UNC Charlotte Urban Institute
Union County
Profile 2009

Charlotte Regional Indicators Project

The Charlotte Regional Indicators Project. The Charlotte Regional Indicators Project compiles objective, reliable, and relevant measures for the 14-county bi-state Charlotte region on indicators important to the region's quality of life. By measuring the indicators over time and comparing them to state or national data, the Indicators Project provides policy-makers, civic leaders, and the public with a solid foundation for engaging in efforts to address the region's challenges.

The indicators are organized in ten theme areas:

- Arts, Recreation, and Cultural Life;
- Economy;
- Education;
- Environment;
- Government and Citizen Participation;
- Health;
- Housing;
- Public Safety;
- Social Well-Being; and,
- Transportation.

The Charlotte Regional Indicators Project is an initiative of the UNC Charlotte Urban Institute. It is funded in part by Advantage Carolinas, the Foundation for the Carolinas, and the Z. Smith Reynolds Foundation. Indicators are recommended by consensus of Task Forces of regional experts in each of the ten theme areas, and are evaluated by UNC Charlotte Urban Institute researchers for feasibility before indicator data is gathered, added to the Indicators database and incorporated into Indicators Project reports. Indicator data is updated throughout the year as source agencies release the relevant data sets, and is made available on the Indicators Project website. A comprehensive Indicators Report is produced every two years.

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## Union County Profile 2009

The County Profile Reports. The County Profile Reports present individual county indicator data in a format intended to make it easy to examine relationships between indicators and across themes for a single county. Each County Profile Report begins with a concise summary of indicator highlights for the county, then presents a quick-reference table of the most recent indicator data, and finally provides more detailed indicator trend data in user-friendly charts. The reports are available for each of the region's fourteen counties, and are produced every two years.

Summary Highlights. For the most recent indicator data, Union outpaces the region on all but a few indicators. Union lags the region on these individual indicators:

Grants Expenditures Per Capita
Library Print Holdings Per Capita
Percent Population with Bachelors Degree or Higher
Developed Acreage, Per Capita
Registered Public Charities Per 1,000
Private Foundations Filing Form 990 per 1,000
Giving Per Capita (Public Charities)


Giving Per Capita (Private Foundations)
Housing Units per 1,000
Calls for Emergency Service (911) Per Capita
Elderly Assistance Rate
Percent of Workers Commuting More Than 25 Minutes
(Note that for some individual indicators, "lagging the region" means the indicator rates are higher than the regional composite rates, and that for other indicators, "lagging the region" means that the indicator rates are lower than the regional composite percentage.)

Looking at trends over time, key Union County indicators demonstrating appreciable change over the most recent available five-year time periods include:

- Giving Per Capita (Private Foundations) (+ $194.6 \%, 2006$ vs. 2002)
- Grants Expenditures Per Capita (+138.9\%, 2007 vs. 2005)
- Construction Cost Per Unit Permitted (+47.8\%, 2007 vs. 2003)
- Percent Change in Public School Enrollment vs. Prior Year (+38.9\%, 2006-07 vs. 2002-03)
- People in Motor Vehicle Accidents, Property Damage Only (+36.0\%, 2006 vs. 2001)
- Average Apartment Vacancy Rate (-34.7\%, 2008 vs. 2004)
- Solid Waste Disposal, Pounds Per Capita (+32.3\%, 2007 vs. 2004)
- People in Motor Vehicle Accidents, Total (+31.5\%, 2006 vs. 2001)
- Number of Housing Units Permitted Per 1000 (-29.7\%, 2007 vs. 2003)
- Percent of Graduates Pursuing Higher Education (+29.0\%, 2001-02 vs. 2005-06)


## Quick-Reference Indicator Table

Union County Profile 2009

| Indicator by Theme | Year | Region ${ }^{1}$ | County | County |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Percent Change | From Year |
| Arts, Recreation, and Cultural Life |  |  |  |  |  |
| Grants Expenditures Per Capita | 2007 | \$0.84 | \$0.25 | 138.9 | 2005 |
| Library Funding Per Capita | 2007 | \$25.66 | \$24.82 | -1.9 | 2004 |
| Library Print Holdings Per Capita | 2006 | 1.6 | 1.2 | -7.9 | 2002 |
| Economy |  |  |  |  |  |
| Unemployment Rate | 2007 | 5.1 | 4.0 | -23.1 | 2003 |
| Total Employment, All Industries | 2007 | 1,148,937 | 58,450 | 24.9 | 2003 |
| Number of Business Establishments | 2007 | 68,947 | 4,490 | 29.5 | 2003 |
| Average Annual Wage | 2007 | \$34,995 | \$35,308 | 16.3 | 2003 |
| Per Capita Income | 2006 | \$34,958 | \$30,898 | 16.9 | 2002 |
| Median Household Income | 2007 | \$44,772 | \$60,612 | 12.5 | 2003 |
| Education |  |  |  |  |  |
| Percent Change in Public School Enrollment vs. Prior Year ${ }^{2}$ | 2006-07 | 3.8 | 12.8 | 38.9 | 2002-03 |
| Percent Population with Bachelors Degree or Higher | 2007 | 28.2 | 26.9 | 26.3 | 2000 |
| Average SAT Score | 2007-08 | 992 | 1023 | -0.6 | 2003-04 |
| High School Cohort Graduation Rate | 2007-08 | 71.9 | 77.2 | 8.2 | 2005-06 |
| Percent of Graduates Pursuing Higher Education | 2005-06 | 82.9 | 86.3 | 29.0 | 2001-02 |
| Public School Expenditures Per Pupil | 2005-06 | \$7,362 | \$6,743 | 13.6 | 2001-02 |
| Per Pupil Capital Expenditures, 5 Year Avg. | 2005-06 | \$857 | \$1,547 | 9.0 | 2004-05 |
| Environment |  |  |  |  |  |
| Vehicle Emissions of Nitrogen Oxides, Pounds Per Capita | 2002 | 82.8 | 58.3 | NA | NA |
| Average Daily Water Consumption, Gallons Per Capita | 2002 | 160.9 | 149.3 | -10.9 | 1997 |
| Solid Waste Disposal, Pounds Per Capita | 2007 | 3,188.0 | 2,864.2 | 32.3 | 2004 |
| Developed Acreage, Per Capita | 2006 | 0.41 | 0.48 | 10.6 | 1996 |
| Government and Citizen Participation |  |  |  |  |  |
| Percent Voter Turnout of Registered Voters | 2008 | 68.5 | 72.1 | 6.4 | 2004 |
| Registered Public Charities Per 1,000 | 2007 | 2.5 | 1.8 | 4.0 | 2004 |
| Public Charities Filing Form 990 Per 1,000 | 2007 | 0.9 | 0.7 | -2.7 | 2004 |
| Private Foundations Filing Form 990 per $1,000$ | 2007 | 0.21 | 0.04 | -26.1 | 2004 |
| Giving Per Capita (Public Charities) | 2007 | \$724.55 | \$218.75 | 20.3 | 2003 |
| Giving Per Capita (Private Foundations) | 2006 | \$110.04 | \$5.45 | 194.6 | 2002 |
| Health |  |  |  |  |  |
| Birth Rate Per 1,000 | 2007 | 15.1 | 15.2 | -7.3 | 2003 |
| Total Infant Mortality Per 1,000 Live Births | 2007 | 6.7 | 5.3 | 6.6 | 2003 |
| White Infant Mortality Per 1,000 Live Births | 2007 | 5.6 | 4.6 | 4.3 | 2003 |
| Minority Infant Mortality Per 1,000 Live Births | 2007 | 9.6 | 9.3 | 12.9 | 2003 |
| Total Mortality Rate Per 100,000 | 2007 | 747.5 | 552.3 | -9.1 | 2003 |
| Heart Disease Mortality Rate Per 100,000 | 2007 | 170.7 | 132.7 | -19.0 | 2003 |
| Cancer Mortality Rate Per 100,000 | 2007 | 167.4 | 112.1 | -23.4 | 2003 |
| Suicide Rate Per 100,000 | 2007 | 11.0 | 8.1 | -2.4 | 2003 |
| Chlamydia Rate Per 100,000 | 2007 | 241.7 | 131.0 | 22.6 | 2003 |
| Gonorrhea Rate Per 100,000 | 2007 | 148.6 | 112.6 | 29.9 | 2003 |

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## Quick-Reference Indicator Table

Union County Profile 2009

| Indicator by Theme | Year | Region ${ }^{1}$ | County | County |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | Percent Change | From Year |
| Housing |  |  |  |  |  |
| Housing Units Per 1,000 | 2007 | 430.2 | 365.1 | -1.3 | 2003 |
| Percent Single Family Detached Housing | 2000 | 67.1 | 82.3 | 6.3 | 1990 |
| Percent Single Family Attached Housing | 2000 | 2.8 | 1.0 | 21.0 | 1990 |
| Percent Multi-family Housing | 2000 | 18.2 | 6.2 | -26.1 | 1990 |
| Percent Mobile Home or Trailer Housing | 2000 | 11.8 | 10.5 | -17.2 | 1990 |
| Percent Other Housing ${ }^{3}$ | 2000 | 0.1 | 0.0 | -96.1 | 1990 |
| Percent Owner Occupied Housing | 2007 | 69.2 | 80.2 | -0.4 | 2000 |
| Percent Renter Occupied Housing | 2007 | 30.8 | 19.8 | 1.6 | 2000 |
| Number of Housing Units Permitted Per 1,000 | 2007 | 11.4 | 14.1 | -29.7 | 2003 |
| Construction Cost Per Unit Permitted | 2007 | \$165,197 | \$220,221 | 47.8 | 2003 |
| Average Residential Sales Price | 2007 | \$235,517 | \$291,874 | 12.4 | 2005 |
| Average Apartment Vacancy Rate | 2008 | 9.1 | 7.9 | -34.7 | 2004 |
| Average Apartment Rental Rate | 2008 | \$677.17 | \$658.00 | 10.2 | 2004 |
| Public Safety |  |  |  |  |  |
| Calls for Emergency Service (911) Per <br> Capita | 2007 | 0.78 | 0.83 | 2.5 | 2005 |
| Crime Index Per 10,000 | 2007 | 531.0 | 302.4 | 20.5 | 2003 |
| People in Motor Vehicle Accidents, Total | 2007 | 153,726 | 10,585 | 31.5 | 2001 |
| People in Motor Vehicle Accidents, Property Damage Only | 2007 | 94,140 | 6,475 | 36.0 | 2001 |
| People in Motor Vehicle Accidents, Fatality | 2007 | 746 | 68 | 25.9 | 2001 |
| People in Motor Vehicle Accidents, Non-fatal Injury | 2007 | 58,840 | 4,042 | 25.1 | 2001 |
| Investigated Workplace Fatalities | 2008 | 12 | 0 | -100.0 | 2004 |
| Social Well-Being |  |  |  |  |  |
| Percent Individuals Living in Poverty | 2007 | 11.9 | 7.4 | -9.0 | 2000 |
| Percent Families Living in Poverty | 2007 | 8.6 | 6.0 | 3.1 | 2000 |
| Percent Children Living in Poverty | 2007 | 15.9 | 10.4 | -21.0 | 2003 |
| Percent of Report of Child Abuse or Neglect <br> Substantiated | 2005-06 | 22.2 | 12.2 | -18.3 | 2004-05 |
| Percent Births to Mothers Under Age 18 | 2007 | 3.8 | 3.4 | -2.4 | 2003 |
| Elderly Assistance Rate | 2007 | 42.2 | 45.8 | 4.6 | 2000 |
| Transportation |  |  |  |  |  |
| Percent of Workers 16 or Older Driving to <br> Work Alone <br> P | 2007 | 81.7 | 84.7 | 4.0 | 2000 |
| Percent of Workers Commuting More Than 25 Minutes | 2007 | 42.3 | 52.1 | 3.4 | 2000 |

For each indicator for which county-level data is available as of January, 2009, this table presents the most recent data for the county and the region, along with a percent change for the county. County percent change represents a five-year trend wherever possible: it is the percent change from a prior year (the "from year" column) to the most recent data; generally, the "from year" is five years prior. Indicator definitions and data sources can be found at the end of this document. Regional data is calculated as a fourteen county average whenever possible, and exceptions to this are detailed in the endnotes. Unless otherwise noted, "Per 1,000 " or "per 100,000" refers to population.

# Indicator Trend Data 

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## Demographics

Union County is one of the more populous counties in the region. Between 2000 and 2007, the population increased $49 \%$ from 123,677 to 184,675 . From 1960 to 2000 , the population increased each decade, and almost tripled during that 40-year time span. The County's population is projected to increase at a faster rate through 2030. Also, the county became more diverse as the Asian and Pacific Islander share of the population doubled and the Hispanic share of the population increased 56\% from 2000 to 2007. Between 2000 and 2007, the county's age distribution shifted slightly towards the 45 and older age groups, although the 35-44 age group remained the largest group.
 20002001200220032004200520062007

Source: US Census: Decennial, Estimates Division

## Decennial Population and Projections



19601970198019902000201020202030

Source: NC Office of State Budget and Management, NC State Demographics; South Carolina State Budget and Control Board Office of Research Statistics, SC Community Profiles

## Percent Population Growth



Source: US Census: Decennial, Estimates Division

Race and Ethnicity as Percent of Total Population


Source: US Census: Decennial, Estimates Division

Indicator Trend Data
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Source: US Census: Decennial, Estimates Division

## Arts, Recreation, and Cultural Life

Arts, recreation and cultural activities are measured by four indicators:

- Grants Expenditures;
- Library Holdings;
- Library Funding; and,
- Arts Graduates.

Of these, only the first three have countylevel data available. Per capita grant expenditures by arts and cultural organizations increased by two and a half times from 2005 to 2007. Government funding for libraries per capita decreased $18 \%$ from 2004 to 2006 and then rebounded in 2007. Public library print holdings per capita declined $8 \%$ from 1.3 in 2002 to 1.2 in 2006.

Grant Expenditures by Arts and Cultural Organizations Per Capita


Source: North Carolina Arts Council; South Carolina Arts Commission

Government Funding for Libraries Per Capita


Source: North Carolina Department of State Treasurer; South Carolina State Budget and Control Board

Public Library Print Holdings Per Capita


Source: National Center for Education Statistics (Library Research Center)

# Indicator Trend Data 

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## Economy

The local economy is measured by six indicators:

- Labor Force (Unemployment Rate);
- Industry Employment (Jobs);
- Business Establishments;
- Average Annual Wage;
- Per Capita Income; and
- Median Household Income.

The county's unemployment rate rose $86 \%$ from 2000 to 2003 and then declined $23 \%$ from 2003 to 2007. Total industry employment increased $29 \%$ from 2000 to 2007. The number of business establishments in Union County increased $40 \%$ from 2000 to 2007. Average annual wage increased each year from 2000 to 2007, for a total gain of $22 \%$. Per capita income increased $83 \%$ from 1990 to 2006. Median household income increased 18\% from 2000 to 2007, although most of that gain came in 2006 and 2007.


Source: Bureau of Labor Statistics

Total Employment, All Industries


20002001200220032004200520062007
Source: North Carolina Employment Security Commission; South Carolina Employment Security Commission

## Number of Business Establishments, All

Industries


20002001200220032004200520062007

Source: North Carolina Employment Security
Commission; South Carolina Employment Security
Commission


20002001200220032004200520062007

Source: North Carolina Employment Security
Commission; South Carolina Employment Security
Commission



Source: Bureau of Economic Analysis


Source: U.S. Census Bureau's Small Area Income and Poverty Division

## Education

Education is measured by seven indicators:

- Public Schools Enrollment;
- Educational Attainment;
- SAT Scores (Math and Verbal);
- Graduation Rate;
- College Plans;
- Expenditures Per Pupil; and
- Capital Expenditures.

Public school enrollment in Union County increased every year from 1999-00 to 2006-07, and the rate of enrollment growth
accelerated in 2005-06 and 2006-07. The percentage of college graduates living in the county doubled from 1990 to 2007. Average SAT scores fluctuated within 3 percent of the 2001-02 scores (1017) through 2007-08. The high school cohort graduation rate increased $8 \%$ from 200506 to 2007-08. High school graduates pursuing higher education increased $8 \%$ from 2000-01 to 2005-06, following a $16 \%$ drop in 2001-02. Public school expenditures per pupil increased $15 \%$ from 2000-01 to 2005-06. The five-year average annual per pupil capital expenditure increased $9 \%$ from 2004-05 to 2005-06.


Source: National Center for Education Statistics

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# Indicator Trend Data 

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Source: US Census: Decennial, American Community Survey

Average SAT Scores (Math and Verbal)



Source: North Carolina Department of Public Instruction; SC Dept. of Education


Source: North Carolina Department of Public Instruction; SC Dept. of Education

Percent of High School Graduates
Pursuing Higher Education



Source: NC Public Schools Statistical Profile; SC Dept. of Education

## Public School Expenditure Per Pupil



Source: NC Public Schools Statistical Profile; SC Dept. of Education

5 Year Average Annual Per Pupil Capital Expenditure


Source: NC Public Schools Statistical Profile; SC Dept. of Education

## Environment

The environment is measured by six indicators:

- Air Quality Index ("AQI");
- Vehicular Emissions;
- Water Consumption;
- Impaired Streams;
- Solid Waste Disposal; and
- Developed Acreage.

Of these, county-level data are available for all but AQI Days and Impaired Streams, which are available only at larger regional scales. While multi-year trend data for per capita on-road vehicular NOx emissions are not available, the 2002 Union County rate (58.3) is lower than the average for the Charlotte region (82.8). Per capita average daily water consumption decreased $17 \%$ from 1992 to 2002. The per capita average annual amount of solid waste sent to landfills increased 32\% from 2004 to 2007. Developed acres per person in Union County rose $780 \%$ from 1976 to 1996 and continued to grow at a slower rate of $9 \%$ over the next decade through 2006. The number of developed acres per person is projected to decline $15 \%$ through 2030.


Source: North Carolina Department of Environment and Natural Resources; South Carolina Department of Health and Environmental Control

Average Annual Solid Waste Disposal Rates, Pounds Per Capita


Source: North Carolina Department of Environment and Natural Resources; South Carolina Department of Health and Environmental Control

Developed Acres Per Person


197619851996200620102015202020252030

Source: UNC Charlotte Center for Applied GIS

## Government and Citizen Participation

Indicators of government and citizen participation are focused on five measures of voter turnout and charitable giving:

- Voter Turnout;
- Public Charities;
- Private Foundations;
- Giving to Public Charities; and
- Giving to Private Foundations. Voter turnout was higher in the 2008 presidential election when compared to the


## Indicator Trend Data

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2004 and 2000 presidential elections, but the 2006 mid-term election turnout was lower than in 2002. From 2004 to 2007, the ratio of all public charities to population and the corresponding ratio for larger public charities only (those reporting income greater than $\$ 25,000$ ) both remained relatively stable. The ratio of larger private foundations (those reporting income greater than $\$ 25,000$ ) to population decreased by one third from 2004 to 2007. Per capita giving to public charities increased $39 \%$ from 2001 to 2007. Per capita giving to private foundations decreased 57\% between 2001 and 2006, and fluctuated during that time period between a high of $\$ 12.75$ (2001) and a low of $\$ 0.42$ (2004).


Source: North Carolina State Board of Elections; South Carolina State Board of Elections

Public Charities Per 1,000 Population
$\leadsto$ Number Registered $\leadsto$ Number Filing Form 990



Source: National Center for Charitable Statistics

Number of Private 501(c)(3) Foundations Filing Form 990 Per 1,000 Population


Source: National Center for Charitable Statistics


Source: National Center for Charitable Statistics

# Indicator Trend Data 

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Source: National Center for Charitable Statistics

## Health

Health is measured by five indicators:

- Birth Rate;
- Infant Mortality;
- Mortality Rate;
- Suicide Rate; and
- Sexually-Transmitted Diseases Rate.
The birth rate declined $8 \%$ from 2002 to 2007. All infant mortality rates increased somewhat between 2003 and 2007 (on the order of 5-13\% for minority, white, and all infants,) although rates were substantially higher in 2004 and 2006 -- roughly double the 2003 levels. Total mortality decreased $9 \%$ from 2003 to 2007, with some upwards fluctuation in 2004 and 2006. Similarly, cancer mortality rates decreased $23 \%$ during this time, although with some upwards fluctuation in 2004 and 2006. By contrast, heart disease mortality rates decreased $19 \%$ over the same time period, with declines each year. The suicide rate in 2007 for Union County was relatively unchanged from 2003; however, it varied during that time period between a high of 11.0 (2006) and a low of 5.9 (2004). Incidence rates for the sexuallytransmitted disease, chlamydia, doubled
from 2002 to 2005, and then fell $40 \%$ from 2005 to 2007. Similarly, incidence rates for gonorrhea increased $22 \%$ from 2002 to 2005, and then decreased $8 \%$ from 2005 to 2007.

Birth Rate per 1,000 Population


|  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| $2002 \quad 2003 \quad 2004$ | 2005 | 2006 | 2007 |

Source: NC Department of Health \& Human Services State Center for Health Statistics; SC Department of Health and Environmental Control


Source: NC Department of Health \& Human Services State Center for Health Statistics; SC Department of Health and Environmental Control


Source: NC Department of Health \& Human Services State Center for Health Statistics; SC Department of Health and Environmental Control


Source: NC Department of Health \& Human Services State Center for Health Statistics; SC Department of Health and Environmental Control


Source: NC Department of Health \& Human Services State Center for Health Statistics; SC Department of Health and Environmental Control

## Housing

Housing is measured by six indicators:

- Housing Units;
- Housing Types;
- Home Ownership;
- Residential Construction;
- Sales; and,
- Rental and Vacancy Rates.

The ratio of housing units to population fluctuated around 370 from 2000 to 2007. In both 1990 and 2000, housing type was dominated by single family detached housing, followed by both mobile home or trailer housing and multi-family housing. Single family detached housing increased in share of housing types during that time at the expense of other housing types. Owner occupied housing increased 6\% from 1990 to 2007. As measured by housing units permitted per 1,000 persons, residential construction increased $23 \%$ from 2000 to 2005 , and then decreased $42 \%$ from 2005 to 2007. Construction cost per units permitted rose $89 \%$ from 2000 to 2007, and increased every year except 2002. The average residential sales price in Union County increased $12 \%$ from 2005 to 2007. The average apartment rental rate increased $13 \%$ from 2000 to 2008. The average apartment vacancy rate more than tripled from 2000 to 2003 , returned to 2000 levels by 2007 , and then increased $80 \%$ in 2008.

# Indicator Trend Data 

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20002001200220032004200520062007

Source: U.S. Census Bureau, Estimates Division


Source: US Census: Decennial


Source: US Census: Decennial, American Community Survey

Number of Housing Units Permitted per 1,000 Population


20002001200220032004200520062007

Source: US Census: Manufacturing, Mining and
Construction Statistics


Average Residential Sales Price


Source: Carolina Multiple Listing Services, Charlotte Regional Realtor Association

Indicator Trend Data

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200020012002200320042005200620072008

Source: Carolinas Real Data

## Average Apartment Vacancy Rate



200020012002200320042005200620072008

Source: Carolinas Real Data

## Public Safety

Public Safety is measured by six indicators:

- 911 Calls;
- Crime Index;
- Vehicle Accidents;
- Workplace Fatalities;
- Public Safety Education; and
- Evacuation Plans and Disaster Preparedness.
Of these, county-level data are available for all except Public Safety Education. Per capita calls for emergency service
remained stable from 2005 to 2007. The crime rate for Union County decreased by one third from 2000 to 2003, and then increased $20 \%$ by 2007. The number of people in motor vehicle accidents of all types increased $32 \%$ from 2001 to 2007, including crashes involving fatalities, those involving only non-fatal injuries, and those involving property damage only. The number of investigated workplace fatalities varied between zero and three from 2002 to 2008.As of early 2009, Union County had in place eight of nine evacuation planning and disaster preparedness measures but did not have the means to quickly warn or inform citizens (Reverse 911 System).

Calls for Emergency Service Per Capita


Source: Survey Questionnaire Administered by UNC Charlotte Urban Institute

## Indicator Trend Data

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Source: Highway Safety Research Center at the University of North Carolina at Chapel Hill; South Carolina Department of Public Safety

## Investigated Workplace Fatalities



Source: North Carolina Department of Labor; South Carolina Department of Labor

Evacuation and Disaster Preparedness, 2009
$\checkmark_{\text {Yes }}{ }_{\text {Limited/Partial }}$

| Emergency/disaster response plan | $\checkmark$ |
| :--- | :--- |
| Evacuation plan | $\checkmark$ |
| Have had mock disaster drill in the last <br> year | $\checkmark$ |
| Means to quickly warn citizens about a <br> threat situation (Reverse 911 system) | . |
| Radio interoperability for emergency <br> personnel; full coverage within county | $\checkmark$ |
| Radio interoperability for emergency <br> personnel; with surrounding counties | $\checkmark$ |
| Emergency response team for incidents <br> involving chemical, biological or nuclear <br> weapons | $\checkmark$ |
| Regular training sessions for fire, police, <br> and emergency personnel for disaster <br> preparation | $\checkmark$ |
| Mutual assistance agreement with <br> surrounding counties | $\checkmark$ |

Source: Survey Questionnaire Administered by UNC Charlotte Urban Institute

## Social Well-being

Social Well-being indicators include these five measures:

- Poverty Rate;
- Child Poverty Rate;
- Child Abuse;
- Teenage Birth Rate; and
- Elderly Assistance Rate.

The poverty rate for individuals increased $51 \%$ from 2000 to 2005, and then declined below 2000 levels by 2007. The poverty rate for families increased $43 \%$ from 2000 to 2005 , and then returned to 2000 levels
by 2007. The percentage of children in poverty increased $21 \%$ from 2000 to 2004, and then dropped to $10 \%$ below 2000 levels by 2007. The percentage of substantiated reports of child abuse decreased 19\% from 2004-05 to 2005-06. The teenage birthrate increased $26 \%$ from 2001 to 2007 and fluctuated during that time period between a high of 4.1 (2005) and a low of 2.5 (2006). Union County's percentage of elderly needing assistance with daily activities decreased $15 \%$ from 2000 to 2006 , and then increased $23 \%$ in 2007.

Percent Living in Poverty


Source: US Census: Decennial, American Community Survey

Percent of Children Living in Poverty


20002001200220032004200520062007

Source: U.S. Census, Small Area Income \& Poverty Estimates

Percent of Reports of Child Abuse and Neglect Substantiated


Source: North Carolina Department of Health and Human Services; Prevent Child Abuse South Carolina

Percent of Births to Mothers Under Age 18


Source: NC Department of Health \& Human Services State Center for Health Statistics; South Carolina State Budget and Control Board Office of Research Statistics


Source: US Census: Decennial, American Community Survey

# Indicator Trend Data <br> Union County Profile 2009 

## Transportation

Transportation is measured by four indicators:

- Commuting Alone;
- Average Travel Delay;
- Commute Time; and
- Airport Travelers.

Of these, only two are represented at the county level; Commuting Alone, and Commute Time. Union County's percentage of workers driving to work alone increased $9.3 \%$ from 1990 to 2007. The percentage of workers commuting more than 25 minutes increased $27 \%$ from 1990 to 2007.


Source: US Census: Decennial, American Community Survey


Source: US Census: Decennial, American Community Survey

## Data Definitions

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A complete definition is given below for each indicator, identifying the specific quantitative measurement the indicator represents. Definitions are listed by theme area, with the indicator's "short name" shown first, followed by the "long name" and/or explanation of how the indicator is calculated.

## Demographics

Annual Population Estimates: Measures the annual estimate of population.
Decennial Population and Projections: The measurement of past population and future population projections on a decennial basis.
Percent Population Growth: This indicator measures the annual percentage growth of the population from the previous year.

Race and Ethnicity: This indicator measures the composition of both race and ethnicity for the population.
Age Distribution: Age Distribution looks at the range of ages for the population.

## Arts, Recreation, and Cultural Life

Grants Expenditures: Dollars per capita in state and federal appropriations awarded to arts and cultural organizations through the North Carolina Arts Commission and the South Carolina Arts Commission.

Library Holdings: Per capita number of public library print holdings and print serial subscriptions (excluding electronic documents.)
Library Funding: Per capita government funding for public libraries (excluding libraries at state universities or colleges.)
Arts Graduates: Annual number of undergraduate and graduate degree completions in the arts, music and theater from all institutions of higher education in the region, including private and public universities, technical and community colleges and other colleges.

## Economy

Labor Force: The civilian workforce is the number of workers employed or looking for work, including members of the military. The labor force
unemployment rate is the ratio of the number of unemployed to the total civilian workforce.
Industry Employment: Total Employment, All Industries is the total number of jobs across all industry classifications. Employment by Industry is the number of jobs in each industry sector by the North American Industry Classification System's standard two-digit sector codes.
Business Establishments: Business
Establishments, All Industries, is the total number of physical locations of businesses in all industry classifications; note that a business may have more than one physical location, each of which counts as a "business establishment." Business Establishments by Industry is the number of business establishments in each industry sector by the North American Industry Classification System's standard two-digit sector codes.

Average Annual Wage: Average Annual Wage, All Industries is the annual total wages across all jobs, divided by total number of jobs in all industry classifications. Average Annual Wage by Industry is the annual total wages in jobs in a given industry sector (defined by the North American Industry Classification System's standard two-digit sector codes) divided by the total number of jobs in that same industry sector.
Per Capita Income: Total personal income divided by total population.

Median Household Income: Median Household Income is the income of the particular household for which there are an equal number of households with more income and of households with less income.

## Education

Public School Enrollment: Public School Enrollment is the percentage change in public school enrollment from the previous school year, by school district and for the region. The enrollment data includes students from prekindergarten through grade 12.

Education Attainment: This indicator measures the percentage of the working-age population (age 25 and older) with a bachelor's degree or higher.
SAT Scores: Examines the average Scholastic Aptitude Test (SAT) score as a percentage of the U.S. average score, for each of the region's 21 school districts and for the region as a whole. Average scores are published both for individual high schools and for school districts, based on

## Data Definitions

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scores of all students taking the SAT in a given year. Students taking the SAT are mostly juniors in high school, but can include some sophomores and seniors as well.

Graduation Rate: The figures are the four-year cohort graduation rate, which reflects the number of graduating seniors in a given year as a percentage of the number of enrolled ninth graders from three years prior - in effect, it is the percent of ninth graders who graduate four years later.
College Plans: This indicator tracks the highereducation plans of high school seniors for the year after they graduate from public high schools. Percentages are calculated for students planning on attending two-year, four-year or community colleges, and for those with no plans for higher education (this may include military service).

Expenditures Per Pupil: This indicator measures expenditures per pupil in public schools, excluding capital expenditures. A regional figure was estimated for each school year by multiplying expenditures per pupil by enrollment figures for each school district. The sum of total expenditures across all districts was divided by the total regional enrollment to estimate the regional expenditure per pupil.
Capital Expenditures: Public school capital expenditures per pupil are measured both for school districts and the region. A five-year average is calculated because capital spending by school districts fluctuates significantly from year to year. Total capital expenditures were divided by total enrollment to produce an annual per pupil capital expenditure for each school year. Those annual figures were then averaged to produce an average per pupil capital expenditure in public education for the five-year period.

## Environment

Air Quality Index: The percentage of Air Quality Index (AQI) days per year in the "Unhealthy" ranges for the Charlotte-Gastonia-Rock Hill Metropolitan Statistical Area (MSA). The EPA calculates a daily AQI based on the measurement of five major air pollutants regulated by the Clean Air Act, as recorded at approximately 4,000 monitoring stations across the country. The five pollutants are: ground-level ozone, particle pollution (also known as particulate matter), carbon monoxide, sulfur dioxide and nitrogen oxides ( NOx ). A daily index value is calculated for each air pollutant measured. The highest of those index
values is the AQI value, and the pollutant responsible for the highest index value is the "Main Pollutant."

Vehicle Emissions: This indicator measures onroad vehicular emissions of nitrogen oxides ( NOx ) in the 14 -county region. States are required by the EPA to collect and report emissions data every three years.
Water Consumption: The indicator examines local water system use in average gallons per day per person served by the water systems. This indicator includes only the use of water by local water systems filing reports with the states, and excludes water used for agriculture or power generation, water drawn from individual wells and permitted water intakes by residential or industrial water consumers. These local water systems include municipal, county, and private water systems.

Impaired Streams: This indicator measures looks at impaired stream miles as a percentage of total stream miles in the 11 North Carolina counties in the Charlotte region. It also examines monitoring sites reporting impaired streams in the three South Carolina counties in the region.

Solid Waste Disposal: The Solid Waste Disposal indicator quantifies the disposal of municipal solid waste (MSW) and construction and demolition (C\&D) debris. Both states adjust their county-level data to exclude waste "imported" from other places and to include waste "exported" to other places, providing a measure of waste generated from within each county that is disposed at landfills, regardless of where the disposal occurs.
Developed Acreage: This indicator measures developed land in acres per person. Developed acres include both residential and nonresidential development, excluding agriculture, and are assessed using satellite imagery, taken at roughly 10-year intervals from 1976 to 2006.

## Government and Citizen Participation

Private Foundations: Private Foundations are registered 501(c)(3) private foundations that have filed Internal Revenue Service (IRS) Form 990. Foundations designated as 501(c)(3) organizations under the Internal Revenue Code are exempt from federal income taxes because they are operated solely for religious, charitable, scientific, publicsafety (testing), literary or educational purposes; amateur sports competition or for the prevention of cruelty to children or animals.

## Data Definitions

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Public Charities: Public Charities are registered 501(c)(3) public charities in the region, including those that have filed an Internal Revenue Service (IRS) Form 990. Public charities designated as 501(c)(3) organizations under the Internal Revenue Code are exempt from federal income taxes because they are operated solely for religious, charitable, scientific, public safety (testing), literary or educational purposes; amateur sports competition or for the prevention of cruelty to children or animals.

Giving (Public Charities): This indicator measures the amount of contributions, gifts, and grants given to $501(\mathrm{c})(3)$ public charities located in the region and filing Internal Revenue Service (IRS) Form 990.

Giving (Private Foundations): This indicator measures the amount of contributions, gifts and grants received by 501(c)(3) private foundations located in the region and filing Internal Revenue Service (IRS) Form 990.
Voter Turnout: This indicator represents the percentage of registered voters who voted in election years 2000, 2002, 2004 and 2006.

## Health

Mortality Rate: Mortality Rates are calculated as the number of deaths per 100,000 population. Mortality Rates for heart disease and cancer were also calculated.

STD Rate: These indicators report sexually transmitted disease rates for Gonorrhea and Chlamydia as the number of cases per 100,000 persons.
Infant Mortality Rate: Infant Mortality Rates reflect deaths of infants aged one year or younger per 1,000 live births. The data also compare infant mortality rates for minorities and whites.

Birth Rate: Birth Rate measures the number of live births reported per 1,000 persons.
Suicide Rate: Suicide Rate is reported as deaths by suicide per 100,000 persons.

## Housing

Housing Units: The indicator represents the number of housing units per capita and includes all types of residential development, encompassing single-family homes, apartments, condos, townhomes and all other housing types.

Housing Types: Housing Types include singlefamily detached, single-family attached (row houses or townhomes), multi-family units, mobile homes and all other housing (such as boats, RVs and vans).

Home Ownership: Home Ownership measures owner-occupied and renter-occupied housing as a percentage of occupied housing units.
Residential Construction: This indicator measures the number of housing units for which building permits were issued. The indicator is expressed as housing units per 1,000 persons.

Sales: This indicator measures the rate of residential real estate closings (the number of closings per 1,000 persons) and the average price of such home sales for single-family homes, condominiums and townhomes.

Rent and Vacancy Rates: The apartment vacancy rate is the percent of all apartments that are vacant as of the date of the survey call on that certain day. The rental rate is the average rent in dollars per month.

## Public Safety

911 Calls: This indicator measures the annual per capita calls for 911 Emergency Service.

Crime Index: This indicator measures the number of crimes per 10,000 persons. It is the sum of the crime rates per 10,000 persons for seven categories of crimes: murders, rapes, robberies, aggravated assaults, burglaries, larcenies and motor-vehicle thefts.
Vehicle Accidents: People in Motor Vehicle Accidents measures the total number of people in motor-vehicle accidents and whether the accidents involved a fatality, non-fatal injuries, or property damage only.

Workplace Fatalities: This indicator examines the number of workplace fatalities in the region that have been investigated or are under investigation.
Public Safety Education: Public Safety Education looks at the number of colleges and universities in the 14-county region with a two- or four-year degree in criminal justice, fire safety or emergency-medical training.
Evacuation Planning: Evacuation Planning addressed evacuation plans and disaster preparedness through a survey designed by the UNC Charlotte Urban Institute. Survey questions concerned reverse 911 systems, radio

## Data Definitions

## Union County Profile 2009

interoperability, disaster training, disaster response and evacuation plans, mutual-assistance agreements, and related topics.

## Social Well-being

Poverty Rate: This indicator measures the percentage of families and individuals in the region living in poverty. "Living in poverty" is defined by federally-determined income thresholds verifying what is needed to feed, clothe and economically sustain an individual or families of specified sizes (for example, "a family of four".) Any family or individual whose income does not reach the threshold amount is considered to be in poverty.
Child Poverty: Child Poverty measures the percentage of children under the age of 18 , living at or below the poverty level. "Living in poverty" is defined using federally-defined poverty thresholds.

Child Abuse: Child Abuse measures substantiated reports of child abuse or neglect per county for the fiscal year. It represents only the percentage of abuse and/or neglect reports made to each county's child protective services that are substantiated by those agencies, based on investigative findings.

Teenage Birth Rate: Teenage Birth Rate measures the number of births to mothers under the age of 18 as a percent of all births.
Elderly Assistance Rate: This indicator measures the percentage of individuals age 65 or older who require assistance in performing Activities of Daily Living (ADL). Activities of Daily Living include eating, dressing, bathing, personal hygiene-related tasks, transfers (the ability to get in and out of a bed or chair), ambulation and communication.

## Transportation

Commuting Alone: This indicator measures the percent of workers 16 or older who drive to work alone by car, truck or van.
Average Travel Delay: This section focuses on travel delays during peak travel times - considered to be from 6 a.m. to 9 a.m. and from 4 p.m. to 7 p.m. The figures are calculated by dividing the number of extra travel hours by the number of peak period travelers in an urban area. The average annual travel delay per peak traveler is the yearly sum of delays per peak trip, divided by the number of travelers who started a trip during the peak period.

Commute Length: Commute Length measures the percentage of workers 16 or older not working at home who commute more than 25 minutes.

Airport Travelers: This indicator measures the number of passengers boarding planes ("enplanements") and disembarking from planes ("deplanements") at Charlotte/Douglas International Airport. Passengers making connecting flights at Charlotte/Douglas are included in these figures.

## Data Sources

Union County Profile 2009

Data Sources for each indicator are listed below. Data for the 2009 County Profiles were compiled using these sources from November, 2008 through January, 2009.

## Demographics

Population Estimates: US Census: Decennial, Estimates Division

Population Projections: NC Office of State Budget and Management, NC State Demographics; South Carolina State

Budget and Control Board Office of Research Statistics, SC Community Profiles

Population Growth: US Census: Decennial, Estimates Division

Race and Ethnicity: US Census: Decennial, Estimates Division

Age and Gender: US Census: Decennial, Estimates Division

## Arts, Recreation, and Cultural Life

Grants Expenditures: North Carolina Arts Council; South Carolina Arts Commission

Arts Graduates: National Center for Education Statistics (NCES), IPEDS database

Library Funding: North Carolina Department of State Treasurer; South Carolina State Budget and Control Board

Library Holdings: National Center for Education Statistics (Library Research Center)

## Economy

Labor Force: Bureau of Labor Statistics
Industry Employment: North Carolina Employment Security Commission; South Carolina Employment Security Commission

Business Establishments: North Carolina
Employment Security Commission; South Carolina Employment Security Commission

Average Annual Wage: North Carolina
Employment Security Commission; South Carolina
Employment Security Commission
Per Capita Income: Bureau of Economic Analysis
Median Household Income: U.S. Census Bureau's
Small Area Income and Poverty Division
Education
Public School Enrollment: National Center for Education Statistics

Educational Attainment: US Census: Decennial, American Community Survey

SAT Scores: North Carolina Department of Public Instruction; SC Dept. of Education

Graduation Rate: North Carolina Department of Public Instruction; SC Dept. of Education

College Plans: North Carolina Department of Public Instruction; SC Dept. of Education

Expenditures Per Pupil: North Carolina
Department of Public Instruction; SC Dept. of Education

Capital Expenditures: North Carolina Department of Public Instruction; SC Dept. of Education

## Environment

Air Quality Index: United States Environmental Protection Agency

Vehicle Emissions: North Carolina Department of Environment and Natural Resources; South Carolina Department of Health and Environmental Control

Water Consumption: North Carolina Department of Environment and Natural Resources; South Carolina Department of Health and Environmental Control

Impaired Streams: North Carolina Department of Environment and Natural Resources; South Carolina Department of Health and Environmental Control

Solid Waste Disposal: North Carolina Department of Environment and Natural Resources; South

## Data Sources <br> Union County Profile 2009

Carolina Department of Health and Environmental Control

Developed Acreage: UNC Charlotte Center for Applied GIS

## Governmental and Citizen Participation

Private Foundations: National Center for Charitable Statistics

Public Charities: National Center for Charitable Statistics

Giving (Public Charities): National Center for Charitable Statistics

Giving (Private Foundations): National Center for Charitable Statistics

Voter Turnout: North Carolina State Board of Elections; South Carolina State Board of Elections

## Health

Mortality Rate: NC Department of Health \&
Human Services State Center for Health; SC
Department of Health and Environmental Control
STD Rate: NC Department of Health \& Human Services State Center for Health; SC Department of Health and Environmental Control

Infant Mortality Rate: NC Department of Health \& Human Services State Center for Health; SC Department of Health and Environmental Control

Birth Rate: NC Department of Health \& Human Services State Center for Health; SC Department of Health and Environmental Control

Suicide Rate: NC Department of Health \& Human Services State Center for Health; SC Department of Health and Environmental Control

## Housing

Housing Units: U.S. Census Bureau, Estimates Division

Housing Types: US Census: Decennial
Home Ownership: US Census: Decennial, American Community Survey

Residential Construction: US Census:
Manufacturing, Mining and Construction Statistics
Sales: Carolina Multiple Listing Services, Charlotte Regional Realtor

Rent and Vacancy Rates: Carolinas Real Data

## Public Safety

911 Calls: Survey Questionnaire Administered by UNC Charlotte Urban Institute

Crime Index: North Carolina Department of Justice, State Bureau of Investigation; South Carolina Law Enforcement Division

Vehicle Accidents: Highway Safety Research Center at the University of North Carolina at Chapel Hill; South Carolina Department of Public Safety

Workplace Fatalities: North Carolina Department of Labor; South Carolina Department of Labor

Public Safety Education: National Center for Education Statistics

Evacuation Planning: Survey Questionnaire Administered by UNC Charlotte Urban Institute

## Social Well-Being

Poverty Rate: US Census: Decennial, American Community Survey

Child Poverty Rate: U.S. Census, Small Area Income \& Poverty Estimates

Child Abuse: North Carolina Department of Health and Human Services; Prevent Child Abuse South Carolina

Teenage Birth Rate: NC Department of Health \& Human Services State Center for Health; South Carolina State Budget and Control Board Office of Research

Elderly Assistance Rate: US Census: Decennial, American Community Survey

## Transportation

Commuting Alone: US Census: Decennial, American Community Survey

# Data Sources <br> Union County Profile 2009 

Average Travel Delay: Texas Transportation Institute (TTI)<br>Commute Length: US Census: Decennial, American Community Survey<br>Airport Travelers: Charlotte/Douglas Aviation Activity Reports

## Endnotes

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${ }^{1}$ Indicator data at the regional level was calculated whenever possible as a weighted average of the source data for all 14 counties. However, in the following instances, the regional figure is calculated differently:

Library Funding Per Capita: Region Number represents the 11 North Carolina counties

Library Print Holdings Per Capita: Region Number represents 13 of 14 counties excluding Anson

Median Household Income: Region Number represents North Carolina state average

Percent Population with Bachelors Degree or Higher: Region Number represents 11 of 14 counties excluding Anson, Chester and Stanly

High School Cohort Graduation Rate: Region Number represents the 11 North Carolina counties

Average Daily Water Consumption, Gallons Per Capita: Region Number represents the 11 North Carolina counties

Solid Waste Disposal, Pounds Per Capita: Region Number represents the 11 North Carolina counties

Percent Voter Turnout of Registered Voters: Region Number represents the 11 North Carolina counties

Birth Rate Per 1,000: Region Number represents the 11 North Carolina counties

Total Infant Mortality Per 1,000 Live Births: Region Number represents the 11 North Carolina counties

White Infant Mortality Per 1,000 Live Births: Region Number represents the 11 North Carolina counties

Minority Infant Mortality Per 1,000 Live Births: Region Number represents the 11 North Carolina counties

Total Mortality Rate Per 100,000: Region Number represents the 11 North Carolina counties

Heart Disease Mortality Rate Per 100,000: Region Number represents the 11 North Carolina counties

Cancer Mortality Rate Per 100,000: Region
Number represents the 11 North Carolina counties
Suicide Rate Per 100,000: Region Number represents the 11 North Carolina counties

Chlamydia Rate Per 100,000: Region Number represents the 11 North Carolina counties

Gonorrhea Rate Per 100,000: Region Number represents the 11 North Carolina counties

Percent Owner Occupied Housing: Region Number represents 11 of 14 counties excluding Anson, Chester and Stanly

Percent Renter Occupied Housing: Region Number represents 11 of 14 counties excluding Anson, Chester and Stanly

Average Residential Sales Price: Region Number represents 7 of 14 counties excluding Anson, Catawba, Chester, Cleveland,
Lancaster, Rowan and York

Average Apartment Vacancy Rate: Region Number represents 6 of 14 counties excluding Anson, Catawba, Chester, Cleveland, Lancaster, Lincoln, Rowan and Stanly

Average Apartment Rental Rate: Region Number represents 6 of 14 counties excluding Anson, Catawba, Chester, Cleveland, Lancaster, Lincoln, Rowan and Stanly

Calls for Emergency Service (911) Per Capita: Region Number represents 112 of 14 counties excluding Anson and Lancaster

Crime Index Per 10,000: Region Number represents the 11 North Carolina counties

People in Motor Vehicle Accidents, Total: Region Number represents the 11 North Carolina counties

People in Motor Vehicle Accidents, Property Damage Only: Region Number represents the 11 North Carolina counties

People in Motor Vehicle Accidents, Fatality: Region Number represents the 11 North Carolina counties

## Endnotes

Union County Profile 2009
People in Motor Vehicle Accidents, Non-fatal Injury: Region Number represents the 11 North Carolina counties

Investigated Workplace Fatalities: Region Number represents the 11 North Carolina counties

Percent Individuals Living in Poverty: Region Number represents 11 of 14 counties excluding Anson, Chester and Stanly

Percent Families Living in Poverty: Regional Number represents 10 of 14 counties excluding Anson, Chester, Lancaster and Stanly

Percent Births to Mothers Under Age 18: Region
Number represents the 11 North Carolina counties
Elderly Assistance Rate: Region Number represents 11 of 14 counties excluding Anson, Chester, and Stanly

Percent of Workers 16 or Older Driving to Work Alone: Region Number represents 11 of 14 counties excluding Anson, Chester and Stanly

Percent of Workers Commuting More Than 25 Minutes: Region Number represents 11 of 14 counties excluding Anson, Chester, and Stanly
${ }^{2}$ For the indicator, 'Percent Change in Public School Enrollment vs. Prior Year,' the 'County Percent Change' column contains the five year percent change in enrollment (that is, the most recent year's number of students enrolled is compared to enrollment from four years prior, instead of comparing the most recent annual percent change to the annual percent change of four years ago).
${ }^{3}$ Due to rounding, percent other housing for 2000 is reported as 0.0 , with the actual figure slightly higher (0.02), thus a percent change from 1990 less than $100 \%$.

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## Acknowledgements

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[^0]:    More information about the Indicators Project and the most recent comprehensive Indicators Report are available at www.ui.uncc.edu.

