

Closing the Gap: Educational Attainment in Hamilton County

Community Research Council
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Summary

Between 1970 and 2000, the number of American adults with a college degree increased from just over one in ten to more than one in four. College attainment is now critical to individual economic opportunity, with individuals holding a college degree earning almost double the annual income of individuals with a high school diploma. Moreover, research suggests that the economic vitality of cities and regions is increasingly dependent on human capital driven by higher education.

For thirty five years, Hamilton County has lagged behind the national average for college attainment. **Recent data from the American Community Survey suggest that a higher percentage of Hamilton County residents now have a college degree than in the nation as a whole.** Moreover, among a cohort of fourteen midsize counties centered by midsize cities, Hamilton County has had the fastest rate of relative growth in college attainment in the last fifteen years. These data also suggest that Hamilton County has now surpassed Shelby County in college attainment and is third among Tennessee's four largest counties. Migration and a shift in employment opportunities may explain some of the growth.

Educational Attainment Drives Individual Economic Opportunity

Recently released data from the Census Bureau suggest that individuals with college degrees earn, on average, 1.8 times the annual income of individuals with a high school diploma: by comparison, high school graduates earn just 1.5 times the income of those who failed to graduate from high school.¹ Over a lifetime, individuals with a college degree are now likely to earn 75% more than individuals with a high school diploma and almost one third more than individuals with an associate's degree. In other words, the "bar" for economic success nationally has been raised from a high school diploma to a college degree.²

At the individual level, the relationship between educational attainment and income has secondary effects as well. For example, survey data from Hamilton County suggests that those individuals with high levels of educational attainment are more likely to report the quality of their health as excellent or very good and less likely to report their health as only poor or fair: individuals with a high school education or less were almost twice as likely to report that their health was poor or fair as those who had graduated from college.³ Similarly, an unpublished 2005 survey of Hamilton County residents for Allied Arts of Greater Chattanooga found that those individuals with higher levels of educational attainment were more likely to participate in the arts.

¹ United States Census Bureau, U.S. Department of Commerce, "Census Bureau Underscore Value of College Degree," October 26, 2006.

² United States Census Bureau, U.S. Department of Commerce, *The Big Payoff: Educational Attainment and Synthetic Estimates of Work-Life Earnings*, July 2002.

³ Community Research Council, State of Chattanooga Region Report – Survey Brief on Health, June 2006.

Regional Population and Economic Growth is Linked to Higher Levels of Educational Attainment

An analysis of city population growth, based on data from the 2000 Census, concluded that “[S]killed communities rise, and unskilled communities fail. This has been true in every decade going back to the late nineteenth century.”⁴ Moreover, a Community Research Council analysis of seventy five fast growing midsize cities in the 1990s found that just under half had college attainment levels higher than the national average: in ten out of the 75 cities, high levels of educational attainment seemed to be the principal factor for growth rates in the 1990s that exceeded that national average for midsize cities of 15%.⁵

Hamilton County’s Historic College Attainment Gap: 1970 - 2000

Since 1970, the first Census where more than ten percent of American adults age 25 and older had a college degree, Hamilton County has lagged behind the national average in college attainment, while consistently being ahead of the statewide college attainment rate in Tennessee.⁶ By comparison, college attainment in Chattanooga started – in 1970 – at the same level as the statewide rate: while college attainment levels exceeded the state rate by 1980, Chattanooga’s college attainment rate continued to trail the County and national rates throughout the 1970s, 1980s and 1990s.

Table 1: Historic Rates of College Attainment – Hamilton County
College Attainment

	1970	1980	1990	2000
United States	10.7%	16.2%	20.3%	24.4%
Tennessee	7.9%	12.6%	16.0%	19.6%
Hamilton County	10.2%	15.5%	19.7%	23.9%
Chattanooga	7.9%	14.1%	18.2%	21.5%
<i>Comparative College Attainment Rates</i>				
Hamilton County/US	0.953	0.957	0.970	0.980
Chattanooga/US	0.738	0.870	0.897	0.881
Hamilton County/Tennessee	1.291	1.230	1.231	1.219
Chattanooga/Tennessee	1.000	1.119	1.138	1.097

Source: US Census

⁴ Edward L. Glaeser and Jesse M. Shapiro, “City Growth: Which Places Grew and Why,” in *Redefining Urban & Suburban America: Evidence from Census 2000* (Brookings Institution Press, 2003).

⁵ David Eichenhal, *What Makes Midsize Cities Grow and What It Means for Chattanooga*, Presentation at the Brookings Institution, September 2005.

⁶ Data from 1970, 1980, 1990 and 2000 Census and United States Census Bureau, *A Half-Century of Learning: Historical Statistics on Educational Attainment in the United States, 1940 to 2000* available at www.census.gov. Nationally, college attainment levels have increased from 4.6% in 1940 to 6.2% in 1950 to 7.7% in 1960 to 10.7% in 1970 to 16.2% in 1980 to 20.3% in 1990 to 24.4% in 2000.

But, even as college attainment rates continued to trail the national average in both Hamilton County and Chattanooga, the gap was closing. For Hamilton County, as national college attainment rates increased, the county college attainment rate grew at a faster rate and continued to get closer to the national rate. By 2000, the county's college attainment rate was equal to 98% of the national rate.

This was also true for Chattanooga in the 1970s and 1980s, but not the 1990s. Between 1990 and 2000, the college attainment rate in Chattanooga dropped from 89.7% of the national rate to 88.1%. By comparison, Hamilton County's relative college attainment advantage in Tennessee was shrinking as the college attainment rate for the entire state grew at a faster rate than in Hamilton County.

2005 American Community Survey Data

To meet the demand for demographic information during the ten year gap between censuses, the Census Bureau has started to conduct an annual American Community Survey (ACS). Unlike the Census, the goal of the American Community Survey is not to conduct a full and complete census: survey data is based on responses from randomly selected households across the United States.⁷ So, for example, data for the 2005 ACS is based on completed interviews with 1,824 households in Hamilton County: according to the 2000 Census, there were 124,444 households in Hamilton County.⁸

Not all individuals who are subject to the Census were part of the potential sample for the 2005 ACS: “[P]eople living in group quarters – places such as dormitories, prisons and nursing homes are NOT included in the 2005 ACS.”⁹ Thus, comparisons between 2005 ACS data and 2000 Census data would be flawed.

The differences in sample size and sample universe, however, are comparable across jurisdictions. Thus, it is possible to use 2005 ACS data to compare different jurisdictions and to compare a local jurisdiction – e.g. Hamilton County – to the nation as a whole.

Hamilton County's College Attainment Rate Exceeds the National Average

According to data from the 2005 ACS, a higher percentage of Hamilton County residents aged 25 and older have a college degree than those in the same age cohort nationally. In 2005, 27.6% of Hamilton County residents – compared to 27.2% nationally – have a college degree. The same 2005 ACS data also indicate that 24.6% of Chattanooga residents have a college degree. While Chattanooga's college attainment rate remains below the national average, it is up to 90.4% of the national average.

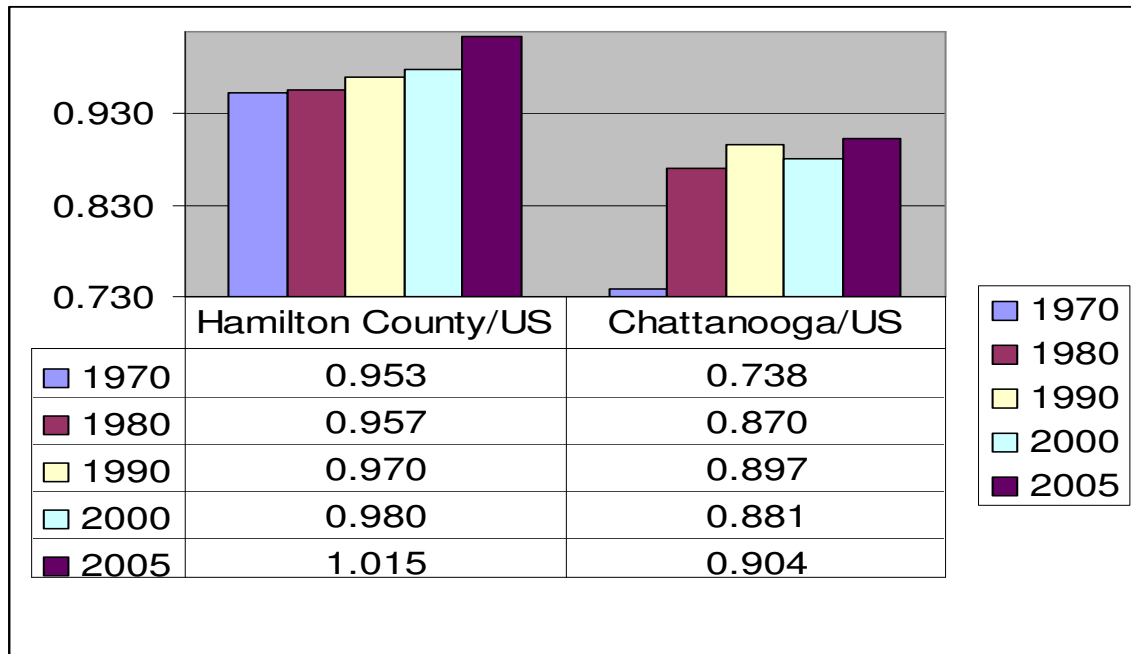
⁷ Not all reported Census data is based on information from the so called “one hundred percent sample.” For example, data on educational attainment is based on a sample of one in six Census respondents to the so-called “long form.”

⁸ Data from American Factfinder and American Community Survey sections from Census Bureau website, www.census.gov.

⁹ U.S. Census Bureau, *Using Data from the 2005 American Community Survey*, August 24, 2006.

Because of the limitations of the ACS data, it is not possible to compare ACS data to 2000 – or earlier – Census data. But it is possible to compare ratios that reflect the relationship between the county rate and the national rate. The data suggest a long term trend that has allowed Hamilton County to close the gap between the countywide college attainment rate and the national rate: a similar trend is under way in Chattanooga as well.

Local College Attainment as Ratio of National College Attainment, Hamilton County and Chattanooga, 1970 - 2005



Comparing Hamilton County College Attainment to Other Tennessee and Midsize Counties

Based on 2005 ACS data, the college attainment rate in Hamilton County is now third among the four largest Tennessee counties, surpassing college attainment in Shelby County.

Table 2: College Attainment in Largest Tennessee Counties

<i>County</i>	<i>College Attainment</i>	
	2000 Census	2005 ACS
Davidson	30.5%	32.7%
Knox	29.0%	30.1%
Hamilton	23.9%	27.6%
Shelby	25.3%	27.3%

Source: 2000 Census and 2005 ACS

As part of the Community Research Council’s work in preparation of the soon-to-be-released State of Chattanooga Region Report, thirteen comparable benchmark counties

were identified: each of the counties – located throughout the country – were similar in size and centered by a midsize city.

In both 2000 and 2005, Hamilton County ranked 8th among the 14 counties in the percentage of population with a college degree. Higher ranked counties in 2000 – those that contained cities like Huntsville and Ann Arbor – continued to have higher percentages of college educated adults in 2005. But, significantly, there were differences in the degree to which college attainment continued to grow compared to national rates.

Using data from the 1990 and 2000 Census and the 2005 ACS, we examined the growth in college attainment locally when compared to the national rate of college attainment. So, for example, some counties – such as Washtenaw County – continued to have very high rates of college attainment, but their college attainment rate grew more slowly than the nation as a whole: as a result, their college attainment ratio actually declined. Some counties with relatively low levels of college attainment may have seen some increases, but at a slower rate than the nation as a whole. Their ratios declined as well.

In fact, between 1990 and 2005, only three of the 14 counties saw relative increases in college attainment – and Hamilton County had the greatest increase.

Table 3: College Attainment in Midsize Counties

	1990 Ratio	2000 Ratio	2005 Ratio	% Change: 1990 to 2005
Hamilton County, Tennessee	0.971	0.979	1.015	4.6%
Lehigh County, Pennsylvania	0.967	0.956	0.996	3.0%
Madison County, Alabama	1.484	1.404	1.488	0.3%
Ada County, Idaho	1.227	1.278	1.203	-1.9%
Washoe County, Nevada	1.022	0.972	0.996	-2.5%
Richland County, South Carolina	1.380	1.331	1.321	-4.3%
Allen County, Indiana	0.935	0.930	0.892	-4.6%
Lane County, Oregon	1.093	1.045	1.028	-5.9%
Washtenaw County, Michigan	2.063	1.973	1.927	-6.6%
Forsyth County, North Carolina	1.187	1.175	1.099	-7.4%
Cumberland County, North Carolina	0.819	0.783	0.742	-9.3%
Ingham County, Michigan	1.437	1.351	1.256	-12.6%
Winnebago County, Illinois	0.820	0.794	0.714	-13.0%
Marion County, Oregon	0.864	0.811	0.751	-13.1%
Source: 1990 and 2000 Census and 2005 ACS				

Why is College Attainment Increasing in Hamilton County?

Shifts in the Age of the Population Do Not Explain the Increase

Older adults – who were college age at a time when relatively few attended college – tend to have significantly lower college attainment rates than younger adults. Hamilton County has a higher percentage of older adults than the nation as a whole. In 2000, 18% of all adults age 18 and older in Hamilton County were 65 years or older compared to 16.7% nationally. Thus, a reduction in the proportion of the population who were older could drive college attainment numbers higher. According to the 2005 ACS, 17.6% of Hamilton County residents age 18 and older were 65 years old or older: but nationally, 16.2% of adults were 65 or older. In other words, Hamilton County’s ratio of elderly actually increased between 2000 and 2005 when compared to national numbers.

Improvements in the Graduation and Retention of Locally Educated Students

Hypothetically, if the actual rate of college attainment did increase from 23.9% to 27.6% over five years – recall that ACS and Census data are not really comparable – that would mean a net increase of 7,655 college graduates in the county over five years.

For the increase in college attainment to be “home-grown,” it would require more students to graduate from high school, more to go to and complete college and more to decide to stay in or return to Hamilton County.

Based on data from the National Center for Education Statistics and Hamilton County Department of Education, we know that there are approximately 3,100 12th graders in public and private schools in Hamilton County. It would be near impossible mathematically for improvements in graduation and retention to account for all – or even the majority -- of the increase.

Higher College Attainment Among Newcomers

It appears that the principal factor driving the increase in college attainment may be higher education levels among people, especially young people, moving to Hamilton County. Three sources of data suggest this result:

- The local economy is creating more of a demand for college educated employees. An occupational analysis for the Chattanooga MSA for the period 2001 – 2004 found that 60% of net new jobs in the region require higher levels of education.¹⁰
- An analysis of Hamilton County migration patterns based on new residential customer applications to the Electric Power Board found a surge in new households in 2005, especially among individuals between the ages of 18 and 34. Preliminary data indicated that, in 2005, new customer service applications from new residents were up by 36.5% over a four year average and that the percentage

¹⁰ Community Research Council, *2006 State of Chattanooga Region Report*, November 2006.

of new customer applications from 18 to 34 year olds had increased from 46% in 2001 to 58.2% in 2005.¹¹

- Data from the State of Chattanooga Region Report survey conducted in April 2006 indicate that newcomers to Hamilton County are more likely to have a college degree than long term residents.

Table 4: College Attainment by Length of Residence in Hamilton County

<i>Time in Hamilton County</i>	<i>College Graduates %</i>
< 25% of Life	41%
25 - 49% of Life	42%
50 - 74% of Life	33%
75% + of Life	23%

Source: State of Chattanooga Region Report Survey

¹¹ Community Research Council, 2005 *CRC Downtown Study*, 2006 at www.rivercitycompany.com and www.researchcouncil.net.

About the Community Research Council

The Community Research Council (CRC) is a 40 year old non-profit organization based in Chattanooga, Tennessee. CRC is the leading source of independent policy research and data analysis for foundations, non-profit and government agencies in the Chattanooga region. Its work focuses on five broad areas of urban policy:

- Crime and Public Safety
- Health
- Economic and Community Development
- Urban Governance
- Youth and Education

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