

Evolving Growth Prospects? Assessing the State of the South in the Global Economy

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Despite rapid population growth, parts of the southern United States often lag the nation in measures of productivity, wages, and wealth. This paper revisits Glasmeier and Leichenko's 1996 evaluation of Southern economic readiness for the global era in order to assess the region's contemporary adaptation to the global economy. Moreover, it explores the geographies of economic evolution within the South by measuring relative changes in population, productivity, poverty, education, and foreign direct investment. With the exception of population growth and high school graduation rates, these analyses suggest that the region has regressed relative to the nation in many measures. The findings intimate that this economic decline could be tied to region-wide policy regimes that are reliant on maintaining low wages and present a structural obstacle to economic evolution.

Resumen: *A pesar del rápido crecimiento de la población, algunas partes del sur de los Estados Unidos a menudo se quedan rezagadas con medidas de productividad, salarios y riqueza. Este documento revisa la evaluación de Glasmeier y Leichenko de 1996 sobre la preparación económica del Sur para la era global con el fin de evaluar la adaptación contemporánea de la región a la economía global. Además, explora las geografías de la evolución económica en el Sur, midiendo los cambios relativos en la población, la productividad, la pobreza, la educación y la*

inversión extranjera directa. Con la excepción del crecimiento de la población y las tasas de graduación de la escuela secundaria, estos análisis sugieren que la región ha retrocedido en relación con la nación en muchas medidas. Los hallazgos indican que este declive económico podría estar vinculado a regímenes de políticas regionales que dependen de mantener bajos salarios y constituir un obstáculo estructural a la evolución económica.

KEY WORDS: economic development, South, development policy, evolutionary economic geography, globalization

PALABRAS CLAVE: desarrollo económico, Sur, política de desarrollo, geografía económica evolutiva, globalización

INTRODUCTION

Growth and business-friendly policies have been the defining characteristics of economic change in the post-war southern United States (Cobb 2005). While these strategies generated an unprecedented post-war boom, concerns arose about the sustainability of these growth policies within the context of the global marketplace. In 1996, Amy Glasmeier and Robin Leichenko inventoried the region's assets and prognosticated on the region's future in their seminal work, "From Free

Market Rhetoric to Free Market Reality: The Future of the US South in an Era of Globalization.” This article concluded that despite its rapid growth, the South was becoming poorer, less productive, and was unable to produce or attract the human capital necessary to compete in the global era. In a sense, this trend – the South facing global economic forces – becomes an issue of regional economic evolution (see Boschma 2004) and regional adaption to external economic forces (Hassink 2010).

The purpose of this paper is to evaluate the evolution of the Southern economy two decades after Glasmeier and Leichenko’s work and to evaluate the success of the US South’s contemporary economic development strategies. More specifically, it seeks to determine the extent to which the region’s economic development paradigms have generated employment and wage growth, expanded entrepreneurial opportunities, and stimulated the development of human capital in the global age. These changes are examined within the context of evolutionary economic geography (EEG), as this concept is useful for explaining differences in regional economic performance over time. Fundamentally, this paper aims to determine if the South is successfully (and iteratively) adapting to contemporary global realities (per Hassink 2010), or are the region’s long-standing development policies creating impediments to successful evolutionary strategies (per Martin and Sunley 2006)? This will be accomplished by: 1) investigating the degree to which the region evolved beyond its former low-skill, low-wage specializations; 2) evaluating the South’s development trajectory relative to the rest of the nation;

and finally, 3) assessing the degree to which the South is competitive within the global economic system. The paper concludes with a discussion of what the evolutionary path of the South might suggest for efficient development policies in other emerging regions.

Before moving further, it is worth providing some background on the economic geographies and political economy of the region. The historic poverty of the US South forced economic developers to focus their efforts on attracting firms that sought low wages and limited regulation (Cobb 1993). The ultimate goal of this ‘business friendly’ strategy was to attract outside investment that would trigger an industrial succession process that would ultimately modernize the region’s productive capacity as well as improve the welfare of citizens. The structure, effectiveness, and goals of these policies have been discussed at length by geographers, political scientists and historians (see Johnson 1997; Markusen 1996; Hartshorn 1997; Goldstein 2005; Maunula 2005; Jenkins et al. 2006; Wallace et al. 2012). Unfortunately, incentive-oriented, low-wage economic development policies rarely stimulated spillovers or entrepreneurial opportunities in the rural South. Since political structures required economic development efforts to focus on declining rural areas the urban South was largely ignored by policy – this limited opportunities for iterative development (Luebke 1998; Luger and Bae 2005; Pillsbury 2006).

While policymakers were focused on the rural South, the region’s metropolitan areas such as Atlanta, Nashville, Greenville, Charlotte, and Raleigh flourished despite comparative neglect. Explosive (but spotty) metropolitan population

growth combined with a sprinkling of advanced manufacturing facilities has produced pockets of prosperity. Despite these localized successes, aggregate data reveal that the region as a whole has seen two decades of declining productivity, wages, and educational attainment (Hartshorn and Walcott 2000; Hanham and Hanham 2001; Eckes 2005; Goodbye to the Blues 2007; It's the Business 2007). The growing dichotomy between metropolitan expansion and rural stagnation begs the question: has globalization been beneficial to Southerners?

EVOLUTION OF THE SOUTHERN ECONOMIC LANDSCAPE

Evolutionary Economic Geography and Regional Development

Economic history demonstrates that regions follow diverse trajectories to development. It follows that the geographies of economic development also have differing evolutionary paths. Boschma and Frenken (2006) outlined an agenda for *evolutionary economic geography* (EEG), demonstrating that it can be a robust and rigorous approach for applying a variety of methods to explain and project regional economic change across time. Essletzbichler and Rigby (2007, 566) expanded on earlier approaches to EEG by illustrating its ability to account for the heterogeneity of economic processes:

Geography plays a critical role in the evolutionary processes of variety creation and destruction, selection and continuity. Isolated regions allow unique selection environments to develop, routines and institutions that

are specific to individual organizations and to the broader environment within which they operate.

Much of the efficacy of EEG is derived from its ability to explore uneven development patterns and the institutions that may contribute to these (Esseletzbichler 2009). By focusing on economic change over large periods of time, EEG often yields insights on the competitiveness of regions and the limits to this competitiveness (Boschma 2004). It is important to note that institutions are a critical component of the regional evolutionary progression. Much of this analytical process is driven from a focus on the interaction between *territorial institutions* and *organizational routines*, and how these interactions impact the adaptation of regional economies to change (Boschma and Frenken 2009). Thus, EEG can be viewed as an all-encompassing framework, not only taking into account macroeconomic forces but also the less direct roles of the above-mentioned institutions, all of which impact regional evolution (Frenken and Boschma 2007).

A key component of the EEG framework is the idea of path dependence (see Boschma and Frenken 2006; Martin and Sunley 2006). In terms of EEG, path dependence is viewed as a form of inertia for a region – an economic momentum that can produce both positive and negative trajectories. The elements of this path dependence can be seen in many actors including firms, policymakers, industries, or some combination thereof. Martin (2010), however, cautions that path dependence for regions should be viewed as an unceasing change-oriented process, rather than as a static inertial force.

In this sense path dependence can be used to monitor how regions adapt to ‘shocks’ as well as evolving economic influences from multiple scales (e.g. global, national or sub-regional). EEG also is a tool for assessing the degree to which “Institutional hysteresis and unchanging cultures can also contribute to a lack of economic resilience” (Simmie and Martin 2010, 42). In other words, what forces exist that block adaptation (e.g. Grillitsch and Trippl 2016)? This combination of temporal and spatial perspectives allows EEG to assess the resilience of regions – measuring the degree to which they are able to adapt to external and internal disruptions (Hassink 2010; Boschma 2015) as well as determine the ability of regions to compete for global capital (Dicken 2015).

The US South: Regional Development and Policy

Using an evolutionary context to examine the changing Southern US development milieu allows the region’s history of being a low-cost location to be used as an explanatory element in projecting its future. A core finding of the Glasmeier and Leichenko (1996, 613) analysis of the Southern economy was that the region was, “...a striking example of policies designed to invest in location rather than people”; meaning that development policies have long been focused on lowering production costs at the expense of enhancing productivity. This policy was, in essence, an inertia-driven, status quo strategy that limited the ability of most areas to adapt to post-industrial forms of production (Moretti 2012). Much of this investment took the form of federally and state-funded highways intended to disperse economic activity

into rural areas. This strategy of dispersion was reinforced by federal and state subsidies for rural site preparation and utility provision via institutions such as the Appalachian Regional Commission and Tennessee Valley Authority (Walker and Calzonetti 1990) as well as state incentives programs that prioritized rural counties over urban ones (Lane 2009). Despite the overt preferences for rural growth, most of the region’s job growth occurred in less-subsidized suburban sites (ibid). While institutional forces focused on guiding low-tech firms to low-density sites some notable exceptions to this process were produced by efforts to change the dominant forms of growth. Federally-backed research centers in Oak Ridge (Tennessee) and Huntsville (Alabama), as well as the state government-initiated Research Triangle Park (North Carolina), are frequently cited as examples of Southern economic transformation. However, these facilities are somewhat isolated from nearby urban cores and their economic impact in their surrounding community is frequently overstated (Graves 2011).

Institutional preferences for low-wage, low-density economic development have a long history in the South (Black and Black 1989; Cobb 1993). This preference has discouraged states from investing in broad-based workforce development efforts due to fears it would erode the region’s primary comparative advantage of low labor costs (Luebke 1998). As global competition for firms increased, this strategy evolved to include state-funded vocational training tailored to specific firms (e.g. BMW) rather than investments in higher education or basic research. The potential for the newly skilled workers to request wage increases was tempered by

an incentives policy which encouraged the dispersion of new firm arrivals in order to limit competition for labor (Cobb 1993; Luebke 1998; Kanter 2003). This pattern of intuitional incentives created a system that increased the South's urban-rural divide – non-metro areas growing poorer, less healthy, older, and less educated (Luebke 1998). This was a trend that caused Southern states to redouble their development efforts in rural areas at the expense of the expanding urban cores (Hartshorn and Walcott 2000; Campbell 2015). Compounding the evolutionary drawbacks of emphasizing rural areas in economic development was the use of property tax abatements to provide development incentives to new firms. This mechanism reduced local government tax revenues (Buss 2001) and eroded public investments in K-12 education (Lugar and Bae 2005; Markusen and Nesse 2007; Wassmer 2007; Walden 2009).

As early as the 1980s scholars noted that the South's workforce is inadequately skilled to compete in the global economy (see Cobb 1993; Markusen 1996; Goldstein 2005; Jenkins, et al. 2006; Wallace, et al. 2012). Indeed one of Glasmeier and Leichenko's (1996, 601) starkest conclusions on the state of the South was:

...a large portion of its [the South's] labor force is ill-prepared for international competition. The long-term consequence of further liberalization may be a serious marginalization of low-skilled workers.

In short, the South's economic evolution has set it on a path that discourages investments in innovation, human capital, and productivity growth that are

necessary to adapt to an increasingly competitive global economy (Figlo and Blonigen 2000).

THE STATE OF THE SOUTH IN A GLOBAL ECONOMY: THE IMPACTS OF INERTIA

Revisiting a Definition of the South

While the goal is to revisit Glasmeier and Leichenko's 1996 exploration of the region's economy, it appeared to be inappropriate to reuse their definition of the region given the cultural and economic transformations that have occurred since their study. Their analyses employed the US Census definition for the region, yet its inclusion of peripheral states such as Texas, Oklahoma, Delaware, and Maryland are at odds with most contemporary definitions of the Southern regional economy and culture. In order to filter out states that are closely tied to the Northeastern economy (Delaware and Maryland) or heavily dependent on natural resources (Texas and Oklahoma) the present analyses utilize a more restrictive, twelve-state, definition that includes the following states: Alabama, Arkansas, Florida, Georgia, Kentucky, Louisiana, Mississippi, North Carolina, South Carolina, Tennessee, Virginia, and West Virginia. This narrower definition isolates a set of states that are more culturally and economically homogenous. In addition, this definition is similar to a regional definition used by the Bureau of Economic Analysis (2016) and accords closely with previous examinations of the Southern economy and culture (Hanham and Hanham 2001; Eckes 2005; Kalafsky 2006; James 2010). Recalculating all historical data points to match the new regional

Table 1. Annualized population change (in percentage points).

| | 1960–1970 | 1970–1980 | 1980–1990 | 1990–2000 | 2000–2010 | 2010–2014 |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| US | 1.34 | 1.14 | 0.98 | 1.32 | 0.97 | 0.77 |
| South | 1.31 | 2.02 | 1.25 | 1.69 | 1.31 | 0.89 |
| Northeast | 0.97 | 0.01 | 0.35 | 0.54 | 0.32 | 0.35 |
| Midwest | 0.96 | 0.39 | 0.15 | 0.79 | 0.39 | 0.29 |
| West | 2.36 | 2.42 | 2.23 | 1.94 | 1.37 | 1.06 |
| US-South Difference | -0.03 | 0.87 | 0.27 | 0.38 | 0.34 | 0.12 |

Source: Bureau of Economic Analysis. (2015) calculations by authors

definition minimized the analytical disruption caused by this change. This tighter regional definition also simplifies the identification of the cultural forces behind the evolutionary mechanisms.

Population Growth

The South's meteoric population growth appears to be slowing (Table 1). Southern population growth exceeded the nation's growth every year since 1970 however although the differential has decreased since 1990. The data in Table 1 suggest that the nationwide economic downturn in 2008 may have had outsized impacts on the South; growth since 2010 has dropped to its lowest rate since the 1960s and the region's post-recession 32 percent decline in annualized population growth was larger than every other Census region (Table 1). Despite the slowdown, the South is now home to more than 81 million people, more than one quarter of the US population. This growth began as Midwestern workers fled for more opportunity in the South. More recently, the emergence of the South as a retirement destination has diversified the flow of new arrivals into the region (Graves and Smith 2010). These trends

suggest that external 'shocks' drove a significant portion of Southern growth (Simmie and Martin 2010) – it is also important to note that demographic and political trends are likely to curtail the flow of these migrants into the region in the near future. In other words frequently cited as an example of place-based development policy success. In other words, the region's low costs (rather than skills) drive business and employment growth, and migration follows.

Implicit in this place-based strategy is the expectation that population growth will, over time, create prosperity in the region's rural areas. Sub-state data on population change shows that this peripheral growth has not occurred – most of the region's growth has been limited to a handful of large urban areas. The rural to urban migration of Southerners has exacerbated this trend. This shift has decreased workforce skill levels in both urban and rural areas, which raises barriers for future growth (Furuseth and Smith 2006). While this urban shift has certainly created new paths towards Southern growth, the constraints of this manuscript length force us to save this discussion for a future manuscript.

Table 2. Portion of population growth in the region attributable to top four states, 1970–2014.

| | 1970–1990 | 1990–2010 | 2010–2014 |
|-------------------------------------|------------|------------|-----------|
| Florida | 6,146,508 | 5,863,384 | 1,047,243 |
| Georgia | 1,890,286 | 3,209,437 | 384,095 |
| North Carolina | 1,544,226 | 2,906,846 | 384,431 |
| Virginia | 1,535,910 | 1,813,666 | 301,872 |
| Total Regional Change | 15,433,106 | 19,126,324 | 2,804,582 |
| Four-state share of regional change | 72% | 72% | 76% |

Source: Bureau of Economic Analysis. (2015) calculations by authors

Table 3. Southern region total output (sum of Gross State Products [GSP]), population, employment, and productivity as a percentage of US totals.

| | 1980 | 1990 | 2000 | 2010 | 2014 |
|----------------------------------|------|------|------|------|------|
| GSP | 19.9 | 20.9 | 21.4 | 21.9 | 21.3 |
| Population | 23.3 | 23.8 | 24.6 | 25.4 | 25.5 |
| Employment | 22.2 | 23.0 | 24.0 | 24.3 | 24.3 |
| Productivity (output per worker) | 89.8 | 90.8 | 89.2 | 89.6 | 87.7 |

Source: Bureau of Economic Analysis. (2015) calculations by authors

The unevenness of Southern growth is also evident at the state level. States in the Southeast (Florida, Georgia, North Carolina and Virginia) have consistently grown more rapidly than Deep South states (Alabama, Mississippi, Louisiana) (Table 2). The four southeastern states listed above account for more than three quarters of the region's growth. Growth in these states masked long-term population growth declines in in six other states (Alabama, Arkansas, Kentucky, Louisiana, Mississippi and West Virginia). These state-level trends are consistent with Glasmeier and Leichenko's (1996) findings from 20 years ago – findings that triggered concerns about the unevenness of Southern growth. In fact, the Southeastern states have increased their share of Southern growth from 68 to 76 percent in the most recent estimation. In

terms of population change it appears the Southern economy is evolving to be more uneven.

Productivity

Southern states have rarely trumpeted the productivity of their workforces, preferring instead to emphasize the lower costs of their labor (Cobb 2005). The imperative of keeping labor costs low was viewed as the most viable means of moving impoverished rural populations into factory work after the Civil War (Hall 2012). Unfortunately as global competition persists, locations with better wage and productivity ratios attract an increasing share of contemporary job growth (Harlan 2015). Table 3 shows total economic output in the 12 Southern states as well as population, employment, and productivity as a proportion of national

figures. Total output in the region (gross state product [GSP]) increased marginally from 1980–2010 as the region accounted for approximately one-fifth of overall US production. Subsequent declines in relative output from 2010 to 2014 may reflect several forces. First, the deindustrialization of many of the South's traditional industries (textiles and furniture) did not begin until the mid-1980s and came to an end at the start of the millennium. Second, the effects of the recession of 2008 were particularly pronounced in the South's largest urban areas (e.g. Atlanta, Miami, Charlotte), its most pervasive industries (construction and manufacturing), and its highest-wage industry (finance). While the lack of contemporary data makes it difficult to confirm these declines as a trend there is little evidence to suggest the potential for a reversal. These declines in output suggest a 'negative lock-in' (e.g. Martin and Sunley 2006) where an exclusive reliance on a narrow group of industries creates a long-term path of regional decline (Grabher 1993; Potter and Watts 2011).

While the total output of the Southern states showed steady increase up to the recession, this growth lagged employment change. The Southern region's share of national employment increased from 22.2 percent of the country's jobs in 1980 to 24.3 percent of the nation's jobs by 2014. Output per worker figures for the region reveal a less positive trend – Southern region productivity was 90.8 percent of the nation's average in 1990 but had steadily declined to 87.7 percent of the nation's average productivity by 2014 (Table 3). These productivity declines run counter to the narrative of global integration that posits the productivity of the American workforce would increase as low-skill

production shifts offshore. It should be mentioned that the challenges of a low productivity workforce are not limited to small towns and rural areas in the region; in Charlotte, one of the region's 'boom cities,' skilled labor shortages are commonly viewed as a competitive issue for firms (Kalafsky 2008) especially as advanced manufacturing grows in the region's cities (Kalafsky 2007).

The region-wide decline in worker productivity is a particularly troubling indicator for the future of the South. The data in Table 3 suggest that workforce development policies such as the region's highly regarded community college systems, the higher education systems, and interregional migration has been unable to improve the relative productive capacity of the South – the region is losing ground. These trends are consistent with research conducted in other low-density urban environments (Fallah, Partridge and Olfert 2011). This finding is not intended to suggest these programs are ineffective, merely that they appear to be insufficient to keep up with high rates of immigration or in-migration. When taken as a whole, these trends raise concerns about the ability of the region to adapt to external economic forces (Hassink 2010) and certainly, whether regional innovation systems are up to the task of driving development (Grillitsch and Trippl 2016).

Income and Poverty

One of the most promising aspects of the Southern growth narrative was the convergence of its incomes toward the national average. Glasmeier and Leichenko (1996) discussed at length how the region could lever industrial succession, domestic migration, and entrepreneurship into

Table 4. Median household income in the South as a percentage of the national average 1984–2013.

| | 1984 | 1990 | 2000 | 2010 | 2013 |
|----------------|-------|-------|-------|-------|-------|
| South | 84.0 | 84.2 | 86.1 | 86.9 | 85.8 |
| Alabama | 77.2 | 78.0 | 84.4 | 83.1 | 79.7 |
| Arkansas | 69.9 | 76.1 | 70.7 | 78.3 | 76.9 |
| Florida | 88.3 | 89.1 | 92.5 | 89.4 | 92.2 |
| Georgia | 89.2 | 92.0 | 99.8 | 89.5 | 91.3 |
| Kentucky | 78.9 | 82.8 | 86.4 | 83.4 | 81.2 |
| Louisiana | 84.5 | 74.8 | 73.2 | 79.8 | 76.3 |
| Mississippi | 68.8 | 67.4 | 81.7 | 77.4 | 78.7 |
| North Carolina | 91.8 | 87.9 | 91.3 | 89.0 | 79.3 |
| South Carolina | 90.6 | 96.0 | 89.5 | 84.6 | 84.2 |
| Tennessee | 74.9 | 75.5 | 81.2 | 78.3 | 81.8 |
| Virginia | 118.3 | 117.1 | 112.3 | 122.5 | 130.2 |
| West Virginia | 75.1 | 73.9 | 70.0 | 86.8 | 77.5 |

Source: US Census Bureau. (2015) calculations by authors

wage increases throughout the region to the 1970s. Table 4 shows state-level income as a percentage of the national average household income¹. The region's incomes showed slow convergence towards national averages through the 2010 reporting period. However, post-recession, one sees a half-decade of decline in relative incomes.

The significance of this relative income decline is a matter of considerable debate. State-by-state analysis indicates that broad structural issues may have halted relative income growth in the South. Only four states have higher relative incomes in 2013 than in 2000: Arkansas, Louisiana, Virginia, and West Virginia. Of these states, Arkansas, Louisiana and West Virginia are among the poorest in the nation and thus may be the last in the nation to benefit from the arrival of low-wage industries. Conversely, Virginia is the post-industrial outlier in the region, as the South's preeminent knowledge-economy, largely due to

its adjacency to Washington DC. The eight core states in the region have all experienced relative income decline since 2000. These declines were most severe in two of the fastest growing states, North Carolina, which had an 11.9 percentage point drop in relative income, and Georgia with an 8.5 percentage point decrease. Since these declines occurred in two of the fastest growing states in the region it appears that rapid population growth is now acting as a drag on income – a dramatic shift from historic patterns of migration-driven wage growth. While the lack of post-recession data makes it difficult to confirm substantial trends, the confluence of the productivity data in Table 3 with the changes in relative income suggests the possibility that long-term trends towards income convergence has reversed in much of the region.

Poverty data (Table 5) reinforces the initial finding of a negative relationship exists between population and income

Table 5. Percent of population living in poverty.

| | 1980 | 1990 | 2000 | 2010 | 2013 |
|----------------|------|------|------|------|------|
| United States | 12.4 | 13.1 | 12.4 | 14.9 | 15.8 |
| South | 16.9 | 17.2 | 15.0 | 17.5 | 18.5 |
| Northeast | 10.5 | 9.9 | 9.1 | 11.4 | 10.5 |
| Midwest | 12.0 | 12.1 | 9.1 | 13.2 | 13.4 |
| West | 11.7 | 12.5 | 11.1 | 13.9 | 13.6 |
| Alabama | 18.9 | 18.3 | 16.1 | 18.1 | 18.7 |
| Arkansas | 19.0 | 19.1 | 15.8 | 18.7 | 19.7 |
| Florida | 13.5 | 12.7 | 12.5 | 15.6 | 17.0 |
| Georgia | 16.6 | 14.7 | 13.0 | 17.4 | 19.0 |
| Kentucky | 17.6 | 19.0 | 15.8 | 18.6 | 18.8 |
| Louisiana | 18.6 | 23.6 | 19.6 | 18.7 | 19.8 |
| Mississippi | 23.9 | 25.2 | 19.9 | 22.3 | 24.0 |
| North Carolina | 14.8 | 13.0 | 12.3 | 16.8 | 17.9 |
| South Carolina | 16.6 | 15.4 | 14.1 | 17.6 | 18.6 |
| Tennessee | 16.5 | 15.7 | 13.5 | 17.3 | 17.8 |
| Virginia | 11.8 | 10.2 | 9.6 | 11.1 | 11.7 |
| West Virginia | 15.0 | 19.7 | 17.9 | 17.6 | 18.5 |

Source: US Census Bureau. (2015) calculations by authors

growth. The South has higher poverty rates than the nation as a whole, although the proportion of Southerners living in poverty declined steadily until 2000. Post-millennial increases in poverty can be seen in all of the region's fastest growing states including Florida (4.5 percentage point increase in population living in poverty), Georgia (6.0) and North Carolina (5.6). Virginia was the only state in the region to see its poverty grow more slowly than the national rate. Every Southern state other than Florida and Virginia had poverty rates that were at least two percentage points higher than the nation. Several researchers have acknowledged this issue, offering various explanations. For example, Glasmeyer and Leichenko (1996) suggest that disparities

in access to education, while Furuseth and Smith (2006) cite accelerations in Hispanic immigration. Regardless of the causes of poverty growth, the trend is clearly contributing to growing economic inequalities across the region (Wilson 2007) and raises significant questions about the merits of the region's current development strategies. Ultimately these data imply that Southern development policies have created a path dependence that reinforces poverty.

Longer-term, the perspective on the region's poverty is considerably brighter. Since 1980 the relative difference in poverty rates between the South and the nation has declined by 40 percent, although the proportion of Southerners living in poverty has remained stagnant since 2000.

Table 6. Educational attainment (percentage of population 25 and older): 1990–2013.

| State | 1990 | | 2000 | | 2013 | |
|----------------|------------------------------|---------------------------|------------------------------|---------------------------|------------------------------|---------------------------|
| | High school graduate or more | Bachelor's degree or more | High school graduate or more | Bachelor's degree or more | High school graduate or more | Bachelor's degree or more |
| United States | 75.2 | 20.3 | 80.4 | 24.4 | 86.6 | 28.8 |
| Alabama | 66.9 | 15.7 | 75.3 | 19.0 | 83.1 | 22.6 |
| Arkansas | 66.3 | 13.3 | 75.3 | 16.7 | 83.7 | 20.1 |
| Florida | 74.4 | 18.3 | 79.9 | 22.3 | 86.1 | 26.4 |
| Georgia | 70.9 | 19.3 | 78.6 | 24.3 | 84.7 | 28.0 |
| Kentucky | 64.6 | 13.6 | 74.1 | 17.1 | 83.0 | 21.5 |
| Louisiana | 68.3 | 16.1 | 74.8 | 18.7 | 82.6 | 21.8 |
| Mississippi | 64.3 | 14.7 | 72.9 | 16.9 | 81.5 | 20.1 |
| North Carolina | 70.0 | 17.4 | 78.1 | 22.5 | 84.9 | 27.3 |
| South Carolina | 68.3 | 16.6 | 76.3 | 20.4 | 84.5 | 25.1 |
| Tennessee | 67.1 | 16.0 | 75.9 | 19.6 | 84.4 | 23.8 |
| Virginia | 75.2 | 24.5 | 81.5 | 29.5 | 87.5 | 35.2 |
| West Virginia | 66.0 | 12.3 | 75.2 | 14.8 | 83.9 | 18.3 |

Source: United States Census Bureau. (2015) calculations by authors

As found with income, population growth does not appear to be correlated to poverty. Of the four fastest growing states in the region, two (Virginia and Florida) have the lowest poverty rates, while the other two (North Carolina and Georgia) have significantly higher poverty than the nation. While causality is difficult to infer from samples this small, it does not appear that high poverty rates have triggered out-migration (North Carolina and Georgia), nor have low poverty rates triggered disproportionate in-migration (Virginia).

Education

Past research on Southern economic evolution identified significant improvements in educational attainment throughout the South through the early 1990s. Despite this history, the analyses intimate that the region continues to lag national

averages in each metric of educational attainment. Table 6 provides a new look at education attainment in each of the 12 states within this study, comparing them with the national averages for 1990 (pre-NAFTA), 2000, and 2013 (the latest year for which data were available). The 1990 numbers reinforce the region-wide education deficits found by Glasmeier and Leichenko (1996). However high school graduation rates have improved substantially throughout the South since 1990. Gains were consistent across the region and even states with the worst attainment (Louisiana and Mississippi). It is noteworthy that gains in high school graduation rates have not translated into reduced poverty (Tables 5 and 6); this finding reinforces considerable anecdotal evidence that low-skill jobs in the region no longer pay living wages (Harlan 2015).

Table 7. Employment from foreign direct investment as a percentage of the US total.

| State | 1992 | 1997 | 2002 | 2007 | 2012 |
|----------------|------|------|------|------|------|
| Alabama | 1.3 | 1.3 | 1.3 | 1.5 | 1.5 |
| Arkansas | 0.7 | 0.7 | 0.6 | 0.7 | 0.7 |
| Florida | 4.2 | 4.7 | 4.6 | 4.4 | 4.3 |
| Georgia | 3.3 | 3.7 | 3.4 | 3.2 | 3.4 |
| Kentucky | 1.5 | 1.7 | 1.6 | 1.7 | 1.7 |
| Louisiana | 1.3 | 1.1 | 0.9 | 0.9 | 1.0 |
| Mississippi | 0.5 | 0.4 | 0.5 | 0.5 | 0.6 |
| North Carolina | 4.1 | 4.4 | n/a | 3.8 | 3.5 |
| South Carolina | 2.4 | 2.3 | 2.4 | 2.0 | 2.0 |
| Tennessee | 2.6 | 2.8 | 2.3 | 2.5 | 2.2 |
| Virginia | 2.6 | 2.8 | 2.6 | 2.8 | 2.7 |
| West Virginia | 0.7 | 0.5 | 0.4 | 0.4 | 0.5 |

Source: Bureau of Economic Analysis. (2015) calculations by authors

Increased high school graduation rates have not led to growth in four-year undergraduate university degree completion. Only four Southern states (Virginia, North Carolina, Georgia, and South Carolina) increased their populations of university-level degree holders by rates equal to or better than the nation at large. Virginia is a clear outlier with respect to educational attainment at every level – again related to its post-industrial success. This leaves eight (of 12) Southern states where educational attainment (at the bachelor's level) has seen consistent relative declines since 1980. The starkest deficits in college-educated population are seen in West Virginia, Arkansas, and Mississippi where college graduation rates remain well below national averages. Such findings bring two points to mind. First, in terms of educational attainment, the South is becoming a more heterogeneous region. Second, the relative declines in university-level attainment in most of the South likely foreshadow an evolution towards declining productivity and wages

as well as further difficulties with global economic integration (see Glaeser 2011). These trends in the data recall Boschma and Frenken's (2006) discussions on the nexus between institutions and routines (e.g. skills and knowledge practices). In this case, it can be applied to longtime policies and the institutions that create them, resulting in the region lagging others in the US.

Foreign Direct Investment

Directly or indirectly, the aims of most Southern economic development strategies centered on the South's ability to compete in a global economy (e.g. Glasmeier and Leichenko 1996; Eckes 2005). More specifically, the primary tool for this integration was Foreign Direct Investment (FDI) (Cobb 2005). Table 7 provides a look at FDI-related employment across the South, in relation to the nation. Where Eckes (2005) looked at FDI as a percentage of state-level employment in his comprehensive treatment of Southern globalization dynamics, this table compares

the region's FDI-related employment against the nation at-large. As a region, FDI-related employment has declined slightly from 1992 to 2012 – dropping from 25 to 24 percent of national totals. Southern states have seen no relative employment growth from internationally-owned affiliates in the past 20 years. The stasis of many of the state level figures is noteworthy – despite aggressive efforts to attract FDI most states experienced no significant relative gains in employment from it. Small gains were seen in Alabama while most others saw little or no change. Surprisingly North Carolina saw a substantial relative decrease in FDI-related employment despite its high-tech footing.

While many metrics can be employed to assess the internationalization levels of a region, the findings from Table 7 suggest that the region-wide emphasis on low-wages as a comparative advantage has done little to increase aggregate FDI across the region – the data show that higher wage regions of the country have attracted more FDI. While this finding is surprising given the many visible FDI-related projects across the region (e.g. motor vehicle plants). These data are consistent with the findings on wages, poverty, productivity and education – it appears that the South's self-identified advantages are insufficient to be competitive in the highly fluid market for FDI (Cerny 1997; Dicken 2015). The FDI data do raise significant questions about the viability of the Southern development paradigm (as a whole) of economic growth driven by low costs. The data suggest that the Southern economy is unable to offer costs that are low enough to attract facilities seeking inexpensive labor, and skill-levels of the workforce are insufficient to attract advanced forms of

manufacturing in large volumes. Southern states appear to be trapped in a detrimental lock-in. Economic change is unlikely to occur due to capital shortages in the region, but FDI is unlikely due to unattractive wage and productivity ratios. Given the impossibility of lowering wages, workforce development appears to be the only viable strategy for growth. Previous work has shown that relatively FDI for higher value-added forms of production can increase regional productivity (e.g. Keller and Yeaple 2009). This would suggest that a more targeted approach to attracting FDI might benefit Southern states, based on the locational assets of a region (see Walcott 2014). Indeed there are localized examples of Southern states accomplishing this: comparatively advanced facilities such as Airbus in Alabama, Boeing and BMW in South Carolina, and Siemens in North Carolina are evidence of FDI in higher value-added production.

OUTLOOKS AND TRAJECTORIES FOR THE GLOBALIZING SOUTH

These data point to long-term economic digression in the South relative to the remainder of the nation. Population growth and increasing high school graduation rates mask region-wide declines in income, productivity, post-secondary educational attainment and foreign direct investment. Outside of a few pockets of prosperity the Southern economy is evolving along a path that fails to enhance the welfare of much of its population. Worse still, the findings are consistent with Glasmeier and Leichenko's work from two decades ago – the South's negative economic path is not new and the region remains poorly prepared for global

competition. Earlier examinations of the Southern economy proscribed that investment in workforce development region's best hope for creating a path to prosperity (Glasmeyer and Leichenko 1996).

Employing EEG to evaluate the dynamics of the Southern economy was used as a means of focusing on the role of path dependence in exploring and explaining change. While this approach is not part of orthodox economics it does analyze change through the same lens used by the public; individuals evaluate current economic conditions relative to their experiences in the past and their hopes for the future. While the use of broad and blunt state and regional scale data only allows for coarse conclusions, it has the benefit of filtering misleading localized trends such as urban growth or the arrival of a handful of highly visible manufacturers.

It could be conceded that the traditionalist development strategy of focusing on low costs in order to attract capital was necessary to overcome the South's considerable economic, political and social disadvantages. Unfortunately, the expected industrial succession and entrepreneurship from the outside investment are not evident in these data. Outside of a handful of urban areas, it is difficult to ascertain that the Southern economy is evolving into an adaptable, productive and self-sustaining regional economic system. In addition to documenting the recent history of economic decline, the data point to several troubling signs for the region's evolution – the South appears to be locked-in to a negative pattern of development (per Martin and Sunley 2006). The first sign is that population growth is disproportionate to the economic opportunities that are available – declining relative

wages and increasing poverty rates are the most likely result. The second (and related) negative indicator is the region's policy focuses on rural rather than urban areas. The traditional focus on rural areas has dispersed economic activity and generated little to no return on investment to the public (Harlan 2015). Despite their economic marginalization, rural residents remain a powerful political constituency and it appears unlikely they will consent to Southern development policy shifting towards a more urban footing. In essence, does this become a case of the negative inertia (or a form of path dependence) that was discussed earlier (e.g. Boschma and Frenken 2006; Martin and Sunley 2006)? If so, is much of this caused by institutions engaged in long-time practices (Simmie and Martin 2010)?

At the same time, can the South become truly resilient or at the least, adapt to global economic shifts? Boschma (2015, 733) examines the concept of resilience, suggesting that it takes into account, "...the ability of a region to accommodate shocks, but extends it to the long-term ability of regions to develop new growth paths." Setting the Southern economy on a positive evolutionary path is not impossible. There are three examples of economic development in the region that may offer useful models for the future. The first is Greer, South Carolina's BMW assembly facility. Kanter (2003) outlined the role of local policy makers in modifying the local culture to meet the expectations of the incoming executive workforce (which in the case of Greenville was largely German). Local cultural change focused around urban design and the reformation of local blue laws was coupled with state investment in the

Clemson University International Center for Automotive Research. The efforts, in combination, facilitated the migration of foreign professional workers as well as the creation of a research and development node that coupled local institutions to the emerging local production cluster. This example is particularly noteworthy since the cultural environment is rarely considered to be a significant component of the economic development process in the South. Given the region's image, intentional efforts to address these cultural concerns may be a critical element to the region's growth. Greenville's (and by extension, South Carolina's) success is very much a product of investing in people rather than place – a strategy contrary to the previous development paradigms.

The second model is Nashville's Nissan North American headquarters. During the 2006 recruiting process Tennessee's economic development staff stressed Nashville's cosmopolitan culture as well as the logistical benefits of proximity to Midwestern (and increasingly, Southern) supplier networks when recruiting the Nissan executives (Smith 2006). This strategy was developed when it became clear that low-costs alone were insufficient to attract this knowledge-based element of the auto industry; the alternative strategy focused on network advantages associated with the location (executives spending less time traveling), the amenities of the city that might appeal to the executive-class workers, and regional cultural conditions that foster corporate growth. In short, the Nashville economy was presented as a place that offered more than low wages and good roads. Instead, Nissan executives were sold on a community that provided a powerful array of comparative

advantages. The arrival of the Nissan headquarters created significant and sustained changes to Nashville's wage rates, but as with other examples of FDI, has not yet fully catalyzed spillover research or design work in the area.

Finally, at the state scale, Virginia stands out as the only portion of the region where the welfare of citizens has converged on national averages. Virginia has capitalized on knowledge industry clusters in its northern tier (tied to federal government), large volumes of federal investment (the Norfolk naval base) combined with a strong position in global trade networks (the port of Hampton Roads). Their proximity to the urbanized Northeast Corridor further facilitated the interaction of firms as well as the migration of a growing knowledge workforce. Virginia's proximity to the Northeast and the healthy growth of its knowledge industries has allowed it to devote less political energy on recruiting firms and maintaining low costs than most other Southern states. In short, Virginia shows that industrial recruiting is not the only strategy for economic development. It remains unknown if these benefits of proximity will eventually diffuse down into the deeper South as Virginia continues to grow.

These three examples could be considered as models for recruiting robust and productive local firms. Such cases highlight efforts to re-contextualize local culture to cater to the needs of high-skill workers, setting aside the region's reputation as a low-cost producer was fundamental to each of these examples. Unfortunately, these examples remain exceptions to the dominant paradigm of Southern economic development. Given the increasingly heterogeneous nature of the

South across many measures (seen here and echoing Kalafsky and Graves [2016]), perhaps policymakers should look at the 'learning cluster' strategy advocated by Hassink (2005) to make the region more responsive to the advantages and/or challenges of smaller-scale regions. In other words, one-size-fits-all may not change the region's path – policymakers should perhaps focus on individualized solutions to development issues across the South. The abovementioned success stories provide evidence of possible approaches.

NOTES

1. Median household income was initially reported in 1984. Median family income was the metric used before 1984.

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