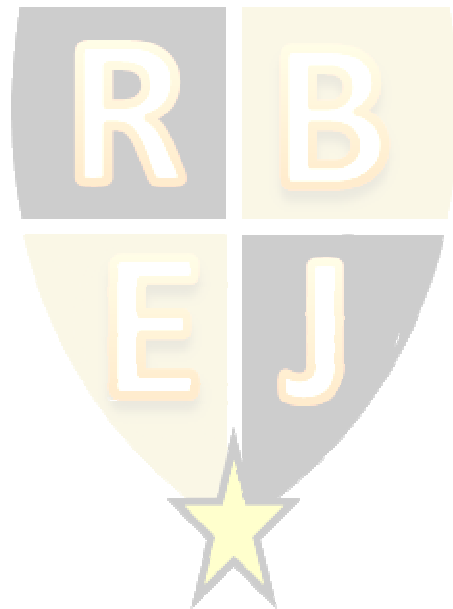


South Carolina retirement communities and in-migrating retirees' long-term economic implications

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This paper focuses on the effect of large retirement communities on the local counties economy. Two large retirement communities in South Carolina, Savannah Lakes Village and Sun City—Hilton Head, are examined for this study. Comparing various economic measures for these two counties with state and peer group averages, the results suggest benefits and costs associated with large populations of retirees relocating to a local area. These results can inform decisions in localities considering attracting retirees to the area as a means to spur economic growth.

Keywords: economic development, retiree in-migration



There are approximately 78 billion baby boomers (those born between the years of 1946 and 1964) in the United States. These baby boomers are estimated, as of 2008, to have nearly \$19 trillion in financial assets (Bodlak, 2009). Many of these baby boomers plan to retire to different locations. When retirees move to new locations, changes occur in the local economies; often benefits include more jobs and more tax revenue. For example, a group of researchers in Georgia estimated that if Georgia had captured 10 percent of the migrating retirees in 2007, Georgia would have experienced significant growth in jobs, personal and disposable income and net state revenues (Duke et al., 2006).

South Carolina has pursued retirement in-migration as a means to spur economic development. Since the late 1980s, South Carolina economic development professionals at the state and local levels have engaged in retirement community development projects to attract retirees to the state (Duke et al., 2006; Mason and Pettit, 2001). In 2001, it was estimated that the 65 and over population in South Carolina added \$6.5 billion to the economy and sustained 118,000 jobs (Mason and Pettit, 2001).

This paper examines the long-term economic effects of two large retirement communities in South Carolina: Savannah Lakes Village and Sun City—Hilton Head. Savannah Lakes Village, located in McCormick County, began selling home sites in 1989. There are between 4000 and 5000 lots in the community. Sun City—Hilton Head, located in Beaufort County, began selling home sites in 1996. Approximately 6,000 lots are located in this community. Both communities encourage retirees to relocate from other geographic areas to the host counties, resulting in significant increases in retirement-age populations.

To evaluate whether the retirement communities have benefited their host counties, the 1980, 1990 and 2000 levels of various economic measures as well as the 1980-1990 and 1990-2000 growth rates of these measures for these counties are compared to state and peer group averages, where the peer groups are comprised of counties with similar geographic and demographic characteristics. Data from the Bureau of Economic Analysis and the Census Bureau as well as other publicly available sources serve as the basis for the economic measures.

This study adds to the literature by focusing on the economic effect of two large retirement communities on localities over a two-decade period. It applies statistical analysis to the economic effect of the retirement communities using a variety of economic measures while controlling for demographic and geographic factors. The results suggest that benefits as well as costs associated with a significant inflow of retirees into a local community. For example, while the number of jobs may increase, the wage levels may remain unchanged or decrease. These results are important to the governing bodies in localities considering attracting retirees as a means of economic development. These results identify factors that economic development managers must consider when planning to attract retirees to their localities so that the benefits of such projects are enhanced and the costs are limited.

PRIOR RESEARCH

Much research has considered why retirees move or are attracted to localities. A more limited body of literature has examined the economic, social and demographic affects of these large in-migrating retirement populations on the local communities. The latter studies, which have documented positive, negative and mixed effects of retirement in-migration, are discussed in this section.

The positive effects resulting from significant retiree in-migration include increasing levels of services, wages and jobs. Average income and increasing job opportunities have been documented by several studies considering the effects of retirement in-migration (Duke et al., 2006; Gunderson, 1999; Park and Clark, 2007). As reported in the FDIC Outlook in 2006 (Angell and Rowley, 2006; FDIC, 2006), wealthier retirees demand more financial, healthcare and travel services, resulting in growth in those areas within the local economy. Duke et al. (2006) and Otero (1997) also find that retirees demand more financial and healthcare services. In addition, locally-based services, such as telephone and internet, legal and accounting, benefit from the growth in retiree populations. Otero (1997) further notes that more transportation services and dining and entertainment services are offered. Additionally, Duke et al. (2006) indicate that rural communities experiencing significant increases in retirement populations experience more growth in higher-paying and professional jobs, more income being spent close to home, and less demand on public services. Each of these affects results in higher tax revenues. Denslow and Pakhotina (2005) and Gunderson (1999) also suggest that by attracting migrating retirees, state and local governments will experience an increase in tax revenues and will pay less for certain services, such as education and police, resulting in a net increase in tax revenues. In addition to the financial effects, retirees may bring social and cultural benefits; they may volunteer at schools and participate in community leadership roles (Gunderson, 1999).

Significant retiree in-migration has also been shown to have negative effects. Denslow and Pakhotina (2005) note that migrating retirees may vote for lower education spending and may increase local rents and wages. The latter impact could drive out industries seeking to develop operations in the locality. Duke et al. (2006) find that as land and property taxes increase, agricultural and industrial operations leave or are deterred from locating in the area. Retirees migrating at later times may also be negatively affected by the higher housing costs, which become prohibitive at some point (FDIC, 2006). Duke et al. (2006) find that local residents are negatively affected by the rising housing costs, too, because they are priced out of the local market. Further, as more retirees move to the area, congestion increases, the environment is strained and cultural conflicts between the in-migrants and the locals occur (Duke et al., 2006; Park and Clark, 2007; Truly, 2002). As the impact on the infrastructure increases, tax revenues may have to be used to rebuild roads and provide additional utilities. Also, as the in-migrant retiree population ages, more public medical services, such as Medicaid, can be demanded (Gunderson, 1999; Longino, 1998; Truly, 2002).

In addition, mixed effects resulting from significant retiree in-migration have been documented. While jobs increase, those jobs tend to be in service industries, such as retail and food, which are generally lower-paying positions than managerial and professional opportunities (Otero, 1997; Park and Clark, 2007). The rise in housing and land values can be viewed as a positive outcome for existing residents, but as mentioned above, may make housing unaffordable for younger and less wealthy residents (Duke et al., 2006; Park and Clark, 2007).

DATA AND METHODOLOGY

To measure the level of retirement populations and retirement population growth, two age categories are considered: 55 and over (55 plus) and 65 and over (65 plus). Both age groupings are common measures of retirement populations. Both the population levels and their growth rates as a ratio of total county population growth are used to assess whether the two

counties of interest, Beaufort and McCormick, experienced more growth in these retirement populations than peer counties or the state.

In-migrating retirees have been found to generate economic benefits and costs for local communities. This paper uses data available from the Bureau of Economic Analysis (BEA), the Census Bureau and other publically available sources, to measure various economic effect of retirees moving into large retirement communities. Table 1 (Appendix) summarizes the economic effects considered and the variables used to measure the effects.

To evaluate whether the retirement communities have benefited their host counties, each county's 1980, 1990 and 2000 levels of the economic measures as well as each county's 1980-1990 and 1990-2000 growth rates for these measures are compared to state and peer group averages. The time periods are considered because they allow for actual population figures from decennial censuses to be used rather than estimates from intervening years.

The wages used to measure each economic affect in 1980, 1990 and 2000 are adjusted for population, to per capita wages, to allow comparisons across counties with different population levels. The 1980 and 1990 wages are also adjusted for inflation to 2000 dollars. This allows the real wages and their growth rates to be evaluated. The number of jobs used to measure each economic affect in each year are also adjusted for population, to jobs per 1,000 in population, to control for differences in county population sizes. In addition, the number of proprietorships are reported on a per 1,000 in population basis.

Growth rates in wages levels for the 1980-1990 and 1990-2000 periods are the growth rates in the per capita wages, in 2000 dollars, for each economic affect. The growth rate in number of jobs for the 1980-1990 and 1990-2000 periods are divided by the growth rate in total population for the respective period to arrive at a ratio of job growth to population growth. This job growth ratio allows the analysis to focus on the relative job growth by controlling for county population growth. The change in number of proprietorships is also reported as a ratio of growth in proprietorships to growth in population.

Medicare benefits are available only to the age 65 and over population. Therefore, these benefits are reported on a per capita basis for the age 65 and over population in the county. They are also adjusted for inflation, with the 1980 and 1990 levels brought to 2000 dollars.

Median housing costs and median rents are available only for 1990 and 2000. The 1990 levels are adjusted to 2000 dollars. Their growth rates are based on the real growth, using the changes in 2000 dollars to calculate the growth from 1990 to 2000.

Both Beaufort County and McCormick County levels of the economic factors and their growth rates are compared to the state averages. Because Beaufort County, where Sun City—Hilton Head is located, is on the coast of South Carolina, its levels and growth rates are also compared to two peer groups: the coastal peer group, which comprises all counties designated as coastal counties in South Carolina; and, the on-coast peer group, which includes only those counties that are directly on the Atlantic Ocean. These two peer groups control for the affect of coastal and on-coast development that might be included in Beaufort County's measures. McCormick County, where Savannah Lakes Village is located, is not a coastal county nor is it included in a Metropolitan Statistical Area (MSA). McCormick County's levels and rates, therefore, are compared to those for one peer group, which includes all counties that are not coastal counties and are not in MSAs. Use of this peer group for McCormick County controls for the effect of coastal and urban growth and development in state averages.

Table 1 (Appendix) provides the expected relationship between the county level or growth rate and the state and peer group averages. These relationships are expected to hold in the

period following the opening of the retirement community, which is established as the 1990-2000 period and 2000 levels for both communities. While the Savannah Lakes Village community in McCormick County was established and started selling lots in 1989, the 1990 levels are unlikely to have been significantly affected by the community. The relationships in 1990 and the 1980-1990 growth rates help interpret the 1990-2000 results. Student's t-tests are used to determine whether the county levels and growth rates are significantly different, in the expected direction, from the state and peer group levels and growth rates.

RESULTS

The first section discusses the results of the retirement population verification. The remaining sections describe the results for each of the categories of economic effects.

Verification of County Retirement Population Levels

It is expected that the retirement-age populations in Beaufort and McCormick counties will grow at a faster rate than the rest of the counties in the state and their respective peer groups during the 1990-2000 period because the retirement communities in both locations started selling property just before or during that period. By 2000, it is expected that both counties will have higher percentages of retirement-age populations. The retirement population levels for each county and the mean levels for the state and the county peer groups, as well as the corresponding growth rates are provided in Table 2 (Appendix). The results of the t-tests between the county levels and growth rates and the state and peer group averages are presented in Table 3 (Appendix).

As the means test results in Table 2 indicate, by 2000, both counties had a significantly higher level of 55 plus and 65 plus populations than the state and their respective peer groups. Further, Beaufort County, for both the 55 plus and 65 plus populations, had significantly lower levels of retirement age residents in 1980 than the state and the peer group averages. These results suggest that Sun City—Hilton Head drew a significant number of retirement-age residents to the county, even though the relative growth rate of these populations was not significantly different from the state and peer group averages. McCormick County had significantly higher 55 plus and 65 plus populations than the state in all three years. But, compared to its peer group, the county went from have significantly fewer retirees, in both age groups, in 1990 to having significantly more retirees in 2000. The growth rates in both the 55 plus and 65 plus populations were significantly higher in McCormick County than both the state and peer group averages in the 1990-2000 period, as well. These results suggest that Savannah Lakes Village drew a large number of retirees to the county during the 1990-2000 period.

Income and Job Levels and Growth

Wage and job levels have been found to increase when retirement populations increase, particularly when large retirement communities are located in a local area (Park and Clark, 2007; Duke et al., 2006; Gunderson, 1999). Wage and job levels are measured by the following variables: real average wages per capita; growth rate in real average wages per capita; total jobs per 1,000 in county population; growth in jobs as a ratio of total county population growth; number of business per 1,000 in county population; and, growth in number of businesses as a

ratio of total county population. The post-1990 wage and job levels for Beaufort and McCormick counties are expected to be higher than the state averages and their peer group averages following the opening of their respective retirement communities. The county levels and state and peer group averages are provided in Table 4 (Appendix). The results of the t-tests comparing the county levels and growth rates and the state and peer group levels and growth rates are recorded in Table 5 (Appendix).

The wage-level results for Beaufort County support the expected relationship; by 2000, the wage levels in Beaufort County were significantly higher than the average wage levels in the coastal counties and the on-coast counties. Further, while the wage levels for the county compared to the state were not significantly higher in 2000, they were higher; they had been significantly lower in 1980. The wage levels for McCormick County were significantly lower than the state and peer group averages in all three years considered. These results are not as expected.

Wage growth rates in Beaufort County during the 1990-2000 period were significantly higher than the state and the coastal county averages, also supporting the expected relationship. However, the county's growth rates in the 1980-1990 period were also significantly higher than both peer groups' and the state averages. This makes it difficult to suggest that the growth rates are based solely on the increase in retirement populations. For McCormick County, the wage-level growth rates for the 1990-2000 period were significantly lower than the state and its peer group averages. The McCormick County results contradict the expected relationship.

Regarding job levels, Beaufort County had significantly higher levels of jobs per 1,000 in population than the averages for the state and both its peer groups in all three years considered. While the results for 2000 support the expected relationship, the significant relationships in 1980 and 1990 make it difficult to suggest that the job level differences result solely from the retirement community being located in the county. The McCormick County job levels were significantly lower than the state and peer group averages in all three years considered. These results are not in the expected direction.

The growth rates in jobs were significantly lower than state and peer group averages for both counties in the 1980-1990 period. The counties' growth rates were not significantly different from state and peer group averages in the 1990-2000 period. These results provide some support for the expected relationships. While the job growth rates were lower before the retirement communities located in the counties, the job growth rates reached peer group and state averages during the 1990-2000 period, when the retirement communities were expanding.

Regarding the number of businesses, the results for Beaufort County support the hypothesis while the results for McCormick County do not. In 1980, the number of businesses in Beaufort County was significantly lower than the state and peer group averages. In 2000, the number of business in Beaufort County was significantly higher than the state and coastal county peer group averages and not significantly different from the on-coast county average. However, these results are tempered by the significant and positive relationship between the county's levels and the state and coastal county averages in 1990. This latter result might be explained by the need for businesses related to the establishment of the community prior to its actually opening. This issue should be examined further in future research. For McCormick County, the county's number of businesses was significantly lower than the state and its peer group averages in each of the three years considered.

The results based on the growth in businesses for both counties support the hypothesis. As the retirement population grew in Beaufort County, the growth rates in the number of

business went from being significantly lower than the state and peer group averages in the 1980-1990 period to being significantly higher than the state and peer group averages in the 1990-2000 period. The growth rates for the number of businesses in McCormick County were significantly lower than the state average in the 1980-1990 period and not significantly different, but higher, in the 1990-2000 period. While the results in comparison to its peer group average were not significant, McCormick County's growth rate in the number of businesses was lower than its peer group average in the 1980-1990 period and higher in the 1990-2000 period. While not as robust as the results for Beaufort County, the McCormick County results lend support to the hypothesis.

Financial Services

The level of financial services has been found to increase when a large population of retirees relocate to a particular area (Angell and Rowley, 2006; Duke et al., 2006; FDIC, 2006; Otero, 1997). The level of financial services is measured by the following variables: real per capita finance, insurance and real estate wages; growth rate in real per capita finance, insurance and real estate wages; finance, insurance and real estate jobs per 1,000 in county population; and growth in finance, insurance and real estate jobs as a ratio of total county population growth. The post-1990 financial services wage and job levels and growth rates for both Beaufort and McCormick counties are expected to be higher than those of the state and their respective peer groups. The county levels and state and peer group averages are provided in Table 6 (Appendix). The results of the t-tests comparing the county levels and growth rates and the state and peer group levels and growth rates are recorded in Table 7 (Appendix).

In 1980, 1990 and 2000, Beaufort County's financial services wage levels were significantly higher than those in the state and its peer groups. In addition, the county's growth rates in financial services wages were also significantly higher than those in each of the three comparison groups. While the results for 2000 and for the 1990-2000 period support the expected relationship, the significant relationships in 1980 and 1990 and the 1980-1990 period make it difficult to suggest that the wage level differences result solely from the retirement community being located in the county. However, the differences are larger in the 2000 and 1990-2000 periods, which does lend some support to the expectation that more retirees results in higher financial services wage levels and higher financial services wage growth.

The data for 1990 in McCormick County were not available, therefore the growth rates in financial services wages could not be measured. But, the 1980 and 2000 wage level results contradict the expected relationships. In 1980, the McCormick County's financial services wage levels were significantly higher than the state and its peer group averages and in 2000, the county's wage levels were significantly lower than both groups' averages.

Regarding financial services job levels, the levels in Beaufort County in all three years were significantly higher than the state and peer group averages. As with financial services wage levels, the results from 2000 support the expected relationship but are confounded by the significant results in the prior two years considered. However, also as with wage levels, the amount of difference in jobs levels is higher in 2000 than in 1980 and 1990. This tends to support the hypothesis that increasing levels of retirement-aged populations result in higher levels of financial services jobs. The job levels in McCormick County in 1980 and 2000 also support the expected relationship (the 1990 data was missing). In 1980, McCormick County had significantly fewer financial services jobs than both the state and its peer group averages. By

2000, McCormick County had a significantly higher job level than the peer group average and was closer to, but still significantly lower than, the state average job level.

The growth rate in job levels for McCormick County were not measurable due to the missing data for 1990. In Beaufort County, the job level growth rate results are significant in only two cases, in the 1980-1990 period when compared to the on-coast peer group and in the 1990-2000 period when compared to the coastal peer group. In the latter case, the results do not have the expected relationship: in the 1990-2000 period, the financial services job growth rate was lower than the average growth rate for coastal counties. Further, Beaufort County's 1980-1990 job growth rate was significantly higher than the on-coast peer group average for that period and not significantly different from the on-coast average for the 1990-2000 period. These results do not support the hypothesized relationship.

Medical Services

The level of medical services has been found to increase when a large population of retirees relocate to a particular area (Angell and Rowley, 2006; Duke et al., 2006; FDIC, 2006; Otero, 1997). It is proposed that Medicare will cover the costs of the increased level of medical services and reduce dependence on the level of public medical benefits required to provide those services in a community with large numbers of retirees. Therefore, the post-1990 level of Medicare benefits and their growth rate between 1990 and 2000 for both Beaufort and McCormick counties are expected to be higher than those of the state and their respective peer groups, while the level of public medical benefits and their growth rates are expected to be lower. The county levels and state and peer group averages are provided in Table 8 (Appendix). The results of the t-tests comparing the county levels and growth rates and the state and peer group levels and growth rates are recorded in Table 9 (Appendix).

The level of public medical benefits in 1980, 1990 and 2000 for Beaufort County was significantly lower than the average level in the state and its peer groups. As with prior results, while it is difficult to determine whether the 2000 results are due only to the increasing retirement population, the increasing difference between the county's levels and the state and peer group averages over the two decade period provides some support for the expected relationships. McCormick County, however, does not support the hypothesis that the dependence on public medical benefits will decline with increasing retirement populations. The significant results for McCormick County indicate that in 1990, the county had significantly lower level of public medical benefits than the state average. But, by 2000, McCormick County's level was significantly higher than the state average. The county levels were not significantly different from the peer group averages in all three years considered.

The results for the public medical benefit growth rates are similar. In both periods, 1980-1990 and 1990-2000, the level of public medical benefits in Beaufort County grew at significantly lower rates than the state average and the peer group averages. The growth rate of public medical benefits in McCormick County was significantly lower than the state and peer group averages in 1980-1990 period and significantly higher than both averages in the 1990-2000 period. While the Beaufort County results provide some support for the expected relationships, the McCormick County results are opposite those expected.

The results for Medicare benefits are not as expected for either county. In 2000, for both counties, the levels of Medicare benefits of the county were significantly lower than the state average and the peer group averages. For McCormick County, the county's levels in 1980 and

1990 were also significantly lower than the state and peer group averages. For Beaufort County, the county's 1990 level was significantly lower than the state and peer group averages and the county's 1980 level was significantly lower than the on-coast peer group average. However, the county's 1980 level of Medicare benefits was significantly higher than the state average. These results do not support the hypothesis.

The growth rates in Medicare benefits for McCormick County were not significantly different from the state or peer group averages. Beaufort County's growth rates in both the 1980-1990 and 1990-2000 periods were significantly lower than the state and coastal peer group averages. These results, like those for the county Medicare benefit levels, do not support the hypothesis that Medicare benefits will increase with retirement population size.

The results could suggest that Medicare benefits are not measuring medical services but government and public assistance. If this is the case, the results for the Medicare benefits tend to support the hypothesis that retirement populations place less demands on medical infrastructure and county finances than non-retirement populations. The Medicare results could also indicate that healthier retirees are moving to Beaufort County to take advantage of the lifestyle and amenities. This leads to lower demand for Medicare in Beaufort County. The results and these possible explanations require additional consideration in future research.

Transportation Services

The level of transportation services has been found to increase when a large population of retirees relocate to a particular area (Otero, 1997). The level of transportation services is measured by the following variables: real per capita transportation and utilities wages; growth rate in real per capita transportation and utilities wages; transportation and utilities jobs per 1,000 in county population; and, growth in transportation and utilities jobs as a ratio of total county population growth. The post-1990 transportation services wage and job levels and growth rates for both Beaufort and McCormick counties are expected to be higher than those of the state and their respective peer groups averages. The county levels and state and peer group averages are provided in Table 10 (Appendix). The results of the t-tests comparing the county levels growth rates and the state and peer group levels and growth rates are recorded in Table 11 (Appendix).

The significant results for transportation wage levels support the hypothesis in all but one case (McCormick County, 1980 versus the state average). In support of the hypothesis, in 1980 and 1990, the Beaufort County levels were significantly lower than the state averages and the county level was not significantly different than the state average in 2000. In 1990, the Beaufort County level was significantly lower than the coastal peer group average and was not significantly different than the on-coast peer group average. By 2000, the Beaufort County wage level was significantly higher than both peer group averages. McCormick County's results were similar for 1990 and 2000. In 1990, the level of transportation services wages in the county was significantly lower than the average in the state and the county's peer group. By 2000, the county's wage level was significantly higher than the state and peer group averages. These results suggest that as the retirement population increased, the level of transportation services also increased.

The wage level growth rates for both counties also support the hypothesis that, as retirement populations increase, the level of transportation services also increases. For both counties, the 1980-1990 growth rate was significantly lower than the state average. McCormick County's 1980-1990 growth rate was also significantly lower than its peer group average. During

the 1990-2000 period, the growth rate levels in both counties were significantly higher than the state average and their peer group averages. These results are as expected.

The transportation services job level results for Beaufort County provide very limited support for the hypothesis. The job level for the county in 1980 was significantly lower than the state average. By 2000, the job level was not significantly different than the state average. The county level was not significantly different from its peer group averages. The job level results for McCormick County are not as expected. In all three years, the McCormick County job level is significantly lower than the state and peer group averages.

The job level growth rate results also do not support the expectation that transportation services increase as retirement populations increase. The only significant results for Beaufort County were during the 1990-2000 period, when Beaufort County's job level growth rate was significantly lower than the average for the coastal peer group. For McCormick County, the county's 1980-1990 job growth rate was significantly higher than the peer group average and the county's 1990-2000 growth rate was significantly lower than the state average. These results are opposite those expected.

Dining and Entertainment Services

The level of dining and entertainment services has been found to increase when a large population of retirees relocate to a particular area (Duke et al., 2006; Otero, 1997). The level of such services is measured by the following variables: real per capita retail trade wages; growth rate in real per capita retail trade wages; retail trade jobs per 1,000 in county population; growth in retail trade jobs as a ratio of total county population growth; real per capita services wages; growth rate in real per capita services wages; services jobs per 1,000 in population; and, growth in services jobs as a ratio of total county population growth. The post-1990 retail trade and services wage and job levels and growth rates for both Beaufort and McCormick counties are expected to be higher than those of the state and their respective peer group averages. The county levels and state and peer group averages are provided in Table 12 (Appendix). The results of the t-tests comparing the county levels growth rates and the state and peer group levels and growth rates are recorded in Table 13 (Appendix).

For both retail and services wages, Beaufort County's levels were significantly higher than the state and peer group averages in all three years measured. The growth in real wages for retail jobs follow this same pattern: in both the 1980-1990 and 1990-2000 periods, the growth rates in retail wages in Beaufort County were significantly higher than the state and peer group averages. While the results for 2000 and 1990-2000 period (for retail wages) support the hypothesis, the additional significant findings in 1980 and 1990 make it difficult to suggest that the wage levels result solely from the retirement population increase. The growth rates in service wages provide stronger support for the hypothesis: the county's growth rate for service wages was significantly higher than the state average only in the 1990-2000 period. This suggests that the retirement population growth did result in additional services. But, these findings are tempered by the lack of significant results compared to the peer groups. The lack of significant findings for these two groups suggests that the Beaufort County growth is based, at least in part, on the county's proximity to the ocean rather than the retirement population growth.

For McCormick County, for both retail and services wages, the county's levels were significantly lower than state and peer group averages in each of the three years considered. These results are opposite those expected. However, the gap between the county levels and the

state and peer group levels decreased from 1980 to 1990 and from 1990 to 2000. This might indicate that, while the county's wage levels for retail and service jobs are still significantly lower than the state and peer group averages, the wages are approaching the averages as a result of the retirement population growth in the county. The growth rates in real wages for both retail and services jobs support this latter explanation. In the 1980-1990 period, McCormick County's wage growth rates were significantly lower than both the state and peer group averages. But, in the 1990-2000 period, the county's wages levels grew at a significantly higher rate than the state and peer group averages. The growth rate results in McCormick County support the hypothesis that retirement population growth brings growth to retail and other services.

The results concerning retail and service job levels and growth rates are similar to those for the wage levels and growth rates. McCormick County's retail and service job levels are significantly lower than the state and peer group averages in all three years considered, while the job growth rates are significantly lower in the 1980-1990 period and significantly higher in the 1990-2000 period when compared to both state and peer group averages. For Beaufort County, the results based on retail and service job levels and growth rates varied slightly from the wage level and growth rate results. Beaufort County's retail and service job levels were significantly higher than the state and coastal peer group averages in 1980, 1990 and 2000. However, the levels were significantly higher than the on-coast peer group average only in 1990. Further, the retail job growth rates in Beaufort County were not significantly different from the average retail job growth rates in the state or peer groups in either period considered. For the service job growth rates, Beaufort County's job growth rate was significantly lower than the state average in the 1980-1990 period and significantly lower than the coastal peer group growth rate in the 1990-2000 period. The limited results suggest that, for Beaufort County, the retail and service job levels and growth rates are not significantly affected by the increase in retirement population following the establishment of the retirement community in that county.

Housing Costs

Housing costs have been found to increase when a large population of retirees relocate to a particular area (Park and Clark, 2007; Angell and Rowley, 2006; Duke et al., 2006; FDIC, 2006; Otero, 1997). The level of such costs is measured by the following variables: median housing cost in 2000 dollars; growth in median housing cost; median rent in 2000 dollars; and growth in median rent. Housing values and rent are compared for only 1990 and 2000. The 1980 figures were not available. The post-1990 housing costs and their growth rates for both Beaufort and McCormick counties are expected to be higher than the state and their respective peer group averages. The county levels and state and peer group averages are provided in Table 14 (Appendix). The results of the t-tests comparing the county levels growth rates and the state and peer group levels and growth rates are recorded in Table 15 (Appendix).

The housing cost results for Beaufort County are in the expected direction. In 2000, the county's housing value and rent were significantly higher than the state and peer group averages. However, the 1990 results are the same—the county's housing value and rent were significantly higher than the averages for the state and the peer groups. As with previous variables, it appears that the housing costs in Beaufort County are affected by other factors in addition to retirement population growth. For McCormick County, the housing value and rent were significantly lower than the state and peer group averages in both 1990 and 2000. However, the gap between the

county measures and the state and peer group averages was lower in 2000. This suggests that the retirement population growth affected the housing market in McCormick County as expected.

The 1990-2000 growth in median housing values in both counties was significantly higher than state and peer group averages. For McCormick County, the growth in median rent was also significantly higher than the state and peer group averages. These results support the hypothesis that growth in retirement populations increases housing costs. However, the growth in rent in Beaufort County was significantly lower than the state and peer group averages. This is not as expected.

Government Infrastructure

The demands on county infrastructure have been found to vary when retirement population growth is experienced in a locality (Park and Clark, 2007; Angell and Rowley, 2006; Duke et al., 2006; FDIC, 2006; Gunderson, 1999; Otero, 1997). It is hypothesized for this study that the demands will decrease with growing retirement-age populations. The demand for county infrastructure is measured by the following variables: real per capita local government wages; growth rate in real per capita local government wages; jobs in local government per 1,000 in county population; growth in local government jobs as a ratio of total county population growth. The post-1990 local government wage and job levels and growth rates for both Beaufort and McCormick counties are expected to be lower than those of the state and their respective peer groups. The county levels and state and peer group averages are provided in Table 16 (Appendix). The results of the t-tests comparing the county levels growth rates and the state and peer group levels and growth rates are recorded in Table 17 (Appendix).

The local government wage levels in Beaufort County were significantly higher than the average wage levels for the state and peer groups in 1990 and 2000. The county level in 1980 was also significantly higher than the average for the coastal peer group. Further, the growth rate in local government wages in Beaufort County were also significantly higher than the state and coastal peer group in both the 1980-1990 and 1990-2000 periods and in the 1980-1990 period for the on-coast peer group. While most of these results are opposite those expected, the latter relationship between the on-coast average growth rate and the county growth rate lend some support to the hypothesis. The county's growth rate in local government wages was not significantly different from the on-coast average for the 1990-2000 period. This, when considered with the significant relationship in the 1980-1990 period suggests that, after controlling for ocean access, Beaufort County, with its higher retirement population growth, placed less demand on local government services between 1990 and 2000 than it did between 1980 and 1990.

The local government wage levels and growth rates for McCormick County support the hypothesis. In each of the three years considered, the McCormick County wage levels were significantly lower than the state and peer group averages, with the difference increasing from 1980 to 1990 and from 1990 to 2000. Further, while the growth rate in local government wages for the county was not significantly different from the state and peer group averages in the 1980-1990 period, the growth rate was significantly lower than both averages in the 1990-2000 period. These results suggest that as the retirement population increased, the level of local government services demanded decreased.

The results based on the local government job levels and job growth rates for Beaufort County vary from those based on local government wages. The county's local government job

level was significantly lower than the state and coastal peer group averages in all three years considered as well as in 1980 and 1990 when compared to the on-coast averages. Further, the job growth rates for the county are not significantly different from the state or peer group averages in either period. While the 2000 results for the state and coastal peer group support the hypothesis, the significant results in the prior years and the lack of significant results for the growth rates suggest that the changes in local government job levels was not based solely on retirement population growth.

McCormick County's local government job level results lend some support to the hypothesis. In 1980, the county's job level was significantly higher than the state and peer group averages. In 1990 and 2000, the county's job levels were significantly lower than the state and peer group averages. This suggests that growth in the retirement population corresponded to a decrease in local government jobs. However, the local government job growth rate results contradict this finding. In the 1980-1990 period, the county's job growth rate was significantly lower than the state and peer group averages. During the 1990-2000 period, the county growth rate was not significantly different for either average. This suggests that the retirement population growth resulted in more demand for local government services in the county.

CONCLUSIONS AND IMPLICATIONS

The results provide limited support for the economic effects previous studies have found when large retirement populations migrate to a local area. Following the development of their respective retirement communities, both counties experienced higher transportation services wages and wage growth and more growth in housing values. Both counties also had some growth in total jobs and service jobs and wages. McCormick County's results demonstrated growth in the number of businesses, more financial services jobs, more increase in rent, and lower government wages. Beaufort County experienced significant growth in wages.

The results for McCormick County were more clearly observable than those for Beaufort County. One reason for this may be that the growth in the retirement population for McCormick County during the 1990-2000 period was more than 3 to 4 times that of the general population growth. While both counties had significantly higher numbers of retirees than the state or peer group levels, only McCormick County had significantly higher growth in retirement population. This issue requires additional examination to determine whether the effects of the in-migration occur primarily due to the growth rather than the relative size of the retirement population.

Additional refinements can be made to the analysis. Data at the Zip Code level would better isolate the economic effects of the retirement communities. More detailed data, such as subcategories of services rather than general services, would allow better measurement of the economic effects. Additional measures of government infrastructure and demand, such as tax revenue and costs of services provided by the local government, would better address the affect of retirement communities in this area.

More factors also need to be considered in the analysis. Particularly, the wealth and migration patterns of the retirees moving to the retirement communities should be examined. For example, retirees migrating to coastal Beaufort County may have higher levels of wealth than those migrating to the more rural McCormick County community. These wealthier retirees may demand less of the government and medical benefits than retirees that have less wealth. Measures of migration rates, whether retirees are relocating from different regions or states, health levels and wealth levels would allow better assessment of the types of retirees that should

be targeted for retirement communities to enhance the local community benefits provided and reduce the burdens placed on the local communities by those retirement populations.

A longer time frame would also provide more insight into the economic effects. During the time period considered, the retirees would have been buying lots and building homes. The longer-term affects of retirees as residents of the localities might be different. Further, the time period ended prior to the economic downturn of the last several years. If retirees moved from other areas before selling their homes in those areas or if those retirees planned to live on investment income, the more recent economic effects might be different than those indicated in the study results.

This study demonstrates that in-migrating retirees moving to large retirement communities affect local economies. Local officials can use these results to inform their decisions about whether retirement communities should be included in long-term economic development plans.

REFERENCES

- Angell, C. and Rowley, C. D. (2006). FDIC outlook: The demographics of housing demand. Retrieved September 28, 2006 from www.fdic.gov/bank/analytical/regional/ro20061q/na/2006_spring03.html.
- Bodlack, Isabel. (2009). "Retirement at risk II: Challenges facing U.S. baby boomers approaching retirement," *Allianz Global Investors AG International Pension Papers*, No. 3., December 31.
- Denslow, D., and N. Pakhotina. (2005). "The effect of local taxes and spending on the migration of the elderly to high-amenity destinations," *National Tax Association Proceedings of the 98th Annual Conference on Taxation*, 407 - 414.
- Duke, R., Isley, P., O'Neill, A., Slade, C. and Finney, S. (2006). Retirement communities: An innovative retiree attraction and eldercare living strategy for rural Georgia. Georgia: Enterprise Innovation Institute, Georgia Tech University.
- Federal Deposit Insurance Corporation (FDIC). (2006). FDIC outlook: Regional demographic and banking trends. Retrieved September 28, 2006 from www.fdic.gov/bank/analytical/regional/ro20061q/na/2006_spring04.html.
- Gunderson, R. J. (1999). "The impact of senior living in Arizona: How communities can serve the retiree market," *Economic Development Review*, 16:152, 77 - 81.
- Longino, Jr., C. F. (1998). "Geographic mobility and the baby boom," *Generations*, 22:1, 60 - 64.
- Mason, P., and Pettit, K. (2001). "In-migration: South Carolina's newest 'Sunrise Industry'," *Business and Economic Review*, 47:4, 3 - 5.
- Otero, L. M. Y. (1997). "U.S. retired persons in Mexico," *The American Behavioral Scientist*, 40:7, 914 - 922.
- Park, W. M. and C. D. Clark (2007). The long-term impacts of retiree in-migration on rural areas: A case study of Cumberland County, Tennessee. Executive summary. Knoxville, Tennessee: The University of Tennessee, The Institute for Public Service and The Institute of Agriculture.
- Truly, D. (2002). "International retirement migration and tourism along the Lake Chapala Riviera: Developing a matrix of retirement migration behavior," *Tourism and Geographies*, 4:3, 261 - 281.

APPENDIX

Table 1: Variables to Measure Economic Affects and Expected Relationships

Economic Effect (Variables)	Expected Relationship*
<p>Wage and job levels are expected to increase with retirement community growth and with an increasing level of retirement-age population</p> <p>(real average wages per capita, growth rate in real average wages per capita, total jobs per 1,000 in county population, growth in jobs as a ratio of total county population growth, number of business per 1,000 in county population, growth in number of businesses as a ratio of total county population)</p>	<p>RCC > PGA (positive t-statistic)</p>
<p>The level of financial services is expected to increase with retirement community growth and with an increasing level of retirement-age population</p> <p>(real per capita finance, insurance and real estate wages, growth rate in real per capita finance, insurance and real estate wages, finance, insurance and real estate jobs per 1,000 in county population, growth in finance, insurance and real estate jobs as a ratio of total county population growth)</p>	<p>RCC > PGA (positive t-statistic)</p>
<p>The demand for Medicare is expected to increase with retirement community growth and with an increasing level of retirement-age population</p> <p>(real Medicare benefits per 65 and over population, growth in real Medicare benefits per 65 and over population)</p>	<p>RCC > PGA (positive t-statistic)</p>
<p>The demand for public medical benefits is expected to decrease with retirement community growth and with an increasing level of retirement-age population</p> <p>(real public medical benefits per capita, growth in real per capita public medical benefits)</p>	<p>RCC < PGA (negative t-statistic)</p>
<p>The level of transportation services is expected to increase with retirement community growth and with an increasing level of retirement-age population</p> <p>(real per capita transportation and utilities wages, growth rate in real per capita transportation and utilities wages, transportation and utilities jobs per 1,000 in county population, growth in transportation and utilities jobs as a ratio of total county population growth)</p>	<p>RCC > PGA (positive t-statistic)</p>
<p>The level of dining and entertainment services is expected to increase with retirement community growth and with an increasing level of retirement-age population</p> <p>(real per capita retail trade wages, growth rate in real per capita retail trade wages, retail trade jobs per 1,000 in county population, growth in retail trade jobs as a ratio of total county population growth, real per capita services wages, growth rate in real per capita services wages, services jobs per 1,000 in population, growth in services jobs as a ratio of total county population growth)</p>	<p>RCC > PGA (positive t-statistic)</p>
<p>Housing costs are expected to increase with retirement community growth and with an increasing level of retirement-age population</p> <p>(median housing cost, growth in median housing cost, median rent, growth in median rent)</p>	<p>RCC > PGA (positive t-statistic)</p>
<p>The demands on county infrastructure are expected to decrease with retirement community growth and with an increasing level of retirement-age population</p> <p>(real per capita local government wages, growth rate in real per capita local government wages, jobs in local government per 1,000 in county population, growth in local government jobs as a ratio of total county population growth)</p>	<p>RCC < PGA (negative t-statistic)</p>

* RCC = retirement community county level; PGA = state or peer group average

Table 2: Retirement Population County Levels and State and Peer Group Averages

Item*	Beaufort County	McCormick County	South Carolina	Coastal Counties	Counties On Coast	Counties not MSA/ coastal
55+ population as percent of total population (%)						
1980	16.44	21.16	19.17	18.07	18.12	21.31
1990	20.76	21.48	20.82	19.96	20.98	22.62
2000	25.99	30.05	22.27	21.69	23.78	23.88
55+ population growth to total population growth						
1980-1990	2.08	1.12	1.45	1.26	2.33	1.51
1990-2000	1.91	4.67	1.63	2.28	2.13	0.86
65+ population as percent of total population (%)						
1980	8.03	11.11	10.03	9.35	9.29	11.48
1990	12.23	13.09	12.20	11.62	12.16	13.53
2000	15.51	16.52	12.70	12.30	13.53	13.82
65+ population growth to total population growth						
1980-1990	3.16	2.37	3.08	3.14	3.96	2.88
1990-2000	1.96	3.41	1.40	2.11	2.03	0.49

Table 3: Counties versus State and Peer Groups: Retirement Population t-Test Results

Item	Beaufort County			McCormick County	
	v. South Carolina	v. Coastal	v. On Coast	v. South Carolina	v. not MSA/ coastal
55+ population as percent of total population					
1980	-7.00***	-3.03***	-2.37**	5.11***	-0.41
1990	-0.17	1.34*	-0.29	1.71**	-3.13***
2000	9.26***	7.87***	1.81*	19.32***	9.77***
55+ population growth versus total population growth					
1980-1990	1.28	0.86	-0.98	-0.68	-0.68
1990-2000	0.93	-0.82	-0.43	10.16***	7.02***
65+ population as percent of total population					
1980	-7.60***	-3.63***	-2.25**	4.13***	-1.43*
1990	0.09	1.52*	0.17	3.32***	-1.84**
2000	10.78***	8.72***	2.56**	14.66***	7.57***
65+ population growth versus total population growth					
1980-1990	0.05	0.00	-1.20	-0.45	-0.42
1990-2000	1.96**	-0.32	-0.11	6.95***	5.95***

*** Significant at the 1% level; ** Significant at the 5% level; * Significant of the 10% level.

Table 4: Income and Job County Levels and State and Peer Group Averages

Item*	Beaufort County	McCormick County	South Carolina	Coastal Counties	Counties On Coast	Counties not MSA/ coastal
Wages per capita (\$ 000)						
1980	20.61	18.59	21.88	20.84	21.20	21.68
1990	23.29	20.25	23.57	22.44	22.15	23.42
2000	26.20	21.65	25.83	24.68	24.40	25.88
Per capita wage growth (%)						
1980-1990	12.98	8.93	8.15	8.74	5.27	7.94
1990-2000	12.48	6.95	9.97	10.24	10.79	10.97
Total jobs per 1,000 in population						
1980	632.70	376.97	433.85	412.27	479.05	435.26
1990	651.66	346.44	462.57	448.68	548.83	429.73
2000	679.68	314.12	474.46	459.23	568.36	441.64
Total job growth to total population growth						
1980-1990	1.12	0.38	1.97	2.43	2.91	1.10
1990-2000	1.15	0.14	0.60	0.82	1.18	0.01
Number of businesses per 1,000 in population						
1980	49.63	58.27	61.01	58.95	63.21	64.05
1990	82.39	54.87	63.03	61.69	79.86	60.91
2000	91.31	62.96	74.54	72.46	95.22	73.70
Growth in businesses to total population growth						
1980-1990	-0.16	0.55	2.72	4.14	4.52	0.78
1990-2000	7.63	2.36	1.06	2.07	2.94	-0.85

*All dollar figures adjusted to 2000 dollar levels.

Table 5: Counties versus State and Peer Groups: Income and Job Levels t-Test Results

Item	Beaufort County			McCormick County	
	v. South Carolina	v. Coastal	v. On Coast	v. South Carolina	v. not MSA/ coastal
Wages per capita					
1980	-2.57***	-0.31	-0.39	-6.71***	-4.33***
1990	-0.54	1.60*	0.96	-6.45***	-3.34***
2000	0.71	2.83***	2.00*	-7.98***	-4.08***
Per capita wage growth					
1980-1990	4.16***	2.24**	2.76**	0.67	0.54
1990-2000	2.37**	1.79**	0.57	-2.87***	-1.65*
Total jobs per 1,000 in population					
1980	15.12***	10.37***	2.74**	-4.33***	-3.97***
1990	11.15***	8.02***	1.60*	-6.85***	-4.63***
2000	11.31***	7.97***	1.59*	-8.84***	-7.15***
Total job growth to total population growth					
1980-1990	-1.62*	-1.28	-2.65**	-3.05***	-1.52*
1990-2000	1.17	0.53	-0.16	-0.98	0.12
Number of businesses per 1,000 in population					
1980	-6.55***	-3.40***	-2.06**	-1.57*	-1.82**
1990	10.80***	6.97***	1.17	-4.55***	-2.29**
2000	5.34***	4.43***	-0.57	-3.69***	-1.71*
Growth in businesses to total population growth					
1980-1990	-3.88***	-3.12***	-3.58***	-2.92***	-0.34
1990-2000	5.29***	6.42***	4.91***	1.05	0.97

*** Significant at the 1% level; ** Significant at the 5% level; * Significant of the 10% level.

Table 6: Financial Services County Levels and State and Peer Group Averages

Item*	Beaufort County	McCormick County	South Carolina	Coastal Counties	Counties On Coast	Counties not MSA/coastal
Wages per capita (\$ 000)						
1980	20.68	33.63	17.25	16.65	17.74	18.00
1990	23.83	NA	17.06	15.87	17.61	18.63
2000	37.40	14.90	23.23	22.92	25.74	20.46
Per capita wage growth (%)						
1980-1990	15.26	NA	2.11	-2.85	3.32	11.90
1990-2000	56.95	NA	45.79	47.35	42.03	24.15
Jobs per 1,000 in population						
1980	43.91	2.85	16.22	16.33	27.08	10.86
1990	57.12	NA	20.30	21.29	37.82	12.12
2000	64.34	16.27	23.19	25.19	42.80	14.22
Job growth to total population growth						
1980-1990	2.24	NA	11.43	21.13	7.46	1.01
1990-2000	1.45	NA	1.05	3.08	1.71	1.16

*All dollar figures adjusted to 2000 dollar levels.

Table 7: Counties versus State and Peer Groups: Financial Services Levels t-Test Results

Item	Beaufort County			McCormick County	
	v. South Carolina	v. Coastal	v. On Coast	v. South Carolina	v. not MSA/coastal
Wages per capita					
1980	5.37***	4.59***	1.80*	25.66***	12.26***
1990	7.02***	8.84***	3.82***	NA	NA
2000	14.03***	9.29***	2.60**	-8.26***	-4.99***
Per capita wage growth					
1980-1990	2.29**	4.16***	1.06	NA	NA
1990-2000	1.55*	0.93	0.88	NA	NA
Jobs per 1,000 in population					
1980	15.77***	12.06***	2.83**	-7.62***	-6.75***
1990	15.37***	11.10***	2.82**	NA	NA
2000	16.02***	9.77***	2.42**	-2.69***	1.79**
Job growth to total population growth					
1980-1990	1.20	1.25	1.78*	NA	NA
1990-2000	0.31	-1.78**	-0.30	NA	NA

*** Significant at the 1% level; ** Significant at the 5% level; * Significant of the 10% level.

Table 8: Medical Services County Levels and State and Peer Group Averages

Item*	Beaufort County	McCormick County	South Carolina	Coastal Counties	Counties On Coast	Counties not MSA/coastal
Public medical benefits per capita (\$ 000)						
1980	0.15	0.20	0.21	0.23	0.22	0.22
1990	0.20	0.38	0.44	0.47	0.36	0.49
2000	0.34	0.93	0.84	0.87	0.67	0.95
Per capita public medical benefits growth (%)						
1980-1990	31.03	90.95	132.61	110.67	71.07	159.20
1990-2000	70.32	147.77	99.94	91.60	90.53	109.43
Medicare benefits per 65+ resident (\$ 000)						
1980	2.30	1.66	2.19	2.38	2.54	1.89
1990	3.00	2.43	3.21	3.42	3.50	2.82
2000	5.44	4.77	6.26	6.95	6.90	5.42
Per 65+ resident Medicare benefits growth (%)						
1980-1990	30.62	46.20	48.15	45.24	39.10	50.76
1990-2000	81.22	96.31	94.89	103.46	95.41	91.53

*All dollar figures adjusted to 2000 dollar levels.

Table 9: Counties versus State and Peer Groups: Medical Services Levels t-Test Results

Item	Beaufort County			McCormick County	
	v. South Carolina	v. Coastal	v. On Coast	v. South Carolina	v. not MSA/coastal
Public medical benefits per capita					
1980	-3.14***	-3.96***	-1.48*	-0.83	-0.66
1990	-7.98***	-8.20***	-2.89**	-2.24**	-1.71
2000	-9.48***	-9.70***	-3.72***	1.58*	-0.23
Per capita public medical benefits growth					
1980-1990	-9.29***	-6.83***	-2.32**	-3.81***	-2.75***
1990-2000	-3.97***	-2.96***	-1.49*	6.42***	2.04**
Medicare benefits per 65+ resident					
1980	1.61*	-1.00	-1.82*	-8.21***	-2.50**
1990	-2.72***	-4.63***	-3.26**	-10.22***	-3.04***
2000	-4.37***	-5.87***	-2.14**	-7.89***	-2.28**
Per 65+ resident Medicare benefits growth					
1980-1990	-6.67***	-4.15***	-1.02	-0.74	-0.87
1990-2000	-4.38***	-4.37***	-1.12	0.46	1.23

*** Significant at the 1% level; ** Significant at the 5% level; * Significant of the 10% level.

Table 10: Transportation Services County Levels and State and Peer Group Averages

Item*	Beaufort County	McCormick County	South Carolina	Coastal Counties	Counties On Coast	Counties not MSA/coastal
Wages per capita (\$ 000)						
1980	32.15	37.29	35.52	33.27	32.13	37.13
1990	33.68	35.12	38.51	36.51	35.53	40.05
2000	38.53	104.55	38.35	34.59	33.97	43.99
Per capita wage growth (%)						
1980-1990	4.75	-5.81	8.53	9.21	4.81	10.74
1990-2000	14.40	197.69	-0.53	-4.88	-3.84	10.15
Jobs per 1,000 in population						
1980	10.33	2.46	12.47	11.06	15.42	12.01
1990	13.82	3.94	14.52	13.83	18.58	11.26
2000	17.93	2.91	17.95	17.37	20.73	15.13
Job growth to total population growth						
1980-1990	2.39	5.63	11.15	18.98	3.56	3.19
1990-2000	2.07	-1.41	1.50	5.67	2.09	-5.33

*All dollar figures adjusted to 2000 dollar levels.

Table 11: Counties versus State and Peer Groups: Transportation Services Levels t-Test Results

Item	Beaufort County			McCormick County	
	v. South Carolina	v. Coastal	v. On Coast	v. South Carolina	v. not MSA/coastal
Wages per capita					
1980	-3.11***	-1.30	0.02	1.63*	0.06
1990	-4.27***	-2.21**	-0.81	-3.00***	-1.84**
2000	0.09	2.84***	1.86*	32.91***	11.29***
Per capita wage growth					
1980-1990	-1.44*	-1.24	0.03	-5.48***	-2.96***
1990-2000	2.87***	7.73***	3.14**	38.13***	11.56***
Jobs per 1,000 in population					
1980	-1.75**	-0.50	-1.30	-8.19***	-3.80***
1990	-0.56	-0.01	-1.26	-8.39***	-5.10***
2000	-0.01	0.34	-0.60	-10.05***	-4.83***
Job growth versus total population growth					
1980-1990	-0.91	-0.88	-1.34	-0.57	1.53*
1990-2000	0.26	-1.82**	-0.03	-1.33*	0.70

*** Significant at the 1% level; ** Significant at the 5% level; * Significant of the 10% level.

Table 12: Dining and Entertainment Services County Levels and State and Peer Group Averages

Item*	Beaufort County	McCormick County	South Carolina	Coastal Counties	Counties On Coast	Counties not MSA/ coastal
Retail wages per capita (\$ 000)						
1980	18.45	12.96	17.12	17.16	17.67	16.58
1990	17.94	11.32	15.90	15.89	16.64	15.47
2000	19.28	11.35	15.77	15.71	17.53	14.76
Per capita Retail wage growth (%)						
1980-1990	-2.81	-12.70	-7.06	-7.37	-5.86	-6.51
1990-2000	7.49	0.30	-0.81	-1.14	5.23	-4.20
Retail jobs per 1,000 in population						
1980	73.00	37.81	57.15	58.23	75.30	49.10
1990	125.05	24.90	74.54	77.45	110.03	59.93
2000	135.62	31.93	78.98	81.59	116.29	62.70
Retail job growth to total population growth						
1980-1990	3.94	-1.63	7.72	11.43	5.10	4.29
1990-2000	1.30	3.60	0.09	1.58	1.46	-2.74
Services wages per capita (\$ 000)						
1980	23.20	13.94	18.66	18.38	20.15	17.80
1990	25.42	13.13	20.59	20.24	21.71	19.08
2000	28.00	15.48	21.43	22.05	24.28	18.06
Per capita Services wage growth (%)						
1980-1990	9.55	-5.81	10.51	10.79	7.15	7.78
1990-2000	10.18	17.88	7.05	9.50	12.51	2.09
Services jobs per 1,000 in population						
1980	100.32	37.68	61.72	64.50	89.18	50.32
1990	168.81	45.18	85.31	86.61	131.76	63.17
2000	189.66	74.61	108.02	108.34	164.34	84.93
Services job growth to total population growth						
1980-1990	3.82	2.53	9.52	12.35	6.22	6.46
1990-2000	1.44	7.00	2.48	4.18	3.50	-0.52

*All dollar figures adjusted to 2000 dollar levels.



Table 13: Counties versus State and Peer Groups: Dining and Entertainment Services Levels t-Test Results

Item	Beaufort County			McCormick County	
	v. South Carolina	v. Coastal	v. On Coast	v. South Carolina	v. not MSA/coastal
Retail wages per capita					
1980	7.37***	6.36***	1.74*	-23.02***	-10.52***
1990	8.33***	7.11***	2.29**	-18.75***	-8.19***
2000	9.87***	8.42***	2.33**	-12.43***	-5.54***
Per capita Retail wage growth					
1980-1990	3.51***	3.36***	1.72*	-4.65***	-2.17**
1990-2000	5.28***	4.49***	1.74*	0.70	1.45*
Retail jobs per 1,000 in population					
1980	6.09***	3.73***	-0.26	-7.42***	-3.31***
1990	11.69***	7.09***	0.94	-11.49***	-5.97***
2000	12.28***	7.19***	1.03	-10.20***	-6.01***
Retail job growth to total population growth					
1980-1990	-1.10	-1.05	-1.20	-2.72***	-4.18***
1990-2000	1.02	-0.43	-0.31	-2.96***	1.95**
Services wages per capita					
1980	9.01***	7.03***	2.31**	-9.37***	-4.70***
1990	7.26***	7.52***	2.07**	-11.21***	-3.93***
2000	9.49***	7.09***	1.81*	-8.59***	-3.05***
Per capita Services wage growth					
1980-1990	-0.43	-0.63	0.89	-7.44***	-2.31**
1990-2000	1.54***	0.22	-0.47	5.33***	4.32***
Services jobs per 1,000 in population					
1980	11.13***	6.71***	0.94	-6.93***	-4.29***
1990	14.25***	9.69***	2.00*	-6.85***	-4.31***
2000	10.70***	7.19***	0.92	-4.38***	-2.10***
Services job growth to total population growth					
1980-1990	-1.31*	-1.01	-1.35	-1.60*	-1.87**
1990-2000	-0.78	-2.60***	-1.37	3.41***	1.95**

*** Significant at the 1% level; ** Significant at the 5% level; * Significant of the 10% level.

Table 14: Housing Cost County Levels and State and Peer Group Averages

Item*	Beaufort County	McCormick County	South Carolina	Coastal Counties	Counties On Coast	Counties not MSA/coastal
Median housing value (\$)						
1990	147,694	51,647	70,393	72,200	91,590	60,853
2000	213,900	70,700	83,733	85,450	121,550	73,275
Growth in median housing value, 1990-2000 (%)	44.83	36.89	18.22	16.39	30.87	20.46
Median rent (\$)						
1990	557.31	160.74	277.25	284.11	375.05	219.86
2000	591.00	222.00	320.91	323.59	432.33	273.19
Growth in median rent, 1990-2000 (%)	6.04	38.11	18.72	17.00	19.39	25.45

*All dollar figures adjusted to 2000 dollar levels.

Table 15: Counties versus State and Peer Groups: Housing Cost Levels t-Test Results

Item	Beaufort County		McCormick County		
	v. South Carolina	v. Coastal	v. On Coast	v. South Carolina	v. not MSA/coastal
Median housing value					
1990	27.90***	15.23***	4.24***	-6.77***	-5.68***
2000	32.45***	16.73***	4.45***	-3.25***	-1.14
Growth in median housing value, 1990-2000	16.94***	10.49***	3.29**	11.89***	8.75***
Median rent					
1990	18.76***	10.85***	3.31**	-7.81***	-6.33***
2000	19.54***	11.24***	3.38***	-7.16***	-6.24***
Growth in median rent, 1990-2000	-6.88***	-3.80***	-1.74*	10.53***	5.21***

*** Significant at the 1% level; ** Significant at the 5% level; * Significant of the 10% level.

Table 16: Government Infrastructure County Levels and State and Peer Group Averages

Item*	Beaufort County	McCormick County	South Carolina	Coastal Counties	Counties On Coast	Counties not MSA/coastal
Wages per capita (\$ 000)						
1980	20.97	18.15	20.86	26.32	20.64	20.64
1990	32.22	25.02	29.11	28.87	29.69	28.03
2000	35.78	26.22	31.36	30.89	32.37	30.18
Per capita wage growth (%)						
1980-1990	53.61	37.88	39.75	42.35	44.28	35.83
1990-2000	11.07	4.78	8.09	7.25	8.80	8.44
Jobs per 1,000 in population						
1980	35.70	47.79	39.22	38.25	39.24	41.76
1990	34.96	35.04	41.44	40.72	40.58	43.41
2000	42.53	39.77	48.09	47.17	46.76	49.41
Job growth to total population growth						
1980-1990	0.91	-1.05	6.25	10.76	1.54	1.95
1990-2000	1.78	2.24	1.52	2.49	2.52	-0.01

*All dollar figures adjusted to 2000 dollar levels.



Table 17: Counties versus State and Peer Groups: Government Infrastructure Levels t-Test Results

Item	Beaufort County			McCormick County	
	v. South Carolina	v. Coastal	v. On Coast	v. South Carolina	v. not MSA/coastal
Wages per capita					
1980	0.49	2.36**	0.72	-12.05***	-8.84***
1990	7.70***	6.52***	2.97**	-10.16***	-4.57***
2000	31.36***	8.76***	2.21**	-10.75***	-5.33***
Per capita wage growth					
1980-1990	8.45***	4.20***	1.73*	-1.14	0.76
1990-2000	2.62***	2.50**	0.79	-2.91***	-1.76*
Jobs per 1,000 in population					
1980	-3.71***	-2.00**	-2.87**	9.03***	3.53***
1990	-5.26***	-3.12***	-1.84*	-5.19***	-3.95***
2000	-3.60**	-2.03**	-1.39	-5.39***	-3.46***
Job growth to total population growth					
1980-1990	-1.15	-1.04	-1.23	-1.58*	-2.97***
1990-2000	0.36	-1.22	-1.13	1.01	1.23

*** Significant at the 1% level; ** Significant at the 5% level; * Significant of the 10% level.

