



# Transit Needs Assessment

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## INTRODUCTION

A key step in developing and evaluating a transit plan is a careful analysis of the mobility needs of various segments of the population and the potential ridership of transit services. Transit demand analysis is the basic determination of demand for public transportation in a given area. There are several factors that affect demand, not all of which can be forecasted. However, as demand estimation is an important task in developing any transportation plan, several methods of estimation have been developed in the transit field. The analysis makes intensive use of the demographic data and trends discussed previously.



This chapter presents an analysis of the *need* for transit services in Carroll County based upon standard estimation techniques. The transit need identified in this section was used to develop and evaluate the various transit service alternatives which are presented later in this report. Two methods were used to estimate the maximum transit trip need in Carroll County.

- Rural Transit Demand Estimation Model
- Greatest Transit Needs

## RURAL TRANSIT DEMAND METHODOLOGY

An important source of information and the most recent research regarding demand for transit services in rural areas and for persons who are elderly or disabled is the *Transit Cooperative Research Program (TCRP) Project A-3: Rural Transit Demand Estimation Techniques*. This study, completed by SG Associates, Inc. and LSC, represents the first substantial research into demand for transit service in rural areas and small communities since the early 1980s.

The TCRP study documents present a series of formulas relating the number of participants in various types of programs in 185 transit agencies across the country. The TCRP analytical technique uses a logit model approach to the estimation of transit demand, similar to that commonly used in urban transportation models. This model incorporates an exponential equation which relates the quantity of service and the demographics of the area. Transit demand estimates presented here are based upon demographics presented in Chapter IV.

This analysis procedure considers transit demand in two major categories:

- “*program demand*” which is generated by transit ridership to and from specific social service programs, and
- “*non-program demand*” generated by other mobility needs of elderly persons, persons with disabilities, and the general public, including youth. Examples of non-program trips may include shopping, employment, and medical trips.

### **Non-Program Need**

As with any other product or service, the demand for transit services is a function of the level of supply provided. To use the TCRP methodology to identify a feasible maximum need, it is necessary to assume a high supply level, as measured in vehicle-miles per square mile per year. The high supply level is the upper-bound “density” of similar rural services provided in this country. This assessment of need for the rural areas, therefore, could be considered to be the maximum potential ridership if a high level of rural service were made available throughout Carroll County. This methodology also can be used to estimate the demand for Carroll County. The TCRP methodology is based on the permanent population, and therefore represents a good demand method to use for Carroll County. For Carroll County, a reasonable **maximum** level of service would be to serve every portion of the county with four round-trips (eight one-way trips) daily, Monday through Friday. This equates to approximately 2,400 vehicle-miles of transit service per square mile per year. This is at the upper range of observed rural systems.

Applying this feasible maximum service density to the population of Carroll County yields the 2005 estimated transit demand for the general population including youth, as well as the elderly and mobility-limited populations as shown

in Table VI-1. The 2005 Carroll County potential demand for elderly transit service is 75,660 annual trips; disabled demand is 6,550 annual trips; and general public demand is 18,890 annual trips. The rural Carroll County total estimated resident demand for 2005, using the TCRP method, is 101,000 annual trips. This amount would be desired by the elderly, mobility-limited, and general public if a very high level of transit service was provided.

Demand estimates using the TCRP methodology for 2010 and 2025 are provided in Appendix C. Total rural demand for 2010 and 2030 are estimated to be 107,350 and 131,740 one-way, annual passenger-trips respectively for Carroll County. Realistically, meeting 100 percent of the need would not be feasible. However, each community must decide a realistic goal for their area and plan their resources accordingly.

**Table VI-1  
2005 Estimated Non-Program Transit Demand using the TCRP Method  
Carroll County**

| Census Tract  | Census Block Group | Estimated Annual Passenger-Trip Demand |                  |                            |                |                     | Estimated Daily Transit Demand |             | Daily Demand Density (Trips per Sq. Mile per Day) |
|---------------|--------------------|--|------------------|----------------------------|----------------|---------------------|--------------------------------|-------------|---|
|               |                    | Elderly                                | Mobility Limited | Elderly + Mobility Limited | General Public | Total Annual Demand | #                              | %           |   |
|               |                    |  |                  |                            |                |                     |                                |             |   |
| 9551          | 1                  | 3,100                                  | 50               | 3,150                      | 670            | 3,820               | 15                             | 3.8%        | 0.1   |
| 9551          | 2                  | 1,380                                  | 70               | 1,450                      | 280            | 1,730               | 7                              | 1.7%        | 0.2   |
| 9551          | 3                  | 1,360                                  | 50               | 1,410                      | 650            | 2,060               | 8                              | 2.0%        | 0.6   |
| 9553          | 1                  | 1,570                                  | 120              | 1,690                      | 650            | 2,340               | 9                              | 2.3%        | 0.1   |
| 9553          | 2                  | 1,450                                  | 20               | 1,470                      | 260            | 1,730               | 7                              | 1.7%        | 1.2   |
| 9553          | 3                  | 1,420                                  | 50               | 1,470                      | 350            | 1,820               | 7                              | 1.8%        | 4.0   |
| 9553          | 4                  | 1,790                                  | 270              | 2,060                      | 140            | 2,200               | 9                              | 2.2%        | 2.0   |
| 9553          | 5                  | 1,640                                  | 260              | 1,900                      | 440            | 2,340               | 9                              | 2.3%        | 2.3   |
| 9553          | 6                  | 680                                    | 320              | 1,000                      | 1,220          | 2,220               | 9                              | 2.2%        | 28.7  |
| 9554          | 1                  | 1,070                                  | 170              | 1,240                      | 620            | 1,860               | 7                              | 1.8%        | 4.6   |
| 9554          | 2                  | 830                                    | 120              | 950                        | 510            | 1,460               | 6                              | 1.4%        | 4.8   |
| 9554          | 3                  | 1,160                                  | 120              | 1,280                      | 270            | 1,550               | 6                              | 1.5%        | 1.2   |
| 9554          | 4                  | 1,150                                  | 90               | 1,240                      | 40             | 1,280               | 5                              | 1.3%        | 0.4   |
| 9554          | 5                  | 480                                    | 240              | 720                        | 530            | 1,250               | 5                              | 1.2%        | 0.5   |
| 9555          | 1                  | 1,840                                  | 140              | 1,980                      | 320            | 2,300               | 9                              | 2.3%        | 0.2   |
| 9555          | 2                  | 1,220                                  | 110              | 1,330                      | 310            | 1,640               | 6                              | 1.6%        | 0.3   |
| 9556          | 1                  | 2,710                                  | 210              | 2,920                      | 1,170          | 4,090               | 16                             | 4.0%        | 0.2   |
| 9556          | 2                  | 1,890                                  | 210              | 2,100                      | 690            | 2,790               | 11                             | 2.8%        | 0.4   |
| 9556          | 3                  | 2,850                                  | 70               | 2,920                      | 430            | 3,350               | 13                             | 3.3%        | 0.1   |
| 9558          | 1                  | 1,640                                  | 450              | 2,090                      | 1,060          | 3,150               | 12                             | 3.1%        | 0.3   |
| 9558          | 2                  | 3,120                                  | 360              | 3,480                      | 490            | 3,970               | 16                             | 3.9%        | 0.4   |
| 9559          | 1                  | 2,560                                  | 290              | 2,850                      | 780            | 3,630               | 14                             | 3.6%        | 0.7   |
| 9559          | 2                  | 1,710                                  | 170              | 1,880                      | 460            | 2,340               | 9                              | 2.3%        | 0.3   |
| 9559          | 3                  | 3,040                                  | 350              | 3,390                      | 1,000          | 4,390               | 17                             | 4.3%        | 0.6   |
| 9560          | 1                  | 1,410                                  | 190              | 1,600                      | 340            | 1,940               | 8                              | 1.9%        | 0.3   |
| 9560          | 2                  | 1,780                                  | 110              | 1,890                      | 480            | 2,370               | 9                              | 2.3%        | 0.8   |
| 9560          | 3                  | 3,050                                  | 510              | 3,560                      | 770            | 4,330               | 17                             | 4.3%        | 0.7   |
| 9560          | 4                  | 1,130                                  | 80               | 1,210                      | 110            | 1,320               | 5                              | 1.3%        | 1.2   |
| 9561          | 1                  | 2,340                                  | 70               | 2,410                      | 270            | 2,680               | 11                             | 2.7%        | 0.7   |
| 9561          | 2                  | 1,490                                  | 130              | 1,620                      | 490            | 2,110               | 8                              | 2.1%        | 2.4   |
| 9561          | 3                  | 3,780                                  | 130              | 3,910                      | 560            | 4,470               | 18                             | 4.4%        | 2.9   |
| 9561          | 4                  | 2,720                                  | 40               | 2,760                      | 290            | 3,050               | 12                             | 3.0%        | 1.5   |
| 9561          | 5                  | 2,900                                  | 280              | 3,180                      | 470            | 3,650               | 14                             | 3.6%        | 0.5   |
| 9563          | 1                  | 2,420                                  | 100              | 2,520                      | 380            | 2,900               | 11                             | 2.9%        | 0.3   |
| 9563          | 2                  | 1,730                                  | 210              | 1,940                      | 260            | 2,200               | 9                              | 2.2%        | 0.9   |
| 9563          | 3                  | 1,240                                  | 70               | 1,310                      | 40             | 1,350               | 5                              | 1.3%        | 0.3   |
| 9563          | 4                  | 3,390                                  | 110              | 3,500                      | 320            | 3,820               | 15                             | 3.8%        | 1.1   |
| 9564          | 1                  | 1,650                                  | 90               | 1,740                      | 310            | 2,050               | 8                              | 2.0%        | 0.3   |
| 9564          | 2                  | 1,830                                  | 60               | 1,890                      | 290            | 2,180               | 9                              | 2.2%        | 0.6   |
| 9564          | 3                  | 1,140                                  | 60               | 1,200                      | 170            | 1,370               | 5                              | 1.4%        | 0.4   |
| <b>Totals</b> |                    | <b>75,660</b>                          | <b>6,550</b>     | <b>82,210</b>              | <b>18,890</b>  | <b>101,100</b>      | <b>396</b>                     | <b>100%</b> | <b>69.2</b>                                       |

Source: 2000 US Census; New Hampshire Office of Energy and Planning Population Projections 2000-2030, LSC 2007.

**Program Trip Need**

The methodology for forecasting need for program-related trips involves two factors.

- *Determining the number of participants in each program.*
- *Applying a trip rate per participant using TCRP demand methodology.*

The program data available for Carroll County include the following programs —Developmentally Disabled, Group Home, Head Start, Mental Health Services, Senior Nutrition, and Sheltered Workshop. The participant numbers were reported by individual agencies and are also available through the Department of Developmental Disabilities. Appendix D presents the TCRP trip rates applied to each of the programs.

The existing program demand estimates are presented in Table VI-2. The existing program trip demand, using the participant numbers for each of the programs, is approximately 175,860 annual trips for Carroll County.

| <b>Table VI-2<br/>Carroll County 2005 Estimated Program-Related Transit Demand</b>   |                                    |                             |
|--|------------------------------------|-----------------------------|
| <b>Program Type</b>  | <b>Estimated # of Participants</b> | <b>Annual One-Way Trips</b> |
| Developmental Services   |                                    |                             |
| <i>Adult</i>   | 88 pp                              | 35,949                      |
| <i>Case Management</i>   | 35 pp                              | 1,361                       |
| <i>Pre-school -- 3 to 5 yrs (est.)</i>   | 28 pp                              | 6,268                       |
| Head Start   | 38 pp                              | 10,092                      |
| Job Training (est.)  | 139 clients                        | 19,082                      |
| Mental Health Services (est.)  | 27 clients                         | 9,196                       |
| <i>Case Management (est.)</i>  | 229 clients                        | 1,452                       |
| Nursing Home   | 99 pp                              | 1,069                       |
| Senior Nutrition (est.)  | 250 pp                             | 65,758                      |
| Sheltered Workshop* (est.)   | 49 pp                              | 18,786                      |
| Group Home   | 11 pp                              | 6,849                       |
| <b>TOTAL PROGRAM TRIPS</b>   |                                    | <b>175,860</b>              |
| <i>Source: Demand estimates based on the methodology presented in "TCRP Report 3: Workbook for Estimating Demand for Rural Passenger Transportation," and 2000 US Census Bureau.</i> |                                    |                             |
| <i>*Note: Est. = Best Estimation Technique used from 2000 US Census Bureau.</i>  |                                    |                             |

## **Summary of TCRP Methodology**

When combining the program need estimates and non-program need estimates using the TCRP methodology, Carroll County's total existing transit need is approximately 277,000 annual trips.

$$\begin{aligned} & \mathbf{101,100 \text{ non-program trips} + 175,860 \text{ program trips} =} \\ & \mathbf{276,960 \text{ TOTAL Annual Rural Transit Demand}} \end{aligned}$$

At this time, no non-program annual trips are provided, but some of the 176,000 program trips are likely being met by human service agencies and volunteer groups; however, the exact number of trips provided is unknown.

The result shows that there is a large unmet need for transit trips in the region.

## **GREATEST TRANSIT NEEDS**

The "greatest transit need" is defined as those areas in Carroll County with the highest percentage of zero-vehicle households and elderly, disabled, and below-poverty populations. This information was used in the development of a transit plan for the area and the identification of appropriate service boundaries.

### **Methodology**

The data included in Chapter IV were used to calculate the greatest transit need. The categories used for the calculation were zero-vehicle households, elderly population, disabled population, and below-poverty population. Using these categories, LSC developed a "transit need index" to determine the greatest transit need. The percentage of the population for each US Census block group within each category was calculated, placed in numerical order, and divided into six segments. Six segments were chosen in order to reflect a reasonable range. Each segment contained an approximately equal number of US Census Block Groups in order to provide equal representation.

The US Census Block Groups in the segment with the lowest percentages were given a score of 1. The block groups in the segment with the next lowest per-

centages were given a score of 2. This process continued for the remainder of the block groups. The block groups in the segment with the highest percentages were given a score of 6. This scoring was completed for each of the categories (zero-vehicle households, elderly population, disabled population, and below-poverty population). After each of the block groups was scored for the four categories, the four scores were added up to achieve an overall score. Table VI-3 presents the ranked scores for each US Census block group in Carroll County. The scores range from eight (lowest need) to 20 (highest need).

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**Table VI-3  
2005 Greatest Transit Need Scores by Census Block Group**

| Census Tract                 | Census Block Group | Land Area (sq.mi.) | Zero-Vehicle Hhlds |             |      | Total # of Hhlds | Total Number of Elderly 60 & over |              |      | Mobility-Limited Population |             |      | Below-Poverty Population |             |      | Overall Score (8-20) | Final (1-6) | Total Population (Persons) # |
|------------------------------|--------------------|--------------------|--------------------|-------------|------|------------------|-----------------------------------|--------------|------|-----------------------------|-------------|------|--------------------------|-------------|------|----------------------|-------------|------------------------------|
|                              |                    |                    | #                  | %           | rank |                  | #                                 | %            | rank | #                           | %           | rank | #                        | %           | rank |                      |             |                              |
| 9551                         | 1                  | 107.2              | 22                 | 2.8%        | 3    | 787              | 451                               | 25.5%        | 4    | 10                          | 0.6%        | 1    | 130                      | 7.4%        | 4    | 12                   | 3           | 1,766                        |
| 9551                         | 2                  | 42.2               | 16                 | 3.9%        | 4    | 418              | 201                               | 21.0%        | 1    | 14                          | 1.5%        | 2    | 54                       | 5.7%        | 3    | 10                   | 2           | 956                          |
| 9551                         | 3                  | 13.8               | 24                 | 4.2%        | 4    | 563              | 198                               | 16.1%        | 1    | 10                          | 0.8%        | 1    | 127                      | 10.4%       | 5    | 11                   | 3           | 1,227                        |
| 9553                         | 1                  | 82.1               | 10                 | 1.9%        | 2    | 511              | 228                               | 18.3%        | 2    | 23                          | 1.8%        | 3    | 127                      | 10.2%       | 5    | 12                   | 3           | 1,249                        |
| 9553                         | 2                  | 5.7                | 7                  | 1.6%        | 2    | 416              | 212                               | 21.5%        | 3    | 3                           | 0.3%        | 1    | 51                       | 5.2%        | 2    | 8                    | 1           | 985                          |
| 9553                         | 3                  | 1.8                | 0                  | 0.0%        | 1    | 470              | 206                               | 21.3%        | 3    | 10                          | 1.0%        | 2    | 68                       | 7.0%        | 4    | 10                   | 2           | 971                          |
| 9553                         | 4                  | 4.4                | 35                 | 12.2%       | 6    | 286              | 262                               | 36.9%        | 6    | 53                          | 7.5%        | 6    | 27                       | 3.8%        | 1    | 19                   | 6           | 711                          |
| 9553                         | 5                  | 3.9                | 37                 | 7.0%        | 5    | 530              | 239                               | 21.6%        | 3    | 50                          | 4.5%        | 5    | 86                       | 7.8%        | 4    | 17                   | 5           | 1,105                        |
| 9553                         | 6                  | 0.3                | 65                 | 20.4%       | 6    | 319              | 103                               | 14.4%        | 1    | 65                          | 9.1%        | 6    | 249                      | 34.8%       | 6    | 19                   | 6           | 715                          |
| 9554                         | 1                  | 1.6                | 17                 | 5.4%        | 4    | 325              | 158                               | 20.1%        | 3    | 34                          | 4.3%        | 5    | 123                      | 15.6%       | 6    | 18                   | 5           | 785                          |
| 9554                         | 2                  | 1.2                | 27                 | 9.9%        | 5    | 274              | 120                               | 20.7%        | 3    | 24                          | 4.1%        | 5    | 98                       | 16.9%       | 6    | 19                   | 6           | 578                          |
| 9554                         | 3                  | 5.2                | 7                  | 1.8%        | 2    | 365              | 168                               | 18.8%        | 2    | 24                          | 2.7%        | 4    | 53                       | 5.9%        | 3    | 11                   | 3           | 896                          |
| 9554                         | 4                  | 11.9               | 0                  | 0.0%        | 1    | 281              | 167                               | 25.1%        | 4    | 17                          | 2.6%        | 4    | 9                        | 1.3%        | 1    | 10                   | 2           | 666                          |
| 9554                         | 5                  | 10.8               | 8                  | 2.0%        | 3    | 374              | 71                                | 7.3%         | 1    | 47                          | 4.8%        | 5    | 103                      | 10.7%       | 5    | 14                   | 4           | 968                          |
| 9555                         | 1                  | 45.3               | 9                  | 1.6%        | 2    | 542              | 267                               | 20.0%        | 3    | 28                          | 2.1%        | 3    | 63                       | 4.7%        | 2    | 10                   | 2           | 1,333                        |
| 9555                         | 2                  | 21.3               | 10                 | 2.1%        | 3    | 473              | 177                               | 14.4%        | 1    | 21                          | 1.7%        | 3    | 61                       | 4.9%        | 2    | 9                    | 1           | 1,230                        |
| 9556                         | 1                  | 106.5              | 27                 | 3.0%        | 3    | 898              | 394                               | 18.8%        | 2    | 41                          | 2.0%        | 3    | 229                      | 10.9%       | 5    | 13                   | 3           | 2,095                        |
| 9556                         | 2                  | 29.3               | 30                 | 5.5%        | 4    | 553              | 275                               | 20.5%        | 3    | 40                          | 3.0%        | 4    | 136                      | 10.1%       | 5    | 16                   | 4           | 1,343                        |
| 9556                         | 3                  | 93.5               | 9                  | 1.4%        | 2    | 613              | 415                               | 29.7%        | 5    | 13                          | 0.9%        | 1    | 85                       | 6.1%        | 3    | 11                   | 3           | 1,397                        |
| 9558                         | 1                  | 39.7               | 14                 | 2.7%        | 3    | 532              | 239                               | 17.3%        | 2    | 87                          | 6.3%        | 6    | 208                      | 15.0%       | 6    | 17                   | 5           | 1,383                        |
| 9558                         | 2                  | 38.0               | 12                 | 1.8%        | 2    | 654              | 454                               | 32.1%        | 6    | 71                          | 5.0%        | 5    | 96                       | 6.8%        | 3    | 16                   | 4           | 1,416                        |
| 9559                         | 1                  | 20.3               | 38                 | 7.7%        | 5    | 494              | 372                               | 26.4%        | 5    | 56                          | 4.0%        | 5    | 152                      | 10.8%       | 5    | 20                   | 6           | 1,408                        |
| 9559                         | 2                  | 28.0               | 48                 | 9.7%        | 5    | 492              | 249                               | 21.1%        | 3    | 33                          | 2.8%        | 4    | 90                       | 7.7%        | 4    | 16                   | 4           | 1,177                        |
| 9559                         | 3                  | 27.3               | 35                 | 4.2%        | 4    | 830              | 441                               | 22.2%        | 4    | 67                          | 3.4%        | 4    | 196                      | 9.8%        | 4    | 16                   | 4           | 1,990                        |
| 9560                         | 1                  | 28.6               | 30                 | 7.4%        | 5    | 408              | 205                               | 19.9%        | 2    | 37                          | 3.6%        | 4    | 67                       | 6.5%        | 3    | 14                   | 4           | 1,033                        |
| 9560                         | 2                  | 11.9               | 16                 | 3.9%        | 4    | 423              | 260                               | 23.3%        | 4    | 22                          | 1.9%        | 3    | 95                       | 8.5%        | 4    | 15                   | 4           | 1,115                        |
| 9560                         | 3                  | 22.9               | 28                 | 3.3%        | 4    | 847              | 443                               | 21.6%        | 3    | 100                         | 4.9%        | 5    | 151                      | 7.4%        | 4    | 16                   | 4           | 2,051                        |
| 9560                         | 4                  | 4.5                | 13                 | 3.2%        | 4    | 408              | 165                               | 15.3%        | 1    | 15                          | 1.4%        | 2    | 21                       | 1.9%        | 1    | 8                    | 1           | 1,077                        |
| 9561                         | 1                  | 14.6               | 35                 | 7.2%        | 5    | 485              | 340                               | 28.9%        | 5    | 14                          | 1.2%        | 2    | 52                       | 4.4%        | 2    | 14                   | 4           | 1,177                        |
| 9561                         | 2                  | 3.4                | 9                  | 1.7%        | 2    | 517              | 218                               | 21.2%        | 3    | 25                          | 2.4%        | 3    | 97                       | 9.4%        | 4    | 12                   | 3           | 1,032                        |
| 9561                         | 3                  | 6.1                | 61                 | 9.3%        | 5    | 653              | 549                               | 35.4%        | 6    | 26                          | 1.7%        | 3    | 109                      | 7.0%        | 4    | 18                   | 5           | 1,548                        |
| 9561                         | 4                  | 7.9                | 52                 | 10.6%       | 6    | 492              | 394                               | 28.5%        | 5    | 9                           | 0.6%        | 1    | 58                       | 4.2%        | 2    | 14                   | 4           | 1,385                        |
| 9561                         | 5                  | 26.5               | 66                 | 10.2%       | 6    | 650              | 423                               | 28.8%        | 5    | 55                          | 3.8%        | 4    | 92                       | 6.3%        | 3    | 18                   | 5           | 1,467                        |
| 9563                         | 1                  | 35.6               | 0                  | 0.0%        | 1    | 516              | 352                               | 28.5%        | 5    | 20                          | 1.6%        | 2    | 74                       | 6.0%        | 3    | 11                   | 3           | 1,234                        |
| 9563                         | 2                  | 10.1               | 15                 | 2.6%        | 3    | 591              | 251                               | 17.8%        | 2    | 41                          | 2.9%        | 4    | 51                       | 3.6%        | 1    | 10                   | 2           | 1,412                        |
| 9563                         | 3                  | 15.3               | 0                  | 0.0%        | 1    | 297              | 180                               | 23.2%        | 4    | 13                          | 1.7%        | 3    | 9                        | 1.1%        | 1    | 9                    | 1           | 778                          |
| 9563                         | 4                  | 13.6               | 20                 | 3.0%        | 3    | 643              | 493                               | 34.1%        | 6    | 21                          | 1.4%        | 2    | 62                       | 4.3%        | 2    | 13                   | 3           | 1,447                        |
| 9564                         | 1                  | 23.9               | 3                  | 0.9%        | 1    | 382              | 240                               | 25.9%        | 4    | 18                          | 2.0%        | 3    | 60                       | 6.4%        | 3    | 11                   | 3           | 927                          |
| 9564                         | 2                  | 13.9               | 7                  | 1.6%        | 2    | 410              | 266                               | 27.4%        | 5    | 11                          | 1.1%        | 2    | 56                       | 5.8%        | 3    | 12                   | 3           | 971                          |
| 9564                         | 3                  | 12.2               | 7                  | 3.0%        | 3    | 214              | 166                               | 38.2%        | 6    | 11                          | 2.5%        | 4    | 33                       | 7.5%        | 4    | 17                   | 5           | 436                          |
| <b>Carroll County Total:</b> |                    | <b>992</b>         | <b>867</b>         | <b>4.3%</b> |      | <b>19,937</b>    | <b>11,013</b>                     | <b>23.2%</b> |      | <b>1,279</b>                | <b>2.7%</b> |      | <b>3,706</b>             | <b>7.8%</b> |      |                      |             | <b>47,439</b>                |

Source: 2000 US Census; New Hampshire Office of Energy and Planning Population Projections 2000-2030, LSC 2007.

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**Results**

Figure VI-1 presents Carroll County’s US Census Block Groups with the greatest transit needs, along with the transit needs index. Four block groups were determined to have the greatest transit needs based on the zero-vehicle households, elderly population, disabled population, and below-poverty population. Table VI-4 presents information on these four block groups. As shown in Figure VI-1, the greatest transit needs are mainly in Ossipee, Conway, and North Conway. The other areas of greatest transit needs are in and around Wolfeboro.

| <b>Table VI-4<br/>Census Block Groups with Greatest Transit Need</b> |                           |  |                      |             |
|--|---------------------------|--|----------------------|-------------|
| <b>Census Tract</b>  | <b>Census Block Group</b> | <b>Description</b>                                       | <b>Overall Score</b> | <b>Rank</b> |
| 9559   | 1                         | Ossipee  | 20                   | 6           |
| 9553   | 4                         | Area extending from North Conway to Conway along Route16 | 19                   | 6           |
| 9553   | 6                         | East of North Conway                                     | 19                   | 6           |
| 9554   | 2                         | South of Conway  | 19                   | 6           |
| <i>LSC, 2007.</i>  |                           |  |                      |             |

By identifying those areas with a high need for public transportation, LSC was able to uncover a pattern for the areas with the highest propensity to utilize transit service. As LSC examines transit service alternatives, Figure VI-1 can be used in the analysis to ensure that areas with a high transit need would be adequately served. Those US Census Block Groups not scoring in the highest category, but still having a high score, could still be considered a high priority for transit service.

Figure VI-1  
Greatest Transit Needs Index

