

**TRANSYLVANIA COUNTY SCHOOLS**  
**BREVARD, NORTH CAROLINA**

**INTEGRATED PLANNING FOR SCHOOL AND COMMUNITY  
(IPSAC)**

**LAND USE STUDY REPORT**

PREPARED AND SUBMITTED BY  
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INSTITUTE FOR TRANSPORTATION RESEARCH AND EDUCATION  
NORTH CAROLINA STATE UNIVERSITY  
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## INTEGRATED PLANNING FOR SCHOOL AND COMMUNITY

School systems nationwide are facing difficult planning challenges arising from a changing student population, an aging school infrastructure, and increasing complexity in pupil assignments. The communities that must fund building and renovation projects share these challenges. The Operations Research and Education Laboratory (OREd) has developed a system of Integrated Planning for School and Community (IPSAC) that integrates community and regional data, economic and demographic forecasts, land use studies, GIS student and school data, and mathematical optimization algorithms. The integrated planning system is comprised of multiple data-driven components including:

- Membership Forecasting
- Land Use Studies
- Out-Of-Capacity Analysis
- School Site Optimization
- Attendance Zone Optimization

OREd is part of the Geovisual Analytics and Decision Management (GADA) group at the Institute for Transportation Research and Education (ITRE) on Centennial Campus of North Carolina State University. Since its founding in 1990, OREd has assisted dozens of school districts in North Carolina and beyond and has served many districts for over two decades. OREd is a pioneer in data-driven decision science applications in school planning and continues to explore new technologies that help decision-makers better plan for their schools and the communities they serve.

This report documents findings from the limited study of the Transylvania County Schools district. The objective of this study is to quantify future growth potential. The study includes two components: interviews and data analysis.

**Interviews:** Interviews allow OREd to compose an impression of future growth of the study area by interviewing a cross-section of people from government, business, and civic leaders. By involving the community in the study, these critical interviews cultivate an understanding of infrastructure development plans (transportation, water/sewer), recent subdivision permits, residential zonings, available land for development, and comprehensive plans developed by the local government agencies.

**Data Analysis:** OREd performs geo-spatial analyses based on GIS parcel and student data using state-of-the-art GIS software. The GIS analysis provides quantitative data concerning available parcels and subdivision lots that then can be used to identify areas of future growth. Student demographic analysis can also be conducted at this stage to better understand socio-economic compositions that may influence school assignment decisions. Census data is also used to paint a broad picture of county demographics.

The end result of this analysis is a forecast of membership growth; by district and by school.

## INTRODUCTION

Transylvania County is located in western North Carolina, nestled in the Appalachian Mountains about 30 miles southwest of Asheville, NC and 60 miles north of Greenville-Spartanburg, SC. Transylvania County covers 379 square miles of which 136 square miles is National Forest land. Of the 242,988 acres in the county, nearly 76%

Land Classification	% Land in the County as a Constraint (Non-Developable)
Floodplains	4%
Protected Lands	54%
Subdivisions	12%
Slopes > 25%	Exact Data Not Available
<b>TOTAL</b>	<b>76%</b>

**Table 1 - Non-Developable Land**

has been identified as having development constraints. (See Table 1.) The remaining 60,000 acres includes steep slopes and prime farmland. The actual developable land area is less than 60,000 acres.

### Quick Facts and Forecasts

The population estimate for 2013 showed a -0.6% decrease since 2010. ACCESSNC<sup>1</sup> projects the population to increase to 35,029 in 2019 as shown in Table 2.

Year	Population
2019	35029
2014	34047
2013	32903
2010	33090
2000	29334

**Table 2 - Population**

The projected increase in the total population is not uniform across age groups. In particular, the number of school-aged persons is projected to decrease, as seen in Table 3, from 5326 in 2000 to 5063 in 2019.

Age Group	2000		2019	
All	29334		35029	
0 - 4	1435	4.9%	1504	4.3%
5 - 9	1591	5.4%	1559	4.5%
10 - 14	1776	6.1%	1681	4.8%
15 - 19	1959	6.7%	1823	5.2%
60+	8199	28.0%	11436	32.6%
Median Age	43.8		49.5	

**Table 3 - Population by Age Group**

This aging population is best defined by the median age. The median age rises from 43.8 in 2000 to an estimated 49.5 in 2019. Almost one-third of all persons in Transylvania County are projected to be 60 or older by 2019.

These projections follow a trend. The percentage of persons 18 years or younger of the total population has decreased from 20.36% in 2000 to 17.62% in 2010. The percentage of persons 60 years or older has increased from 21.42% in 2000 to 25.81% in 2010.

The number of households is projected to increase, as shown in Table 4. However, the average household size will continue to decrease to about 2.2 persons per household in 2019. A large number of the housing units will continue to be vacant (mostly because of seasonal residences).

	1990	2000	2019
Number of Housing Units	12893	15553	20721
Per Cent of Housing Units Vacant	23%	20.8	25%
Number of Owner Housing Units	8039	9917	11386
Number of Rental Housing Units	2411	2675	4096
Total households	10001	12370	14971
Average Household Size		2.29	2.2

**Table 4 - Housing Facts**

<sup>1</sup> ACCESSNC is a project of the N C Department of Commerce.

Of the top ten employers (by number of employees) in Transylvania County, half of them are government related, as shown in Table 5 (2014 2<sup>nd</sup> Quarter from ACCESSNC). About 4.5% of workers work at home. For those who commute to work, 9,129 work in Transylvania County, 3,697 work in a surrounding N C County, and 149 work outside of N C. Roughly 82% commuted alone, 10% carpoled, and 2.3% walked to work. Table 5 also shows the number of employees for companies that had employees in 1993 and 2003.

**Transylvania County is a small, thriving community with an economy built on tourism, small businesses, and innovative companies making unique products.**  
<http://www.transylvaniapartnership.com/>

In 2002, and in the years leading up to 2002, the county lost more than 2,000 manufacturing jobs (Ecusta, DuPont, and Coats America). Manufacturing has not returned to the county, but a number of small (young) companies have either moved to the area or are started in the county: SylvanSport, Oskar Blues, Trend Performance, Carmichael Training, and Gaia Herbs being examples. The Transylvania Partnership for Economic Development is funded by the County Commissioners. Approximately one-half million dollars per year (2015-2017) is committed to leading “responsible economic

<b>Rank Company Industry Employment Range</b>					
<b>(ACCESSNC) (2005 Comprehensive Plan)</b>			<b>Approximate # Employees: 2010, 2003, &amp; 1993</b>		
1	Transylvania County Schools	Education & Health Services	500-999	475	529
2	Transylvania Community Hospital Inc.	Education & Health Services	250-499	530	272
3	Transylvania County	Public Administration	250-499	328	250
4	Ingles Markets Inc.	Trade Transportation & Utilities	100-249	140	70
5	Town Of Brevard	Public Administration	100-249		
6	Brevard College Corp	Education & Health Services	100-249	228	135
7	Gaia Herbs Inc.	Manufacturing	100-249	70	
8	Transylvania Vocational	Education & Health Services	100-249	150	148
9	M B Industries Inc.	Manufacturing	100-249	208	188
10	Lowe's Home Centers Inc.	Trade Transportation & Utilities	100-249		
11	Wal-Mart Associates Inc.	Trade Transportation & Utilities	100-249	187	200
12	The Oaks - Brevard	Llc Education & Health Services	100-249		
13	Brevard Music Center Inc.	Education & Health Services	100-249		
14	Trails Carolina	Education & Health Services	50-99		
15	Eagles Nest Foundation Inc.	Leisure & Hospitality	50-99		
16	Connestee Falls Property Owners	Other Services	50-99		
17	College Walk Retirement Comm	Education & Health Services	50-99		
18	Lake Toxaway Country Club Inc.	Leisure & Hospitality	50-99		
19	Brian Center	Health Services	50-99	140	120
20	Pisgah Inn	Leisure & Hospitality	50-99		
21	Citizens Telephone Co.	Information	50-99		
22	U S Department Of Agriculture	Public Administration	50-99		
23	Bi Lo LLC	Trade Transportation & Utilities	50-99	80	85
24	McDonalds Restaurants	Leisure & Hospitality	50-99		
25	Rockbrook Camp	Leisure & Hospitality	50-99		

**Table 5 - Employers**

development through engaging the private and public sectors to develop community assets that are needed to maximize opportunities for investment and quality job creation.” (Mission Statement of the Transylvania Partnership for Economic Development) The success of the Henderson County industry recruiting agency in obtaining new industry, especially in the Mills River area, may have encouraged this investment by the commissioners. Another 175 new jobs is anticipated in 2015 because of the agency’s efforts. (Henderson Lightning, January 23, 2015) Because of the lack of affordable housing in Mills River, and the close proximity to Transylvania County (see Figure 1), the jobs in Mills River may end up bringing new residents to Transylvania County.



**Figure 1 - Mills River**

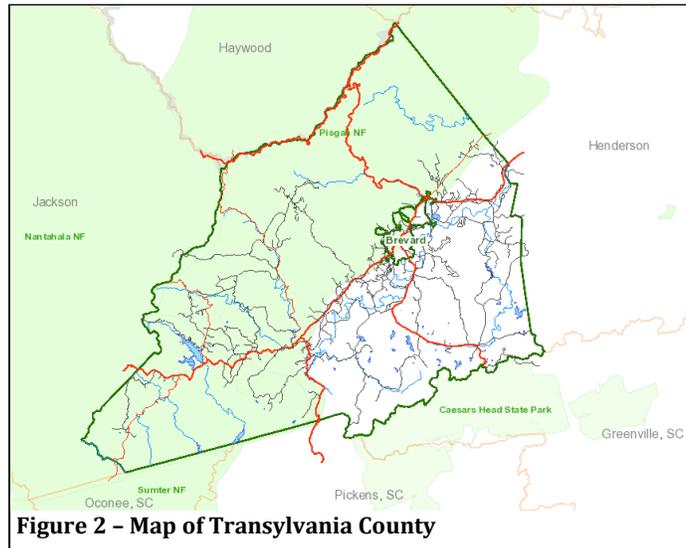
The median earnings per worker in Transylvania County is \$34,683, just above Jackson County and less than Buncombe, Henderson, Haywood, Pickens, and Greenville Counties. The median household income is \$41,781, just above Haywood and Jackson Counties, but below Pickens, Buncombe, Henderson, and Greenville Counties. About 12.4% of people are self-employed in Transylvania County (reported self-employment income), only lower than Buncombe County. In terms of source of income, Transylvania County has the largest proportion of investment and retirement income, 25.6%, as well as Social Security, 17.1%, of the total income, of all surrounding counties.

The unemployment rate in Transylvania County is reported at 5%. However, only 53.1% of the population is in the labor force, the lowest of all surrounding counties and much lower than the US rate of 64.3%. About 31.8% of all families in Transylvania County have no one working. 29.5% of families have a single earner.

Data sources: North Carolina Office of State Budget and Management, State Demographics Unit, [http://www.osbm.state.nc.us/ncosbm/facts\\_and\\_figures/socioeconomic\\_data/](http://www.osbm.state.nc.us/ncosbm/facts_and_figures/socioeconomic_data/) and the North Carolina Department of Commerce, <http://www.nccommerce.com/>

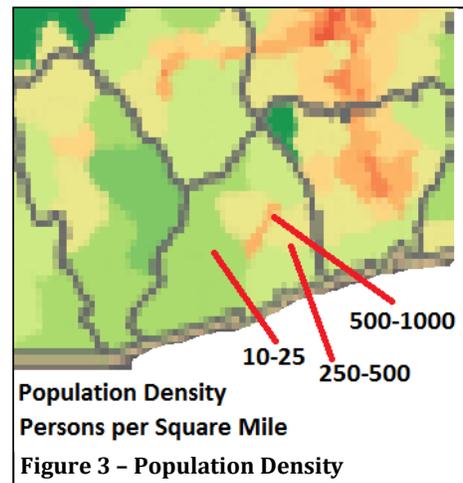
## GEOGRAPHIC STUDY AREAS OF TRANSYLVANIA COUNTY

Transylvania County is located between Asheville, NC and Greenville, SC. The county is composed of 381 square miles, of which 136 square miles is national forest land. Figure 2 is a map of the county, including national forest lands. The population density of 86 persons per square mile is misleading since the vast majority of the population is located in Brevard and in the southeastern section of the county – south and east of Brevard – as can be seen in Figure 3.



## GROWTH IN TRANSYLVANIA COUNTY

Over the ten-year period from 2000 to 2010, the county grew by 12.8%. Compared to past growth rates, the Transylvania County Planning Board believes the “growth rates are either stabilizing or decreasing.” < 2025 Comprehensive Plan, 1/13/2015 > Over the past 20 years, the county has grown slower than Buncombe, Haywood, Henderson, and Jackson counties.

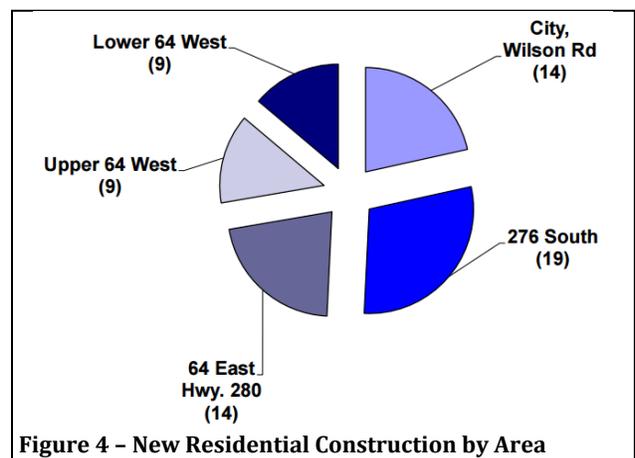


The relatively low percentage of Hispanics in Transylvania County in 2000, roughly 1% (77), has grown to about 4% (285) in 2010. Projections are for that number to increase; however, it would seem that without new job opportunities, the increase may slow.

The number of building permits for new residential structures was 65 in 2014, lower than the five-year average of 71.4. New construction was spread across the county as shown in Figure 4. The number of commercial permits was 6 in 2014, lower than the five-year average of 9.6.

The 2005 Comprehensive Plan listed three factors that negatively impact the county’s growth:

- ❖ AGFA (formerly DuPont), Ecusta and Coats America have all shut down.
- ❖ The State of North Carolina has purchased over 14,000 acres of private land for recreational use.
- ❖ The County’s overall population growth rate was 15% between 1990 and 2000, but the elderly population grew by 32.9% during the same time period.



This plan also noted the increasing median age of the population and the decreasing size of the average household – both negative impacts on the number of citizens in the county. The plan predicted a 15 to 20% increase in the county’s population over the next ten years – overestimating the actual rate of increase by 2.2 to 7.2%.

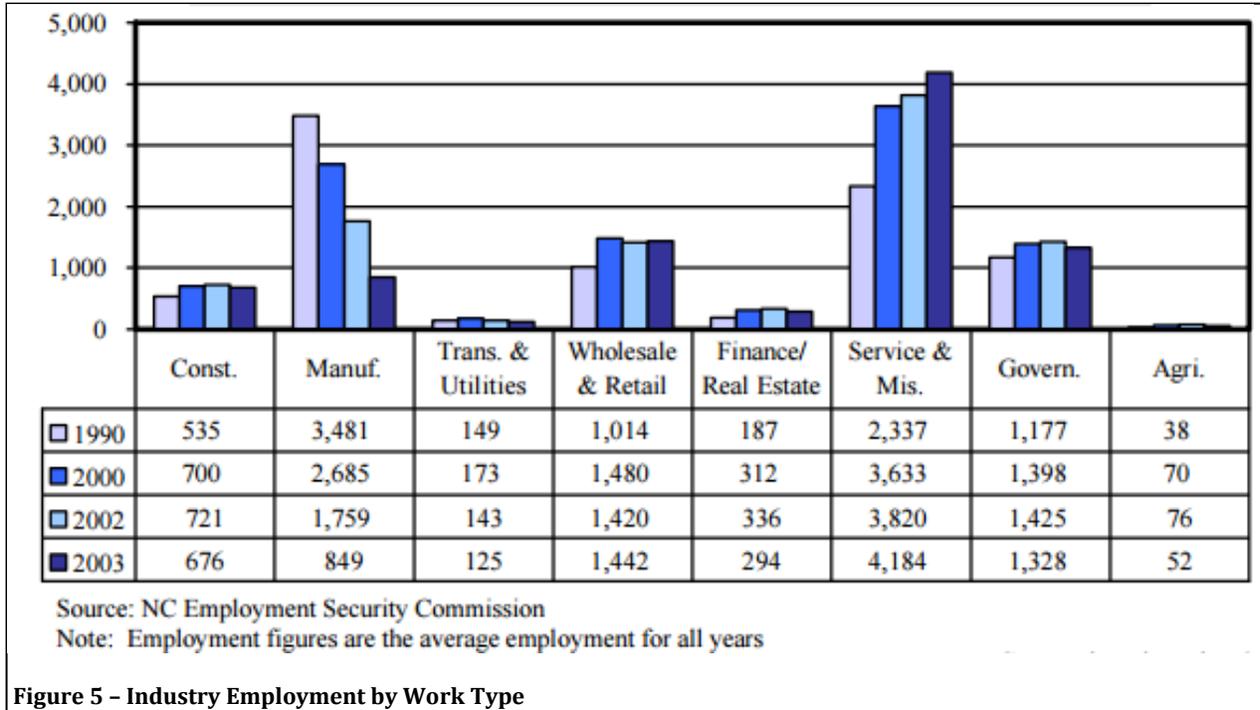


Figure 5 - Industry Employment by Work Type

Historically, a large number of Transylvania County citizens have been employed in manufacturing. That number decreased rapidly in the last decade of the 20<sup>th</sup> century. Those jobs were replaced by jobs in Wholesale and Retail and in Service and Misc. See Figure 5.

The AccessNC report in 2014 showed that, aside from private industry, health care, retail trade, accommodation and food service, and education, in addition to government, employed the most citizens of Transylvania County. See Figure 6.

Employment / Wages by Industry	2014 2nd Qtr Employment
Total All Industries	8,505
Total Government	1,532
Total Private Industry	6,974
Agriculture Forestry Fishing & Hunting	33
Mining	9
Utilities	0
Construction	381
Manufacturing	511
Wholesale Trade	144
Retail Trade	1,305
Transportation and Warehousing	50
Information	144
Finance and Insurance	204
Real Estate and Rental and Leasing	71
Professional and Technical Services	0
Mgt of Companies, Enterprises	0
Administrative and Waste Services	285
Educational Services	1,031
Health Care and Social Assistance	1,437
Arts, Entertainment and Recreation	209
Accommodation and Food Services	1,266
Other Services Ex. Public Admin	334
Public Administration	71
Unclassified	0

Figure 6 - Employment by Industry

The Transylvania County Planning and Economic Development Department mentions several existing and potential industrial sites in its 2005 publication. (See Figure 7.)

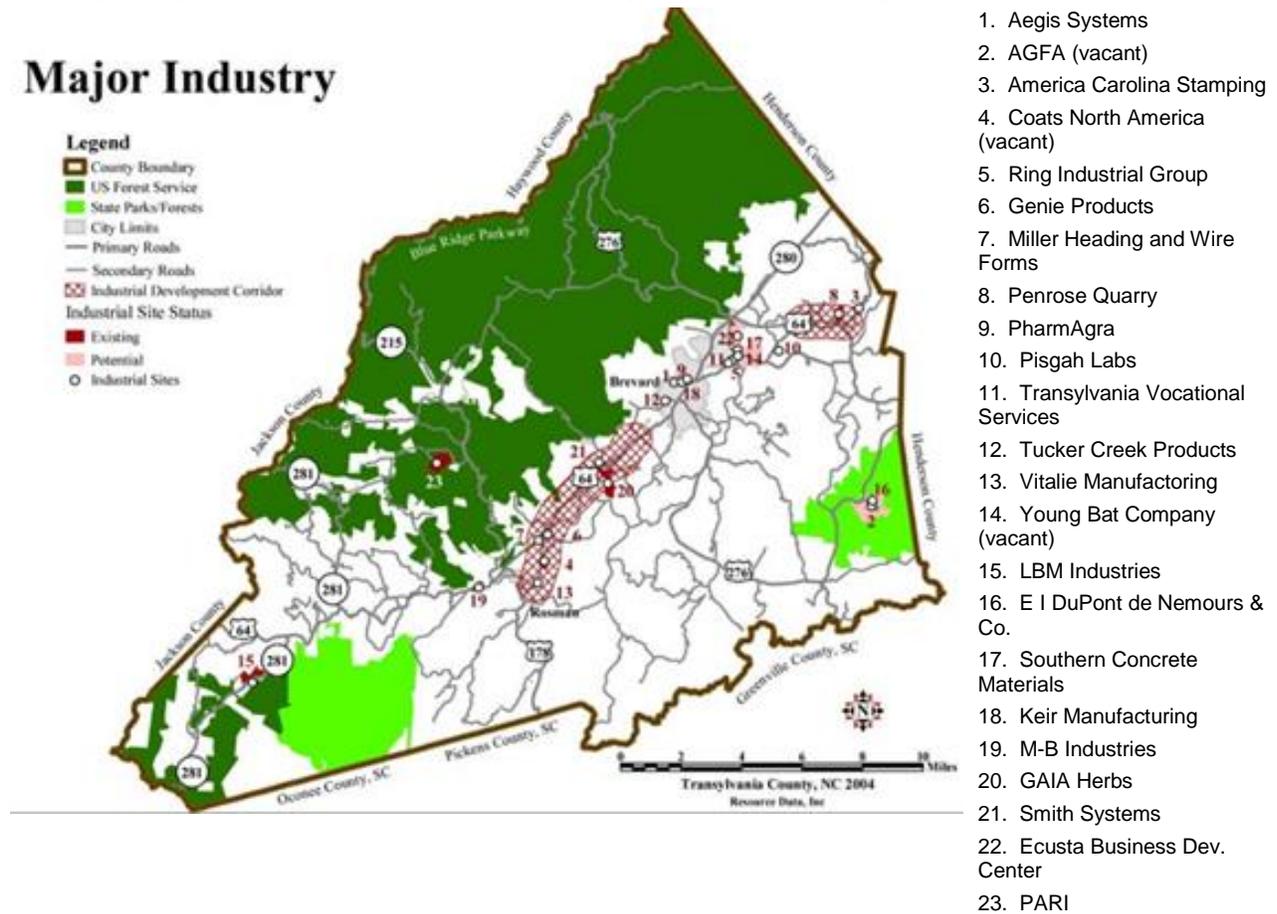


Figure 7 – Industry

## INFRASTRUCTURE – WATER/SEWER

The county has no water or sewer infrastructure. The City of Brevard and the Town of Rosman both provide water and wastewater services to their citizens and to a few properties outside their incorporated boundaries. The City of Brevard obtains its water from Cathey’s Creek. The Town of Rosman obtains its water from four wells. Both municipalities discharge waste into the French Broad River. As of a 2013 report to the commissioners <Transylvania County Planning Board Commissioners Report, June 2013>, there was no plan by the City or Town to make significant updates to their current systems or to build replacement facilities. The current water supplies should be sufficient for the next 10 to 20 years.

There are several residential communities that provide public water and/or wastewater services. Connestee Falls, Burlingame and Lake Toxaway are three examples. In addition, there are a number of smaller public water and wastewater systems that are permitted by the State, but most residents and businesses outside the incorporated areas of Brevard and Rosman use wells and septic systems.

## INFRASTRUCTURE – TRANSPORTATION

The 2013 report (above) discussed transportation issues. Three major projects were identified as “major issues” for the next ten years:

- Safety improvement and climbing lanes on US 64 from NC 107 at Cashiers to US 178 at Rosman.
- Relocation and construction of NC 215.
- Improving and paving NC 281 N to Jackson County

The report expressed the need for municipalities and developers to

- Consider the environment when planning transportation
- Promote alternative transportation (bike paths and pedestrian paths)

## EDUCATION

Transylvania County Schools manages nine schools that serve about 3,500 students. There are two high school attendance zones. Each high school is fed by a middle school that shares the same attendance zone. Each middle school is fed by two elementary schools. One special/alternative school serves middle and high school students.

Brevard Academy is a charter school that opened in 1998. It started the 2014-15 school year with 251 students. The target enrollment for 2016-17 is 325. The target enrollment will most likely require a move to a new campus and would represent a substantial increase in enrollment. Historical information shows enrollment averaging less than 200 students per year over the past 8 years. (This information was obtained from schooldigger.com. No one at the academy responded to requests for information.)

There may be as many as six private schools in Transylvania County. (Data is difficult to obtain.) Table 6 identifies these school as well as the approximate number of students they serve, the number of teachers (if known), and the grades taught.

**The mission of Transylvania County Schools is to prepare students to become caring and productive citizens in an ever-changing society through the shared responsibility of students, parents, educators, and the community.**  
[www.transylvania.k12.nc.us](http://www.transylvania.k12.nc.us)

<b>Private Schools</b>	<b># Students</b>	<b># Teachers</b>	<b>Grades</b>
Anchor Baptist Academy	10		K-11
Bethany Christian School	36	4	PK-8
Looking Glass Montessori School	9		PK
Mountain Sun Community School	48	11	PK-6
The Outdoor Academy	19	8	9-11
Wellspring Academy of the Carolinas	32	7	6-12

**Table 6 - Private Schools in Transylvania County**

There are at least two home school groups that serve Transylvania County residents. Nationwide, the US Dept. of Education estimates that 3% of the school-age population is homeschooled.

## GIS ANALYSIS AND MEMBERSHIP TRENDS

Another component of the IPSAC Land Use Study is collection and analysis of Geographic Information Systems (GIS) data. GIS analysis allows ORED to *quantify* student generation rates in different areas of the district.

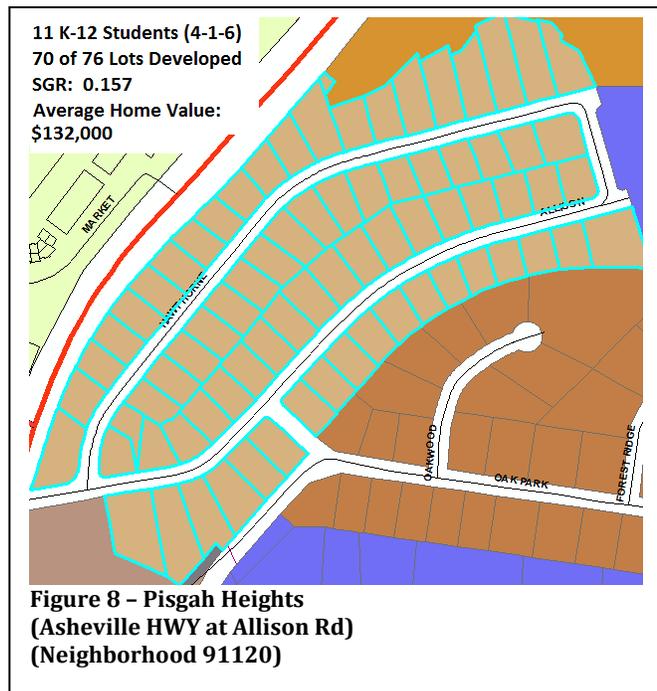
### Neighborhoods, Subdivisions and the Student Generation Ratio

An analysis of GIS data matched with planning data provides a student generation ratio (SGR) for a subdivision or neighborhood. Planning data is used to find the number of developed lots (residences). GIS data (student geocode) is used to find the number of students. The ratio of the number of students to the number of residences yields the SGR.

If additional lots are available in a subdivision, the SGR can project the number of school children those lots should produce. If a new subdivision is planned, the number of students that subdivision may generate can be approximated by using a known SGR from a comparable subdivision elsewhere in the county.

County planners have divided the county into 293 neighborhoods. These “neighborhoods” range from sections of the county that are sparsely developed to small subdivisions. Some neighborhoods, like those in the Lake Toxaway area, have no or very few students. By example, we will now demonstrate how an SGR is calculated and at the same time provide a glimpse into student population densities across the district.

Figures 8 – 11 show four different subdivisions/neighborhoods. For each, the number of K-12 students, the number of developed lots, the calculated SGR, and the average home value is shown. A *normal* SGR for a residential subdivision is between 0.60 and 1.00. The SGR in these subdivisions support the statistics previously mentioned: low persons per household, an aging population, and a low density of K-12 students.



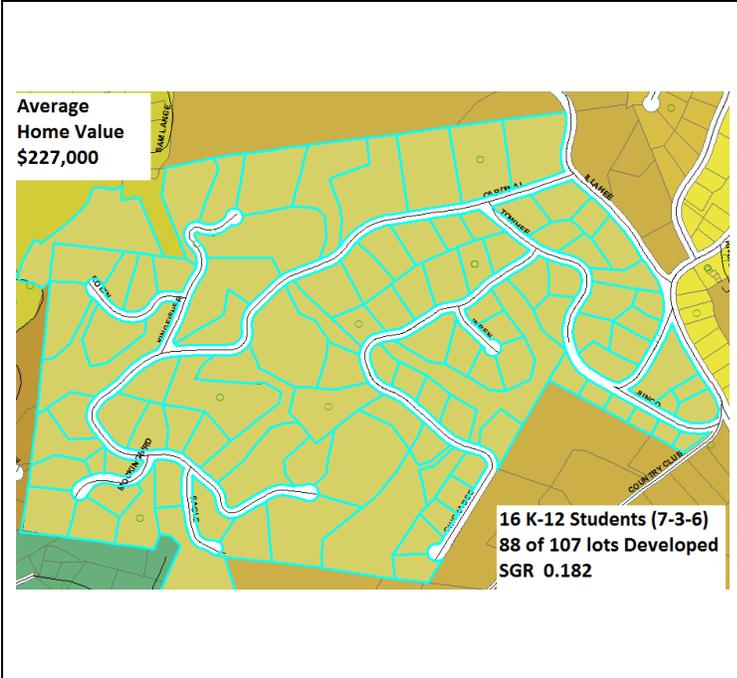


Figure 9 - South Illahee  
(Cardinal Rd and Illahee Rd)  
(Neighborhood 34206)



Figure 10 - Woodland Terrace  
(Woodland and Country Club)  
(Neighborhood 34101)

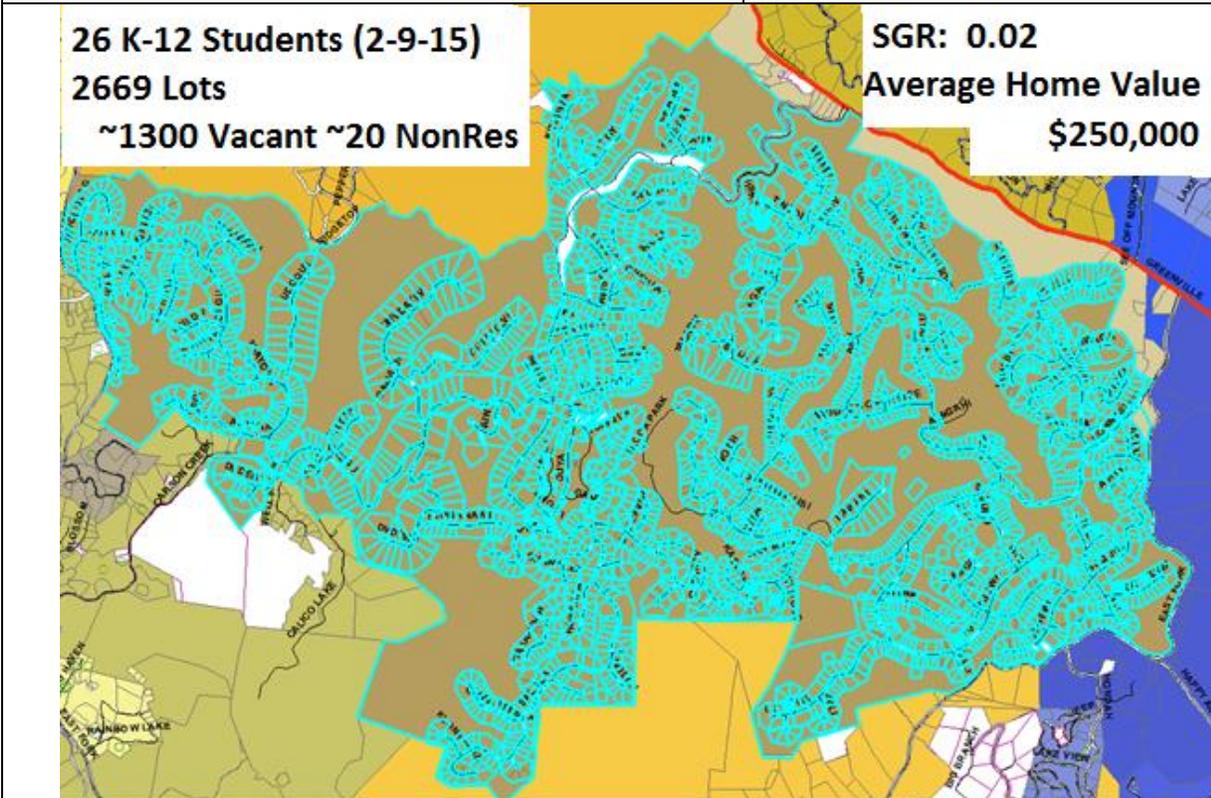


Figure 11 - Connestee Falls  
(Greenville Rd.)  
(Neighborhoods 30202, 30210, 30220, 30230, 30240, & 30250)

In addition to examining student density at the neighborhood level, GIS data can provide student density at the county level. Figure 12 shows the density of students using a graduated scale (right in students per square mile). Not surprisingly, the vast majority of the county has less than 40 students per square mile (unshaded).

GIS data also identifies up to 100 students who attend TCS who live in neighboring counties. The majority of those students live in the Mills River and Etowah areas. Students from Henderson County may attend TCS because of proximity or because of their parents work in Transylvania County. Since TCS does not charge tuition to students who live outside the county, this phenomenon should continue. If the population of Mills River area increases then TCS could expect an increase in this population.

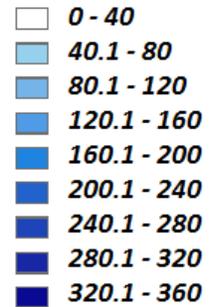
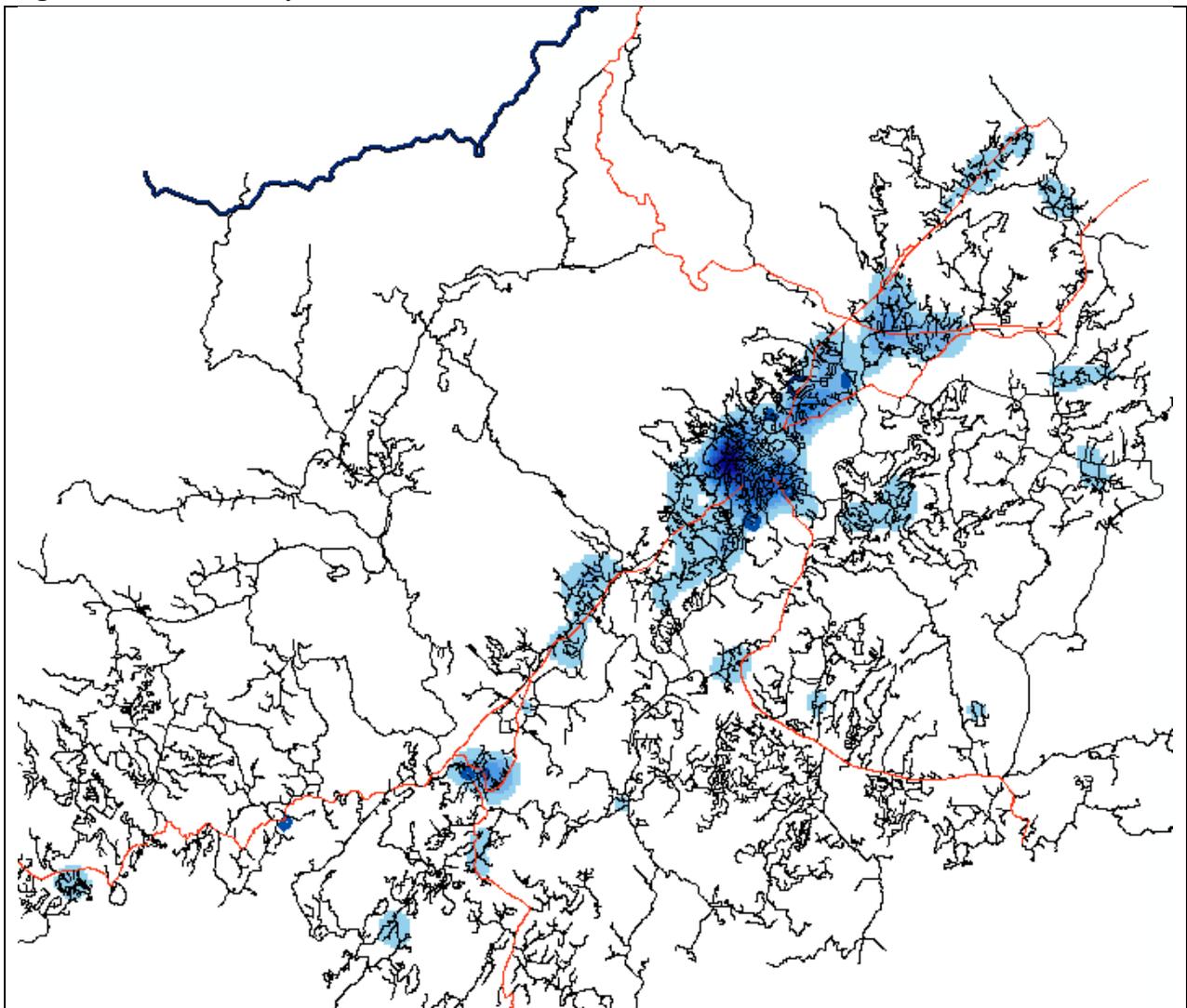


Figure 12 - Student Density



Parcel data provides a sales date. The most recent sales date available in the parcel data was January of 2014. Attempting to find areas of the county with significant growth, the parcels that show a sales date later than 2012 were identified and hi-lighted on the maps that appear in Figure 13. Because of limitations in the parcel layer (duplicate rows), the number of sales can only be approximated – about 1000 – or about 5% of the parcels changed hands in the 13 months between January 2013 and January 2014.

One neighborhood shows a significant percentage of sales in the past year – Ridge Haven (shown in the last box of Figure 13). That subdivision has about 150 lots with about 30 developed. Only 5 students reside in that subdivision per the data available.

This data – the SGR and the lots sold recently – helps to solidify the forecast. For example, Connestee Falls had 135 lots that were sold in the last 13 months. However, since the SGR for this subdivision is so small (0.02) those 135 lots (even if all were new homes) would only generate about 7 K-12 students.

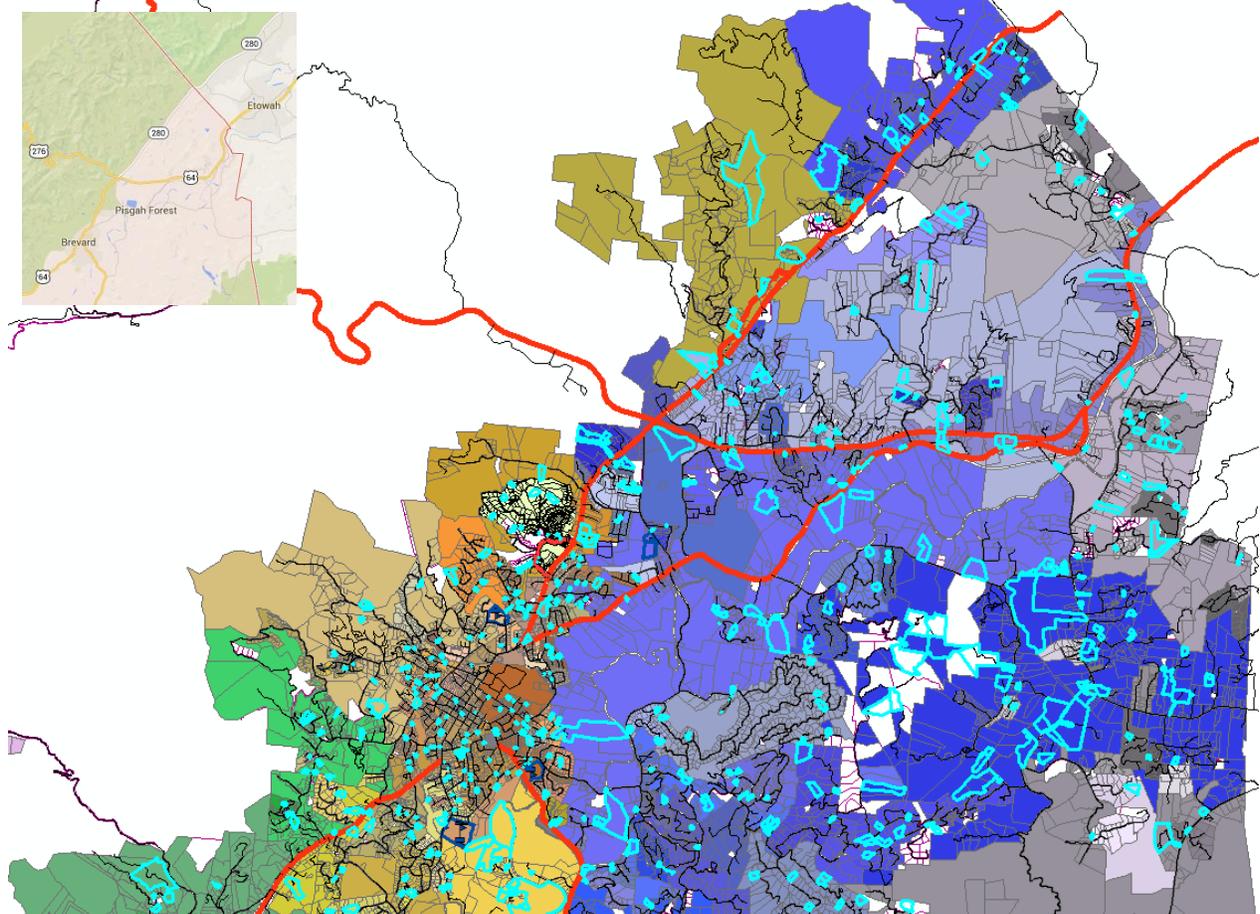
**Figure 13 - Neighborhood Map with Recently Sold Parcels Hi-Lighted**

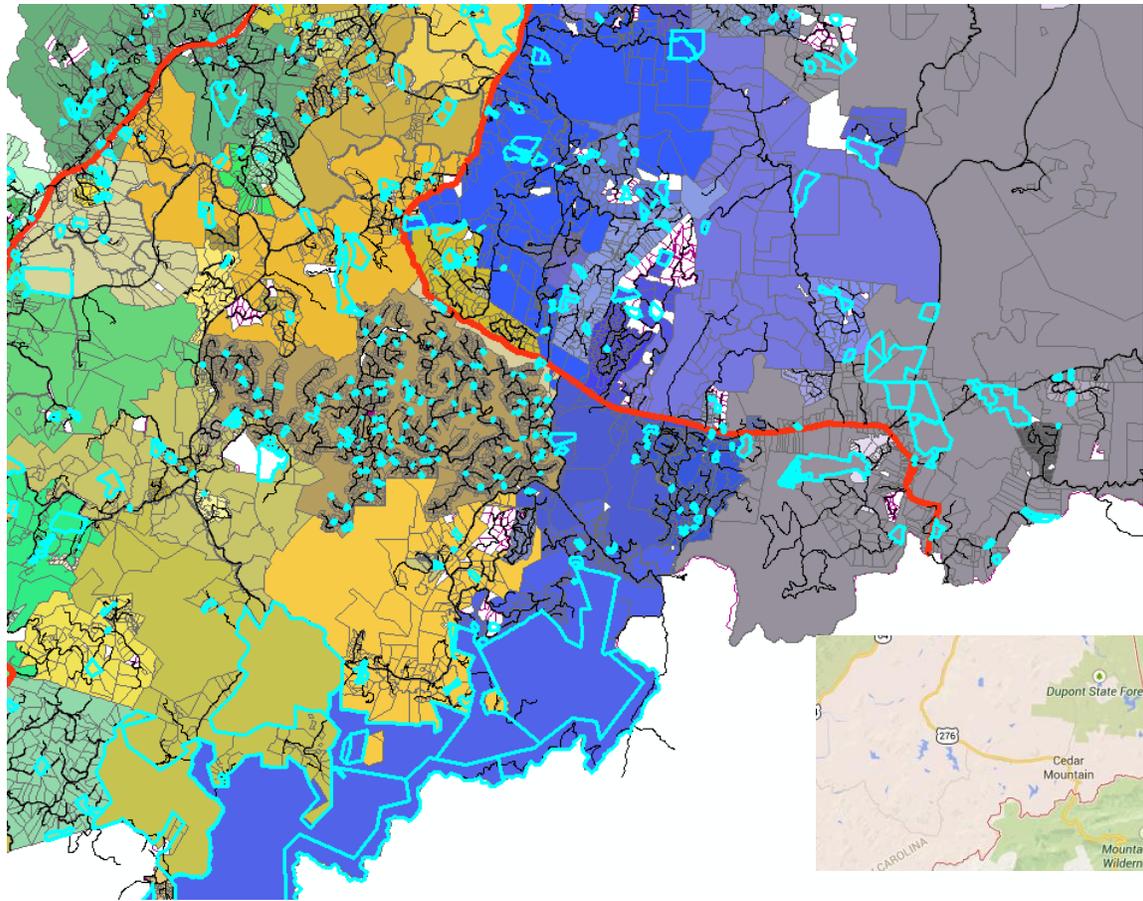
Neighborhoods, as defined by the County's GIS layer, are shaded by color.

Red lines denote major highways. Collector streets are colored black.

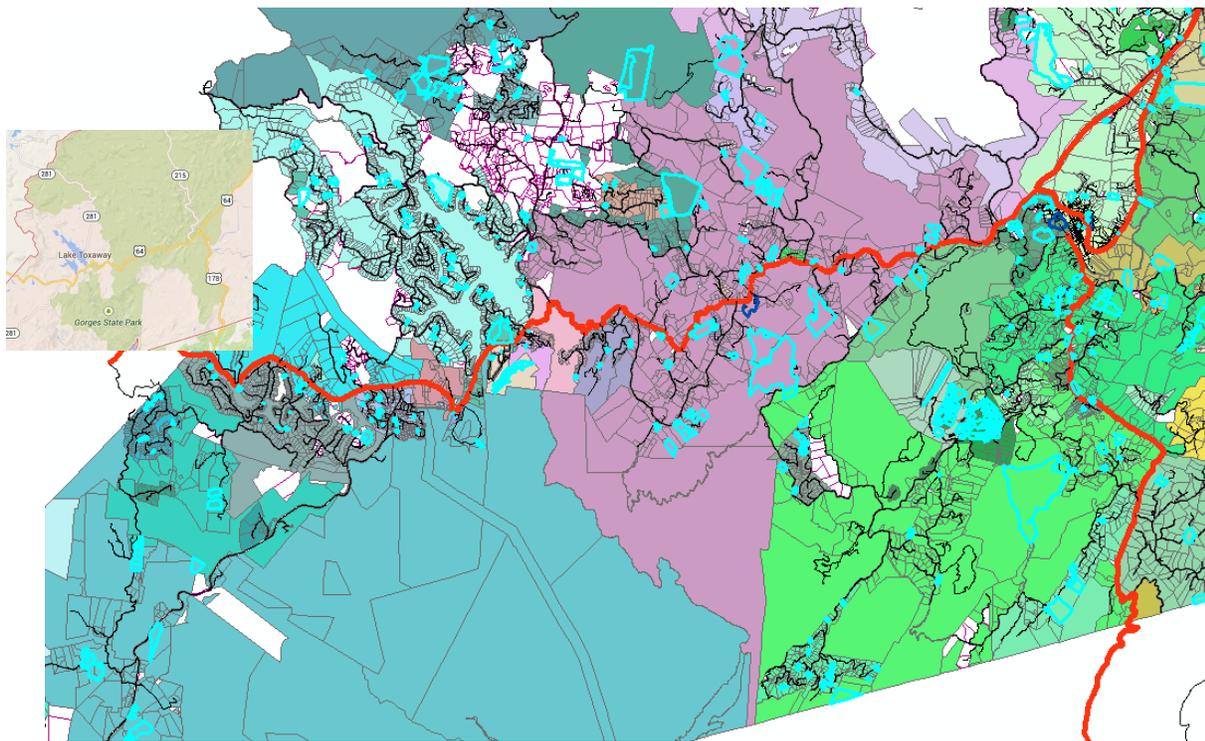
The parcels hi-lighted in light blue/green are those that have changed ownership since January 2014.

**SECTION OF THE COUNTY - Brevard north h and east**

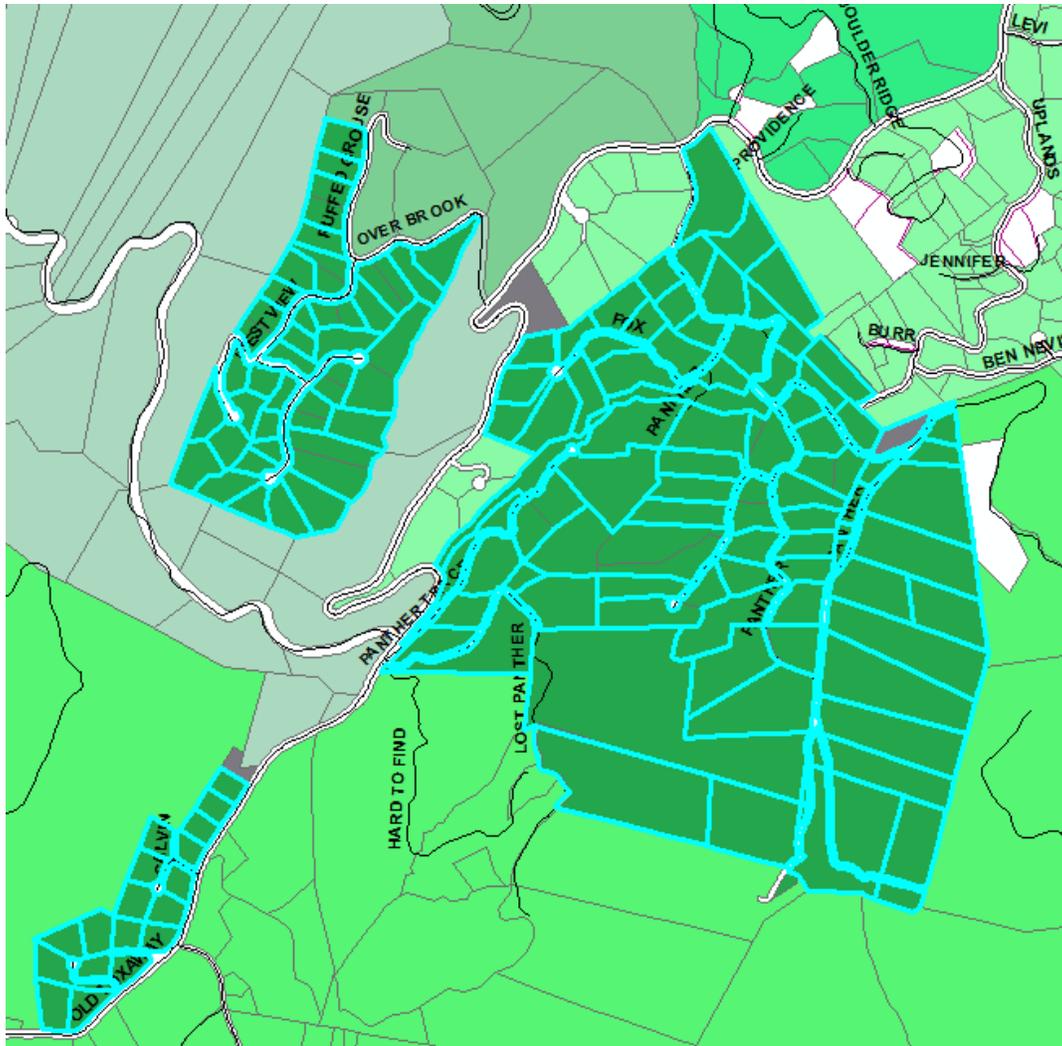




**SECTION OF THE COUNTY - southeast**



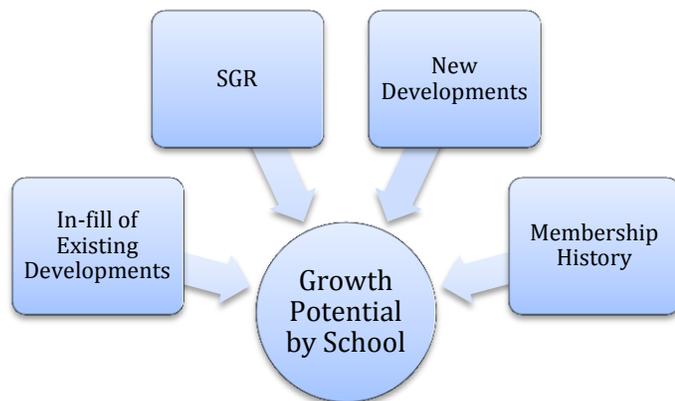
**SECTION OF THE COUNTY - southwestern**



**Ridge Haven**

The calculation of the Student Generation Ratio can provide an estimate of potential student growth impact from new residential development and in-fill. Using GIS tools, the inventory of existing available lots is combined with residential data collected during the Community Interviews and with the SGR to determine impact on individual schools within the district.

Membership history also plays a role in forecasting. Existing membership trends within a school can yield short-term fluctuations as grade cohorts advance year-by-year through the system.



## OUT-OF-CAPACITY TABLE

When the membership forecast – driven by GIS data, planning data, and historic membership trends – is combined with school building capacity, the result is the Out-of-Capacity table (OOC). Please refer to the OOC table, draft date: March 27, 2015 – pages 20 and 21.

### OOO Assumptions and Inputs

**Resident Live Births (RLB)** – Transylvania County resident live births are used as a part of the predictor for future kindergarteners (see Figures 14 and 15). The latest RLB data for 2013 (285) shows an increase of 41 from the 2012 RLB, the lowest number of RLB in over 10 years. The decline in RLB over the period 2010-2012 will significantly impact the system over the next 14 years unless in-migration occurs to negate this impact. A 1% increase in RLB is projected over the next six years. The average number of RLB between 2005 and 2009 was 303. The average number of RLB between 2010 and 2013 was 266.

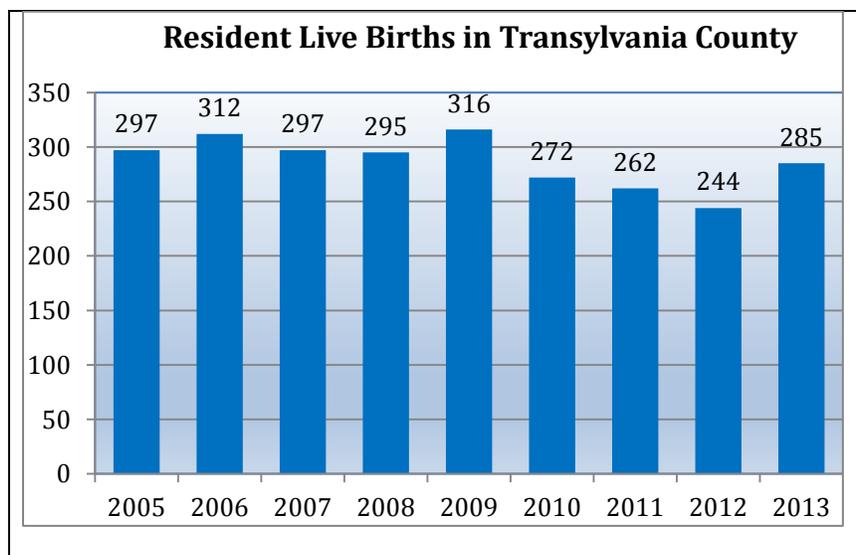


Figure 14 - Transylvania County RLB

The number of RLB by county is reported by the NC Center for Health Statistics. That number is generated from data hospitals provide. The county of birth is derived from the data the parents provide and is their current address. Thus, even though there may not be any new births that occur in the county, the RLB data will reflect the number of births by parents who reside in Transylvania County.

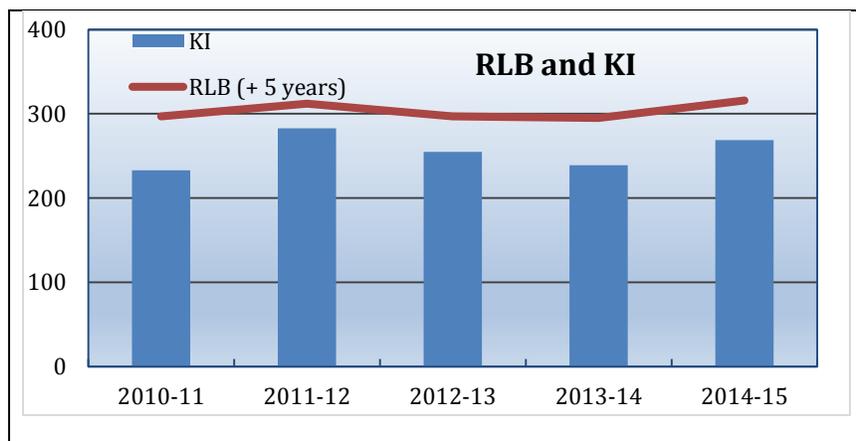
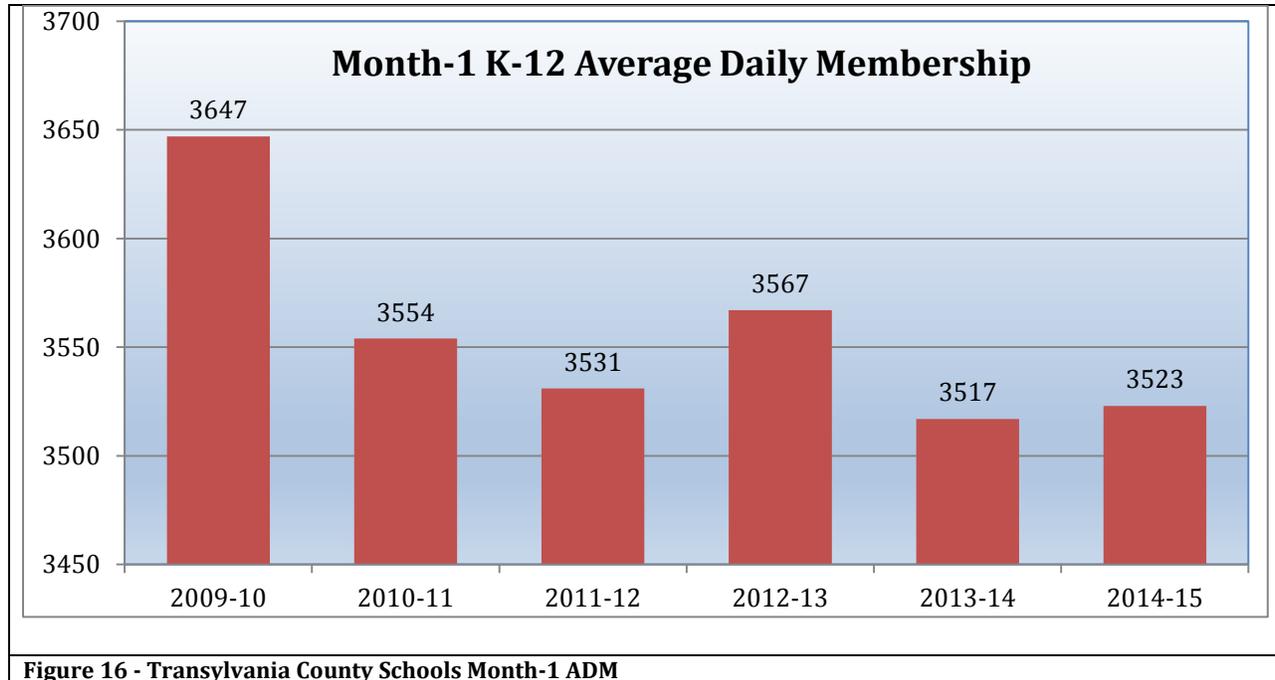


Figure 15 - Comparing Transylvania County RLB and Kindergarteners

RLB is a good predictor of K-students. For the past five years, the two data sets have a correlation coefficient of 0.85.

### Transylvania County Schools Month-1 Average Daily Membership (ADM)

The North Carolina Department of Public Instruction supplies historic Month-1 membership data for all LEAs in the state. Figure 16 shows ADM data for the period 2009-10 through 2014-15.



### Building Capacities

School building capacities were supplied by TCS.

### Forecast Model

In addition to the system-wide forecast, known as the *Historic*<sup>2</sup> forecast, OREd used a *Cohort-Feeder*<sup>3</sup> forecast model for TCS. The Cohort-Feeder forecast model is suitable for smaller districts having different growth trends in different regions of the county. The Cohort-Feeder model allows growth characteristics of the individual feeder systems within the district to be examined separately. To determine an appropriate forecast, both models can be compared. When convergence occurs, the likelihood of the forecast being accurate is high.

Figure 17 compares the Historic forecast with the Cohort-Feeder forecast. The two forecasts are very close for at least the next four years. It is not unusual for the cohort-feeder model to be somewhat more aggressive than the historical forecast during the last half of the forecast – as

<sup>2</sup> The Historic model uses historical data to determine the cohort survival ratio on a grade-by-grade basis for the entire system. The weighted average of the last four years of CSRs is used to determine a forecast.

<sup>3</sup> The Cohort-Feeder model uses historic data to determine an average CSR on a grade-by-grade basis for each school. The average of the last four years of CSRs for that school is used to move that cohort through each grade. The feeder system defines the CSR for the first grade in each level. For example, the CSR for the 6<sup>th</sup> grade in a middle school is derived using the number of 5<sup>th</sup> graders from the two elementary schools that feed that middle school.

shown below.

**Figure 17 – Historic vs. Cohort-Feeder Forecast**

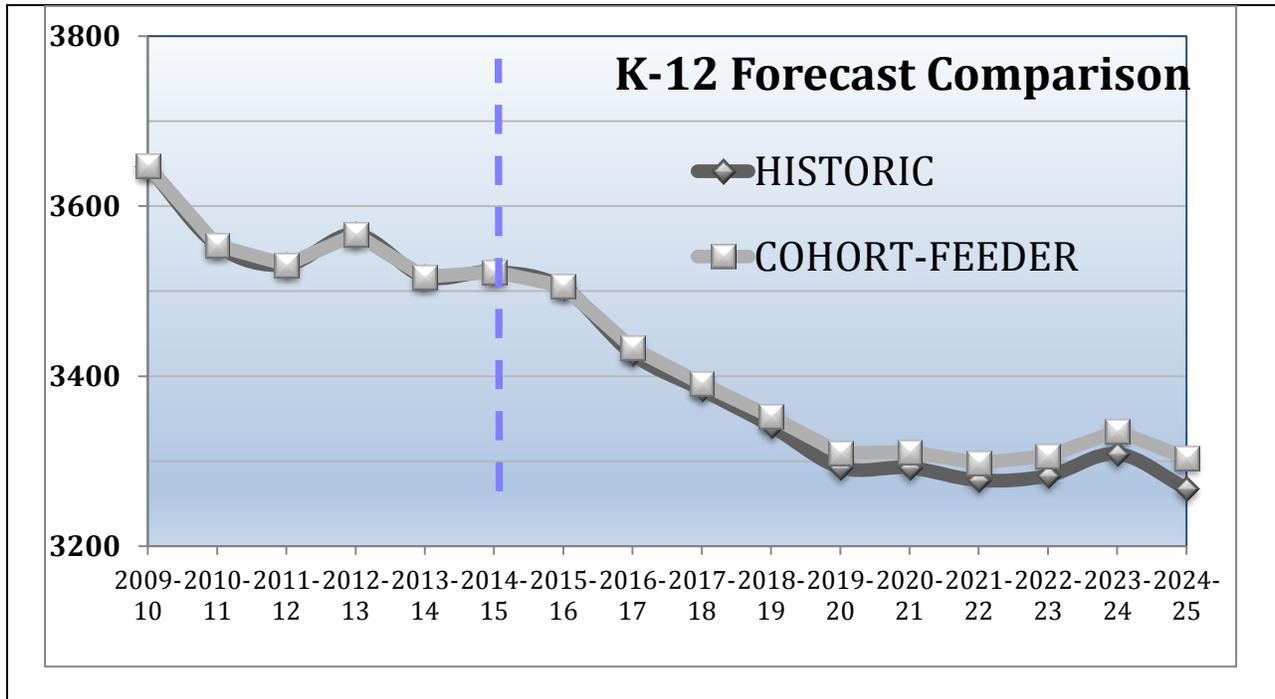
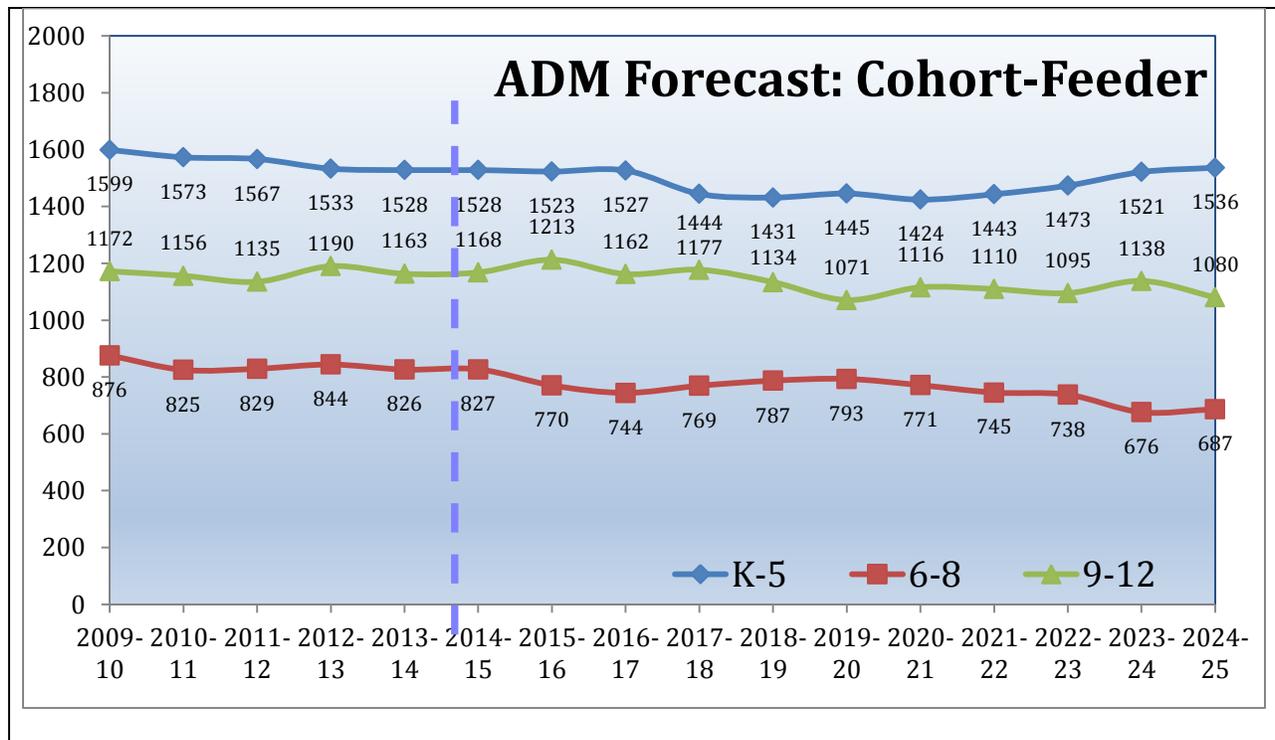


Figure 18 shows the cohort-feeder forecast split into K-5/6-8/9-12 cohorts.

**Figure 18 – Cohort-Feeder Forecast by Level**



### Forecast and OOC Summary

The March 27, 2015 draft of the OOC projects a system-wide decline of 229 students over the next ten years, a projected decline of 1.35% per year.

The forecast, by level, shows the number of elementary students dipping, because of the decrease in RLB, and then rebounding to only decline by 2 students in ten years. The number of middle schools students, more susceptible to annual changes, declines sharply, rebounds, and then declines again because of the negative cohort from the elementary level due to RLB. A decline of 136 students is forecast. The negative cohort in the elementary schools now creates a smaller dip at the high school level. The effect of the RLB decline is just getting into high schools at the end of this forecast. High schools are projected to lose 91 students over ten years.

The 2014-15 OOC for Transylvania County schools is color-coded by building utilization:

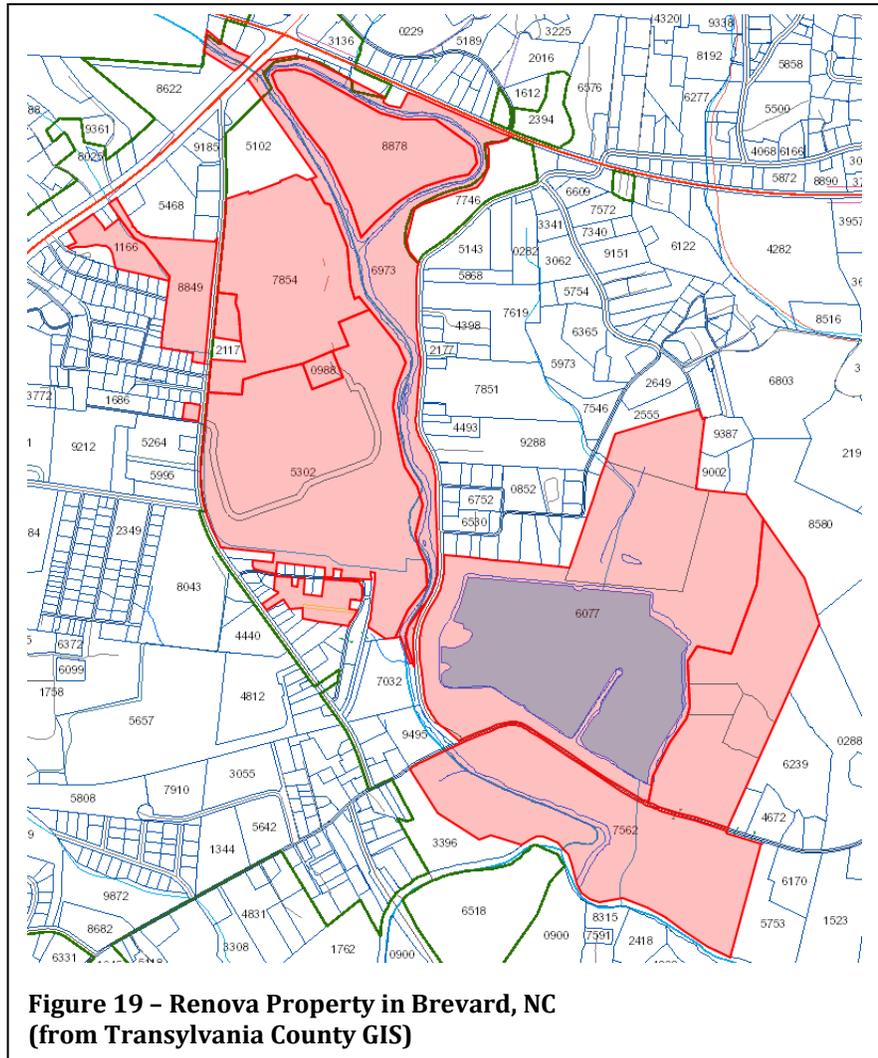


Two versions of the OOC table were generated: one table groups schools by level and the other table groups schools by region. By region, the Brevard area loses 51 students in ten years. The Rosman area loses 178 students. By school, the forecast shows some pressure on capacity at Brevard Elem, Brevard Middle, and Brevard High over the next three to five years. However, the negative cohorts in the middle of the forecast lessen that pressure. Similarly, Rosman Middle and Roman High are projected to be in the 95-100% capacity range in the next three years.

These forecasts are based on historical data. That data includes in-migration and out-migration. It includes the shifts from public to private schools and academies and to home schools. Therefore,

if the Transylvania Partnership for Economic Development is successful in attracting new employers, the forecast may need to be re-examined.

The Davidson River Village project (Renova Partners LLC) includes about 540 acres on the edge of Brevard (formerly the Ecusta Paper Mill). Renova acquired the property, shown in Figure 19, in 2008 and has worked with the US EPA and NC ENR to ensure that a thorough clean-up takes place. They intend to work closely with local government to ensure that a “vibrant community center is created.” The plan is to include retail, residential, and hospitality development as well as open public space. <accessed from [www.renovapartners.com](http://www.renovapartners.com) on 3/30/15).



**Figure 19 – Renova Property in Brevard, NC  
(from Transylvania County GIS)**

Thank You

We conclude by expressing our gratitude to Mark Burrows and his staff at Transylvania County Planning and Community Development and to Jeremy Gibbs, Tom Sweet, and Julie Roberts at TCS for providing ORED with information and data for this report.

### Transylvania County Schools Out-of-Capacity Table - By Level

1. Month-1 ADM data supplied by NC DPI.  
 2. Cohort-Feeder Forecast Model - 03272015.

	Capacities	Pre-K	Month-1	Forecasted Month-1 ADM									
	2014-15	2014-15	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
<b>Elementary Schools (K-5)</b>													
Brevard Elementary	534		521	526	529	495	497	503	492	498	509	526	531
Pisgah Forest Elementary	585		544	555	554	527	512	526	510	517	528	545	550
Rosman Elementary	414		331	308	299	284	287	284	285	289	295	305	308
T C Henderson Elementary	151		132	134	137	131	126	123	127	129	132	136	138
<b>Totals</b>	<b>1684</b>	<b>0</b>	<b>1528</b>	<b>1523</b>	<b>1518</b>	<b>1436</b>	<b>1422</b>	<b>1436</b>	<b>1414</b>	<b>1433</b>	<b>1464</b>	<b>1511</b>	<b>1526</b>
<b>Middle Schools (6-8)</b>													
Brevard Middle	583		543	500	489	526	560	560	551	531	536	481	488
Rosman Middle	289		280	271	255	243	227	233	220	215	201	195	199
<b>Totals</b>	<b>872</b>	<b>0</b>	<b>823</b>	<b>770</b>	<b>744</b>	<b>769</b>	<b>787</b>	<b>793</b>	<b>771</b>	<b>745</b>	<b>738</b>	<b>676</b>	<b>687</b>
<b>High Schools (9-12)</b>													
Brevard High	754		719	738	704	718	682	645	697	708	703	752	707
Rosman High	376		354	372	356	361	354	328	321	303	294	288	275
<b>Totals</b>	<b>1130</b>	<b>0</b>	<b>1073</b>	<b>1110</b>	<b>1060</b>	<b>1079</b>	<b>1036</b>	<b>973</b>	<b>1017</b>	<b>1011</b>	<b>997</b>	<b>1040</b>	<b>982</b>
<b>Special/Alternative</b>													
Davidson River School	114		99	103	102	98	98	98	98	98	98	98	98
<b>System Total</b>	<b>3800</b>	<b>0</b>	<b>3523</b>	<b>3506</b>	<b>3424</b>	<b>3383</b>	<b>3343</b>	<b>3300</b>	<b>3301</b>	<b>3288</b>	<b>3296</b>	<b>3326</b>	<b>3294</b>

**Capacity Legend**

< 95%	95% - 100%	100% - 105%	> 105%
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### Transylvania County Schools Out-of-Capacity Table - By Region

1. Month-1 ADM data supplied by NC DPI.  
 2. Cohort-Feeder Forecast Model - 03272015.

	Capacities	Pre-K	Month-1	Forecasted Month-1 ADM									
	2014-15	2014-15	2014-15	2015-16	2016-17	2017-18	2018-19	2019-20	2020-21	2021-22	2022-23	2023-24	2024-25
<b>Brevard</b>													
Brevard Elementary	534		521	526	529	495	497	503	492	498	509	526	531
Pisgah Forest Elementary	585		544	555	554	527	512	526	510	517	528	545	550
Brevard Middle	583		543	500	489	526	560	560	551	531	536	481	488
Brevard High	754		719	738	704	718	682	645	697	708	703	752	707
<b>Totals</b>	<b>2456</b>	<b>0</b>	<b>2327</b>	<b>2319</b>	<b>2276</b>	<b>2266</b>	<b>2250</b>	<b>2233</b>	<b>2250</b>	<b>2254</b>	<b>2276</b>	<b>2303</b>	<b>2276</b>
<b>Rosman</b>													
Rosman Elementary	414		331	308	299	284	287	284	285	289	295	305	308
T C Henderson Elementary	151		132	134	137	131	126	123	127	129	132	136	138
Rosman Middle	289		280	271	255	243	227	233	220	215	201	195	199
Rosman High	376		354	372	356	361	354	328	321	303	294	288	275
<b>Totals</b>	<b>1230</b>	<b>0</b>	<b>1097</b>	<b>1085</b>	<b>1046</b>	<b>1019</b>	<b>995</b>	<b>968</b>	<b>953</b>	<b>936</b>	<b>922</b>	<b>924</b>	<b>919</b>
Davidson River School	114		99	103	102	98	98	98	98	98	98	98	98
<b>System Total</b>	<b>3800</b>	<b>0</b>	<b>3523</b>	<b>3506</b>	<b>3424</b>	<b>3383</b>	<b>3343</b>	<b>3300</b>	<b>3301</b>	<b>3288</b>	<b>3296</b>	<b>3326</b>	<b>3294</b>

**Capacity Legend**

< 95%	95% - 100%	100% - 105%	> 105%
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Figure 20 - OOC for Transylvania County Schools