. | Transportation Advisory Board Understanding of Role..... | 1-2 |
| D. | Transportation Advisory Board Meeting Times..... | 1-2 |
| E. | Transportation Advisory Board Member Terms..... | 1-2 |
| F. | Process of Recruitment of Transportation Advisory Board Members..... | 1-3 |
| G. | Transportation Advisory Board Structure..... | 1-3 |
| H. | Goal Setting Exercise with Transit Advisory Committee..... | 1-3 |
| I. | Advantages and Disadvantages of County-Based Transit Authority..... | 1-4 |
| 1.2 | ORGANIZATIONAL FOCUS..... | 1-5 |
| A. | Mission, Goals, Objectives, and Performance Measures..... | 1-5 |
| B. | Benefits of Transit to the Community..... | 1-7 |
| C. | Policies that Support or Hinder Coordination / Regionalization of Transit Services..... | 1-7 |
| 1.3 | SERVICE CHARACTERISTICS..... | 1-8 |
| A. | Last Community Transportation Improvement Plan..... | 1-8 |
| B. | Service Description and Operating Statistics..... | 1-8 |
| C. | Routine Origins and Destinations of Demand Response Trips..... | 1-11 |
| D. | Incorporation of Public Transportation Services into a Coordinated System..... | 1-15 |
| E. | Policies that Support / Guide Service Provision..... | 1-15 |
| 1.4 | FUNDING AND FINANCIAL MANAGEMENT..... | 1-18 |
| A. | Key Funding / Revenue Sources..... | 1-18 |
| B. | Fare Structure and Billing Rate for Agencies and General Public Services..... | 1-19 |
| C. | Other Local Funding Opportunities / Availability..... | 1-19 |
| D. | Third Party Contracts with Service Providers..... | 1-20 |
| 1.5 | CAPACITY ANALYSIS..... | 1-21 |
| A. | Vehicle Inventory and Vehicle Utilization Records..... | 1-21 |
| B. | Condition of Facilities..... | 1-22 |
| C. | Current Advanced Technologies..... | 1-23 |
| D. | Organizational Chart and Staffing Plan..... | 1-24 |
| E. | Historical Statistical Data..... | 1-26 |
| F. | Observations of the Scheduling & Dispatching Function..... | 1-30 |
| 1.6 | PUBLIC SATISFACTION AND COMMUNITY NEEDS..... | 1-33 |
| A. | Human Service Agency Passengers' Input..... | 1-33 |
| B. | General Public Riders Interviews..... | 1-34 |
| C. | Human Service Agency Contacts..... | 1-34 |
| D. | Community Planning Sessions..... | 1-35 |
| E. | Non-Participating Agencies..... | 1-35 |
| F. | Input from Limited English Proficiency (LEP) citizens..... | 1-36 |
| G. | Public Outreach to Minority, Low-Income, and Homeless Populations..... | 1-36 |
| H. | Coordinated Public Transit-Human Service Transportation Plan..... | 1-36 |
| I. | Transportation Needs of Local Colleges..... | 1-36 |
| J. | General Transit Survey..... | 1-37 |
| 2.1 | PREPARATION OF TECHNICAL MEMORANDUM #1..... | 2-1 |
| 2.2 | SECOND STEERING COMMITTEE MEETING..... | 2-1 |



**Iredell County Community Transportation Services Plan
Final Report**

3.1 COUNTY AND REGIONAL DEMOGRAPHICS AND GEOGRAPHY3-1

- A. Medical and Employment Travel Patterns3-1
- B. Areas Currently Not Served By Transit.....3-10
- C. Demographic Analysis3-10
- D. Aging and Immigration Trends Affecting Transportation3-27
- E. Size of Disabled Population in Service Area.....3-27
- F. Seasonal or Infrastructure Issues That Affect Transportation Delivery3-27
- G. Normative Transportation Needs of the Service Area3-28
- H. Summary of Findings3-30

3.2 COORDINATION OPPORTUNITIES.....3-31

- A. Other Transportation Providers or Volunteer Groups Providing Transportation Service3-31
- B. Other Transportation Providers in Bordering Counties.....3-31
- C. Regional or Intercity Service that Needs Local Connector Services3-33
- D. Coordination Opportunities3-33
- E. Coordination Opportunities Related to Regional Medical Service3-34
- F. Potential Park and Ride Services3-34

4.1 ADMINISTRATION AND MANAGEMENT OF THE TRANSIT SYSTEM4-1

- A. Assess the Mission and Goals of the Organization4-1
- B. Existing Policies That Negatively Affect Performance and Customer Service4-1
- C. Transit System’s Annual Budgeting and Spending.....4-1
- D. Fully Allocated Cost Model4-3
- E. Availability of Financial Reserves4-5
- F. Local Financial Assistance Provided4-5
- G. Local Constraints or Barriers the Transit System Faces4-5
- H. Marketing Strategies Used to Promote Transit Services4-6
- I. Assess Public Involvement Strategies of the System.....4-10
- J. Coordinated Public Transit-Human Service Transportation Plan4-11

4.2 SERVICE ANALYSIS4-12

- A. Opportunities for Implementation of New Federal Programs.....4-12
- B. Alternative Service Delivery Strategies.....4-13
- C. Coordination of Trips Among Other Counties.....4-13
- D. Opportunities to Provide Transportation Service to Any Unserved or Underserved Areas4-14
- E. Opportunities to Expand General Public Service.....4-14
- F. Availability of Advanced Technologies.....4-14
- G. Cross-Reference the Report and Other Documents.....4-14
- H. Need for Bus Shelters.....4-15
- I. Opportunities for Service Expansion / Modification4-15

5.1 PREPARATION OF TECHNICAL MEMORANDUM #25-1

5.2 THIRD STEERING COMMITTEE MEETING.....5-1

5.3 PUBLIC EDUCATION AND PUBLIC INVOLVEMENT5-1

6.1 COMBINE TECHNICAL MEMORANDUM AND COMMENTS INTO A DRAFT PLAN ...6-1

6.2 FIVE-YEAR DRAFT PLAN6-1

- A. Executive Summary6-1
- B. Implementation Plan6-3
- C. Implementation Schedule6-3
- D. Financial Plan.....6-8



***Iredell County Community Transportation Services Plan
Final Report***

E. Performance Measurement Plan6-16
F. Public Involvement Description6-17



Iredell County Community Transportation Services Plan Final Report

A Community Transportation Services Plan (CTSP) was conducted to establish a five-year plan to identify strategies and action items for transit throughout Iredell County. The plan is intended to address potential service enhancements, administrative and organizational performance, policy initiatives, and funding availability for the Iredell County Area Transportation System (ICATS).

A focus of the plan is to evaluate the transportation services that already exist and to identify ways to maximize the efficiency of transit while enhancing the mobility options for residents of Iredell County. Transit service is critical to many local residents, and the CTSP is a guide to ICATS to maximize the effectiveness of their services in a cost-efficient manner.

1.1 ADVISORY AND GOVERNANCE STRUCTURE

A. Type of System and Oversight Board

ICATS offers both human service and general public transportation to residents of Iredell County. Many agencies in the county purchase transportation service from ICATS, and service to the general public is offered on a demand-response basis and through the 'Ride the Loop' deviated fixed route service in Statesville. Services operate between the hours of 5:00 am and 7:00 pm, Monday through Friday. Some additional evening hours are currently available for employment transportation and limited weekend service is provided for dialysis patients.

A Transportation Advisory Board (TAB) provides advice and policy guidance but administration oversight for ICATS' operations and activities is the responsibility of the County's Board of Commissioners.

B. Transportation Advisory Board Composition

ICATS has an active TAB comprised of representatives of local agencies and other stakeholders. The TAB was restructured within the past few years and includes several new members. By-Laws state that the TAB will be comprised of one representative of each human service agency that purchases transportation annually and one at-large member. Current members include representatives of the following organizations:

- Iredell County Council on Aging;
- Iredell County Department of Social Services;
- Iredell County Kidney Dialysis Organization;
- Mitchell Community College;
- Lifespan;
- Iredell County Department of Planning;
- Crossroads Behavioral Healthcare;
- Iredell County Veterans' Services;
- 5th Street Ministry;
- Greater Statesville Chamber of Commerce;
- Goodwill Industries;



Iredell County Community Transportation Services Plan Final Report

- Town of Mooresville Planning Department; and
- Mi Familia, Inc. (advocate for the Hispanic community).

The ICATS TAB reflects the demographic characteristics of the community and the array of community stakeholders. As recommended by the North Carolina Department of Transportation - Public Transportation Division (PTD), the Board has representation from organizations from which general public riders interface, and/or private sector businesses (in the form of the Chamber of Commerce).

Further enhancements to TAB membership roster are suggested to educate individuals who may not understand the benefit that ICATS provides, thus broadening the number of transit advocates. Additional stakeholders could include the following:

- Iredell County Department of Human Resources staff member;
- Mitchell Community College student rider; and
- Lowe's, Inc. representative.

C. Transportation Advisory Board Understanding of Role

TAB members recognize that their appointments are strictly advisory in nature and that they have no formal governance over ICATS' operations and activities. Members also recognize that regularly participating in the scheduled meetings is one means to make recommendations on the transportation needs of Iredell County citizens, particularly with respect to a coordinated and cost-effective approach to the delivery of transportation services to area human service agencies and the general public. The TAB's main role is to serve as a liaison between the residents of Iredell County and the County government concerning transportation issues.

The TAB has adopted By-Laws that outline procedures, terms of service and replacement, vacancies, attendance, agency appointments and conflicts of interest. The Iredell County Board of Commissioners adopted the revised By-Laws in May 2010.

D. Transportation Advisory Board Meeting Times

Meetings of the Advisory Board are held on the third Monday of every third month (January, April, July, and October) at the Iredell County Government Center, Annex Conference Room. Attendance is relatively steady. The By-Laws state that any member of the Board who accumulates more than three unapproved absences in a 12-month period shall lose his/her status as a member of the TAB and shall be replaced by the Iredell County Board of Commissioners.

E. Transportation Advisory Board Member Terms

The By-Laws state that at-large members of the Iredell County Transportation Advisory Board shall serve two-year terms, and can be re-appointed to the positions as long as they are willing to serve. Agency representatives will serve continuously or until succeeded.



Iredell County Community Transportation Services Plan Final Report

F. Process of Recruitment of Transportation Advisory Board Members

The appointment process for TAB membership is informal. Contractual and participating agencies appoint a representative to the Committee, or the Transportation Director personally contacts individuals within the ICATS service area that have exhibited interest in transportation matters or who are affiliated with agencies or companies that could benefit from ICATS service. Several TAB members represent their current employers even though they were initially recruited as Board members at their former employers. Encouragement from the Transportation Director to include representatives of human service agencies not necessarily managed and controlled by the County are commendable.

G. Transportation Advisory Board Structure

The TAB is administered by a Chairperson (currently the Greater Statesville Chamber of Commerce representative); Vice Chair (Crossroads Behavioral Healthcare); and Secretary (Lifespan representative). In compliance with North Carolina Department of Transportation - Public Transportation Division (PTD), the Transportation Director holds no office.

H. Goal Setting Exercise with Transit Advisory Committee

A visioning session was held with the TAB on October 25, 2010. This was an opportunity for stakeholders to provide their input on important issues to address as part of the five-year CTSP. The ultimate goals and objectives of ICATS were discussed. A major focus of the discussion was on working to achieve an appropriate balance between quantity (e.g. number of passenger trips) and the quality (e.g. on-time performance) of transit in Iredell County. This input provided valuable insight into key priorities to examine during the CTSP study process.

Primary discussion items from the visioning session include the following:

- Quantity versus quality – where is the balance?
- Opening a secure satellite facility in Mooresville should be a high priority to reduce travel time to the facility in Statesville. The deadhead miles between Mooresville and Statesville are a contributing reason for lost productivity.
- The potential managing service availability through policies such as a zone-based system, where certain parts of the County are offered service on specific days of the week and not other days. The possibility that funding for the upcoming year may be reduced and the impacts to a transit system that is already stretched to meet service demands.
- The possibility of fare/contract rate increases to provide needed revenue.
- Methods to obtain additional funds to support additional service. The TAB recognizes its role in helping to raise funds and calling upon local businesses to assist.
- Opportunities to consider regional approaches to transit needs, beyond Iredell County's borders.

The group was asked to rank in importance the core attributes of service given the currently available resources. The leading response was for the development of standards and policies to better manage the availability of service. Efficiency and on time pick-up/drop-off were also



Iredell County Community Transportation Services Plan Final Report

considered to be essential focus areas. Next were duration of trip (i.e. minimizing time spent on the buses) and on-demand service (i.e. service when people want it). Relatively speaking, geographic coverage was the lowest ranked response, which could be a function of the fact that ICATS already covers Iredell County in its entirety. The meeting agenda and list of discussion questions are included in the Appendix.

I. Advantages and Disadvantages of County-Based Transit Authority

ICATS currently functions as a department within Iredell County and thus has the benefit of financial assistance and ancillary support. A drawback of this organizational structure is that ICATS is subjected to County policies and procedures while being subjected to more stringent Federal guidelines. ICATS was formerly under the auspices of the Vocational Workshop. A separate County department was created when the role of transit increased.

As a department of Iredell County, ICATS is subject to the financial restrictions that the County faces. Hiring additional staff may be perceived negatively with the current economic challenges. However, the number of staff available in relation to the number of rides currently provided by ICATS is quite small compared to other rural transit system providers both within North Carolina and the Southeast. By analyzing ridership data for the past several years, there are distinct trends in ICATS' growth, showing that an increase in manpower should have occurred already and any increase in staffing would be considered beneficial.

As a system that borders nine other counties, there is the potential to become a regional transit provider. If the organization were restructured as an autonomous authority, then regional operations would create the ability to seek additional funding from various sources other than the County. It is unclear whether the additional sources of revenue could offset the potential reduction of Iredell County funding. Non-profit agencies sometimes engage grant-writing experts to research and obtain alternative financial support.



1.2 ORGANIZATIONAL FOCUS

A. Mission, Goals, Objectives, and Performance Measures

ICATS has adopted the following organizational goal: “to provide to the citizens of Iredell County transportation services that are efficient, safe, and effective.” The system’s mission statement is as follows:

It is the goal of the Iredell Area County Area Transportation System to provide services that are efficient, safe, and effective. The system ultimately seeks to increase mobility of the citizens of Iredell County and integrate services in order to maximize resources.

ICATS has identified the following organizational goals and objectives:

1. *To maintain a goal of safety in the provision of services and all aspects of operation.*
 - a. *ICATS will insure that drivers and other operational personnel receive adequate training in order to carry out all work assignments. Personnel will receive on-going refresher training and periodic road evaluations in order to keep safety a priority.*
 - b. *ICATS will insure that vehicles in the fleet are maintained in accordance with manufacturer and local Iredell County Garage standards. Repairs and maintenance will be coordinated with the county garage and will be performed in a timely manner.*
 - c. *ICATS will comply with all federal policies to include maintaining a drug free workplace.*
2. *To identify service needs and seek options for meeting the needs of our citizens*
 - a. *ICATS will work to identify services that are needed by consumers or potential consumers. Telephone requests, surveys, public meetings, etc. will be employed for this purpose*
 - b. *Track number of new passengers and changes in service design*
3. *To provide service that is efficient and cost effective in design*
 - a. *ICATS Operational personnel will monitor service information such as passengers per service mile, passenger per service hour, etc. on a weekly and monthly basis, or as otherwise indicated*
 - b. *ICATS will track service costs by funding sources and overall system performance*
4. *To provide service that focuses on quality*
 - a. *ICATS will monitor the quality of service by face-to-face contacts or telephone contacts with passengers. Surveys can be included in this process*
 - b. *ICATS will monitor performance indicators such as on-time performance data to include early and late pick-up arrivals.*
5. *To identify and maximize funding opportunities for transit*
 - a. *ICATS will seek out and apply for new funding opportunities as available.*
 - b. *ICATS will review service data in order to assess whether or not the system is able to maximize existing funding.*
6. *To comply with all local, state, and federal requirements for the provision of services, as well as reporting.*
 - a. *The transit system will comply with federal and state regulations as included in the annual Certifications and Assurances, as well as other required regulations.*



**Iredell County Community Transportation Services Plan
Final Report**

- b. *ICATS will submit all required state and federal reports in a timely manner, which includes invoicing.*

ICATS has identified the following as service objectives:

The transit system has identified the elderly, disabled, and those with lower income as the prime target populations for service; however, persons not falling in these areas qualify to receive services as general public passengers. The service populations are quite often influenced by the availability of funding. Routes are designed as subscription, demand-response, or deviated fixed. There is overlapping in the subscription and demand response scheduling and dispatching functions in order to maximize resources and operate more efficiently. ICATS will not discriminate due to trip purpose. Service is designed to transport multiple persons to multiple locations through ride sharing. This is done to accommodate trips requests, and maximize service efficiencies.

Trips are billed on a shared service mile or shared service hour. One agency is charged a flat rate per trip. Trip charges are based upon the fully allocated rate setting model that was developed by the NCDOT. Some ROAP passengers and those trips provided by federal funding (JARC and 5310) do pay fares that have been established to meet local match requirements. Fares range from \$1.00 to \$4.00 depending upon the type of trips and required trip travel distances.

Performance measures are generated through the system’s CTS RouteMatch operational software for purposes of data reporting to NCDOT. However, ICATS has not adopted formal benchmarks associated with these performance measures to assess its operations. The *Performance Plan and Analysis* developed by the Institute for Transportation Research and Education (ITRE) in March 2010 provided recommendations for operating performance measures as follows:

ICATS Performance Measures

| Performance Measure | Current Level | Growth % | 6 months | 12 months | 18 months |
|-------------------------------------|----------------------|-----------------|-----------------|------------------|------------------|
| Weekday Average Daily Passengers | 648 | 1% | 655 | 661 | 668 |
| Weekday Passengers per Service Hour | 0.147 | 3% | 0.151 | 0.156 | 0.160 |
| Weekday Passengers per Revenue Hour | 0.173 | 3% | 0.179 | 0.184 | 0.190 |
| Weekday Passengers per Service Mile | 3.02 | 1% | 3.05 | 3.08 | 3.11 |
| Weekday Passengers per Revenue Mile | 3.50 | 1% | 3.54 | 3.57 | 3.61 |
| Weekday Average Cancellations | 79 | - 5% | 75 | 71 | 68 |
| Weekday Average No Shows | 26 | Varies | 20 | 20 | 20 |



Iredell County Community Transportation Services Plan Final Report

B. Benefits of Transit to the Community

The value of public transit in Iredell County was discussed with TAB members during the Visioning session and with citizens during the Community Planning sessions. These discussions identified several key benefits of transit:

- Access to jobs for local residents;
- Access to health care, social services, and other important destinations;
- Maintaining independence for residents who can not drive or do not want to drive;
- Environmental benefits, including reduced air pollution; and
- Reducing congestion on roadways.

In addition to the traditional performance measures used to describe the efficiency of operations (like those identified in the ITRE report), it is suggested that the systems adopt a more comprehensive set of performance measures that also can be used to assess progress with regard the specific benefits that have been identified above. Knowing with more certainty how existing transit services are benefiting the community will better enable the systems' leaders and advisory committee members to "tell the story" of transit. Specific suggestions for performance measures will be offered as part of the recommendations of this planning process.

C. Policies that Support or Hinder Coordination / Regionalization of Transit Services

There are tremendous coordination opportunities for ICATS since Iredell County borders nine other counties. ICATS enjoys a positive working relationship with Mecklenburg County Transportation Service (MCTS), the County's transit provider for areas outside Charlotte city limits. Besides meeting MCTS vehicles at a designated location in Davidson to transfer passengers needing to go to Charlotte medical facilities, ICATS transfers passengers as the need arises to the Charlotte Area Transit System (CATS) North Mecklenburg Express (Route 77x) that also has a different pick-up location in Davidson. CATS' Route 83x serves a park and ride lot at Williamson Chapel located at 589 Brawley School Road in Mooresville. This service, with local contributions coming solely from the Town of Mooresville, offers another opportunity for ICATS to coordinate rides. (The current Route 83x contract ended on December 31, 2010. Therefore, CATS terminated the service as of January 1, 2011.)

ICATS offers service to two out-of-county destinations per weekday. ICATS provides a weekly opportunity for travel to Salisbury, targeted specifically for transports to the Veterans' Administration Hospital. Another frequently scheduled trip is to Winston-Salem, for medical trips to the health care clinics and Wake Forest University Baptist Medical Center.



1.3 SERVICE CHARACTERISTICS

A. Last Community Transportation Improvement Plan

The last Transportation Development Plan for Iredell County was completed in the 1990's. As such, it is now significantly outdated. Since the TDP study occurred so long ago and most recommendations are not pertinent or have already been completed, it is more worthy to focus on other more recent study efforts related to transportation.

In May 2008, the ICATS prepared the *Iredell County Community Involvement Plan*. The United Way of Iredell County conducted a community needs survey which identified transportation as a considerable need, with medical/health transportation ranking highest. Public involvement was a key aspect of the plan.

Transit providers within the Lake Norman Rural Planning Organization (RPO), Cleveland, Gaston, Lincoln and Iredell Counties, participated in the development of the *Lake Norman Rural Planning Organization Coordinated Comprehensive Public Transportation Plan*. The focus of the study was to identify opportunities to coordinate and improve efficiency. The following needs pertinent to Iredell County were included:

- Dedicated public lots for car pools, van pools, and scheduled bus service to pick up and drop off passengers.
- Authority and predetermined agreement to coordinate client transfers at county lines and client delivery across county lines.
- Single source for identifying services and eligibility for the entire Study Area.
- Awareness of existing van pool operations.
- Increased van pool opportunities for workers and residents in the Study Area.
- More frequent and extended service to human service providers, commuters, and the general public.

B. Service Description and Operating Statistics

ICATS offers both human service and general public transportation to residents of Iredell County. Many agencies in the County purchase transportation service from ICATS. Services are provided through demand response trips, deviated fixed routes, and subscription routes.

Reservations are required for this demand response service and are made on a first-come first-serve basis. ICATS strives to make an effort to accommodate the requested pickup time. Passengers must be ready one and a half (1 ½) hours in advance of the scheduled appointment time. On the evening before or morning of the reservation, the passenger can call ICATS to get a better approximation of pick-up time. Services operate between the hours of 5:00 AM and 7:00 PM Monday through Friday, with some additional evening and weekend hours available for employment trips and dialysis patients. Demand response service accounts for approximately 95% of ICATS service the based on *NCDOT Community Transportation System Operating and Financial Statistics Report* for FY 2009. The same report states that weekend service accounts for roughly 2% of the service that ICATS provides.



**Iredell County Community Transportation Services Plan
Final Report**

The system serves out-of-county destinations and attempts to coordinate trips so that they occur on a single day of the week. Reservations are required for this demand response service. Typical destinations include the VA Medical Center in Salisbury and Baptist Hospital in Winston Salem.

The 'Ride the Loop' deviated fixed route service operates in the city limits of Statesville on weekdays between the hours of 8:30 AM and 5:30 PM, with a one-hour break in service from 11:50 AM until 12:50 PM. There are two car seats available on the vehicle. The ICATS website states that route deviation is available by request to accommodation to persons with disabilities. This deviated fixed route facilitated roughly 3,350 passenger trips between July 2009 and June 2010. (It was recently announced that 'Ride the Loop' weekday service will be reduced to service only on Monday, Wednesday and Friday service effective January 1, 2011). The 'Ride the Loop' schedule and route map are shown below:

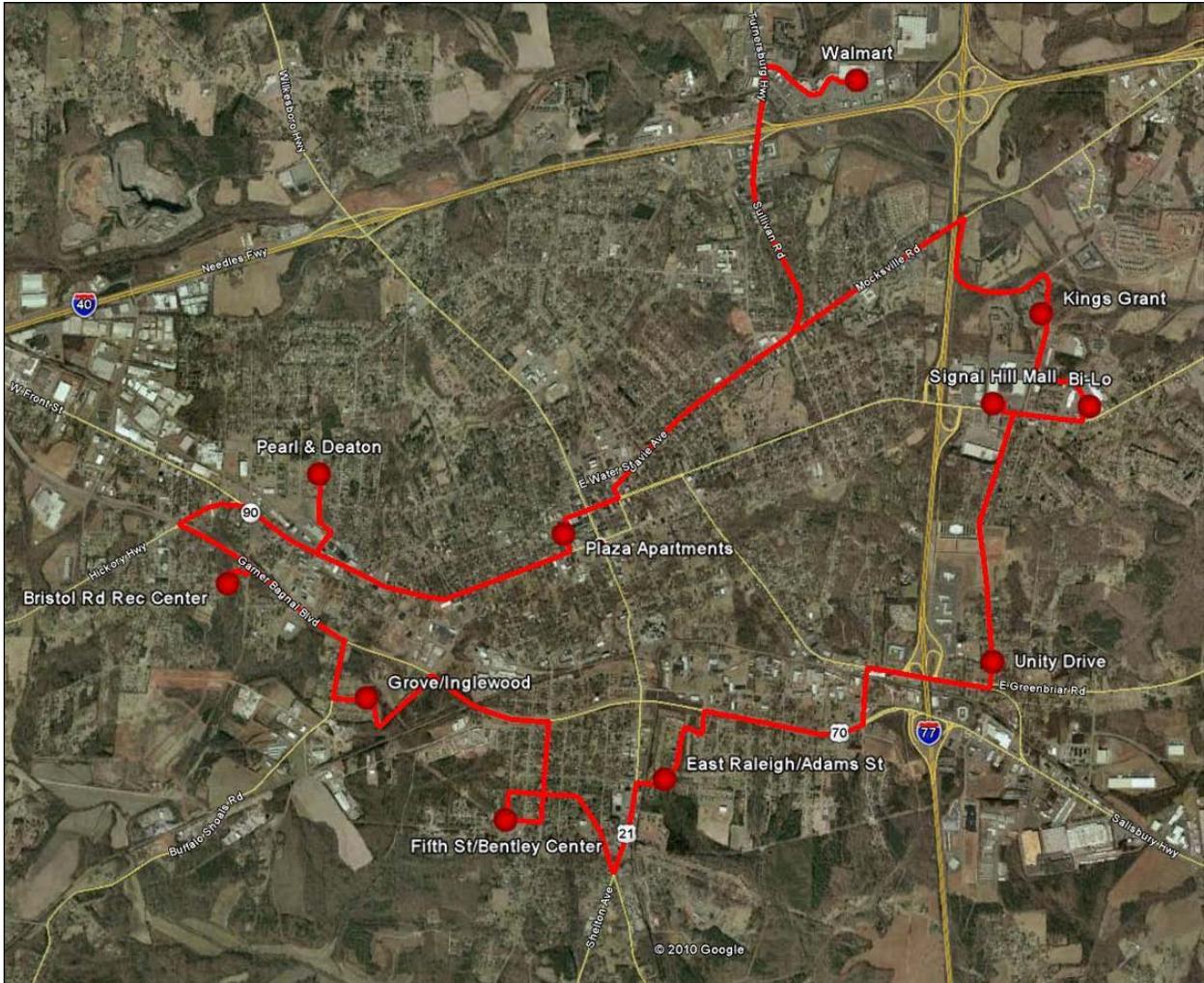
'Ride the Loop' Schedule

| | | | | | | |
|-------------------------|---------|----------|----------|---------|---------|---------|
| Plaza Apartments | 9:00 AM | 10:00 AM | 11:00 AM | 1:00 PM | 2:00 PM | 3:00 PM |
| Pearl/Deaton St. | 9:07 AM | 10:07 AM | 11:07 AM | 1:07 PM | 2:07 PM | 3:07 PM |
| Bristol Rd Rec Center | 9:12 AM | 10:12 AM | 11:12 AM | 1:12 PM | 2:12 PM | 3:12 PM |
| Grove/Inglewood | 9:16 AM | 10:16 AM | 11:16 AM | 1:16 PM | 2:16 PM | 3:16 PM |
| Fifth St/Bentley Center | 9:20 AM | 10:20 AM | 11:20 AM | 1:20 PM | 2:20 PM | 3:20 PM |
| East Raleigh/Adams St | 9:25 AM | 10:25 AM | 11:25 AM | 1:25 PM | 2:25 PM | 3:25 PM |
| Unity Drive | 9:33 AM | 10:33 AM | 11:33 AM | 1:33 PM | 2:33 PM | 3:33 PM |
| Signal Hill Mall | 9:35 AM | 10:35 AM | 11:35 AM | 1:35 PM | 2:35 PM | 3:35 PM |
| Bi-Lo | 9:38 AM | 10:38 AM | 11:38 AM | 1:38 PM | 2:38 PM | 3:38 PM |
| Kings Grant | 9:41 AM | 10:41 AM | 11:41 AM | 1:41 PM | 2:41 PM | 3:41 PM |
| Wal-Mart | 9:50 AM | 10:50 AM | 11:50 AM | 1:50 PM | 2:50 PM | 3:50 PM |



**Iredell County Community Transportation Services Plan
Final Report**

'Ride the Loop' Route



Mitchell Community College contacted ICATS to provide transportation between its Mooresville and Statesville campuses to accommodate staff and students. A deviated fixed route was established in August 2009 using JARC grants. The service operates between 8:00 AM and 4:30 PM Monday through Friday. The shuttle advertizes that it may or may not be a direct route between campuses because additional stops may be made. Approximately 970 passenger trips were taken by the Mitchell Community College Shuttle between its inception and June 2010.

A general public passenger utilizing the demand response service will pay between \$2.00 and \$4.00 fare depending on the geographic locations of their origin and destination. If the trip is authorized by a human service agency then there is no charge for the passenger. General public passengers who patronize 'Ride the Loop' and Mitchell Shuttle pay a \$1.00 fare each time they board a transit vehicle. Veterans traveling out-of-county to the VA Medical Center in Salisbury are charged a \$2.00 fare each time they board a transit vehicle.



**Iredell County Community Transportation Services Plan
Final Report**

ICATS operates a fleet of 28 vehicles. Within that fleet, 25 vehicles are equipped with lifts to accommodate passengers with wheelchairs. Two minivans and a conversion van do not have lifts.

The *Performance Plan and Analysis* developed by the Institute for Transportation Research and Education (ITRE) in March 2010 provided ICATS vehicle utilization data. The data from Fall 2009 was compared to a group of peer systems in North Carolina. In terms of the number of passengers served daily, ICATS has become one of the largest community transportation service providers in the state. The average weekday statistics are shown in the table below.

Operations Data Comparison to Peer Group

| Average Weekday Statistics | Group 3-West | | Iredell (ICATS) | | Percent Difference |
|-------------------------------------|--------------|---------|-----------------|---------|--------------------|
| | Number | Percent | Number | Percent | |
| Average Daily Passengers | 342 | - | 648 | - | 89% |
| Average Daily No Shows | 12 | 3% | 28 | 4% | 133% |
| Average Daily Wheelchair Passengers | 39 | 11% | 140 | 22% | 259% |
| Total Vehicles | 23 | - | 28 | - | 22% |
| Lift Vehicles | 16 | 70% | 26 | 93% | 63% |
| Service Hours | 138 | - | 215 | - | 56% |
| Revenue Hours | 116 | 84% | 185 | 86% | 59% |
| Deadhead Hours | 21 | 16% | 30 | 14% | 39% |
| Service Miles | 2391 | - | 4417 | - | 85% |
| Revenue Miles | 1985 | 83% | 3739 | 84% | 88% |
| Deadhead Miles | 406 | 17% | 679 | 15% | 67% |
| Passengers Per Service Hour | 2.48 | - | 3.02 | - | 22% |
| Passengers Per Revenue Hour | 3.03 | - | 3.50 | - | 16% |
| Passengers Per Service Mile | 0.149 | - | 0.147 | - | -1% |
| Passengers Per Revenue Mile | 0.183 | - | 0.173 | - | -5% |

The table above demonstrates that ICATS is a proficient transit system in comparison to the peer group. ICATS may operate with 56% higher service hours and 22% more vehicles, but the systems' efficiency results in an 89% higher passenger count.

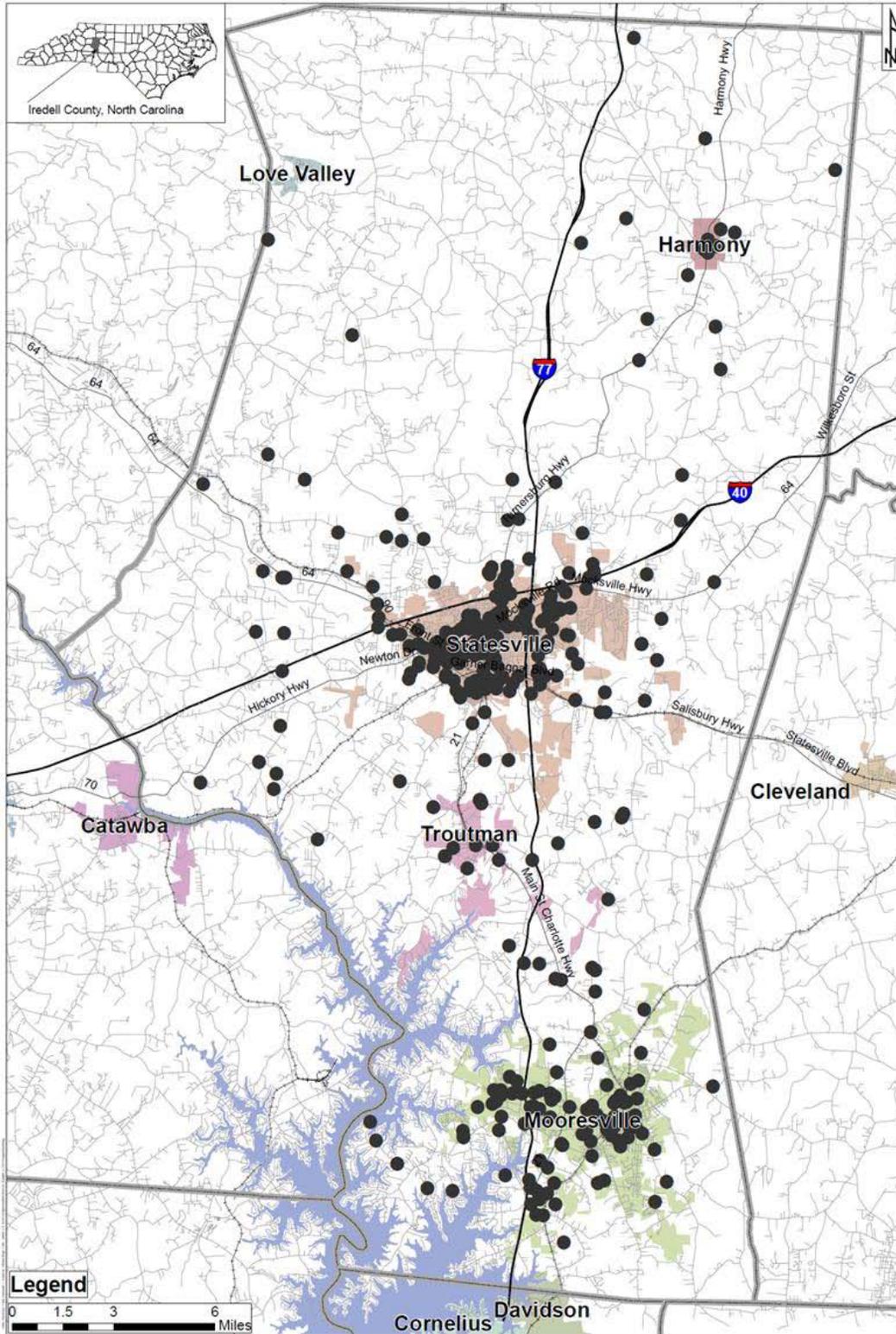
C. Routine Origins and Destinations of Demand Response Trips

To illustrate routine origins and destinations of demand-response trips, an analysis of the trips from a "typical" day of operations was performed. ICATS provided driver manifests for demand-response service on Thursday, September 9, 2010. The data was compiled into the following map to graphically illustrate the origins and destinations of the ICATS demand-response trips during a single day.



**Iredell County Community Transportation Services Plan
Final Report**

ICATS Demand-Response Origins and Destinations (September 9, 2010)





**Iredell County Community Transportation Services Plan
Final Report**

The origins and destinations map shows that a large number of trips were clustered in Statesville and Mooresville. A moderate amount of trips came and went to rural destinations within the County. Trips were made to four out-of-county destinations.

Based on the ICATS driver manifests, the largest majority of trips originates in Statesville and goes to a destination in Statesville. Note that this large number of trips may be a result of the number of locations outside of Statesville’s City Limits that are given a Statesville address. The table below shows the origin and destination breakdown of trips.

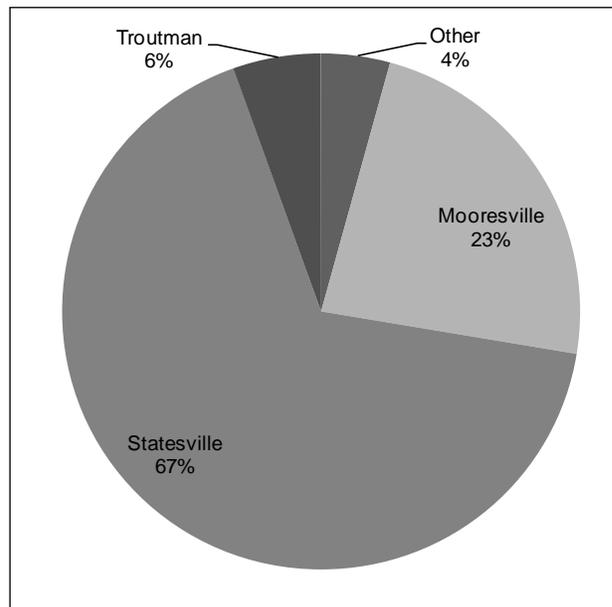
Origin/Destination Comparison (September 9, 2010)

| Origin | Destination | Number of Trips |
|-------------|-------------|-----------------|
| Harmony | Harmony | 8 |
| Harmony | Statesville | 4 |
| Mooresville | Mooresville | 114 |
| Mooresville | Statesville | 17 |
| Mooresville | Troutman | 5 |
| Statesville | Harmony | 5 |
| Statesville | Mooresville | 21 |
| Statesville | Statesville | 347 |
| Statesville | Troutman | 11 |
| Troutman | Mooresville | 6 |
| Troutman | Statesville | 15 |
| Troutman | Troutman | 10 |

The driver manifest for demand-response service on a “typical” day was analyzed further to determine the geographic breakdown of areas served. The chart to the right shows the percentage of trips by municipality for a “typical” day.

On the sample day the majority of trips were going to or coming from Statesville. The second largest portion of origins and destinations were located in Mooresville. Less than ten percent of the passenger trips were in Troutman. The category of “other” is made up of places like Harmony, Union Grove, Hamptonville, Olin and Stony Point. The out-of-county trips on September 9th went to a medical office in Davidson, the Hefner VA Medical Center in Salisbury, Baptist Hospital and Medicaid Dental both located in Winston-Salem.

Municipality Split for ICATS Demand-Response (September 9, 2010)





**Iredell County Community Transportation Services Plan
Final Report**

The *Performance Plan and Analysis* developed by the Institute for Transportation Research and Education (ITRE) in March 2010 provided vehicle utilization information. The table below shows data from Monday, August 17, 2009.

ICATS Vehicle Utilization

| Veh ID | Miles | Hours | Passengers | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|----------|-------|-------|------------|---|---|---|---|---|----|----|----|---|---|---|---|---|---|---|---|
| 0612 | 136 | 8.33 | 25 | b | b | b | b | b | b | b | b | b | b | b | b | | | | |
| 0613 | 154 | 8.35 | 25 | | b | b | b | b | b | b | b | b | b | b | b | b | b | b | b |
| 0614 | 63 | 2.16 | 5 | | | | | b | b | b | b | | | | | | | | |
| 0615 | 172 | 9.39 | 29 | | | | b | b | b | b | b | b | b | b | b | b | b | b | b |
| 0752 | 138 | 8.25 | 24 | | | b | b | b | b | b | b | b | b | b | b | b | b | b | b |
| 0757 | 63 | 4.15 | 5 | | | | | | | | | | | | b | b | b | b | b |
| 0804 | 149 | 6.28 | 9 | | | | | | | | b | b | b | b | b | b | b | b | b |
| 0853 | 280 | 16.21 | 40 | | | | b | b | b | b | b | b | b | b | b | b | b | b | b |
| 0866 | 48 | 2.05 | 3 | | | | | b | b | b | | | | | | | | | |
| 0874 | 254 | 15.31 | 52 | | | | b | b | b | b | b | b | b | b | b | b | b | b | b |
| 0883 | 436 | 17.01 | 38 | | | b | b | b | b | b | b | b | b | b | b | b | b | b | b |
| 0913 | 137 | 6.22 | 17 | | | | | | | | b | b | b | b | b | b | b | b | b |
| 0914 | 160 | 7.37 | 20 | | | b | b | b | b | b | b | b | b | b | | | | | |
| 0915 | 226 | 12.13 | 32 | b | b | b | b | b | b | b | b | b | b | b | b | b | b | b | b |
| 1276 LTV | 167 | 9.31 | 101 | | | | | b | b | b | b | b | b | b | b | b | b | b | b |
| 1277 LTV | 141 | 8.00 | 17 | | | b | b | b | b | b | b | b | b | b | b | b | b | b | b |
| 1278 LTV | 462 | 16.43 | 48 | | | | b | b | b | b | b | b | b | b | b | b | b | b | b |
| 1593 | 104 | 3.33 | 6 | | | | b | b | b | b | b | | | | | | | | |
| 5321 | 150 | 5.52 | 18 | | | b | b | b | b | b | b | b | b | b | b | b | b | b | b |
| 5322 | 171 | 7.21 | 18 | | | b | b | b | b | b | b | b | b | b | b | b | b | b | b |
| 5323 | 156 | 5.38 | 20 | | | b | b | b | b | b | b | b | b | b | b | b | b | b | b |
| 7175 | 155 | 6.35 | 22 | | | | b | b | b | b | b | b | b | b | b | b | b | b | b |
| 7176 | 202 | 8.41 | 37 | | | b | b | b | b | b | b | b | b | b | b | b | b | b | b |
| 8591 | 164 | 5.23 | 3 | | | | | | | | b | b | b | b | b | b | b | b | b |

The data for Monday, August 17, 2009 shows ICATS vehicles traveled a total of 4,288 miles, during 202.6 hours, and transported 614 passengers. Roughly 70% of all the vehicles were in service for more than six hours, and roughly 46% were in service for eight or more hours. However, one vehicle was only in service after 4PM, while four vehicles were only in service prior to 11AM. This may be a function of the available equipment (i.e. one vehicle has multiple wheelchair positions but is unable to carry as many passengers as other vehicles). Based on weekly vehicle utilization data (between August 17, 2009 and August 22, 2009), ICATS vehicles traveled a total of 22,293 miles, were in service for 1,061.1 hours, and transported 3,314 passengers.



**Iredell County Community Transportation Services Plan
Final Report**

D. Incorporation of Public Transportation Services into a Coordinated System

ICATS' general public deviated fixed route service, called 'Ride the Loop', started seven years ago. Operating in the city limits of Statesville on weekdays between the hours of 8:30 AM and 5:30 PM, with a one-hour break in service from 11:50 AM until 12:50 PM, one lift-equipped light transit vehicle (LTV) is assigned. Passengers pay \$1.00 upon boarding for a one-way trip. An adult must accompany children under the age of 12.

There have been very few modifications to the actual route since the service's inception. In an effort to reach the primary target markets – shoppers, hospitality industry workers, and transit dependent Statesville citizens - the route passes hotels and motels, restaurants, shopping centers, and multi-family housing communities. The ICATS Bus Operator that has driven the route for the majority of its years of operation stated that 90% of the regular riders are destined for Wal-Mart. This statement was validated during the Project Team members' survey days. The route map and schedule is shown in Section 1.3B.

Regular riders of 'Ride the Loop' are estimated to be mostly senior citizens on fixed incomes or retired. These persons are not on time-sensitive schedules and do not mind the one-hour headway, i.e. one hour required for the Loop to start and return to the starting location. When surveyed, the regular riders said that the one-hour break in service for the Bus Operator to eat lunch did not adversely impact their schedules. Passengers use that time to either shop longer or to eat lunch.

The existing route seems somewhat circuitous; however, by its design to accommodate target markets, it is not the most direct from one major destination to others. Traveling past the Boys & Girls Club posed the question as to whether or not ICATS' policy on adult accompaniment of youth inhibited youth from riding. The Bus Operator did not think it does. Greater impediments are the hours of operation and the lack of service frequency.

It is common practice for ICATS to comingle general public riders with human service agency passengers. There is no segregation of public riders from other customers. Public riders are integrated into the demand-response and subscriptions services.

E. Policies that Support / Guide Service Provision

A contributing factor to the ICATS 'success story' is its development, application, and communication of policies and procedures, specifically those pertaining to how the service will be provided and its operations. These include, but are not limited to:

Service Design, Operations, and Scheduling

Curb-to-curb service is offered unless the ICATS Operator prefers, for safety reasons, to locate the vehicle is closer proximity to a passenger's residence. Persons unable to reach the vehicles must obtain assistance of a Service Attendant. Passengers must be ready one and a half (1 ½) hour in advance of their appointment time. In the afternoon, ICATS targets pick-ups within 30-minutes of the scheduled reservations. Passengers are instructed to telephone the Dispatch Center when 45-minutes have lapsed and their vehicles have not arrived.



Iredell County Community Transportation Services Plan Final Report

When inclement weather occurs, ICATS' discontinuance of service coincides with closures of the Iredell County business offices. However, the transit system commits that all passengers will be transported back to their originating pick-up locations. Service to dialysis passengers continues during inclement weather conditions.

Agencies' Contracting Costs for Services

Contracting agencies know that annually, normally during the first quarter of the calendar year, the Transit Administration conducts cost analyses, using a cost allocation model developed by NCDOT-PTD, to determine shared service mile (currently \$1.4209) or shared service hour rates. Also, at the time of this report, one contracting agency, Veterans' Service, is charged a flat rate of \$4.00 for a passenger trip to the Salisbury Veterans Administration Hospital in Salisbury, NC. Data reports, subdivided by individual agencies and also as a collective group, are provided to contracting agencies at the TAB meeting during the first quarter of the calendar year. Questions or concerns regarding the projected contracting year costs are made known at that time. Adjustments to either the costs or forecasted number of rides can be made prior to executing a written Memorandum of Understanding / Contract that starts on the first day of the County's fiscal year.

Trip Reservation

In an attempt to meet all transportation requests, the TAB adopted a 48-hour advance notification policy to the ICATS Reservation Clerk to be assured of a transport within Iredell County. For out-of-county non-emergency medical trips, a five (5) -day advance notification is to be given. Previously, a 24-hour advance notification policy was in place. A new pilot program started on Monday, November 8th, 2010 for seniors. The Transportation Director elected to allow senior citizens to call and make an appointment by 11am the on the day before they need service.

Trip Cancellation

Ensuring that passengers' needs are met while optimizing the equipment, the Trip Cancellation policy requires a two (2)-hour notification of trip cancelation prior to the scheduled pick-up time.

No Shows

The TAB adopted ICATS administrators' proposal that a 'No Show' is considered as a passengers' failure to cancel a scheduled trip within the required two-hour timeframe and/or the passengers' failure to board a vehicle within five (5) minutes after the assigned vehicle's arrival at the pick-up locations. When a passenger incurs two (2) No Show occurrences within 30 days, ICATS sends a warning letter to the passenger. A second incident within 90 days of the first occurrence results in the ICATS Billing Clerk temporarily suspending acceptance of reservations, directing the passenger to contact the contracting agency representative, and making no reservations until the Billing Clerk and representative converse. A third No Show incident results in a 30-day suspension of riding privileges. No future reservations are made until the agency advises ICATS of its decision to offer transportation to the client.

It is understandable that some riders forget that they scheduled rides at least two days before and then fail to call and cancel when necessary. Thus is the reason for allowing two incidents before there is intervention by the contracting agency representative.



***Iredell County Community Transportation Services Plan
Final Report***

Service Attendants

Some passengers, due to their disabilities, require assistance from attendants because ICATS Operators do not possess the necessary medical skills and/or cannot incur the risk of bodily injuries when moving the rider either in or out of the vehicles. Attendants that are parents/guardians of the individuals being transported are not assessed fares or charges, contingent upon the availability of space on the equipment.

Disruptive Behavior by a Passenger

ICATS has developed passenger behavior standards that outline what actions are and are not allowed during transports. The following are actions that are not acceptable and will not be tolerated by the transit system: possession of a weapon; consumption of foods/drinks and tobacco products; profanity and vulgar actions; failure to use safety restraints; sexual activities; any other action that presents a safety issue for either the Operator or other passengers. A first violation results in a verbal warning that is documented by the referring human service agency. A second offense will result in a suspension of riding privileges for up to 30 days.



1.4 FUNDING AND FINANCIAL MANAGEMENT

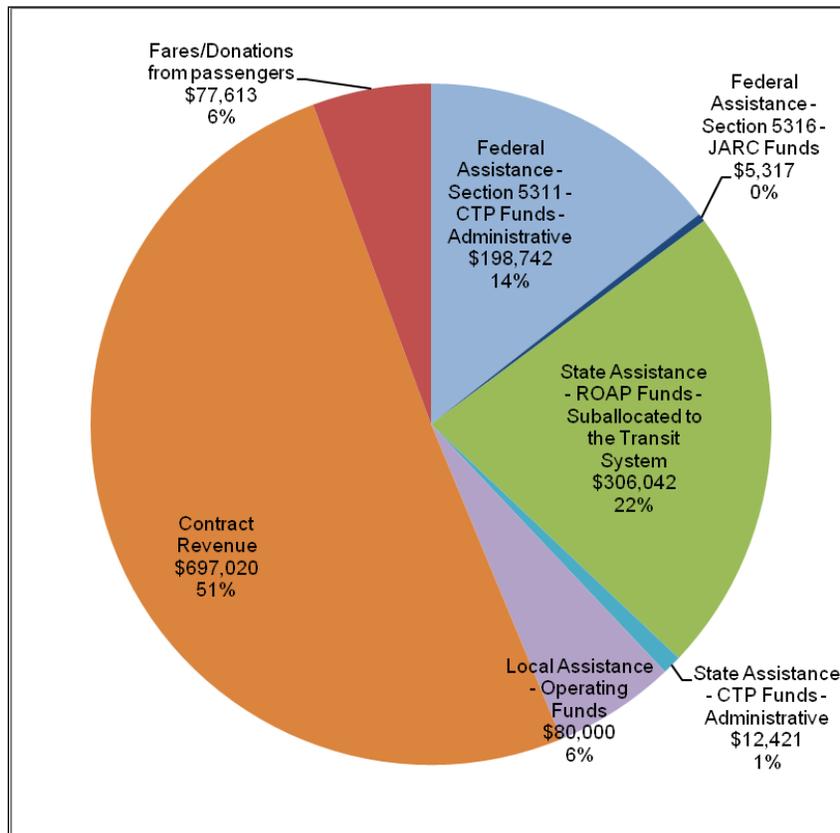
A. Key Funding / Revenue Sources

Funding of ICATS comes from Federal and State grants, local contributions, and user fees. Iredell County government supports ICATS and has designated it as the 'lead agency' for transportation in the County, thereby making ICATS responsible for receiving community transportation grant monies. The Board of Commissioners has provided all of the required NCDOT-PTD matching funds, though ICATS attempts to minimize funding request to the County. ICATS has a total budget in FY10 of \$931,159. Revenues come from the following sources:

- Federal / State funds through NCDOT's Job Access Reverse Commute (JARC) Program, NCDOT's Community Transportation Program, NCDOT's Rural Operating Assistance Program, and the Congestion Mitigation and Air Quality Program (CMAQ); and
- Local matching funds for operating cost.

The chart below shows the revenue breakdown in 2009. A total of 37% of system revenues come from federal and state sources, 6% are local monies, and 51% come from contract revenue.

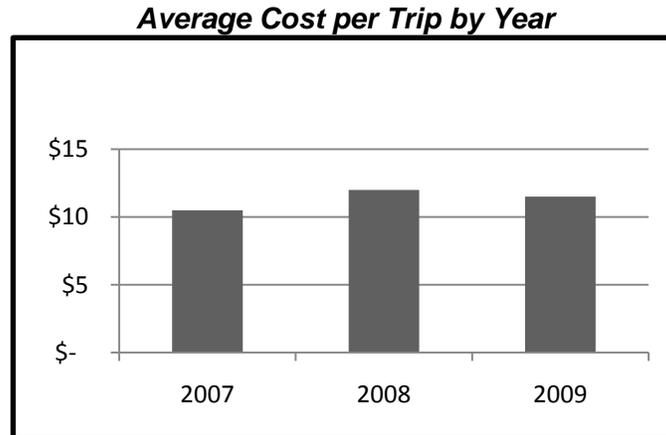
ICATS 2009 Revenue





**Iredell County Community Transportation Services Plan
Final Report**

The following cost and revenue data for ICATS was illustrated in *NCDOT Community Transportation System Operating and Financial Statistics Report* for FY 2009.



B. Fare Structure and Billing Rate for Agencies and General Public Services

Trips are billed on a shared service mile or shared service hour. Trip charges are based upon the fully allocated rate setting model that was developed by the NCDOT. Some ROAP passengers and those trips provided by federal funding (JARC and 5310) do pay fares that have been established to meet local match requirements.

Trips for a general public passenger utilizing the demand response service will pay between \$2.00 and \$4.00 fare depending on the geographic location of their origin and destination. Veterans traveling out-of-county to the VA Medical Center in Salisbury are charged a \$2.00 fare each time they board a transit vehicle. General public passengers who patronize 'Ride the Loop' and Mitchell Shuttle pay a \$1.00 fare each time they board a transit vehicle.

C. Other Local Funding Opportunities / Availability

Mitchell Community College contacted ICATS with a request for transportation between its Mooresville and Statesville campuses to accommodate staff and students. In FY 2009, the Mitchell Community College Shuttle made roughly 970 passenger trips. During the observation days by the Project Team member, several MCC students said that they would support a fare increase to provide more frequent service and longer hours of operation. Opportunities to partner with Mitchell Community College to gain additional funds should be considered to facilitate additional service.

ICATS currently provides transportation for several employees going to/from Lowe's corporate campus. A future public-private partnership with the company would be advantageous.

At the state level, House Bill 148 enables counties to establish (via referendum) dedicated funding sources for transit. For Iredell County, these opportunities include the ability to enact a



***Iredell County Community Transportation Services Plan
Final Report***

¼ cent sales tax or a vehicle license fee (an amount from \$1.00 to no more than \$7.00) with the proceeds dedicated to support transit. Again, these options would require approval from the electorate.

As a system that borders nine other counties, there is the potential to become a regional transit provider. If the organization were restructured as an autonomous authority, then regional operations would create the ability to seek additional funding from various sources other than the County.

D. Third Party Contracts with Service Providers

ICATS has only one third party service provider contract, and it is with Mecklenburg County Department of Social Services (DSS), the governing body for Mecklenburg Transportation System (MTS). The current 'Letter of Agreement' between Mecklenburg County DSS and ICATS was executed by the DSS Director on January 1, 2010 and is effective through December 2010. It was prepared by the County's Attorney and includes the responsibilities of each party; the term of the Agreement and methods for termination; method of payment for services; and finally a section entitled 'Miscellaneous' that addresses non-exclusive services and an indemnification and hold harmless clause protecting both parties.

ICATS utilizes MTS services to transport ICATS passengers to non-emergency medical appointments in Charlotte. ICATS transfers its passengers to a MTS vehicle at a designated location in Davidson. This arrangement has benefitted ICATS by allowing its vehicle to be utilized during the day for in-county transports rather than having to sit idle in Charlotte. ICATS' Transit Administrator would like to execute comparable agreements with other neighboring counties, particularly with those where major medical centers are located, such as Forsyth County.



1.5 CAPACITY ANALYSIS

A. Vehicle Inventory and Vehicle Utilization Records

NCDOT provided ICATS vehicle inventory data collected in October 2009 as part of their Public Transportation Management System (PTMS). The following table shows the pertinent information for the ICATS fleet. The physical condition in the table is categorized using the following key:

- N – new;
- G - like new, with almost no signs of wear;
- F - general appearance is still satisfactory, but it is beginning to show signs of wear and aging;
- P - poor appearance, upholstery is coming apart, body has dings and scratches, needs painting and/or has other damages due too wear and aging.

The mechanical condition in the table is categorized using the following key:

- B - continued use presents potential problems;
- P - requires frequent repairs;
- F - requires frequent minor repairs;
- G - good working order requiring only nominal minor repairs;
- E - only routine preventative maintenance required.



**Iredell County Community Transportation Services Plan
Final Report**

ICATS Fleet Inventory Data

| Model Year | Model | Vehicle Type | Seating Capacity | Wheel-chair Stations | Physical Condition | Mechanical Condition | 10/1/2009 Odometer Reading | Projected Year Vehicle will meet Useful Life |
|------------|----------|-------------------|------------------|----------------------|--------------------|----------------------|----------------------------|--|
| 2009 | Ford | 22 ft. LTV | 13 | 2 | N | E | 1,026 | FY12 |
| 2009 | Ford | Lift Equipped Van | 8 | 2 | N | E | 11,645 | FY12 |
| 2009 | Ford | Lift Equipped Van | 8 | 2 | N | E | 7,651 | FY12 |
| 2009 | Ford | Lift Equipped Van | 8 | 2 | N | E | 4,170 | FY12 |
| 2009 | Ford | Lift Equipped Van | 8 | 2 | N | E | 162 | FY12 |
| 2009 | Ford | Lift Equipped Van | 8 | 2 | N | E | 4,976 | FY12 |
| 2009 | Ford | Lift Equipped Van | 8 | 2 | N | E | 89 | FY12 |
| 2008 | Ford | 25 ft. LTV | 16 | 4 | G | G | 23,802 | FY11 |
| 2008 | Ford | Lift Equipped Van | 8 | 2 | G | G | 39,557 | FY11 |
| 2008 | Ford | Lift Equipped Van | 8 | 2 | G | G | 47,769 | FY11 |
| 2008 | Ford | Lift Equipped Van | 8 | 2 | G | G | 42,425 | FY11 |
| 2008 | Ford | Lift Equipped Van | 8 | 2 | G | G | 49,336 | FY11 |
| 2008 | Dodge | Minivan | 6 | 0 | G | G | 16,720 | FY11 |
| 2007 | Ford | Lift Equipped Van | 9 | 2 | F | G | 85,074 | FY 10 |
| 2007 | Ford | Lift Equipped Van | 5 | 4 | F | G | 72,998 | FY 10 |
| 2007 | Ford | Lift Equipped Van | 9 | 2 | F | G | 94,085 | FY 10 |
| 2007 | Dodge | Minivan | 6 | 0 | G | G | 42,608 | FY 10 |
| 2006 | Eldorado | 25 ft. LTV | 18 | 2 | F | F | 90,248 | FY 10 |
| 2006 | Eldorado | 25 ft. LTV | 18 | 2 | F | F | 109,296 | FY 10 |
| 2006 | Eldorado | 25 ft. LTV | 18 | 2 | F | F | 95,507 | FY 10 |
| 2006 | Ford | Lift Equipped Van | 9 | 2 | F | F | 167,619 | FY 09 |
| 2006 | Ford | Lift Equipped Van | 9 | 2 | F | F | 139,536 | FY 09 |
| 2006 | Ford | Lift Equipped Van | 9 | 2 | F | F | 148,860 | FY 09 |
| 2006 | Ford | Lift Equipped Van | 9 | 2 | F | P | 139,795 | FY 08 |
| 2006 | Ford | Lift Equipped Van | 9 | 2 | F | P | 126,686 | FY 09 |
| 2006 | Ford | Lift Equipped Van | 9 | 2 | F | P | 123,006 | FY 09 |
| 2006 | Ford | Lift Equipped Van | 9 | 2 | F | P | 129,518 | FY 08 |
| 2006 | Ford | Lift Equipped Van | 9 | 2 | F | P | 126,219 | FY 08 |

Based on the fleet inventory data, all of the fleet has wheelchair stations and is in satisfactory physical condition. Only a few vehicles have regular mechanical problems and require frequent repairs.

B. Condition of Facilities

The ICATS administration and operations facility is located on 2611 Ebony Circle in Statesville. The ranch-style house has an adequate number of dedicated offices, although the actual spaces are quite small, for current administrative personnel. There is no dedicated space for Bus Operators to prepare documents for their daily activities and only an open area (previously the living room that is not enclosed) where training and meetings occur. However, the administration staff member working in the area adjacent to the large room is inconvenienced and distracted when activities occur in the large room.



Iredell County Community Transportation Services Plan Final Report

The transit vehicles are parked in a paved parking lot adjacent to the administration building. Lighting in the parking lot could be improved. The Bus Operators have no designated area to clean vehicles; there's also no place for properly secured storage for the vehicle cleaning supplies and equipment within either the interior or exterior of the facility. Storage is limited to the small clothes closets in the three former bedrooms (now serving as Administrators' offices).

C. Current Advanced Technologies

ICATS currently uses several forms of advanced technologies. Automatic Vehicle Location (AVL) systems are a fleet management tool that integrates several technologies to allow a fleet manager or dispatcher to determine at any given time the exact locations of the vehicles. A GPS receiver, a data modem, and a Mobile Data Terminal (MDT) are three types of technologies used to indicate the status of each vehicle. ICATS has installed AVL/MDT equipment across its fleet.

RouteMatch is a software application that provides computer-assisted data management, scheduling, routing, dispatching, verification, billing and reporting features. Paratransit passengers call ICATS and speak with a reservation clerk who manually inputs the passengers' origins and destinations information. The software develops routing lists, called 'manifests', based on geographic data. While this software is extremely sophisticated, it does have limitations. To ensure that arrivals and departures operate in a timely fashion, a Bus Operator should review the manifest for reasonability (i.e. reroute trips in the case where the software suggests using a major thoroughfare in the County that is the most direct route to travel, but the Operator knows that congestion is often an issue in that particular location and the assignment will consume more time).

An in-kind offering from the County to ICATS is the Centrex telephone system, which is part of the entire County's network. The dispatch center has two direct lines, one with internal messaging capability connecting to the phone number provided to transit riders. Persons wanting to either cancel a previously scheduled trip or to make a reservation are told to leave voice messages, if dispatch center personnel are not available. During this study, it has been found that the telephone system creates operating inefficiencies and is a major deterrent to an effective transportation system. This is because the voice messages are stored in the Centrex system's messaging database, and the information is not released to the ICATS phone line until there is adequate space for handling the message. Between the times that the voice messages are left by callers and the dispatcher responds, vehicles are already dispatched to the callers' destinations for scheduled rides. The number of 'No Shows' and the communication between passengers and dispatch center personnel are both adversely affected.

Recognizing advancements in the telecommunications industry and the limitations of the existing Centrex system, specifically the actual number of lines available at any given time and the capacity of voice messages that can be stored, County administrators began an evaluation last year of a phone system upgrade. However, it is the Project Team's understanding that fiscal constraints have delayed this project.

Communication is one of the most critical components to operating a successful demand responsive transit service. When passengers make after-hour calls to the business center to either reserve or to cancel previously scheduled transports, they must have the capability to



***Iredell County Community Transportation Services Plan
Final Report***

leave a message and know that it will be acted upon. Comments made during the surveying of agency representatives, transit riders, and employees indicate that enhancements are definitely needed with ICATS' communications system. Bus Operators currently use their personal cell telephones, even though personal expenses are incurred, to communicate with ICATS dispatch center staff. The personal costs incurred by the Operators is said to be far less than the frustration experienced when immediate communication is required and office telephone contact is unavailable.

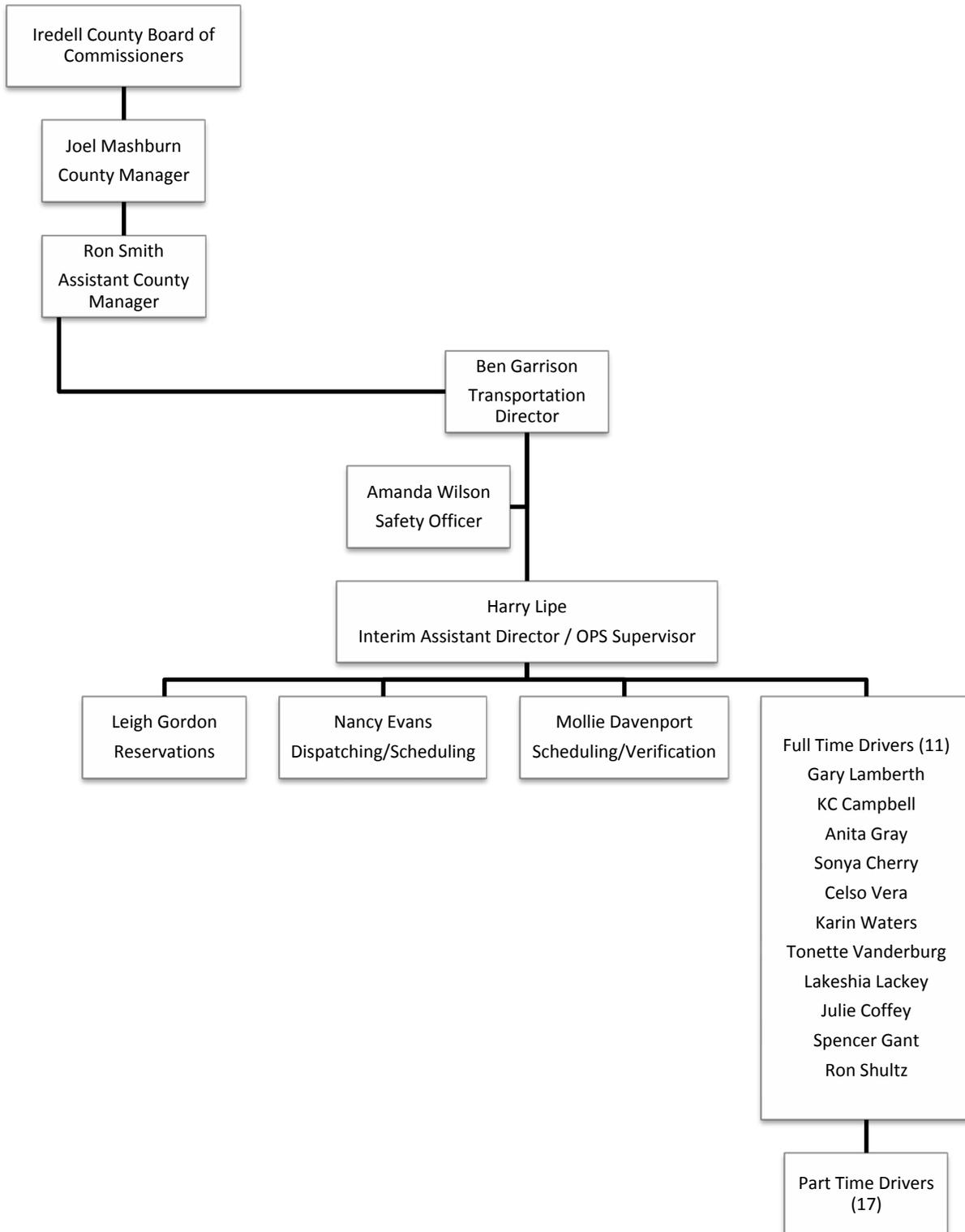
This matter will be discussed in other future sections (Alternatives and Recommendations and Capital Funding) of this report.

D. Organizational Chart and Staffing Plan

County operations are overseen by the County Manager, who reports to the County's Board of Commissioners. The Transportation Director oversees ICATS operations and administration staff, and reports to the County Manager. The Director of Transportation oversees the Safety Officer and Operations Supervisor (currently serving as the Interim Assistant Director). The Operations Supervisor is responsible for the day-to-day activities of reservations, scheduling, dispatching, verification and vehicle operations on the streets. The organizational chart below shows the staffing arrangement as of March 2010.



**Iredell County Community Transportation Services Plan
Final Report**



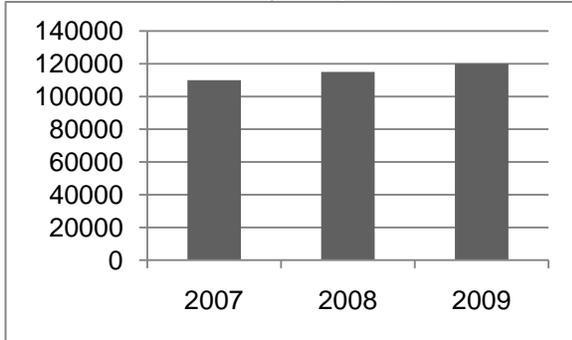


**Iredell County Community Transportation Services Plan
Final Report**

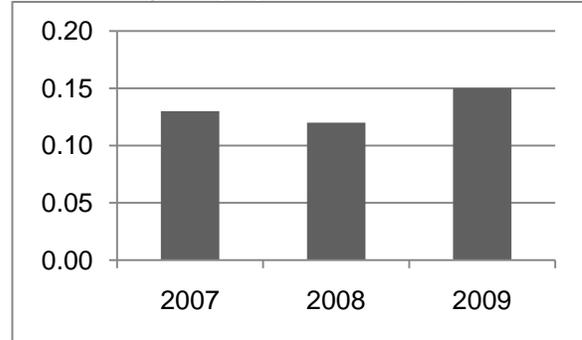
E. Historical Statistical Data

Based on data published in the *NCDOT Community Transportation System Operating and Financial Statistics Report* for FY 2009, ICATS served a total of 119,941 passenger trips while operating for 44,738 service hours, and traveling 800,617 service miles. The following operating statistics graphs were also obtained from that report.

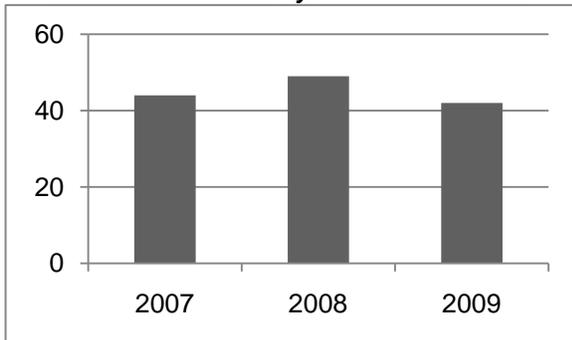
Total Passenger Trips by Year



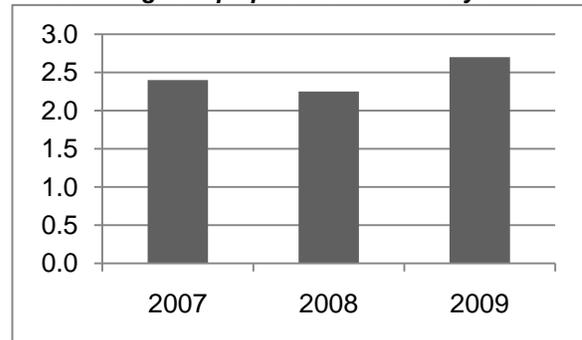
Passenger Trips per Service Mile by Year



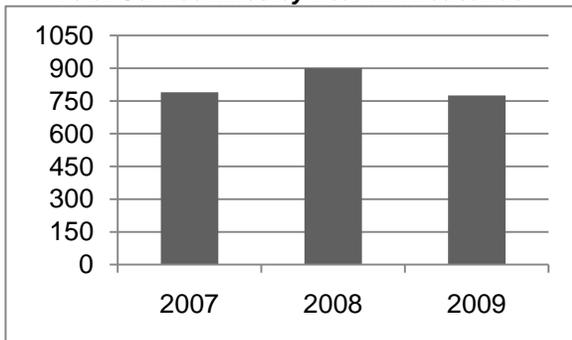
Total Service Hours by Year in Thousands



Passenger Trips per Service Hour by Year



Total Service Miles by Year in Thousands





**Iredell County Community Transportation Services Plan
Final Report**

The following table illustrates operational trends for ICATS over recent years, based on Operational Statistics data provided by NCDOT.

Iredell County Operational Statistics

| | 2007 | 2008 | 2009 | % Change 2008-2009 |
|--------------------------------|-------------|-------------|-------------|-------------------------------|
| Total Service Miles | 811,658 | 905,025 | 800,617 | -11.54% |
| Total Service Hours | 46,183 | 49,961 | 44,738 | -10.45% |
| Total Passenger Trips | 113,604 | 114,937 | 119,941 | 4.35% |
| Total Admin/Oper Revenue | \$1,320,017 | \$1,388,287 | \$1,377,927 | -0.75% |
| Total Contract Revenue | \$631,779 | \$646,882 | \$697,020 | 7.75% |
| Fare Revenue | \$68,914 | \$78,360 | \$77,613 | -0.95% |
| Total Admin/Oper Adj. Expense | \$1,221,404 | \$1,384,741 | \$1,321,411 | -4.57% |
| Peak Vehicles | 20 | 20 | 21 | 5.00% |
| Passenger Trips per Hour (M-F) | 2.27 | 2.30 | 2.69 | 16.61% |
| Passenger Trips per Mile (M-F) | 0.13 | 0.13 | 0.15 | 18.08% |
| Cost per Passenger Trip | \$10.75 | \$12.05 | \$11.02 | -8.55% |
| Cost per Hour | \$26.45 | \$27.72 | \$29.54 | 6.57% |
| Cost per Mile | \$1.50 | \$1.53 | \$1.65 | 7.87% |
| Service Miles per Peak Vehicle | 40,583 | 45,251 | 38,125 | -15.75% |

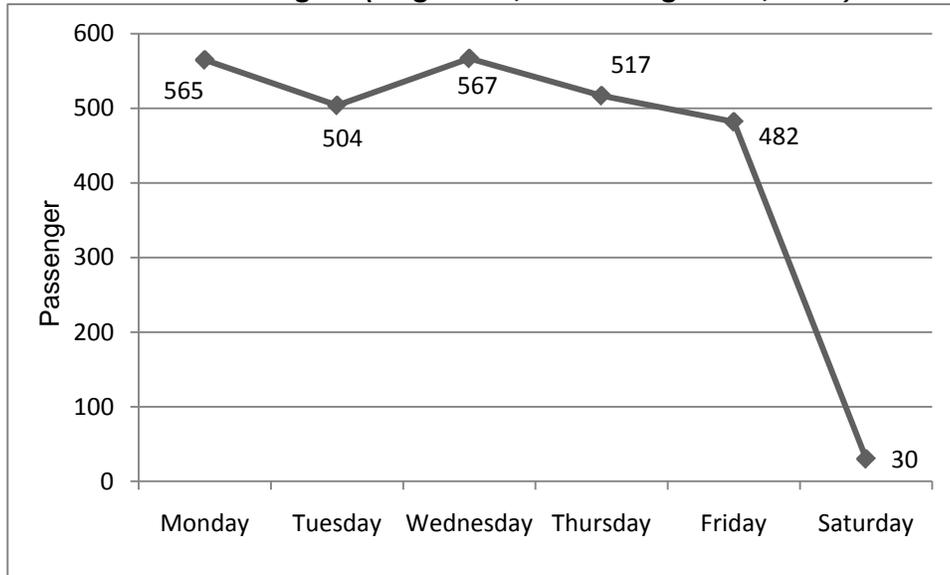
The total ridership continues to increase but efficiency gains have enabled miles and hours to decrease, thus making more efficient use of available resources. Based on the operational statistics, the total service miles and hours decreased between 2007 and 2009. Total passenger trips reached the highest volume in 2008 and then dropped slightly in 2009. Based on the operational statistics, total contract revenue increased by more than seven percent between 2007 and 2009. Cost per hour and cost per mile also increased. Fare revenue and cost per passenger trip decreased in 2009 compared to previous years.

ICATS provided vehicle utilization data statistics for Monday, August 23, 2010 through Saturday, August 28, 2010. Performance indicators from that weekly data were determined. A sample of these statistics is shown in the following figures.

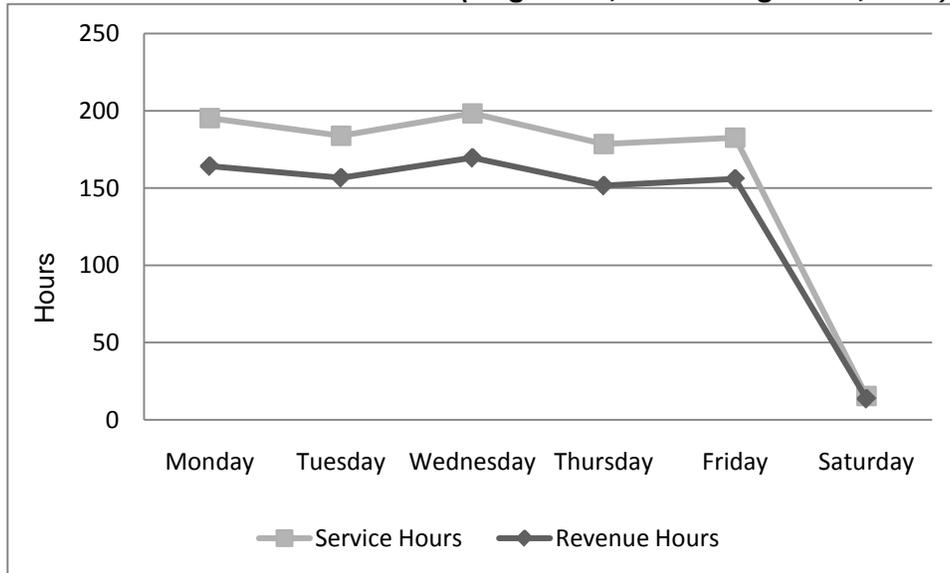


**Iredell County Community Transportation Services Plan
Final Report**

Total Passengers (August 23, 2010 - August 28, 2010)



Total Service & Revenue Hours (August 23, 2010 - August 28, 2010)



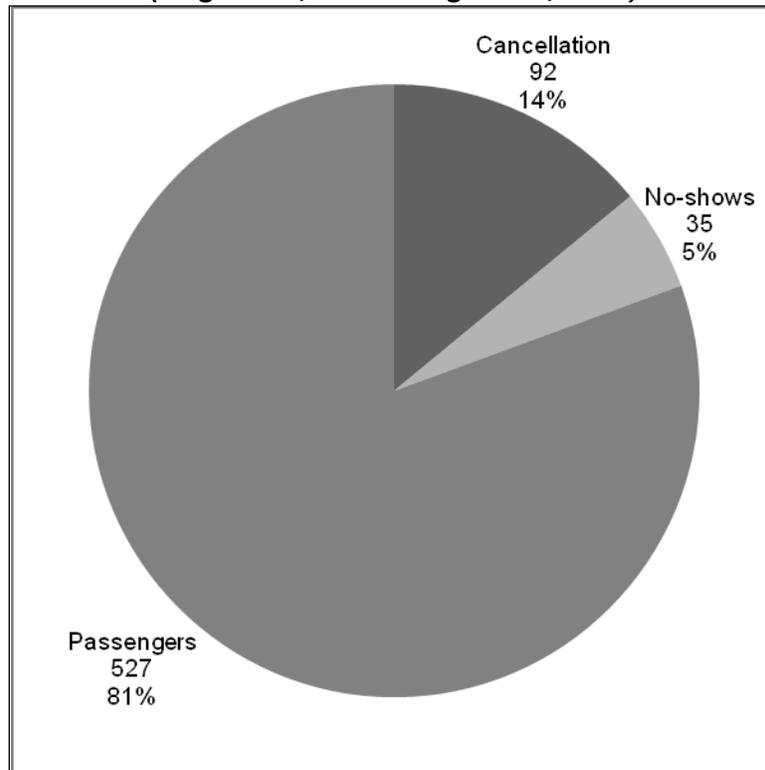
Based on weekly data, the greatest demand for service is on Mondays and Wednesdays. The statistics for service and revenue hours are also higher on Mondays and Wednesdays. Service and revenue hours do not necessarily follow the same pattern as the passenger counts; days in which out-of-county trips are taken may have a higher number of hours with a lower number of passengers.



**Iredell County Community Transportation Services Plan
Final Report**

The graph below shows weekday statistics for the period of Monday, August 23, 2010 through Saturday, August 28, 2010, highlighting the number of cancellations and no shows.

**Average Weekday Statistics
(August 23, 2010 - August 28, 2010)**



Based on the weekly data, cancellations represented 14% of the average weekday scheduled passengers. ICATS allows cancellations to be made prior to the two hour window before the scheduled pick-up time. The data shows that no shows represent 5% of the average weekday scheduled passengers.

The percent of cancelled trips seems somewhat excessive. This percentage may be inflated due to the ease of setting up subscription trips for groups (e.g. senior nutrition and vocational workshop) and then cancelling when the passenger no longer needs the trip. ICATS may want to examine the scheduling to make sure the subscriptions trips actually happen on a regular basis.

While ICATS does charge for no-shows, these trips decrease the transit system's efficiency. A large number of no-shows are passengers affiliated with the Department of Social Services/Work First program. ICATS does have policies in place to address no shows; a passenger with three no show incidents results in a 30-day suspension of riding privileges.



**Iredell County Community Transportation Services Plan
Final Report**

F. Observations of the Scheduling & Dispatching Function

As previously seen in the organization chart, ICATS has very few administrative positions for the number of tasks associated with the transports that it makes. There are only two positions, the Reservation Clerk and Scheduler / Dispatcher, providing coverage in the dispatch center.

The Reservation Clerk's primary job functions include the following: answer telephone lines, determining to whom the call should be routed; development of a 'personal profile' and entry into the RouteMatch database; and accepting and entry of existing riders' transportation requests. If the caller has never been transported by ICATS, the Reservation Clerk spends no less than seven to ten minutes in obtaining information from the person. Required personal data includes the rider's name and any additional persons to be transported, usually children or personal attendants; residence or usual pick-up street address and intersecting thoroughfares &/or landmarks; telephone numbers, both residence and cell or back-up; regularly scheduled points of destination; name of the referral or certifying agency that will pay for or contribute to the cost of the ride; other means of service payment; caller's date of birth; existing disability, if any; emergency contact; etc. Upon the Reservation Clerk's arrival at work at 8:00 AM, phone messages (received from 6:00 PM until the time when another staff member begins answering calls) are retrieved from the telephone system; however, the telephones are already ringing with new callers on one of the two lines.

The Dispatcher's primary job function is to converse both verbally and in writing (via MDT messages) with the Bus Operators. This position is also responsible for continually tracking the vehicle movements (via AVL technology). While these tasks should be occurring on a continual basis, modifications to the Operators' manifest must be made, via data entries, as the result of phone calls received from the Reservation Clerk. The calls vary from riders cancelling their trips; Operators reporting that the first part of a two-way transport wasn't completed (commonly known as 'No-Shows', which then negates the need for the second portion of the previously scheduled trip; delays in providing a scheduled transport, thus requiring the subsequent trips to be reassigned to one or more available Operators. Utilizing the AVL technology, the Dispatcher must determine the location of vehicles that are in close proximity to the intended pick-up location, which Operators' schedules will be impacted the least by providing the transport; which vehicle has the capacity to transport the additional passenger; and the impact on existing riders' timely arrivals to their destinations when modifications are made to another Operator's manifest.

Essentially, the Dispatcher must be able to multi-task; remain 'calm, cool, and collected' at all times; be extremely proficient in the use of the computer technology; and remained entirely focused on the computer monitor to avoid bad data entries. While all of these frenzied activities are occurring, the telephones – both office and the Dispatcher's personal cell phone, used by Operators just to have verbal communication - are constantly ringing. The Dispatcher's assigned work schedule is from 9:00 AM until 6:00 PM. Late in the afternoon is when the Bus Operators' manifests for the next day's work are generated from the RouteMatch database. There is little to no time for a thorough review of the data prior to getting the manifests printed, sorting them, and then placing them in the outside depository (a mailbox) for Operators' pick-up on the following morning. It is unknown if the amount of time required for a review would be productive since there were, at least during the observation days by the Project Team member, so many modifications to the original system-wide schedule.



Iredell County Community Transportation Services Plan Final Report

The Billing / Verification staff member is a back up to the Dispatcher, having previously worked in the position. She is responsible for providing assistance in the dispatch center when the other two staff members go to lunch. Thus, no less than ten hours of the Billing / Verification position's weekly time is diverted from the primarily task of reviewing the previous workday's data entries and correcting mistakes that result in billing inaccuracies to contracting agencies. To make up for lost time during the previous day, the Billing / Verification position comes to work early but does not answer the telephone until after 7:00 AM, even though the telephone lines are quite busy. The answering system is engaged, but it is unclear how many messages are lost because there is limited memory in the County phone system.

The aforementioned three positions are challenged by the work demands placed on them. During the multiple site observations occurring over a three-week period, there was not one week where the dispatch center was fully staffed. The current Dispatcher is one of few Bus Operators that possesses a Commercial Driver's License; thus, to maintain the scheduled service and fulfill obligated transports, she was reassigned to make transports. The Reservation Clerk, the most recently hired of the three staff members, could not assume the Dispatcher job functions because she has not been fully trained on the RouteMatch system. She is licensed to operate the ICATS vans and is also often reassigned to Bus Operator duties. Thus, this leaves the Reservation Clerk position vacant. When the Director of Operations and the Safety Trainer are not occupied with their own duties and are on-site, they lend assistance in answering the telephones; however, they are not fully trained in dispatching. They can also operate the vans, but the Director has not obtained his CDL.

Alternatives to be Considered to Enhance Scheduling & Dispatch Functions

Personnel and Staffing

- Work with the County's Human Resources Department to obtain additional Bus Operators, even if only part-time positions.
- Analyze the reasons for high employee turnover rate.
- Employ, at a minimum, another full time Reservation Clerk.
- Modify the dispatch center's hours of operations, commencing no later than 6 AM and ending no later than possibly 6:30 PM.
- Evaluate whether a part-time Dispatcher is required after discontinuing assigning the Dispatcher to driving responsibilities and also cross-training the incumbent full time Reservation Clerk on RouteMatch and dispatching primary job tasks.
- Discontinue assigning dispatch center personnel to driving responsibilities.

Routing

- Consider modifying RouteMatch to schedule "zones".
- Consider having manifests in geographical order.
- Make adjustments to RouteMatch parameters, such as adding at least five minutes to scheduled transports that require the pick-up and loading of a wheelchair (or scooter); additional time for securing car seats and child restraints; additional time to allow mothers to enter and exit child care centers; etc.
- Conduct a thorough route analysis, determining locations that are (1) unsafe to travel; (2) traffic impediments; (3) traffic signaling issues that need to be addressed with NCDOT or local municipalities; etc.



Iredell County Community Transportation Services Plan Final Report

- Mitchell Community College route needs more time in the schedule, due to traffic in Mooresville.
- Transports traveling on Brawley School Road in the morning need more time.

Scheduling

- Evaluate all the options on whether there are benefits or challenges in opening a satellite operations center (no permanent administrative staff, but utilize the Safety Manager in the beginning) in either Mooresville or Troutman.
- Passengers need to know the guidelines (these need to be updated and publicized to both contracting agencies & the general public) for scheduling rides to make timely arrival at appointments.
- Passengers need to better understand the guidelines for cancelling rides, thereby reducing the number of cancellations and no-shows.
- Passengers need to understand the standard timeframe for pick-up and drop-off times. Demand response pick-up time has been explained two ways:
 - Passengers must be ready one and a half (1 ½) hours in advance of the scheduled appointment time.
 - Passengers must be ready one and a half (1 ½) hours in advance of bus pick-up time and be prepared to travel one hour before arriving at destination.
- ICATS should focus on fine-tuning a standard pick-up timeframe, creating a consistent message, and communicating that message on ICATS' website and when trips are reserved.

Safety & Training

- Conduct a thorough route analysis, determining locations that are (1) unsafe to travel (such as the American Child Daycare Center which Bus Operators say is difficult to enter during the school year); (2) traffic impediments; (3) traffic signaling issues that need to be addressed with NCDOT or local municipalities; (4) obstructed sights from turning radii and other stationary objects (such as the large trees at Bristol and Miller Roads that hang into the street, buildings adjacent to the roadways).
- Provide parents instructions on how to properly install and secure children's car seats.
- Consider out-posting the Safety Manager position to supervising the driving force if the decision is made to open a satellite office in Mooresville.

Equipment & Facility

- Working with the County's IT and Procurement Departments; conduct an analysis of the existing telephone system.
- Working with the County's Facilities & Maintenance Department, assess how the dispatch center's interior can be modified to:
 - Accommodate additional personnel;
 - Add sound-proofing; and
 - Provide storage: (1) cabinet for supplies; (2) storage for forms and old records; and (3) drop boxes for Operators' trip packets; etc.



1.6 PUBLIC SATISFACTION AND COMMUNITY NEEDS

Public input was solicited on the existing services, the changes that have occurred over the past few years, and the future direction for ICATS. This section describes the findings of these efforts.

A. Human Service Agency Passengers' Input

The study team utilized several methods to survey passengers. While some telephone interviews (a total of three) were conducted, most of the human service agency passengers (a total of 50) were interviewed while riding ICATS vehicles enroute to their intended destinations. The aforementioned included the dialysis centers located in Mooresville and Statesville; Senior Centers in Mooresville, Statesville, and Troutman; Lifespan; various medical facilities; the Department of Social Services; and multiple places of employment. The survey instrument focused on the riders' satisfaction with ICATS services - its strengths and targeted areas of improvement. This survey is included in the Appendix. The following is a summary of riders' comments:

Strengths

- Vehicles are clean and present a positive image in the County.
- Drivers are courteous and safe operators of the equipment.
- Drivers assist, when needed, passengers in boarding and alighting the vehicles.
- Passengers feel safe when riding on the vehicles.
- Fares for the service are affordable.
- Service is offered to passengers' intended destinations, covering not only the entire County but also out-of-county destinations.

Areas of Improvement

- Travel times are too lengthy; specifically, passengers must be picked up quite early to make scheduled appointments on time. Once departing destinations, passengers are not immediately transported back to their residences because other passengers must be dropped off first.
- Schedule adherence is problematic due to (1) passenger loads; (2) routing of the vehicles; and (3) traffic congestion and construction, causing delays.
- Riders stated that office personnel are unresponsive; specifically, passengers leave voice messages to either reserve or cancel rides but staff does not provide timely call-backs / confirmations to the passengers.

The majority of the respondents stated that they would like to have transportation service to travel to Charlotte or Winston-Salem. Eighty-four (84%) percent of the surveyed passengers said that they would support use of local tax dollars to help fund new services.



Iredell County Community Transportation Services Plan Final Report

B. General Public Riders Interviews

Twenty-eight (28) general public passengers using ICATS on the survey dates completed an 'Existing Rider' survey. Riders included demand-response trips, the Statesville deviated fixed route ('The Loop'), and the Mitchell Community College (MCC) shuttle. The survey instrument that was used is included in the Appendix. Survey responses indicated that general public passengers, like human service agency riders, recognize ICATS' strengths. A positive finding is that schedule adherence is not perceived as an issue on either the deviated fixed route or the Community College Shuttle. Additionally, no comments regarding issues in the reservation process were made. Not documented on the survey instrument but voiced in dialogue with the Project Team member, several passengers on the Mitchell Community College Shuttle stated a desire to have vehicles with greater seating capacity [a light transit vehicle (LTV) or minibus]. The currently assigned high-top vans have little storage space to store books, backpacks, and laptop bags. There are no vacant seats where these items can rest other than in the passengers' laps.

The vast majority of the respondents stated that they would like to have transportation service to travel to Charlotte. Several MCC students said that they would support a fare increase to provide more frequent service and longer hours of operation.

C. Human Service Agency Contacts

The study team interviewed representatives of all six of the primary agencies, thereby ensuring a comprehensive perspective from all agencies contracting ICATS services. Face-to-face interviews were conducted with representatives of the following agencies:

- Iredell County Department of Social Services;
- Iredell County – Council on Aging
- Lifespan;
- 5th Street Ministries;
- Iredell County Kidney Dialysis Organization; and
- Veterans' Services.

All representatives stated that the success of their programs is entirely dependent upon ICATS meeting their clients' transportation needs. The representatives are appreciative that there is a transportation service available and also that ICATS is much more affordable than taxicabs. Representatives said that a growing number of their program participants could not, and will not in the near future, either afford taxi rides or ownership of a personal vehicle; thus, any shortcomings of ICATS must be 'overlooked or accepted'. When asked direct questions regarding specific areas of improvement, responses included the following:

- Schedule adherence, both coming to and departing the program sites;
- More attention to reservation data entries and validation of the monthly billings, reducing the time necessary for administrators to reconcile ICATS' monthly invoices; and
- Improve customer service skills by ICATS administrative staff.



Iredell County Community Transportation Services Plan Final Report

Representatives are TAB members and recognize that they have an avenue to make recommendations for improving the services of not only their program clients, but also the citizens throughout the County. All representatives stated that they recognize that ICATS has limited funds, is trying to accommodate as many citizens as possible, and, unfortunately, may have some challenges in trying to maximize the service. No agency stated that it has available funds to provide additional financial support to ICATS.

D. Community Planning Sessions

The study team conducted two community planning sessions to inform the public about the CTSP study and to solicit input about existing services and any unmet needs. A late-afternoon session was held at the Statesville Public Library, and a mid-day forum was conducted at the Charles Mack Community Center in Mooresville. The average attendance at both sessions was ten people. Each participant had a different purpose in attending, varying from participants' family members' current and potential use of ICATS service to methods and ways to enhance countywide transportation service in the future. Local media representatives attended the meetings and publicized information such that citizens who were not in attendance have general knowledge of the study.

Participants at the sessions recognized that the current fare structure is inexpensive for riders, the system is responsive to the needs of passengers and the service is accessible. The group felt that ICATS highest priority should be the elderly, disabled, low-income, and homeless populations. The following strategies were developed to improve service:

- Increase in-county and out-of-county non-emergency medical transportation for the elderly, disabled, and economically disadvantaged.
- Continue providing transportation service to low-income populations for employment related needs.
- Improve on-time performance for medical trips, especially "will-call" pick-up.
- Develop plan for increasing the number of bilingual staff, both office and drivers through training or hiring process as positions become open.
- Develop a plan for dissemination of information related to transit service.

The goal of making the public aware of the CTSP study and to offer opportunities to provide valuable input in the planning project was accomplished. The forums also provide good marketing and promotion activities for the services and the current availability for any Iredell County resident to travel throughout the County. Many participants had limited knowledge that ICATS could be used by the general public, thinking that the service was only for elderly and disabled passengers.

Information presented the Community Planning sessions is included in the Appendix.

E. Non-Participating Agencies

Iredell County has a multitude of formal non-profit agencies, as well as ad hoc or informally organized coalitions, whose missions are to reach out to the less fortunate and lend life-



Iredell County Community Transportation Services Plan Final Report

sustaining support in whatever means possible. Through the general interview effort, it was learned that:

- Inquiries from non-participating agencies are received by ICATS to find out how program participants' needs can be met through existing County transportation services and the expected cost for same;
- Programs use mini-vans, 15-passenger vans, and/or volunteers' (including agencies' program directors) personal vehicles for passenger movements;
- The number of non-profit agencies has declined, a great number disbanded due to lack of operating funds. The result is that the County has either taken over the programs' missions or enveloped them into already existing County-provided services, most of which have DSS oversight and administration.

The American Red Cross, Helping Hands, and Services for the Blind are examples of non-contracting agencies possessing their own vans for the majority of their clients' transports but sometimes relying upon ICATS for ancillary service. Iredell Christian Ministries, Inc., a coalition of churches, offers financial assistance to persons in need.

F. Input from Limited English Proficiency (LEP) citizens

ICATS is fortunate that one of its TAB members is a representative of the recognized community organization, Mi Familia, Inc., that serves County residents who are of Hispanic descent. The TAB member was provided a rider survey translated into Spanish for distribution to the Mi Familia program participants. Attendance at one of the Community Planning sessions provided additional insight to the study team and ICATS administrators on how modifications to existing transit service could benefit the Hispanic and Latino residents.

G. Public Outreach to Minority, Low-Income, and Homeless Populations

5th Street Ministry is a United Way-sponsored agency that houses 125 residents and provides support programs to low-income and homeless persons. The Executive Director is an ICATS TAB member and offers time and advice to transit administrators in an effort to assist program residents to shift from total dependency to independent lifestyles. A desire for future ICATS service is to expand employment transportation, which diminishes the necessity for sheltered housing.

H. Coordinated Public Transit-Human Service Transportation Plan

ICATS recently participated in the development of two transit coordination plans, *Lake Norman Rural Planning Organization Coordinated Comprehensive Public Transportation Plan* and *Iredell County Community Involvement Plan*. The key recommendations and findings of these plans are summarized in Section 1.3A.

I. Transportation Needs of Local Colleges

The study team interviewed a representative of Mitchell Community College, who is also a TAB member, following the rider surveys that were conducted on the shuttle service traveling



Iredell County Community Transportation Services Plan Final Report

between the Mooresville and Statesville campuses. To obtain greater insight on MCC students' and administration's transportation needs, MCC's Student Government Association (SGA) posted the on-line survey on the MCC website.

The MCC shuttle service is in its second year of operation, funded by a Job Access Reverse Commute (JARC) grant. The route developed from the students' need to access classes that were not scheduled at the campus closest to their residences and for College administrators to maximize use of their facilities. Another added benefit from the service, although not originally considered, is the fact that students don't have to search for parking spaces that are limited at both campuses.

The shuttle schedule has undergone multiple revisions during the past few years based upon advice and input from TAB members and MCC Administrators. Besides the current riders' recommendation to assign a different type of equipment to the service, the Administration thinks that the transit schedule should be developed during the preliminary planning of the MCC course curriculum schedule. Accordingly, bus schedule planning needs to occur in September and February. By the first of October and March of each year, the ICATS bus schedule should be finalized and distributed to each Student Advisor to assist students in developing individual class schedules. By doing so, students will register for their classes with adequate time allowed for transit commutes between the campuses.

Two over-arching findings in the MCC shuttle needs assessment is the cooperative and collaborative relationship that exists between the College and ICATS Administrators and the utilization of the service. With enrollment increases continually occurring at both campuses, examination of the shuttle service as part of this CTSP could not come at a more appropriate time.

J. General Transit Survey

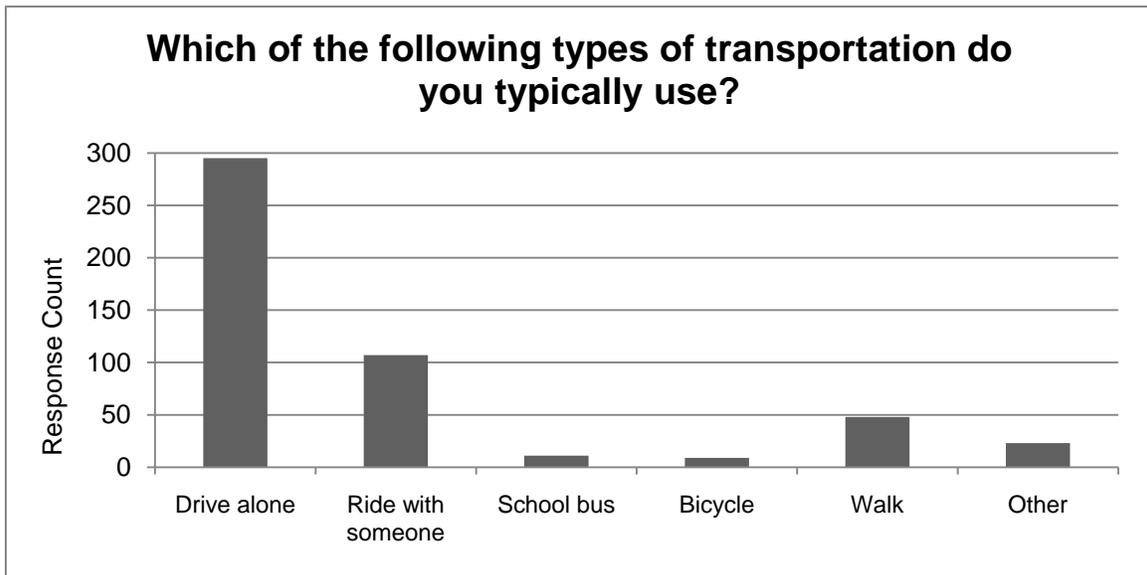
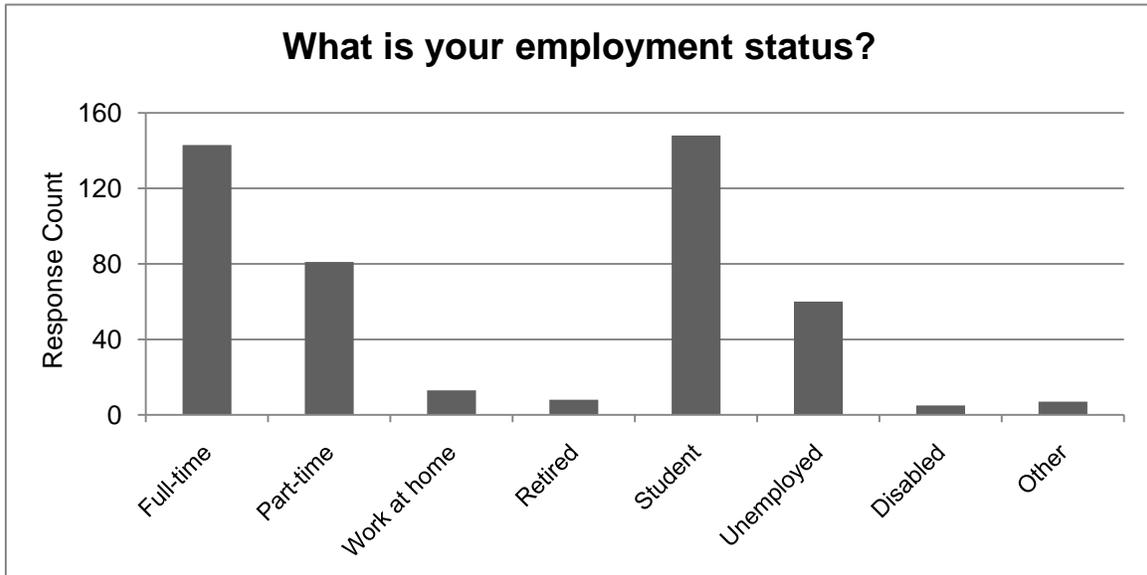
In addition to the dissemination of surveys spearheaded by MCC's SGA and Mi Familia, a member of the CTSP Steering Committee who is affiliated with Iredell Health Systems had the Hospital's Webmaster post the Non-Rider survey, on the hospital's intranet site. The majority of Hospital employees reside in Statesville, and they have the financial means to own and operate personal vehicles. Comments regarding consideration to using ICATS included the fact that the transit system has limited hours of operation, i.e. not operating in the late night to accommodate third shift work schedules, and not being reliable to ensure on-time arrival at the workplaces. Employers stated that they observe patients utilizing the service and commented on the care and attention paid by the Bus Operators to the patients.

Only one response was made regarding concentration into a new market, and it concerned rail operating between Statesville and Charlotte with stops in Mooresville and other towns.

A Non-Rider survey was prepared in English and Spanish. The link to the survey was sent to the Steering Committee for distribution and was posted on Mitchell Community College's "News & Updates" webpage. Hard copies were distributed during the community planning sessions for individuals to take. Roughly 336 completed Non-Rider surveys were received. The results of the Non-Rider surveys are summarized in the graphs below.

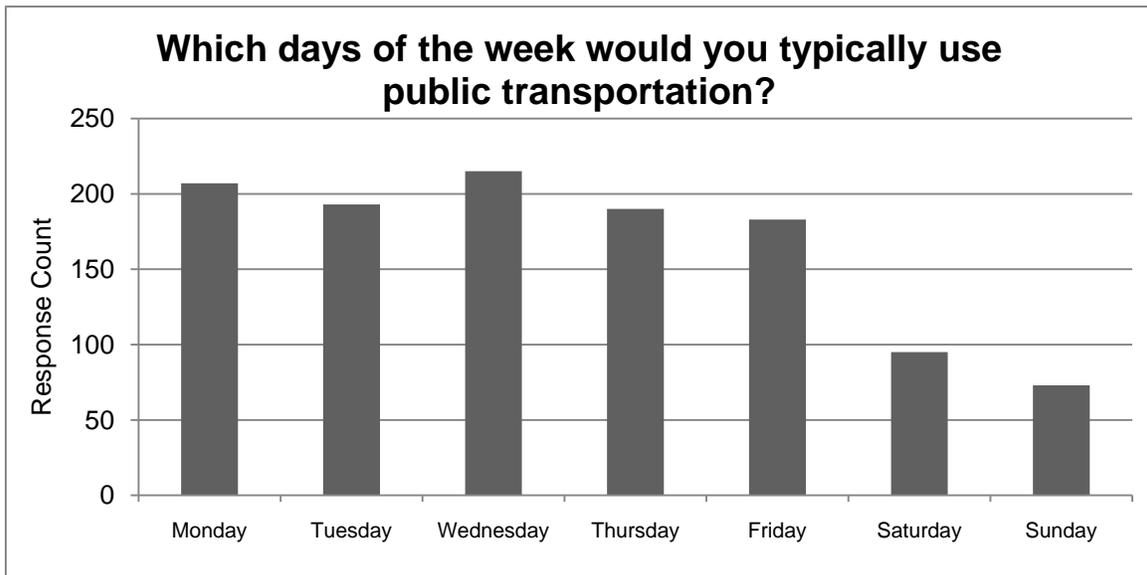
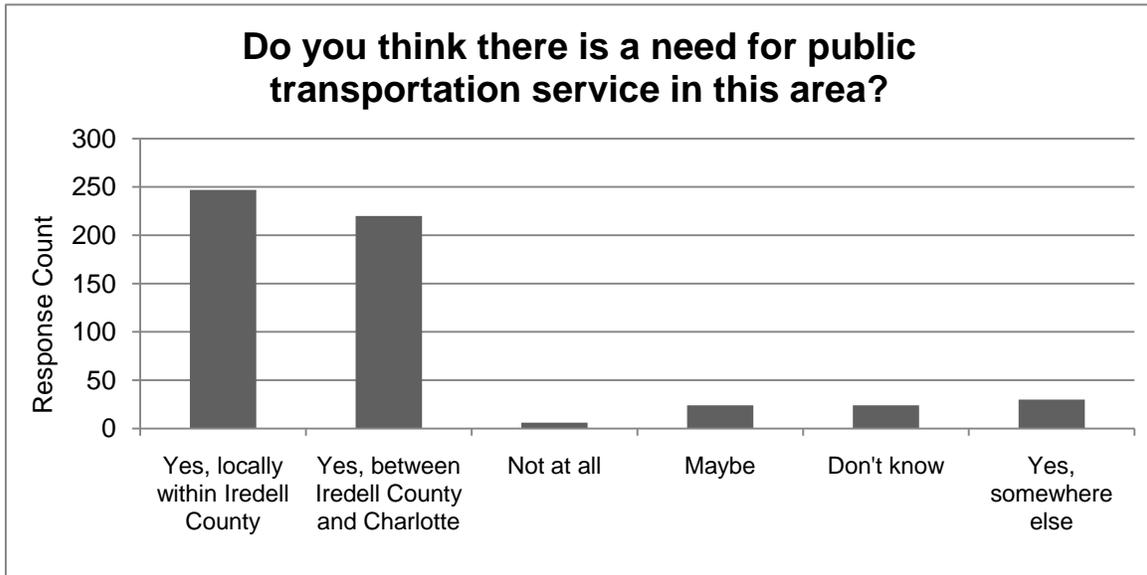


**Iredell County Community Transportation Services Plan
Final Report**



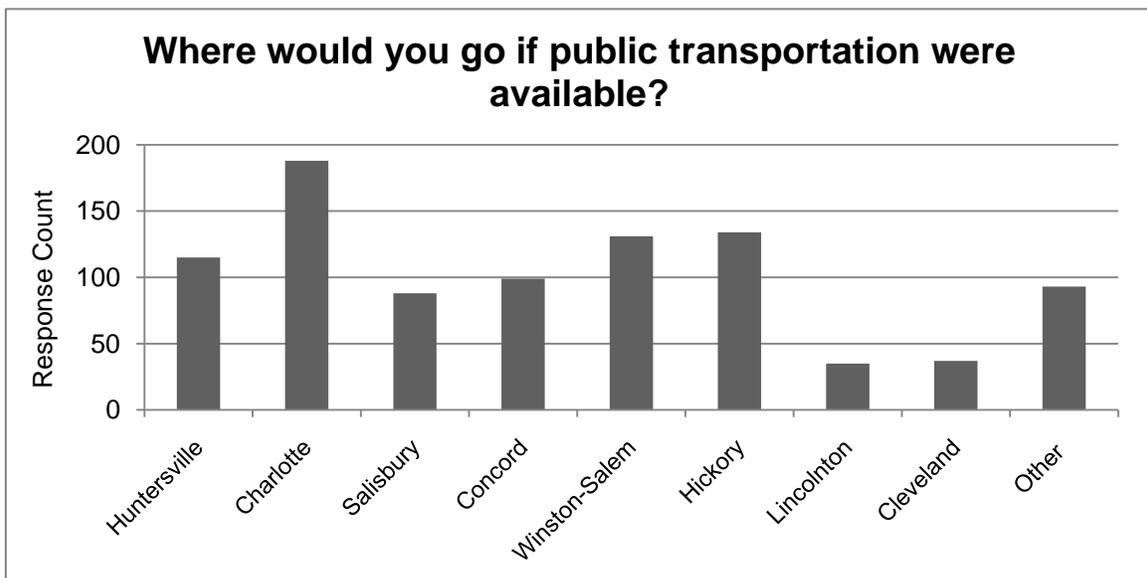
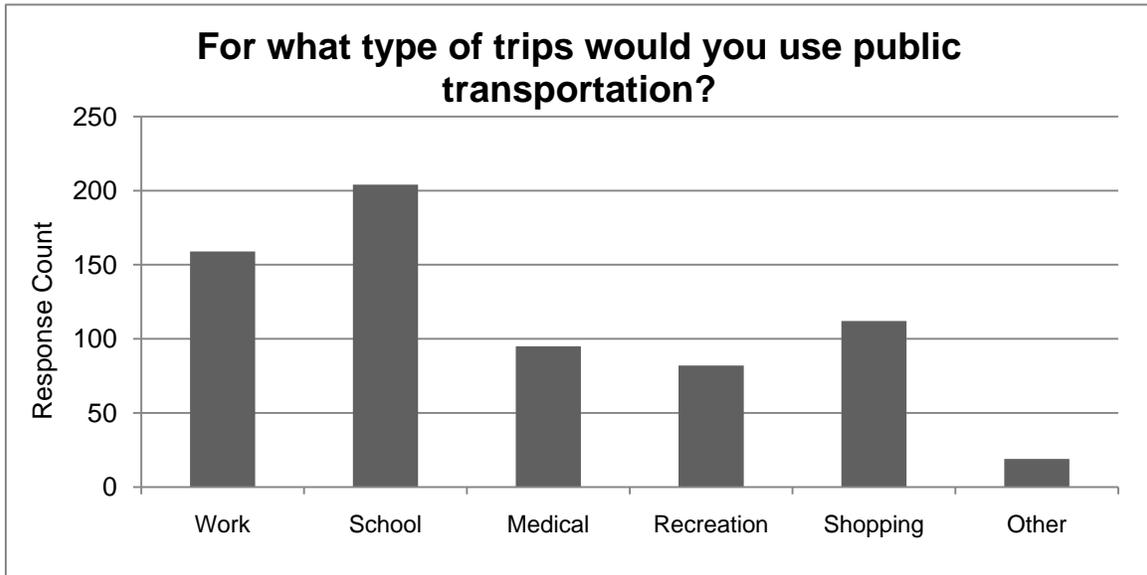


**Iredell County Community Transportation Services Plan
Final Report**





**Iredell County Community Transportation Services Plan
Final Report**





***Iredell County Community Transportation Services Plan
Final Report***

The survey asked for comments and suggestions regarding public transportation in Iredell County. The following is a sampling of what people wrote:

- “This is a no-brainer - it is critical to economic recovery for there to be good public transportation for those moving back into the work force.”
- “Needs to be more affordable with longer hours.”
- “The current ICATS is a good thing for those people that cannot afford a vehicle. This could be broadened to assist those unable to work elsewhere to have transportation so that employment can be obtained.”
- “We need a more reliable transportation system. ICATS is a problem, always late and seems like they don't care to pick up people on time.”
- “I know of some people that won't ride ICATS because they have to wait sometimes up to two hours before getting picked up.”
- “I have never used public transportation, I have heard that they are usually late picking you up for work and appointments. I think to make the program better, you need to make it more reliable.”
- “I am a full time student at Mitchell College and sometimes use the ICATS bus to go to classes in Mooresville. I just wish that the bus ran in the evenings since this is usually the time of day that my classes seem to be in Mooresville.”
- “I hope that ICATS keeps running, especially the shuttle for Mitchell Community College. It is a great help! The times they run and the cost are a great help to every one of us, especially the unemployed full-time students! Thank you!”

Non-Rider survey information is included in the Appendix.



***Iredell County Community Transportation Services Plan
Final Report***

2.1 PREPARATION OF TECHNICAL MEMORANDUM #1

Per the scope of work, Technical Memorandum #1 was prepared and submitted to the client.

2.2 SECOND STEERING COMMITTEE MEETING

Per the scope of work, the consultant met with the Steering Committee on November 15, 2010 to summarize and discuss Technical Memorandum #1. The Steering Committee provided input on the service delivery strategies.



3.1 COUNTY AND REGIONAL DEMOGRAPHICS AND GEOGRAPHY

A. Medical and Employment Travel Patterns

Journey to Work Data

Census data from 2000 (the most recent year in which data is available) was reviewed to determine the journey-to-work trip patterns on a county-to-county level. The data shows that approximately 41,787 individuals live in Iredell County and work in Iredell County. Additionally, roughly 18,000 individuals live in Iredell County and work outside of the County. Conversely, approximately 12,500 individuals live outside of Iredell County and travel to the County to work. The following figure illustrates the number of people commuting from Iredell County to other counties for work, as well as the number of people commuting to work in Iredell County from surrounding counties.

The Census data shows that approximately 70% of employed Iredell County residents work within the County. Of those who travel outside of the County for work, a substantial number of Iredell County residents are destined for the following counties:

- Mecklenburg County (9,604 people);
- Rowan County (1,958 people); and
- Catawba County (1,956 people).

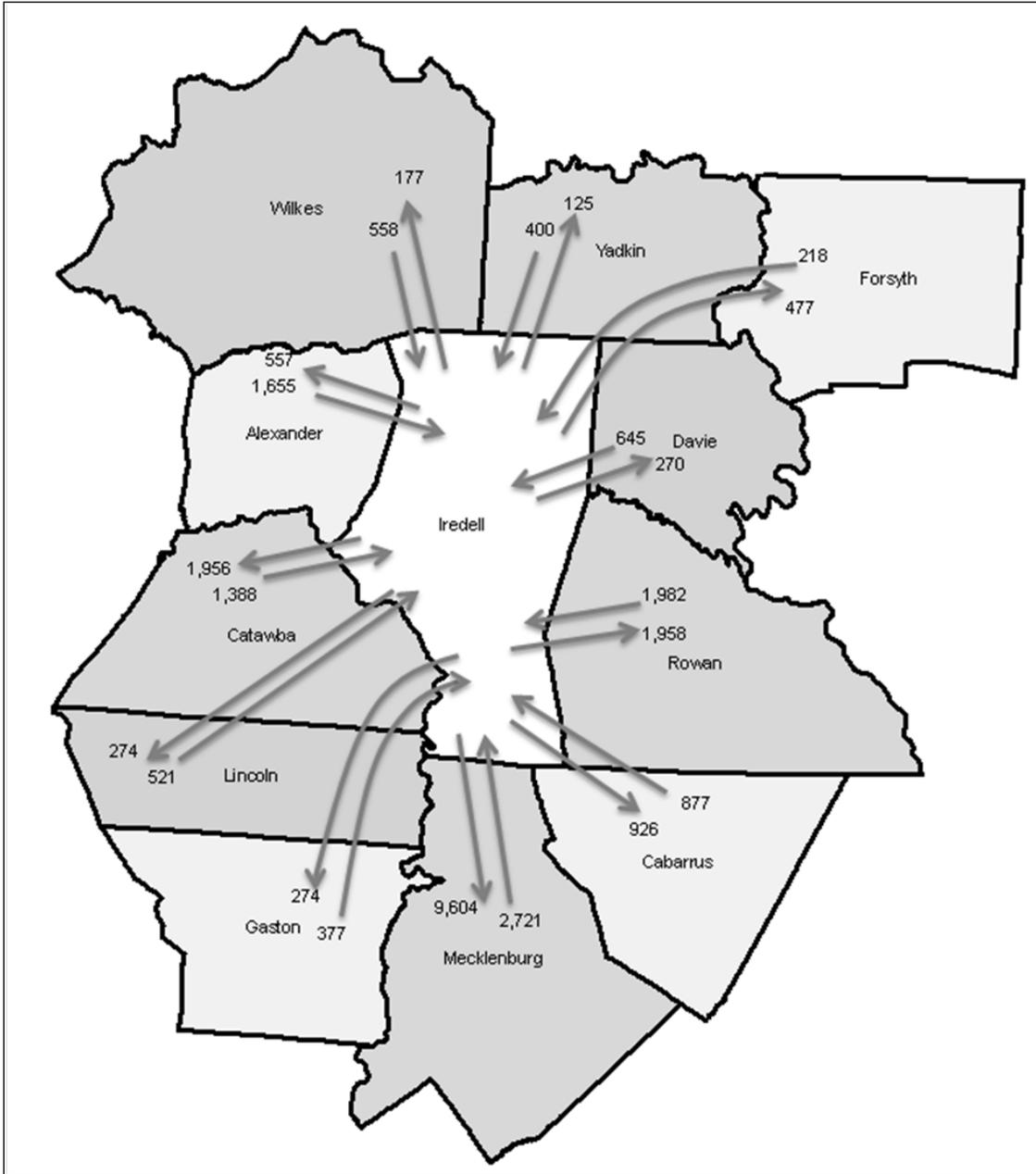
In addition, the following counties have the highest number of people commuting to jobs in Iredell County:

- Mecklenburg County (2,721 people);
- Rowan County (1,982 people); and
- Alexander County (1,655 people).



**Iredell County Community Transportation Services Plan
Final Report**

Journey-To-Work Trip Patterns



Source: Data from Census 2000



**Iredell County Community Transportation Services Plan
Final Report**

Substantial growth has occurred in Iredell County since the 2000 Census data was collected, with much of the growth occurring in southern Iredell County in the Mooresville / Lake Norman area. Many of these new residents work in Mecklenburg County, so it is likely that when Census 2010 data becomes available, it will show an even stronger commute linkage between Iredell and Mecklenburg Counties.

This data suggests that a strong transit connection between Iredell and Mecklenburg and between Iredell and Rowan Counties would be beneficial to the workforce population of both Counties (since there is a significant two-way commute flow). A strong connection between Iredell and Mecklenburg Counties (for commute trips to Mecklenburg County) would be advantageous. A number of employees already use the eight Charlotte Area Transit System (CATS) vanpools in service, as shown in the table below.

Current Vanpools

| From | To | Shift |
|-------------|-------------------------------|--------------|
| Mooresville | Airport | 2nd |
| Mooresville | US Airways | 1st |
| Mooresville | Airport | 1st |
| Mooresville | Airport | 3rd |
| Mooresville | US Airways Maintenance Hangar | 2nd |
| Mooresville | Airport | 2nd |
| Mooresville | Airport | 1st |
| Statesville | Norfolk S. Railroad/Uptown | 1st |

Source: Charlotte Area Transit System current vanpools webpage (January 10, 2011)

The CATS Route 83X formerly served a park-and-ride location in Mooresville, but the service was discontinued due to the lack of funding support from the Town of Mooresville. As the number of commute trips grows, future opportunities to partner with CATS for an Express Bus service should be explored again, perhaps using applicable NCDOT-administered funding programs such as the Job Access and Reverse Commute program (JARC) or even the Rural General Public (RGP) program.

ICATS enjoys a positive working relationship with Mecklenburg County Transportation Service (MCTS), the transit provider for human service transportation in Mecklenburg County. There may be future opportunities to build upon this relationship.

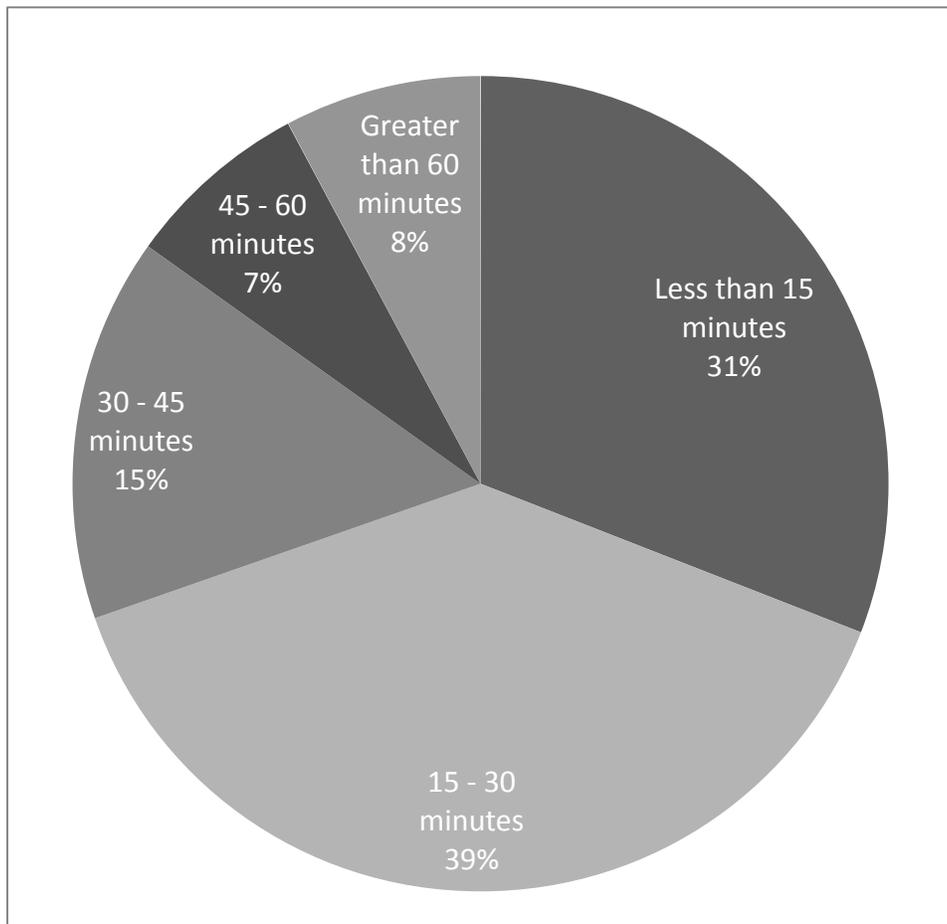


**Iredell County Community Transportation Services Plan
Final Report**

Travel Time Data

Based on a report published by Economic Development Intelligence System (using Census data from 2000) shows that mean travel time to work for Iredell County residents (16 years and older) is 25 minutes. The breakdown of travel times is shown in the pie chart below. Approximately 31% of Iredell County residents have a one-way commute less than 15 minutes. Approximately 39% of Iredell County residents have a one-way commute between 15 and 30 minutes. There seems to be a large number of residents with a long commute, with the remaining 30% of residents commuting more than 30 minutes. The residents with longer travel times are likely traveling longer distances outside the county to work.

One-Way Travel Time for Iredell County



Source: Data from Census 2000

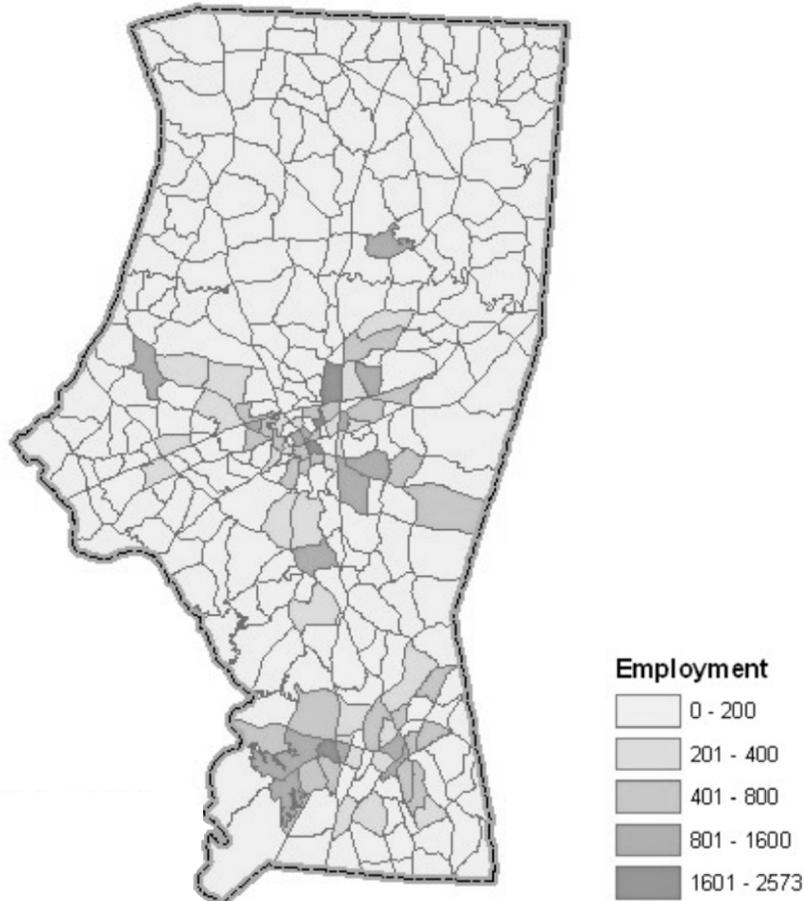


**Iredell County Community Transportation Services Plan
Final Report**

Major Employment Centers

To understand the employment travel patterns, it is helpful to know the places of business that employ a large number of workers. The map below was published by Lake Norman Rural Planning Organization (RPO) and shows Employment Rates from 2000.

Employment Map



Source: Lake Norman Rural Planning Organization

General areas where most people in Iredell County work are shown on the map above:

- Statesville along the I-40, I-77 and NC 70 corridors; and
- Mooresville along NC 150 corridor and in the vicinity of Brawley School Road.

It should be noted that significant employment growth has occurred since 2000 that is not reflected on the map above, including continued growth around the NC150 / I-77 interchange and in the Mount Mourne area.

In addition to the individual major employers in Iredell County, there are a small number of industrial parks that are home to multiple sizable businesses. There has been significant employment growth in Mooresville as a result of the auto racing industry.



**Iredell County Community Transportation Services Plan
Final Report**

Using available data sources between 2006 and 2009 the table below was compiled to show the major employers in Iredell County.

Major Employers in Iredell County

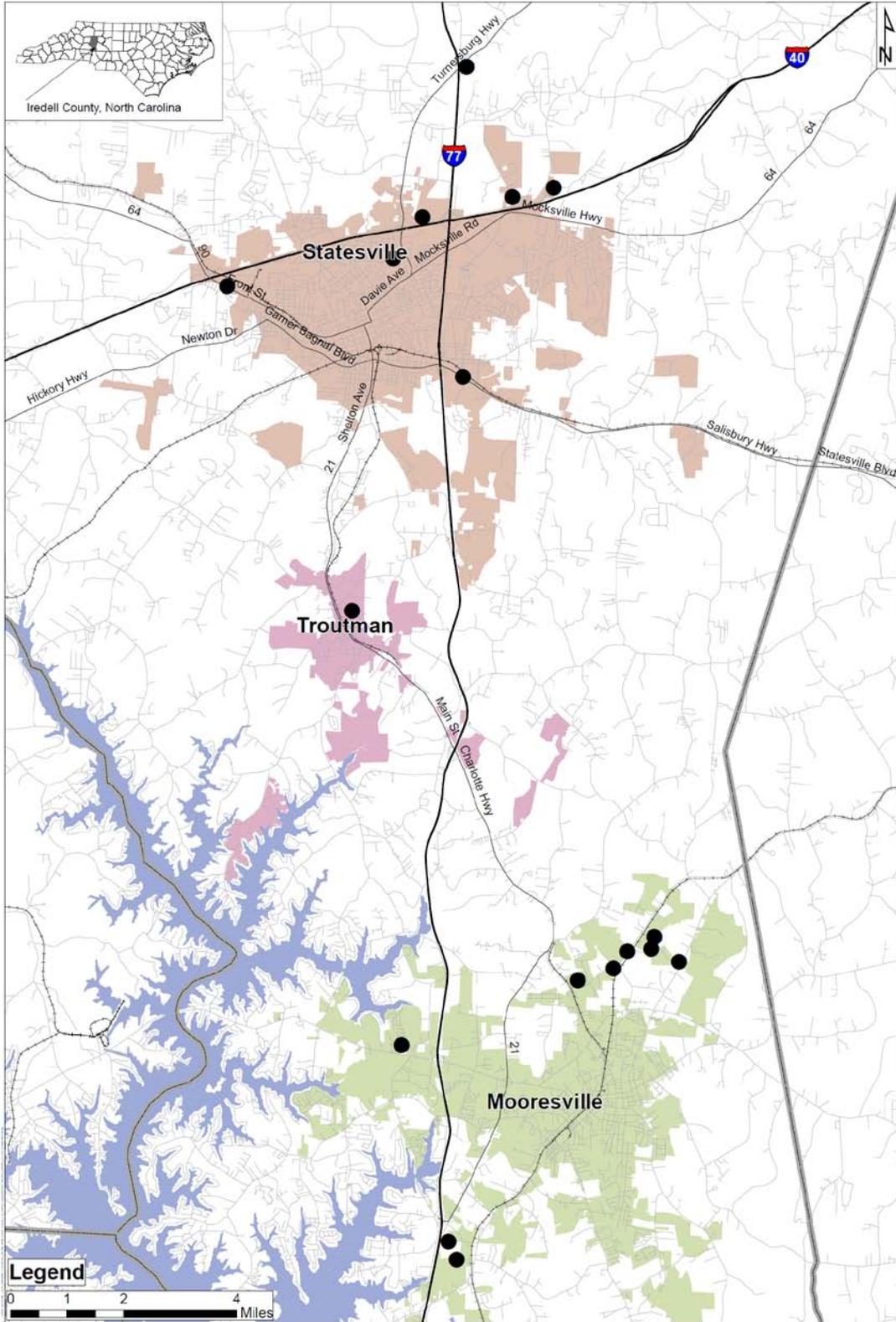
| Company | Number of Employees | Location |
|------------------------------------|----------------------------|--|
| Iredell-Statesville Schools | 3169 | Multiple Locations |
| Lowe's Companies Inc. | 3000 | |
| Iredell Memorial Hospital | 1650 | |
| Ingersoll-Rand Company | 1200 | 115 East Front Street, |
| J.C. Penney Distribution | 932 | |
| Lake Norman Regional Hospital | 930 | |
| Iredell County Government | 883 | Multiple Locations |
| Piedmont HealthCare | 740 | Multiple Locations |
| Statesville Auto Auction | 700 | |
| Davis Regional Medical Center | 640 | |
| Lowe's Home Centers Inc. | 590 | Multiple Locations |
| ASMO NC Inc. | 530 | |
| Engineered Sintered Components | 518 | |
| Wal-Mart | 500 | 1116 Crossroads Dr |
| Kewaunee Scientific | 490 | |
| Mooresville Graded School District | 465 | Multiple Locations |
| NGK Ceramics USA Inc. | 450 | |
| Super Target | 350 | 594 River Highway, Mooresville |
| Penske Racing, Inc. | 350 | |
| BestSweets, Inc. | 300 | |
| Pactiv Corp. | 257 | 225 Mooresville Boulevard, Mooresville |
| Cardinal FG | 242 | |
| Carolina Beer & Beverage | 190 | |

Sources: Iredell County Comprehensive Audit, 2006; Statesville Chamber of Commerce, 2007; Mooresville Economic Development Corporation, 2007; and Economic Development Intelligence System for the Fourth Quarter, 2009

A map of the major employment centers within the County as highlighted in this section is shown below. Most of the major employment centers appear to be located within the city or town limits of Statesville, Mooresville and Troutman. There is a cluster of employment in the Mazeppa Road area of Mooresville.



**Iredell County Community Transportation Services Plan
Final Report**





**Iredell County Community Transportation Services Plan
Final Report**

Medical Centers

Medical facilities are not only destinations for numerous patients who require medical attention, but are also employment destinations. There are three major hospitals in Iredell County. Iredell Memorial Hospital has 247 beds is located at 557 Brookdale Drive in Statesville. Davis Regional Medical Center has 149 beds and is located at 218 Old Mocksville Road in Statesville. Lake Norman Regional has 123 beds and is located at 171 Fairview Road in Mooresville.

The Iredell Health Department has two locations. One facility is located on E. Center Avenue in Mooresville and the other on Turnersburg Highway in Statesville.

The Dialysis Centers and Nursing Homes located in Iredell County are shown in the tables below.

Dialysis Centers in Iredell County

| Dialysis Centers | Address |
|-----------------------------------|--|
| Ins-Iredell County | 124 Professional Park Drive, Mooresville, NC |
| Lake Norman Dialysis Center | 164 Professional Park Drive, Mooresville, NC |
| Statesville Dialysis Center, Inc. | 627 Signal Hill Drive Extension, Statesville, NC |
| West Iredell | 115 Westbrook Lane, Statesville, NC |

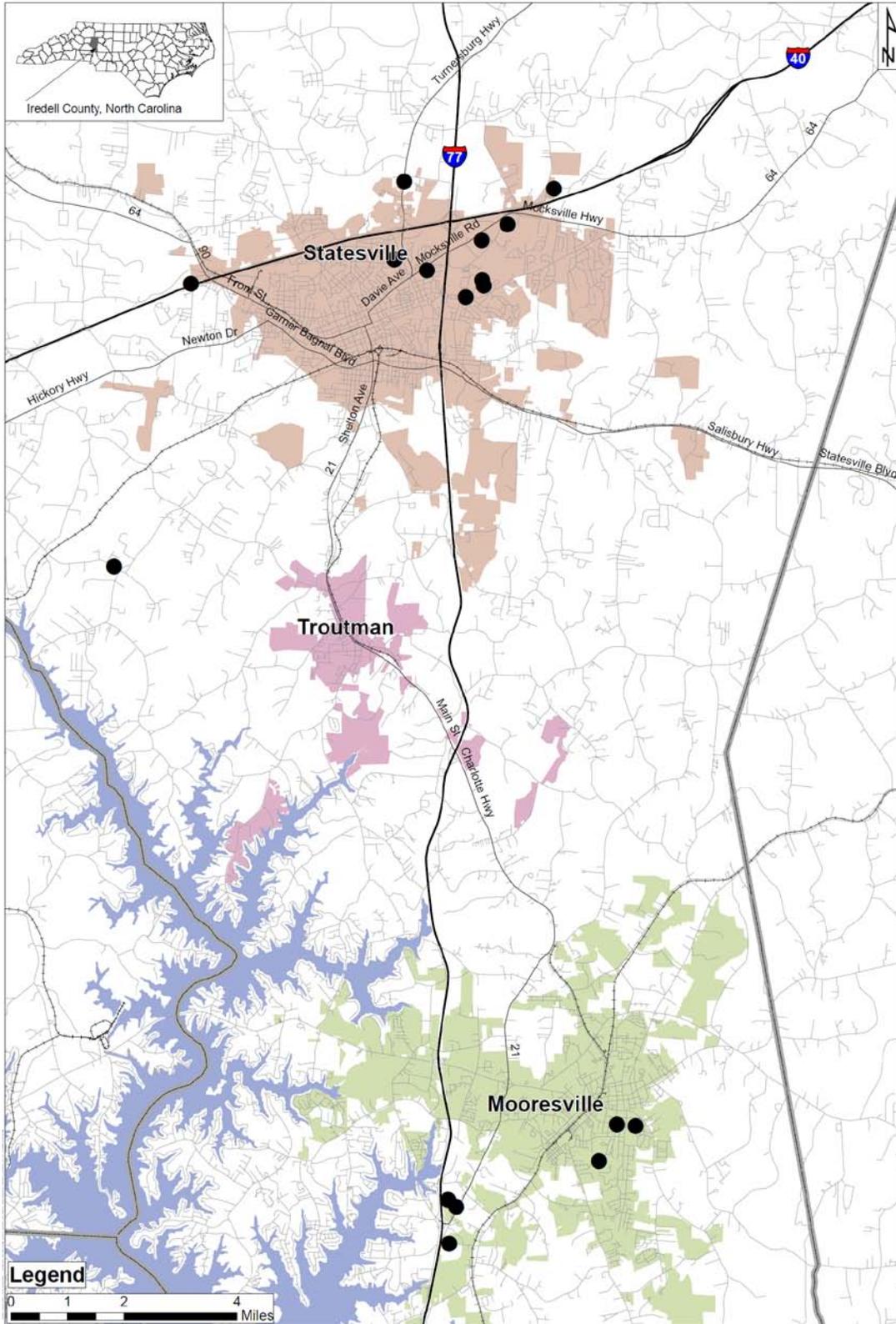
Nursing Homes in Iredell County

| Nursing Homes | Address |
|---|---|
| Care Inn – Assisted Living | 1075 Deal Road, Mooresville, NC |
| Journey's of Statesville | 1942 Van Haven Drive, Statesville, NC |
| Genesis Health Care Corporation | 550 Glenwood Drive, Mooresville, NC |
| Brian Center Health and Retirement | 752 E. Center Avenue, Mooresville, NC |
| Autumn Care of Statesville | 2001 Van Haven Drive, Statesville, NC |
| Maple Leaf Health Care | 2640 Davie Avenue, Statesville, NC |
| Brian Center Health and Rehabilitation of Statesville | 520 Valley Street, Statesville, NC |
| Statesville Manor | 2441 East Broad Street, Statesville, NC |
| Heritage Place Adult Living | 1372 Eufola Road, Statesville, NC |

A map of the medical centers and nursing homes within Iredell County follows.



**Iredell County Community Transportation Services Plan
Final Report**





Iredell County Community Transportation Services Plan Final Report

B. Areas Currently Not Served By Transit

ICATS offers both human service and general public transportation to residents throughout Iredell County. Service is provided through demand response trips, deviated fixed routes, and subscription routes. While some transit systems may place restrictions on when and where demand response service is available (e.g. a particular zone may only receive service two or three days a week), ICATS provides service to/from any area within Iredell County every weekday with no geographical restrictions. Services operate between the hours of 5:00 AM and 7:00 PM Monday through Friday, with some additional evening and weekend service provided for employment trips and dialysis patients.

C. Demographic Analysis

The demographic and socioeconomic characteristics of Iredell County, the Town of Mooresville and the City of Statesville were mapped to identify potential transit markets. The following demographic attributes were examined:

- Overall population;
- Low-income households;
- Disabled population;
- Elderly population; and
- Minority population.

Overall Population

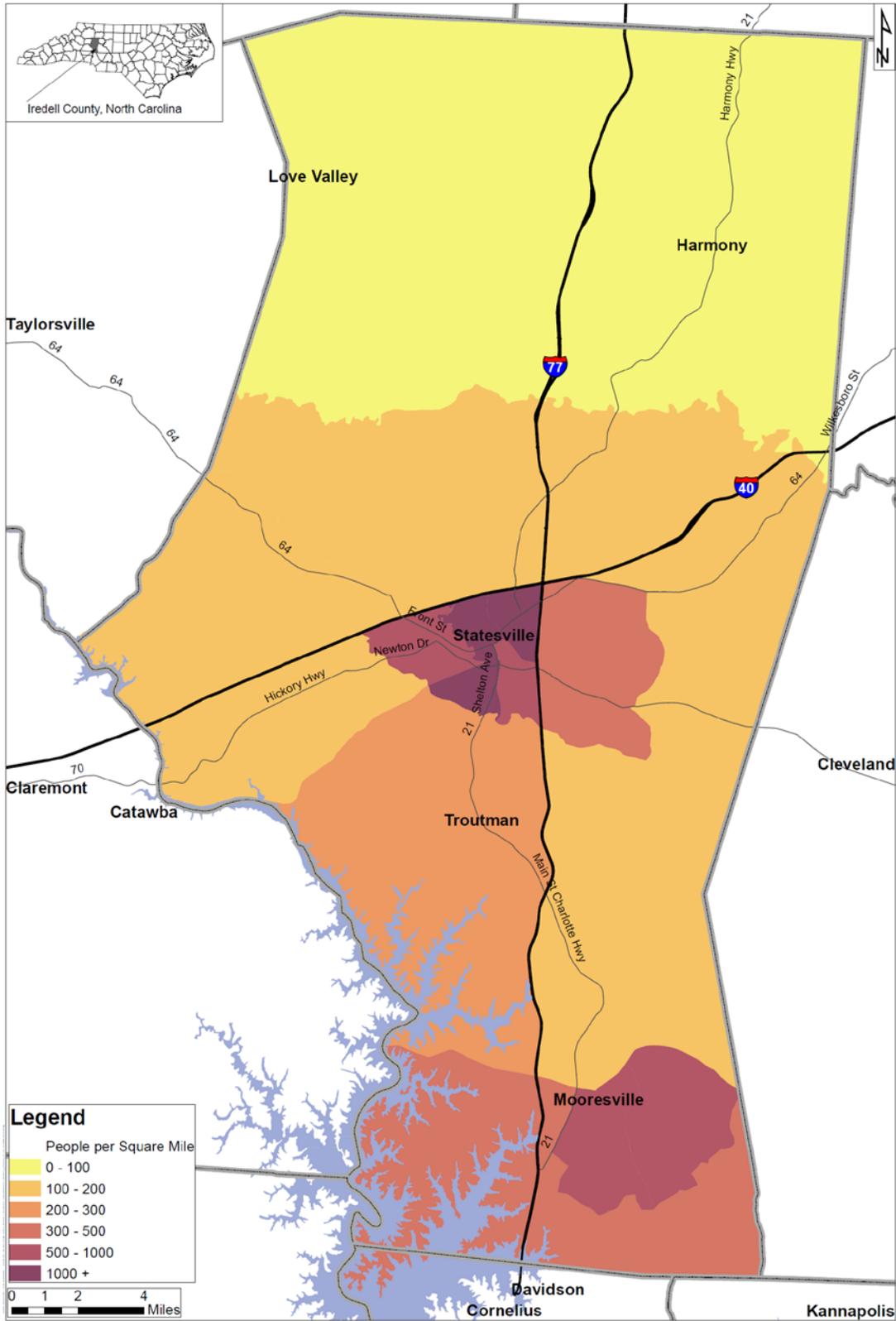
Census 2000 block group data (the most recent data available) was used to create a map showing population density in Iredell County. The areas with the highest density are portions of Statesville, and Mooresville, Troutman. Maps showing a more detailed view of population density in Statesville and Mooresville were also created.

Maps of the overall population density for Iredell County, Mooresville and Statesville are presented on the following pages.

The most recent comprehensive population data was used to create these maps, although the data is now ten years old. In February 2008, Warren & Associates published "Iredell County Demographic Forecast 2007 – 2015" which analyzed the anticipated growth in the County based on approved subdivisions. The information published in this report was used to create a population growth map presented as follows. The map shows that the largest growth is anticipated in the Mount Mourne area, and around Lake Norman in Troutman and Mooresville.



Iredell County Community Transportation Services Plan Final Report



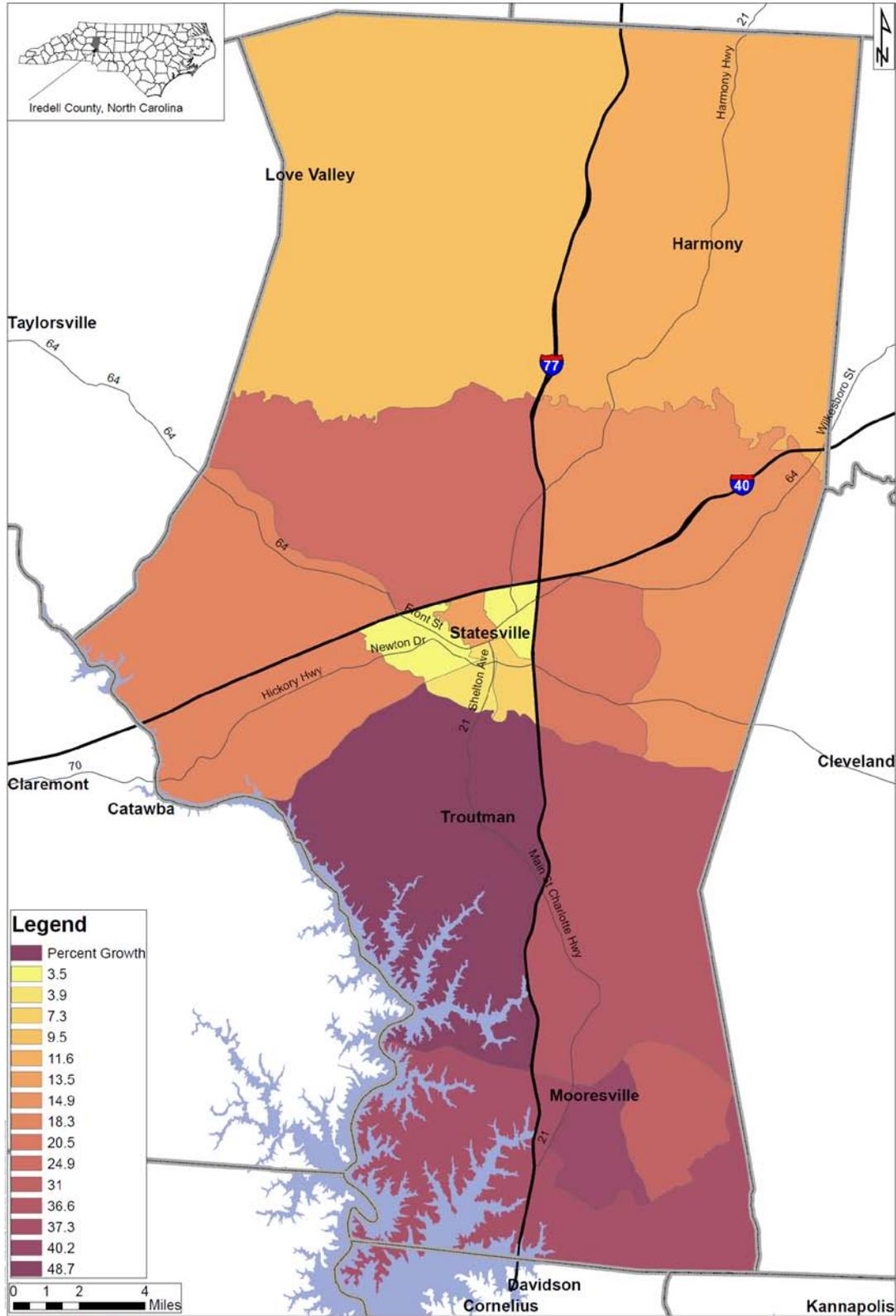


**Iredell County Community Transportation Services Plan
Final Report**





**Iredell County Community Transportation Services Plan
Final Report**





***Iredell County Community Transportation Services Plan
Final Report***

Low-Income Households

Typically the presence of significant numbers of low-income households indicates a potential market for transit-dependent residents. The American Community Survey from 2006 to 2008 reports that Iredell County residents have a median household income of \$49,900. The Census Bureau performs the American Community Survey in addition to the long form in the decennial census. It is an ongoing statistical survey and thought to be more current than information obtained every ten years.

Many lower income residents do not own a personal automobile, and are largely reliant on transit or other alternative means of mobility. Census tract data from 2000 was used to create a map of the median household income for Iredell County. It appears that the areas that have an annual median household income less than \$25,000 are as follows:

- The area around Front Street south of I-40 in Statesville; and
- The area around Salisbury Road west of I-77 in Statesville.

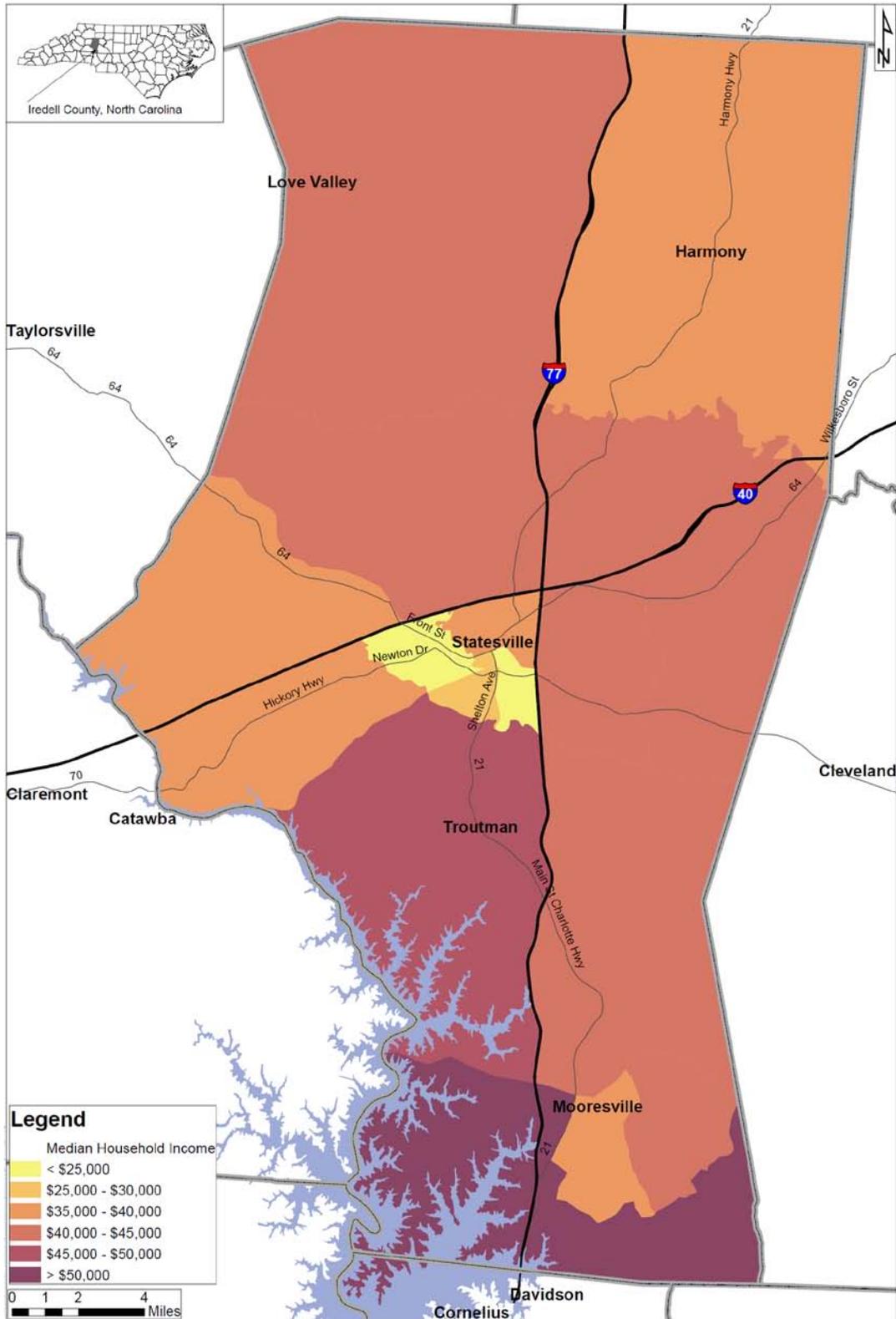
Based on the data, the area surrounding Center Street south of Broad Street in Statesville has a median household income between \$25,000 and \$30,000.

With median household incomes over \$50,000, the highest median household income appears to be in the Lake Norman area around Mooresville and Troutman.

A map of the median household income in Iredell County is presented on the following page.



**Iredell County Community Transportation Services Plan
Final Report**





***Iredell County Community Transportation Services Plan
Final Report***

Disabled Population

Many disabled residents do not drive, and are largely reliant on transit or other alternative means of mobility. Two maps were created to illustrate areas in which a higher percentage of disabled residents live.

Census tract data from 2000 was used to create a density map of the disabled (age 21 to 64) residents living in Iredell County. The areas in the County with the highest density of disabled residents are as follows:

- The area around Front Street south of I-40 in Statesville;
- The area around Sullivan Road south of I-40 in Statesville; and
- The area around Center Street south of Broad Street in Statesville.

In addition, there appears to be a high density of disabled residents living in Downtown Mooresville.

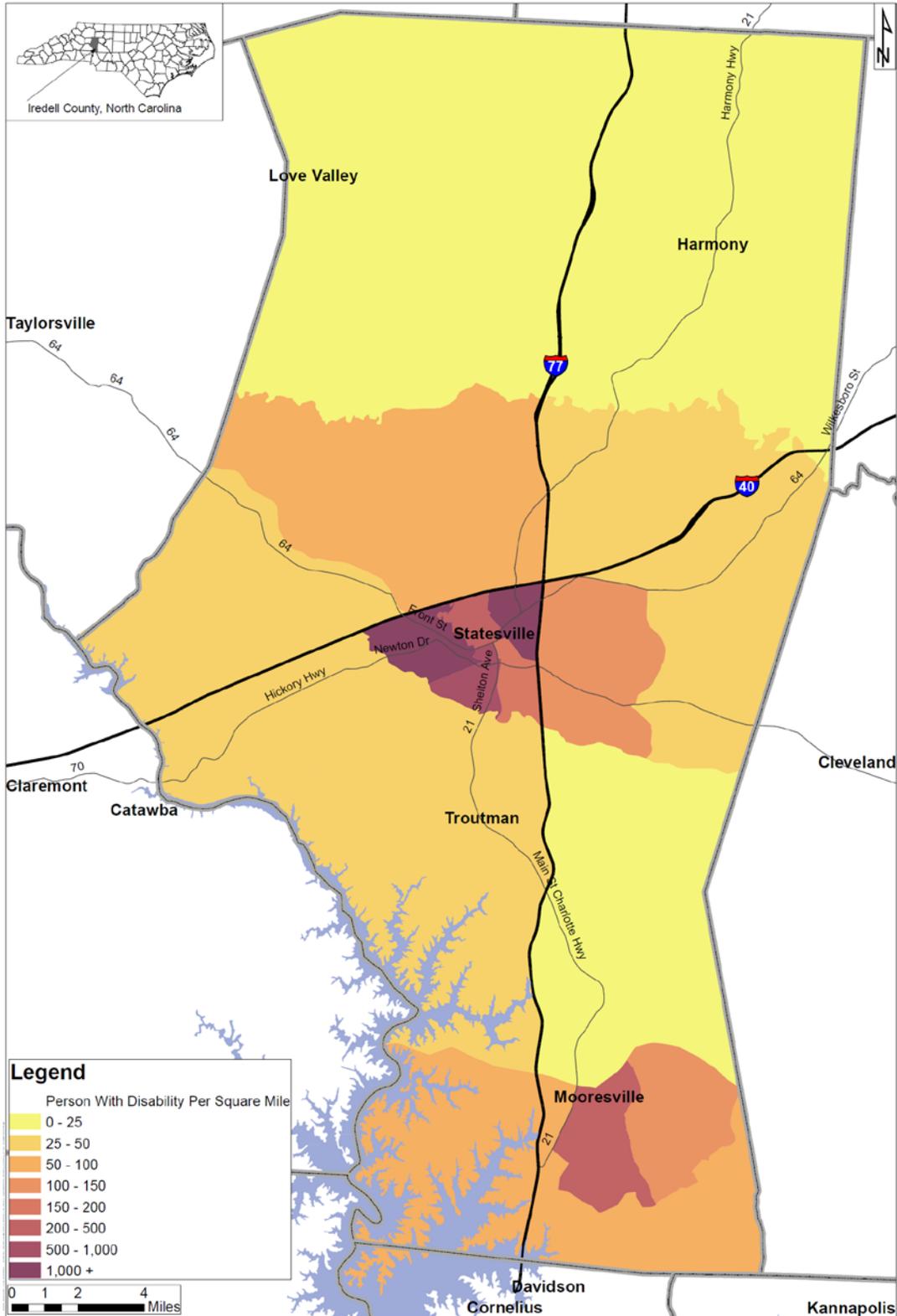
The total population in a place may be low, but the percent of people living in that place that are disabled may be high. The Census tract data form 2000 was used to map the percent of people with disabilities. The areas with the highest percentage of persons with a disability (compared to the total population in that area) are as follows:

- The area around Harmony;
- The area west of Statesville; and
- The area east of Troutman.

Maps of the disabled population density in Iredell County and the percent disabled population in Iredell County are presented on the following pages.

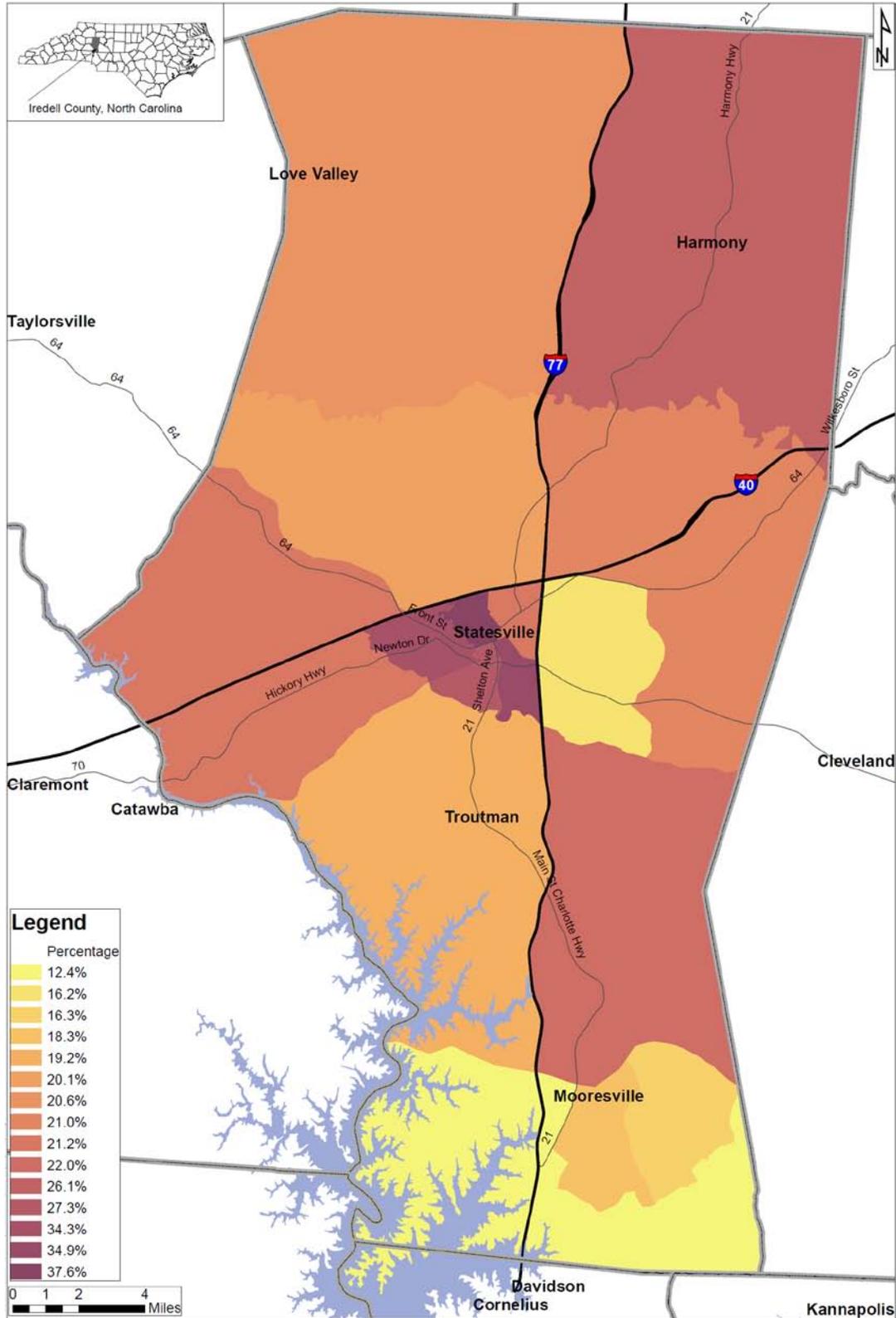


**Iredell County Community Transportation Services Plan
Final Report**





Iredell County Community Transportation Services Plan Final Report





***Iredell County Community Transportation Services Plan
Final Report***

Minority Population

Census 2000 tract data was used to create a map of the minority population density in Iredell County. The map is shown below. The densest areas appear to be in Downtown Statesville and Downtown Mooresville.

Census 2000 block group data (a smaller geographic area than the census tract) was used to create a more detailed map of the minority population density in Mooresville and Statesville. These maps confirm that the densest areas of minority population are located in Downtown Statesville and Downtown Mooresville.

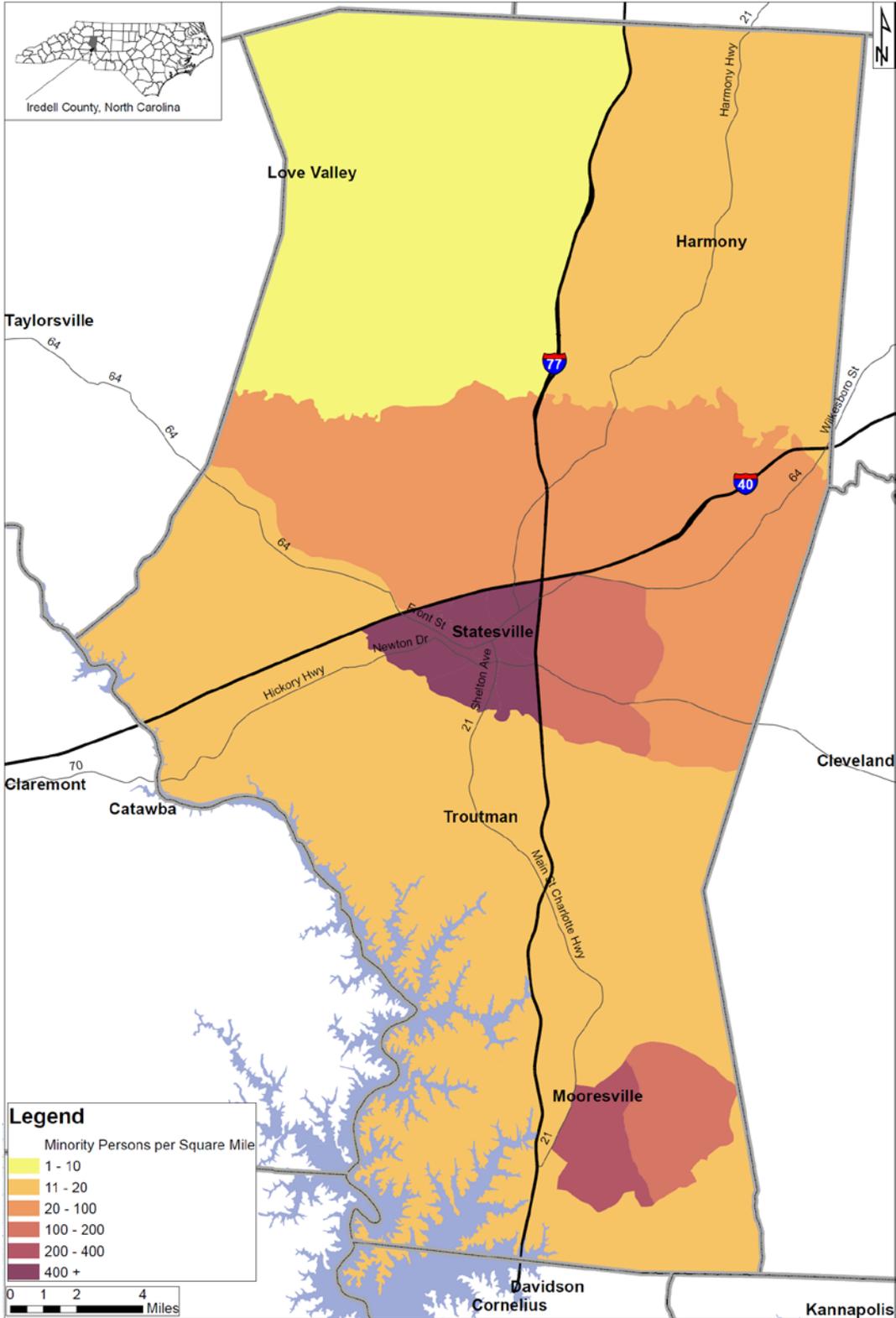
Maps of the minority population density in Iredell County, Mooresville and Statesville are presented on the following pages.

Elderly Population

Census 2000 tract data was obtained to illustrate the density of elderly persons (65 years and older) in Iredell County. The map shows that the densest areas of elderly population are in Downtown Statesville and Downtown Mooresville.

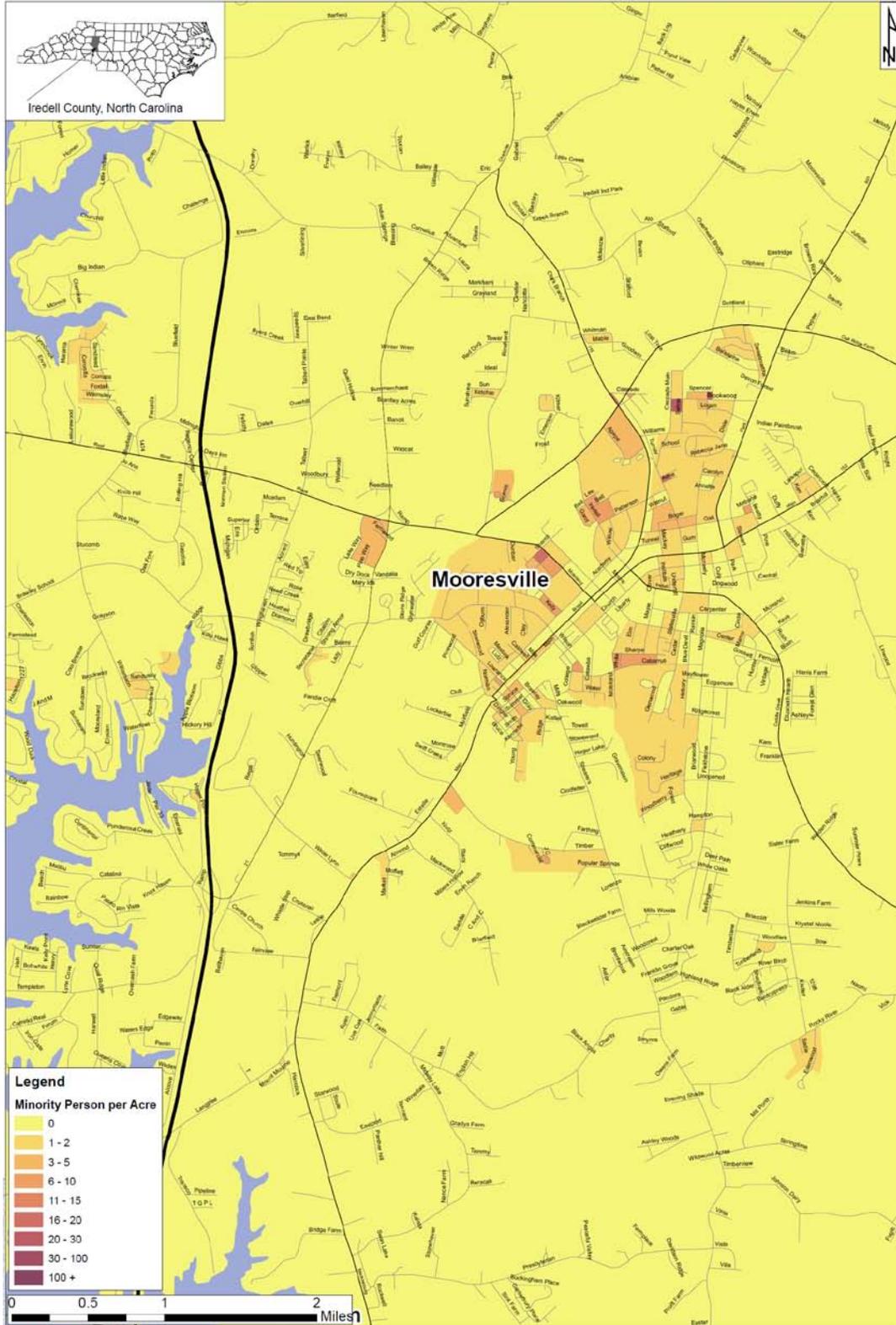


**Iredell County Community Transportation Services Plan
Final Report**



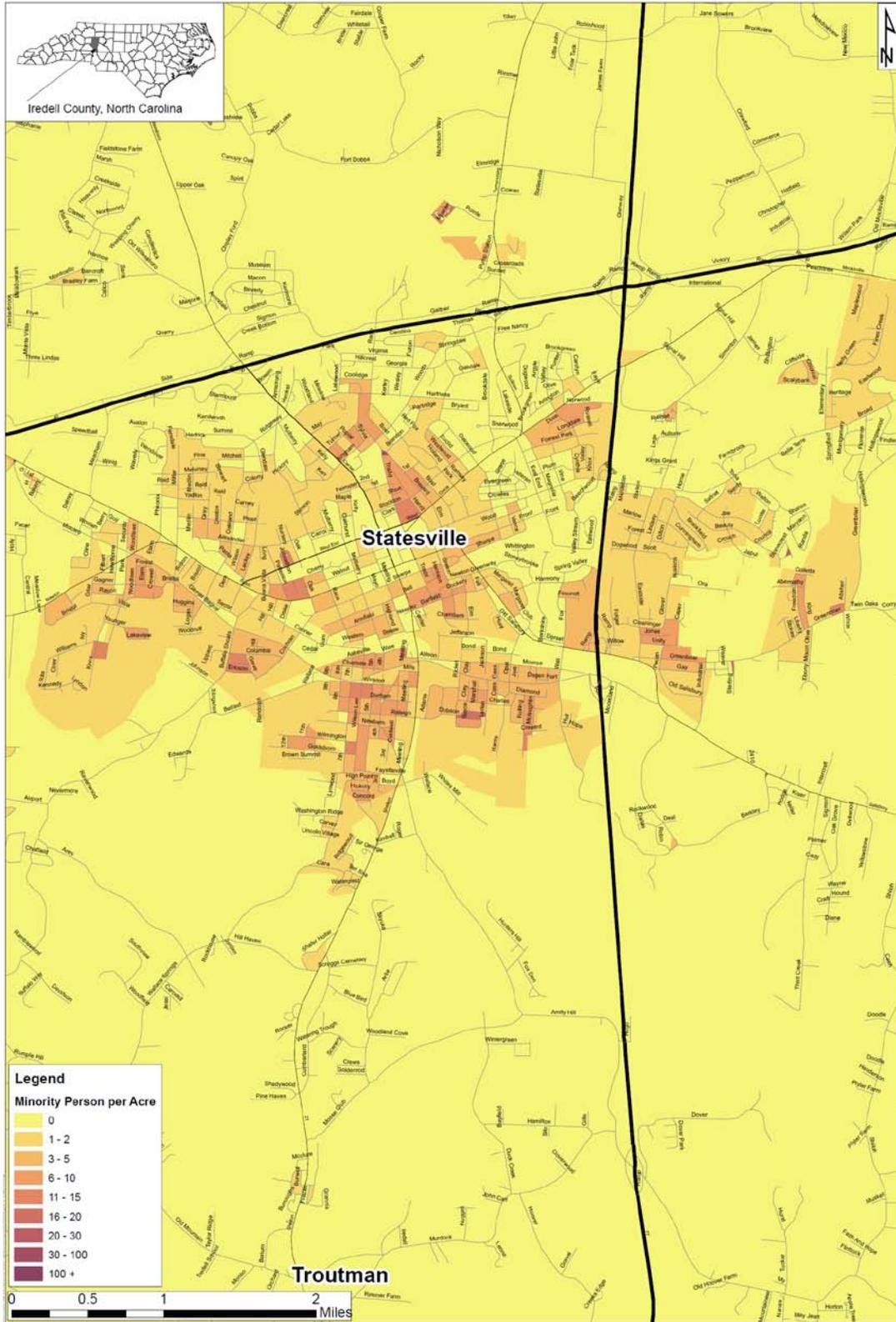


**Iredell County Community Transportation Services Plan
Final Report**



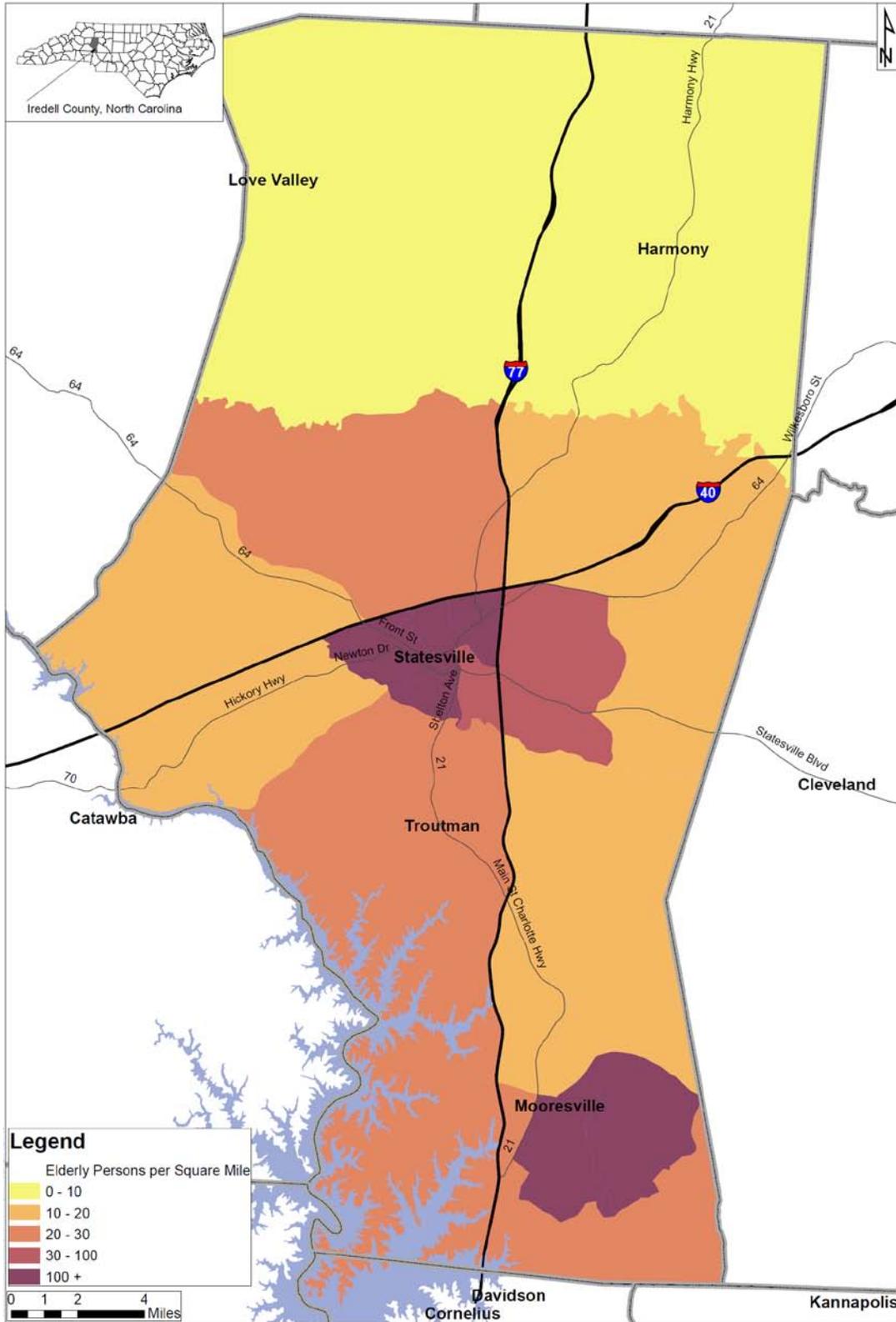


**Iredell County Community Transportation Services Plan
Final Report**



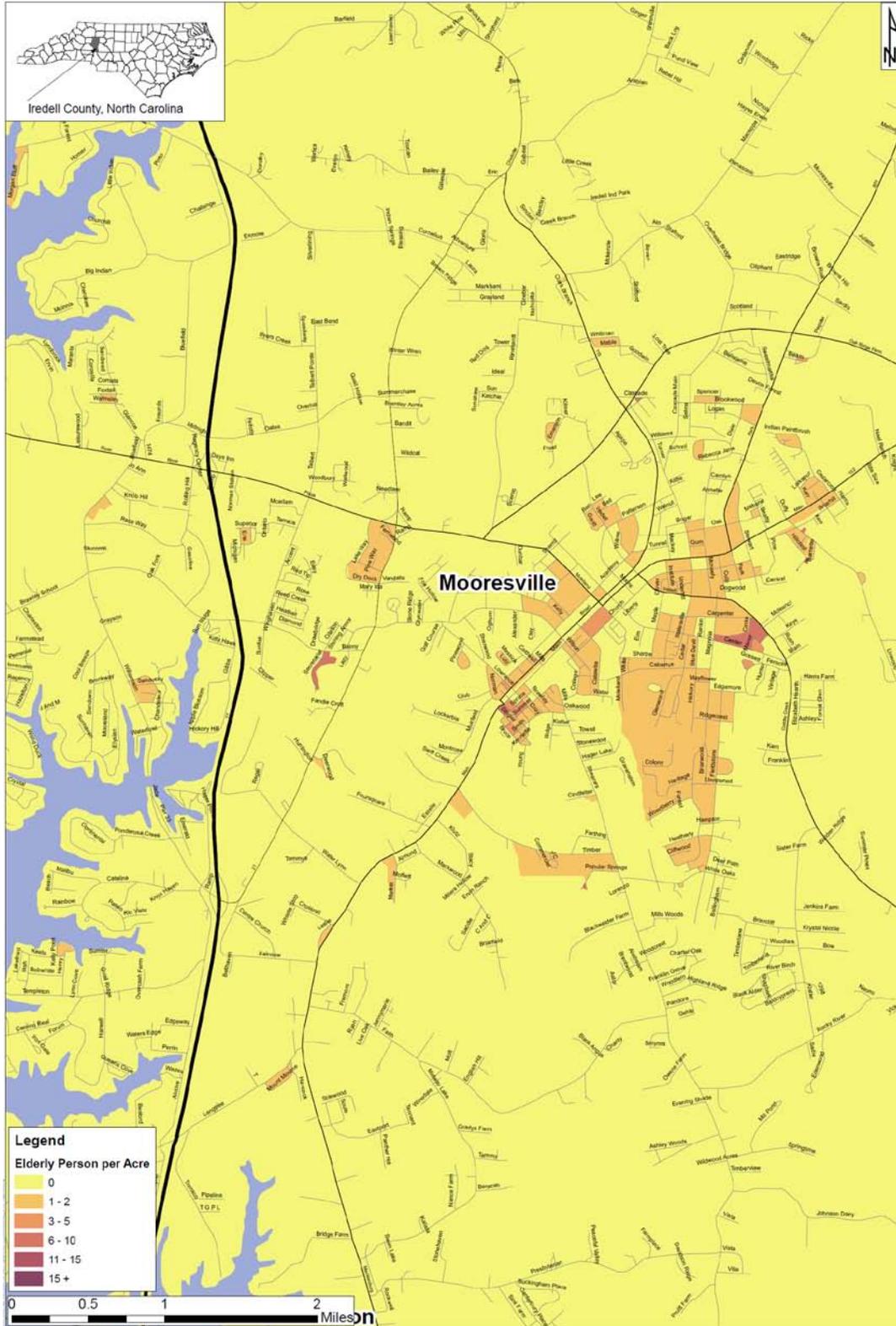


Iredell County Community Transportation Services Plan Final Report





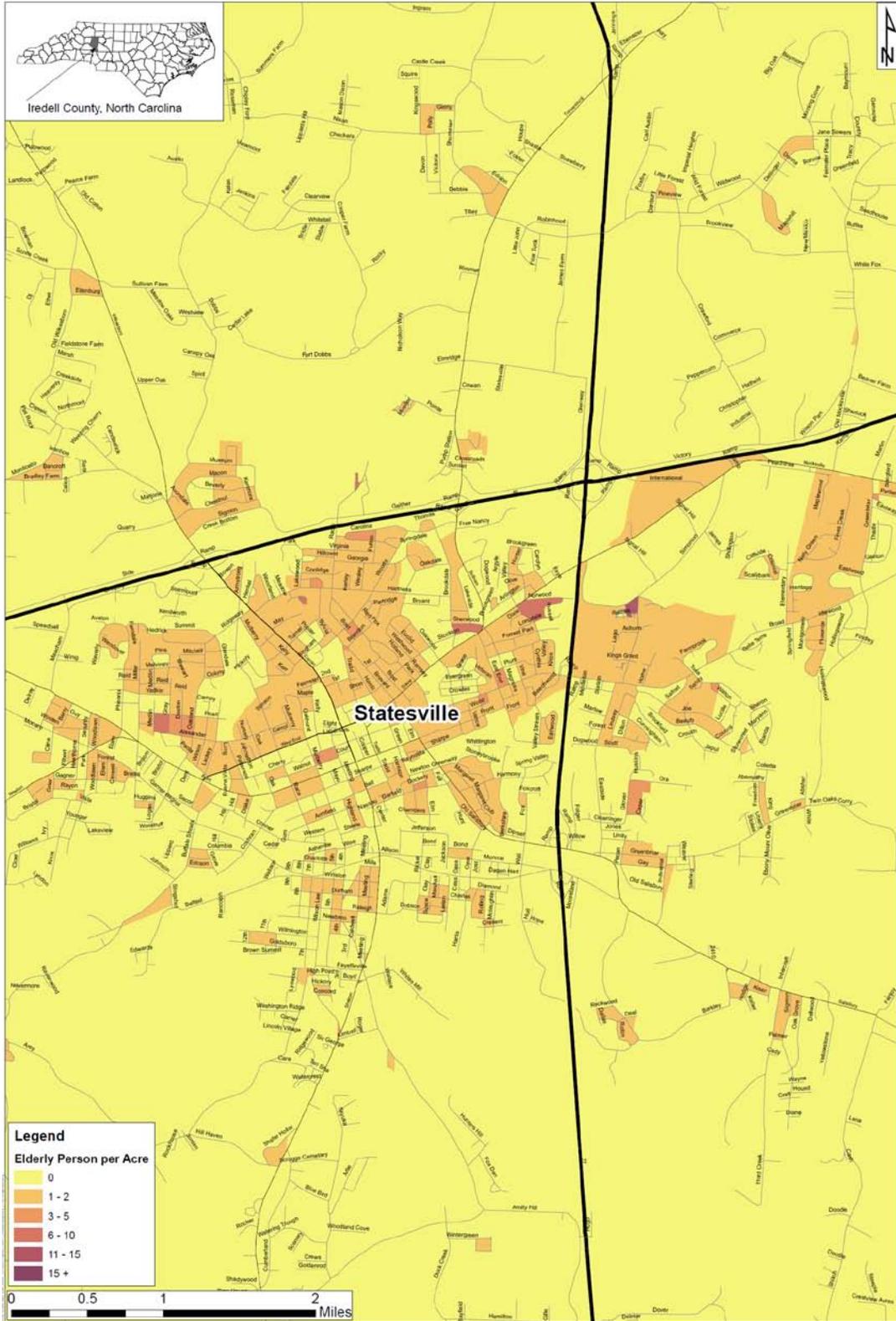
**Iredell County Community Transportation Services Plan
Final Report**



Mooresville Elderly Density
Iredell CTSP



Iredell County Community Transportation Services Plan Final Report





D. Aging and Immigration Trends Affecting Transportation

Elderly Trends

The North Carolina Office of State Budget and Management publishes facts and figures related to aging and immigration trends. This data shows that Iredell County had an estimated 19,415 elderly residents in 2009. In the future year 2029, the number of elderly residents is projected to be 36,546. Based on these projections, there will be an 88% increase in elderly population in Iredell County over a 20 year period, compared to the 76% increase in elderly population statewide. The Department of Health and Human Services predicts the elderly population in the United States will approximately double by the year 2030. As the percentage of elderly rapidly increases it will be essential to provide them with transit alternatives that help them maintain their independence.

Immigration Trends

As individuals move to the United States from other countries they may not have their licenses or means to purchase a car to drive, and generally are reliant on transit or other alternative means of mobility. As more immigrate to Iredell County it becomes more important to provide transit services to them. Based on data from the State & County QuickFacts provided by the U.S. Census in 2009, 7.7% of North Carolina residents are persons of Hispanic or Latino origin, which is an increase from the 4.7% figure reported in the 2000 Census. The State & County QuickFacts provided by the Census in 2009 shows that 6.1% of Iredell County residents are persons of Hispanic or Latino origin. The actual count is likely to be significantly higher than the number reported by the Census, since Census figures do not include undocumented immigrants.

Once approved by the County Commissioners, a spokesperson from Mi Familia, Inc. (advocate group for the Hispanic community) will become a representative on ICATS TAB. Continued outreach efforts should focus identifying potential transportation needs for this community.

E. Size of Disabled Population in Service Area

Details about the disabled population are fully described in Section 3.1 C. of this report.

F. Seasonal or Infrastructure Issues That Affect Transportation Delivery

There are no regular severe weather concerns in Iredell County, and the County generally enjoys a good network of roadways. However, there are infrastructure constraints in the southern most part of Iredell County that impact the travel times of ICATS vehicles that serve this area.

Heavy congestion occurs on Interstate 77, especially in the Mooresville area. This is a result of Interstate 77 being a four lane highway (two lanes in each direction) through Iredell County, and the large number of Charlotte Metro commuters traveling during the peak periods. Based on NCDOT Traffic Survey Map for 2009, Interstate 77 carried an average daily traffic (ADT) count of 83,000 vehicles per day south of Williamson Road and 53,000 vehicles per day in the vicinity of Charlotte Highway (Highway 21) at Exit 33. Traffic collisions are not uncommon on Interstate 77. A majority of crashes are a result of the heavy stop and go traffic during peak travel times.



Iredell County Community Transportation Services Plan Final Report

Local commuters are inclined to use alternate routes, specifically Charlotte Highway (US 21) and Mecklenburg Highway (NC 115), when conditions deteriorate on Interstate 77. The increased numbers of vehicles on the local roadway network result in longer travel times for ICATS vehicles when events like this occur.

Areas of Mooresville seem to have the highest congestion, especially the peninsulas around Lake Norman. Comments made during the surveying of agency representatives, transit riders, and employees indicate that transports traveling on Brawley School Road need more scheduled time. Based on the NCDOT Traffic Survey Map for 2009, Brawley School carried an average daily traffic (ADT) count of 23,000 vehicles per day. Since there are few alternate routes for Lake Norman traffic to utilize, traffic conditions on Brawley School Road tend to break down. The daily traffic congestion greatly impacts the ICATS vehicles that serve this area. It should be noted that future conditions may improved as a result of infrastructure improvements under construction by NCDOT. Brawley School Road is being widened to a four-lane median divided facility from Chuckwood Road to Talbert Road and an interchange at Interstate 77 is being constructed.

Mitchell Community College's annual academic calendar is one seasonal issue that ICATS should consider. A drop in ridership is anticipated during the Summer Semester which typically runs from mid-May to the beginning of August.

G. Normative Transportation Needs of the Service Area

In addition to examining demographic characteristics of the region that impact transit demand, this study includes a transit needs assessment that projects the potential number of transit trips that could be provided in the region. This figure is then compared to the current number of transit trips provided to determine the level of "unmet needs".

The methodology described in *Transit Cooperative Research Program (TCRP) Report 3 "Workbook for Estimating Demand for Rural Passenger Transportation"* was used to project transit demand and needs for Iredell County. There is an important distinction between need and demand. "Demand" is defined as the number of passenger trips that are likely made over a given period within a given geographic area for a give price and level of service. On the other hand, "need" refers to the desire for transit service regardless of whether or not the service is actually available. The *TCRP* methodology was designed to predict demand, rather than need. However, the procedure was modified for this study to provide some guidance on overall need as well an assessment of current service as it relates to the predicted demand. For this project, assessing need is an important element in developing strategies to enhance mobility opportunities for residents of Iredell County.

The *TCRP* methodology predicts demand for "program" and "non-program" transit trips in rural areas. "Program" trips are provided to directly support specific human service agency programs, such as congregate meals and sheltered workshop programs. "Non-program" demand includes all other trips, such as general public trips and medical trips. Recognizing that transit providers in Iredell County already contract with local human service agencies to provide program-specific trips, it is assumed that the transit systems work directly with the agencies to meet the programs' transportation needs. Therefore, most of the unmet needs will fall under the heading of "non-program" trips, and these trips received the focus of this analysis.



**Iredell County Community Transportation Services Plan
Final Report**

This methodology specifies that demand for non-program trips is predicted as a function of the following elements:

- The size of the three population groups most likely to use a rural / small urban transit service (the elderly, persons with disabilities, and persons in poverty);
- The size of the service area; and
- The amount of service available.

The TCRP demand model uses specific equations to predict demand for each of the three key population groups listed above, based on detailed data from a sample of 39 rural counties across the country (*TCRP Report 3*).

Demand for transit in Iredell County was assessed by calculating the predicted non-program ridership using the current levels of service and comparing these figures to the actual levels of current ridership for both systems. This comparison provides insight into the extent to which the systems are already meeting the likely demand for transit. The table below shows the projected level of demand (in terms of ridership) and current ridership figures. This analysis is conducted based on the demographics of Iredell County as a whole.

Predicted Transit Demand Compared to Actual Ridership

| | |
|---|--|
| Predicted Demand (annual passenger trips) | 247,565 ⁽¹⁾ passenger trips |
| Actual Ridership | 70,691 ⁽²⁾ passenger trips |
| Actual Ridership as Percentage of Predicted Demand | 29% |

(1) Calculated from TCRP model

(2) Includes “non-contract trips” plus “Medicaid trips” from ICATS FY 2009 Operating Statistics report

Calculations for potential transit demand in Iredell County are based on the existing levels of transit service provided. Although some variation between predicted values and actual values is to be expected, systems with significant differences between predicted and actual levels of ridership can be examined further to assess why these differences occur. The number of non-program transit trips provided in Iredell County is slightly above the predicted figures based on the demographics of the county and the amount of service provided by the two systems.

In addition, transit needs in the county were examined by calculating the predicted non-program ridership associated with the highest level of transit service that could reasonably be offered. Transit ridership will increase as the level of service increases; however, there is a “point of diminishing returns” beyond which any additional service will net few additional riders. For this analysis, this maximum level of service was identified as the maximum amount of service (in terms of annual vehicle miles of service per square mile of service area) that was provided by the 39 counties in the sample data set for the original *TCRP Report 3* project. The level of need was calculated as the number of passenger trips that could be provided in the county (as a whole) if the “best” level of service were provided. These figures were then compared to current ridership data, with the difference being an indication of the level of “unmet need”.

An estimate of need was calculated assuming a significantly higher level of service than currently provided by ICATS. In effect, this analysis attempts to predict ridership if transit service were provided at a high level of service that makes it truly convenient and accessible to



**Iredell County Community Transportation Services Plan
Final Report**

everyone. Comparing this theoretical maximum ridership to the current level of ridership provides insight into how well the systems are meeting the potential transit needs in the region. The table below shows the projected level of need (in terms of ridership) alongside current ridership figures.

Estimated Need Compared to Actual Ridership

| | |
|---------------------------------------|--|
| Actual Ridership | 70,691 ⁽¹⁾ passenger trips |
| Estimated Need | 553,554 ⁽²⁾ passenger trips |
| Percent of Estimated Needs Met | + 13% |

(1) Includes “non-contract trips” plus “Medicaid trips” from ICATS FY 2009 Operating Statistics report

(2) Calculated from TCRP model

The calculations produced above must be viewed in the proper context. In most cases, due to financial and other constraints, it is unrealistic to expect that most rural transit systems can meet 100% of the “estimated need” as calculated above. Meeting the entire need would require a transit system that has an extremely high level of service that is significantly higher than what is typically provided by rural and small urban transit systems. Therefore, it is inappropriate to suggest that meeting 100% of the potential need is a viable goal for most transit systems. However, these calculations do provide a frame of reference for assessing the level of unmet transit needs in an area, and can be used for policy decisions regarding efforts to provide additional services (for example, identifying financial resources that would be needed to enable a system to meet 50% of the potential needs).

Recognizing these caveats, this analysis suggests that there is a clear need for additional transit services in Iredell County.

H. Summary of Findings

There is a clear need for transit service in Iredell County, especially employment and medical trips. Comments made during the surveying of agency representatives, transit riders, and employees indicates that ICATS concentrate on providing reliable service within Iredell County for these trip types. These theoretical findings clearly support ICATS’ current performance in providing a significantly higher number of trips than is provided with similar size of fleets in other counties. The requests for transportation continue to grow, and are likely to continue to grow as gas prices escalate.

The data presented in this section shows that a stronger connection between Iredell and Mecklenburg Counties (for commute trips to Mecklenburg County) would be advantageous. As the number of trips to Mecklenburg County grows, there may be future opportunities for ICATS to build upon its relationship with Mecklenburg County Transportation Service (MCTS) and CATS, perhaps using NCDOT funding sources for commute trips that have not been previously used for CATS-operated service between Iredell County and Mecklenburg County.

Available data from the Census was used to create GIS-based illustrations of areas of concentration of low-income, disabled, minority and elderly households. These graphics helped to identify areas of the county that have high concentrations of households that may have limited transportation options. Based on the maps in this section, Downtown Mooresville has a



Iredell County Community Transportation Services Plan Final Report

large number of individuals that may have limited transportation options. These individuals are provided with the opportunity to reserve a trip through ICATS' demand response service. ICATS provides demand response service to/from any geographic area within Iredell County every weekday, unlike some transit systems that may place restrictions on when and where demand response service is available (e.g. a particular zone may only receive service two or three days a week). There are no geographical restrictions.

Downtown Statesville appears to have the most "transit-need" population based on the demographic maps. ICATS offered a weekday deviated-fixed route service in Statesville, 'Ride the Loop', but the service only generated 13 passenger trips per day (based on the annual average). This rate is much lower than an average ICATS vehicle generates for daily demand response service. As a result, 'Ride the Loop' was reduced to service only on Monday, Wednesday and Friday service effective January 1, 2011. If ridership continues to be low, then ICATS should discontinue the service and use those resources elsewhere. The "transit-need" population in Downtown Statesville will continue to have door-to-door weekday service to anywhere in the county through the demand response service, plus the additional operator and vehicle should help to increase the ICATS overall efficiency.

3.2 COORDINATION OPPORTUNITIES

A. Other Transportation Providers or Volunteer Groups Providing Transportation Service

Two taxi companies have been in business for many years in Statesville. During the interview with Department of Social Services representatives, it was learned that many years ago, prior to ICATS' inception, one of the companies was used for late night services.

Phone inquiries to the cab companies revealed that one operates only during normal weekday business hours. The second company, while initially seemingly interested in contracting for after-hours services to ICATS, became disinterested when the vehicle safety standards, drivers' requirements, and associated expenses for compliance were explained.

The local Veterans of Foreign Wars (VFW) and Statesville churches have members that volunteer their time to provide individual transports to affiliates and churchgoers who need rides to medical appointments and businesses that support life-sustaining activities. Having learned that ICATS makes regularly scheduled trips to the Veterans' Administration Hospital in Salisbury, the VFW has begun utilizing ICATS' services and has greatly reduced the number of its out-of-county transports.

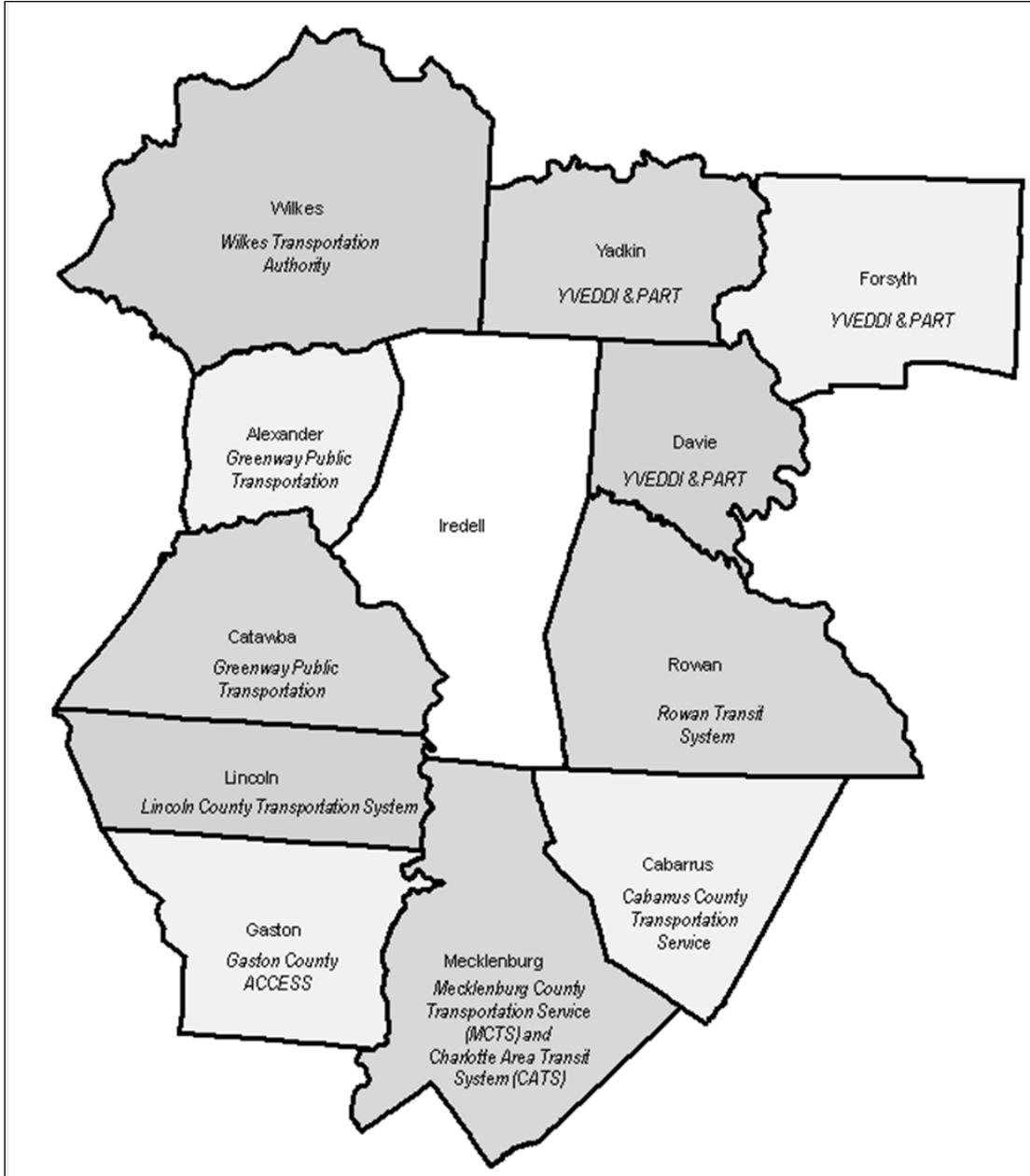
B. Other Transportation Providers in Bordering Counties

Iredell County has nine (9) bordering counties with seven NCDOT Public Transit Division-supported Community Transportation Provider systems and one established regional provider. The map below indicates the relationship of ICATS to its neighboring providers.



**Iredell County Community Transportation Services Plan
Final Report**

Neighboring Transportation Providers





**Iredell County Community Transportation Services Plan
Final Report**

C. Regional or Intercity Service that Needs Local Connector Services

Greyhound Bus recently began offering service to 1392 Shelton Avenue in Statesville. Limited service to/from Charlotte, Raleigh and Asheville is now available daily.

In addition to the Greyhound service, the closest connections to the intercity bus services operated by Coach America and funded by NCDOT-PTD are Lincolnton and Hickory to the west (Mountaineer Express) and Charlotte (Queen City Connector) to the south. The Mountaineer Express serves Boone, Lenoir, Hickory, Lincolnton, Gastonia and Charlotte. The Queen City Connector serves Charlotte, Monroe, Wadesboro, Rockingham, Laurinburg and Fayetteville. To the east in Salisbury is both a Greyhound Bus and Amtrak Rail station. Amtrak Rail serves other NC and major destinations.

D. Coordination Opportunities

ICATS and Mecklenburg County Transportation System (MCTS) have already established coordination of rides for Iredell County citizens that want and need to go to Charlotte and other destinations in Mecklenburg County. ICATS transports its citizens to a designated location (Exxon gas station) in Davidson where the ICATS passengers board a MCTS vehicle to continue south on Interstate 77 to their intended destinations.

YVEDDI, provider for Yadkin and Davie Counties, currently coordinates with PART's services (Routes 13 and 14, Yadkin County Express and Davie County Express respectively) for its riders to reach Forsyth Medical Center and Wake Forest University Baptist Medical Center. ICATS does not currently coordinate with YVEDDI because the majority of current riders' physicians are either located in the county or in Mecklenburg County. However, changes do happen throughout time; and coordination opportunities, such as meeting YVEDDI vehicles at designated locations on Interstate 40, are viable.

RCTS (Rowan County) administrators periodically have conversations with ICATS regarding coordinated rides of its citizens, specifically those residing on the west side of Salisbury along the Highway 70 corridor. RCTS currently services this area two days a week, and citizens schedule their trips into town accordingly. However, should RCTS' operating schedule change in the future, ICATS vans, particularly the one traveling to the VA Hospital, may be able to accommodate Rowan County residents.

WPRTA (Western Piedmont Regional Transit Authority, d/b/a 'Greenway Transit') is the transportation provider for both Alexander and Catawba Counties, west of Iredell County. Rarely do these counties' residents have needs within Iredell County because medical services are normally received at medical facilities located towards Charlotte. Hickory is the most frequent destination for non-medical related trips (i.e. shopping and entertainment).

Wilkes and Lincoln Counties' administrators provided information on their services. Rarely do either WTA (Wilkes Transportation Authority) or TLC (Transportation of Lincoln County) have Statesville as their intended destinations. TLC, traveling one or two times a week (Monday and Wednesdays) using Highway 150 and Interstate 77, goes to Lake Norman Regional Medical Center or the medical offices of specialists in Mooresville. Possibilities exist to connect with ICATS vehicles in Mooresville.



**Iredell County Community Transportation Services Plan
Final Report**

E. Coordination Opportunities Related to Regional Medical Service

As previously stated, MCTS-coordinated rides include transports to the following medical facilities: Presbyterian Hospital in Huntersville; Carolinas Healthcare System's facility in Cornelius; and Carolinas Medical Center in Charlotte. While it is infrequent, ICATS has transported MCTS' passengers to Lake Norman Regional Medical in Mooresville and Davis Regional Hospital in Statesville. These hospitals are shown on the map of major medical centers in Section 3.1 A.

F. Potential Park and Ride Services

As previously stated, quite a number of Iredell County's residents commute out-of-county to work, and a number of vanpools administered by both PART and CATS operate in Iredell County. With regard to vanpools administered by PART, a minimum of five riders is required to start one. As long as the riders' origin or destination is within PART's ten county service area, equipment can be made available. Several vanpools already exist in Statesville, as evidenced by vehicles bearing the PART logo parked in lots on weekends.

For commutes headed south to Mecklenburg County, former CATS park and ride lots (such as the Brawley School Road area) should be considered as pick-up locations for future vanpools and carpools. While the majority of commutes are destined for Mecklenburg County, other persons may commute to the medical center in Forsyth County. Establishment of a park and ride immediately off of either Interstate 77 North or Interstate 40 East (possibly on Highway 64) is a logical place for car or vanpools to meet. Determination of sites should be based on easy access to and from the interstates to expedite the trip; safety and security of the riders and their unattended vehicles when parked during the day; and accessibility to the persons or public transit providers that may transport the riders to meet the vanpool.

Although the service does not currently exist, it is not out of the realm of possibility in four to five years that ICATS could offer 'carpool match' services. The primary requirements would be a fully operative telephone system and the labor required to respond to callers interested in acquiring a 'carpool buddy' or joining a ridesharing program that already exists. The aspect of a regional Mobility Manager position should be considered, particularly since NCDOT-PTD is promoting regionalization of transit services.



4.1 ADMINISTRATION AND MANAGEMENT OF THE TRANSIT SYSTEM

A. Assess the Mission and Goals of the Organization

This task is previously covered under Item 1.2 A.

B. Existing Policies That Negatively Affect Performance and Customer Service

ICATS maintains a comprehensive set of well-implemented service policies. One policy that merits attention is the agency's "no-show" policy.

When a passenger fails to present him/herself for a scheduled ride, i.e. 'No Show' there is lost productivity of the equipment and potentially ineffective routing because the No-Show passenger's pick-up location is distant from other riders' locales. Passengers that may be onboard the vehicle are somewhat inconvenienced but, more important, are dissatisfied because they view the occurrence as 'lost time' from a more timely arrival at their intended destinations. The latter may or may not be true, but passengers' perception is often the determining factor in evaluating ICATS' level of customer service.

When a passenger incurs a 'No Show' incident for the first portion of a scheduled trip, the Dispatcher should automatically enter in the RouteMatch database that the second portion is a cancelled trip or 'cancellation'. The assigned Operator's manifest should then be modified to optimize the existing route directions or, more cost effectively, assigns another passenger to the vacancy created by the cancellation.

Besides the loss of productivity to ICATS, No Show incidents create financial losses to the human service contracting agencies that request the transportation. This is because ICATS gets paid the full cost of a ride even though the passenger does not actually ride. In October 2010, the Work First program scheduled 834 rides for its clients. One hundred ninety-one (191) incurred 'no shows'. The same program had 799 cancellations, but the Department of Social Services did not pay for these.

C. Transit System's Annual Budgeting and Spending

Information on recent trends in revenues and expenses for ICATS is provided in this section. All data is taken directly from NCDOT Operating Statistics reports.

Administrative and Operating Revenue

ICATS has experienced relative stability in its administrative and operating revenues in recent years. The minimal amount of local assistance provided has been stable. The following table shows the Administrative and Operating Revenue for ICATS over the last three years.



**Iredell County Community Transportation Services Plan
Final Report**

Administrative and Operating Revenue

| Revenue | FY2007 Data | FY2008 Data | FY2009 Data |
|--|--------------------|--------------------|--------------------|
| Federal Assistance - Section 5311 - CTP Funds – Administrative | \$174,726 | \$178,064 | \$198,742 |
| Federal Assistance - Section 5311 - CTP Funds – Operating | \$0 | \$0 | \$0 |
| Federal Assistance - Section 5316 - JARC Funds | \$32,730 | \$28,550 | \$5,317 |
| Federal Assistance - Section 5317 - New Freedom Funds | \$0 | \$0 | \$0 |
| Federal Assistance - Other | \$0 | \$0 | \$0 |
| State Assistance - CTP Funds – Administrative | \$10,920 | \$11,129 | \$12,421 |
| State Assistance - ROAP Funds - Suballocated to the Transit System | \$247,547 | \$276,238 | \$306,042 |
| State Assistance - Other | \$0 | \$0 | \$0 |
| Local Assistance - Administrative Funds | \$0 | \$0 | \$0 |
| Local Assistance - Operating Funds | \$80,000 | \$80,000 | \$80,000 |
| Contract Revenue | \$631,779 | \$646,882 | \$697,020 |
| Fares/Donations from passengers | \$68,914 | \$78,360 | \$77,613 |
| Proceeds from Sale of Vehicle(s) - (used for Admin or Operating only) | \$8,892 | \$20,159 | \$0 |
| Interest Income | \$5,994 | \$7,750 | \$772 |
| Advertising Revenue | \$0 | \$0 | \$0 |
| Other Revenue | \$58,515 | \$61,155 | \$0 |
| Subtotal Revenue | \$1,320,017 | \$1,388,287 | \$1,377,927 |
| Debit to Revenue - Unspent ROAP Funds (suballocated to Transit System) | \$0 | \$0 | \$0 |
| TOTAL | \$1,320,017 | \$1,388,287 | \$1,377,927 |

Capital Revenues

ICATS has had relatively consistent levels of capital investments in recent years, mainly for vehicle purchases. In FY2008, a substantial investment was made to purchase advanced technology equipment. The “Other” line item in FY2009 for \$29,463 was derived from mileage surcharge since ICATS did not receive matching funds from the county.

Capital Revenue

| Capital Revenue | FY2007 Data | FY2008 Data | FY2009 Data |
|---|------------------|------------------|------------------|
| Revenue - Capital - Vehicles & Others (Federal/State) | \$109,064 | \$201,212 | \$248,291 |
| Revenue - Capital - Facility (Federal/State) | \$0 | \$0 | \$0 |
| Revenue - Capital - Advanced Technology (Federal/State) | \$0 | \$141,322 | \$15,702 |
| Revenue - Capital - Capital Funding (Local) | \$0 | \$0 | \$0 |
| Revenue - Capital - Insurance Proceeds from Accident | \$15,686 | \$2,996 | \$8,577 |
| Revenue - Capital - Proceeds from Sale of Vehicle (used for capital only) | \$0 | \$0 | \$0 |
| Revenue - Capital - Other | \$4,433 | \$0 | \$29,463 |
| TOTAL | \$129,183 | \$345,530 | \$302,033 |



**Iredell County Community Transportation Services Plan
Final Report**

Administrative and Operating Expenses

The system's administrative and operating expenses have remained stable in recent years. Administrative expenses have remained within a narrow range.

Administrative and Operating Expenses

| Expense | FY2007 Data | FY2008 Data | FY2009 Data |
|--|------------------------|------------------------|------------------------|
| Expenses - Administrative - Personnel Salaries & Fringes - CTP Object Codes G121 to G189 | \$149,125 | \$154,140 | \$165,587 |
| Expenses - Administrative - Advertising and Promotion - CTP Object Codes G371 to G373 | \$4,150 | \$1,050 | \$0 |
| Expenses - Administrative - Employee Development - CTP Object Code G395 | \$1,100 | \$769 | \$513 |
| Expenses - Administrative - Vehicle Insurance Premiums - CTP Object Code G452 | \$32,277 | \$35,187 | \$35,187 |
| Expenses - Administrative - Indirect Services - CTP Object Code G481 | \$8,380 | \$10,419 | \$11,760 |
| Expenses - Admin - CTP Codes G190toG359; G380toG394; G396toG451; G454toG480; G482toG491 | \$23,375 | \$21,015 | \$35,380 |
| Expenses - Administrative - Other Admin Expense (provide description on Line 138) | \$46,735 | \$49,718 | \$19,129 |
| Subtotal Administrative Expenses | \$265,142 | \$272,298 | \$267,556 |
| Expenses - Operating - Driver Salaries & Fringes | \$708,174 | \$771,691 | \$800,810 |
| Expenses - Operating - Other Operating Staff Salaries & Fringes | \$0 | \$0 | \$0 |
| Expenses - Operating - Mechanics Salaries & Fringes | \$0 | \$0 | \$0 |
| Expenses - Operating - Indirect Services | \$0 | \$0 | \$0 |
| Expenses - Operating - Fuel/Oil | \$167,130 | \$236,499 | \$172,823 |
| Expenses - Operating - Vehicle Maintenance | \$38,548 | \$39,180 | \$46,399 |
| Expenses - Operating - Payment of Insurance Deductible(s) | \$0 | \$0 | \$0 |
| Expenses - Operating - Disposal of Vehicle(s) | \$0 | \$0 | \$0 |
| Expenses - Operating - Management/Operation Services | \$0 | \$0 | \$0 |
| Expenses - Operating - Volunteer Reimbursement | \$0 | \$0 | \$0 |
| Expenses - Operating - Other Transit Provider Services | \$1,235 | \$2,205 | \$1,375 |
| Expenses - Operating - Other | \$43,373 | \$62,868 | \$32,448 |
| Subtotal Operating Expenses | \$958,460 | \$1,112,443 | \$1,053,855 |
| Credits to Expense - i.e. gas tax refunds, sales tax refunds | \$2,198 | \$0 | \$0 |
| TOTAL | \$1,221,404 | \$1,384,741 | \$1,321,411 |

D. Fully Allocated Cost Model

To compare the fares charged versus the actual cost incurred, the following scenario was considered. Based on financial information contained in the NCDOT Operating Statistics reports, ICATS incurred \$1,321,411 in total annual administrative and operating expenses during FY2009. Currently, local human service agencies contract with ICATS to provide service at a cost of \$1.4209 per shared service mile. Based on the FY2009 Operating Statistics reports,



**Iredell County Community Transportation Services Plan
Final Report**

ICATS ran an annual total of 800,617 service miles. Considering those service miles to be billed at the same rate of \$1.4209, then ICATS could theoretically have charged \$1,137,596.70 (roughly 86% of the cost incurred in FY2009). Under this scenario, the fares charged seem to be reasonable considering that ICATS service is also funded by other sources including the Job Access and Reverse Commute (JARC) program and Rural Operating Assistance Program (ROAP) funds. ROAP funds cover the cost or a portion of the cost to transport elderly and disabled citizens, general public and low-income individuals traveling to employment opportunities. In addition, the fares charged seem appropriate considering that ICATS reported a small surplus in FY2009 that was placed in reserve.

The fully-allocated cost for ICATS was calculated based on the most recent revenue, expense, and operating data from the system overview. Based on the calculated costs, unit costs and a fixed cost factor were determined.

Cost Allocation Formula

| Iredell County Area Transportation System | Total Cost | Variable Costs | | Fixed Costs |
|---|------------|----------------------------|---------------------------|------------------|
| | | Vehicle Hours | Vehicle Miles | |
| FY 2009 | | | | |
| Expenses - Administrative - Personnel Salaries & Fringes | \$165,587 | | | \$165,587 |
| Expenses - Administrative - Advertising and Promotion | \$0 | | | \$0 |
| Expenses - Administrative - Employee Development | \$513 | | | \$513 |
| Expenses - Administrative - Vehicle Insurance Premiums | \$35,187 | | | \$35,187 |
| Expenses - Administrative - Indirect Services | \$11,760 | | | \$11,760 |
| Expenses - Admin – Misc. | \$35,380 | | | \$35,380 |
| Expenses - Administrative - Other Admin Expense | \$19,129 | | | \$19,129 |
| Expenses - Operating - Driver Salaries & Fringes | \$800,810 | \$800,810 | | |
| Expenses - Operating - Other Operating Staff Salaries & Fringes | \$0 | | | \$0 |
| Expenses - Operating - Mechanics Salaries & Fringes | \$0 | | \$0 | |
| Expenses - Operating - Indirect Services | \$0 | | | \$0 |
| Expenses - Operating – Fuel | \$172,823 | | \$172,823 | |
| Expenses - Operating - Vehicle Maintenance | \$46,399 | | \$46,399 | |
| Expenses - Operating - Payment of Insurance Deductible(s) | \$0 | | \$0 | |
| Expenses - Operating - Disposal of Vehicle(s) | \$0 | | | \$0 |
| Expenses - Operating - Management/Operation Services | \$0 | | | \$0 |
| Expenses - Operating - Volunteer Reimbursement | \$0 | | \$0 | |
| Expenses - Operating - Other Transit Provider Services | \$1,375 | | \$1,375 | |
| Expenses - Operating – Other | \$32,448 | | | \$32,448 |
| TOTAL COSTS | | \$800,810 | \$220,597 | \$300,004 |
| Annual Operating Statistics | | 36,789 | 564,716 | |
| Unit Cost | | \$21.77 <i>per hour</i> | \$0.39 <i>per mile</i> | |
| Fixed Cost Factor | | | | 1.29 |



**Iredell County Community Transportation Services Plan
Final Report**

E. Availability of Financial Reserves

Based on financial information contained in the NCDOT Operating Statistics reports, ICATS has reported operating reserve surpluses, some larger than others, over the past three years. The table below shows the reported operating reserve for ICATS. This contribution has been made to an operating reserve fund.

| Financial Reserve | |
|--------------------------|------------------|
| Operating Year | Reserve |
| FY2007 | \$98,613 surplus |
| FY2008 | \$3,546 surplus |
| FY2009 | \$56,516 surplus |

F. Local Financial Assistance Provided

Iredell County has a history of providing in-kind services (e.g. the telephone system and website support) to ICATS. ICATS typically does not require a significant direct contribution from Iredell County. Due to the existing financial strain of the waning economy, the local government was unable to provide local financial assistance to ICATS during FY2010.

G. Local Constraints or Barriers the Transit System Faces

Iredell County resources are stretched during these challenging economic times, and as a result ICATS is seeing decreased direct financial support from Iredell County. Historically, the County has provided support for public transportation, evidenced by the financial resources and in-kind services afforded to ICATS. Some counties (particularly larger urban counties) have recognized that the local transit systems can only provide more service with a dedicated source of funding. Thus, a small increase in the annual cost of vehicle registration fees and/or local sales taxes has been allowed as a permissible funding source for transit services. This may not be viewed as viable option for ICATS due to the conservative nature of Iredell County and economic conditions over the past few years.

Comments made during the surveying of agency representatives, transit riders, and employees indicate that ICATS is seeing a surge in ridership during the peak periods. Most of these riders are traveling to employment opportunities. These trips benefit the individual riders, the community (unemployment goes down), and it is a great source of revenue for the system. However, ICATS has a limited number of resources to accommodate these trips within a small window of time. Constant demand during the peak periods can erode the quality of service (i.e. patrons arrive to work or their appointments late).

Personnel matters have challenged ICATS during the past several years because increased demands for service have required adequate staffing levels, particularly part-time employment. Employment processes established by Iredell County’s Human Resources Department have consumed the ICATS Administrator’s time in adhering to the procedures that must be followed for hiring or terminating drivers and personnel. While understandable that the County is



Iredell County Community Transportation Services Plan Final Report

cautious in handling personnel matters that could result in litigation, the effects in delaying Human Resources decisions can and do adversely affect the overall ICATS operations.

When a job position vacancy occurs at ICATS, normally involving Vehicle Operators, the County's HR Department will be notified of the vacancy and the employment process to backfill the position begins. The vacant position is announced via internal job postings for ten (10) days for bid by incumbent County employees. Advertisements in the newspapers of Statesville and Mooresville may occur, based upon the number of job applications received. The average time required in employing and training a replacement Bus Operator can range from two weeks to two months. Staff position vacancies take even longer to fill because it is more difficult and time consuming to find applicants that possess the required technical skills.

H. Marketing Strategies Used to Promote Transit Services

Through the years ICATS has not had to actively market its services because the majority of the transports have been provided to 'captive audiences', specifically health and human service agencies whose programs' successes are reliant upon having ICATS transport its clients.

For advertising and promotion, ICATS spent \$1,050 in FY2008 and \$4,150 in FY2007. Paid advertisements promoting services took both written and verbal form. In 2007, ICATS purchased radio and newspaper advertisements. Marketing efforts were reduced in 2008 because it was considered to have little impact. With the current volume of daily trips that ICATS facilitates, it is not essential to pursue a larger-scale marketing effort at this time. Doing so, without additional staffing resources to accommodate more trip requests may overwhelm the system and further degrade the quality of service provided. However, marketing services may become an important effort in future years.

Brochures

Brochures are excellent educational tools for first-time riders. Four brochures are produced in-house by ICATS detailing demand response, 'Ride the Loop', Mitchell Community College Shuttle and Veterans Hospital Shuttle services. These 8-1/2" x 11" multi-color brochures are included in the Appendix. It is recommended that links to these brochures could be posted on ICATS websites. If service for 'Ride the Loop' continues, it would be helpful to potential and/or first-time riders if a map were included in that brochure.

The American Public Transportation Association (APTA) honors members' marketing and communications efforts with the AdWheel Awards. The following two maps won APTA AdWheel Awards for 2009, and offer examples of ideas to consider for future map and bus schedule publications to promote service.



Iredell County Community Transportation Services Plan Final Report



welcome

Thank you for choosing Metro Transit. We're excited to have you on board. For more information, visit www.metrotransit.com or call 743-743-3853.

learning the system

Read our Metro Transit System Overview to learn more about our routes, fares, and services. Visit www.metrotransit.com for more information.

transfers

Learn more about our transfer options and how to use them. Visit www.metrotransit.com for more information.

phone numbers

Public & Customer Services: 743-743-3853
 Metro Transit: 743-743-3853
 Metro Transit: 743-743-3853
 Metro Transit: 743-743-3853

summer haul pass for kids Ages 9-18!

Learn more about our Summer Haul Pass and how to use it. Visit www.metrotransit.com for more information.

ticket purchase locations

Learn more about our ticket purchase locations and how to use them. Visit www.metrotransit.com for more information.

lost and found

Learn more about our lost and found services and how to use them. Visit www.metrotransit.com for more information.

schedule information

Learn more about our schedule information and how to use it. Visit www.metrotransit.com for more information.

operating hours

Learn more about our operating hours and how to use them. Visit www.metrotransit.com for more information.

online trip planning

Learn more about our online trip planning services and how to use them. Visit www.metrotransit.com for more information.

fare information

| | |
|---|---------|
| Basic Fare/Outside Adult fare | \$1.75 |
| Discounted Fare (Senior, Student, Youth) | \$0.85 |
| Zone Pass (Zone 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100) | \$1.00 |
| Adult 30-Day Ticket (Zone 1-10) | \$38.00 |
| Senior 30-Day Ticket (Zone 1-10) | \$17.00 |
| 31-Day Ticket (Zone 1-10) | \$33.00 |
| 31-Day Ticket (Zone 11-20) | \$39.00 |

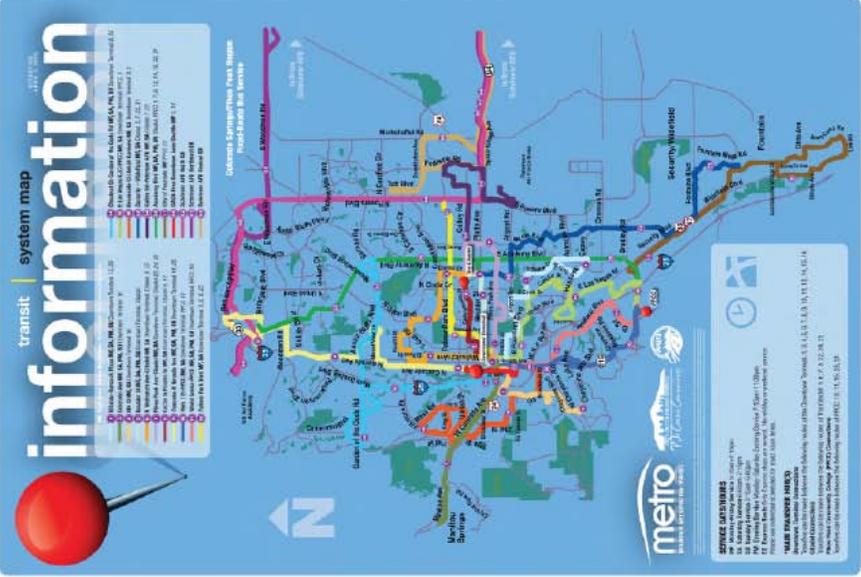
safety

Learn more about our safety services and how to use them. Visit www.metrotransit.com for more information.



information

Learn more about our transit system and how to use it. Visit www.metrotransit.com for more information.



how to ride the bus

Learn more about how to ride the bus and how to use it. Visit www.metrotransit.com for more information.

transit system map

Learn more about our transit system map and how to use it. Visit www.metrotransit.com for more information.

how to ride the bus

Learn more about how to ride the bus and how to use it. Visit www.metrotransit.com for more information.

385-RIDE (7433)

Learn more about our 385-RIDE (7433) service and how to use it. Visit www.metrotransit.com for more information.



Iredell County Community Transportation Services Plan Final Report

BUS ROUTES SERVING UWT

From North Tacoma:
11 Point Defiance
From Northeast Tacoma:
61 NE Tacoma
From East Tacoma:
41 Portland Ave
42 McKinley Ave
From South Tacoma:
1 6th Ave-Pacific Ave
48 Sheridan-M St
53 University Place
From Tacoma Mall:
48 Sheridan-M St
53 University Place
57 Tacoma Mall
From Parkland Spansway:
1 6th Ave-Pacific Ave
From University Place:
53 University Place
From Lakewood:
48 Sheridan-M St
From Hill/Federal Way:
500 Federal Way
From Milton-Federal Wy:
501 Milton-Federal Wy
From Gig Harbor:
102 Gig Harbor/Tacoma
From Puyallup/South Hill:
490 South Hill/Tacoma
From Puyallup/Bonney Lake:
582 Bonney Lk/Tacoma
From Univ. District Seattle:
586 Tacoma-U District
From Downtown Seattle:
590/594 Seattle Express
From Olympia:
603/603A Oly Express

253.381.8000
PERCEC TRANSIT
Way to go!
percectransit.org

KICK THE SOV. HABIT!
*SINGLE COASTAL VEHICLE

WASH STATE HISTORIC DISTRICT

UNIVERSITY OF WASHINGTON TACOMA
500 FEET

DOWNTOWN: On the go!

UWT BUILDING INDEX

- 1 MCDONALD
- 2 GARRETT & SMITH
- 3 CASHY
- 4 PHILIP HALL
- 5 WALSH GARDNER
- 6 GARRISON
- 7 BURNINGHAM BLOCK
- 8 BURNINGHAM BLOCK
- 9 JOY HALL
- 10 FACTORY
- 11 LIBRARY
- 12 KEVSTONE
- 13 TIOGA CENTER
- 14 LABORS
- 15 WANS SHORE
- 16 MENS WALL
- 17 COURT 17
- 18 CAMLTON
- 19 SCIENCE

P BUS STOP
P BUS ROUTE
B BIKE RACK



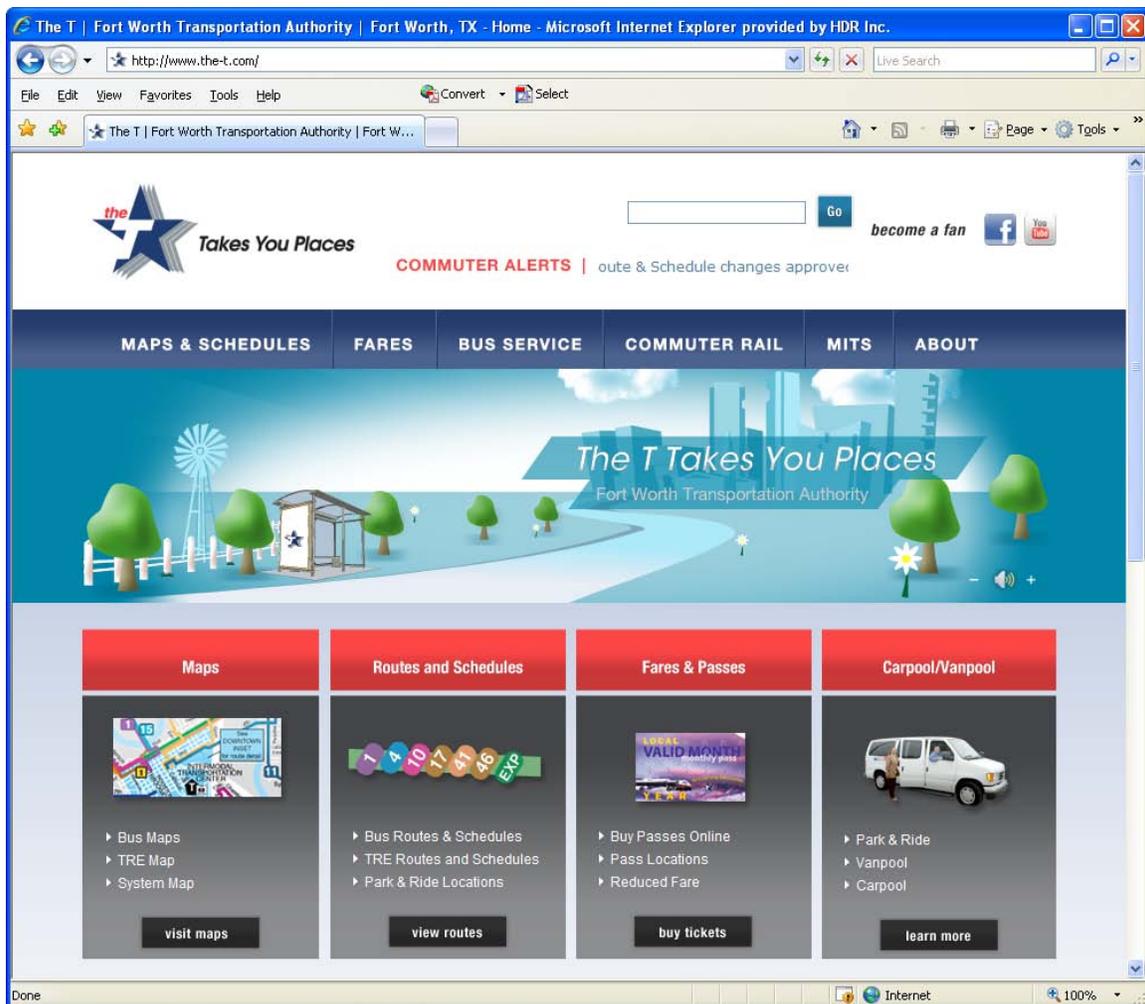
Iredell County Community Transportation Services Plan Final Report

Website

An in-kind offering from the County to ICATS is its website support. While basic service information and contact information is available on the website, improvements could be made to promote service. The website states in small print, "ICATS does want to make our public transportation system work for all of our citizens". However the slogan, "Anyone can Ride", is not on the page.

The website should be continuously updated to reflect changes in service. As modifications are made to the 'Ride the Loop' service, up-to-date information should be posted. Information about the Mitchell Community College shuttle should be included on the website, especially pick-up/drop-off locations, cost to ride, and departure times (if a standard fall/spring schedule is established in the future).

The website shown on the following page created by the Fort Worth Transportation Authority won an APTA AdWheel Award in 2009. It can be considered a good example of a transit website. This particular website can be viewed at <http://www.the-t.com>.





Iredell County Community Transportation Services Plan Final Report

Bus Advertising

The pros and cons of advertising on both the buses' exterior panels and within the cabins have been evaluated for years by many transit systems. On the positive side, advertising creates revenue. However, the most prevailing argument against bus advertising is the amount of money actually generated compared to the reduction in public image of the equipment and the cost for maintaining the advertisements to an acceptable condition. During this study's survey, ICATS' riders gave high marks for the fleet's condition and appearance. Applying exterior advertisements would, more than likely, result in a lower customer satisfaction rating and might even discourage 'choice riders' from using the service. Interior ads, often called 'cab cards' because these are installed in the cabins and are on card-stock paper, are not as visible to the general public; thus, they do not generate the same amount of revenue, usually much less, because only riders can view the advertisements. The number of potential buyers of interior space may be greater because of the lower cost.

Local officials would need to determine if the visual impacts of bus advertising are offset by the potential amount of revenue that would be received. Some rural transit providers have decided that the annual receipts are worth the effort. However, others have indicated that problems exist in maintaining the advertisements and getting paid for them. Many think that the time spent in administering and monitoring the overall program is prohibitive, particularly in a smaller market area. ICATS at one time did have vehicle advertising that was approved by the Board of Commissioners. However, the practice was discontinued when ICATS was not paid by the vendor who sold, produced, and installed the ads.

The transit provider would have to set policies regarding content for both interior and exterior advertisements. The Metropolitan Transit Commission that oversees CATS has policies of disallowing interior ads based upon the following: that are political in nature; that promote alcohol or tobacco use; that demonstrate poor taste; or that have a sexual connotation. The same holds true for Alamance County Transportation Authority's (ACTA) exterior ads. The policy, however, is less formal and was established by the transit administrator with concurrence of the Transit Advisory Board (TAB).

I. Assess Public Involvement Strategies of the System

ICATS in partnership with the United Way of Iredell County prepared the *Iredell County Community Involvement Plan* in May 2008, and public involvement was a key aspect of the plan. Beyond the preparation of this plan, ICATS does not typically hold public involvement meetings with the community to determine how well the needs of population groups are being met. Even so, comments made during the surveying of agency representatives, transit riders, and employees indicate that the ICATS has a history of good communication with the many different groups. Staff at local human service agencies feels comfortable calling ICATS to discuss their changing needs. The transit administrator has met with representatives at Mitchell Community College on several occasions to determine how to best serve their students and their ever-changing schedules.

ICATS is fortunate that TAB members offer valuable input and advice on unmet needs. ICATS is fortunate to have a diverse TAB, including limited English proficiency (LEP) representatives and representatives of minority, low-income, and homeless populations.



Iredell County Community Transportation Services Plan Final Report

The interim assistant transit director has been known to attend local festivals/fairs to talk to citizens about ICATS. This effort is focused on talking to current riders about their needs and to educate the general public about the service that ICATS provides. Similar efforts like this should continue in the future.

J. Coordinated Public Transit-Human Service Transportation Plan

ICATS has recently participated in the development of two transit coordination plans, including one completed in-house in 2007 and a regional plan completed by the Centralina Council of Governments in 2008.

Transit providers within the Lake Norman Rural Planning Organization (RPO), Cleveland, Gaston, Lincoln and Iredell Counties, participated in the development of the *Lake Norman Rural Planning Organization Coordinated Comprehensive Public Transportation Plan*. The focus of the study was to identify opportunities to coordinate and improve efficiency. The following needs pertinent to Iredell County were included:

- Dedicate public lots for car pools, van pools, and scheduled bus service pick up and drop off passengers.
- Develop Memoranda of Understanding between county transit providers to allow for transfers and for appropriate billing for transporting clients across county lines.
- Develop mobility coordinator position that can readily identify routes and services to provide transportation for client, regardless of client location or provider used.
- Increase van pools opportunities for workers and residents in the Study Area
- Place links of CATS and PART van pool programs on municipal web sites.
- Educate chambers of commerce, workforce development organizations, and employers about eligibility and process for existing area van pool programs.
- Place links to www.sharetheridenc.org on municipal, economic development, chamber of commerce, workforce development, and other relevant web sites.
- Better integrate demand response, local and express bus routes.

In May 2008, the ICATS prepared the *Iredell County Community Involvement Plan*. The United Way of Iredell County conducted a community needs survey which identified transportation as a considerable need, with medical/health transportation ranking highest. The plan made the following key recommendations:

- Funding for expansion of service;
- More drivers; bilingual staff; more vans; more staff (either paid or volunteer);
- Expanded in-county service hours;
- Expanded out-of-county medical trips;
- Improvements in on-time service performance, especially medical and employment; and
- Education and information improvements.



4.2 SERVICE ANALYSIS

A. Opportunities for Implementation of New Federal Programs

A combination of various grants along with federal, state and local commitments is needed to fund transit. Recently, several new and revamped federal funding programs have increased the availability for funding for transit, and these programs are viable for services in Iredell County. As recommendations and an implementation plan are developed, opportunities for use of the following rural funding sources will be considered:

- **Community Transportation Programs**
 - *Nonurbanized Area Formula Program (Section 5311)* - Funds capital, operating and administrative purposes. Maximum federal participation of 80% for administrative and capital costs. NCDOT matches 5% state funds for administrative costs and 10% for capital costs. Small urban fixed route systems and regional community transportation systems are eligible to apply for up to 50% of the net operating costs associated with general public routes.
 - *Rural Capital Program* - Provides up to 90% federal and/or state participation. Funds are for the purchase of vehicles, communications equipment and related capital equipment; the purchase or upgrade of computer equipment, file servers, software, printers, telephone systems, mobile data terminals, automatic vehicle locators and other technologies; and the purchase or renovation of facilities for administrative and/or operating use. Funds cover up to 90% of feasibility plan preparation, land acquisitions, design and construction costs.
 - *Human Service Transportation Program* - Funds the administrative costs associated with the transportation of consolidated human service transportation systems and systems operating in urbanized area counties where a consolidated countywide transit system does not exist. Provides up to 85% of eligible costs.
- *Elderly and Persons with Disabilities (Section 5310)* - Funds capital projects. Most funds are used to purchase vehicles, but acquisition of transportation services under contract, lease or other arrangements and state program administration are also eligible expenses.
- *Regional and Intercity Program* - Funds intercity bus service in underserved areas of North Carolina that connect to the national intercity network. Also provides state funds for Travelers' Aid programs that assist homeless, stranded or indigent travelers with their intercity transportation needs through the purchase of bus tickets. Provides up to 50% of net operating costs.
- *Rural Operating Assistance Program (ROAP)*
 - *Elderly and Disabled Transportation Assistance Program (EDTAP)* - Provides operating assistance for the transportation of the state's elderly and disabled citizens. Funds up to 100% of cost of service.
 - *Rural General Public Program* - Funds community transportation systems that serve the general public in the state's rural area. Provides up to 90% of cost of service.
 - *Employment Transportation Assistance Program* - Funds transportation service to employment for low-income individuals. Also supports the N.C. Rural Vanpool Program. Provides up to 100% of cost of service.



Iredell County Community Transportation Services Plan Final Report

- *Rural Planning Program* - Funds training, technical assistance, research and related support activities. Maximum of 100% federal participation.
- *Rural Transit Assistance Program (RTAP) (Section 5311(B)(2))* - Funds training, technical assistance, research and related support activities. Maximum of 100% federal participation.
- *Job Access and Reverse Commute (JARC) (Section 5316)* - Funds new transit service to assist welfare recipients and low-income individuals with transportation to jobs, training and child care.
- *New Freedom Program (Section 5317)* - Funds new transportation services and public transportation alternatives beyond those required by ADA to assist persons with disabilities in both urban and rural areas.
- *Public Transportation Grant Program* – Matches NCDOT statewide grants and local federal capital and planning grants. Also funds the Apprentice and Intern Programs and the Transportation Demand Management Program. Program funds short-term demonstration projects and those ineligible for federal funding.

Iredell County government supports ICATS and has designated it as the 'lead agency' for transportation in the County, thereby making ICATS responsible for receiving community transportation grants. ICATS is currently a recipient of two JARC grants, one supporting the shuttles between the Mitchell Community College campuses in Statesville and Mooresville for displaced workers returning to college, and employment trips between the hours of 8:00 am and 5:00 pm. The other grant funds early morning trips between 5:00 am and 8:00 am as well as late evening employment trips, traveling to Mt. Mourne and Mooresville to pick up Lowe's Corporation employees.

From July 1 to October 31, 2010, 63% of ICATS' transports were subsidized by JARC and RGP funding programs. Twenty (20%) percent of the rides (10,784 of the total of 54,142 one-way trips) were for employment. This market is the one that has shown the most dramatic increase during the past several years and is quite possibly where ICATS administrators' focus will be in the future. The difference, however, is that Iredell County citizens have diminishing opportunities for sustainable employment within the County and must travel to neighboring counties for higher paying jobs. Trips to Mecklenburg and Forsyth Counties are becoming more common. Due to traffic impediments on Interstate 77, a potential limited stop or express route from Statesville to Charlotte is worth considering.

B. Alternative Service Delivery Strategies

Transit services can be provided in a wide variety of forms, such as vanpools, park-and-ride lots and express service. Vanpools were previously discussed in Section 3.1A. Park-and-ride lots and express service was previously discussed in Sections 3.1A, 3.2D, and 3.2F.

C. Coordination of Trips Among Other Counties

This task is previously covered under Sections 3.2B, 3.2C, and 3.2D.



Iredell County Community Transportation Services Plan Final Report

D. Opportunities to Provide Transportation Service to Any Unserved or Underserved Areas

ICATS provides demand response service to/from any geographic area within Iredell County every weekday, unlike some transit systems that may place restrictions on when and where demand response service is available (e.g. a particular zone may only receive service two or three days a week). There are no geographical restrictions for destinations within the county.

If funding becomes more constrained in the coming years, then modifications to general public service may need to be considered. One alternative to cover a potential gap in funding may be to modify existing service to focus more on zone-based operations. As seen in peer systems, geographical restrictions could be placed on general public riders. The transit system would see an increase in efficiency by only providing general public service in a geographical zone two or three days a week (rather than five days a week). Riders would be expected to plan their weekly appointments and errands around the availability of transportation. It is not desirable to reduce service, but this scenario would strategically reduce cost without unfairly limiting service for any segment of the population.

E. Opportunities to Expand General Public Service

An opportunity to expand general public service via an intercity connector route is discussed below in Section 4.2I.

F. Availability of Advanced Technologies

Communication is one of the most critical components to operating a successful demand responsive transit service. Currently, the existing Centrex telephone system (the County-network telephone system) is limited, specifically the actual number of lines available at any given time and the capacity of voice messages that can be stored. When passengers make after-hours calls to the business center to either reserve or to cancel previously scheduled transports, they must have the capability to leave a message and know that it will be acted upon. Bus Operators currently use their personal cell telephones to communicate with ICATS dispatch center staff when immediate communication is required and office telephone contact is unavailable. Improving the telephone system is a high priority to improve the effectiveness of ICATS.

G. Cross-Reference the Report and Other Documents

The *Performance Plan and Analysis* developed by the Institute for Transportation Research and Education (ITRE) in March 2010 provided recommendations for operating performance measures and benchmarks. ITRE staff helped to develop the document with the help of ICATS staff. The document was reviewed to provide additional background to this CTSP process. The report identified the following steps for improvement:

- Reduce cancellations by 5% by changing internal policies, working with funding agencies, and working with customers.



Iredell County Community Transportation Services Plan Final Report

- Reduce no shows to the peer group average by working with funding agencies, and working with customers.
- Look at routes with high cancellation/no show rates and develop a strategy to reduce these rates.
- Continually be on the lookout for secure vehicle outstation locations in the Mooresville area.
- Increase the passengers per service and revenue mile by establishing a schedule for serving out of county destinations.
- Constantly strive to attract new riders.
- Constantly strive to improve performance.
- Increase staff knowledge and skills by sending representatives to ITRE's Paratransit Foundations web-based training series.
- Reduce the 48 hour reservation cut-off to provide next-day service.
- Continue to resolve the fuel surcharge rate with the funding agencies.
- Strive toward setting trip cost (flat rate) billing methods instead of mileage/hour based billing methods because trip cost encourages efficiency.

H. Need for Bus Shelters

ICATS currently operates only limited deviated fixed-route service. During the observation days by the Project Team member, the ICATS Bus Operator for 'Ride the Loop' stated that 90% of the regular riders are destined for Wal-Mart. With the high-volume of passengers traveling to Wal-Mart, there may be an opportunity for a private-public partnership with the company. Wal-Mart may be willing to donate a shelter. Communication with Wal-Mart should be considered if the 'Ride the Loop' service is continued.

Similarly, there may be opportunities to partner with Mitchell Community College to facilitate construction of bus shelters at their Statesville and Mooresville campuses. Bus shelters might be a beneficial amenity for the school to consider. Future coordination with Mitchell Community College staff about the subject should be considered if ridership continues to be high.

I. Opportunities for Service Expansion / Modification

Reassessment of the Current ICATS System

A central element of this study is to develop strategies for enhancing existing services and providing new services. Prior to defining the opportunities for future service, it is helpful to understand the strengths and weaknesses of the current system. Information gathered through previous tasks was used to develop a general synopsis of the strengths and opportunities for improvement of existing ICATS services:



Reassessment of ICATS Service

| Service | Strengths | Weakness |
|------------------------------------|---|--|
| 'Ride the Loop' | <ul style="list-style-type: none"> • Area needs service | <ul style="list-style-type: none"> • Route is too long • Low ridership • Evening and weekend service is not available |
| Mitchell Community College Shuttle | <ul style="list-style-type: none"> • Provides connection between campuses • Growing ridership • Service has adapted to the needs of Mitchell Community College | <ul style="list-style-type: none"> • Service is not promoted • Service fluctuates semester to semester • Only students benefit from the service • Mitchell Community College does not financially support the service • Missing potential to serve viable transit market as inter-city connection between Statesville and Mooresville; demographics show good transit market within downtown areas; only one stop in Statesville and one in Mooresville |
| Human Service Trips | <ul style="list-style-type: none"> • Agency needs are being met • Combining passengers from different agencies reduces the shared costs per mile and increases efficiency | <ul style="list-style-type: none"> • High demand for service results in long travel time • Evening and weekend service is limited |
| General Public Trips | <ul style="list-style-type: none"> • Provides access to all county residents • No geographic limitations on service • High ridership | <ul style="list-style-type: none"> • High demand for service results in long travel time • Evening and weekend service is limited |

Recommendations for Consideration

Low Cost Recommendations

Statesville Facility

During the observation phase of this project, it was evident that there may be some inefficiency concerning the ICATS administration and operations facility located in Statesville. The following recommendations are intended to improve current facility conditions:

- Work with the County's IT and Procurement Departments to upgrade the existing telephone system to include at least eight regular lines and two fax lines.
- Work with the County's Facilities & Maintenance Department to access how the dispatch center's interior can be modified to:
 - Accommodate additional personnel;
 - Add sound-proofing;
 - Provide storage: (1) cabinet for supplies; (2) storage for forms and old records; and (3) drop boxes for Operators' trip packets; etc.



Iredell County Community Transportation Services Plan Final Report

'Ride the Loop'

ICATS offered a weekday deviated-fixed route service in Statesville, 'Ride the Loop', but the service generally has low ridership based on the annual average. 'Ride the Loop' was reduced to service only on Monday, Wednesday and Friday service effective January 1, 2011. Continued monitoring of ridership numbers is recommended. If daily ridership for 'Ride the Loop' service is less than a typical ICATS vehicle generates for daily demand response service, then the service should be discontinued. Service in this area would be made available via demand response service. The additional operator and vehicle should help to increase ICATS overall efficiency.

Mitchell Community College Shuttle

The times of service for the deviated fixed route shuttle that operates between Mitchell Community College campuses fluctuates semester to semester. The pick-up and drop-off times and locations are difficult to find. Producing a hardcopy brochure for the Mitchell Community College Shuttle with times of service is recommended. This information should be posted on ICATS and Mitchell's websites.

Higher Cost – Higher Reward Recommendations

Staff

As shown repeatedly, there is a high demand for ICATS service. As ICATS resources are being stretched, service standards are being compromised. The following staffing recommendations are intended to improve overall service, without introducing restrictions on service:

- Employ one full-time dispatcher/operations (or two part-time); and
- Hire additional part-time vehicle operators who passes commercial drivers license (CDL).

Satellite Facility

Opening a secure satellite facility in Mooresville should be a high priority to reduce travel time to the facility in Statesville. The deadhead miles between Mooresville and Statesville are a contributing reason for lost productivity. This satellite facility should include office space and secure parking spots. There may be opportunities to utilize space owned by the Town of Mooresville and a Memorandum of Understanding should be established.

Intercity Shuttle Pilot Project

A key issue surrounding the potential for additional general public service is that the level of service provided to existing passengers and contracting agencies should not decrease from current levels as a result of expanded public services. Current passengers should maintain their mobility options. One strategy to enhance mobility options for general public passengers is to initiate a pilot project for an intercity connector shuttle between the downtown areas of Statesville and Mooresville. There may be an opportunity to build upon the Mitchell Community College deviated fixed route shuttle to create an intercity route. Currently, only students benefit from the shuttle between Statesville and Mooresville.

Job Access and Reverse Commute (JARC) funds currently support the Mitchell Community College shuttle. Access to additional employment locations would be increased by providing



***Iredell County Community Transportation Services Plan
Final Report***

additional stop locations in the downtown areas. Including a stop at the Employment Security Commission (located in the vicinity of Mitchell Community College's Mooresville campus) may be beneficial.

To continue to accommodate Mitchell students' schedules, the first and last stop of the route could be Mitchell's campus. Following an initial stop at Mitchell's campus the vehicle could circulate around the downtown areas before making the return trip. Potential stops locations could include the both public library branches, the various trade schools in the vicinity and the Greyhound station in Statesville. Depending on the number of stops made, the one-way trip from Mooresville to Statesville can be made in 45 minutes, under free-flow conditions. With remaining time in an hour, it may be possible to make a deviated stop in Troutman at Exit 42 on I-77. Prior to the initiation of an intercity connector service travel time runs, public involvement, and additional analysis are recommended.

Once implemented, it would be essential to market the service. A dedicated light transit vehicle could provide this service. Branding of this vehicle with a logo and updated paint scheme may increase ridership, especially among potential first-time riders of the service. Brochures are highly recommended to advertise and promote the service. The brochures can be produced in-house by ICATS (or perhaps by students at Mitchell), but must include both a map and a schedule. Up-to-date information should be published on ICATS' and Mitchell's websites.

Commuters

As the economy continues to fluctuate, ICATS is encouraged every two years to evaluate the needs of commuters traveling to Mecklenburg and Forsyth Counties and the potential coordination opportunities with CATS and PART. CATS' Express Route 83x (from Charlotte to a park-and-ride lot in the Brawley School Road area in Mooresville) was terminated as of January 1, 2011. Although the service does not exist currently, ICATS could evaluate the possibility to help fund a renewed service. Opportunities to use rural general public funds should be explored.



***Iredell County Community Transportation Services Plan
Final Report***

Long-Term Recommendations

ICATS' administration has an established cooperative and collaborative working relationship with the Rowan Transit System (RTS) and Cabarrus County Transportation Services (CCTS) administrators. Besides seeking to enhance passenger mobility issues, ICATS has provided administrative advice and technical training assistance. Building on these longstanding relationships, it is prudent and timely to begin exploring the advantages and disadvantages of establishing a regional transit system involving the three aforementioned counties.

Becoming part of a regional transit provider would be beneficial because it allows the existing providers systems the opportunity to pursue new sources of funding that cannot currently be solicited or applied for by a sole provider. During these challenging economic times, the financial resources available to a single-County transit provider are more limited because all of the Counties are competing for the same monies. However, there are fewer multi-county systems in existence, and a greater number of financial resources are available to such organizations. Consolidation affords added opportunities to supplementing any monetary gaps experienced by Iredell, Rowan, and Cabarrus Counties.

It is essential to have realistic expectations regarding the time required to implement a change such as this because legislative actions, at both the State and Counties levels, must occur. The other existing transit providers in the region, specifically Salisbury Transit System (STS) and Concord Kannapolis Area Transit (C-K Rider), may also be interested in participating. Many organizational and operations questions would need to be asked and then answered before consolidation could be recommended. This study, however, strongly suggests that it is timely and worthwhile for ICATS to commence dialogue with other transit providers in a focused approach on the topic of a regional consolidation and the benefits to the individual Counties and their passengers' mobility needs.



***Iredell County Community Transportation Services Plan
Final Report***

5.1 PREPARATION OF TECHNICAL MEMORANDUM #2

Per the scope of work, Technical Memorandum #2 was prepared and submitted to the client.

5.2 THIRD STEERING COMMITTEE MEETING

Per the scope of work, the consultant met with the Steering Committee on January 24, 2011 to summarize and discuss Technical Memorandum #2. The Steering Committee provided input on the service delivery strategies.

5.3 PUBLIC EDUCATION AND PUBLIC INVOLVEMENT

Public forums were discussed previously in Section 1.6D of this report.



6.1 COMBINE TECHNICAL MEMORANDUM AND COMMENTS INTO A DRAFT PLAN

Technical Memorandum #1 and #2 were consolidated into a complete draft plan. Comments submitted to the consultant throughout the study were reviewed and incorporated where applicable.

It is recognized that the staff of ICATS initiated several operational and organizational enhancements since the start of the CTSP process in August 2010. The following actions and activities have occurred since previous Technical Memoranda (included herein) were written:

- Early in January 2011, ICATS reduced the 'Ride the Loop' service to operate only on Mondays, Wednesdays, and Fridays rather than all five weekdays due to low ridership levels. Operating costs were reduced, and existing passengers maintained transit access on other days through access to demand-response services.
- ICATS reorganized administrative staff to better align dispatching and reservations duties to employees' professional skill sets. This change has resulted in a more cohesive, collaborative relationship among staff while providing better customer service.
- ICATS has begun the process of establishing a satellite facility in Mooresville to reduce deadhead travel miles and recognize operational cost savings. A coordinated planning effort has occurred between ICATS and the Town of Mooresville to utilize space to stage ICATS vehicles at an older wastewater treatment plant. The site has been inspected; a formal agreement has been drafted and is currently being reviewed by both parties' administrators and attorneys; and costs estimates for site preparation are being developed. An implementation plan is currently under review by the Town's senior managers.
- ICATS has received and will be installing AVL/MDT equipment in all remaining ICATS vehicles during March and April 2011.

Operating statistics for FY2010 recently became available. These more recent figures are used in the financial plan that follows.

6.2 FIVE-YEAR DRAFT PLAN

A. Executive Summary

There is a clear need for transit service, especially employment and medical trips, throughout Iredell County. ICATS currently transports a significantly higher number of passengers than other counties with comparable fleet sizes. The demand for public transportation is increasing, and continued growth is likely as fuel prices continue to escalate. ICATS' resources are currently stretched due to the high demand for service and as a result, the quality of the passenger experience is being compromised.

The study team utilized several methods to survey passengers about their levels of satisfaction with ICATS services. Passengers identified many positive attributes of the system including clean vehicles, affordable fares, and courteous, safe operators. However, passengers voiced



***Iredell County Community Transportation Services Plan
Final Report***

two areas where the system's operations could improve. First, the travel times from the points of pick-up to the destinations are too long. Second, passengers are dismayed when scheduled appointments are sometimes missed due to delays in arrival. Riders also stated that office personnel are sometimes unresponsive to the phone messages that are left prior to and after the normal operating hours of administration.

Downtown Statesville appears, based on demographic analysis, to have the most "transit-need" population. ICATS was offering a weekday deviated-fixed route service (called 'Ride the Loop') in Statesville; however, ridership has lagged in comparison to existing demand-response services. As a result, service on 'Ride the Loop' was reduced from five to three days a-week. ICATS should continue to monitor ridership to determine whether remaining 'Ride the Loop' resources should be used elsewhere. Data for the month of January 2011 shows that there has been no loss of riders due to this decrease in service.

The demographic maps also show that downtown Mooresville has a "transit-need" population. Residents have the opportunity to use ICATS' weekday demand response service to and from any geographic area within Iredell County, unlike some transit systems that place restrictions on when and where demand response service is available. However, there is an opportunity to strengthen services oriented to downtown Mooresville.

Local human service agencies' transportation needs are being met by ICATS, even though evening and weekend service is quite limited. The system epitomizes the term 'ridesharing' by co-mingling passengers from different agencies on the vehicles to reduce the shared costs per mile and thereby increasing the efficiency of operations. The great demand for ICATS service contributes to the lengthy travel times on the vehicles, which, as previously stated, is a common service complaint.

ICATS operates a weekday shuttle between the Mitchell Community College campuses located in Statesville and Mooresville. Ridership for the service is growing because the operating schedule has been adapted to the needs of students and instructional staff. ICATS has an opportunity to build upon this service and address unmet but viable transit markets between the downtown areas of both Statesville and Mooresville. Currently only the Mitchell Community College community utilizes the shuttle service, but this service could be expanded and marketed to a wider array of County residents.

Continued growth in transit demand can be expected. Based on projections from North Carolina Office of State Budget and Management, there will be an 88% increase in elderly population in Iredell County over a 20 year period, compared to the 76% increase in elderly population statewide. As the percentage of elderly rapidly increases demand for ICATS service is expected to grow. Additionally, recent news headlines have centered on a projected increase in gasoline prices. As economic uncertainty grows along with the price at the pump, the demand for ICATS service and community resources will also continue to increase.



**Iredell County Community Transportation Services Plan
Final Report**

B. Implementation Plan

This implementation plan builds upon the successful efforts that have already been framed and instituted by ICATS and Iredell County. The proposed recommendations are intended to increase the mobility options for passengers and support existing services and future expansions. Emphasis is placed on the identification of service enhancements requiring additional funding through NCDOT's Community Transportation Program, as well as other federal, state, and local sources. The CTSP process is not intended to be a 'service audit' (i.e. compliance report), but rather it is a 'road map' (i.e. planning document).

1. Open a secure, satellite facility in Mooresville to reduce the deadhead miles and travel time between Mooresville and Statesville.
2. Hire additional staff to meet high demand for service and to improve overall service standards.
3. Create a succession plan to ensure a smooth and successful transition for a transit administrator upon his future retirement.
4. Continue to monitor ridership data for 'Ride the Loop' service.
5. Market the Mitchell Community College Shuttle service and educate first-time riders.
6. Initiate a pilot project for an intercity connector shuttle between the downtown areas of Statesville and Mooresville, building upon the Mitchell Community College deviated fixed route shuttle.
7. Improve efficiency at the ICATS administration and operations facility located in Statesville.
8. Evaluate the needs of commuters traveling to Mecklenburg County and the potential coordination opportunities with CATS.
9. Explore the possibility of establishing one regional transit provider serving Iredell, Rowan and Cabarrus Counties, and any other interested counties.

C. Implementation Schedule

An implementation schedule for the aforementioned recommendations is provided in the table below. The relative prioritizations (high, medium, and low) are the result of collaboration by the consulting team and the Steering Committee, based on the costs, benefits, and feasibility of each recommendation. The 'Status' column is designed for the ICATS staff's use as a checklist for additional comments as implementation progresses. Activities for the first year are based on a targeted range of months, while activities for Years 2-4 are described in more general terms.



**Iredell County Community Transportation Services Plan
Final Report**

| ID | Recommendation | Action Items | Priority | Time Frame | Cost | Potential Funding Stream | Status |
|----|--|--|----------|--|---|--------------------------------------|--------|
| 1 | Open a secure, satellite facility in Mooresville to reduce deadhead miles and travel time between Mooresville and Statesville. | <ul style="list-style-type: none"> • Locate satellite facility with secure parking spots; • Investigate the opportunities to utilize space owned by the Town of Mooresville; and • Establish a Memorandum of Understanding with the Town of Mooresville. | High | Begin coordination immediately and commence operations fourth quarter FY2011. | <ul style="list-style-type: none"> • \$720 annually to rent the facility; and • \$3,620 for initial site improvements. | Section 5311 and ICATS Reserve Funds | |
| 2 | Hire additional staff to meet demand for service and improve overall service standards. | <ul style="list-style-type: none"> • Hire additional part-time vehicle operators that possess Commercial Driver's Licenses (CDLs) to fill incumbent vacancies and new service demands requiring the use of LTVs; and • Evaluate the employment of one full-time dispatcher/scheduler or two part-time. | Medium | Begin coordination with Human Resources, anticipating hiring: <ul style="list-style-type: none"> • Two part-time drivers during second quarter FY2012; and • Full-time dispatcher during first quarter FY2013. | <ul style="list-style-type: none"> • \$23,920 annually for two part-time drivers (\$11.50 per hour for part-time drivers); and • \$20,400 annually for full-time dispatcher (\$15,080 salary and 35% for benefits). | ROAP and Section 5316 | |



**Iredell County Community Transportation Services Plan
Final Report**

| ID | Recommendation | Action Items | Priority | Time Frame | Cost | Potential Funding Stream | Status |
|----|---|---|----------|--|---|--------------------------|--------|
| 3 | Create a succession plan to ensure a smooth and successful transition for a transit administrator upon his future retirement. | <ul style="list-style-type: none"> • Determine the tasks completed in this key leadership role; • Begin discussions with Iredell County's Human Resources Department about timing when the change will occur and the skill set needed to fill the position. • Evaluate if this position can be filled in-house; and • If the position cannot be filled by existing staff, then communicate with Iredell County's Human Resources Department regarding the next steps. | Medium | Begin coordination immediately but no later than second quarter FY2012 | Can be accommodated with existing staff resources. | N/A | |
| 4 | Continue monitoring of ridership numbers for 'Ride the Loop' service. | <ul style="list-style-type: none"> • Review daily ridership numbers twice a year; and • Determine if service to this area could be provided more efficiently using demand-response service. If so, reallocate operator and vehicle to ICATS demand-response service. | Medium | Ongoing | Can be accommodated with existing staff resources. | N/A | |
| 5 | Market the Mitchell Community College Shuttle service and educate first-time riders. | <ul style="list-style-type: none"> • Produce hardcopy brochures that include times of service; and • Publish pick-up/drop-off locations and times of service on ICATS and Mitchell's websites. | Medium | Ongoing | <ul style="list-style-type: none"> • Effort can be accommodated with existing staff resources; and • \$500 for marketing and printing cost. | N/A | |



**Iredell County Community Transportation Services Plan
Final Report**

| ID | Recommendation | Action Items | Priority | Time Frame | Cost | Potential Funding Stream | Status |
|----|--|--|----------|---|--|--|--------|
| 6 | Initiate a pilot project for an intercity connector shuttle between the downtown areas of Statesville and Mooresville building upon the Mitchell Community College deviated fixed route shuttle. | <ul style="list-style-type: none"> • Determine additional stops at locations in downtown Mooresville and Statesville; • Obtain public involvement; • Develop deviated-route and perform travel time runs; • Market the service: <ul style="list-style-type: none"> ○ Produce brochures in-house for potential first-time riders; ○ Publishing new service on websites (ICATS, Mitchell Community College, Town of Mooresville, Statesville, etc.); ○ Dedicate two existing light transit vehicles to provide this service and 'brand' the vehicle. | Medium | First quarter FY2015. | <ul style="list-style-type: none"> • \$5,000 for marketing and printing cost; • \$5,000 for vehicle branding; and • Operating service cost \$203,757 per year, assuming: <ul style="list-style-type: none"> ○ Use of two existing LTVs; ○ Operating 20 vehicle-hours per day; ○ Running 400 vehicle-miles per day; and ○ Operating 261 weekdays per year. ○ Initial cost for FY2013 that will escalate in subsequent years. | Section 5316 with a portion of the local match from Mitchell Community College | |
| 7 | Improve efficiency at the ICATS administration and operations facility located in Statesville. | <ul style="list-style-type: none"> • Work with the County's IT and Procurement Departments to upgrade the existing telephone system to include at least eight regular lines and two fax lines. • Work with the County's Facilities & Maintenance Department to access short-term needs: <ul style="list-style-type: none"> ○ Accommodate additional personnel; ○ Add sound-proofing; and ○ Provide storage. • Design and construct an addition onto the existing facility structure. | Medium | <ul style="list-style-type: none"> • New telephone system in FY2012; • Remodel existing facility in FY2013; and • Construct facility addition in FY2016. | <ul style="list-style-type: none"> • \$4,020 annually for new telephone system; • \$58,600 for existing facility improvements; and • \$64,300 for facility addition. | Section 5311 | |



**Iredell County Community Transportation Services Plan
Final Report**

| ID | Recommendation | Action Items | Priority | Time Frame | Cost | Potential Funding Stream | Status |
|----|--|---|----------|---|---|--|--------|
| 8 | Evaluate the needs of commuters traveling to Mecklenburg County and coordination opportunities with CATS. | <ul style="list-style-type: none"> • Evaluate the possibility to help fund a service similar to the former CATS' Express Route 83x (from Charlotte to a park-and-ride lot in the Brawley School Road area in Mooresville); • Examine coordination and funding opportunities with Statesville, Mooresville and Troutman; and • Explore opportunities to use rural general public funds or CMAQ funds. | Low | Third or fourth quarter FY2015, ongoing | <ul style="list-style-type: none"> • Investigation can be accommodated with existing staff resources; and • \$51,000, if the option is deemed viable (assumes same level-of-service as former 83x route). | ROAP and CMAQ funding | |
| 9 | Explore the possibility of establishing one regional provider for Iredell, Rowan and Cabarrus Counties, and any other interested counties. | <ul style="list-style-type: none"> • Build on longstanding relationships with Rowan Transit System (RTS) and Cabarrus County Transportation Services (CCTS) to increase passenger mobility; • Contact transit systems in North Carolina that have recently merged to ask for guidance and advice; and • Request NCDOT to complete a Regional Feasibility Study, to include the following elements: <ul style="list-style-type: none"> ○ Assess opportunities for regionalization of service; ○ Determine the cost and benefit of consolidation; ○ Identify potential funding sources that would be available to the systems; ○ Contact Salisbury Transit System (STS) and Concord Kannapolis Area Transit (C-K Rider) for input; ○ Resolve how systems could operate under one transit authority; and ○ Determine likely roles of existing staff under scenario of a new structure. | Low | Ongoing | Initial communication can be accommodated using existing staff resources | Study could be funded through NCDOT Rural Planning Program | |



***Iredell County Community Transportation Services Plan
Final Report***

D. Financial Plan

A five-year administrative, operations, and capital financial plan was developed for ICATS. Existing system costs are based on FY2010 data from NCDOT's Operating Statistics with an inflation factor provided by NCDOT and were applied to the projections.

The following tables detail the operating, administrative and capital cost projections for FY 2011 through FY 2016. The tables include the costs to continue providing existing service, in addition to the costs to implement the recommendations presented in Section 6.2B.

These projected expenses reflect the details of the recommended service strategies, including staffing and operator needs as well as the level of transit service to be provided. NCDOT's fully allocated cost model is referenced to determine the costs to provide the new and expanded services recommended in Section 6.2B.

The revenue summary identifies likely funding sources, separated by federal, state and local (i.e. passenger fares, local subsidies, and other revenues) assistance, available to ICATS.

The projected capital costs for the system are based primarily on vehicle replacement and expansion needs presented in the Public Transportation Management System (PTMS). Capital improvements that are recommended are incorporated into the financial plan based on the year that the improvement is anticipated. Additional details regarding the Statesville facility renovation and addition are included in the appendix.



**Iredell County Community Transportation Services Plan
Final Report**

**Iredell County Community Transportation Service Plan Financial Tool
Capital Investments - Referenced in Expense Summary**

| Item | | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 |
|--|------------------------|------------------|------------------|------------------|------------------|------------------|------------------|
| Inflation Factor | | 2% | 4% | 4% | 4% | 4% | 0% |
| Vehicle Replacement | | | | | | | |
| Lift-Equipped Van | Number of Vehicles | 4 | 1 | 1 | 4 | 1 | 4 |
| | Unit Cost ¹ | \$45,000 | \$46,800 | \$48,672 | \$50,619 | \$52,644 | \$52,644 |
| | Subtotal | \$180,000 | \$46,800 | \$48,672 | \$202,476 | \$52,644 | \$210,575 |
| 22-Foot LTV | Number of Vehicles | 3 | 5 | 6 | 3 | 5 | 3 |
| | Unit Cost ² | \$55,000 | \$57,200 | \$59,488 | \$61,868 | \$64,342 | \$64,342 |
| | Subtotal | \$165,000 | \$286,000 | \$356,928 | \$185,603 | \$321,711 | \$193,027 |
| Subtotal | | \$345,000 | \$332,800 | \$405,600 | \$388,078 | \$374,355 | \$403,601 |
| Mooresville Facility Renovation | | | | | | | |
| Improvements at Potential Mooresville Facility | | \$5,000 | | | | | |
| Subtotal | | \$5,000 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Statesville Facility Renovation or Construction | | | | | | | |
| Phase I - New Phone System | | | \$4,020 | | | | |
| Phase II - Renovation | | | | \$58,600 | | | |
| Phase III - Construct Addition | | | | | | | \$64,300 |
| Subtotal | | \$0 | \$4,020 | \$58,600 | \$0 | \$0 | \$64,300 |
| Advanced Technology | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Subtotal | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| Subtotal | | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| TOTAL | | \$350,000 | \$336,820 | \$464,200 | \$388,078 | \$374,355 | \$467,901 |

Notes:

1. Unit Cost for Lift-Equipped Van per NCDOT term contract available at <http://www.pandc.nc.gov/070l.pdf>, with approximately \$5,000 in options.
2. Unit Cost for 22'-Foot LTV per NCDOT term contract available at <http://www.pandc.nc.gov/070m.pdf>, with approximately \$5,000 in options.



**Iredell County Community Transportation Services Plan
Final Report**

**Iredell County Community Transportation Service Plan Financial Tool
Expense Summary**

| | FY2010 Actual | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Inflation Factor | | 2.0% | 4.0% | 4.0% | 4.0% | 4.0% | 0.0% |
| Administrative | | | | | | | |
| Personnel Salaries & Fringes - CTP Object Codes G121-189 | \$166,101 | \$169,423 | \$176,200 | \$183,248 | \$190,578 | \$198,201 | \$198,201 |
| Advertising and Promotion - CTP Object Codes G371-373 | \$95 | \$597 | \$101 | \$105 | \$109 | \$113 | \$113 |
| Employee Development - CTP Object Code G395 | \$602 | \$614 | \$639 | \$665 | \$692 | \$720 | \$720 |
| Vehicle Insurance Premiums - CTP Object Code G452 | \$22,400 | \$22,848 | \$23,762 | \$24,712 | \$25,700 | \$26,728 | \$26,728 |
| Indirect Services - CTP Object Code G481 | \$12,699 | \$12,952 | \$13,470 | \$14,009 | \$14,569 | \$15,152 | \$15,152 |
| CTP Codes G190-359; 380-394; 396-451; 454-480; 482-491 | \$51,074 | \$52,095 | \$54,179 | \$56,346 | \$58,600 | \$60,944 | \$60,944 |
| Other Admin Expense | \$28,598 | \$29,170 | \$30,337 | \$31,550 | \$32,812 | \$34,124 | \$34,124 |
| Subtotal | \$281,568 | \$287,699 | \$298,688 | \$310,635 | \$323,060 | \$335,982 | \$335,982 |
| Operating | | | | | | | |
| Driver Salaries & Fringes | \$652,803 | \$665,859 | \$692,493 | \$720,193 | \$749,001 | \$778,961 | \$778,961 |
| Other Operating Staff Salaries & Fringes | \$108,890 | \$111,068 | \$115,511 | \$120,131 | \$124,936 | \$129,933 | \$129,933 |
| Mechanics Salaries & Fringes | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Indirect Services | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Fuel | \$175,757 | \$179,272 | \$186,443 | \$193,901 | \$201,657 | \$209,723 | \$209,723 |
| Vehicle Maintenance | \$45,248 | \$46,153 | \$47,999 | \$49,919 | \$51,916 | \$53,993 | \$53,993 |
| Payment of Insurance Deductible(s) | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Disposal of Vehicle(s) | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Management/Operation Services | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Volunteer Reimbursement | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other Transit Provider Services | \$2,148 | \$2,190 | \$2,278 | \$2,369 | \$2,464 | \$2,563 | \$2,563 |
| Other (tires, other insurance & bonds, phone, contracted services(radio) & professional services) | \$52,384 | \$53,432 | \$55,569 | \$57,792 | \$60,104 | \$62,508 | \$62,508 |
| Subtotal | \$1,037,229 | \$1,057,974 | \$1,100,293 | \$1,144,305 | \$1,190,078 | \$1,237,681 | \$1,237,681 |
| Capital - Vehicles | | | | | | | |
| Vehicle Purchases | \$172,392 | \$345,000 | \$332,800 | \$405,600 | \$388,078 | \$374,355 | \$403,601 |
| Body Work on Wrecked Vehicle | \$3,522 | \$3,593 | \$3,737 | \$3,886 | \$4,041 | \$4,203 | \$4,203 |
| Subtotal | \$175,914 | \$348,593 | \$336,537 | \$409,486 | \$392,119 | \$378,558 | \$407,804 |
| Expense Total for Existing Service | \$1,494,711 | \$1,694,266 | \$1,735,518 | \$1,864,426 | \$1,905,257 | \$1,952,221 | \$1,981,467 |



**Iredell County Community Transportation Services Plan
Final Report**

**Iredell County Community Transportation Service Plan Financial Tool
Expense Summary**

| | FY2010 Actual | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Inflation Factor | | 2.0% | 4.0% | 4.0% | 4.0% | 4.0% | 0.0% |
| Additional Staff | | | | | | | |
| 2 Part-time driver at \$11.50 per hour | \$0 | \$0 | \$23,920 | \$24,877 | \$25,872 | \$26,907 | \$26,907 |
| 1 Full-time dispatcher at \$15,080 plus 35% benefits | \$0 | \$0 | \$0 | \$20,400 | \$21,216 | \$22,065 | \$22,065 |
| Subtotal | \$0 | \$0 | \$23,920 | \$45,277 | \$47,088 | \$48,972 | \$48,972 |
| New Intercity Local Services | | | | | | | |
| Operations | \$0 | \$0 | \$0 | \$0 | \$0 | \$203,757 | \$203,757 |
| Marketing and Branding | \$0 | \$0 | \$0 | \$0 | \$0 | \$10,000 | \$0 |
| Subtotal | \$0 | \$0 | \$0 | \$0 | \$0 | \$213,757 | \$203,757 |
| Renewed Commuter Service | | | | | | | |
| Funding contribution to CATS for service from Mooresville | \$0 | \$0 | \$0 | \$0 | \$0 | \$51,000 | \$51,000 |
| Subtotal | \$0 | \$0 | \$0 | \$0 | \$0 | \$51,000 | \$51,000 |
| Capital - Non-Vehicle | | | | | | | |
| Mooresville Facility Renovation | \$0 | \$5,000 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Statesville Facility Phase I - New Phone System | \$0 | \$0 | \$4,020 | \$0 | \$0 | \$0 | \$0 |
| Statesville Facility Phase II - Renovation | \$0 | \$0 | \$0 | \$58,600 | \$0 | \$0 | \$0 |
| Statesville Facility Phase III - Construct Addition | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$64,300 |
| Advanced Technology Purchases | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Subtotal | \$0 | \$5,000 | \$4,020 | \$58,600 | \$0 | \$0 | \$64,300 |
| Expense Total for Recommendations | \$0 | \$5,000 | \$27,940 | \$103,877 | \$47,088 | \$313,729 | \$368,029 |
| TOTAL | \$1,494,711 | \$1,699,266 | \$1,763,458 | \$1,968,303 | \$1,952,345 | \$2,265,950 | \$2,349,496 |

Note:

1. Capital line items reference cost developed in 'Capital' worksheet.
2. New Service formulas reference the cost of service 'FullyAlloCost' worksheet.
3. New Service assumes use of 2 existing LTVs along with 20 Veh-Hours / Day with 400 Veh-Miles / Day for 261 Operating Days / Year.



**Iredell County Community Transportation Services Plan
Final Report**

**Iredell County Community Transportation Service Plan Financial Tool
Revenue Summary**

| | FY2010 Actual | FY2011 2.0% | FY2012 4.0% | FY2013 4.0% | FY2014 4.0% | FY2015 4.0% | FY2016 0.0% |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Inflation Factor | | | | | | | |
| Administrative and Operating | | | | | | | |
| Federal | | | | | | | |
| Section 5310 - Elderly and Disabled | \$3,376 | \$3,443 | \$3,581 | \$3,724 | \$3,873 | \$4,028 | \$4,028 |
| Section 5311 - CTP Funds - Administrative | \$202,376 | \$206,424 | \$214,681 | \$223,268 | \$232,199 | \$241,487 | \$241,487 |
| Section 5311 - CTP Funds - Operating | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Tribal Federal Assistance - Section 5311 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| ARRA Assistance - Section 5311 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| ARRA Tribal Assistance - Section 5311 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Section 5316 - JARC Funds | \$45,896 | \$46,814 | \$48,687 | \$50,634 | \$52,659 | \$54,765 | \$54,765 |
| Section 5317 - New Freedom Funds | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Subtotal | \$251,648 | \$256,681 | \$266,949 | \$277,626 | \$288,731 | \$300,280 | \$300,280 |
| State | | | | | | | |
| CTP Funds - Administrative | \$12,649 | \$12,901 | \$13,417 | \$13,954 | \$14,512 | \$15,092 | \$15,092 |
| ROAP Funds - Suballocated to the Transit System | \$337,405 | \$344,153 | \$357,919 | \$372,236 | \$387,125 | \$402,610 | \$402,610 |
| Other (describe to the right) | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Subtotal | \$350,054 | \$357,054 | \$371,336 | \$386,190 | \$401,637 | \$417,702 | \$417,702 |
| Local | | | | | | | |
| Administrative Funds | \$87,218 | \$88,962 | \$92,520 | \$96,221 | \$100,070 | \$104,073 | \$104,073 |
| Operating Funds | \$80,203 | \$81,807 | \$85,079 | \$88,482 | \$92,021 | \$95,702 | \$95,702 |
| Contract Revenue | \$644,843 | \$657,740 | \$684,050 | \$711,412 | \$739,868 | \$769,463 | \$769,463 |
| Fares/Donations from passengers | \$85,832 | \$87,549 | \$91,051 | \$94,693 | \$98,481 | \$102,420 | \$102,420 |
| Proceeds from Vehicle Sales- (used for Admin or Operating on | \$24,410 | \$24,898 | \$25,894 | \$26,930 | \$28,007 | \$29,127 | \$29,127 |
| Interest Income | \$691 | \$704 | \$732 | \$761 | \$791 | \$823 | \$823 |
| Advertising Revenue | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Other Revenue | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Subtotal | \$923,197 | \$941,660 | \$979,326 | \$1,018,499 | \$1,059,238 | \$1,101,608 | \$1,101,608 |
| Capital - Vehicles | | | | | | | |
| Vehicles & Other Capital Revenues | | | | | | | |
| Federal - 80% | \$101,061 | \$278,874 | \$269,230 | \$327,589 | \$313,695 | \$302,846 | \$326,243 |
| State - 10% | \$12,633 | \$34,859 | \$33,654 | \$40,949 | \$39,212 | \$37,856 | \$40,780 |
| Local - Government - 10% | \$12,633 | \$34,859 | \$33,654 | \$40,949 | \$39,212 | \$37,856 | \$40,780 |
| Proceeds from Sale of Vehicle (used for capital only) | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Insurance Proceeds from Accident | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Subtotal | \$126,326 | \$348,593 | \$336,537 | \$409,486 | \$392,119 | \$378,558 | \$407,804 |
| Revenue Total for Existing Service | \$1,651,225 | \$1,903,988 | \$1,954,148 | \$2,091,801 | \$2,141,725 | \$2,198,148 | \$2,227,394 |



**Iredell County Community Transportation Services Plan
Final Report**

**Iredell County Community Transportation Service Plan Financial Tool
Revenue Summary**

| | FY2010 Actual | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 |
|--|------------------|------------|-----------------|-----------------|-----------------|------------------|------------------|
| Inflation Factor | | 2.0% | 4.0% | 4.0% | 4.0% | 4.0% | 0.0% |
| Additional Staff | | | | | | | |
| ROAP Funds - 25% of Cost for Additional Staff | | | | | | | |
| Federal - 0% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| State - 80% | \$0 | \$0 | \$4,784 | \$9,055 | \$9,418 | \$9,794 | \$9,794 |
| Local - Government - 20% | \$0 | \$0 | \$1,196 | \$2,264 | \$2,354 | \$2,449 | \$2,449 |
| Local - Other - 0% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Subtotal | \$0 | \$0 | \$5,980 | \$11,319 | \$11,772 | \$12,243 | \$12,243 |
| Section 5316 - JARC - 75% of Cost for Additional Staff | | | | | | | |
| Federal - 80% | \$0 | \$0 | \$14,352 | \$27,166 | \$28,252 | \$29,382 | \$29,382 |
| State - 10% | \$0 | \$0 | \$1,794 | \$3,396 | \$3,532 | \$3,673 | \$3,673 |
| Local - Government - 10% | \$0 | \$0 | \$1,794 | \$3,396 | \$3,532 | \$3,673 | \$3,673 |
| Local - Other - 0% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Subtotal | \$0 | \$0 | \$17,940 | \$33,958 | \$35,316 | \$36,728 | \$36,728 |
| New Intercity Local Services | | | | | | | |
| Section 5316 - JARC - 100% of Cost for New Intercity Local Services | | | | | | | |
| Federal - 50% | \$0 | \$0 | \$0 | \$0 | \$0 | \$106,879 | \$101,879 |
| State - 0% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Local - Government - Other - Funds from MCC - 50% | \$0 | \$0 | \$0 | \$0 | \$0 | \$106,879 | \$101,879 |
| Subtotal | \$0 | \$0 | \$0 | \$0 | \$0 | \$213,758 | \$203,758 |
| Renewed Commuter Services | | | | | | | |
| ROAP Funds - 100% of Cost for Renewed Commuter Services | | | | | | | |
| Federal - 0% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| State - 80% | \$0 | \$0 | \$0 | \$0 | \$0 | \$40,800 | \$40,800 |
| Local - Government - 20% | \$0 | \$0 | \$0 | \$0 | \$0 | \$10,200 | \$10,200 |
| Local - Other - 0% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Subtotal | \$0 | \$0 | \$0 | \$0 | \$0 | \$51,000 | \$51,000 |



**Iredell County Community Transportation Services Plan
Final Report**

**Iredell County Community Transportation Service Plan Financial Tool
Revenue Summary**

| | FY2010 Actual | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 |
|---|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| Inflation Factor | | 2.0% | 4.0% | 4.0% | 4.0% | 4.0% | 0.0% |
| Capital - Mooresville Facility | | | | | | | |
| Section 5311 - 100% of Cost for Capital - Mooresville Facility | | | | | | | |
| Federal - 80% | \$0 | \$4,000 | \$0 | \$0 | \$0 | \$0 | \$0 |
| State - 10% | \$0 | \$500 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Local - Government - 0% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Local - Other/ICATS Reserve Fund - 10% | \$0 | \$500 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Subtotal | \$0 | \$5,000 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Capital - Statesville Facility Phase I | | | | | | | |
| Section 5311 - 100% of Cost for Capital - Statesville Facility Phase I | | | | | | | |
| Federal - 80% | \$0 | \$0 | \$3,216 | \$0 | \$0 | \$0 | \$0 |
| State - 10% | \$0 | \$0 | \$402 | \$0 | \$0 | \$0 | \$0 |
| Local - Government - 10% | \$0 | \$0 | \$402 | \$0 | \$0 | \$0 | \$0 |
| Local - Other - 0% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Subtotal | \$0 | \$0 | \$4,020 | \$0 | \$0 | \$0 | \$0 |
| Capital - Statesville Facility Phase II | | | | | | | |
| Section 5311 - 100% of Cost for Capital - Statesville Facility Phase II | | | | | | | |
| Federal - 80% | \$0 | \$0 | \$0 | \$46,880 | \$0 | \$0 | \$0 |
| State - 10% | \$0 | \$0 | \$0 | \$5,860 | \$0 | \$0 | \$0 |
| Local - Government - 10% | \$0 | \$0 | \$0 | \$5,860 | \$0 | \$0 | \$0 |
| Local - Other - 0% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Subtotal | \$0 | \$0 | \$0 | \$58,600 | \$0 | \$0 | \$0 |
| Capital - Statesville Facility Phase III | | | | | | | |
| Section 5311 - 100% of Cost for Capital - Statesville Facility Phase III | | | | | | | |
| Federal - 80% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$51,440 |
| State - 10% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$6,430 |
| Local - Government - 10% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$6,430 |
| Local - Other - 0% | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| Subtotal | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$64,300 |
| Revenue Total for Recommendations | \$0 | \$5,000 | \$27,940 | \$103,877 | \$47,088 | \$313,729 | \$368,029 |
| TOTAL | \$1,651,225 | \$1,908,988 | \$1,982,088 | \$2,195,678 | \$2,188,813 | \$2,511,877 | \$2,595,423 |



**Iredell County Community Transportation Services Plan
Final Report**

Iredell County Community Transportation Service Plan Financial Tool Revenue / Expense Comparison

Existing Service (Based on NCDOT OpStats for FY2010)

| | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Revenue Total | \$1,651,225 | \$1,903,988 | \$1,954,148 | \$2,091,801 | \$2,141,725 | \$2,198,148 | \$2,227,394 |
| Expense Total | \$1,494,711 | \$1,694,266 | \$1,735,518 | \$1,864,426 | \$1,905,257 | \$1,952,221 | \$1,981,467 |
| Difference | \$156,513 | \$209,722 | \$218,630 | \$227,375 | \$236,468 | \$245,927 | \$245,927 |

Recommended Improvements

| | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 |
|---------------|--------|---------|----------|-----------|----------|-----------|-----------|
| Revenue Total | \$0 | \$5,000 | \$27,940 | \$103,877 | \$47,088 | \$313,729 | \$368,029 |
| Expense Total | \$0 | \$5,000 | \$27,940 | \$103,877 | \$47,088 | \$313,729 | \$368,029 |
| Difference | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |

Existing Service and Recommended Improvements

| | FY2010 | FY2011 | FY2012 | FY2013 | FY2014 | FY2015 | FY2016 |
|---------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|
| Revenue Total | \$1,651,225 | \$1,908,988 | \$1,982,088 | \$2,195,678 | \$2,188,813 | \$2,511,877 | \$2,595,423 |
| Expense Total | \$1,494,711 | \$1,699,266 | \$1,763,458 | \$1,968,303 | \$1,952,345 | \$2,265,950 | \$2,349,496 |
| Difference | \$156,513 | \$209,722 | \$218,630 | \$227,375 | \$236,468 | \$245,927 | \$245,927 |



Iredell County Community Transportation Services Plan Final Report

E. Performance Measurement Plan

ICATS has been successful during the past several years in not just meeting but exceeding the goals established by its TAB. Under the leadership and direction of a highly skilled, competent, and compassionate transit professional, the overall mission of the organization is being achieved. As stated in the system's mission statement, emphasis is placed on "...increasing mobility of the citizens of Iredell County and integrating services in order to maximize resources".

The average number of weekday riders has grown from 648 to 668 during the past 18 months. Following the schedule modification to the MCC shuttle service, the system experienced daily ridership counts in excess of 700 passengers per day during the month of September 2010. This increase in ridership resulted in higher statistics for both passengers per service hour and per service mile.

One means to illustrate increased ridership is to decrease the number of 'no shows'. Administrative controls, specifically curtailing the scheduling of trips for riders that have a history of failing to adhere to scheduled pick-ups, is the most practical method for reducing lost productivity. Concurrently, reducing the annual rate of trip cancellations, from 79 (FY2009) to the current rate of 68, has had positive results. However, there is no financial effect in this performance criterion because any of the contracting agencies that fund the rides for no-shows is still obligated to compensate ICATS for the transport. Cancellation trips are 'back-filled' by other paying customers that have placed their names on an internal waiting list for transports. The proficiency of a skilled Dispatcher, exhibiting knowledge of the entire fleet's activities, is demonstrated when making vehicle and operator re-assignments for no-shows and trip cancellations.

A qualitative measure pertaining to reducing the actual number of no-shows and cancellations is improvement of other passengers' rides. Quite often the amount of time spent on the vehicles by passengers from their points of origins to destinations is shortened, increasing customer satisfaction.

Financial stability is a quantitative measure that must continually be evaluated, ensuring that the organization remains solvent, at a minimum, to continue the current services while looking to meet future transit demands. Iredell County provides only in-kind support (e.g. use of the operating facility) but no monies for ICATS operations. The Transit Administrator expends time preparing grant requests to augment the monies obtained from NCDOT. One of the two JARC grants that financially support the early morning employment transports will expire soon. The possible reduction in transit service, due to loss of funding, poses adverse impacts not only on the sustainability of persons' livelihoods but also the productivity of ICATS. To this end, the Administrator has advised the TAB of alternatives to continue the existing level of service. These include fare increases, financial contributions from non-contributing agencies (such as MCC), and/or supplemental rate increases in the form of fuel surcharges to existing contracting agencies.

A recommendation for enhancing the system is the establishment of the Mooresville satellite facility. By reducing the number of service miles, i.e. utilizing what is currently non-productive 'deadhead' miles and travel time to miles when ICATS is actually transporting paying riders,



Iredell County Community Transportation Services Plan Final Report

several of the performance measures will likely show positive trends: weekday average daily passengers; passengers per service hour and revenue hour; and passengers per revenue mile.

A drastic shift in performance data will probably not occur during the first six months to a year of the Mooresville facility operations because a gradual staging in the number of vehicles assigned is expected. Initially, there will be two or three units assigned to the existing Mooresville routes. Once the Transit Administrator, in conjunction with the Dispatcher, has time to evaluate the effects on entire system's schedule, additional vehicles will be added to the Mooresville site. After each increase, ICATS staff should re-assess key performance measures, to ensure that operating proficiencies are being achieved.

F. Public Involvement Description

The following sections show a record of all the interviews, surveys, focus groups, public forums and/or meetings used to obtain input during the development of this plan. Specific information is presented in the Appendix, detailing dates, locations, and times; lists of attendees; and meeting notes.

Surveys

A Non-Rider survey was prepared in English and Spanish. The link to the survey was sent to the Steering Committee for distribution and was posted on Mitchell Community College's "News & Updates" webpage. Hard copies were distributed during the community planning sessions. Attendees were asked to complete the surveys and return before departing the session. At least 336 completed Non-Rider surveys were received, and the results were presented earlier in this document.

Employer and passenger surveys were also collected.

Goal Setting Exercise with the Transportation Advisory Committee

A visioning session was held with the TAB on October 25, 2010. This was an opportunity for stakeholders to provide their input on important issues to address in the five-year CTSP. The ultimate goals and objectives of ICATS were discussed. A major focus of the discussion was on working to achieve an appropriate balance between quantity (e.g. number of passenger trips) and the quality (e.g. on-time performance) of transit service in Iredell County. This input provided valuable insight into key priorities to examine during the CTSP study process.

Public Forums

Community members were invited to attend public forums to discuss public transportation needs in Iredell County. The events were held on:

- Thursday, October 7, 2010 (4:30 PM – 6:00 PM) at the Statesville Public Library (201 N. Tradd Street, Statesville); and
- Monday, October 11, 2010 (12:30 AM – 2:00 PM) at the Charles Mack Citizens Center (215 N. Main Street, Mooresville).

Participants were asked to provide input on how current public transportation services could be improved for Iredell County citizens. Notifications of these public forums were publicized in



***Iredell County Community Transportation Services Plan
Final Report***

personal conversations held by steering committee members as well as an advertisement in the Statesville Record & Landmark newspaper.

Steering Committee Involvement

The first steering committee meeting was held on August 2, 2010 at the Iredell County Government Center, Statesville, NC. The meeting presented the purpose, scope of work, and goals of this study.

The second steering committee meeting was held on November 15, 2010 at the Iredell County Government Center. The meeting focused on the information presented in Technical Memorandum #1. Attendees discussed advisory and governance structure, organizational focus, service characteristics, funding and financial management, capacity analysis, and public satisfaction and community needs.

The third steering committee meeting was held on January 24, 2011 at the Iredell County Government Center. The meeting topic focused on the information presented in Technical Memorandum #2. Attendees discussed County demographics, coordination opportunities, administration and management, funding opportunities, and service modification/expansion options.

The final steering committee meeting was held on March 14, 2011 at the Iredell County Government Center. The meeting focused on the information presented in the draft Community Transportation Service Plan. Specific details regarding the proposed plan were discussed.