



SOUTH CAROLINA COMPETITIVENESS INITIATIVE:

**A Strategic Plan for
SOUTH CAROLINA**

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LETTER OF INTRODUCTION

April 15, 2005

South Carolina is at the beginning of a new economic era as we begin our implementation of the strategic vision from the *South Carolina Competitiveness Initiative*. The *Initiative* is ground-breaking in its scope, and for the first time is bringing together the business, government, and academic leadership in the whole state. This is an opportunity that cannot be missed.

Today, we must capitalize upon the strengths our state has developed over the past 50 years, as well as develop new strengths that will increase South Carolina's wages, per capita income, and productivity over the next 50 years. South Carolina currently has a good industrial base that can provide the foundation for numerous healthy industry clusters. Many businesses are already pushing towards new high-tech product development. We have a top-notch technical college system committed to continuous improvement of our workforce's skill sets, and a university system continuing to develop innovative research capabilities. Entities like the Savannah River Site and SPAWAR are eager to enter into partnerships with the private sector. Collaborative efforts, such as fuel-cell research and the International Center for Automotive Research, are redefining how we do business. Finally, we are proud to say that not only has the *South Carolina Council on Competitiveness* been organized, but many of the Task Forces and Cluster Committees for the key aspects of our strategy have been formed and have begun their activities.

Prosperity is the result of continuous innovation and continuously upgrading the business environment and helping companies become even more productive. While we have made a solid start, we must maintain our strategic focus. South Carolina has the ability to sustain a long-term economic vision, but to keep this focus we all must continue to strive for the utmost excellence in what we do—be it manufacturing high-tech automotive parts, providing premier services at our state's famous resorts, encouraging higher education for all of our citizens, or efficiently organizing and aligning our development efforts.

With our state's shared economic vision of raising our per capita income for all, and the coordinated effort led by the Council on Competitiveness, in the years to come we will see the Palmetto state become a dynamic competitive presence in the domestic and international arenas.

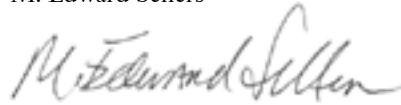
Sincerely,

Mark Sanford



Governor
South Carolina

M. Edward Sellers



Chairman and CEO
BlueCross / BlueShield of South Carolina

ACKNOWLEDGEMENTS

The *South Carolina Competitiveness Initiative* is a public-private collaborative effort involving a wide range of individuals and organizations. The first phase of the *Initiative* was spearheaded by Darla Moore, Chairwoman of the Palmetto Institute, and Bob Faith, South Carolina Secretary of Commerce. Leadership for the first phase of the *Initiative* was provided by a Steering Committee, which included (in addition to Darla Moore and Bob Faith): Bill Amick, CEO of Amick Farms; William Barnet, Mayor of Spartanburg; James Bennett, Executive Vice President at First Citizens Bank; Tony Boccanfuso, Managing Director of the University of South Carolina Research Foundation; Lee Bussell, CEO of CNSG and President of the South Carolina Chamber of Commerce; Paula Harper Bethea, Former Chairwoman of the South Carolina Chamber of Commerce; Don Herriott, President of Roche Carolina; S. Hunter Howard, President of the South Carolina Chamber of Commerce; Chad Prosser, Director of the South Carolina Department of Parks, Recreation and Tourism; M. Edward Sellers, Chairman and CEO of BlueCross BlueShield of South Carolina; Andrew Sorensen, President of the University of South Carolina; Bob Staton, Chairman of the South Carolina Educational Oversight Committee; and Mack I. Whittle, Chairman and CEO of Carolina First Bank. These individuals provided substantive input on research and analysis, facilitated interviews and surveys, and shaped the findings and recommendations of the *Initiative*.

In order to implement the recommendations of the first phase of the *Initiative*, this Steering Committee formed the South Carolina Council on Competitiveness (full roster of membership listed on page 5). Chaired by M. Edward Sellers, the Council's day-to-day activities were coordinated by an Executive Committee including: William Barnet, Mayor of Spartanburg; James Bennett, Executive Vice President at First Citizens Bank; J. Egerton Burroughs, Chairman of Burroughs and Chapin; Ann Caulkins, President and Publisher of *The State*; John C. L. Darby, President and CEO of The Beach Company; Bob Faith, South Carolina Secretary of Commerce; Carl W. Flesher, Vice President at BMW Manufacturing; Don Herriott, President of Roche Carolina; Darla Moore, Chairwoman of the Palmetto Institute; Steve Swanson, President and CEO of Automated Trading Desk; and Mack I. Whittle, Chairman and CEO of Carolina First Bank. This Executive Committee is also tasked with decision-making capabilities between Council meetings.

The Monitor Group conducted the research and analysis, integrated quantitative and qualitative data, and developed the findings and recommendations. Jeff Grogan served as the overall project director for the Monitor Group team. Kurt Dassel managed the project. Pedro Arboleda led the analysis for the state's tourism and hospitality cluster. Camilo Garcia, Matthew Dunn, and Chioma Duru provided analyses and conducted interviews of business leaders in the state.

The Palmetto Business Forum, the Palmetto Foundation for the Economic Development of South Carolina, the Palmetto Institute, the South Carolina Chamber of Commerce, the South Carolina Department of Commerce, and the South Carolina Department of Parks, Recreation and Tourism provided invaluable support—both financial and staffing—to the project.

Michel E. Porter, the William Bishop Lawrence University professor at Harvard Business School, served as senior advisor to the first phase of the *Initiative*, and donated his time pro bono to the project. As senior advisor, he oversaw the conceptual framework for the project, reviewed the analysis, and assisted in the creation of the recommendations. Professor Porter also met with the Steering Committee of the first phase of the *Initiative* to discuss preliminary recommendations from the analyses, and presented the strategic analysis and economic strategy for the state in December 2003.

James Fields, Executive Director of the Palmetto Institute, provided invaluable guidance and day-to-day planning and logistics for the *Initiative* and the Council on Competitiveness. The Palmetto Institute assisted in the planning and coordination of the meetings of the Steering Committee for the first phase of the *Initiative*. James Fields acted as the main point person, including providing input at Steering Committee meetings. Willi Bass of the Palmetto Institute helped with logistics.

Michelle Stevens of the South Carolina Council on Competitiveness and Jill Davis of Office of the CEO at BlueCross BlueShield of South Carolina provided additional support and assisted in the coordination of the Council, Task Forces and Cluster Committees.

The input and support from Joe James, Clare Morris, Scott Derks, Graham Galavan, Martin Roche, Susan Turkopuls, and Daniel Young of the South Carolina Department of Commerce was a welcome addition to the *Initiative*.

The Cluster Mapping Project at the Institute for Strategy and Competitiveness at Harvard Business School, led by Professor Porter, provided economic performance and cluster composition data.

Lily Rappoli, Julie Sherman and Alyson Lee at the Design Studio at Monitor Group created, designed, and illustrated the layout of this report.

Nearly 500 business, academia, government and economic development leaders contributed to this project by providing background information, participating in interviews, completing online surveys, and offering their views on the South Carolina economy. While this report aims to reflect the consensus of those interviewed and surveyed, it cannot do justice to all of the contributions. Any errors, omissions, and inconsistencies are the responsibility of the report writers and not any one individual or institution.

MEMBERSHIP OF THE SOUTH CAROLINA COUNCIL ON COMPETITIVENESS

Honorary Member:

Mark Sanford Governor of South Carolina

Chairman of the Council:

M. Edward Sellers Chairman and CEO of BlueCross / BlueShield of South Carolina

Executive Committee:

Bill Barnet Barnet Company; Mayor of Spartanburg
James Bennett First Citizens Bank
Egerton Burroughs Burroughs & Chapin
Ann Caulkins The State newspaper
John Darby The Beach Company
Bob Faith South Carolina Department of Commerce
Carl Flesher BMW
Don Herriott Roche Carolina
Darla Moore Palmetto Institute
Steve Swanson Automated Trading Desk
Mack Whittle South Financial Group

Council Members:

Billy Alford A&I Fire and Water Restoration
Ashley Allen Milliken and Company
James Barker Clemson University
Joe Blanchard Blanchard Machinery Company
Brent Clinkscales Womble Carlyle Sandridge and Rice
Harris De Loach Sonoco Products
Bill Finn Asten-Johnson
Raymond Greenberg Medical University of South Carolina
Chancey Gregory Senator, South Carolina Legislature
Paula Harper Bethea Bethea, Jordan & Griffin
Hayne Hipp Liberty Corporation
Tee Hooper Profitlab
James Hudgins SC Technical College System
Bob Hughes Hughes Development Corp.
Andrew Hugine South Carolina State University
Fred Humes South Carolina Economic Development Association
Barbara League G.F. League Manufacturing Co.
John Lumpkin Edens & Avant Real Estate
Ed McMullen South Carolina Policy Council Education Foundation
Albert Mims Physician, Medical University of South Carolina
Dalhi Myers Haynsworth Sinkler Boyd
Karen Park Jennings Park Seed Co.
Bobby Pearce Nelson, Mullins and Scarborough
Jonathan Pinson Pindrum Staffing
Gerrita Postlewaith Superintendent, Horry County Schools

| | |
|--------------------|--|
| Kevin Riddett | Pirelli North America |
| Minor Shaw | Mickel Investment |
| Ruth Shaw | Duke Power |
| David Shi | Furman University |
| Bill Smith | Holmes Smith Developments |
| Joel Smith | Moore School of Business, University of South Carolina |
| Andrew Sorensen | University of South Carolina |
| Diane Sumpter | DESA |
| Rick Throckmorton | Booz, Allen & Hamilton |
| Henry Tisdale | Claffin University |
| John Warner | KEMET Corporation |
| William Webster | Advance America |
| Caroline Whitson | Columbia College |
| David Wilkins | Speaker of the House, South Carolina Legislature |
| William Youngblood | McNair Law Firm |

Task Forces / Cluster Committee Members:

| | |
|---------------------|--|
| Billy Alford | A&I Fire and Water Restoration |
| Jo Anne Anderson | South Carolina Education Oversight |
| Johann Asten | Asten Johnson |
| Scott Barker | Tekgraf |
| Robbie Barnett | Honeywell Nylon, Inc. |
| Paul Harper Bethea | Bethea Jordan & Griffin Law Firm |
| Anthony Boccanfusso | University of South Carolina |
| Carl Boger | USC School of Hotel, Restaurant & Tourism |
| Bruce Brazelle | Leigh Fibers |
| Mike Briggs | Central Carolina Economic Development Alliance |
| Michele Brinn | Greenville Chamber of Commerce |
| Chuck Bundy | South Carolina Department of Commerce |
| Jessie Byrd | South Carolina Employment Security Commission |
| Andy Cajka | Southern Hospitality Group |
| Rob Chapman | Inman Mills |
| States Clawson | South Carolina Department of Commerce |
| Bob Couch | South Carolina Department of Education |
| Fred Craft | Cheraw Yarn Mills |
| Reed Cunningham | Tietex International |
| Woody Crosby | Hospitality Association of South Carolina |
| Janie Davis | South Carolina Commission for Minority Affairs |
| Prem Devadas | Kiawah Resort |
| Jack Ellenburg | South Carolina Department of Commerce |
| Conrad Festa | South Carolina Commission on Higher Education |
| Jim Fields | Palmetto Institute |
| Carl Flesher | BMW |
| Lewis Gossett | South Carolina Manufacturers Alliance |

| | |
|----------------------|--|
| Mike Griffy | Abbingdon Manor Country Inn |
| Nathan Hale | Sawgrass Technologies |
| Linzell Harris | Capsugel |
| Don Herriott | Roche Carolina Inc. |
| Helen T. Hill | Charleston CVB |
| Bobby Hitt | BMW |
| Fred Humes | Aiken-Edgefield Economic Development Partnership |
| Joe James | Corporation for Economic Opportunity |
| Shawn Jenkins | Benefitfocus.com |
| Dale Kaetzel | Paramount's Carowinds Park |
| Fred Kotoske | Taco Bell of the Midlands |
| Will Lacey | South Carolina Department of Commerce |
| Ted Matthews | Spring Industries |
| Layton McCurdy | Medical University of South Carolina |
| Byrd Miller | William Barnet and Son |
| Frankie Miller | Trident Tech College Hospitality, Tourism, & Culinary Arts |
| Clare Morris | South Carolina Department of Commerce |
| Bobby Pearce | Nelson, Mullins and Scarborough |
| Kim Phillips | Hamrick Mills |
| Jonathan Pinson | Pindrum Staffing |
| Amy Prosser | South Carolina Department of Commerce |
| Chad Prosser | South Carolina Department of Parks, Recreation & Tourism |
| Christian Przirembel | Clemson University |
| Kay Raffield | Central Carolina Technical College |
| Bettis Rainsford | Heritage Corridor |
| Jim Reynolds | Total Comfort Service Center |
| Ken Roozen | Medical University of South Carolina |
| Lisa Ryan | BookSurge LLC |
| Ueli Schmid | Rieter Corporation |
| Jay Self | Greenwood Mills |
| Ian Shaw | Wellman, Inc. |
| Bill Steen | Central Textiles |
| Jim Stritzinger | Seacoast Synergy |
| Diane Sumpter | DESA |
| Steve Swanson | Automated Trading Desk |
| Rick Throckmorton | Booz, Allen & Hamilton |
| Walter Tobin | Fairfield County School District |
| Peggy Torrey | South Carolina Chamber of Commerce |
| John Warner | Kemet Corporation |
| Douglas P. Wendel | Burroughs & Chapin |
| Karen Woodward | Lexington District One |
| Daniel Young | South Carolina Department of Commerce |

EXECUTIVE SUMMARY

Economic Performance

For years, South Carolina has pursued a low-cost economic strategy, emphasizing its abundant and flexible workforce, good physical infrastructure, and responsive government in order to attract manufacturing operations. While this strategy has succeeded historically in creating jobs, it has been less successful in raising the standard of living in the state. For example:

- Average wages in South Carolina were 80.5% of the national average in 2001;
- Wages in South Carolina grew 3.6% per year from 1990 until 2001 versus 3.9% for the United States;
- Gross state product per worker was 82.2% of the U.S. average in 2001, growing at 3.6% per year, the same as the national average; and
- Patents per 10,000 workers in South Carolina were 3.6 in 2001 versus 7.7 for the United States.

Moreover, with the emergence of many low-cost competitors around the world (e.g., China, India, Mexico, etc.), creating jobs is becoming increasingly difficult: in November 2003, South Carolina's unemployment rate was 6.9%, higher than the U.S. rate of 5.9%.

Economic Performance

■ Employment

South Carolina's employment grew 1.3% annually from 1990 to 2002, below the U.S. average of 1.5%

■ Unemployment

South Carolina's unemployment rate of 7.1% in October 2003 was higher than the national average of 6.0%

■ Average Wages

The state's average wages of \$28,634 in 2001 were 80.5% of the national average of \$35,550

■ Wage Growth

Growth of average wages in South Carolina was 3.6% from 1990 to 2001, below the U.S. rate of 3.9%

■ Manufacturing Export Dollars

Manufacturing exports per worker were 16% lower than the U.S. average in 2001, but grew 7.7% faster from 1997 to 2001

■ Gross State Product per Worker

GSP per worker of \$63,181 in 2001 was 82.2% of the U.S. average of \$76,898; annual growth of 3.6% from 1990 to 2001 in South Carolina was the same as for the United States.

Innovation Output

■ Patents per Employee

South Carolina's 3.6 patents per 10,000 employees in 2001 was well below the national average of 7.7

■ Patent Growth

Annual patent growth in South Carolina from spring 1990–2001 was 4.3%, below the 6.5% rate for the United States

■ Establishment Formation

The growth rate for establishments was 2.1% from 1991 to 2000, higher than the U.S. average of 1.5%

■ Venture Capital Investments

VC funding in South Carolina was \$3 per worker in 2002, below the national average of \$155 per worker

■ Small Business Innovation Research Award Dollars

South Carolina's \$2.56 SBIR awards per worker in 2001 was below the U.S. average of \$8.50, however growth of 36.6% was far higher

■ Fast Growth Firms

The state had 0.8% of the Inc 500 fast growing companies in 2002, vs. 1.4% of employment. These ratios were approximately the same in 1994

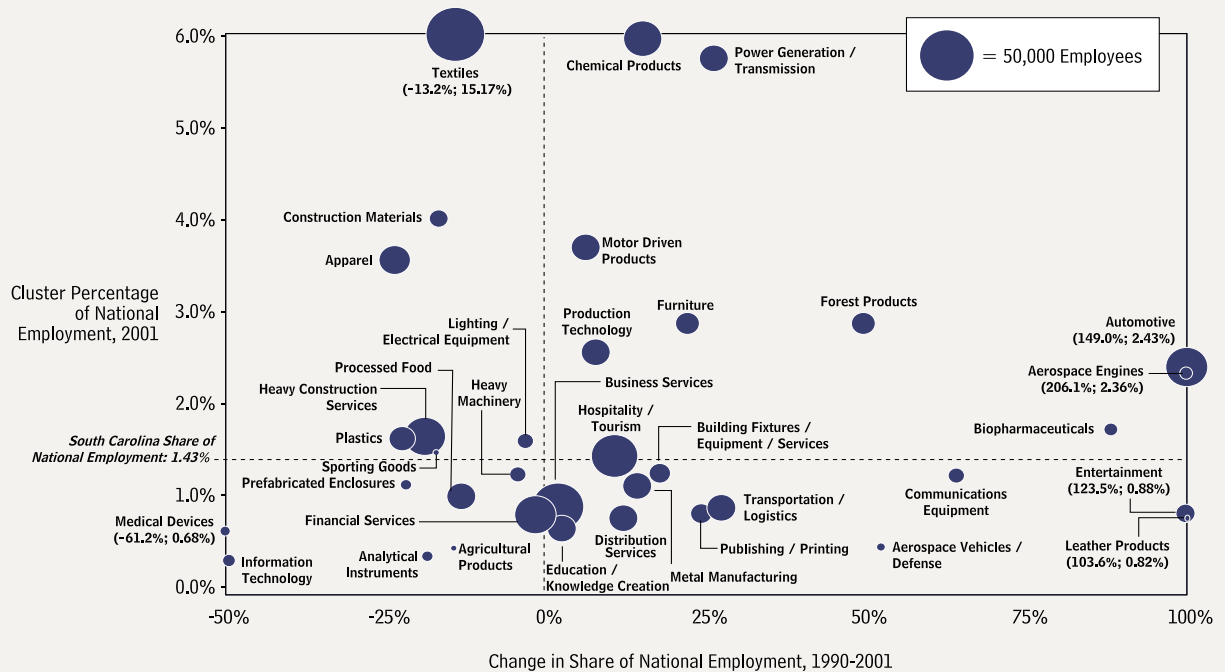
Note: Wage data is provided by NAICS codes, as compared to SIC codes, after 2001.

Source: Bureau of Labor Statistics; U.S. Bureau of Economic Analysis; Intern'l Trade Admin; U.S. Patent and Trademark Office; PricewaterhouseCooper Money Tree; American Chamber of Commerce Researchers Association; Massachusetts Division of U.S. Employment & Training; Development Report Card for the States; Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School; Monitor Analysis

Economic Composition

South Carolina has enjoyed a good base for developing strong **clusters**, or geographically proximate groups of interconnected companies and associated institutions in a particular field, linked by customer, supplier, or other relationships (see Appendix A for additional detail). This base includes strong positions in automotives, textiles, chemical products, tourism, forest products, production technology, and power generation and transmission. Nevertheless, average wages significantly lag the average wages of the United States as whole. Common explanations for this include:

- South Carolina's disproportionately large employment in several low-wage clusters, such as textiles, apparel, and tourism;
- The state's relatively large rural population, which, like rural America overall, makes substantially lower average wages; and
- South Carolina's relatively large African-American population, which resembles African-Americans nationwide in having a lower per capita income.



Note: Traded clusters with less than 1,000 employees in South Carolina are not displayed. These clusters are Fishing and Fishing Products; Footwear; Oil & Gas Products – Services; and Tobacco. Clusters located out of scale have been placed on the border with coordinates labeled (% change in national cluster employment share; % of national cluster employment).

Source: Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School

While these factors account for some of the gap in average wages, they did not tell the whole story. In fact:

- The mix of clusters in the state accounts for 31% of the gap between South Carolina wages and U.S. wages;

- Average wages in rural South Carolina are actually higher than in rural America, and the larger rural population in the state explains only 13.1% of the gap;
- South Carolina’s minority population (e.g., African-American, Hispanic, etc.) is only slightly larger than the U.S. minority population, and accounts for only 10.2% of the gap.

The economic performance issue for South Carolina is more pervasive than one cluster, region, or group. Prosperity is lower in South Carolina across all clusters, in many rural regions but also in the cities, and across all demographic groups. The analyses suggest that the principal reason for this lag in average wages is that the value created per worker per year is less in South Carolina than for the United States as a whole.

The Business Environment

If prosperity is to rise in South Carolina, workers must create more value each year. Boosting businesses’ ability to increase value-added requires upgrading the quality of the business environment in which they operate. South Carolina’s business environment has a number of strengths, including:

- A strong technical college system;
- New leadership in the research universities which is committed to economic development;
- Attractive cost structure relative to other states;
- Good highway system and the port of Charleston;
- Valuable assets such as the Savannah River National Lab, and the Space and Naval Warfare System Center (SPAWAR); and
- A dense network of economic development organizations eager to take action.

A number of key challenges also exist, including:

- Below average K-12 educational system, and the resulting limited skill set in the workforce;
- Lack of a top-tier research university;
- Difficult environment for start-ups and small firms; and
- Lack of cluster councils and university-industry linking organizations.

Findings for Four South Carolina Clusters

In addition to an assessment of the state overall, the *South Carolina Competitiveness Initiative* studied four clusters—automotive, chemical products, textiles, and tourism—to achieve a deeper understanding of the issues, challenges, and opportunities in South Carolina, and to support several large clusters that have a significant economic impact on the state’s economy. The clusters illustrated and reinforced several of the **key themes** emerging from the analysis of the state overall, including:

- The success in creating jobs and attracting capital investments, but also the low value creation and average wages;
- The flexible workforce and good physical infrastructure, but also the limited investment in education, skills, and research;
- The presence of sophisticated operations in several clusters, but also the difficult environment for start-ups and small local companies, and limited networking and collaboration across firms; and
- The importance of government leadership in recruiting, but also the minimal participation of the private sector and universities in economic development.

In dealing with the legacy of the long-pursued low-cost strategy, each cluster faces a slightly different mix of challenges and opportunities, but all need to seek to create a business environment that enables South Carolina companies to pursue a **differentiated position** vis-à-vis other regions.

The **automotive cluster** must continue to establish itself as a leader in R&D in the American South; build on its ability to support sophisticated, more customized manufacturing (e.g., BMW, Honda, American La France); and focus on attracting firms reliant on importing and exporting.

The **chemical products cluster** needs to build on several niche opportunities—commercialization of SRS technology, biopharmaceutical manufacturing, and defense against weapons of mass destruction (i.e., chemical, biological, and nuclear).

The **textiles cluster** should make a strategic transition from a cluster providing inputs to the apparel business to a cluster that: supplies materials to end-users that will remain based in the United States for years to come (e.g., automotive, construction, the military); develops innovative new products; and provides high-end fabrics requiring fast and short production runs for demanding U.S. customers.

The **tourism cluster** must improve collaboration among its disparate members to: identify a set of highly attractive, high-spending tourist segments; determine how South Carolina can best package its tourism assets to create a highly desirable destination for some of these segments; and execute a strategy that creates and markets this new destination to the appropriate tourists.

South Carolina's Long-Term Economic Strategy

South Carolina has little choice but to move in several new directions in order to boost prosperity:

- From a region seeking to create jobs to a region striving to raise prosperity;
- From offering a generic low-cost position to building an environment that will foster differentiated high-value creation;
- From simply recruiting outside companies to building robust clusters; and
- From government-led development to public-private collaboration.

The *South Carolina Competitiveness Initiative* suggests a strategy for South Carolina in which the state will become a premiere region in the United States for advanced processing. South Carolina will be most successful by considering new ideas and innovations, and executing them. South Carolina will manufacture newly conceived products; South Carolina will efficiently execute complex processes for service providers; South Carolina will, in essence, implement the successful abstract strategies and ideas of other regions, rendering them a reality.

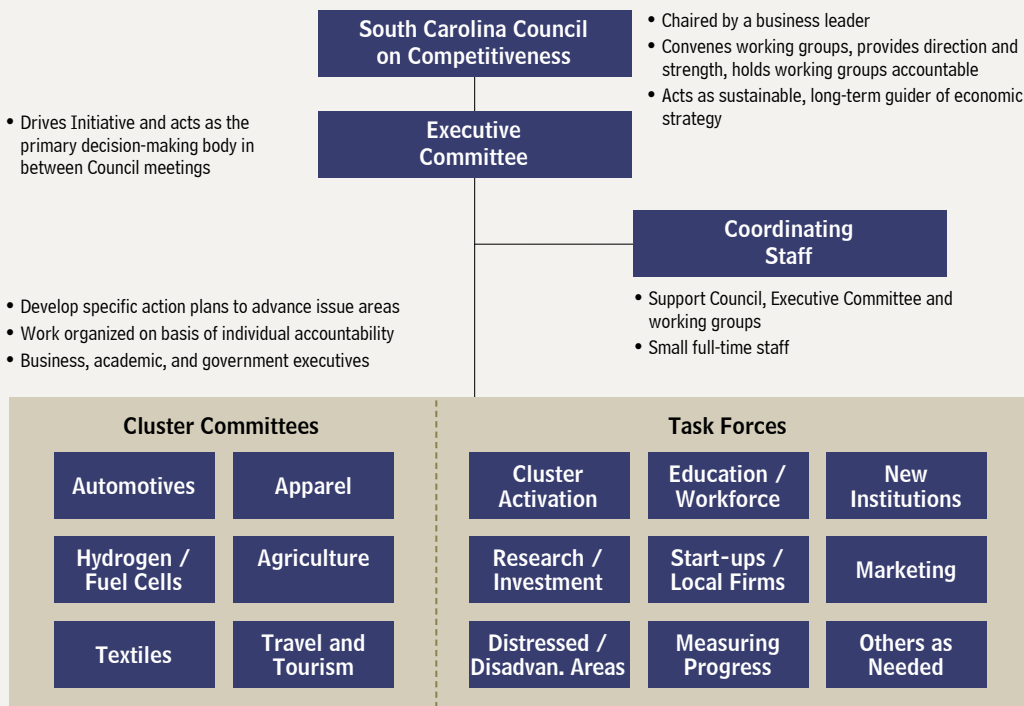
In order to implement this strategy, the *South Carolina Competitiveness Initiative* suggests eight distinct issues areas for South Carolina to focus on:

- **Activate and upgrade clusters.** Upgrade existing clusters by building critical mass and fostering linkages, and broaden cluster portfolio by seeding new clusters;
- **Continue to enhance education and workforce training.** Raise SAT scores and graduation rates to reach middle quintile of the United States by 2015, and leverage technical colleges to provide the workers needed for advanced processing;
- **Invest in research and the university system.** Increase investments in focused research areas aligned with the needs of industry, and ensure graduate level research and training capabilities commensurate with the needs of regional business and industry clusters;
- **Launch internal and external marketing campaigns.** Create a can-do mentality in South Carolina and position the state as a location ripe with opportunities for leading companies and talented people;

- **Create an explicit economic development program for distressed and disadvantaged areas.** Increase prosperity for all citizens of South Carolina;
- **Increase support for start-ups and local firms.** Create a supportive environment for start-ups and streamline regulations and policies to encourage expansions and upgrades;
- **Create new institutions to support economic development.** Collaborate and support existing institutions for collaboration focused on upgrading the local business environment, and create new ones as needed;
- **Measure progress in raising prosperity.** Define and track a set of metrics that measure progress towards prosperity, and provide direction for the above campaigns.

Creating the Capacity to Act

To act on these issue areas, the *South Carolina Competitiveness Initiative* created the *South Carolina Council on Competitiveness*. *The Council* is chaired by M. Edward Sellers, CEO of Blue Cross / Blue Shield of South Carolina. It consists of a central leadership group of about 50 individuals from business, government, and academia, as well as a number of task forces and cluster committees, each responsible for one of the issue areas or clusters enumerated. Some of these cluster committees were formed by the Council, while others pre-date the Council’s formation, and have affiliated themselves later. These groups are made-up of individuals and organizations relevant to the achievement of the objectives in each issue area.



Each task force and cluster committee is responsible for: 1) defining its mission and objectives; 2) developing a specific action agenda; 3) assigning responsibilities to individuals and groups; 4) helping to identify appropriate metrics to track progress; 5) clarifying the timing for implementing the agenda; and 6) reporting progress to the leadership group and other groups at a later date. The overarching *Council* is responsible for convening the task forces and cluster committees, providing input to them, supporting the specific action agendas they develop, and holding them accountable for progress made. The Council also seeks to network with the many economic development organizations and initiatives across the state, in order to lend its support to these efforts as appropriate. Together, the objectives and activities of the active Task Forces and Cluster Committees form the current Action Agenda for South Carolina (see chart below).

The Palmetto State stands at an inflection point in its economic trajectory. South Carolina faces significant challenges but also has assets and organization structure already in place to address these challenges and capitalize upon current strengths. The *South Carolina Competitiveness Initiative*, as a ground-breaking effort with unprecedented scope, has set the stage for new directions and new growth. The South Carolina Council on Competitiveness, with its Task Forces and Cluster Committees, will continue to coordinate, integrate, and implement the economic strategy. With persistent execution on a long-term strategy, South Carolina can make measurable progress toward becoming a differentiated and competitive presence in the world economy, and raise the standard of living of all of its citizens.

| | Short-Term (2004–05) | Mid-Term (2005–06) | Long-Term (2006+) |
|----------------------------|--|--|---|
| Council on Competitiveness | <ul style="list-style-type: none"> • Prioritize creation of Task Forces and Cluster Committees • Appoint chairs for Task Forces and Cluster Committees, work with chairs to recruit other members • Create process for creating new Task Forces and Cluster Committees and “sunsetting” old ones • Develop a long-term economic strategy for South Carolina • Write, publish, and disseminate a report on the South Carolina Competitiveness Initiative • Implement plan by advocating the strategy to appropriate groups, developing a legislative agenda, and supporting working groups’ efforts • Create process for working groups to report on progress and receive Council input • Provide input and suggestions to Task Forces and Cluster Committees as appropriate • Establish stable financing and staffing | <ul style="list-style-type: none"> • Create new Task Forces and Cluster Committees as appropriate • Disseminate a report on the South Carolina Competitiveness Initiative, including the long-term strategy and implementation plan • Implement plan by advocating the strategy to appropriate groups, developing a legislative agenda, and supporting working groups’ efforts • Review progress of Task Forces and Cluster Committees; provide input and support as appropriate | <ul style="list-style-type: none"> • Implement plan by advocating the strategy to appropriate groups, developing a legislative agenda, and supporting working groups’ efforts • Review progress of Task Forces and Cluster Committees; provide input and support as appropriate |
| Cluster Activation | <ul style="list-style-type: none"> • Develop criteria for identifying clusters to activate • Create informative documents for potential cluster leaders • Establish contact with cluster-focused organizations to help facilitate cluster assessment and development • Assist individuals interested in seeding nascent clusters • Meet with potential leaders of existing industry concentrations to assist with cluster assessments • Deliver speeches and conduct seminars for individuals interested in cluster development | <ul style="list-style-type: none"> • Create a network of Task Force and Cluster Committee leaders to facilitate communication and knowledge transfer • Assist individuals interested in seeding and supporting nascent clusters • Meet with potential leaders of existing industry concentrations to assist them in conducting cluster assessments • Deliver speeches and conduct seminars for individuals interested in cluster development | <ul style="list-style-type: none"> • Assist individuals interested in seeding and supporting nascent clusters • Meet with potential leaders of existing industry concentrations to assist them in conducting cluster assessments • Deliver speeches and conduct seminars for individuals interested in cluster development |

Short-Term (2004–05)

Mid-Term (2005–06)

Long-Term (2006+)

Education and Workforce

- Act as an oversight committee for Pathways to Prosperity in lieu of Coordination Council and rally efforts to pass Pathways legislation in 2005
- Develop mission relevant agendas for early childhood development, colleges & universities, & adult education
- Identify and pursue untapped financing for South Carolina's education and workforce training systems
- Research parental involvement best practices
- Develop and fund phase I communication strategy
- Re-align curricula of tech colleges and secondary schools with the needs of clusters
- Develop and publish scorecard on implementation
- Assist Council in documenting knowledge needs for business clusters that can be met by the education system

- Create online database of education initiatives in SC; recognize best practices (in-state and out-of-state)
- Develop criteria to certify and recognize local best practices Establish / upgrade Regional Service Centers linking business and education
- Foster other models of business-education partnerships
- Raise awareness and accountability of schools regarding black male educational achievement
- Produce white papers on K-12 funding
- Support expansion of NFTE program
- Develop and fund phase II communication strategy, messages and materials
- Evaluate pilot programs aimed at reducing drop-out rates
- Improve articulation from K-12 to post secondary options
- Assist Council on documenting knowledge needs for business clusters that can be met by the education system
- Publish annual scorecard on implementation

- Reduce drop-out rates
- Create a statewide Certificates and Apprenticeships program
- Support tech colleges in developing curriculum to commercialize ideas linked with Research Universities' centers for excellence
- Develop and fund phase III communication strategy, messages and materials
- Publish annual scorecard on implementation
- Maintain momentum and reprioritize critical items

Research Investment

- Inventory research strengths at South Carolina's universities and centers
- Communicate to industry regarding both ongoing research activities and existing catalogues of research
- Gather information on the research interests of local industry and channel into the state's universities and research centers
- Identify incentives to encourage investment in research by both academia and the private sector
- Encourage an increase in the funding of the Endowed Chairs Program

- Bring together researchers and private sector scientists and engineers
- Review incentives for faculty involvement in commercially relevant research
- Identify research and training needs of business in regions across the state
- Map research and training capabilities across the state to identify priority gaps
- Work with universities, colleges, and training centers to fill those gaps

- Create single point of contact in universities and research centers for firms and clusters seeking information
- Enact incentive systems to reward academic involvement in commercially relevant research

Start-Ups and Local Firms Cluster

- Inventory and advertise resources available to start-ups
- Expand education for entrepreneurs, investors, & advisors
- Recommend and promote incentives to encourage investment in local firms
- Identify and fund scholarships for minority participation in entrepreneurial training
- Identify issues and challenges faced by a wide range of start-ups and local firms
- Recommend legislation to encourage early-stage investments

- Create networks between new and successful entrepreneurs and local firms
- Connect funding sources with early stage entrepreneurs
- Facilitate start-up and local businesses access into local talent pool
- Provide start-ups with access to universities' physical assets
- Advertise resources available to start-ups and local firms
- Help minority entrepreneurs identify growth areas in South Carolina

- Develop and promote regulation simplification and 'one-stop-shop' programs at regulatory organizations
- Create 'skill placement' programs for students
- Advertise resources available to entrepreneurs and local firms

Measuring Progress

- Create standardized process for tracking identified metrics
- Meet with members of other groups to review metrics for each campaign's activities and determine which will provide the most insight into the success of activities
- Take baseline measures and publish first Innovation Index

- Identify benchmark regions and track South Carolina relative to them
- Identify appropriate metrics to track for both the state and "competitor" regions
- Determine short, medium and long term milestones
- Periodically measure and publish subsequent Indexes
- Research important new and emerging issues, highlight new strategic needs and revise metrics as appropriate

- Take periodic measurements and publish subsequent Indexes
- Research important new and emerging issues, highlight new strategic needs and revise metrics as appropriate

Automotive Cluster

- Develop inventory of existing auto assets (e.g., companies, training programs, R&D) in SC and the region
- Recommend legislation to allow private matching funds to lag state contributions
- Develop legislation to provide incentives for companies to locate on the ICAR campus
- Support ICAR / Clemson Endowed Chairs recruitment and funding

- Define set of criteria to assess attractiveness and potential for tier 1 and other automotive suppliers
- Recruit high value suppliers and another OEM to the state
- Develop and circulate a math and science curriculum relevant to the auto cluster
- Establish high-level contacts with automotive firms
- Work with relevant leadership (e.g., port authority) to conduct mutually beneficial development activities
- Support ICAR project as appropriate (e.g., Endowed Chairs, marketing to attract companies to the campus)

- Recruit high value suppliers and another major OEM to the state
- Maintain contacts with auto firms
- Maintain dialogues with port authority and other relevant infrastructure leadership
- Support ICAR project as appropriate (e.g., Endowed Chairs, marketing to attract companies to the campus)

| | Short-Term (2004–05) | Mid-Term (2005–06) | Long-Term (2006+) |
|----------------------------|---|--|---|
| Travel and Tourism Cluster | <ul style="list-style-type: none"> • Agree on a differentiated position for the cluster • List and categorize current tourism assets • Create strategy that targets specific tourist segments and incorporates assets of various regions of the state • Create PSAs highlighting importance of the Travel and Tourism industry • Identify critical gaps in current product development incentives and infrastructure • Identify critical gaps in air transportation service currently in place • Develop programs focused on service enhancement | <ul style="list-style-type: none"> • Develop action plans to assess / pursue key potential opportunities: international markets, long-haul domestic travelers and pass-through travelers • Assess efficiency and alignment of the use of public monies with the new strategy • Create institutions for collaboration to build partnerships between firms • Develop a specialized curriculum with technical colleges and high schools to provide key skills to tourism employees • Promote collaboration between tourism firms and developers focusing on the immigration market | <ul style="list-style-type: none"> • Revise overall economic development incentives for tourism to ensure alignment with new strategy • Create a plan for sustaining quality of life and the environment in South Carolina • Increase tourism-related research in South Carolina |
| Textiles Cluster | <ul style="list-style-type: none"> • Amend the state's current incentive packages to offer similar incentives to companies that are upgrading plant or products so as to retain rather than create jobs • Develop mechanisms to boost the flow of information among textile firms and related organizations • Periodically convene cluster leaders to discuss competitive challenges | <ul style="list-style-type: none"> • Identify market opportunities in which local firms can successfully compete and pursue high-value operations • Coordinate with nearby research centers to encourage the flow of research and ideas into local textile companies • Identify training needs of textiles cluster firms, and liaise with educational institutions to ensure needs are met • Periodically convene cluster leaders to discuss competitive challenges | <ul style="list-style-type: none"> • Create forums for textiles customers (e.g. automotive manufacturers, military sites) to discuss present and future needs from their textiles suppliers in the cluster • Periodically convene cluster leaders to discuss competitive challenges |
| Apparel Cluster | <ul style="list-style-type: none"> • Identify critical characteristics needed for a successful apparel cluster • Recruit additional members to the South Carolina Apparel Cluster • Collaborate with knowledge leaders to build best practices and a strong information base • Hold bi-monthly cluster initiative meetings to spread knowledge, best practice, and foster ongoing collaboration • Develop a marketing committee | <ul style="list-style-type: none"> • Collaborate with knowledge leaders to build best practices and a strong information base • Establish a state wide apparel cluster conference to introduce firms and their capabilities to each other • Hold meetings to spread best practice, and collaboration • Build an on-line forum • Identify opportunities for efficiencies among member firms • Establish performance outcomes for effective measuring • Begin to update operating systems using the latest IT | <ul style="list-style-type: none"> • Collaborate with knowledge leaders to build best practices and a strong information base • Hold bi-monthly cluster initiative meetings to spread knowledge, best practice, and foster ongoing collaboration |
| Agriculture Cluster | <ul style="list-style-type: none"> • Identify the appropriate agriculture clusters and issue areas • Identify and activate appropriate sub clusters within agribusiness • Obtain input from existing agribusinesses & organizations • Accumulate knowledge on different issues • Have each sub-cluster cluster and issue group identify their key issues and measures of progress • Periodically convene cluster leaders to facilitate collaboration, networking, and the discussion of challenges to, and opportunities for, the cluster | <ul style="list-style-type: none"> • Coordinate with local research centers to encourage the flow of ideas into local agribusiness firms • Create / identify and recruit ancillary businesses • Create and execute on a marketing plan • Explore ways for the packaging industry to help advance the agribusiness cluster • Periodically convene cluster leaders to facilitate collaboration, networking, and the discussion of challenges to, and opportunities for, the cluster | <ul style="list-style-type: none"> • Create / identify and recruit ancillary businesses • Periodically convene cluster leaders to facilitate collaboration, networking, and the discussion of challenges to, and opportunities for, the cluster |



For years, South Carolina has pursued a traditional low-cost competitive strategy, emphasizing its abundant and flexible workforce, good physical infrastructure, and responsive government in order to attract manufacturing operations. This strategy has, until recently, succeeded in creating jobs and generating capital investments in the state. However, in the face of falling trade barriers and rising competition from countries like China, India, and Mexico—countries that have significantly lower costs than South Carolina or any other state in the United States—job creation has stalled. From January 2000 until November 2003, South Carolina lost more than 75,000 jobs, and as of November 2003, unemployment was 6.9%, well above the national average of 5.9%.

Moreover, this traditional strategy was never especially successful at driving prosperity. Average wages in South Carolina were only 80.5% of the national average in 2001, and have been growing more slowly than the average wages in the United States over the last decade. This reflects lower productivity in South Carolina's economy, and inadequate technological capabilities in the state.¹ Patents per 10,000 workers, a good indicator of future productivity growth, were 3.6 in South Carolina in 2001 versus 7.7 for the United States.

Objectives

Motivated by these economic performance metrics, and by the understanding that the emergence of many low-cost competitors around the world will only put further pressure on South Carolina's economy, a number of business and government leaders collaborated to launch the *South Carolina Competitiveness Initiative*. Spearheaded by the Palmetto Institute and the South Carolina Department of Commerce, the *Initiative* also included representatives from the Palmetto Business Forum, the South Carolina Chamber of Commerce, the South Carolina Department of Parks and Recreation, and the University of South Carolina. Monitor Group, an international strategy advisory firm, managed the effort, and Harvard Professor Michael E. Porter, who donated his time to the project, served as the senior adviser.

The objectives of the *Initiative* were to:

- Bring together the relevant stakeholders—industry, academia, and government—to collaborate in developing a shared economic strategy for South Carolina;
- Assess the competitive position of South Carolina and of the selected industry clusters in the state (i.e., automotive, chemical products, textiles, and tourism and hospitality);
- Identify key challenges, opportunities, and new strategic directions for South Carolina overall, as well as for the selected clusters;
- Promote consensus on an economic strategy and action agenda for South Carolina; and
- Act on the findings from the analysis, and measure progress.

¹ Productivity is measured in terms of value created, not simply efficiency. South Carolina companies and operations appear to be highly efficient in producing many units of output per unit of input. But the total value of the output per worker per year lags other US states.

Process

To accomplish these objectives, the *Initiative* sought the input and perspectives of business leaders on issues, opportunities and challenges facing South Carolina. A comprehensive survey, asking a range of questions concerning the business environment in the state, was disseminated to the business community, and 443 executives responded. Monitor Group also conducted in-depth, one-on-one interviews with 116 business, academic, and government leaders to investigate the important issues emerging from the survey, and to capture additional insights on priorities for business and government.

In addition to the surveys and interviews, Monitor Group analyzed over 10 years of economic performance and composition data provided by the Cluster Mapping Project at Harvard Business School's Institute for Strategy and Competitiveness. The analysis also included accessing data from a wide variety of government and private sources, including the U.S. Bureau of Labor Statistics and the Bureau of Economic Analysis. Finally, Monitor Group conducted secondary research concerning the economic performance and implicit strategy of some of South Carolina's key neighbors and competitors: Alabama, Georgia, North Carolina, and Tennessee.

Exhibit 1: Overview of Survey Responses and Interviews

| Surveys | Interviews |
|--|--|
| <ul style="list-style-type: none">■ Web-based survey: 443 executives<ul style="list-style-type: none">42 executives from the automotive cluster43 executives from the chemical products cluster52 executives from the textiles cluster80 executives from the hospitality and tourism cluster226 executives from other clusters | <p>In person:</p> <ul style="list-style-type: none">■ 126 regional and cluster experts<ul style="list-style-type: none">59 Cluster interviews<ul style="list-style-type: none">7 automotive9 chemical products9 textiles34 hospitality and tourism67 Non-cluster interviews<ul style="list-style-type: none">24 private sector8 academic4 government8 rural23 economic development organizations |

THE FOUNDATION OF THE COMPETITIVENESS OF NATIONS, REGIONS, AND CLUSTERS 2

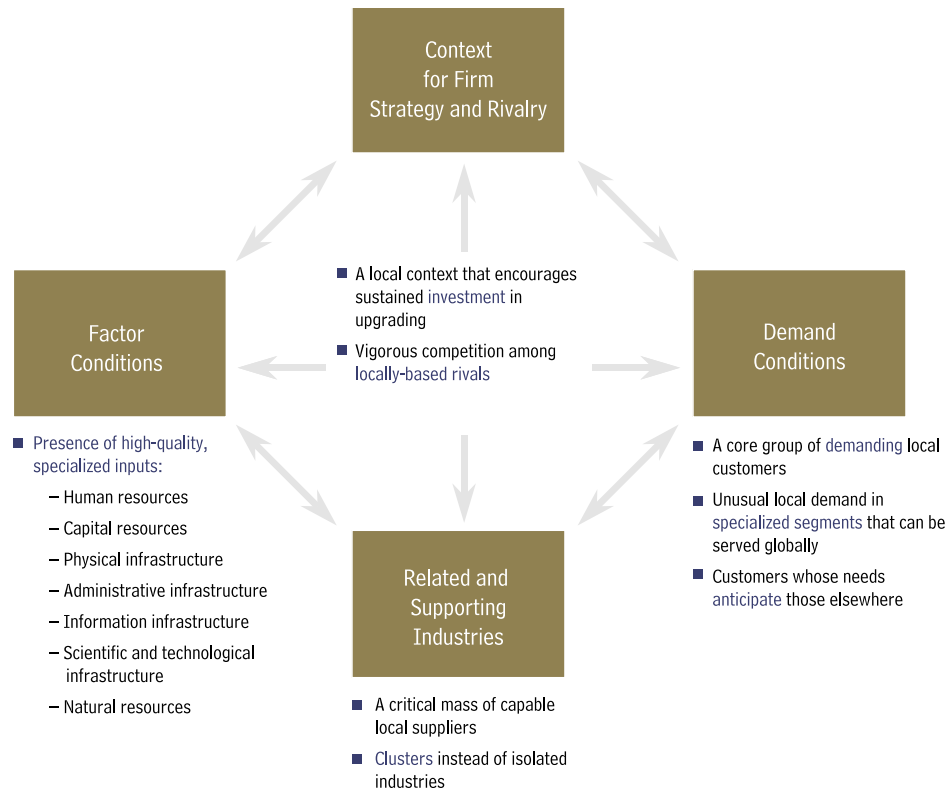
To guide the data-gathering and research, the Monitor Group applied an approach for understanding regional economies and clusters that draws on the framework articulated in *The Competitive Advantage of Nations*, by Professor Michael E. Porter of Harvard University. In this framework, the central economic goal for any region should be to attain and sustain a high and rising standard of living for its citizens. A region's standard of living is determined by the *productivity* of its economy. Productivity, or value creation, is measured by the value of goods and services produced per unit of labor and capital. Productivity sets the wages that can be sustained and determines the returns that investors can earn in the region—the two principal components of a region's standard of living.

Productivity, contrary to popular usage, is more than just efficiency, or the number of units of output per unit of input. It also depends on the *value* of the products or services that a region's firms can produce as measured by the prices they can command. The central challenge for a region is to create and maintain the conditions that enable companies located there to achieve high productivity and sustained productivity growth. Over time, a region's sustainable level of prosperity and wages are determined by its ability to create and commercialize innovations, in existing firms and through establishing new firms. The central challenge then in enhancing prosperity is to create the conditions for sustained innovation output.

A critical driver of productivity and innovation output is the quality of the regional **business environment** in which firms operate. This environment is embodied in four broad areas that affect the productivity that can be achieved as well as the rate of innovation (see Exhibit 2):

- **Factor conditions.** Achieving high levels of innovation and productivity growth depends on the presence of high-quality and specialized pools of human resources, basic research, applied technology, infrastructure, and sources of capital that are tailored to the needs of particular industries;
- **Demand conditions.** The quality of local demand exerts a strong influence on the process of creating and improving products and services. Sophisticated customers in a region press firms to improve, and they offer insights into existing and future customer needs;
- **Context for firm strategy and rivalry.** The rules, incentives, and pressures governing the kind and intensity of local rivalry have a fundamental influence on productivity policies that encourage investment, protect intellectual property, and foster productivity growth; and
- **Related and supporting industries.** Local sourcing from capable suppliers based in the region can enhance productivity and improve the capacity for innovation through allowing speedier and less costly communication, fostering the flow of ideas, and enhancing flexibility through outsourcing.

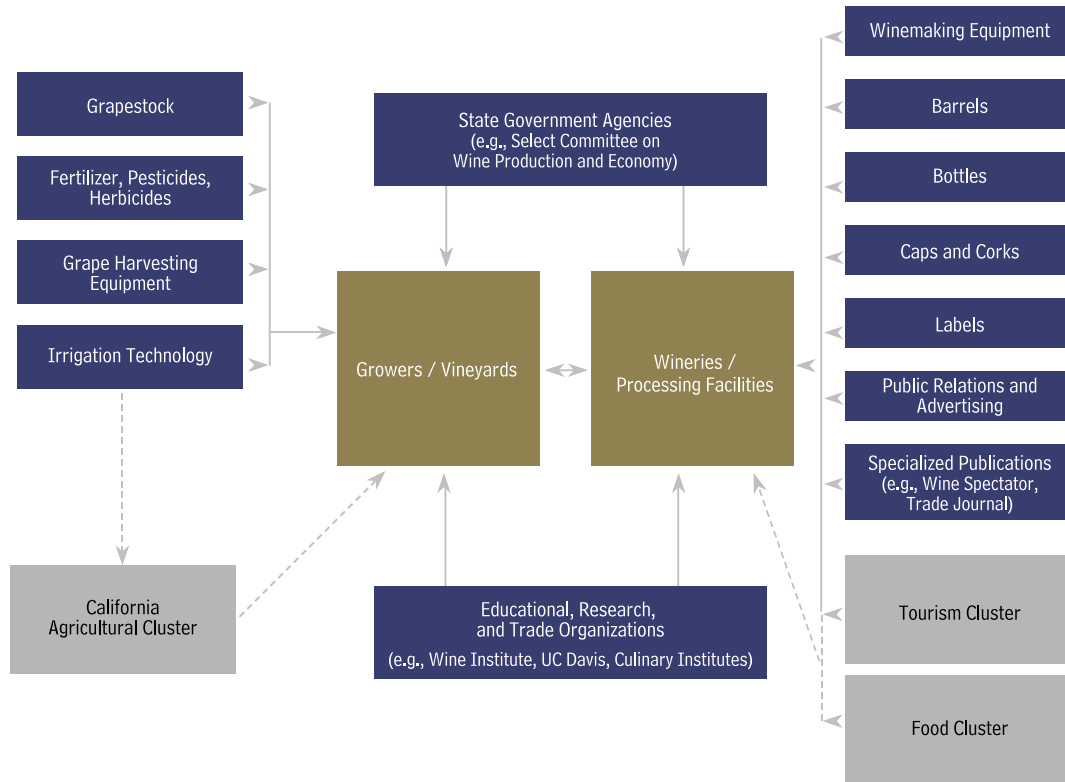
Exhibit 2: Determinants of Regional Productivity



The four areas of the “Diamond” shown above are self-reinforcing and act as a system. Regional rivalry, for example, stimulates the development of unique pools of specialized skills and the formation or attraction of specialized suppliers. Active local rivalry further upgrades regional demand by creating more demanding customers.

The workings of these four attributes generate the formation of clusters. For example, when assessing the breadth and depth of a wine cluster, look for the active presence of a range of industries, institutions, and integrative organizations—such as bottlers, label-markers, and wine institutes (see Exhibit 3). Once a cluster forms, the industries constituting it become mutually reinforcing. Information flows freely, firms learn about best practices and efficiencies more quickly, and innovation spreads rapidly through the relationships among customers and suppliers. Institutions such as colleges and universities adapt to cluster needs. Rivalry in one industry spreads to other industries in the cluster through spin-offs or related diversification. Related and supporting firms transfer to the region, or start up and grow there. Through a cumulative process often occurring over several decades, the region becomes a repository of specialized expertise, technology, and institutions for competing in a given field.

Exhibit 3: The California Wine Cluster



Source: California Wine Institute, Internet Search, California State Legislature. Based on Research by MBA 1997 Students R. Alexander, R. Arney, N. Black, E. Frost, and A. Shivananda

Government at all levels exerts an influence on the business environment and the innovative potential of clusters. Government’s proper role is to improve the business environment rather than to intervene directly in the competitive process.

Government has four fundamental roles in the economy:

- Improve the quality of basic inputs that firms draw on, such as human resources, physical and technological infrastructure, and capital;
- Create rules, regulations, and incentives that encourage innovation and upgrading. Through regulations, tax policy, and antitrust enforcement, government policies influence the climate in which firms compete;
- Build on and reinforce the formation of local clusters; and
- Encourage local firms and citizens to choose to compete, by educating them about the imperative of international competition and articulating to them an over-arching economic strategy.

In addition to government, many other national and local institutions have a role in competitiveness and economic development. The influence of **universities and schools** is growing as knowledge and technology become more essential to competition. The **private sector** has also become a crucial actor in improving competitiveness and in setting economic policy. The private sector is not only a consumer of the business environment but also plays an important role in shaping it. Individual firms as well as collective industry bodies play important roles in improving infrastructure, organizing training, and developing export markets.

Finally, **Institutions for collaboration**—formal and informal organizations and networks that facilitate the exchange of information and technology, and foster various kinds of coordination and collaboration—can improve the business environment in a cluster or in the overall economy. Typical institutions for collaboration include chambers of commerce, industry organizations, technology transfer offices, and business support centers. These institutions are effective vehicles through which companies can upgrade the innovative capacity and productivity of their cluster and regional economy.

ECONOMIC PERFORMANCE AND INNOVATION OUTPUT

If prosperity is the appropriate goal of a regional economy, and if productivity and innovation drive prosperity, how did South Carolina perform in these areas?

The state's traditional strategy has focused on attracting manufacturing operations to create jobs and attract new capital investment. Over the last 10 years, South Carolina has performed relatively well in the metrics tracking these objectives:

- Employment growth in the state was 1.3% per year from 1990 until October 2003, only slightly lower than the U.S. rate of 1.4% per year, despite the fact that South Carolina was far more exposed to the downturn in textiles and apparel;
- Establishment formation² in South Carolina was 2.1% per year from 1991 until 2000 versus the national average of 1.5%; and
- Manufacturing exports per worker in the state grew 7.7% faster than the United States as a whole between 1997 and 2001.

Despite these successes, however, South Carolina has lagged behind in metrics of prosperity, value creation, and innovation (see Exhibit 4):

- Average wages in South Carolina were 80.5% of the national average in 2001;
- Wages in South Carolina grew 3.6% per year from 1990-2001 versus 3.9% for the United States;
- Gross state product per worker was 82.2% of the U.S. average in 2001, growing at 3.6% per year, the same as the national average;
- Patents per 10,000 workers in South Carolina were 3.6 in 2001 versus 7.7 for the United States; and
- Venture capital funding in South Carolina, at \$3 per worker in 2002, was below the national average of \$155 per worker.

² An establishment is an economic unit—business or industrial—at a single geographic location, where business is conducted or where services or industrial operations are performed.

Exhibit 4: Economic Performance and Innovation Output Metrics

Economic Performance

- **Employment**
South Carolina's employment grew 1.3% annually from 1990 to 2002, below the U.S. average of 1.5%
- **Unemployment**
South Carolina's unemployment rate of 7.1% in October 2003 was higher than the national average of 6.0%
- **Average Wages**
The state's average wages of \$28,634 in 2001 were 80.5% of the national average of \$35,550
- **Wage Growth**
Growth of average wages in South Carolina was 3.6% from 1990 to 2001, below the U.S. rate of 3.9%
- **Manufacturing Export Dollars**
Manufacturing exports per worker were 16% lower than the U.S. average in 2001, but grew 7.7% faster from 1997 to 2001
- **Gross State Product per Worker**
GSP per worker of \$63,181 in 2001 was 82.2 % of the U.S. average of \$76,898; annual growth of 3.6% from 1990 to 2001 in South Carolina was the same as for the United States.

Innovation Output

- **Patents per Employee**
South Carolina's 3.6 patents per 10,000 employees in 2001 was well below the national average of 7.7
- **Patent Growth**
Annual patent growth in South Carolina from spring 1990–2001 was 4.3%, below the 6.5% rate for the United States
- **Establishment Formation**
The growth rate for establishments was 2.1% from 1991 to 2000, higher than the U.S. average of 1.5%
- **Venture Capital Investments**
VC funding in South Carolina was \$3 per worker in 2002, below the national average of \$155 per worker
- **Small Business Innovation Research Award Dollars**
South Carolina's \$2.56 SBIR awards per worker in 2001 was below the U.S. average of \$8.50, however growth of 36.6% was far higher
- **Fast Growth Firms**
The state had 0.8% of the Inc 500 fast growing companies in 2002, vs. 1.4% of employment. These ratios were approximately the same in 1994

Note: Wage data is provided by NAICS codes, as compared to SIC codes, after 2001.

Source: Bureau of Labor Statistics; U.S. Bureau of Economic Analysis; Intern'l Trade Admin; U.S. Patent and Trademark Office; PricewaterhouseCooper Money Tree; American Chamber of Commerce Researchers Association; Massachusetts Division of U.S. Employment & Training; Development Report Card for the States; Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School; Monitor Analysis

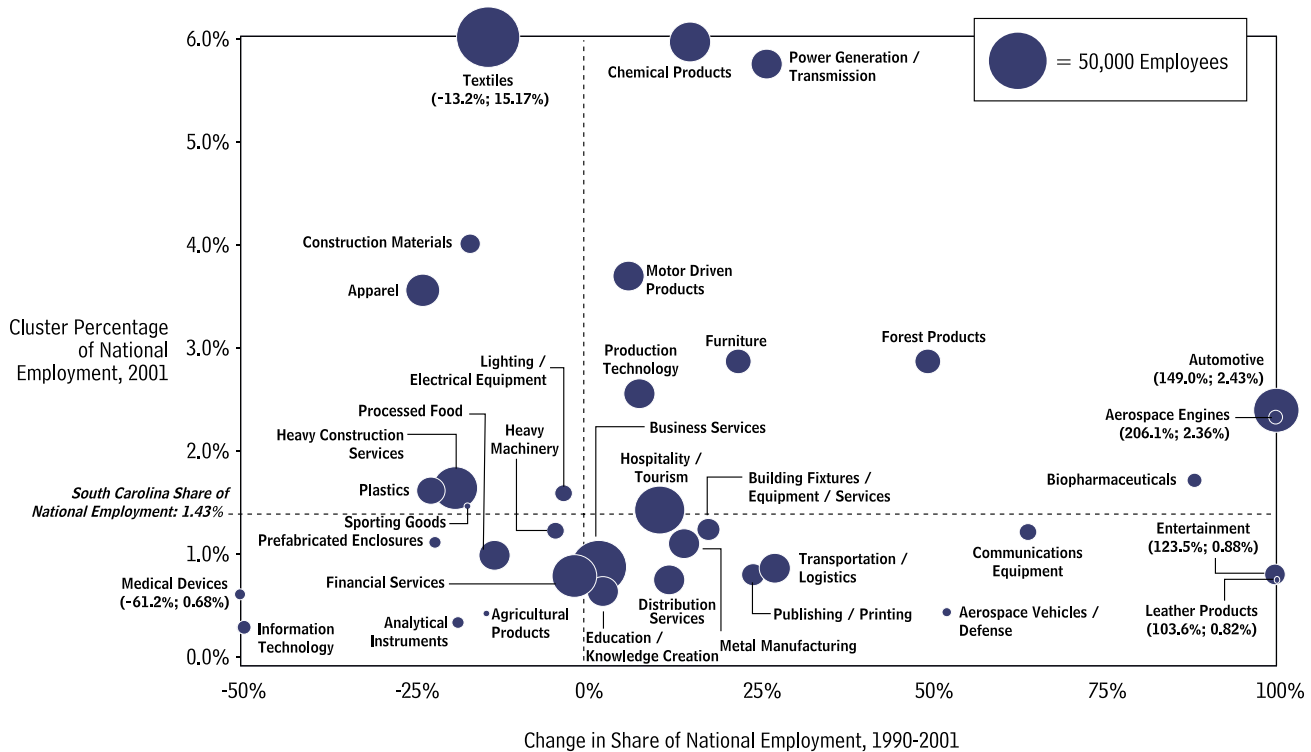
Job creation and capital investments are reasonable economic development targets, particularly in times of high unemployment. But in the long run, prosperity comes from boosting the dollar value created annually per worker. It is only by creating more value that people can be paid higher wages. Moreover, with the emergence of so many low-cost production centers around the globe, companies will locate operations and create new jobs in a higher-cost region such as South Carolina only if workers in that region are capable of creating substantially more value than their low-wage counterparts located abroad. Today, the appropriate economic objectives of advanced economies such as South Carolina's are productivity, value creation, and innovation. It is only by achieving these objectives that jobs and prosperity are created.

Economic Composition of South Carolina's Economy

To gain a better understanding of why South Carolina's economic performance lagged that of the United States, the state's economic composition was assessed. Economies can be divided into two major categories: traded and local clusters.³ Traded clusters produce goods and services that are sold outside the region (e.g., textiles, information technology, financial services, etc.). Local clusters sell goods and services primarily to the local population (e.g., retail and health care). This analysis focuses on traded clusters because they are more innovative and productive than local clusters, and because wage growth in traded clusters drives wage growth in local clusters.

³A third category, Natural Resource Industries, exists in most economies, and is based around the natural endowments of the region (e.g., coal, oil, timber, etc). Employment in this category is relatively small in the United States and South Carolina, approximately 1% of both economies.

Exhibit 5: South Carolina's Economic Portfolio



Note: Traded clusters with less than 1,000 employees in South Carolina are not displayed. These clusters are Fishing and Fishing Products; Footwear; Oil & Gas Products – Services; and Tobacco. Clusters located out of scale have been placed on the border with coordinates labeled (% change in national cluster employment share; % of national cluster employment).

Source: Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School

The Institute for Strategy and Competitiveness at Harvard Business School has identified 41 distinct traded clusters existing in the U.S. economy. Examples of these clusters include aerospace engines, biopharmaceuticals, distribution services, and metal manufacturing. Any state will have some employment in nearly all 41 clusters, but it will have a relatively strong position—or critical mass, the hallmark of a full-blown cluster—in only a few.

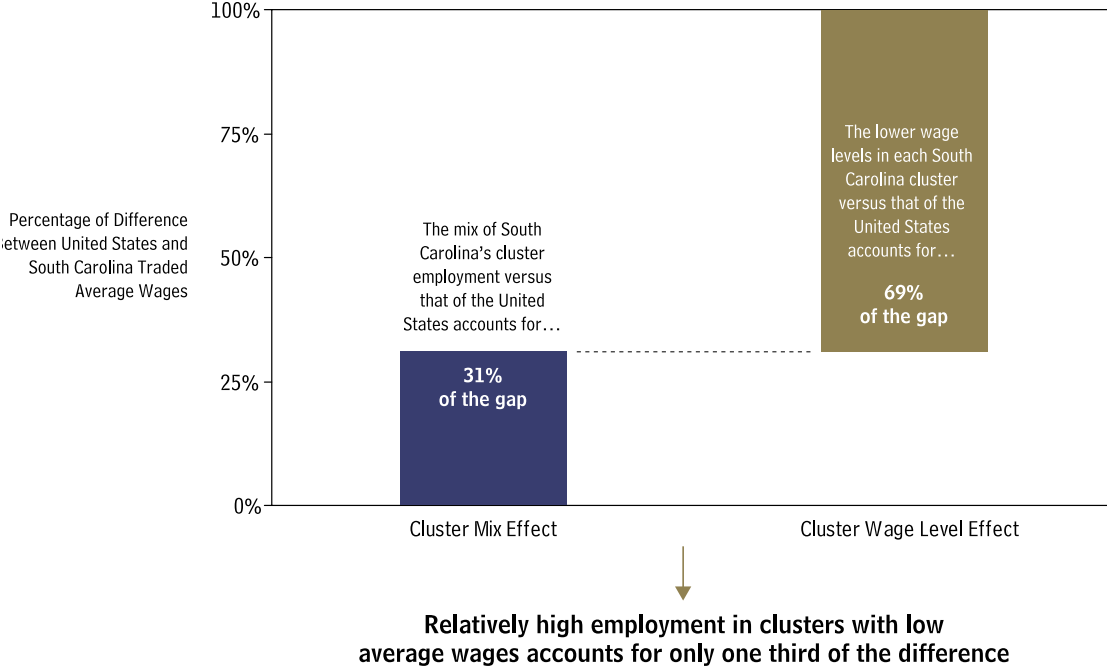
As illustrated in Exhibit 5, South Carolina has a healthy portfolio of relatively large and growing clusters. Each bubble in the chart represents one of the 41 types of clusters. Clusters above the horizontal line are larger than would be expected for a state the size of South Carolina. Clusters to the right of the vertical line are growing faster than the US average. The upper right quadrant contains the clusters with a relatively strong competitive position. The average state in the nation has about eight clusters in the upper-right quadrant. South Carolina has 10, indicating that the state has a disproportionate employment share and disproportionate employment growth in these 10 clusters.

Factors Influencing South Carolina's Relatively Low Wage

A region's economic composition can affect its economic performance, and in particular its wage levels, in several ways. One common explanation for why a region's wages lag those of others is that its particular mix of clusters pulls wages down. For example, observers suggest that South Carolina's average wages lags the U.S. average because the state has disproportionately large employment in several low-wage clusters, such as textiles, apparel, and tourism.

Indeed, analysis shows that 31% of the gap between South Carolina’s average wage and the national average is accounted for by the mix of clusters (see Exhibit 6). On the one hand, South Carolina has disproportionately large employment in textiles and apparel, two low-wage clusters. On the other, South Carolina has disproportionately small employment in business services and financial services, two high-wage clusters.

Exhibit 6: Impact of Cluster Employment Composition on Average Wages

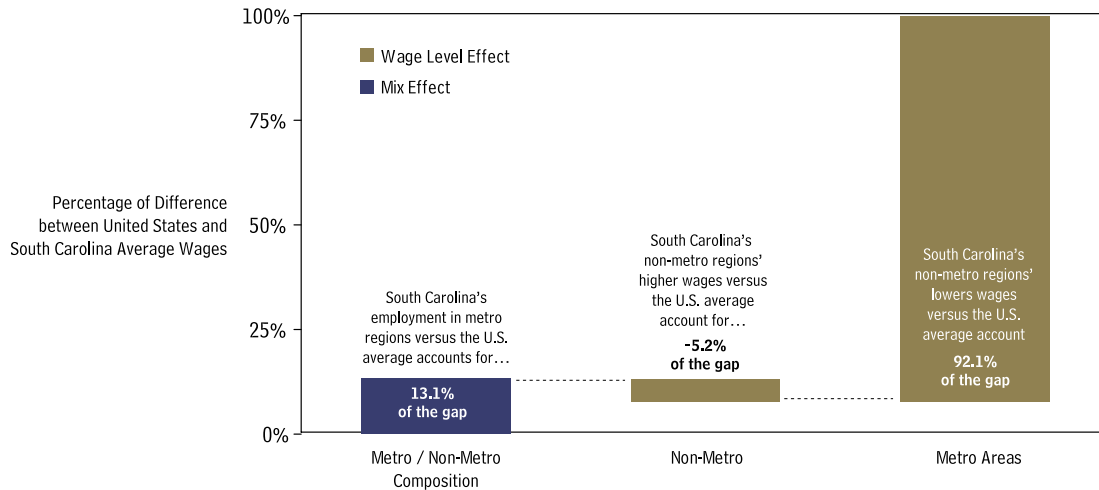


Note: Assumes average wages of reported employment are representative of average wages for all employment in a cluster.
 Source: Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School; Monitor Analysis

Nevertheless, the analysis shows that the remaining 69% of the gap between South Carolina’s and the U.S. average wages was accounted for by the lower wages across all clusters. In other words, a few poor-performing clusters do not explain the state’s economic performance. Virtually every cluster in South Carolina pays lower wages than the national average for that cluster.

Another common explanation for low wages is the urban-rural mix. Rural areas tend to have lower average wages than urban areas, not the least because of the lower cost of living. Many observers point out that because South Carolina has a much larger percentage of its employment in rural areas, the state’s overall average wages would necessarily lag those of the United States. While it is true that South Carolina has a larger share of employment in rural regions than the nation (25% in South Carolina, 18% in the United States), and it is true that average wages in rural South Carolina are lower than in urban South Carolina, analysis of data from the U.S. Department of Agriculture indicated that wages in rural South Carolina were *higher* than for rural America as a whole in 2000 (see Exhibit 7). Overall, the urban-rural mix of employment in South Carolina accounts for only 13% of the gap between South Carolina’s average wage and the national average; the remainder of the gap owing to lower wages in metro areas.

Exhibit 7: Employment and Wage Composition in South Carolina and the United States



Lower wages in South Carolina metros account for most of the difference between average wages in the U.S. and South Carolina

A third frequently cited explanation for low wages is a region's demographic breakdown. Minorities in the United States tend to have substantially lower per capita income than the national average. Many argue that because South Carolina has a relatively large African-American population—29.5% of the state's population versus only 12.2% of the national population in 1999—the state will necessarily have a lower average wage. In fact, because South Carolina has relatively small Hispanic and other minority populations, the state's total minority population is only slightly larger than the national average (see Exhibit 8). The analysis indicates that the slightly larger minority population in South Carolina accounts for only 10.2% of the gap between South Carolina's per capita income and the national average; the remaining 89.8% can be attributed to the lower per capita income across all demographic groups.

Exhibit 8: Population and Per Capita Income in South Carolina and the United States, 1999

| | White | African-American | Other |
|-----------------------|--|--|--|
| South Carolina | Percentage of Population: 66.2% Per Capita Income: \$22,223 | Percentage of Population: 29.5% Per Capita Income: \$11,776 | Percentage of Population: 4.4% Per Capita Income: \$14,222 |
| United States | Percentage of Population: 69.1% Per Capita Income: \$24,819 | Percentage of Population: 12.2% Per Capita Income: \$14,437 | Percentage of Population: 18.7% Per Capita Income: \$14,295 |

Only 10.2% of the gap between United States and South Carolina per capita income is explained by the state's larger percentage of minorities, 89.8% by lower per capita income across all groups

Note: Other includes Hispanics, American Indians / Native Americans, Pacific Islanders, Native Hawaiians and others. Data is 1999, most recent available.

According to these analyses, South Carolina’s relatively low average wages are not accounted for by the state’s mix of clusters, or by its larger rural population, or by its larger African-American population. Average wages in South Carolina lag the U.S. average regardless of how the data is disaggregated, be it by cluster, location, or demographic characteristics. What, then, accounts for the lower average wages in South Carolina?

Data indicate that wages are lower because, on average, workers in South Carolina create less value per year than workers across the United States. “Property-type income”—a component of gross state product—measures the amount of gross state product created by capital and relates to the rate of return on investments made in a region. Since businesses that produce more value will generate a higher rate of return, “property-type income” is a good proxy for value created in South Carolina relative to other states.

As Exhibit 9 shows, South Carolina lags the national average in property-type income per worker (additional analyses indicate it was also growing more slowly). Furthermore, the analysis demonstrates that the level of a state’s property-type income explains why a state’s average wages are high or low. This data indicates that South Carolina has lower average wages than the U.S. average because the state’s workers create less value than the average U.S. worker.

Exhibit 9: Value Created per Worker and Average Wages in the 50 United States, 2001



Source: U.S. Bureau of Labor Statistics; U.S. Bureau of Economic Analysis; Monitor Analysis

Assessment of the Business Environment of South Carolina

If prosperity is to rise in South Carolina, workers must create more value each year. Boosting businesses' ability to increase value-added requires upgrading the quality of the business environment in which they operate. To identify key strengths and challenges in South Carolina's overall business environment, the analysis drew on data from surveys, interviews, and secondary sources, organized using the "Diamond" framework (see Exhibit 10).

Exhibit 10: South Carolina's Business Environment

Advantages:

- Limited

Disadvantages:

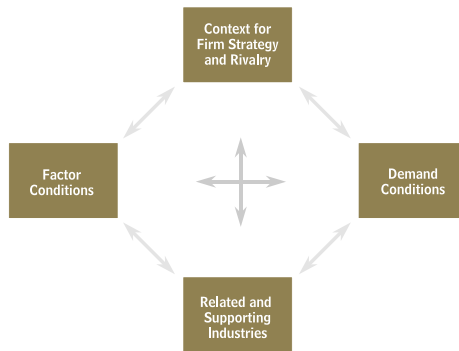
- Limited local competition
- Difficult environment for start-ups
- Few local headquarters or core operations

Advantages:

- Low cost of doing business: wages, taxes, rents, utilities
- Flexible, hard working labor force
- High quality of life along some dimensions
- Good transportation infrastructure: seaport and interstates
- Responsive, high quality technical colleges
- Proximity to assets in Georgia and North Carolina (e.g., capital, air and seaports, research)

Disadvantages:

- Relatively few advanced degree holders: notably scientists and engineers
- Limited supply of highly skilled workers: technicians, advanced metal workers
- Relatively weak K-12 and higher educational systems
- Lack of first-tier research universities
- Limited air access: few direct flights



Advantages:

- Pockets of sophisticated industrial demand
- Frequent feedback between end-user manufacturers and suppliers

Disadvantages:

- Consumer demand not as sophisticated or trend-setting

Advantages:

- Presence in numerous manufacturing oriented clusters creates opportunities for synergy

Disadvantages:

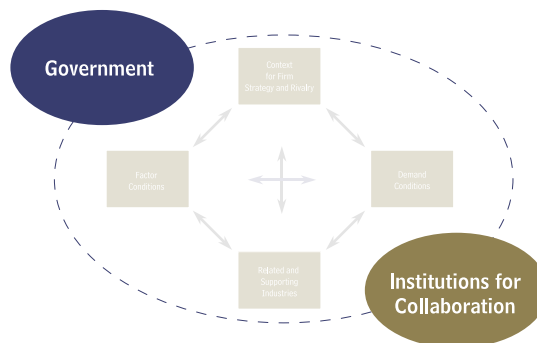
- Few high quality, specialized suppliers
- Limited interaction with local suppliers on product and process development
- Clusters do not act as clusters

Advantages:

- Historically responsive to needs of relocating companies, e.g., rapid set-up times, worker training packages, etc.

Disadvantages:

- Traditionally little attention to growing existing companies
- Traditionally little attention to start-ups
- Recruiting has traditionally not leveraged traditional clusters
- Regions within the state do not collaborate well



Advantages:

- Many effective organizations for marketing South Carolina and selling companies on the state

Disadvantages:

- Limited coordination between universities and companies
- Few cluster-specific institutions for collaboration
- Few organizations working to upgrade the quality of the business environment

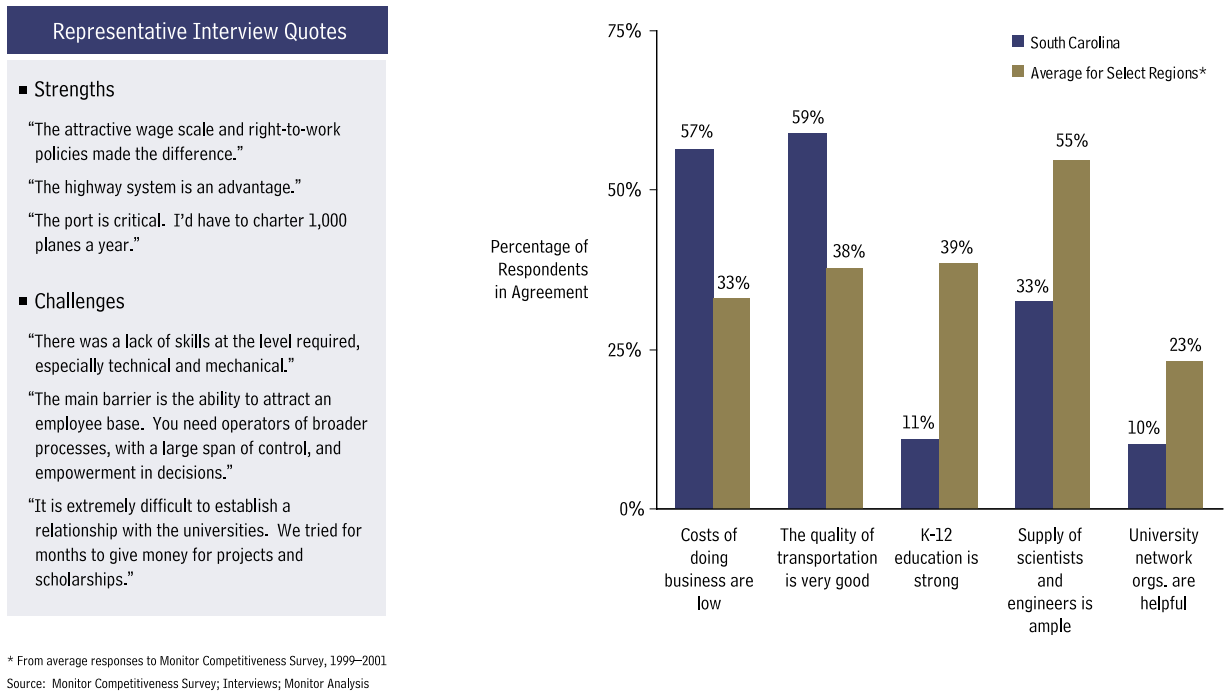
Source: Monitor Competitiveness Survey; Interviews; Monitor Analysis

Factor Inputs

South Carolina’s business environment reflects its traditional strategy of recruitment through low costs, good infrastructure, and responsive government. Relatively low taxes, rents, utilities, and wages provide an attractive cost structure as compared with other states (though not compared with many foreign locales). The seaport and highway system allow for easy transportation of goods and materials. The technical college system effectively tailors its offerings to the needs of business, and does a good job of training workers for the needs of local firms. Finally, the state government and local economic developers are actively involved in the recruitment and relocation of companies, and have achieved several major successes (e.g., BMW, Fuji, Roche, Michelin, Bridgestone / Firestone, etc.).

However, other aspects of the business environment reflect several challenges South Carolina currently faces. The state has not invested heavily in its educational system. As a consequence, the workforce’s skill set is limited, the state lacks a tier-one research university, and the K-12 system consistently ranks low in a variety of performance metrics (See Exhibit 11).

Exhibit 11: Factor Inputs, Strengths and Challenges in South Carolina



Demand Conditions

In terms of demand conditions, South Carolina companies have been typically attracted by low costs and government support, not by a desire to get closer to local customers. Thus, the nascent clusters in South Carolina have not developed around pockets of sophisticated demand. Companies normally do not benefit from local customers that could push them to upgrade their product offering. Firms generally are not in a position to learn from local customers that could provide insight into future market trends.

Context for Firm Strategy and Rivalry and Related and Supporting Industries

Government and economic development organizations have traditionally focused their efforts on recruiting large manufacturing operations to South Carolina, rather than on expanding or upgrading the assets and industries already in place in the state. These efforts have been fairly successful over the years, but they have not brought in many headquarters or core operations (e.g., marketing, research, and product development). This has had a number of consequences for the business environment:

- Companies that locate owing to the lower cost structure do not want competitors to enter the region and bid up wages, so local competition remains limited;
- Chief executives of branch operations are typically not from South Carolina, will be rotated out of the region after a few years, and so are less well networked into the broader cluster;
- The focus on bringing in large external operations has meant that small and medium-sized firms receive less attention and gain fewer benefits; and
- The network of related and supporting industries lacks specialized suppliers because they are not targeted along with the larger manufacturing establishments, and because many branch operations must rely on their companies' global purchasing departments.

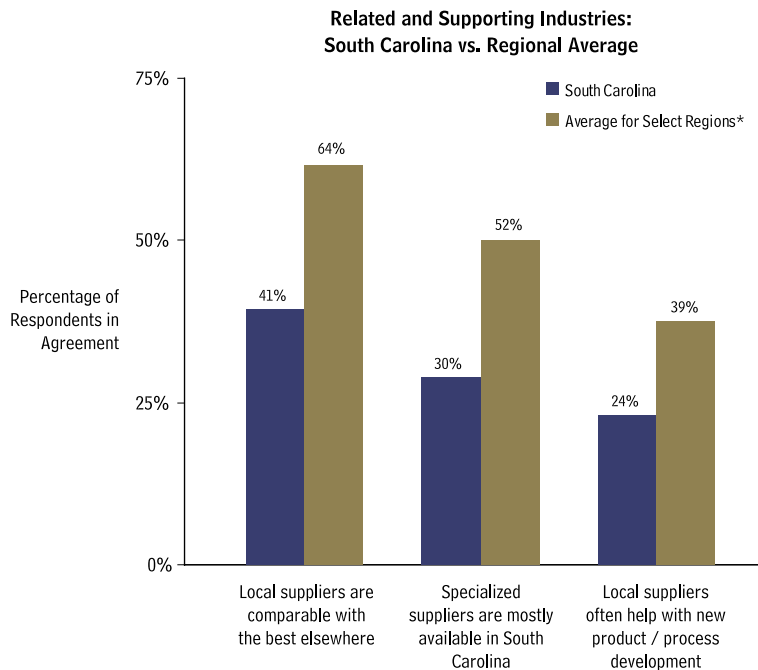
While South Carolina has a good number of relatively strong and growing clusters in terms of employment, many of these apparent clusters are little more than mere collections of companies and branch operations. They are not necessarily clusters in the true sense of the word. The energy, synergy, competition, and collaboration that are the hallmarks of robust and well-functioning clusters are frequently missing, even in some of the "clusters" with the largest employment (See Exhibit 12).

Exhibit 12: Related and Supporting Industries, Strengths and Challenges in South Carolina

Representative Interview Quotes

- "There is no cluster here."
- "There are no competitors in this area. Customers are handled by corporate [HQ]. Suppliers are in the eastern U.S. or global... maybe we buy some pellets in South Carolina. And services are OK."
- "There is a lack of machine shop capabilities. It's a huge entrepreneurial opportunity."
- "The supplier base was not a critical factor in our decision to locate operations."
- "All non-specialized, basic services come from the state. Parts and equipment are handled by corporate global purchasing."
- "Our suppliers are still here [but] probably they have just downsized too."

* From average responses to Monitor Competitiveness Survey, 1999-2001
 Source: Monitor Competitiveness Survey; Interviews; Monitor Analysis



Conclusion on the Business Environment

South Carolina's business environment reflects its traditional low-cost strategy. On the one hand, the state is strong in several basic factor inputs such as physical infrastructure; low-cost, flexible workforce; effective technical colleges, and responsive government. On the other, the state has not prioritized its educational system and research colleges as keys to economic success, and as a consequence is at a disadvantage vis-à-vis other regions in terms of the quality of K-12 education, advanced training programs, and university research. Moreover, because companies generally moved branch operations to South Carolina to take advantage of low-costs, the dynamics of clusters never truly developed. Clusters typically do not have: a number of competitors in the region; a local presence of sophisticated and demanding customers; a dense network of related and supporting industries; or specialized institutions for collaboration ready to support them.

In addition to an assessment of the state overall, detailed research and analysis focused on four clusters: automotive, chemical products, textiles, and tourism. These clusters were selected according to several criteria: competitive position of South Carolina's cluster vis-à-vis other regions around the country; number of employees; and geographic distribution across the state. The purpose of the cluster analyses was to gain a deeper understanding of the issues, challenges, and opportunities in South Carolina, and to support several large clusters that have a significant economic impact on the state's economy. The choice of these clusters certainly did not reflect an effort to pick winners, or to identify clusters meriting disproportionate investment by South Carolina. On the contrary, the hope is that these cluster analyses will serve as models to help activate other clusters in the state.

SOUTH CAROLINA'S AUTOMOTIVE CLUSTER

South Carolina's automotive cluster was the thirteenth largest in the nation in 2001, and growing faster than other states' large automotive clusters (see Exhibit 13). Although automotive wages in South Carolina were below the national average, and well below the wages in states such as Michigan, Ohio, and Indiana, South Carolina automotive workers enjoyed some of the higher wages in the Southeast, and wage growth was strong. However, innovation levels, as indicated by patents per worker, remained low and growth in patents per worker was negative, exhibiting the worst performance among America's top auto clusters.

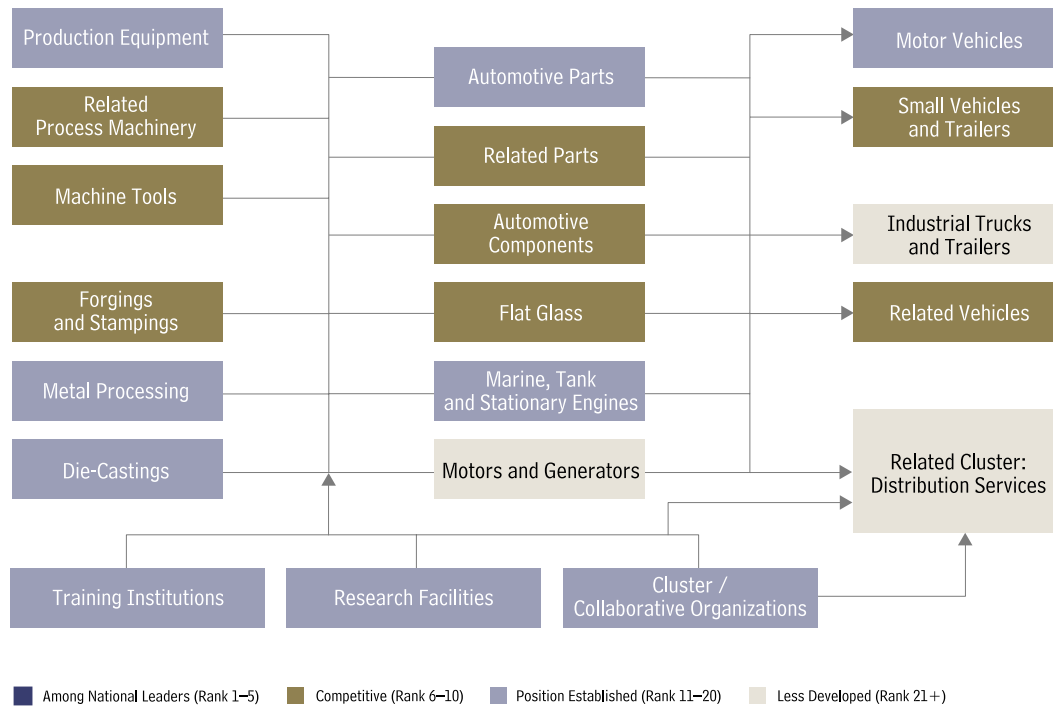
Exhibit 13: Economic Performance of South Carolina's Automotive Cluster

| State | 2001 Employment | 1990-2001 Employment Growth | 2001 Average Wage | 1990-2001 Average Wage Growth | 2001 Patents per Thousand Workers | 1990-2001 Patents per Worker Growth |
|---------------------------------------|-----------------|-----------------------------|-------------------|-------------------------------|-----------------------------------|-------------------------------------|
| Michigan | 268,348 | -1.27% | \$55,041 | 2.85% | 3.48 | 8.78% |
| Ohio | 173,105 | 5.12% | \$46,208 | 2.28% | 1.55 | 2.45% |
| Indiana | 122,903 | -0.58% | \$48,313 | 3.54% | 1.45 | 0.33% |
| California | 71,262 | 2.76% | \$35,757 | 3.11% | 8.45 | 3.06% |
| Tennessee | 64,654 | -0.47% | \$32,523 | 2.84% | 0.84 | -1.67% |
| Illinois | 52,602 | 1.35% | \$43,052 | 2.73% | 5.90 | 4.49% |
| Wisconsin | 49,167 | 3.91% | \$39,813 | 1.30% | 3.33 | 3.56% |
| Kentucky | 46,635 | -0.53% | \$34,598 | 0.44% | 0.61 | 0.46% |
| Missouri | 42,889 | -1.97% | \$31,144 | -2.49% | 1.22 | -1.05% |
| North Carolina | 36,663 | -2.29% | \$33,738 | 3.82% | 2.82 | 5.23% |
| New York | 34,933 | -1.86% | \$44,712 | 3.42% | 7.98 | 4.39% |
| Pennsylvania | 34,590 | 1.78% | \$38,112 | 2.01% | 5.05 | 2.85% |
| South Carolina | 30,922 | 12.69% | \$34,515 | 3.33% | 1.60 | -4.49% |
| Georgia | 27,662 | 0.55% | \$33,061 | 1.49% | 2.90 | 6.06% |
| Texas | 24,995 | -1.03% | \$31,816 | 3.38% | 8.74 | 2.04% |
| Alabama (ranked 19th) | 16,041 | 9.39% | \$38,763 | 1.61% | 1.67 | -1.66% |
| Percent of Top 15 States Outperformed | 14% | 100% | 36% | 71% | 36% | 0% |

Note: Narrow cluster definition.
 Source: Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School; Monitor Analysis

South Carolina has not specialized in any particular part of the automotive value-chain, but rather has a decent position across many sub-clusters (See Exhibit 14). Three of the major original equipment manufacturers (OEMs) in South Carolina are all in different lines of business—BMW in passenger cars, Honda in all-terrain vehicles, and American LaFrance in fire engines—and do not compete head-to-head. Moreover, each OEM draws on a somewhat different set of suppliers. Although growth in automotive businesses in South Carolina had been strong over the previous 10 years, the cluster is still in its early stages of formation, and many benefits of clustering have yet to strongly manifest themselves. The key task for the cluster is to develop critical mass.

Exhibit 14: Diagram of South Carolina’s Automotive Sub-Clusters



Note: Broad cluster definition; data is 2001, the most recent available.
 Source: Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School

This presents a difficult challenge. Although the American Southeast has become the locus of new investments in auto plants over the last 15 years, competition among southern states for these investments is fierce. In many respects, South Carolina’s neighbors have business environments that mirror the environment in South Carolina (see Exhibit 15): a good transportation infrastructure; a low-cost and flexible workforce; competitive incentives; and a strong technical college system.

While the tech colleges are good at training workers for the specific needs of a company, auto executives still report that the overall skill set in the workforce is limited. Hundreds of applications for a position typically yield a couple dozen qualified workers. Furthermore, South Carolina does not have the central U.S. location, the supplier base, or the presence of head-to-head competitors that states like the “auto-hubs” Alabama and Tennessee have.

Exhibit 15: Business Environment of South Carolina Automotive Cluster

Advantages:

Disadvantages:

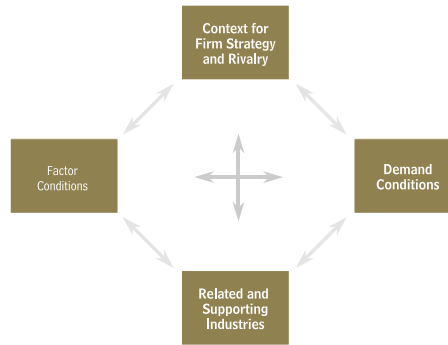
- Only one major light vehicle assembly plant in region
- Few incentives for investment in R&D

Advantages:

- Low cost of doing business: wages, taxes, rents, utilities
- Right-to-work labor environment
- High quality of life along some dimensions
- Good transportation infrastructure: seaport, highways, railways
- Responsive, high-quality tech colleges
- Developing R&D at ICAR facility
- Unique fuel-cell technology opportunities
 - Savannah River Site
 - Research strength at the University of South Carolina

Disadvantages:

- Lack of central U.S. location
- Relatively few advanced degree holders
- Limited supply of skilled workers
- Relatively weak K-12 and advanced educational systems



Advantages:

- NASCAR demand in North Carolina
- Sophisticated (albeit few) end-user manufacturers
- Frequent feedback between end-user manufacturers and suppliers

Disadvantages:

- Lack of consumer buyers with sophisticated needs and trendsetting requirements

Advantages:

- Strong presence of suppliers in related clusters: textiles, plastics, chemicals

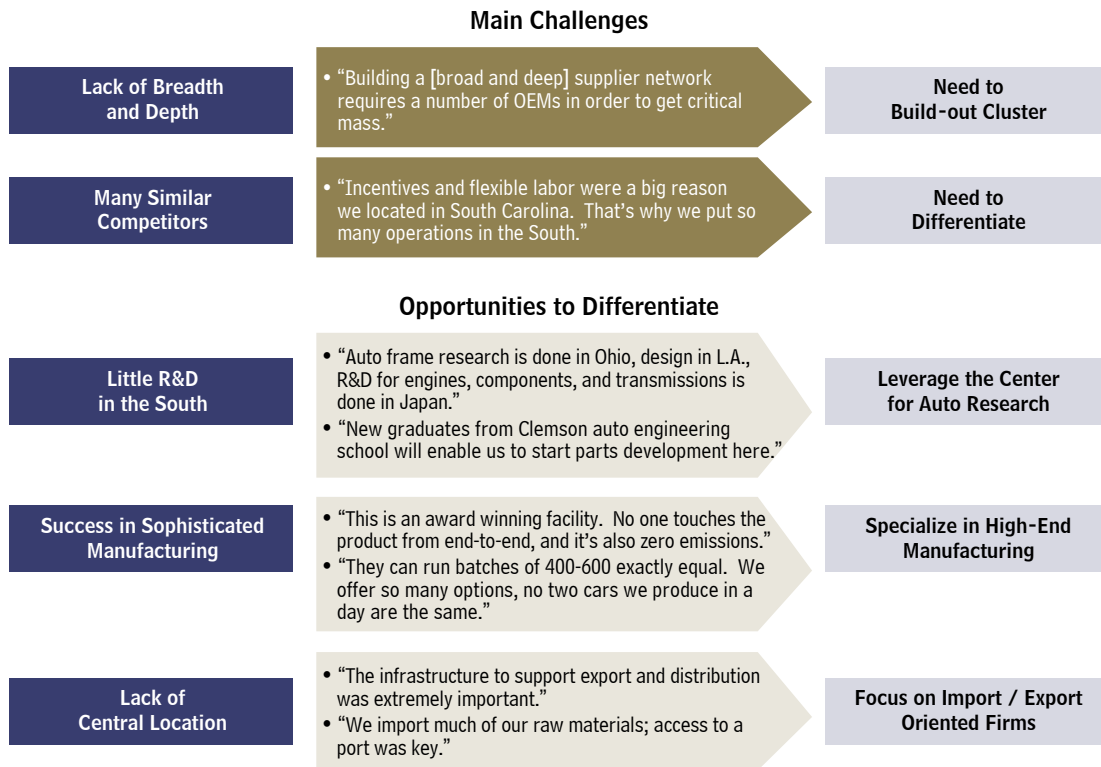
Disadvantages:

- Few high-quality, specialized suppliers
- Limited interaction with local suppliers on product and process development

Source: Monitor Competitiveness Survey; Monitor Interviews; Monitor Analysis

In order to benefit disproportionately from the growth of automotive manufacturing (and related industries) in the Southeast, South Carolina must differentiate itself from other locales (see Exhibit 16). Fortunately, the state is already doing so with the creation of the International Center for Automotive Research (ICAR) at Clemson University. South Carolina must build on these efforts by recruiting relevant firms into ICAR, supporting it financially, and integrating other pertinent research assets—e.g., fuel cell research at USC and the Savannah River Site—into the cluster. The state should also build on its track record of enabling auto firms to succeed in highly sophisticated manufacturing operations by supporting and providing incentives for upgrades. Finally, the cluster can offset its lack of central location by leveraging its access to two high-capacity seaports, and positioning itself as a premier location for import / export-dependent firms (e.g., BMW, which exports a significant portion of its production).

Exhibit 16: New Directions for South Carolina's Automotive Cluster



SOUTH CAROLINA'S CHEMICAL PRODUCTS CLUSTER

South Carolina's chemical products cluster was the fourth largest in the United States in 2001. Although South Carolina's chemicals cluster is shrinking in absolute terms, it has been shrinking more slowly than other states' clusters, particularly the major clusters in Texas, Ohio, and Tennessee. Average wages and wage growth in South Carolina were competitive relative to the other major clusters in 2001. Innovation levels remained very low, and while growth in patents per worker was strong, it was coming from a very low base (see Exhibit 17).

The South Carolina chemical products cluster is relatively weak across most sub-clusters (see Exhibit 18). Its principal strength is in "intermediate chemicals and gases." This sub-cluster accounts for 64% of the employment in the cluster, as well as a disproportionate share of the cluster's growth. The "intermediate chemicals and gases" sub-cluster is very strong because it contains the Savannah River Site (SRS), which employs over 12,000 people. Without the employment in that facility, South Carolina's chemical products cluster would fall to around half of its listed employment, and would rank as the fourteenth largest in the country.

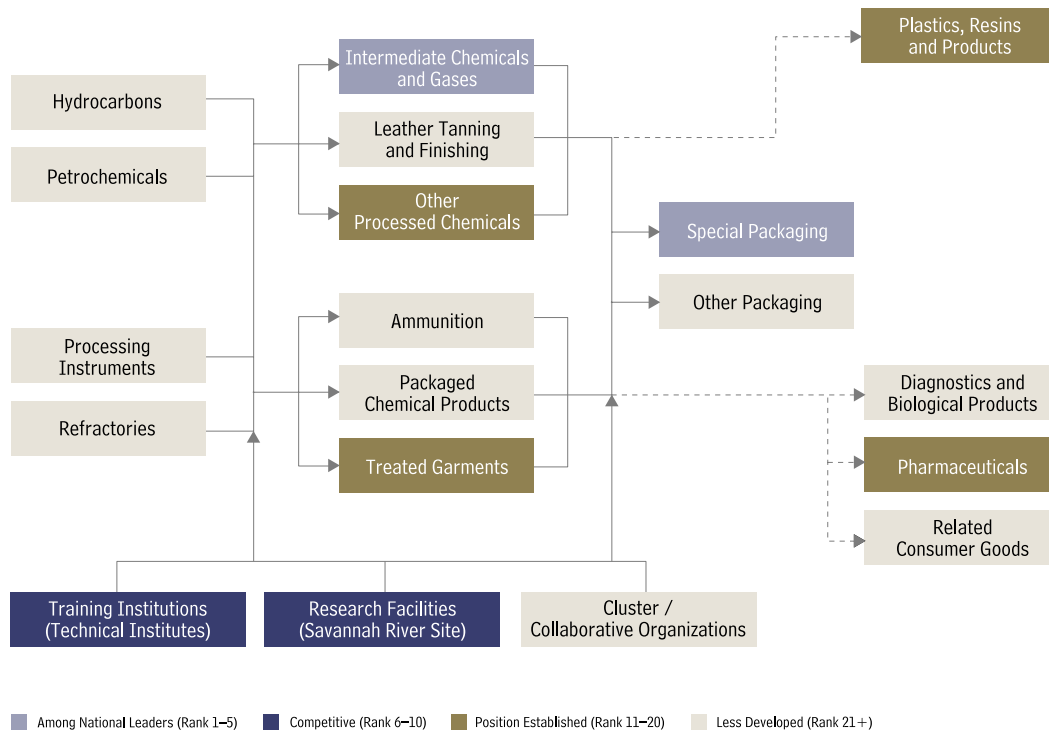
Exhibit 17: Economic Performance of South Carolina's Chemical Products Cluster

| State | 2001 Employment | 1990-2001 Employment Growth | 2001 Average Wage | 1990-2001 Average Wage Growth | 2001 Patents per Worker | 1990-2001 Patents per Worker Growth |
|---------------------------------------|-----------------|-----------------------------|-------------------|-------------------------------|-------------------------|-------------------------------------|
| Texas | 44,729 | -1.52% | \$59,116 | 3.38% | 6.16 | 4.29% |
| Ohio | 32,874 | -2.27% | \$47,873 | 3.08% | 7.08 | 5.51% |
| Tennessee | 29,479 | -0.99% | \$52,256 | 8.30% | 1.80 | 3.39% |
| South Carolina | 25,050 | -0.61% | \$46,756 | 3.60% | 1.22 | 6.23% |
| Illinois | 23,287 | -1.29% | \$52,019 | 4.54% | 7.12 | 1.27% |
| California | 20,963 | -2.97% | \$43,723 | 3.04% | 28.77 | 10.66% |
| Pennsylvania | 20,121 | -1.58% | \$44,061 | 3.66% | 14.18 | 2.82% |
| Louisiana | 19,709 | -1.42% | \$65,564 | 3.92% | 2.75 | -1.30% |
| New Jersey | 17,871 | -4.05% | \$53,773 | 3.33% | 18.04 | 2.68% |
| Michigan | 16,883 | -1.95% | \$51,567 | 3.49% | 8.33 | 1.52% |
| New York | 15,755 | -3.11% | \$40,745 | 2.43% | 19.33 | 4.26% |
| Georgia | 15,652 | -0.20% | \$42,378 | 3.00% | 3.69 | 5.09% |
| North Carolina | 13,583 | 0.73% | \$42,900 | 3.42% | 6.98 | 7.70% |
| Missouri | 13,506 | -1.49% | \$44,382 | 2.71% | 4.20 | 2.95% |
| Wisconsin | 10,588 | -0.22% | \$50,357 | 3.82% | 6.46 | 8.04% |
| Percent of Top 15 States Outperformed | 79% | 79% | 43% | 64% | 0% | 79% |

Note: Narrow cluster definition.

Source: Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School; Monitor Analysis

Exhibit 18: Diagram of South Carolina’s Chemical Products Sub-Clusters



Note: Broad cluster definition; data is 2001, the most recent available.
 Source: Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School

While the Savannah River Site is a crucial asset for the chemical products cluster and for South Carolina (see Exhibit 19), the fact that it accounts for half of the state’s chemical workers raises questions about how well developed this cluster truly is. SRS is a government facility that was located in South Carolina due to a political decision, not economic considerations. Those 12,000 workers are not there because numerous private-sector firms chose to locate and expand operations in South Carolina; indeed, as one executive put it, “There is no cluster here.”

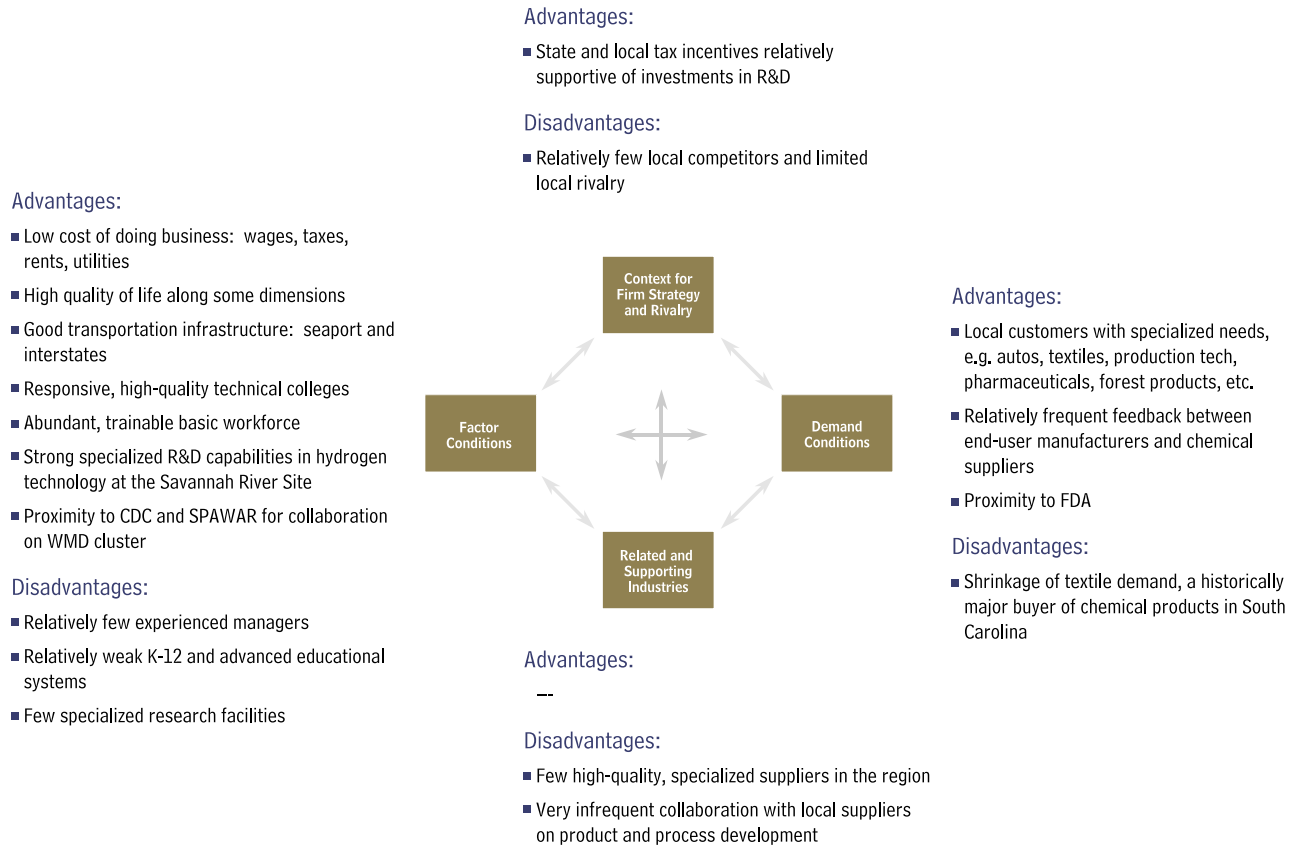
Exhibit 19: The Savannah River Site

Savannah River National Lab

- SRS accounts for **almost half the cluster's employment**, with over 12,000 employees
 - Average salary at SRS is **\$60,000** per year
 - 45% of the workforce has a college degree, with 400–500 holding a Ph.D.
 - Current annual economic impact estimated at \$2.5 billion
 - Projected **impact of being designated a National Lab is \$5 billion**
- As the only site in the country able to process and store plutonium, SRS has developed significant **capabilities related to hydrogen and nuclear materials**
- SRS has the potential to act as an anchor in the cluster
 - Hydrogen handling and storage technologies enable South Carolina to obtain a share (\$10 billion est.) of the estimated \$1 trillion U.S. **fuel-cell energy business in 2020**
 - Nuclear forensics and **counter-terrorism** research in support of **Homeland Security**
 - Next generation of nuclear reactors, along with other partners
 - **Medical radioisotope research**
- Opportunity to **partner with the auto cluster and USC's** fuel cell researchers to develop fuel cell powered automobiles

To build a robust chemicals cluster, South Carolina should create a business environment that attracts talent, enables the recruitment of chemical operations, encourages the expansion of existing facilities, and supports the emergence of start-ups. Several advantages are already in place (see Exhibit 20), including: access to a highly trainable workforce (owing to the much higher average wages at chemical companies); a strong technical college system; specialized research at the Savannah River Site; the presence of a broad variety of chemical buyers in the state; and frequent interaction with local customers. Key challenges that the cluster must address include: relatively few experienced managers; an image of the state that renders recruiting top talent more difficult; a significant decline of the textiles cluster (the principal customer of chemicals in the region); and low levels of collaboration and local activity outside the Savannah River Site.

Exhibit 20: Business Environment of South Carolina's Chemical Products Cluster



Source: Monitor Competitiveness Survey; Monitor Interviews; Monitor Analysis

Several niche opportunities exist within the chemical products cluster in South Carolina (see Exhibit 21). The Savannah River Site boasts vast experience in building and dismantling hydrogen bombs, and has developed specialized expertise in handling hydrogen. The University of South Carolina also enjoys specialized research strengths in hydrogen fuel cells. Both institutions seek to commercialize their innovations in fuel cell technology, and these efforts merit broader support.

The Savannah River Site remains central to another niche opportunity, which is developing a cluster of companies specializing in responding to weapons of mass destruction. Weapons of mass destruction are those involving nuclear, biological, or chemical components, and the region has unique capabilities to respond to each:

- The Savannah River Site is the only facility in the country that disposes of radioactive waste, and has been charged with cleaning up a number of nuclear sites;
- The Center for Disease Control, located in Atlanta, is the country's preeminent institution for addressing biological epidemics, and would be central to any response to biological weapons attacks;
- A number of chemical companies in the area demonstrate experience in handling hazardous chemicals; and
- The Space and Naval Warfare Systems Command (SPAWAR), located in Charleston, has considerable experience in contracting with the armed services, and benefits from a well-developed network of contacts in the military.

A third niche opportunity is in biopharmaceutical manufacturing. Already existing in the state are a number of pharmaceutical manufacturing operations, including GlaxoSmithKlein and several facilities producing nutritionals. Roche’s facility in Florence is state-of-the-art, manufacturing active ingredients for global distribution. Its success proves that highly sophisticated operations can work in South Carolina.

The principal centers of biopharmaceutical innovation in the United States are high-cost locations like Boston, New Jersey, San Diego, and Silicon Valley. The California locations, moreover, face unreliable energy provision and a state-level equivalent to the Food and Drug Administration (FDA). Finally, because labor represents only a small percentage of total costs, and because FDA approval of manufacturing facilities is necessary for sales in the United States (the largest market in the world), companies are reluctant to locate manufacturing operations in more distant low-cost places like China or Mexico. Biopharmaceutical companies in California, Massachusetts, and New Jersey are looking for the best place to manufacture their innovative products, and a place like South Carolina should be quite attractive to them.

Exhibit 21: New Directions for South Carolina’s Chemical Products Cluster



Beyond these niche areas, a general opportunity exists to develop the chemical products cluster to supply the relatively numerous chemical products customers in South Carolina and nearby states. Many of the strong clusters in South Carolina require chemicals for some aspect of their production, and many of the businesses in these clusters have very specific needs. South Carolina’s relatively central location on the East Coast, its strong infrastructure, and core strengths in chemical products should help the cluster to develop and continue to add value to its output. For customers that are not as geographically close to South Carolina, the port of Charleston and the ease of transport of chemical inputs through the port and over land are strong assets to capitalize on.

SOUTH CAROLINA'S TEXTILES CLUSTER

South Carolina has the third-largest textiles cluster in the United States in 2001, just behind Georgia and North Carolina (see Exhibit 22). Like almost every other state in the US, South Carolina rapidly lost textiles jobs in the period of 1990 to 2001, and continues to lose jobs to this day. Relative to other states with large textiles clusters, South Carolina's average wages are comparable, though wage growth remains low. Patents per worker are very low as well, although now growing rapidly.

Exhibit 22: Economic Performance of South Carolina's Textiles Cluster

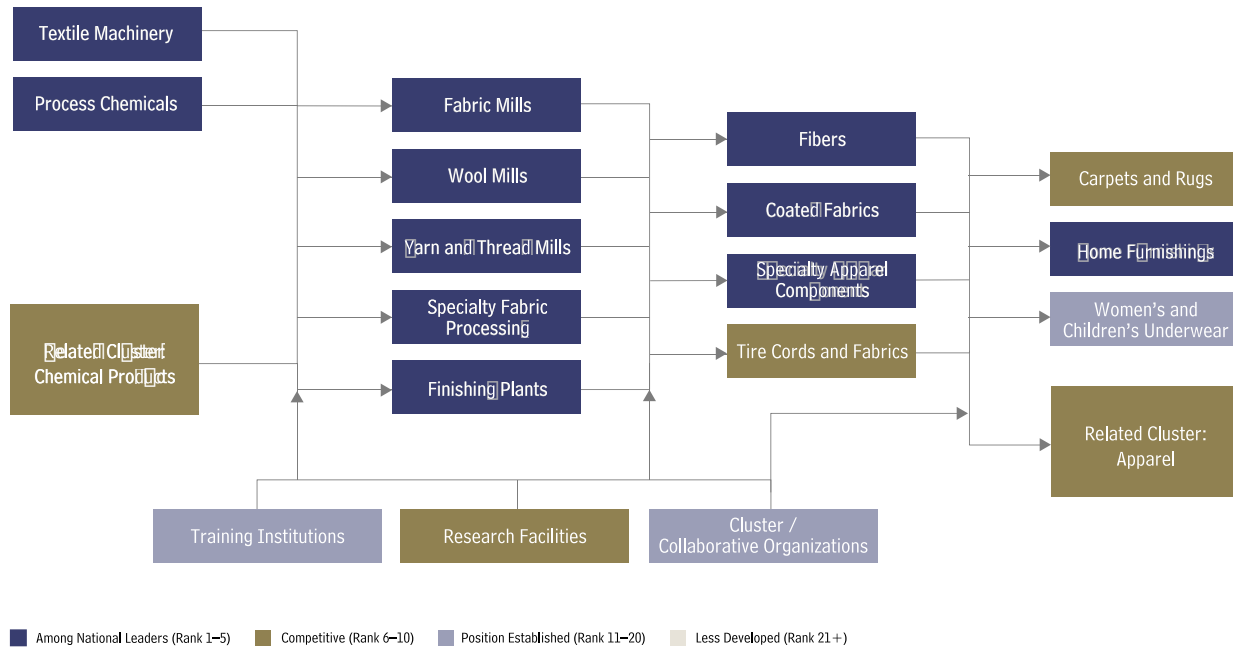
| State | 2001 Employment | 1990–2001 Employment Growth | 2001 Average Wage | 1990–2001 Average Wage Growth | 2001 Patents per Worker | 1990–2001 Patents per Worker Growth |
|---------------------------------------|-----------------|-----------------------------|-------------------|-------------------------------|-------------------------|-------------------------------------|
| Georgia | 76,710 | -2.15% | \$26,400 | 3.06% | 0.26 | 9.56% |
| North Carolina | 73,367 | -5.48% | \$25,816 | 3.02% | 0.40 | 10.45% |
| South Carolina | 56,316 | -4.97% | \$26,711 | 2.63% | 0.29 | 7.50% |
| Virginia | 26,245 | -4.64% | \$25,137 | 2.98% | 0.37 | 3.83% |
| Alabama | 25,010 | -2.92% | \$26,520 | 3.59% | 0.12 | 2.47% |
| California | 16,578 | 1.64% | \$24,708 | 1.54% | 4.01 | 2.80% |
| Pennsylvania | 12,366 | -4.67% | \$29,537 | 4.58% | 1.88 | 4.65% |
| Tennessee | 11,357 | -6.09% | \$30,671 | 4.43% | 1.09 | 13.78% |
| Massachusetts | 9,331 | -3.48% | \$34,868 | 3.42% | 1.99 | 7.06% |
| New York | 8,491 | -2.42% | \$36,568 | 4.72% | 4.77 | 5.36% |
| Texas | 5,890 | -2.88% | \$23,141 | 2.19% | 4.30 | 4.64% |
| Florida | 5,172 | -0.52% | \$21,665 | 3.85% | 2.87 | 3.48% |
| New Jersey | 4,617 | -6.43% | \$31,627 | 1.74% | 4.60 | 6.23% |
| Connecticut | 3,831 | -3.37% | \$31,758 | 6.89% | 2.94 | 3.65% |
| Rhode Island | 3,507 | -6.03% | \$26,820 | 2.89% | 0.76 | 10.54% |
| Percent of Top 15 States Outperformed | 86% | 29% | 50% | 21% | 14% | 71% |

Note: Narrow cluster definition.

Source: Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School; Monitor Analysis

In nearly all of the textiles cluster's sub-clusters, South Carolina was one of the national leaders in 2001 (see Exhibit 23).

Exhibit 23: Diagram of South Carolina's Textiles Sub-Clusters

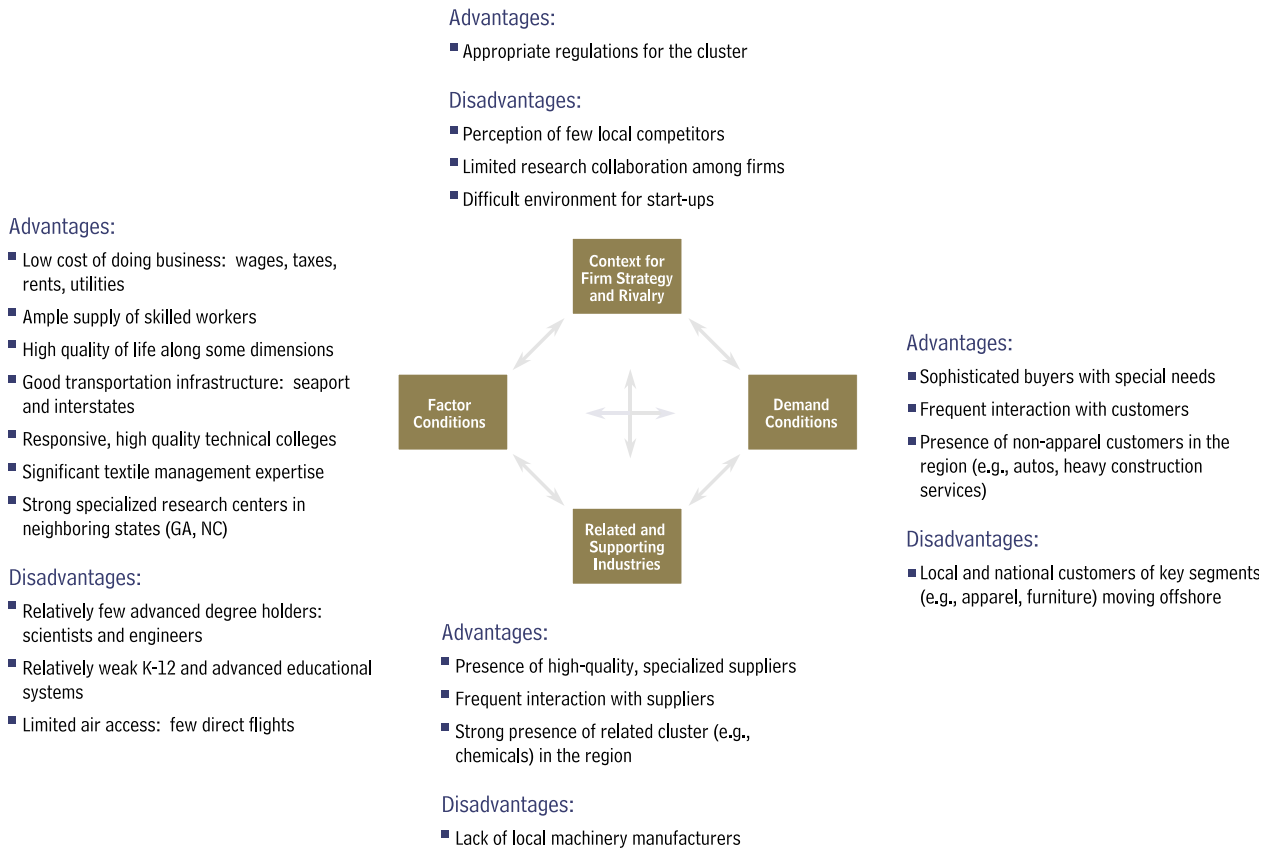


Note: Broad cluster definition; data is 2001, the most recent available.
Source: Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School

Despite holding a strong position in almost every sub-cluster, South Carolina's textiles cluster still suffers massive job losses because of strong competition from foreign manufacturers. An important factor in the decline of textiles has been the demise of the cluster's principal end-user, the U.S.-based apparel industry, which has also gone overseas. Recently, the rate of loss has accelerated: the number of textiles jobs South Carolina shed in the short time frame from January 2002 to August 2003 (18,000 according to preliminary reports) represented nearly half of the textiles jobs lost in the prior decade (40,086 from 1990 to 2001) and almost a third of the 56,316 jobs existing in 2001. Some analysts predict textiles job losses will persist following January 2005, when China enters the World Trade Organization and all barriers to its imports are fully eliminated.

Some of the reasons that South Carolina's textiles cluster has been particularly hard hit by the job exodus are that, despite enjoying strong textiles employment, South Carolina's focus has remained low-cost textiles, not new specialized kinds of textiles. One consequence of this strategy has been a workforce lacking the skills to produce high value-added textiles products. Moreover, support in the cluster has concentrated mostly on existing business, making it difficult for new (and potentially innovative) firms to start up in the state (see Exhibit 24).

Exhibit 24: Business Environment for South Carolina’s Textiles Cluster



Nevertheless, niches still exist where U.S. textiles manufacturers could compete. The key lies in identifying particular segments in which a combination of factors presents higher barriers of entry to foreign competitors (see Exhibit 25). This, coupled with differentiated capabilities, innovation in products and processes, and healthy end-user demand, represent U.S. manufacturers’ best prospects of success. For example, Georgia has fared better than most other states with large textiles clusters, owing to its focus on producing textiles for carpets. Because carpets are bulky, more costly to transport than other textiles, and not often used to furnish homes in Asia, manufacturing has remained mostly in the United States. In comparison, states like North Carolina and South Carolina, with a breadth of textiles activities but few specialized niches, have been more drastically affected by foreign low-cost competitors.

Other examples of potentially attractive niches included: serving industries enjoying stable U.S. manufacturing operations (e.g., automotive and industrial products); customized or time-sensitive products; products requiring a fast turnaround over a broad range of SKUs; products using innovative fibers (e.g., odor repellent materials for sportswear) and/or requiring superior quality (e.g., health-care related fabrics); heavy products with low margins (e.g., carpets); and military-related textiles products.

Exhibit 25: New Directions for South Carolina’s Textiles Cluster

The Need for a Strategic Transition
“Commodity apparel is all gone — and that was 65% of what we did here.”

Stable U.S. Customers

Inputs for industries with stable U.S. manufacturing operations

- “There are lots of textiles going into autos and industrial products.”

Military-related textile products

- “[Dept. of Defense may] not acquire supplies consisting... of any of the following, that have not been grown or produced in the United States ... cotton and other natural fiber products, wool, woven silk, synthetic fabric, including all fibers and yarns that are for use in such fabrics.”

— Berry Amendment

New Products

Differentiated high-tech fibers aimed at specialty niches

- “America’s strength is in intellectual property. We can no longer manufacture [all] textiles, but we can manufacture ideas.”
- “It is estimated that about 20 percent of all applications for textiles have been developed.”
- “The future is in new innovative products, yet we are investing the same in research.”
- “Companies don’t get together to talk about research and products. They are in survival mode, hanging to what they believe may provide them a window of opportunity.”

Supply Chain Dynamics

Made-to-order products requiring fast turnaround

- “What will stay will be textiles for firms that want a quick response and that must be nearby.”
- “At a Bed Bath and Beyond, a manager can order one purple towel with a particular pattern and he wants it in 2–3 days. It hard to supply such specific requests from abroad.”

In order to help local textiles companies be more competitive, South Carolina should facilitate greater contact with stable U.S.-based textiles buyers (e.g., recruit sophisticated textile consumers to the state, host trade shows with stable textile buyers). The cluster also needs to support companies focused on developing new and innovative products (e.g., nurture textiles start-ups, foster university-industry linkages, invest in training programs to support more advanced textiles operations, introduce commercially relevant research at local universities, and recruit advanced textiles companies to the state). Finally, a vital element would be to increase the collaboration within the textiles cluster: for a large and developed cluster, internal communication has been relatively limited and focused primarily on trade-related lobbying, with less emphasis on taking advantage of potential synergies, cross-industry learning, and joint development of new market opportunities.

SOUTH CAROLINA’S TRAVEL AND TOURISM CLUSTER

South Carolina’s tourism cluster employed nearly 38,000 people in 2001, roughly what one would expect given a state the size of South Carolina. Relative to the large “tourism” states, South Carolina saw slightly above average employment growth, but below average wages, wage growth, and establishment growth (see Exhibit 26).

Exhibit 26: Economic Performance of South Carolina's Tourism Cluster

| State | 2001 Location Index* | 2001 Employment | 1990-2001 Employment Growth | 2001 Average Wage | 1990-2001 Average Wage Growth | 1990-2001 Establishments Growth |
|---------------------------------------|----------------------|-----------------|-----------------------------|-------------------|-------------------------------|---------------------------------|
| Nevada | 10.96 | 222,975 | 4.33% | \$26,029 | 3.47% | 1.81% |
| Hawaii | 4.59 | 44,966 | -1.15% | \$27,139 | 4.26% | 2.08% |
| Vermont | 2.11 | 12,205 | 3.24% | \$14,174 | 3.19% | 1.62% |
| Wyoming | 2.09 | 8,254 | 2.64% | \$15,725 | 4.60% | 3.54% |
| Florida | 1.93 | 275,252 | 2.78% | \$20,301 | 4.27% | 2.87% |
| Mississippi | 1.69 | 34,649 | 13.61% | \$19,648 | 7.08% | 4.23% |
| Montana | 1.68 | 11,251 | 3.65% | \$13,052 | 3.26% | 4.63% |
| District of Columbia | 1.57 | 14,712 | -1.35% | \$29,914 | 4.74% | 0.24% |
| Arizona | 1.46 | 63,026 | 2.75% | \$18,331 | 5.12% | 4.07% |
| Alaska | 1.46 | 6,933 | 2.04% | \$25,496 | 3.45% | 5.61% |
| Louisiana | 1.35 | 48,064 | 5.10% | \$18,569 | 3.75% | 4.34% |
| South Dakota | 1.35 | 9,306 | 4.28% | \$12,244 | 2.93% | 2.71% |
| New Mexico | 1.30 | 15,936 | 2.46% | \$15,080 | 4.84% | 3.39% |
| West Virginia | 1.19 | 14,624 | 2.15% | \$15,742 | 3.21% | 2.17% |
| Colorado | 1.18 | 51,886 | 2.98% | \$19,965 | 5.41% | 3.62% |
| South Carolina (Ranked 19th) | 1.07 | 37,815 | 3.22% | \$16,556 | 4.11% | 3.32% |
| Percent of Top 15 States Outperformed | 0% | 60% | 60% | 40% | 47% | 47% |

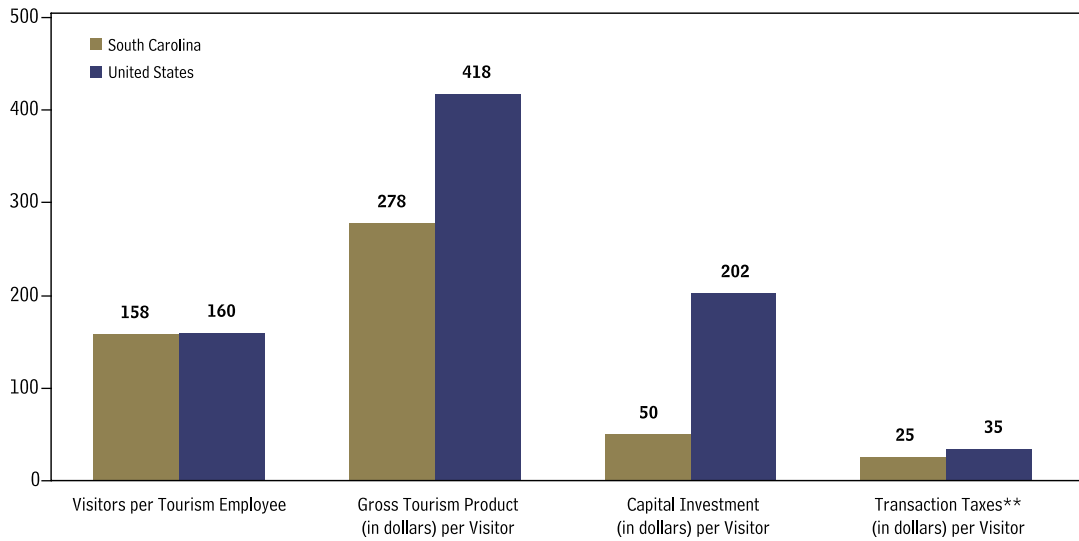
* "Location Index," also known as "Location Quotient," equals 1 when a state's share of cluster employment equals the state's share of total employment. A Location Index greater than 1 indicates that state has a disproportionate share of Tourism and Hospitality employment, relative to the state's total employment.

Note: Narrow cluster definition.

Source: Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School; Monitor Analysis

South Carolina enjoys the same number of visitors per tourism employee as the national average. However, the contribution to South Carolina's gross state product created per tourism visitor to the state ("Gross Tourism Product") is well below the national average. So too are capital expenditures per visitor and transaction taxes per visitor. For every tourist who comes to South Carolina, the state brings in less revenue and invests less capital than the United States on average (see Exhibit 27).

Exhibit 27: South Carolina Tourism and Hospitality Key Metrics

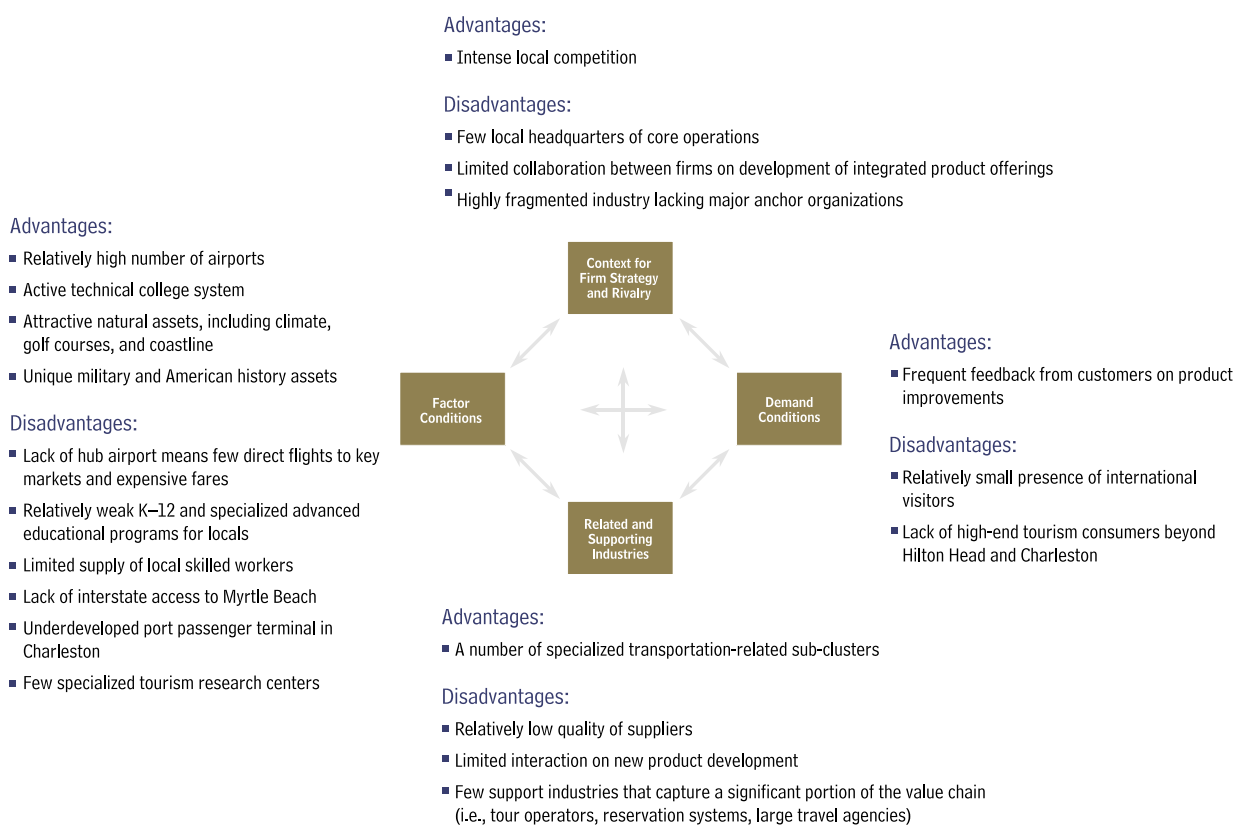


* Visitor Trips exclude 'pass through' visitors to make SC comparable to the U.S.
** Transaction Taxes using projected for SC 2001, actual U.S. 2002

The business environment for the tourism cluster of South Carolina has both strengths and challenges (see Exhibit 28). Among the state's strengths are its extensive and beautiful coastline, historical attractions such as Charleston, wealth of historical military sites, and numerous golf-related developments. The state's challenges include the fragmented nature of the cluster, the lack of a major in-state hub airport at or near the major tourism areas, and comparatively few high-end tourism consumers visiting the state outside the Charleston and Hilton Head areas. Together, these challenges have constrained the growth of what could be an even more prosperous tourism cluster.

Although collaboration between the public and private sector in the tourism cluster has recently improved, opportunities for additional coordination in tourism promotion exist. Similarly, a concerted, long-term joint effort among the public and private sectors will help to clarify the strategy and gain consensus on the specific use of tourism-related taxes existing at the state and local level.

Exhibit 28: Business Environment for South Carolina's Tourism Cluster



Source: Monitor Competitiveness Survey; Interviews; Monitor Analysis

An over-arching issue facing South Carolina's tourism cluster is the lack of an explicit, well-integrated strategy (see Exhibit 29). To date, relatively little market research has been undertaken to help identify the different kinds of tourists the state should target. Furthermore, without a good idea of whom to target, it will be difficult for cluster members to agree on what kind of destination South Carolina must create for these tourists.

The state and the cluster should make a concerted effort to identify market segments with high expenditures per tourist, and then create a differentiated destination that satisfies their specific needs. This strategy also should address how to develop certain kinds of tourism, such as shoulder-season tourism and “drive-through” tourism. Efforts to transform South Carolina into a premier state for tourism-related education and research through collaboration among industry, academia, and the post-secondary school system will also contribute significantly to the strategy, and enable the cluster to further develop by becoming an attractive location for tourism-related service companies. South Carolina's tourism cluster can also add significant value to the state as a gateway / first point of contact to attract talent and businesses to the state. To this extent, South Carolina's tourism strategy must be integrated with the overall state economic development strategy, as well as with the business marketing strategy.

Exhibit 29: New Directions for South Carolina's Tourism Cluster



SOUTH CAROLINA'S LONG-TERM ECONOMIC STRATEGY 5

A host of foreign competitors, with cost structures that no state in the United States can match, have been crowding South Carolina out of its traditional strategic position as a low-cost manufacturing center. How should South Carolina respond? What is an appropriate positioning in this new strategic environment? What should South Carolina's long-term strategy be?

In crafting a strategy, the challenge is not to imitate other successful regions, be it by driving down costs to match a China, or by boosting research to emulate a Silicon Valley. Rather, South Carolina needs to differentiate itself from other regions based on its own unique mix of strengths and challenges. Moreover, it must do this in such a way that offers a valuable alternative that will attract companies, and also enables local firms to remain in the state and grow.

STRENGTHS

Emerging from this assessment of South Carolina's economic composition and business environment, it was clear that the state enjoys a number of key strengths in several areas, including:

Exhibit 30: Key Strengths of South Carolina

| | |
|---|---|
| Economic Composition | <ul style="list-style-type: none">▪ Diversified mix of clusters▪ Good positions across a range of manufacturing industries |
| Education and Workforce | <ul style="list-style-type: none">▪ Flexible, hard working labor force▪ Strong technical colleges |
| Infrastructure | <ul style="list-style-type: none">▪ High-quality highway system▪ Proximity to large efficient seaports (i.e., Charleston and Savannah) |
| Input Costs | <ul style="list-style-type: none">▪ Relatively low-cost utilities and land |
| Role of Government | <ul style="list-style-type: none">▪ Streamlined regulation▪ Efficient worker training system |
| Economic Development Organizations | <ul style="list-style-type: none">▪ Dense network of recruiting organizations▪ Good incentives and recruiting effort |
| Research and Technology | <ul style="list-style-type: none">▪ SPAWAR, Savannah River Site▪ Position in select disciplines at research universities▪ University leadership committed to economic development |

CHALLENGES

At the same time, South Carolina faces a number of significant challenges in many of the same areas. These include:

Exhibit 31: Principal Challenges Facing South Carolina

| | |
|--------------------------------------|--|
| Distribution of Economic Performance | <ul style="list-style-type: none">▪ Deep poverty in numerous rural counties▪ Much lower level of prosperity among African-Americans |
| Economic Composition | <ul style="list-style-type: none">▪ Difficult environment for start-ups and small firms▪ Lack of focus on growing existing companies |
| Clusters | <ul style="list-style-type: none">▪ Little depth of clusters▪ Limited interaction among cluster members |
| Education and Workforce | <ul style="list-style-type: none">▪ Improving, but still under-performing K-12 system▪ Relatively few highly skilled and specialized technicians▪ Relatively few specialized engineers in select clusters |
| Physical Infrastructure | <ul style="list-style-type: none">▪ Air access is relatively expensive and time-consuming |
| Economic Development Organizations | <ul style="list-style-type: none">▪ Overlapping sales and marketing organizations▪ Lack of cluster-specific institutions for collaboration▪ Lack of university / college-industry institutions for collaboration |
| Culture and Attitudes | <ul style="list-style-type: none">▪ Emphasis on dividing the pie among regions and institutions, not growing it▪ Traditional reliance on government▪ Low self-expectations |
| Research and Technology | <ul style="list-style-type: none">▪ Lack of first-tier research universities |

AN ECONOMIC STRATEGY FOR SOUTH CAROLINA

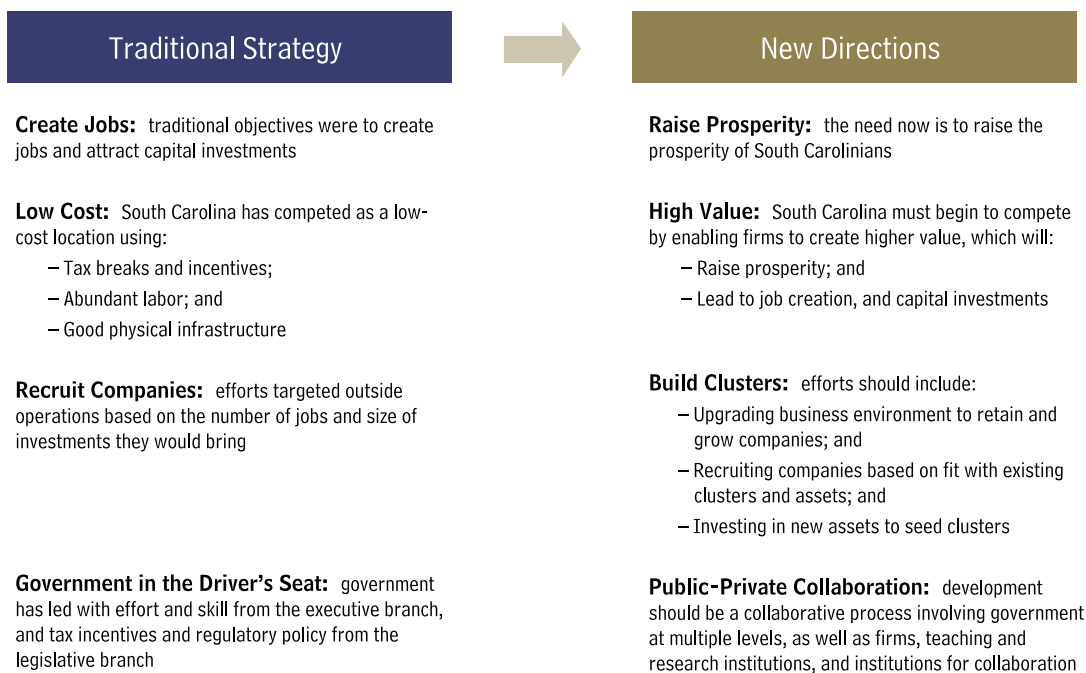
South Carolina does not have the cost structure to compete with developing countries as the most efficient place to perform routine operations. It cannot simply evolve its traditional low-cost strategy and expect to succeed. At the same time, South Carolina does not yet have the world-class universities, top-notch educational system, and highly skilled workforce to compete as a center of innovation in such clusters as biopharmaceuticals or information technology. There are pockets of excellence in South Carolina, but not enough to drive the entire state's economy.

South Carolina’s strengths are in manufacturing clusters such as textiles, automotives, chemical products, forest products, and more. The state must build on these strengths by helping these and other clusters upgrade technological capacity, operational sophistication, human capital, and so forth. A cluster-based strategy must focus on building a mass of competing firms, suppliers, customers, research and training centers, institutions for collaboration, government agencies, and other entities, in order to enable firms in the cluster to infuse technology and innovation throughout their businesses. Certainly, South Carolina should invest in assets that will seed new clusters, but since most clusters require significant time and capital investment to grow, it will take decades for new seed clusters to impact the economy. Therefore, South Carolina also needs to help its traditional manufacturing clusters to become high-tech.

The *South Carolina Competitiveness Initiative* suggests an economic strategy for South Carolina consisting of four new strategic directions for the state. South Carolina should move towards:

- Raising prosperity by creating high-paying jobs;
- Developing a business environment that enables firms to create high-value;
- Building robust clusters of related and supporting firms and industries; and
- Fostering effective public-private sector collaboration on economic strategy.

Exhibit 32: New Directions for South Carolina



South Carolina’s new economic strategy will help guide the state’s transition from a low cost location to a sophisticated manufacturing and service center, and finally to becoming an innovation leader. The state will become a nationally recognized center for a range of clusters doing advanced processing in manufacturing and services and will seek the position of a highly productive, cost-competitive U.S. location, well-connected to both innovation centers and sophisticated customers.

Many companies and operations in South Carolina—such as BMW, Fuji, Roche, Michelin, Bridgestone/Firestone, and Voridian—demonstrate that highly sophisticated advanced manufacturing can flourish in South Carolina. In addition, a handful of businesses prove that the same could be true for service-oriented clusters (e.g., BlueCross BlueShield and Automated Trading Desk). South Carolina must make such companies the rule, rather than the exception.

In order to implement this strategy, the *South Carolina Competitiveness Initiative* suggests eight distinct issue areas for South Carolina to focus on:

- **Activate and upgrade clusters.** Upgrade existing clusters by building critical mass and fostering linkages, and broaden cluster portfolio by seeding new clusters;
- **Continue to enhance education and workforce training.** Upgrade the quality of education, from pre-K through advanced education, as well as workforce development, so that these become a competitive advantage for the state's economy;
- **Invest in research and the university system.** Increase investments in focused research areas well aligned with the needs of industry, and ensure graduate level research and training capabilities commensurate with the needs of regional business and industry clusters;
- **Launch internal and external marketing campaigns.** Create a can-do mentality in South Carolina and position the state as a location ripe with opportunities for leading companies and talented people;
- **Create an explicit economic development program for distressed and disadvantaged areas.** Increase prosperity for all citizens of South Carolina;
- **Increase support for start-ups and local firms.** Create a supportive environment for start-ups and streamline regulations and policies to encourage expansions and upgrades;
- **Create new institutions to support economic development.** Support and create institutions for collaboration focused on upgrading the local business environment;
- **Measure progress in raising prosperity.** Define and track a set of metrics that measure progress towards prosperity, and provide direction for the above campaigns.

THE SOUTH CAROLINA COUNCIL ON COMPETITIVENESS

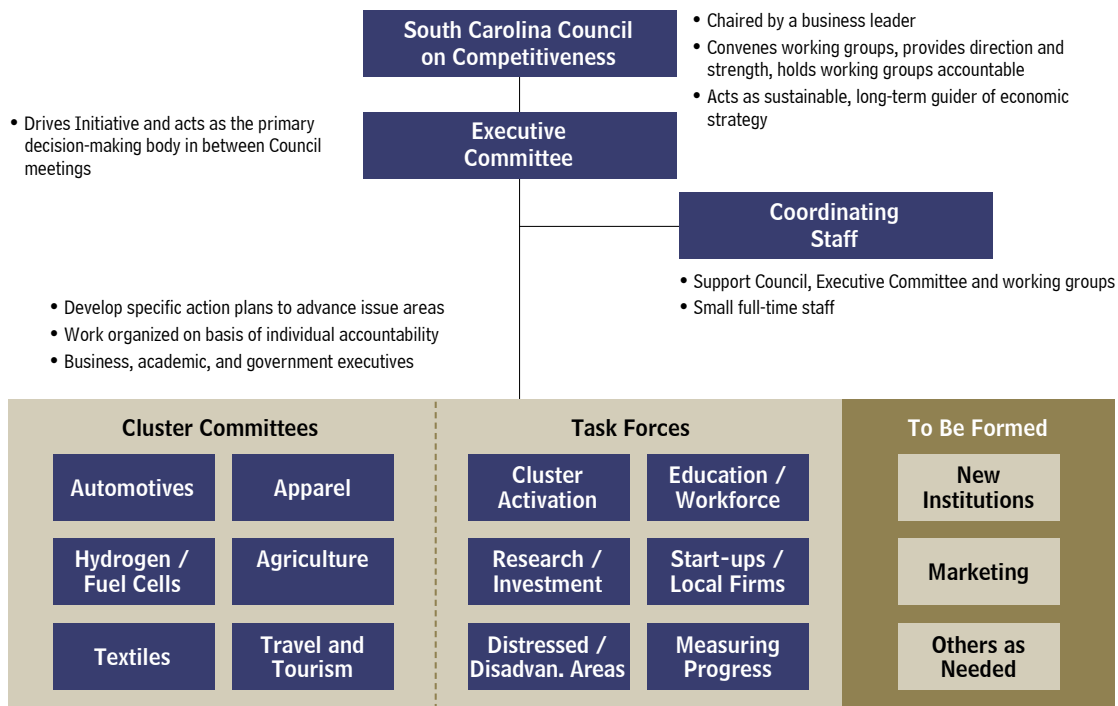


In order to implement the strategy laid out for the state, the South Carolina Council on Competitiveness was formed in early 2004. Chaired by M. Edward Sellers, Chairman and CEO of BlueCross BlueShield of South Carolina, the South Carolina Council on Competitiveness consists of about 50 leaders from business, government, academia, and economic development. The Council’s purpose is to act as a critical and sustainable infrastructure that is organized, trained, and motivated to carry-out a long-term economic strategy for the state. To facilitate the day-to-day activities of the Council, and provide decision-making capabilities between Council meetings, an executive committee was formed from the members of the Council.

To launch implementation of the strategy, task forces were formed to be responsible for each of the eight issues areas, and committees were created for each cluster. A chair was appointed for each group, and then, in coordination with the Council, each chair approached a small group of individuals to serve as the other members of the task force or committee. Each group is responsible for: 1) Defining its mission and objectives; 2) Developing a specific action agenda with objectives and initiatives; 3) Assigning responsibility to individuals and groups; 4) Helping to identify appropriate metrics to track progress; 5) Clarifying the timing for carrying out the agenda; and 6) Reporting progress to the Council and other groups at a later date. See Chapter 7 for a detailed description of the missions, objectives and activities of each of the task forces and cluster committees.

The South Carolina Council of Competitiveness, in addition to coordinating with the task forces and committees, works with other organizations in the private and public sectors to further develop the long-term strategy for the state.

Exhibit 33: The South Carolina Council on Competitiveness



MISSIONS, OBJECTIVES, AND ACTIVITIES OF THE COUNCIL ON COMPETITIVENESS, TASK FORCES AND CLUSTER COMMITTEES



SOUTH CAROLINA COUNCIL ON COMPETITIVENESS

MISSION

The Council seeks to develop and drive South Carolina's long-term economic strategy by working with companies, government, universities, economic development organizations, and other groups to identify and implement actions and policies that are aligned with the long-term strategy, and that will boost the competitiveness of South Carolina firms.

OBJECTIVES

- Create and support an organizational structure which will drive the state's long-term economic strategy, and which consists of an overarching Council, as well as Issues Task Forces and Cluster Committees;
- Develop and disseminate a detailed strategic plan, and coordinate with relevant parties (e.g. businesses, government agencies, the legislature, universities, technical colleges, economic development organizations) to implement that plan; and
- Establish a process and "reporting out" system for the Task Forces and Cluster Committees and the Council, to encourage recognition and accountability for activities across the state.

ACTIVITIES

In pursuit of its mission and objectives, the Council on Competitiveness's responsibilities are:

Create an organizational structure

- Assess which issue agendas from the over-arching strategy for South Carolina are appropriate for immediate creation of Task Forces and Cluster Committees;
- Organize Task Forces and Cluster Committees through the appointment of chairs, and then work with chairs to appoint the remainder of the members;
- Create process for creating new Task Forces and Cluster Committees, and "sun-setting" existing ones; and
- Put Council on sound footing by establishing stable financing and staffing.

Develop and disseminate a strategic plan

- Develop a strategic plan based on the analyses of the *South Carolina Competitiveness Initiative*, and the deliberations of the Issue Task Forces and Cluster Committees;
- Create a full report of the *South Carolina Competitiveness Initiative*, including the strategy and the implementation plan for the Council on Competitiveness, the Task Forces, and Cluster Committees;
- Disseminate the *South Carolina Competitiveness Strategy* report to private sector, academia, public sector, the general public, and constituents outside South Carolina:
 - Publish and disseminate
 - Conduct speaking tours around the state
- Support the Task Forces and Cluster Committees as they implement their objectives and activities:
 - Advocate the strategy to relevant parties (e.g., legislature, tech colleges, universities, economic development organizations, etc.);
 - Develop a legislative agenda each year, which is aligned with the strategy; and
 - Provide financial, intellectual, moral, and other support for priority activities

Establish a process and “reporting out” system

- Create a regular schedule for Council on Competitiveness meetings, with the mandate that each Task Force and Cluster Committee periodically report to the Council on progress;
- Provide input and suggestions to Task Forces and Cluster Committees as appropriate; and
- Measure progress towards overarching objectives (e.g., prosperity, productivity, innovation, etc.), as well as progress against the workplans of each Task Force and Cluster Committee.

The following Workplan has been developed to attach timing to the above-mentioned activities:

Exhibit 35: Workplan for the South Carolina Council on Competitiveness

| Short-Term (2004–05) | Mid-Term (2005–06) | Long-Term (2006+) |
|--|---|--|
| <ul style="list-style-type: none"> • Assess which issue agendas from the overarching strategic vision for South Carolina are appropriate for immediate creation of Task Forces and Cluster Committees • Organize Task Forces and Cluster Committees through the appointment of chairs; work with chairs to appoint the remainder of the members • Create process for creating new Task Forces and Cluster Committees and “sun-setting” existing ones • Develop a strategic plan based on the analyses of the <u>South Carolina Competitiveness Initiative</u> and the deliberations of the Issue Task Forces and Cluster Committees • Create a full report of the <u>South Carolina Competitiveness Initiative</u>, including the strategic vision and the implementation plan for the Council on Competitiveness, the Task Forces, and Cluster Committees • Disseminate the <u>South Carolina Competitiveness Strategy</u> report to private sector, academia, public sector, the general public, and constituents outside South Carolina • Support the Task Forces and Cluster Committees as they implement their objectives and activities: advocate the strategy to appropriate groups, develop legislative agenda, and support working groups’ efforts • Create a regular schedule for Council on Competitiveness meetings, with the mandate that each Task Force and Cluster Committee periodically report to the Council on progress • Provide input and suggestions to Task Forces and Cluster Committees as appropriate • Establish stable financing and staffing | <ul style="list-style-type: none"> • Create new Task Forces and Cluster Committees as appropriate • Disseminate the <u>South Carolina Competitiveness Strategy</u> report to private sector, academia, public sector, the general public, and constituents outside South Carolina • Support the Task Forces and Cluster Committees as they implement their objectives and activities: advocate the strategy to appropriate groups, develop legislative agenda, and support working groups’ efforts • Measure progress towards overarching objectives (e.g., prosperity, productivity, innovation, etc.), as well as progress against the workplans of each Task Force and Cluster Committee • Provide input and suggestions to Task Forces and Cluster Committees as appropriate | <ul style="list-style-type: none"> • Support the Task Forces and Cluster Committees as they implement their objectives and activities: advocate the strategy to appropriate groups, develop legislative agenda, and support working groups’ efforts • Measure progress towards overarching objectives (e.g., prosperity, productivity, innovation, etc.), as well as progress against the workplans of each Task Force and Cluster Committee • Provide input and suggestions to Task Forces and Cluster Committees as appropriate |

CLUSTER ACTIVATION TASK FORCE

MISSION

The Cluster Activation Task Force helps firms in related industries organize themselves so that they can better assess their cluster's business environment, identify common barriers and opportunities, and work collectively to improve their competitiveness.

OBJECTIVES

- Identify nascent and existing clusters, reach out to potential leaders of these clusters, and support and encourage private-sector led efforts to collaborate across the cluster to boost the competitiveness of member firms;
- Inform business, government, and economic development professionals about the benefits of cluster collaboration to raise broad awareness of, support for, and participation in cluster building efforts; and
- Facilitate communication among task forces and cluster committees to leverage expertise, transfer knowledge and experience, and create coordinated initiatives.

ACTIVITIES

In pursuit of its mission and objectives, the Cluster Activation Task Force's responsibilities are:

Identify and develop nascent and existing clusters

- Develop criteria for identifying important clusters to organize and build-up;
- Meet with potential leaders of existing industry concentrations and assist them in conducting a cluster assessment to identify key barriers to, and opportunities for, boosting competitiveness;
- Identify cluster-focused organizations in South Carolina with which to coordinate strategies and activities for existing clusters, and establish contact with those organizations to help facilitate the cluster assessment and development process;
- Meet with individuals interested in seeding and supporting nascent clusters, assist them in assessing cluster needs, and help them implement an agenda to boost competitiveness; and

Inform individuals on benefits of clusters

- Create informative documents that can be given to potential cluster leadership to help them understand what clusters are, the benefits of clusters, and why and how clusters form; and
- Deliver speeches and conduct seminars for individuals interested in cluster development to discuss their potential clusters, their questions and concerns, and examples of successful cluster formation.

Facilitate communication between Task Forces and Cluster Committees

- Create a network of Task Force and Cluster Committee leaders that will allow for the smooth transfer of knowledge and open communication between related clusters and issue groups.

The following Workplan has been developed to attach timing to the above-mentioned activities:

Exhibit 36: Workplan for the Cluster Activation Task Force

| Short-Term (2004–05) | Mid-Term (2005–06) | Long-Term (2006+) |
|---|---|---|
| <ul style="list-style-type: none"> • Develop criteria for identifying important clusters to organize and build up • Create informative documents that can be given to potential cluster leadership to help them understand what clusters are, the benefits of clusters, and why and how clusters form • Identify cluster-focused organizations in South Carolina with which to coordinate strategies and activities for existing clusters, and establish contact with those organizations to help facilitate the cluster assessment and development process • Meet with individuals interested in seeding and supporting nascent clusters, assist them in assessing cluster needs, and help them implement an agenda to boost competitiveness • Meet with potential leaders of existing industry concentrations and assist them in conducting a cluster assessment to identify key barriers to, and opportunities for, boosting competitiveness • Deliver speeches and conduct seminars for individuals interested in cluster development to discuss their potential clusters, their questions and concerns, and examples of successful cluster formation | <ul style="list-style-type: none"> • Create a network of Task Force and Cluster Committee leaders that will allow for the smooth transfer of knowledge and open communication between related clusters and issue groups • Meet with individuals interested in seeding and supporting nascent clusters, assist them in assessing cluster needs, and help them implement an agenda to boost competitiveness • Meet with potential leaders of existing industry concentrations and assist them in conducting a cluster assessment to identify key barriers to, and opportunities for, boosting competitiveness • Deliver speeches and conduct seminars for individuals interested in cluster development to discuss their potential clusters, their questions and concerns, and examples of successful cluster formation | <ul style="list-style-type: none"> • Meet with individuals interested in seeding and supporting nascent clusters, assist them in assessing cluster needs, and help them implement an agenda to boost competitiveness • Meet with potential leaders of existing industry concentrations and assist them in conducting a cluster assessment to identify key barriers to, and opportunities for, boosting competitiveness • Deliver speeches and conduct seminars for individuals interested in cluster development to discuss their potential clusters, their questions and concerns, and examples of successful cluster formation |

In order to measure the impact of these activities, the following metrics will be tracked:

Exhibit 37: Metrics for the Cluster Activation Task Force

| Objectives | Metrics | Source |
|---|---|--|
| Encourage private sector led efforts to collaborate across the cluster to boost the competitiveness of member firms | <ul style="list-style-type: none"> • Growth in number and membership of cluster specific networking organizations • Greater concentration of employment in top 8–12 cluster (by national ranking) | <ul style="list-style-type: none"> • Cluster Committees |
| Inform individuals on benefits of clusters | <ul style="list-style-type: none"> • Select metrics survey questions (e.g., “Relationships between firms and organizations in your industry,” “Quality and in-region location of your suppliers”) | <ul style="list-style-type: none"> • Task Force • Metrics Survey |
| Facilitate communication between clusters | <ul style="list-style-type: none"> • Select metrics survey questions (e.g., “Businesses in South Carolina share information openly with other businesses”) | <ul style="list-style-type: none"> • Task Force • Metrics Survey |

EDUCATION AND WORKFORCE TASK FORCE

MISSION

The Education and Workforce Task Force will prioritize, align, and champion efforts to upgrade the quality of South Carolina's education and workforce system—pre-K through advanced degrees and workforce development programs—so that this system is an economic advantage to the state and all of its citizens.

OBJECTIVES

- Assist with implementation of Pathways to Prosperity recommendations;
- Enhance educational opportunities of disadvantaged groups;
- Align and link the educational system and local business so that education meets the workforce requirements of business, and business appropriately supports the educational system;
- Identify and pursue untapped financing for South Carolina's education and workforce training systems;
- Communicate the range of educational-related initiatives taking place statewide, and highlight best practices; and
- Develop mission-relevant agendas for South Carolina's educational system at the levels of:
 - Early childhood development;
 - Colleges and universities (including historically black colleges and universities, and the independents); and
 - Adult education.

ACTIVITIES

In pursuit of its mission and objectives, the Education and Workforce Task Force's responsibilities are:

Assist with implementation of Pathways to Prosperity recommendations

- Act as an oversight committee in lieu of Coordination Council, including funding, in 2004 / 2005;
- Rally efforts to get legislation passed in 2005;
- Develop and approve pathways communication strategy / materials and create long-term marketing messages / campaign for:
 - Educators (on the importance of core academics, and the knowledge and skills needed for the economy's constantly evolving careers);
 - Parents (about how to support their child's education and resources for that);
 - Elected officials (about the critical importance of education to economic competitiveness);
 - Students (about what they are capable of, and what they must accomplish in school to be able to pursue their career choice); and
 - Communicate that *Pathways* is inclusive of all students (challenged to gifted), and of all educational disciplines (arts to sciences).

Enhance educational opportunities of disadvantaged groups

- Develop white papers and / or position papers on K-12 funding issues;
- Raise awareness and accountability of schools regarding black male educational achievement:
 - Highlight the costs to all South Carolinians regarding failure of black males to achieve success in the educational system;
 - Include in State Education Report Card data regarding the status of black males specifically at year 2 and 3 grades; and
 - Require schools to specifically identify targeted programs and results that address low black male achievement - identify and implement best practices.
- Identify and deploy best practice programs regarding parental involvement;
- Reduce drop-out rates:
 - Continue to spotlight the drop-out problem;
 - Benchmark Virginia’s drop-out prevention policies;
 - Ensure solutions are not dumping grounds;
 - Evaluate pilot programs aimed at reducing dropouts; and
 - Provide innovative opportunities for business activities in rural areas in concert with Distressed and Disadvantaged Areas Task Force.
- Evaluate appropriateness of National Foundation for Teaching Entrepreneurship, and if appropriate, liaise with Start-ups and Distressed Areas Task Forces and others to expand implementation.

Align and link the educational system and local business

- Assist Council on Competitiveness in documenting knowledge needs for business clusters that can be met by education system;
- Improve articulation from K-12 to post secondary options;
- Re-align curricula of tech colleges and secondary schools with the needs of business clusters both now and for the future;
- Support tech colleges in developing curriculum to commercialize ideas linked with Research Universities’ centers for excellence;
- Establish and / or upgrade Regional Service Centers that offer a link between business and education;
- Foster other models of business-education partnerships as appropriate;
- Create a statewide Certificates and Registered Apprenticeships program; and
- Publish an annual Scorecard on implementation of strategies that close the gap between workforce needs and educational system.

Identify and pursue untapped financing

- The United States Department of Labor’s “Discretionary Fund”; and
- Coordinate with South Carolina Chamber of Commerce to help close gaps in educational funding sources.

Communicate education-related initiatives

- Create comprehensive online database of educational-related initiatives throughout the state;
- Develop criteria to certify and recognize local best practices and provide information on relevant out-of-state successful models and resources (e.g., training, grants);
- Disseminate existing and develop new marketing materials and media for a sustained public awareness campaign of critical issues or change initiatives; and
- Establish partnerships with media to leverage communication efforts

Develop mission-related agendas for educational system

- Early childhood development;
- Colleges and universities (including historically black colleges and universities, and the independents); and
- Adult education:
 - Support / encourage collaboration with Tech Colleges;
 - Support United Way of South Carolina Alliance for Adult Literacy;
 - Create online database / promote best practices; and
 - Review adult education funding mechanisms in South Carolina.

The following Workplan has been developed to attach timing to the above-mentioned activities:

Exhibit 38: Workplan for the Education and Workforce Task Force

| Short-Term (2004–05) | Mid-Term (2005–06) | Long-Term (2006+) |
|---|---|--|
| <ul style="list-style-type: none"> • Act as an oversight committee for Pathways to Prosperity in lieu of Coordination Council • Rally efforts to pass Pathways legislation in 2005 • Develop mission-related agendas for early childhood development, colleges and universities, and adult education • Identify and pursue untapped financing for South Carolina's education and workforce training systems • Identify and deploy best practice programs regarding parental involvement • Develop and fund phase I communication strategy, messages, and materials • Realign curricula of tech colleges and secondary schools with the needs of clusters both now and for the future • Develop scorecard on implementation • Assist Council on documenting knowledge needs for business clusters that can be met by the education system | <ul style="list-style-type: none"> • Create comprehensive online database of education initiatives in SC • Develop criteria to certify and recognize local best practices and provide information on relevant out-of-state successful models and resources (e.g., training, grants) • Establish/upgrade Regional Service Centers that offer a link between business and education • Foster other models of business-education partnerships as appropriate • Raise awareness and accountability of schools regarding black male educational achievement • Develop white papers and/or position papers on K-12 funding issues • Evaluate appropriateness of National Foundation for Teaching Entrepreneurship, and if appropriate, liaise with Start-ups and Distressed Areas Task Forces and others to expand implementation • Develop and fund phase II communication strategy, messages and materials • Evaluate pilot programs aimed at reducing drop-out rates • Improve articulation from K-12 to post secondary options • Assist Council on documenting knowledge needs for business clusters that can be met by the education system • Publish annual scorecard on implementation | <ul style="list-style-type: none"> • Reduce drop-out rates • Create a statewide Certificates and Apprenticeships program • Support tech colleges in developing curriculum to commercialize ideas linked with Research Universities' centers for excellence • Develop and fund phase III communication strategy, messages, and materials • Publish annual scorecard on implementation • Maintain momentum and reprioritize critical items |

In order to measure the impact of these activities, the following metrics will be tracked:

Exhibit 39: Metrics for the Education and Workforce Task Force

| Objectives | Metrics | Source |
|--|---|---|
| Implement Pathways recommendations | Process metrics: <ul style="list-style-type: none"> • Made recommendations on funding • Developed and implemented legislative plan • Developed and communicated messages | <ul style="list-style-type: none"> • Task Force |
| Enhance educational opportunities of disadvantaged groups | <ul style="list-style-type: none"> • Selected EOC defined metrics • Percentage of parental attendance at Parent/Teacher Conferences • School attendance rates • Readiness Index: School, Child, Family, Community | <ul style="list-style-type: none"> • Task Force • EOC |
| Align and link educational system with local businesses | <ul style="list-style-type: none"> • Number and percent of businesses with active cooperative initiatives with schools • Select survey questions (e.g., “Does the pool of skilled workers meet your growth needs?”) | <ul style="list-style-type: none"> • Dept of Ed and Task Force • Council’s Metrics Survey |
| Identify and pursue untapped financing | <ul style="list-style-type: none"> • Amount and growth in total education funding • Total and growth in funding for specific areas | <ul style="list-style-type: none"> • Federal sources • SC DoE • Task Force |
| Communicate educational initiatives and highlight best practices | Process metrics: <ul style="list-style-type: none"> • Developed and activated online database • Developed and communicated messages, etc. | <ul style="list-style-type: none"> • Task Force |
| Develop mission relevant agendas for early childhood, colleges and universities, and adult education | Process metrics: <ul style="list-style-type: none"> • Activities, responsibilities, and workplans for each area | <ul style="list-style-type: none"> • Task Force |

RESEARCH TASK FORCE

MISSION

The Research Task Force aims to enhance the quality and increase the quantity of research in South Carolina that is relevant to the needs of local clusters, and to streamline the flow of information and ideas between industry and academia

OBJECTIVES

- Facilitate dialogue and the flow of information among industry, academia, and government;
- Increase investment in research and development; and
- Ensure graduate level research and training capabilities commensurate with the needs of regional business and industry clusters.

ACTIVITIES

In pursuit of its mission and objectives, the Research Task Force's responsibilities are:

Facilitate dialogue and streamline the flow of information among industry, academia, and government

- Create and support a single point of contact in universities and research centers to:
 - Reach out to industry and communicate the research activities ongoing in the institution;
 - Facilitate the flow of intellectual property out to industry
 - Review existing catalogues of research activities in the universities, assess suitability for informing prospective industry partners, revise as necessary, and communicate the resource to businesses in the state; and
 - Develop programs and activities to bring together researchers and private sector scientists, engineers, and professionals
- Take inventory of research strengths at universities and centers across the state and communicate those capabilities to firms and clusters; and
- Liaise with Cluster Committees and the Cluster Activation Task Force to gather information on the research interests of local industry, and channel that into the state's universities and research centers.

Increase investment in research and development

- Review and modify as appropriate the promotion and incentive systems in state universities to reward (enhance / avoid penalizing) academic collaboration with the business community in pursuing commercially relevant research;
- Identify available opportunities for federal / state / non-profit investment in research (e.g. grants, tax credits, loans) that reward private sector participation and communicate results to academic and business communities; and
- Encourage an increase in the funding of the Endowed Chairs Program.

Ensure graduate level research and training capabilities commensurate with the needs of regional business and industry clusters

- Identify research and training needs of regional business and industry clusters through consultation with local firms and clusters councils across the state;
- Map research and training capabilities across the state to identify priority gaps; and
- Work with universities, colleges, and training centers to fill those gaps.

The following Workplan has been developed to attach timing to the above-mentioned activities:

Exhibit 40: Workplan for the Research Task Force

| Short-Term (2004–05) | Mid-Term (2005–06) | Long-Term (2006+) |
|--|---|---|
| <ul style="list-style-type: none"> • Take inventory of research strengths at universities and centers across the state and communicate those capabilities to firms and clusters • Communicate to industry regarding both ongoing research activities and existing catalogues of relevant research • Liaise with Cluster Committees and the Cluster Activation Task Force to gather information on the research interests of local industry, and channel that into the state’s universities and research centers • Identify available opportunities for federal/state/nonprofit investment in research (e.g., grants, tax credits, loans) that reward private sector participation and communicate results to academic and business communities • Encourage an increase in the funding of the Endowed Chairs Program | <ul style="list-style-type: none"> • Develop programs and activities to bring together researchers and private sector scientists, engineers, and professionals • Review and modify as appropriate the promotion and incentive systems in state universities to reward academic involvement in commercially relevant research • Identify research and training needs of regional business and industry clusters through consultation with local firms and clusters councils across the state • Map research and training capabilities across the state to identify priority gaps • Work with universities, colleges, and training centers to fill identified gaps | <ul style="list-style-type: none"> • Create and support a single point of contact in universities and research centers • Enact promotion and incentive systems in state universities to reward academic involvement in commercially relevant research |

In order to measure the impact of these activities, the following metrics will be tracked:

Exhibit 41: Metrics for the Research Task Force

| Objectives | Metrics | Source |
|--|--|---|
| Facilitate dialogue and the flow of information among industry, academia, and government | <ul style="list-style-type: none"> • Number of, and participation levels at, organized networking meetings of researchers, scientists, and business executive • Select survey questions (e.g., “How frequent is your firm’s interactions with local universities”) | <ul style="list-style-type: none"> • Task Force • Council’s Metrics Survey |
| Increase investment in research and development | <ul style="list-style-type: none"> • Amount and growth in federal research and development funds • Amount and growth of private sector share in matching grants • Number and growth of licenses and dollar value for patents • Select survey questions (e.g., “Investment in R&D is encouraged by state and local taxes and incentives”) | <ul style="list-style-type: none"> • NSF • Task Force • AUTM • Council’s Metrics Survey |
| Ensure graduate level research and training capabilities | <ul style="list-style-type: none"> • Select survey questions cut by region of respondent (e.g., “Availability of Specialized Facilities for Research?”) | <ul style="list-style-type: none"> • Council’s Metrics Survey |

START-UPS AND LOCAL FIRMS TASK FORCE

MISSION

The Start-Ups and Local Firms Task Force will work to develop a business environment in South Carolina that encourages start-ups and the growth of firms already located in the state.

OBJECTIVES

- Develop a supportive business environment for innovative start-ups with particular emphasis on start-ups with potential to generate high-wage jobs and significantly contribute to the state's objective of raising prosperity;
- Encourage and support the increase of minority and women owned businesses;
- Amend incentives and policies, and streamline regulations, to encourage upgrades and expansions of firms within the state;
- Market these changes to further communicate private sector, university-based, and government support to start-ups and local firms; and
- Define goals and measures of success.

ACTIVITIES

In pursuit of its mission and objectives, the Start-Ups and Local Firms Task Force's responsibilities are:

Develop a supportive business environment for start-ups

- Inventory the resources available to start-up and growth companies in South Carolina through interviews (e.g., Department of Commerce, city / county economic development organizations, and private sector entities, etc);
- Identify, integrate, and develop networking and training systems to help place new entrepreneurs in contact with established and successful entrepreneurs, as well as with experienced professional advisors (e.g. lawyers, accountants, consultants, financiers, etc) and potential customers and investors;
 - Create a start-ups / local firms CEO Round Table with mentoring of a pre-qualified entrepreneur for a period of time as prerequisite for membership. Quarterly meetings would feature guest speakers, including government officials (e.g., Governor, Secretary of State, Attorney General, Department of Revenue Director) or other relevant personalities.
- Identify and catalogue issues and challenges faced by a wide range of start-ups and local firms in South Carolina;
- Deepen connections between the private sector and universities / colleges / technical schools:
 - Develop “skills placement” programs to help local students find appropriate jobs in the state, and assist start-up and local businesses reach into local talent pool; and
 - Provide access to universities' physical assets to start-ups' founders / employees that have demonstrated competencies and qualifications, balancing the need for appropriate oversight with the right to privacy required to avoid limiting the creative process.

- Determine the capacity and need for expansion of local angel and pre-seed venture capital funding for start-ups, develop legislative recommendations to encourage these investments (e.g., angel tax credits), and determine how to connect new funding sources with early stage entrepreneurs;
- Develop recommendations for simplifying regulations and providing support services at regulatory organizations focused on start-up businesses (e.g. “one-stop shopping” at government agencies); and
- Assist in creation of a communication plan to convince entrepreneurs / local firms of the advantages and benefits of these services and enhanced incentives / regulations.

Encourage and support the increase of minority- and women-owned businesses

- Identify and establish scholarships for participation in entrepreneurial education programs (e.g., FastTrac);
- Identify growth areas for South Carolina companies; and
- Liaise with Distressed Areas working group to identify key barriers to minority / women entrepreneurship.

Encourage upgrades and expansions of local firms

- Provide recommendations for how to amend state incentives to help local firms upgrade and expand their current operations; and
- Provide recommendations for simplifying regulations and providing support services at regulatory organizations focused on local firm expansions.

Market available private sector, university-based, and government resources to start-ups and local firms

- Define content of the message; and
- Create a consistent sustainable effort to communicate the message.

Define goals and measures of success

- Establish a concrete set of metrics for all activities that can be monitored, as well as “victory end-points” for medium and long-term plans.

The following Workplan has been developed to attach timing to the above-mentioned activities:

Exhibit 42: Workplan for the Start-Ups and Local Firms Task Force

| Short-Term (2004–05) | Mid-Term (2005–06) | Long-Term (2006+) |
|---|---|---|
| <ul style="list-style-type: none"> • Inventory and advertise resources available to start-up and growth firms • Identify and integrate networking and training systems to help place new entrepreneurs in contact with established and successful entrepreneurs and experienced professional advisors • Recommend and promote incentives to encourage upgrades and expansions of local firms • Identify and establish scholarships for minority participation in entrepreneurial education programs (e.g., FastTrac) • Identify and catalogue issues and challenges faced by a wide range of start-ups and local firms in South Carolina • Develop legislative recommendations to encourage angel and pre-seed VC investments | <ul style="list-style-type: none"> • Create networks between new and successful entrepreneurs and local firms • Connect new funding sources with early stage entrepreneurs • Assist start-up and local businesses reach into local talent pool • Provide access to universities' physical assets to start-ups' founders / employees • Market available private sector, university-based, and government resources to start-ups and local firms • Support minority entrepreneurs in identifying growth areas for South Carolina companies • Assist in creation of a communication plan to convince entrepreneurs / local firms of the advantages and benefits of these services and enhanced incentives / regulations | <ul style="list-style-type: none"> • Develop recommendations for simplifying regulations and providing support services at regulatory organizations focused on start-up businesses (e.g., "one-stop shopping" at government agencies) • Develop "skills placement" programs to help local students find appropriate jobs in the state • Market available private sector, university-based, and government resources to start-ups and local firms |

In order to measure the impact of these activities, the following metrics will be tracked:

Exhibit 43: Metrics for the Start-Ups and Local Firms Task Force

| Objectives | Metrics | Source |
|---|--|---|
| Develop a supportive business environment for start-ups | <ul style="list-style-type: none"> • Number and growth of businesses 5 years old or younger • Employment growth in businesses with fewer than 20 employees • VC dollars invested and number of deals • Improvement in survey responses | <ul style="list-style-type: none"> • Comstat • Dun & Bradstreet • Metrics Survey |
| Encourage and support the increase of minority and women owned businesses | <ul style="list-style-type: none"> • Number and growth in minority owned businesses | <ul style="list-style-type: none"> • South Carolina Dept of Commerce |
| Amend incentives and policies, and streamline regulations, to encourage upgrades and expansions of firms within the state | <ul style="list-style-type: none"> • Dollars invested by firms located in South Carolina | <ul style="list-style-type: none"> • State Depts of Commerce or Revenue |
| Market the resources available to start-ups and local firms | <ul style="list-style-type: none"> • Number and growth of hits on website | <ul style="list-style-type: none"> • Task Force |

MEASURING PROGRESS TASK FORCE

MISSION

The Measuring Progress Task Force will identify and track the appropriate metrics of progress towards: improving the overall economic performance and innovation output of South Carolina; and achieving the objectives of the task forces and cluster committees.

OBJECTIVES

- Identify and track metrics to measure improvements in the overall economic performance and innovation output of South Carolina, in conjunction with both the Department of Commerce and the State Chamber of Commerce;
- Coordinate activities with the other groups associated with the South Carolina Council on Competitiveness to identify and track metrics for each issue area and cluster;
- Identify the most appropriate regions to track vis-à-vis South Carolina and which metrics to use for the benchmarking; and
- Develop standardized process to regularly track metrics and measure progress over the short-, medium-, and long-term.

ACTIVITIES

In pursuit of its mission and objectives, the Measuring Progress Task Force's responsibilities are:

Identify and track over-arching metrics

- With the Department of Commerce and the State Chamber of Commerce, review metrics used for previous state-wide analyses and determine which metrics should be tracked for the state;
- Create standardized process for tracking metrics, including which sources to use for metrics and methodology for following metrics.

Identify and track metrics for other task groups and cluster committees

- Meet with members of other groups to review metrics for each campaign's activities and the milestones for those metrics;
- Review metrics and determine which will provide the most insight into the success of activities, and report out findings; and
- Research important new and emerging issues and highlight new strategic needs; and
- Identify new metrics as needed.

Create benchmarking system

- Assess regions (states, countries, cities) that would serve as good "competitor" benchmarks to measure South Carolina against;
- For each region, determine which metrics are relevant to that region and should be used to benchmark South Carolina's progress; and

- Create standardized process for tracking metrics, including which sources to use for metrics and methodology for following metrics, which are consistent for both the competitor and South Carolina.

Develop process for tracking metrics

- Create process to steadily monitor metrics for over-arching economics and innovation, each of the campaigns, and the “competitor” benchmarks;
- Determine what are the appropriate short-, medium-, and long-term horizons for South Carolina’s metrics, and determine the critical milestones for the metrics at those times; and
- Establish regular updates with the Competitiveness Council and the other groups to review progress and update the metrics and scorecard.
- Take baseline measurements and periodically publish Innovation Indexes tracking progress

The following Workplan has been developed to attach timing to the above-mentioned activities:

Exhibit 44: Workplan for the Measuring Progress Task Force

| Short-Term (2004–05) | Mid-Term (2005–06) | Long-Term (2006+) |
|--|--|--|
| <ul style="list-style-type: none"> • Create standardized process for tracking metrics, including which sources to use for metrics and methodology for following metrics • Meet with members of other groups to review metrics for each campaign’s activities and the milestones for those metrics • Review metrics and determine which will provide the most insight into the success of activities, and report out findings • Take baseline measures and publish first Innovation Index | <ul style="list-style-type: none"> • With the Department of Commerce and the State Chamber of Commerce, review metrics used for previous statewide analyses and determine which metrics should be tracked for the state • Assess regions that would serve as good “competitor” benchmarks to measure South Carolina against • For each region, determine which metrics are relevant to that region and should be used to benchmark South Carolina’s progress • Create process to steadily monitor metrics for overarching economics and innovation, each of the campaigns, and the “competitor” benchmarks • Determine what are the appropriate short-, medium-, and long-term horizons for South Carolina’s metrics, and determine the critical milestones for the metrics at those times • Research important new and emerging issues and highlight new strategic needs • Identify new metrics as needed • Take periodic measurements and publish subsequent Indexes | <ul style="list-style-type: none"> • Research important new and emerging issues and highlight new strategic needs • Revise metrics as appropriate and publish subsequent Indexes |

AUTOMOTIVE CLUSTER COMMITTEE

MISSION

The Automotive Cluster Committee seeks to build greater breadth and depth in the South Carolina automotive cluster, and to continuously upgrade the quality of its business environment.

OBJECTIVES

- Differentiate South Carolina by building world-class automotive research capabilities in the state, principally through effective implementation of the ICAR project;
- Attract another major OEM to the state.

ACTIVITIES

In pursuit of its mission and objectives, the Automotive Cluster Committee's responsibilities are:

Build world-class automotive research capabilities – Implement ICAR project

- Develop inventory of existing automotive-related assets in the state and neighboring areas (including presence of training programs, R&D activities or Headquarters) and explore opportunities for current and future links with ICAR;
- Support ICAR / Clemson Endowed Chairs recruitment and funding;
- Recommend legislation to allow private matching funds to lag state contributions;
- Develop legislation to provide incentives for companies to locate on the ICAR campus;
- Develop and circulate a math and science curriculum relevant to the Automotive Cluster (e.g., state schools and Technical Colleges); and
- Support marketing ICAR to a broad audience to attract companies to locate on the ICAR campus.

Attract another major OEM to the state

- Define set of criteria to assess attractiveness (e.g., 'filling' key gaps in the cluster capabilities) and potential (e.g., commitment to R&D, consistency with cluster strategic position) for tier 1 and other automotive suppliers;
- Develop targeted recruiting efforts of high value / priority suppliers;
- Establish high-level relationships with automotive firms to be well-positioned in the next wave of capacity expansion in the United States; and
- Meet with port authority and other relevant infrastructure leadership to determine how the cluster and these entities can conduct mutually beneficial development activities.

The following Workplan has been developed to attach timing to the above-mentioned activities:

Exhibit 45: Workplan for the Automotive Cluster Committee

| Short-Term (2004–05) | Mid-Term (2005–06) | Long-Term (2006+) |
|--|--|---|
| <ul style="list-style-type: none"> • Develop inventory of existing automotive-related assets in the state and neighboring areas and explore opportunities for current and future links with ICAR • Recommend legislation to allow private matching funds to lag state contributions • Develop legislation to provide incentives for companies to locate on the ICAR campus • Support ICAR / Clemson Endowed Chairs recruitment and funding | <ul style="list-style-type: none"> • Define set of criteria to assess attractiveness and potential for tier 1 and other automotive suppliers • Develop targeted recruiting efforts of high-value/priority suppliers • Recruit high-value/priority suppliers and another major OEM to the state • Develop and circulate a math and science curriculum relevant to the auto cluster • Support ICAR/Clemson Endowed Chairs recruitment and funding • Establish high-level relationships with automotive firms to be well-positioned in the next wave of capacity expansion in the United States • Meet with port authority and other relevant infrastructure leadership to determine how the cluster and these entities can conduct mutually beneficial development activities • Support marketing ICAR to a broad audience to attract companies to locate on the ICAR campus | <ul style="list-style-type: none"> • Recruit high-value/priority suppliers and another major OEM to the state • Support ICAR/Clemson Endowed Chairs recruitment and funding • Maintain relationships with automotive firms • Maintain dialogue with port authority and other relevant infrastructure leadership • Support marketing ICAR to a broad audience to attract companies to locate on the ICAR campus |

In order to measure the impact of these activities, the following metrics will be tracked:

Exhibit 46: Metrics for the Automotive Cluster Committee

| Objectives | Metrics | Source |
|--|--|--|
| Support marketing and develop legislation to provide incentives for companies to locate on the ICAR campus | <ul style="list-style-type: none"> • Number and growth of companies located on ICAR campus | <ul style="list-style-type: none"> • Cluster Committee |
| Recruit high-value/priority suppliers and another major OEM to the state | <ul style="list-style-type: none"> • Number of new auto cluster suppliers brought to South Carolina • Growth of existing auto cluster firms • Select survey questions (e.g., “Specialized suppliers [to your business] are mostly available within South Carolina”) | <ul style="list-style-type: none"> • SC Dept. of Commerce • Council’s Metrics Survey |
| Amend legislation to allow private matching funds to lag state contributions | <ul style="list-style-type: none"> • Amount and growth of private sector share in matching state contributions | <ul style="list-style-type: none"> • Cluster Committee |

APPAREL CLUSTER COMMITTEE

MISSION

The South Carolina Apparel Cluster enables firms within the industry to become aware of their collective strengths and capabilities. This will lead towards strengthened brand management, pooling resources from local partners to optimize the local and international supply chains, and bring higher levels of operating efficiencies in order to build a direct to consumer distribution, with the effect of benefiting all associates of the cluster, professionally and financially.

OBJECTIVES

- Invoke the essence and processes of being a part of a cluster as defined by the South Carolina Competitiveness Council to South Carolina apparel firms, identify potential sub-cluster groups which will benefit from a close working relationship, and assist interested “brand leaders” in each group to manage and grow their sub-cluster.
- Hold bi-monthly apparel cluster initiative meetings to continue to discuss and share new ideas, information and opportunities.
- Formulate and administer an on-line forum open to all apparel cluster members to continue collaborative discussions and knowledge transfer of experiences and best practices.
- Review individual member business processes to not only identify weaknesses and strengths but also to create efficiencies built around advanced information and process technologies in order to strengthen the cluster members both nationally and internationally.
- Develop a marketing committee to oversee and accelerate initiatives associated with the promotion and distribution initiatives of the state’s apparel companies’ products to targeted consumers.
- Develop real working relationships with the Textile Cluster as well as related research institutions.

ACTIVITIES

In pursuit if its mission and objectives, the South Carolina Apparel Cluster’s responsibilities are:

Invoke and identify “brand leaders”

- Identify critical characteristics needed for a successful apparel cluster.
- Conduct face-to-face meetings with apparel firm owners to begin discussions and generate enthusiasm and interest in joining the South Carolina Apparel Cluster.
- Collaborate with knowledge leaders; Clemson University’s manufacturing center, American Demographics, Palmetto institute, University of South Carolina’s Darla Moore School of Business, SEAMS, Apparel Magazine to build best practices and a strong information base to deliver to the apparel cluster.
- Establish a state wide apparel cluster conference to introduce firms and their capabilities to each other and to demonstrate, with the help of the knowledge leaders, the possibilities of growth through the creation of clusters, and encourage members to volunteer to be “brand leaders” and active participants in future developments and knowledge sharing activities.

Hold bi-monthly cluster initiative meetings

- Update cluster on local and international industry practices and developments, motivating members to inform, educate, and collaborate on generated ideas and activities.
- Discuss as a group the strengths and weaknesses facing the local industry as a result of economic changes towards off-shoring and outsourcing which are affecting business prosperity.
- Formulate apparel synergy groups to further discuss and share current practices and brainstorm future possibilities from the knowledge given.
- Generate the idea of changing roles in the industry from manufacturing dependence to brand managing independence.
- Acknowledge self-identified “brand leaders” to continue to help and grow apparel sub-clusters.

Formulate and administer an on-line apparel cluster forum

- Build an on-line forum, generated and supported by the South Carolina Apparel Cluster Committee.
- Initiate on-line discussions and continue to motivate and train members and potential members on the benefits received through continuous discussions.
- Use the forum for new knowledge information sharing and for members to openly share suggestions and concerns for changes in the economy, business practices, and local business initiatives.

Review individual business processes

- Consult apparel cluster members as how to begin mapping business processes.
- Identify strengths and weaknesses of each firm and use this information to determine opportunities for growth in efficiencies as well as combining activities with other apparel cluster members.
- Establish clear performance outcomes so effective measuring can be accomplished.
- Begin to update operating systems using the latest in information technology

Develop a marketing committee

- Acquire the capabilities of a local marketing firm to assist and discuss new and opportunistic ways of marketing apparel cluster brands in order to go direct to the consumer in order to optimize profit margins and brand exposure.
- Develop an apparel cluster marketing plan for holistic and future directional growth.
- Search for intermediate prospective growth by networking with business opportunities both within and outside the state.

Develop real working relationships with the Textile Cluster as well as related research institutions

The following Workplan has been developed to attach timing to the above-mentioned activities:

Exhibit 47: Workplan for the Apparel Cluster Committee

| Short-Term (2004–05) | Mid-Term (2005–06) | Long-Term (2006+) |
|---|--|---|
| <ul style="list-style-type: none"> • Identify critical characteristics needed for a successful apparel cluster • Conduct face-to-face meetings with apparel firm owners to begin discussions and generate enthusiasm and interest in joining the South Carolina Apparel Cluster • Collaborate with knowledge leaders to build best practices and a strong information base to deliver to the apparel cluster • Hold bimonthly cluster initiative meetings to spread knowledge, best practice, and foster ongoing collaboration • Develop a marketing committee | <ul style="list-style-type: none"> • Collaborate with knowledge leaders to build best practices and a strong information base to deliver to the apparel cluster • Establish a statewide apparel cluster conference to introduce firms and their capabilities to each other • Hold bimonthly cluster initiative meetings to spread knowledge, best practice, and foster ongoing collaboration • Build an on-line forum • Identify strengths and weaknesses of each firm to determine opportunities for growth in efficiencies • Establish clear performance outcomes so effective measuring can be accomplished • Begin to update operating systems using the latest in information technology | <ul style="list-style-type: none"> • Collaborate with knowledge leaders to build best practices and a strong information base to deliver to the apparel cluster • Hold bimonthly cluster initiative meetings to spread knowledge, best practice, and foster ongoing collaboration |

In order to measure the impact of these activities, the following metrics will be tracked:

Exhibit 48: Metrics for the Apparel Cluster Committee

| Objectives | Metrics | Source |
|--|--|---|
| Identify and invoke “brand leaders” | <ul style="list-style-type: none"> • Growth of membership in the Apparel Cluster Committee | <ul style="list-style-type: none"> • Cluster Committee • Council’s Metrics Survey |
| Hold bimonthly meetings | <ul style="list-style-type: none"> • Participation rates at networking events • Results of select survey questions (e.g., “How frequent are your firm’s interactions with other firms in your cluster”) | |
| Formulate and administer on-line apparel cluster forum | <ul style="list-style-type: none"> • Hits on forum | <ul style="list-style-type: none"> • Cluster Committee |
| Help South Carolina firms become more competitive | <ul style="list-style-type: none"> • Direct employment and growth in the Apparel Cluster • Average wage and growth in the Apparel Cluster • Amount and growth in value of savings from pooled resources | <ul style="list-style-type: none"> • U.S. Dept. of Commerce • Cluster Committee |

TEXTILES CLUSTER COMMITTEE

MISSION

The Textiles Cluster Committee seeks to continuously upgrade the quality of the textiles business environment to enable businesses and related industries to specialize, innovate and compete more effectively in a global market.

OBJECTIVES

- Identify specific activities and quick-wins that will boost the competitiveness of textile firms in the very short-term;
- Develop a long-term strategy about how South Carolina firms will differentiate themselves to compete in a global market; and
- Identify and act upon activities to create a business environment that supports the strategy.

ACTIVITIES

In pursuit of its mission and objectives, the Textiles Cluster Committee's responsibilities are:

Identify activities and quick-wins to boost competitiveness in the short-term

- Amend the state's current incentive packages—which are geared towards defraying training, energy, investment, and other costs for companies that are *creating* jobs—to offer similar incentives to companies that are investing in plant and products to boost productivity, which will enable them to *retain* jobs; and
- Develop mechanisms (e.g., online chat-rooms and bulletin boards, small informal networking events, large conferences with presentations, etc.) to boost the flow of information among textile firms and related organizations so that they can better:
 - Collaborate to achieve operational efficiencies;
 - Collaborate to develop new products.

Develop a long-term strategy to help South Carolina firms differentiate and become more competitive

- Periodically convene cluster leaders to discuss and identify competitive challenges to the cluster and growth opportunities for the cluster;
- Identify market opportunities in which local firms can successfully compete and pursue high-value operations;

Identify and act upon activities to pursue the differentiated, sustainable positions

- Contact and coordinate with local research centers in South Carolina and nearby states to encourage the flow of research and ideas into local textile companies;
 - Liaise with appropriate schools, departments, programs, and researchers at local Universities (e.g., Clemson, USC, North Carolina State, Georgia Tech) to access relevant intellectual property;
 - Meet with leaders at Clemson to discuss an application to the Endowed Chairs program.

- Create forums for textiles customers (e.g. automotive manufacturers, military sites) to discuss present and future needs from their textiles suppliers in the cluster; and
- Identify training needs of textiles cluster firms, and work with the Education and Workforce Task Force to meet these needs.

The following Workplan has been developed to attach timing to the above-mentioned activities:

Exhibit 49: Workplan for the Textiles Cluster Committee

| Short-Term (2004–05) | Mid-Term (2005–06) | Long-Term (2006+) |
|--|--|--|
| <ul style="list-style-type: none"> • Amend the state’s current incentive packages—which offer numerous incentives for companies that are creating jobs—to offer similar incentives to companies that are upgrading plant or products so as to retain jobs • Develop mechanisms to boost the flow of information among textile firms and related organizations so that they can better: <ul style="list-style-type: none"> – Collaborate to achieve operational efficiencies – Collaborate to develop new products • Periodically convene cluster leaders to discuss competitive challenges | <ul style="list-style-type: none"> • Identify market opportunities in which local firms can successfully compete and pursue high-value operations • Coordinate with local research centers in South Carolina and nearby states to encourage the flow of research and ideas into local textile companies • Identify training needs of textiles cluster firms, and liaise with educational institutions to ensure these needs are met • Periodically convene cluster leaders to discuss competitive challenges | <ul style="list-style-type: none"> • Create forums for textiles customers (e.g., automotive manufacturers, military sites) to discuss present and future needs from their textiles suppliers in the cluster • Periodically convene cluster leaders to discuss competitive challenges |

In order to measure the impact of these activities, the following metrics will be tracked:

Exhibit 50: Metrics for the Textiles Cluster Committee

| Objectives | Metrics | Source |
|---|---|--|
| Develop mechanisms to boost collaboration among textile firms and related organizations | <ul style="list-style-type: none"> • Growth of membership in the Textile Cluster Committee • Participation rates at networking events • Number and value of licenses from local research institutions • Results of select survey questions (e.g., “How frequent are your firm’s interactions with other firms in your cluster”) | <ul style="list-style-type: none"> • Cluster Committee • Council’s Metrics Survey |
| Help South Carolina firms become more competitive | <ul style="list-style-type: none"> • Amount and growth in new Textiles Cluster firms in the area (relative to the U.S. overall) • Number and growth of textiles patents • Select survey questions on the business environment for textiles <ul style="list-style-type: none"> – Does the pool of skilled workers meet your growth needs? – Is South Carolina a good place to innovate in your business? | <ul style="list-style-type: none"> • U.S. Department of Commerce • Cluster Committee • Council’s Metrics Survey |

TRAVEL AND TOURISM CLUSTER COMMITTEE

MISSION

The Travel and Tourism Cluster Committee seeks to build consensus on a focused strategy to continuously enhance the value of the industry's products and services and to improve its business environment for the benefit of South Carolina and its visitors.

OBJECTIVES

- Achieve recognition and proper status for the T&T industry which is commensurate with the important role it plays in the state's economy;
- Identify a differentiated position and strategy for South Carolina's Travel and Tourism Cluster that addresses product development and service enhancement; and
- Develop and act upon initiatives and recommendations to pursue the new strategic position.

ACTIVITIES

In pursuit of its mission and objectives, the Travel and Tourism Cluster Committee's responsibilities are:

Achieve recognition and proper status for the T&T industry which is commensurate with the important role it plays in the state's economy

- Stress Travel and Tourism is the first step for any industry recruitment. "Quality of Life" is as important as "Business Environment" in business location decisions; and
- Create PSAs about the Tourism industry for in-state distribution.

Identify a differentiated position and strategy for South Carolina's Travel and Tourism Cluster

- Agree on a differentiated position for the future of the cluster, including potential markets to be targeted and potential commercial and marketing implications;
- List and categorize current tourism assets to be part of a state-wide strategy;
- Create preliminary strategy that targets specific tourist segments, incorporates assets of various regions of the state, and aligns with the over-arching state marketing strategy; and
- Develop action plans to assess / pursue key potential opportunities: international markets, long-haul domestic travelers and pass-through travelers.

Identify and act upon activities to develop and pursue the new strategic position

- Review air transportation service currently in place and identify critical gaps to be addressed, based on the new strategy:
 - Generate ideas to secure direct flights and international service (e.g., enhance industry demand);
 - Collect data on origin markets for tourists arriving by air; and
 - Launch cooperative marketing programs with partner airlines.

- Review product development incentives and infrastructure currently in place and identify critical gaps to be addressed, based on the new strategy:
 - Identify opportunities for public / private partnerships and encourage PRT to become more proactive in this area;
 - Examine feasibility of international convention facilities and an international airport;
 - Leverage / reposition existing assets (e.g., Heritage Corridor), as needed, to fill gaps; and
 - Examine plans / expectations of all areas of the state.
- Develop programs focused on service enhancement (e.g., Quality of Service state certification);
- Create institutions for collaboration with a focus on building partnerships and facilitating collaboration between firms on new product development, development of integrated product offerings and cooperative marketing initiatives;
- Promote collaboration between tourism firms and developers focusing on the immigration market;
- Revise overall economic development incentives for tourism to ensure alignment with new strategy, including ability to drive significant private sector investment and collaboration between firms in the cluster:
- Assess efficiency and alignment of the use of public monies (e.g., state accommodations tax) with the new strategy;
- Create a plan for addressing sustainability of quality of life and the environment in South Carolina, including potential incentives for firms developing projects that go beyond current laws and regulations;
- Develop a specialized curriculum with technical colleges and high schools to provide necessary skills to tourism employees and enable achievement of a high quality of service standard, particularly experienced skilled employees for the coast during the high season (in coordination with Education and Workforce Task Force); and
- Increase tourism-related research in South Carolina by supporting and / or proposing initiatives consistent with the new strategy:
 - Relevant Endowed Chair proposals;
 - Marketing and segmentation research projects;
 - Development of methodologies for analysis of public and private sector investment in tourism.

The following Workplan has been developed to attach timing to the above-mentioned activities:

Exhibit 51: Workplan for the Travel and Tourism Cluster Committee

| Short-Term (2004–05) | Mid-Term (2005–06) | Long-Term (2006+) |
|--|---|---|
| <ul style="list-style-type: none"> • Agree on a differentiated position for the future of the cluster, including potential markets to be targeted and potential commercial and marketing implications • List and categorize current tourism assets to be part of a statewide strategy • Create preliminary strategy that targets specific tourist segments, incorporates assets of various regions of the state, and aligns with the overarching state marketing strategy • Create PSAs highlighting the importance of the Travel and Tourism industry • Review air transportation service currently in place, and identify critical gaps to be addressed • Review product development incentives and infrastructure currently in place, and identify critical gaps to be addressed • Develop programs focused on service enhancement | <ul style="list-style-type: none"> • Develop action plans to assess / pursue key potential opportunities: international markets, long-haul domestic travelers, and pass-through travelers • Assess efficiency and alignment of the use of public monies with the new strategy • Create institutions for collaboration to build partnerships between firms • Develop a specialized curriculum with technical colleges and high schools to provide necessary skills to tourism employees • Promote collaboration between tourism firms and developers focusing on the immigration market | <ul style="list-style-type: none"> • Revise overall economic development incentives for tourism to ensure alignment with new strategy • Create a plan for addressing sustainability of quality of life and the environment in South Carolina • Increase tourism-related research in South Carolina |

In order to measure the impact of these activities, the following metrics will be tracked:

Exhibit 52: Metrics for the Travel and Tourism Cluster Committee

| Objectives | Metrics | Source |
|--|---|---|
| Achieve recognition and proper status for the T&T industry which is commensurate with the important role it plays in the state's economy | <ul style="list-style-type: none"> • Travel and Tourism's economic impact on the state and other state clusters | <ul style="list-style-type: none"> • Task Force • PRT • TIA |
| Identify a differentiated position and strategy for South Carolina's Travel and Tourism Cluster that addresses product development and service enhancement | <ul style="list-style-type: none"> • Amount and growth of Gross Tourism Product per visitor • Direct employment and growth in the Travel and Tourism Cluster • Average wage and growth in the Travel and Tourism Cluster | <ul style="list-style-type: none"> • Task Force • PRT • TIA |
| Develop and act upon initiatives and recommendations to pursue the new strategic position | <ul style="list-style-type: none"> • Number of direct flights to South Carolina • Amount and growth of public funding in support of newly identified strategy • Amount and growth in tourism-related research funds | <ul style="list-style-type: none"> • Task Force • PRT • S.C. Comptroller General's Office • South Carolina Commission On Higher Education |

AGRIBUSINESS CLUSTER COMMITTEE

MISSION

The Agribusiness Cluster Committee will work collectively to upgrade the quality of the agricultural business environment, improve the average wage and quality of life in South Carolina's rural areas, and to develop a flourishing rural economy by exploring new opportunities for agribusiness sustainability.

OBJECTIVES

- Identify and activate the relevant agriculture subclusters and issue groups to support collaboration amongst Agribusiness firms and related organizations; and
- Thoroughly analyze the agribusiness cluster environment to quantify the specific needs of the cluster, going beyond anecdotal evidence to identify key gaps and act to fill them.

ACTIVITIES

In pursuit of its mission and objectives, the Agribusiness Cluster Committee's responsibilities are:

Identify and activate the relevant agriculture subclusters and issue groups to support collaboration amongst Agribusiness firms and related organizations

- Work with key leaders from business, government, academia, and economic development organizations to discuss and identify the appropriate agriculture clusters and issue areas;
- Identify appropriate sub-clusters and issue areas within the Agribusiness Cluster Committee group:
 - Appoint sub-cluster and issue area chairs and committee members;
 - Facilitate sub-cluster and issue area meetings; and
- Periodically convene cluster leaders to facilitate collaboration and networking, and to discuss and identify competitive challenges to the cluster and growth opportunities for the cluster.

Thoroughly analyze the agribusiness cluster environment to quantify the specific needs of the cluster, going beyond anecdotal evidence to identify key gaps and act to fill them

- Reach out to existing agribusinesses and organizations to obtain their input
- Accumulate knowledge on different issues
- Have each sub-cluster cluster and issue group identify their key issues and measures of progress
- Create institutions for collaboration with a focus on building partnerships and facilitating collaboration between firms on new product development, development of integrated product offerings and cooperative marketing initiatives;
- Contact and coordinate with local research centers in South Carolina and nearby states to encourage the flow of research and ideas into local agribusiness firms;
 - Explore development of value-added agriculture opportunities
 - Identify needed innovations; look to other fields for ideas
 - Explore new and innovative ideas (e.g., synthetic fuels, new uses for agribusiness waste products)

- Create a marketing plan(s) for agricultural products from the state
- Create / identify and recruit ancillary businesses (e.g., plastic buckets to plant trees and shrubs)
- Explore ways for the packaging industry to help advance the agribusiness cluster

The following Workplan has been developed to attach timing to the above-mentioned activities:

Exhibit 53: Workplan for the Agribusiness Cluster Committee

| Short-Term (2004–05) | Mid-Term (2005–06) | Long-Term (2006+) |
|---|--|---|
| <ul style="list-style-type: none"> • Work with key leaders from business, government, academia, and economic development organizations to discuss and identify the appropriate agriculture clusters and issue areas • Identify and activate appropriate sub-clusters within the agribusiness working group • Reach out to existing agribusinesses and organizations to obtain their input • Accumulate knowledge on different issues • Have each sub-cluster cluster and issue group identify their key issues and measures of progress • Periodically convene cluster leaders to facilitate collaboration, networking, and discussion of challenges to, and opportunities for, the cluster | <ul style="list-style-type: none"> • Create institutions for collaboration with a focus on building partnerships and facilitating collaboration between firms on new product development, development of integrated product offerings, and cooperative marketing initiatives • Contact and coordinate with local research centers in South Carolina and nearby states to encourage the flow of research and ideas into local agribusiness firms • Create/identify and recruit ancillary businesses • Create and execute on a marketing plan • Explore ways for the packaging industry to help advance the agribusiness cluster • Periodically convene cluster leaders to facilitate collaboration, networking, and discussion of challenges to, and opportunities for, the cluster | <ul style="list-style-type: none"> • Create/identify and recruit ancillary businesses • Periodically convene cluster leaders to facilitate collaboration, networking, and discussion of challenges to, and opportunities for, the cluster |

In order to measure the impact of these activities, the following metrics will be tracked:

Exhibit 54: Metrics for the Agribusiness Cluster Committee

| Objectives | Metrics | Source |
|--|---|---|
| Identify and activate the relevant agriculture sub-clusters and issue groups | <ul style="list-style-type: none"> • Growth of membership in the Agribusiness Cluster Committee • Participation rates at networking events • Results of select survey questions (e.g., “How frequent are your firm’s interactions with other firms in your cluster”) | <ul style="list-style-type: none"> • Cluster Committee • Council’s Metrics Survey |
| Thoroughly analyze the agribusiness cluster environment to quantify the specific needs of the cluster and act to fill them | <ul style="list-style-type: none"> • Direct employment and growth in the agribusiness in South Carolina • Average wage and growth in the agribusiness in South Carolina • Growth of establishments in agribusiness in South Carolina | <ul style="list-style-type: none"> • Cluster Committee • S.C. Comptroller General’s Office • U.S. Department of Commerce |

TASK FORCES AND CLUSTER COMMITTEES NOT ORGANIZED

Task Forces and Cluster Committees the *South Carolina Competitiveness Initiative* is currently forming include:

Internal and External Marketing Task Force

New Institutions Task Force

Distressed and Disadvantaged Areas Task Force

Chemical Products Cluster Committee

ACTION AGENDA FOR SOUTH CAROLINA

ACTION AGENDA FOR SOUTH CAROLINA

In order to raise prosperity and increase value-added activities in South Carolina, each active Task Force and Cluster Committee created a mission statement, objectives and activities for its area of focus. By doing so, they have developed a detailed long-term economic strategy for South Carolina. Here, the mission, objectives and activities of the working groups are distilled into a comprehensive Action Agenda. This Agenda establishes timeframes—short-term, mid-term, and long-term—for the activities necessary to each group’s mandate (See Exhibit 55).

Exhibit 55: Action Agenda for South Carolina

| | Short-Term (2004–05) | Mid-Term (2005–06) | Long-Term (2006+) |
|----------------------------|--|--|---|
| Council on Competitiveness | <ul style="list-style-type: none"> • Prioritize creation of Task Forces and Cluster Committees • Appoint chairs for Task Forces and Cluster Committees, work with chairs to recruit other members • Create process for creating new Task Forces and Cluster Committees and “sunsetting” old ones • Develop a long-term economic strategy for South Carolina • Write, publish, and disseminate a report on the South Carolina Competitiveness Initiative • Implement plan by advocating the strategy to appropriate groups, developing a legislative agenda, and supporting working groups’ efforts • Create process for working groups to report on progress and receive Council input • Provide input and suggestions to Task Forces and Cluster Committees as appropriate • Establish stable financing and staffing | <ul style="list-style-type: none"> • Create new Task Forces and Cluster Committees as appropriate • Disseminate a report on the South Carolina Competitiveness Initiative, including the long-term strategy and implementation plan • Implement plan by advocating the strategy to appropriate groups, developing a legislative agenda, and supporting working groups’ efforts • Review progress of Task Forces and Cluster Committees; provide input and support as appropriate | <ul style="list-style-type: none"> • Implement plan by advocating the strategy to appropriate groups, developing a legislative agenda, and supporting working groups’ efforts • Review progress of Task Forces and Cluster Committees; provide input and support as appropriate |
| Cluster Activation | <ul style="list-style-type: none"> • Develop criteria for identifying clusters to activate • Create informative documents for potential cluster leaders • Establish contact with cluster-focused organizations to help facilitate cluster assessment and development • Assist individuals interested in seeding nascent clusters • Meet with potential leaders of existing industry concentrations to assist with cluster assessments • Deliver speeches and conduct seminars for individuals interested in cluster development | <ul style="list-style-type: none"> • Create a network of Task Force and Cluster Committee leaders to facilitate communication and knowledge transfer • Assist individuals interested in seeding and supporting nascent clusters • Meet with potential leaders of existing industry concentrations to assist them in conducting cluster assessments • Deliver speeches and conduct seminars for individuals interested in cluster development | <ul style="list-style-type: none"> • Assist individuals interested in seeding and supporting nascent clusters • Meet with potential leaders of existing industry concentrations to assist them in conducting cluster assessments • Deliver speeches and conduct seminars for individuals interested in cluster development |

Short-Term (2004–05)

Mid-Term (2005–06)

Long-Term (2006+)

Education and Workforce

- Act as an oversight committee for Pathways to Prosperity in lieu of Coordination Council and rally efforts to pass Pathways legislation in 2005
- Develop mission relevant agendas for early childhood development, colleges & universities, & adult education
- Identify and pursue untapped financing for South Carolina's education and workforce training systems
- Research parental involvement best practices
- Develop and fund phase I communication strategy
- Re-align curricula of tech colleges and secondary schools with the needs of clusters
- Develop and publish scorecard on implementation
- Assist Council in documenting knowledge needs for business clusters that can be met by the education system

- Create online database of education initiatives in SC; recognize best practices (in-state and out-of-state)
- Develop criteria to certify and recognize local best practices Establish / upgrade Regional Service Centers linking business and education
- Foster other models of business-education partnerships
- Raise awareness and accountability of schools regarding black male educational achievement
- Produce white papers on K-12 funding
- Support expansion of NFTE program
- Develop and fund phase II communication strategy, messages and materials
- Evaluate pilot programs aimed at reducing drop-out rates
- Improve articulation from K-12 to post secondary options
- Assist Council on documenting knowledge needs for business clusters that can be met by the education system
- Publish annual scorecard on implementation

- Reduce drop-out rates
- Create a statewide Certificates and Apprenticeships program
- Support tech colleges in developing curriculum to commercialize ideas linked with Research Universities' centers for excellence
- Develop and fund phase III communication strategy, messages and materials
- Publish annual scorecard on implementation
- Maintain momentum and reprioritize critical items

Research Investment

- Inventory research strengths at South Carolina's universities and centers
- Communicate to industry regarding both ongoing research activities and existing catalogues of research
- Gather information on the research interests of local industry and channel into the state's universities and research centers
- Identify incentives to encourage investment in research by both academia and the private sector
- Encourage an increase in the funding of the Endowed Chairs Program

- Bring together researchers and private sector scientists and engineers
- Review incentives for faculty involvement in commercially relevant research
- Identify research and training needs of business in regions across the state
- Map research and training capabilities across the state to identify priority gaps
- Work with universities, colleges, and training centers to fill those gaps

- Create single point of contact in universities and research centers for firms and clusters seeking information
- Enact incentive systems to reward academic involvement in commercially relevant research

Start-Ups and Local Firms

- Inventory and advertise resources available to start-ups
- Expand education for entrepreneurs, investors, & advisors
- Recommend and promote incentives to encourage investment in local firms
- Identify and fund scholarships for minority participation in entrepreneurial training
- Identify issues and challenges faced by a wide range of start-ups and local firms
- Recommend legislation to encourage early-stage investments

- Create networks between new and successful entrepreneurs and local firms
- Connect funding sources with early stage entrepreneurs
- Facilitate start-up and local businesses access into local talent pool
- Provide start-ups with access to universities' physical assets
- Advertise resources available to start-ups and local firms
- Help minority entrepreneurs identify growth areas in South Carolina

- Develop and promote regulation simplification and 'one-stop-shop' programs at regulatory organizations
- Create 'skill placement' programs for students
- Advertise resources available to entrepreneurs and local firms

Measuring Progress

- Create standardized process for tracking identified metrics
- Meet with members of other groups to review metrics for each campaign's activities and determine which will provide the most insight into the success of activities
- Take baseline measures and publish first Innovation Index

- Identify benchmark regions and track South Carolina relative to them
- Identify appropriate metrics to track for both the state and "competitor" regions
- Determine short, medium and long term milestones
- Periodically measure and publish subsequent Indexes
- Research important new and emerging issues, highlight new strategic needs and revise metrics as appropriate

- Take periodic measurements and publish subsequent Indexes
- Research important new and emerging issues, highlight new strategic needs and revise metrics as appropriate

Short-Term (2004–05)

Mid-Term (2005–06)

Long-Term (2006+)

Automotive Cluster

- Develop inventory of existing auto assets (e.g., companies, training programs, R&D) in SC and the region
- Recommend legislation to allow private matching funds to lag state contributions
- Develop legislation to provide incentives for companies to locate on the ICAR campus
- Support ICAR / Clemson Endowed Chairs recruitment and funding

- Define set of criteria to assess attractiveness and potential for tier 1 and other automotive suppliers
- Recruit high value suppliers and another OEM to the state
- Develop and circulate a math and science curriculum relevant to the auto cluster
- Establish high-level contacts with automotive firms
- Work with relevant leadership (e.g., port authority) to conduct mutually beneficial development activities
- Support ICAR project as appropriate (e.g., Endowed Chairs, marketing to attract companies to the campus)

- Recruit high value suppliers and another major OEM to the state
- Maintain contacts with auto firms
- Maintain dialogues with port authority and other relevant infrastructure leadership
- Support ICAR project as appropriate (e.g., Endowed Chairs, marketing to attract companies to the campus)

Travel and Tourism Cluster

- Agree on a differentiated position for the cluster
- List and categorize current tourism assets
- Create strategy that targets specific tourist segments and incorporates assets of various regions of the state
- Create PSAs highlighting importance of the Travel and Tourism industry
- Identify critical gaps in current product development incentives and infrastructure
- Identify critical gaps in air transportation service currently in place
- Develop programs focused on service enhancement

- Develop action plans to assess / pursue key potential opportunities: international markets, long-haul domestic travelers and pass-through travelers
- Assess efficiency and alignment of the use of public monies with the new strategy
- Create institutions for collaboration to build partnerships between firms
- Develop a specialized curriculum with technical colleges and high schools to provide key skills to tourism employees
- Promote collaboration between tourism firms and developers focusing on the immigration market

- Revise overall economic development incentives for tourism to ensure alignment with new strategy
- Create a plan for sustaining quality of life and the environment in South Carolina
- Increase tourism-related research in South Carolina

Textiles Cluster

- Amend the state's current incentive packages to offer similar incentives to companies that are upgrading plant or products so as to retain rather than create jobs
- Develop mechanisms to boost the flow of information among textile firms and related organizations
- Periodically convene cluster leaders to discuss competitive challenges

- Identify market opportunities in which local firms can successfully compete and pursue high-value operations
- Coordinate with nearby research centers to encourage the flow of research and ideas into local textile companies
- Identify training needs of textiles cluster firms, and liaise with educational institutions to ensure needs are met
- Periodically convene cluster leaders to discuss competitive challenges

- Create forums for textiles customers (e.g. automotive manufacturers, military sites) to discuss present and future needs from their textiles suppliers in the cluster
- Periodically convene cluster leaders to discuss competitive challenges

Apparel Cluster

- Identify critical characteristics needed for a successful apparel cluster
- Recruit additional members to the South Carolina Apparel Cluster
- Collaborate with knowledge leaders to build best practices and a strong information base
- Hold bi-monthly cluster initiative meetings to spread knowledge, best practice, and foster ongoing collaboration
- Develop a marketing committee

- Collaborate with knowledge leaders to build best practices and a strong information base
- Establish a state wide apparel cluster conference to introduce firms and their capabilities to each other
- Hold meetings to spread best practice, and collaboration
- Build an on-line forum
- Identify opportunities for efficiencies among member firms
- Establish performance outcomes for effective measuring
- Begin to update operating systems using the latest IT

- Collaborate with knowledge leaders to build best practices and a strong information base
- Hold bi-monthly cluster initiative meetings to spread knowledge, best practice, and foster ongoing collaboration

Agriculture Cluster

- Identify the appropriate agriculture clusters and issue areas
- Identify and activate appropriate sub clusters within agribusiness
- Obtain input from existing agribusinesses & organizations
- Accumulate knowledge on different issues
- Have each sub-cluster cluster and issue group identify their key issues and measures of progress
- Periodically convene cluster leaders to facilitate collaboration, networking, and the discussion of challenges to, and opportunities for, the cluster

- Coordinate with local research centers to encourage the flow of ideas into local agribusiness firms
- Create / identify and recruit ancillary businesses
- Create and execute on a marketing plan
- Explore ways for the packaging industry to help advance the agribusiness cluster
- Periodically convene cluster leaders to facilitate collaboration, networking, and the discussion of challenges to, and opportunities for, the cluster

- Create / identify and recruit ancillary businesses
- Periodically convene cluster leaders to facilitate collaboration, networking, and the discussion of challenges to, and opportunities for, the cluster

In addition to providing the over-arching direction forward, the Action Agenda has also been organized with the roles and responsibilities for key sectors of South Carolina’s economic infrastructure: the private sector, academia, and government (See Exhibits 56-58).

The Action Agenda is a guide for the timeframe needed to complete each activity—it is intended to be fluid, and is expected to change as the South Carolina Council on Competitiveness, Task Forces, and Cluster Committees continue to execute against their missions and objectives.

Exhibit 56: Private Sector Action Agenda for South Carolina

| | Short-Term (2004–05) | Mid-Term (2005–06) | Long-Term (2006+) |
|----------------------------|--|--|---|
| Council on Competitiveness | <ul style="list-style-type: none"> • Prioritize issues for immediate creation of Task Forces and Cluster Committees • Appoint chairs for Task Forces and Cluster Committees, work with chairs to recruit other members • Create process for creating new Task Forces and Cluster Committees and “sunsetting” old ones • Develop a detailed long-term economic strategy for South Carolina • Write, publish, and disseminate a report on the South Carolina Competitiveness Initiative • Implement plan by advocating the strategy to appropriate groups, developing a legislative agenda, and supporting working groups’ efforts • Create process for working groups to report on progress and receive Council input • Provide input and suggestions to Task Forces and Cluster Committees as appropriate • Establish stable financing and staffing | <ul style="list-style-type: none"> • Create new Task Forces and Cluster Committees as appropriate • Disseminate a report on the South Carolina Competitiveness Initiative, including the long-term strategy and implementation plan • Implement plan by advocating the strategy to appropriate groups, developing a legislative agenda, and supporting working groups’ efforts • Review progress of Task Forces and Cluster Committees; provide input and support as appropriate | <ul style="list-style-type: none"> • Implement plan by advocating the strategy to appropriate groups, developing a legislative agenda, and supporting working groups’ efforts • Review progress of Task Forces and Cluster Committees; provide input and support as appropriate |
| Cluster Activation | <ul style="list-style-type: none"> • Develop criteria for identifying important clusters to organize and build up • Create informative documents for distribution to potential cluster leadership • Establish contact with cluster-focused organizations in South Carolina to help facilitate cluster assessment and development • Assist individuals interested in seeding and supporting nascent clusters • Meet with potential leaders of existing industry concentrations to assist them in conducting cluster assessments • Deliver speeches and conduct seminars for individuals interested in cluster development | <ul style="list-style-type: none"> • Create a network of Task Force and Cluster Committee leaders to facilitate communication and knowledge transfer • Assist individuals interested in seeding and supporting nascent clusters • Meet with potential leaders of existing industry concentrations to assist them in conducting cluster assessments • Deliver speeches and conduct seminars for individuals interested in cluster development | <ul style="list-style-type: none"> • Assist individuals interested in seeding and supporting nascent clusters • Meet with potential leaders of existing industry concentrations to assist them in conducting cluster assessments • Deliver speeches and conduct seminars for individuals interested in cluster development |

Short-Term (2004–05)

Mid-Term (2005–06)

Long-Term (2006+)

Education and Workforce

- Act as an oversight committee for Pathways to Prosperity in lieu of Coordination Council and rally efforts to pass Pathways legislation in 2005
- Develop mission relevant agendas for early childhood development, colleges and universities, and adult education
- Identify and pursue untapped financing for South Carolina's education and workforce training systems
- Research parental involvement best practices
- Develop and fund phase I communication strategy
- Re-align curricula of tech colleges and secondary schools with the needs of clusters both now and for the future
- Develop and publish scorecard on implementation
- Assist Council on documenting knowledge needs for business clusters that can be met by the education system

- Create online database of education initiatives in SC; recognize best practices (in-state and out-of-state)
- Develop criteria to certify and recognize local best practices Establish / upgrade Regional Service Centers linking business and education
- Foster other models of business-education partnerships as appropriate
- Raise awareness and accountability of schools regarding black male educational achievement
- Produce white papers on K-12 funding
- Support expansion of NFTE program
- Develop and fund phase II communication strategy, messages and materials
- Evaluate pilot programs aimed at reducing drop-out rates
- Improve articulation from K-12 to post secondary options
- Assist Council on documenting knowledge needs for business clusters that can be met by the education system
- Publish annual scorecard on implementation

- Reduce drop-out rates
- Create a statewide Certificates and Apprenticeships program
- Support tech colleges in developing curriculum to commercialize ideas linked with Research Universities' centers for excellence
- Develop and fund phase III communication strategy, messages and materials
- Publish annual scorecard on implementation
- Maintain momentum and reprioritize critical items

Research Investment

- Gather information on the research interests of local industry and channel into the state's universities and research centers
- Identify incentives to encourage investment in research by both academia and the private sector
- Encourage an increase in the funding of the Endowed Chairs Program

- Bring together researchers and private sector scientists and engineers
- Identify research and training needs of business in regions across the state
- Map research and training capabilities across the state to identify priority gaps
- Work with universities, colleges, and training centers to fill those gaps

- Create single point of contact in universities and research centers for firms and clusters seeking information
- Enact incentive systems to reward academic involvement in commercially relevant research

Start-Ups and Local Firms

- Inventory and advertise resources available to start-up and growth firms
- Expand education for entrepreneurs, investors, and professional advisors
- Recommend and promote incentives to encourage investment in local firms
- Identify and fund scholarships for minority participation in entrepreneurial training
- Identify issues and challenges faced by a wide range of start-ups and local firms
- Recommend legislation to encourage early-stage investments

- Create networks between new and successful entrepreneurs and local firms
- Connect new funding sources with early stage entrepreneurs
- Facilitate start-up and local businesses access into local talent pool
- Provide start-ups with access to universities' physical assets
- Advertise resources available to entrepreneurs and local firms
- Help minority entrepreneurs identify growth areas in South Carolina

- Develop and promote regulation simplification and 'one-stop-shop' programs at regulatory organizations
- Create 'skill placement' programs for students
- Advertise resources available to entrepreneurs and local firms

Measuring Progress

- Create standardized process for tracking identified metrics
- Meet with members of other groups to review metrics for each campaign's activities and determine which will provide the most insight into the success of activities
- Take baseline measures and publish first Innovation Index

- Identify benchmark regions and track South Carolina relative to them
- Identify appropriate metrics to track for both the state and "competitor" regions
- Determine short, medium and long term milestones for the metrics
- Take periodic measurements and publish subsequent Indexes
- Research important new and emerging issues, highlight new strategic needs and revise metrics as appropriate

- Take periodic measurements and publish subsequent Indexes
- Research important new and emerging issues, highlight new strategic needs and revise metrics as appropriate

Short-Term (2004–05)

Mid-Term (2005–06)

Long-Term (2006 +)

Automotive Cluster

- Recommend legislation to allow private matching funds to lag state contributions
- Develop legislation to provide incentives for companies to locate on the ICAR campus
- Support ICAR / Clemson Endowed Chairs recruitment and funding

- Define set of criteria to assess attractiveness and potential for tier 1 and other automotive suppliers
- Recruit high value / priority suppliers and another major OEM to the state
- Develop and circulate a math and science curriculum relevant to the auto cluster
- Work with relevant infrastructure leadership (e.g., port authority) to conduct mutually beneficial development activities
- Support ICAR project as appropriate (e.g., Endowed Chairs, marketing to attract companies to locate on campus)

- Recruit high value / priority suppliers and another major OEM to the state
- Maintain relationships with automotive firms
- Maintain dialogues with port authority and other relevant infrastructure leadership
- Support ICAR project as appropriate (e.g., Endowed Chairs, marketing to attract companies to locate on campus)

Travel and Tourism Cluster

- Agree on a differentiated position for the future of the cluster
- List and categorize current tourism assets
- Create strategy that targets specific tourist segments and incorporates assets of various regions of the state
- Create PSAs highlighting importance of the Travel and Tourism industry
- Identify critical gaps in current product development incentives and infrastructure
- Identify critical gaps in air transportation service currently in place
- Develop programs focused on service enhancement

- Develop action plans to assess / pursue key potential opportunities: international markets, long-haul domestic travelers and pass-through travelers
- Assess efficiency and alignment of the use of public monies with the new strategy
- Create institutions for collaboration to build partnerships between firms
- Develop a specialized curriculum with technical colleges and high schools to provide necessary skills to tourism employees
- Promote collaboration between tourism firms and developers focusing on the immigration market

- Revise overall economic development incentives for tourism to ensure alignment with new strategy
- Create a plan for addressing sustainability of quality of life and the environment in South Carolina
- Increase tourism-related research in South Carolina

Textiles Cluster

- Develop recommendations to amend the state's current incentive packages to offer similar incentives to companies that are upgrading plant or products so as to retain rather than create jobs
- Develop mechanisms to boost the flow of information among textile firms and related organizations
- Periodically convene cluster leaders to discuss competitive challenges

- Identify market opportunities in which local firms can successfully compete and pursue high-value operations
- Coordinate with local research centers in South Carolina and nearby states to encourage the flow of research and ideas into local textile companies
- Identify training needs of textiles cluster firms, and liaise with educational institutions to ensure needs are met
- Periodically convene cluster leaders to discuss competitive challenges

- Create forums for textiles customers (e.g. automotive manufacturers, military sites) to discuss present and future needs from their textiles suppliers in the cluster
- Periodically convene cluster leaders to discuss competitive challenges

Apparel Cluster

- Identify critical characteristics needed for a successful apparel cluster
- Recruit additional members to the South Carolina Apparel Cluster
- Collaborate with knowledge leaders to build best practices and a strong information base
- Hold bi-monthly cluster initiative meetings to spread knowledge, best practice, and foster ongoing collaboration
- Develop a marketing committee

- Collaborate with knowledge leaders to build best practices and a strong information base
- Establish a state wide apparel cluster conference to introduce firms and their capabilities to each other
- Hold cluster meetings to spread best practice, and collaboration
- Build an on-line forum
- Identify opportunities for efficiencies among member firms
- Establish performance outcomes for effective measuring
- Begin to update operating systems using the latest IT

- Collaborate with knowledge leaders to build best practices and a strong information base
- Hold bi-monthly cluster initiative meetings to spread knowledge, best practice, and foster ongoing collaboration

Agriculture Cluster

- Identify the appropriate agriculture clusters and issue areas
- Identify and activate appropriate sub clusters within agribusiness
- Obtain input from existing agribusinesses and organizations
- Accumulate knowledge on different issues
- Have each sub-cluster cluster and issue group identify their key issues and measures of progress
- Periodically convene cluster leaders to facilitate collaboration and networking, and to discuss and challenges to the cluster and growth opportunities for the cluster

- Coordinate with local research centers to encourage the flow of ideas into local agribusiness firms
- Create / identify and recruit ancillary businesses
- Create and execute on a marketing plan
- Explore ways for the packaging industry to help advance the agribusiness cluster
- Periodically convene cluster leaders to facilitate collaboration and networking, and to discuss and challenges to the cluster and growth opportunities for the cluster

- Create / identify and recruit ancillary businesses
- Periodically convene cluster leaders to facilitate collaboration and networking, and to discuss and identify competitive challenges to the cluster and growth opportunities for the cluster

Exhibit 57: Academia Action Agenda for South Carolina

| | Short-Term (2004–05) | Mid-Term (2005–06) | Long-Term (2006+) |
|----------------------------|--|---|--|
| Council on Competitiveness | <ul style="list-style-type: none"> • Implement plan by advocating the strategy to appropriate groups, developing a legislative agenda, and supporting working groups' efforts | <ul style="list-style-type: none"> • Implement plan by advocating the strategy to appropriate groups, developing a legislative agenda, and supporting working groups' efforts | <ul style="list-style-type: none"> • Implement plan by advocating the strategy to appropriate groups, developing a legislative agenda, and supporting working groups' efforts |
| Cluster Activation | <ul style="list-style-type: none"> • Assist individuals interested in seeding and supporting nascent clusters • Meet with potential leaders of existing industry concentrations to assist them in conducting cluster assessments | <ul style="list-style-type: none"> • Create a network of Task Force and Cluster Committee leaders to facilitate communication and knowledge transfer • Assist individuals interested in seeding and supporting nascent clusters • Meet with potential leaders of existing industry concentrations to assist them in conducting cluster assessments | <ul style="list-style-type: none"> • Assist individuals interested in seeding and supporting nascent clusters • Meet with potential leaders of existing industry concentrations to assist them in conducting cluster assessments |
| Education and Workforce | <ul style="list-style-type: none"> • Identify and pursue untapped financing for South Carolina's education and workforce training systems | <ul style="list-style-type: none"> • Develop criteria to certify and recognize local best practices Establish / upgrade Regional Service Centers linking business and education • Foster other models of business-education partnerships as appropriate • Raise awareness and accountability of schools regarding black male educational achievement | <ul style="list-style-type: none"> • Create a statewide Certificates and Apprenticeships program • Support tech colleges in developing curriculum to commercialize ideas linked with Research Universities' centers for excellence |
| Research Investment | <ul style="list-style-type: none"> • Gather information on the research interests of local industry and channel into the state's universities and research centers • Identify incentives to encourage investment in research by both academia and the private sector • Encourage an increase in the funding of the Endowed Chairs Program | | <ul style="list-style-type: none"> • Enact incentive systems to reward academic involvement in commercially relevant research |
| Start-Ups and Local Firms | <ul style="list-style-type: none"> • Inventory and advertise resources available to start-up and growth firms • Recommend and promote incentives to encourage investment in local firms • Identify and fund scholarships for minority participation in entrepreneurial training | <ul style="list-style-type: none"> • Provide start-ups with access to universities' physical assets • Advertise resources available to entrepreneurs and local firms • Help minority entrepreneurs identify growth areas in South Carolina | <ul style="list-style-type: none"> • Develop and promote regulation simplification and 'one-stop-shop' programs at regulatory organizations • Create 'skill placement' programs for students • Advertise resources available to entrepreneurs and local firms • Create 'skill placement' programs for students • Advertise resources available to entrepreneurs and local firms |
| Measuring Progress | | <ul style="list-style-type: none"> • Take periodic measurements and publish subsequent Indexes • Research important new and emerging issues, highlight new strategic needs and revise metrics as appropriate | <ul style="list-style-type: none"> • Take periodic measurements and publish subsequent Indexes • Research important new and emerging issues, highlight new strategic needs and revise metrics as appropriate |
| Automotive Cluster | <ul style="list-style-type: none"> • Support ICAR project as appropriate | <ul style="list-style-type: none"> • Recruit high value / priority suppliers and another major OEM to the state • Support a math and science curriculum relevant to the auto cluster • Support ICAR project as appropriate | <ul style="list-style-type: none"> • Recruit high value / priority suppliers and another major OEM to the state • Support ICAR project as appropriate |

Exhibit 57: Academia Action Agenda for South Carolina (Continued)

| | Short-Term (2004–05) | Mid-Term (2005–06) | Long-Term (2006+) |
|----------------------------|--|---|---|
| Travel and Tourism Cluster | | <ul style="list-style-type: none"> • Develop a specialized curriculum with technical colleges and high schools to provide necessary skills to tourism employees | <ul style="list-style-type: none"> • Increase tourism-related research in South Carolina |
| Textiles Cluster | | <ul style="list-style-type: none"> • Coordinate with local research centers in South Carolina and nearby states to encourage the flow of research and ideas into local textile companies • Support training needs of textiles cluster firms, and liaise with other educational institutions to ensure needs are met | <ul style="list-style-type: none"> • Increase tourism-related research in South Carolina |
| Apparel Cluster | <ul style="list-style-type: none"> • Collaborate with knowledge leaders to build best practices and a strong information base | <ul style="list-style-type: none"> • Collaborate with knowledge leaders to build best practices and a strong information base | <ul style="list-style-type: none"> • Collaborate with knowledge leaders to build best practices and a strong information base |
| Agriculture Cluster | <ul style="list-style-type: none"> • Obtain input from existing agribusinesses & organizations • Accumulate knowledge on different issues • Periodically convene cluster leaders to facilitate collaboration, networking, and the discussion of challenges to, and opportunities for, the cluster | <ul style="list-style-type: none"> • Coordinate with local research centers to encourage the flow of ideas into local agribusiness firms • Periodically convene cluster leaders to facilitate collaboration, networking, and the discussion of challenges to, and opportunities for, the cluster | <ul style="list-style-type: none"> • Periodically convene cluster leaders to facilitate collaboration, networking, and the discussion of challenges to, and opportunities for, the cluster |

Exhibit 58: Government Action Agenda for South Carolina

| | Short-Term (2004–05) | Mid-Term (2005–06) | Long-Term (2006+) |
|----------------------------|--|---|--|
| Council on Competitiveness | <ul style="list-style-type: none"> • Implement plan by advocating the strategy to appropriate groups, developing a legislative agenda, and supporting working groups' efforts | <ul style="list-style-type: none"> • Implement plan by advocating the strategy to appropriate groups, developing a legislative agenda, and supporting working groups' efforts | <ul style="list-style-type: none"> • Implement plan by advocating the strategy to appropriate groups, developing a legislative agenda, and supporting working groups' efforts |
| Cluster Activation | <ul style="list-style-type: none"> • Assist individuals interested in seeding and supporting nascent clusters • Meet with potential leaders of existing industry concentrations to assist them in conducting cluster assessments | <ul style="list-style-type: none"> • Create a network of Task Force and Cluster Committee leaders to facilitate communication and knowledge transfer • Assist individuals interested in seeding and supporting nascent clusters • Meet with potential leaders of existing industry concentrations to assist them in conducting cluster assessments | <ul style="list-style-type: none"> • Assist individuals interested in seeding and supporting nascent clusters • Meet with potential leaders of existing industry concentrations to assist them in conducting cluster assessments |
| Education and Workforce | <ul style="list-style-type: none"> • Identify and pursue untapped financing for South Carolina's education and workforce training systems | <ul style="list-style-type: none"> • Develop criteria to certify and recognize local best practices Establish / upgrade Regional Service Centers linking business and education • Foster other models of business-education partnerships as appropriate • Raise awareness and accountability of schools regarding black male educational achievement | <ul style="list-style-type: none"> • Create a statewide Certificates and Apprenticeships program • Support tech colleges in developing curriculum to commercialize ideas linked with Research Universities' centers for excellence |
| Research Investment | <ul style="list-style-type: none"> • Gather information on the research interests of local industry and channel into the state's universities and research centers • Identify incentives to encourage investment in research by both academia and the private sector • Encourage an increase in the funding of the Endowed Chairs Program | | <ul style="list-style-type: none"> • Enact incentive systems to reward academic involvement in commercially relevant research |

| | Short-Term (2004–05) | Mid-Term (2005–06) | Long-Term (2006+) |
|----------------------------|--|--|--|
| Start-Ups and Local Firms | <ul style="list-style-type: none"> • Inventory and advertise resources available to start-up and growth firms • Recommend and promote incentives to encourage investment in local firms • Identify and fund scholarships for minority participation in entrepreneurial training | <ul style="list-style-type: none"> • Provide start-ups with access to universities' physical assets • Advertise resources available to entrepreneurs and local firms • Help minority entrepreneurs identify growth areas in South Carolina | <ul style="list-style-type: none"> • Develop and promote regulation simplification and 'one-stop-shop' programs at regulatory organizations • Create 'skill placement' programs for students • Advertise resources available to entrepreneurs and local firms • Create 'skill placement' programs for students • Advertise resources available to entrepreneurs and local firms |
| Measuring Progress | | <ul style="list-style-type: none"> • Take periodic measurements and publish subsequent Indexes • Research important new and emerging issues, highlight new strategic needs and revise metrics as appropriate | <ul style="list-style-type: none"> • Take periodic measurements and publish subsequent Indexes • Research important new and emerging issues, highlight new strategic needs and revise metrics as appropriate |
| Automotive Cluster | <ul style="list-style-type: none"> • Develop inventory of existing auto assets (e.g., companies, training programs, R&D) in SC and the region • Develop legislation to provide incentives for companies to locate on the ICAR campus • Support ICAR as appropriate / Clemson Endowed Chairs recruitment and funding | <ul style="list-style-type: none"> • Define set of criteria to assess attractiveness and potential for tier 1 and other automotive suppliers • Recruit high value / priority suppliers and another major OEM to the state • Establish high-level relationships with automotive firms • Support ICAR project as appropriate | <ul style="list-style-type: none"> • Recruit high value / priority suppliers and another major OEM to the state • Support ICAR project as appropriate |
| Travel and Tourism Cluster | <ul style="list-style-type: none"> • Create PSAs highlighting importance of the Travel and Tourism industry | <ul style="list-style-type: none"> • Develop action plans to assess / pursue key potential opportunities: international markets, long-haul domestic travelers and pass-through travelers • Assess efficiency and alignment of the use of public monies with the new strategy | <ul style="list-style-type: none"> • Revise overall economic development incentives for tourism to ensure alignment with new strategy • Increase tourism-related research in South Carolina |
| Textiles Cluster | <ul style="list-style-type: none"> • Amend the state's current incentive packages to offer similar incentives to companies that are upgrading plant or products so as to retain rather than create jobs | <ul style="list-style-type: none"> • Coordinate with local research centers in South Carolina and nearby states to encourage the flow of research and ideas into local textile companies | |
| Apparel Cluster | <ul style="list-style-type: none"> • Collaborate with knowledge leaders to build best practices and a strong information base | <ul style="list-style-type: none"> • Collaborate with knowledge leaders to build best practices and a strong information base | <ul style="list-style-type: none"> • Collaborate with knowledge leaders to build best practices and a strong information base |
| Agriculture Cluster | <ul style="list-style-type: none"> • Obtain input from existing agribusinesses and organizations • Accumulate knowledge on different issues • Periodically convene cluster leaders to facilitate collaboration, networking, and the discussion of challenges to, and opportunities for, the cluster | <ul style="list-style-type: none"> • Create / identify and recruit ancillary businesses • Periodically convene cluster leaders to facilitate collaboration, networking, and the discussion of challenges to, and opportunities for, the cluster | <ul style="list-style-type: none"> • Create / identify and recruit ancillary businesses • Periodically convene cluster leaders to facilitate collaboration, networking, and the discussion of challenges to, and opportunities for, the cluster |

As the South Carolina Council on Competitiveness continues to implement its Action Agenda, the strategy will evolve. Even as the currently active Task Forces and Cluster Committees create meaningful change for South Carolina, new Task Forces and Cluster Committees will continue to take shape and boost South Carolina's prosperity and competitiveness even further. Some results will be immediately apparent, and some will take many years to be fully realized. In the end, every citizen and business in South Carolina will reap the benefits of this organized strategy and implementation effort.

The Palmetto State stands at an inflection point in its economic trajectory. South Carolina faces significant challenges but also has assets and organization structure already in place to address these challenges and capitalize upon current strengths. The *South Carolina Competitiveness Initiative*, as a effort with unprecedented scope, has set the stage for new directions and new growth. The South Carolina Council on Competitiveness, with its Task Forces and Cluster Committees, will continue to coordinate, integrate, and implement the economic strategy. With persistent execution on a long-term strategy, South Carolina will make measurable progress, become a differentiated and competitive presence in the world economy, and raise the standard of living of all of its citizens

appendix a

DETAIL ON CLUSTER ACTIVATION

The appropriate goal of economic development is greater prosperity; a high and rising standard of living for a region's citizens. Rising prosperity depends upon rising productivity, or growth in the value of goods and services created per worker per year. To increase productivity, companies and their workers cannot keep producing the same goods and services using the same methods. They must do something new and better. They must innovate.

How can regions help their companies and workers innovate and increase productivity? The answer is by providing a high quality business environment. This includes, among other assets, a talented workforce, good schools, strong research, stiff competition, demanding customers, responsive government, collaboration across public and private sector organizations, and perhaps most importantly, robust clusters.

What are Clusters, and Why Do They Matter?

A cluster is a large collection of companies engaged in a similar line of business, all located close together. Clusters also include specialized academic, research, and government agencies. Classic examples of clusters include the film cluster in Hollywood, the tourism cluster in Las Vegas, the auto cluster in Detroit, and the financial services cluster in New York. Without having to leave these locations, a company can access whatever it needs—talent, know-how, financing, supplies, services, and more—to make a movie, entertain visitors, produce cars, or serve the financial needs of clients.

Companies located in clusters can be more innovative and productive for three main reasons:

1. **Increased Productivity and Efficiency:** Co-location of companies facilitates efficient access to specialized inputs, services, talent, information, institutions, and “public goods” (e.g. training programs). This lowers the costs of coordination and transactions across firms, and aids the diffusion of best practices.
2. **More Innovation:** Companies within clusters have an enhanced ability to perceive innovation opportunities, and benefit from the presence of multiple suppliers and institutions to assist in knowledge creation, as well as from the ease of experimentation given locally available resources.
3. **Greater Entrepreneurship:** Entrepreneurship increases because it is easier to see opportunities for new companies and new lines of established business, and because the availability of resources makes it easier to start a firm.

Examples of Successful Cluster Collaboration

Virtually all regions have concentrations of related companies and supporting industries, but these organizations do not always function like a cluster. Firms do not always collaborate and work well with each other, with government, or with educational and research centers in the area. In these cases, con-

scious efforts to activate the cluster can help companies realize latent opportunities, and address common challenges.

For example, in Connecticut, a group of about 10 aerospace components manufacturers began meeting regularly in the late 1990s. Faced with high training costs, they joined together and worked with local community colleges and technical schools to develop an industry-driven curriculum centered on training in precision machines. Later, recognizing the importance of boosting the efficiency of their operations, they jointly hired a leading expert in ‘lean manufacturing,’ Japanese consultant Yoshihisa Doi, who worked with the firms and helped them raise their productivity.

In Massachusetts in the mid-1990s, medical device companies went through a similar exercise of meeting regularly and discussing common issues. Initially, they worked together to influence important medical device legislation being considered in Washington. Later, as they continued their discussions, the device companies realized they were all sending parts out of the state to be sterilized, and then sent back for assembly into the final product. The companies worked together to form a local sterilization company, thus reducing their operating costs and generating new jobs and wealth creation in the region.

Many competitiveness issues must be faced by a single firm, acting on its own. At the same time, many issues can only be dealt with by a collaboration among firms in a similar line of business. Regions that organize their clusters to meet these common challenges tend to be more prosperous.

Activating Clusters in South Carolina

The South Carolina Council on Competitiveness seeks to activate clusters by reaching out to leading companies in a given field of business, and facilitating a process to:

- Identify the interrelated industries, firms, and institutions that make up the cluster;
- Convene business and other leaders from the cluster;
- Introduce these leaders to the cluster concept and the benefits of collaboration;
- Facilitate discussion on common strengths and challenges; and
- Catalyze action.

South Carolina, like any region in the United States, faces growing competitive pressures as trade and information barriers fall across the globe. Advanced economies cannot compete on cost, because the true low cost locations are in countries like China, India, and Mexico. To compete, South Carolina must create an environment that helps local companies innovate and boost productivity. Building robust clusters is a key part of supporting local firms, and indeed it is the responsibility of local firms to drive this agenda.

appendix b

ANALYSIS OF RURAL REGIONS

Performance and Composition of South Carolina's Rural Regions

Overall, South Carolina's rural regions have performed relatively well on several key economic metrics:

- The rural regions have seen relatively slower employment growth than the state and nation but have also seen relatively slower population growth;
- The rural regions have lower wages than the national average but also a lower cost of living than the national average; and
- Average wages in rural South Carolina are actually higher than for rural America as a whole, \$26,802 in South Carolina versus \$25,282 in the United States, in 2000.

However, pockets of extreme poverty exist in rural South Carolina. Of the 16 counties in South Carolina classified as "rural high poverty," the employment growth rate was only 2.10% and average wages were \$18,108.

Exhibit 59: Economic Performance / Innovation Output of Rural South Carolina

| Economic and Innovation Performance of All Rural Counties | Economic and Innovation Performance of High Poverty Rural Counties |
|--|---|
| <ul style="list-style-type: none">■ Employment Employment was 398,957, 25.0% of South Carolina's total employment in 2001 and 0.36% of national employment■ Employment Growth Employment grew 1.82% annually from 1990-2001, compared to the 2.10% national rate and the 2.34% South Carolina rate■ Average Wages Average wage of \$20,614 in 2001 was 40.5% below the national average of \$34,669, and 24.9% below South Carolina's average wage of \$27,462■ Wage Growth Average wages grew at 4.08% per year from 1990-2001, below the U.S. average of 4.41% but above the South Carolina average of 3.97%■ Establishments Formation Growth rate for traded establishments was 4.32% per year between 1990-2001, above the U.S. average of 1.47% and the South Carolina average of 1.98% | <ul style="list-style-type: none">■ Employment Employment was 159,008, 10.0% of South Carolina's 2001 total employment and 0.14% of national employment■ Employment Growth Employment grew 0.79% annually from 1990-2001, compared to the 2.10% national rate and the 2.34% South Carolina rate■ Average Wages Average wage of \$18,108 in 2001 was 47.8% below the national average of \$34,669, and 34.1% below South Carolina's average wage of \$27,462■ Wage Growth Average wages grew at 4.06% per year from 1990-2001, below the U.S. average of 4.41% but above the South Carolina average of 3.97%■ Establishments Formation Growth rate for traded establishments was 2.42% per year between 1990-2001, above the U.S. average of 1.47% and the South Carolina average of 1.98% |

Source: Cluster Mapping Project, Institute for Strategy and Competitiveness, Harvard Business School

The challenge for rural South Carolina is to integrate with nearby urban centers, and offer a business environment that complements the industry developing in these cities, by building on strengths that differentiate the rural regions from the urban regions. For example, the costs of living and business in rural South Carolina are very low, even compared with the metro areas in the state. Nevertheless, these rural areas have relatively easy access to the metro areas of South Carolina (especially through the strong infrastructure system already in place), as well as the large metro areas of neighboring Georgia and North Carolina. At the same time, rural regions must also address critical challenges, including the relatively weak education system, and limited skill set. Most important, local leaders in rural areas must desire change in ways that improve the business environment and raise prosperity for local citizens.

Exhibit 60: Rural South Carolina’s Strengths and Challenges

| | | Potential Action Item |
|------------|--|--|
| Strengths | <ul style="list-style-type: none"> ▪ Relatively low cost structure ▪ Relatively close proximity to metros ▪ Relatively good access to financial resources in rural regions ▪ Access to good seaport and interstates ▪ Lower environmental risk for relevant clusters (e.g., chemicals) ▪ Worker loyalty to companies ▪ Good collaboration among local firms ▪ Competitive companies can be highly selective about hiring | <ul style="list-style-type: none"> ▪ Link into urban areas and perform related services for core clusters ▪ Develop a micro-financing program for rural entrepreneurs ▪ Develop transportation and distribution service clusters near ports and interstates ▪ Develop a targeted marketing campaign highlighting distinctive strengths of rural regions to appropriate companies |
| Challenges | <ul style="list-style-type: none"> ▪ Relatively poor educational system ▪ Relatively low education levels in the workforce ▪ Large pockets of deep poverty among African-Americans ▪ Local leadership committed to change ▪ Varied experience and expertise of rural economic developers | <ul style="list-style-type: none"> ▪ Upgrade educational system and worker training opportunities ▪ Encourage local leadership to actively support economic development ▪ Better link disadvantaged groups into economy ▪ Provide training services to local economic developers |

Source: Monitor Regional Competitiveness Survey; Monitor Interviews; Monitor Analysis

appendix C

COMPETITOR PROFILES

The South Carolina Competitiveness Initiative also profiled several of South Carolina's key competitors—Alabama, Georgia, North Carolina, and Tennessee—in terms of their economic performance, composition, and implicit economic strategies. The purpose of these analyses was to shed light on how to differentiate South Carolina's economic strategy, and to learn from the economic development experience of other states that are, in many respects, similar to South Carolina.

Tennessee's economic development community recently launched a strategy described as "Tennessee Means Technology". The state sought to leverage a variety of resources including its university system, research facilities such as Oak Ridge and St. Jude's hospital, and its central location in order to upgrade the technological capabilities of all industries in the state. It also proposed to develop a life sciences cluster. Key activities in the effort included building a network of Technology Incubators around the state, creating an organization to promote technology in the state, and hosting a "Tennessee Means Technology Day on Capitol Hill." Although the state itself never publicly tracked metrics of success, many observers' metrics indicate that Tennessee has actually become less attractive as a high-tech location: according to the *New Economy Index*, Tennessee's rank in several "innovation" and "technology" metrics dropped between 1999 and 2002, placing it in the bottom quarter of states in terms of being "tech-friendly." Additionally, despite this new initiative, Tennessee has lagged the national average for R&D spending, patents per worker, engineers as a percentage of the workforce, and NIH funding. Today, it is unclear whether Tennessee remains committed to economic development through a technology push from the state's research centers. While some regions—such as Silicon Valley, Boston, and San Diego—have enjoyed some success through this economic vision, they generally had strategies that were more focused, and even so these strategies are not appropriate for all regions. The experience of Tennessee suggests that technology must be channeled into existing industry clusters in order to achieve a meaningful economic impact in the region.

Over the last five years, Alabama's economic development efforts have focused almost exclusively around building and developing its automotive cluster. Alabama had many assets to draw on in this effort, including the overall trend of building automotive assembly plants in the Southeast, the presence of Mercedes-Benz, the growing number of automotive suppliers, the extensive transportation infrastructure, and a government responsive to automotive business needs. The state aggressively pursued major automotive manufacturers that were considering a new location, effectively leveraged its technical schools and university system to provide training for employees, and provided lucrative incentives to these companies to relocate to the state. By most metrics, Alabama has been very successful in its strategy: of the seven major foreign automotive manufacturing sites that have opened (or will open) in the United States since 1990, three have been in

Alabama. While South Carolina enjoys many of the same assets Alabama used so effectively—strong tech schools and workforce training, strong infrastructure, and responsive government—deploying them to recruit automotive OEMs will surely entail a reciprocal response from Alabama, and most likely other states as well (e.g., Mississippi). South Carolina would be better off building a differentiated position that enables it to successfully recruit companies without having to match the incentives of others.

Georgia and North Carolina present greater collaboration opportunities for South Carolina, because of their shared borders with the state. Though they will remain rivals of South Carolina in some respects, they also have many similar clusters and can help South Carolina build out these clusters. Clusters boost prosperity by bringing a critical mass of businesses, service providers, customers, suppliers, training institutions, and more into close proximity—whether these assets are in one state or multiple states is often beside the point.

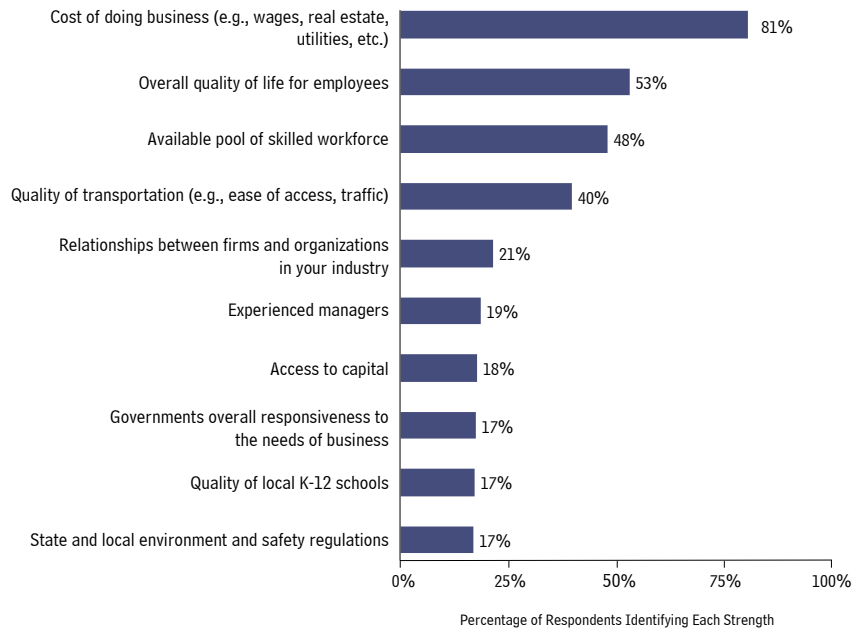
For example, Georgia’s transportation hub of Atlanta is closer to many counties in South Carolina than it is to a number of counties in Georgia. The same is true of the seaport in Savannah. These assets enhance the transportation system for companies located in South Carolina, and marketing efforts should note that. The same can be said of the financial hubs in Atlanta and Charlotte. Research conducted at Georgia Tech (and North Carolina universities as well) is relevant for many businesses in South Carolina (e.g., textiles). Not only should South Carolina work to make this research more available to its companies, but the state should also coordinate with Georgia and North Carolina to ensure investments in the university systems complement each other. The Center for Disease Control could partner with the Savannah River Site or SPAWAR, and both neighboring states’ military bases could help seed a regional cluster of companies focusing on defense against weapons of mass destruction (i.e., chemical, biological, and nuclear weapons).

Successful economic development entails upgrading the quality of a regional business environment, and building critical mass in a portfolio of regional clusters. A good economic development strategy should identify strengths in the regional business environment that can be leveraged, and weaknesses that must be shored up. The region in question need not stop at state lines, since strengths in one state may compensate for weaknesses in another, and vice versa. Through conscious collaboration across state lines to upgrade the regional business environment, economic development efforts can avoid creating redundancies, and can exert greater impact with the same resources.

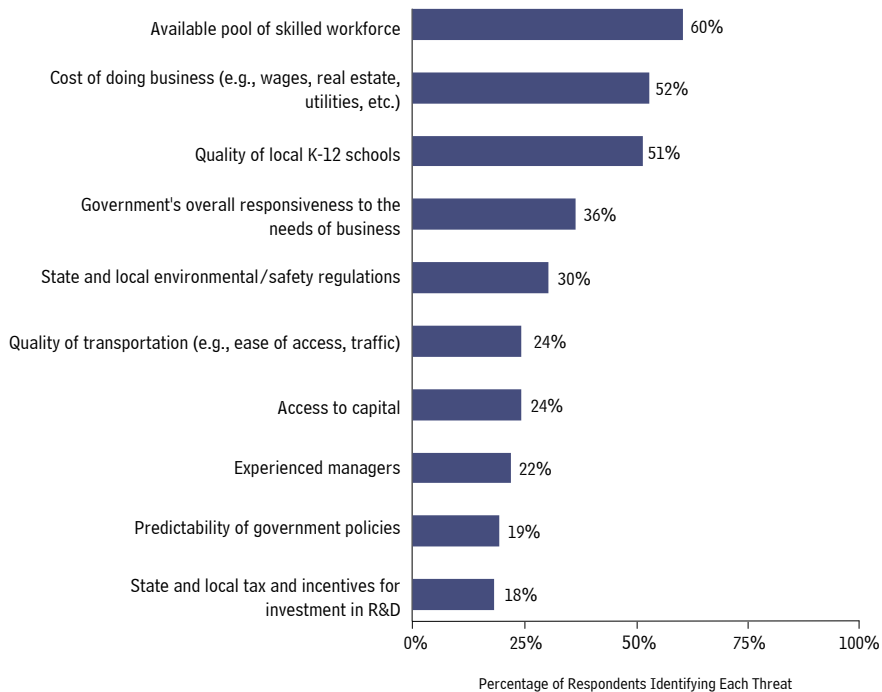
appendix d

KEY RESPONSE DATA FROM THE COMPETITIVENESS SURVEY

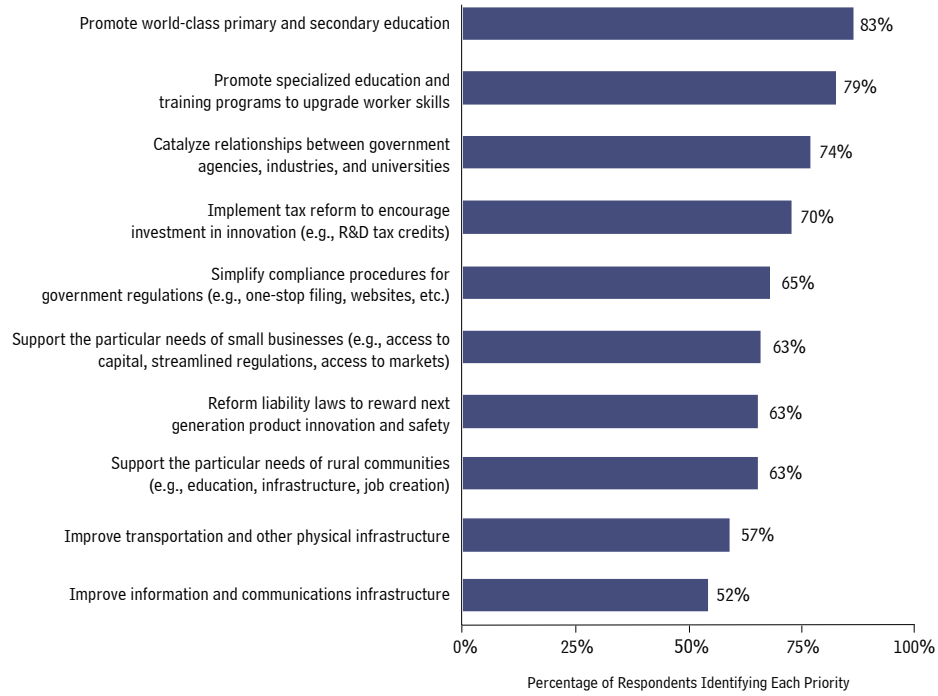
Which Elements of the Business Environment Do You Consider to Be the Greatest Current Strengths for Your Business?



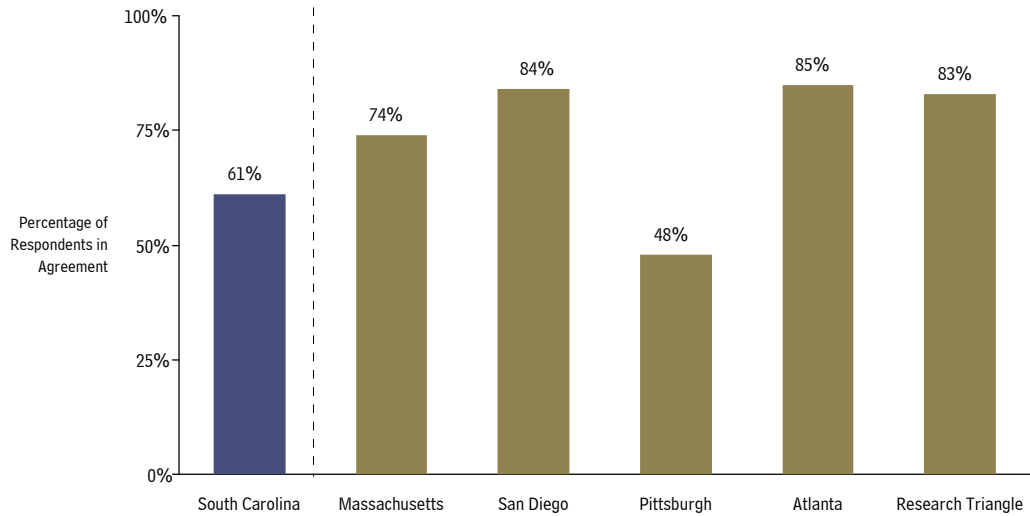
Which Elements of the Business Environment Do You Consider to Be the Greatest Future Threats to Your Business If Not Addressed?



What Are the Current Priorities for South Carolina's Government?



Considering All Significant Factors, Including Government, Industry, and Social, Your Region Is a Good Place to Innovate in Your Business



appendix e

BIBLIOGRAPHY OF SOURCES

Academia

Association of University Technology Managers
Georgia Tech Economic Development Institute
Institute for Strategy and Competitiveness,
Harvard Business School
University of North Carolina publications

Government

Alabama Development Office
Federal Aviation Administration
Federal Deposit and Insurance Corporation
Federal Highway Administration
Georgia Department of Industry, Trade and
Tourism
International Trade Administration
National Center for Education Statistics
North Carolina Department of Commerce
OneGeorgia
Small Business Administration
South Carolina Department of Commerce
South Carolina Department of Parks, Recreation
and Tourism (PRT)
Tennessee Department of Commerce
U.S. Census Bureau
U.S. Bureau of Labor Statistics (Census)
U.S. Bureau of Economic Analysis
U.S. Department of Agriculture
U.S. Patent and Trademark Office

Private Sector

Alabama Automotive Manufacturers Association
American Chambers of Commerce Research
Association
Beacon Hill Institute
Bizjournals
Council on Textile Competitiveness
Clusters of Innovative Initiative Reports
Development Report Cards for the States
Expansion Management Magazine
Fluor Corp
Forbes Magazine
Fortune Magazine
Governing Magazine
Inc Magazine
Japan Automotive Manufacturers Association
New Economy Index (Progressive Policy Institute)
Plant Sites and Parks
PricewaterhouseCoopers Money Tree
Savannah River Site National Lab presentation
Site Selection
Small Business Survival Council
Tourism Industry Association
WTTC United States Report 2003

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LIST OF INTERVIEWEES

Bill Amick *CEO, Amick Farms*

Ernest Andrade *Executive Director, Charleston Digital Corridor*

Peter Arnoti *CEO, Greenwood County Economic Development Alliance*

William Barnett *Mayor of Spartanburg; former CEO, William Barnett and Sons, Inc.*

Robert Barnett *Director of Operations, Honeywell SC, Chairman of the SCMA Chemistry Council*

James Bennett *Executive VP, Director of Public Affairs, First Citizens Bank*

Paula Harper Bethea *Former Chairwoman, South Carolina Chamber of Commerce*

Scott Blue *Director of Sales and Marketing, South Carolina Aquarium*

Tony Boccanfuso *Managing Director, University of South Carolina Research Foundation*

Carl Boger *Chair, School of Hotel, Restaurant and Tourism Management, University of South Carolina*

Peggy Bowers *Business Development Executive, Progress Energy*

Crandall Bowles *CEO, Springs Industries*

Mike Briggs *CEO, Central Carolina Economic Development Alliance*

Lee Bussell *Chairman and CEO, CNSG; Chairman of the South Carolina Chamber of Commerce*

Andy Cajka *General Manager, Southern Hospitality Group*

Rob Chapman *CEO, Inman Mills*

Roger Chastain *CEO, Mount Vernon Mills*

Merl Code *CEO, Precision Tool Manufacturing*

Charles Cole *President, Wachovia of South Carolina*

John Crotts *Director of Hospitality and Tourism Management, School of Business & Economics, College of Charleston*

John Curry *President, The Curry Company*

Robert DeGarmo *Chairman, Upstate Coalition for Entrepreneurial Development (UCED)*

Prem Devadas *Managing Partner, Kiawah Island Golf Resort*

John Durst *VP of Strategic Planning / Public Affairs, C.C. Riggs*

Mary Eaddy *President, The Wordsmith, Inc.*

Paula Ellis *Publisher, The Sun News*

Mechelle English *CEO, Trident Urban League*

Bob Faith *Secretary of Commerce, South Carolina Department of Commerce*

Barry Falin *General Manager, Vordian*

Cate Ferriera *Associate Professor, Horry Georgetown Technical College*

Jim Fields *Executive Director, Palmetto Institute*

Hank Fisher *Executive Director of Government Affairs, BellSouth*

Mike Flack *Executive Director, Columbia Metropolitan Airport*

Carl Flesher *VP of Corporate and Associate Communications, BMW Manufacturing Corp.*

Julie Flowers *Senior Research Manager, South Carolina Department of Parks, Recreation and Tourism*

Beverly Frost *VP, South Carolina Economic Developers Association*

Joe Geddie *Manager, SC Economic Development, Progress Energy*

David Ginn *CEO, Charleston Regional Development Alliance*

Dr. Raymond Greenberg *President, Medical University of South Carolina*

Bernard Groseclose *CEO, South Carolina State Ports Authority*

Andrew Gurtis *President, Darlington Raceway*

Marc Gustafson *General Manager, American LaFrance*

Shep Guyton *VP, Silver Carolina Development*

Robert Hamm *Plant Manager, Rhodia*

Gregory Hawkins *Director, Jim Self Center for the Future, Clemson University*

Don Herriott *President, Roche South Carolina; former Chairman of the South Carolina Chamber of Commerce*

Helen Hill *Director, Charleston Area Convention and Visitors Bureau*

Isabel Hill *Director of Policy and Research, South Carolina Department of Parks, Recreation and Tourism*

Hayne Hipp *CEO, Liberty Corporation*

James Hudgins *Executive Director, SC Technical College System*

Hal Johnson *Executive Director, Orangeburg County Development Commission*

Karl Kelly *CEO, South Carolina Biotechnology Incubation Program*

Satch Krantz *Director, Riverbanks Zoological Park*

Angela Lockman *Senior Manager, KPMG*

Gary Loftus *Director, Center for Economic Coastal Carolina University*

John Lumpkin *Chairman, Midlands Business Commerce Leadership Group*

Peter MacIntyre *General Manager, Ripley's Aquarium*

Mickey McCamish *President, Myrtle Beach Golf Holiday*

Cherry McCoy *Executive Director, Chesterfield County Economic Development Board*

Steve McCullough *Plant Manager, Koyo*

Bob McKie *Mayor of Edgefield*

Smyth McKissick *CEO, Alice Manufacturing Company*

Edward McMullen *President, South Carolina Policy Council*

Frankie Miller *Dean of Hospitality, Tourism and Culinary Arts, Trident Technical College*

Roger Milliken *CEO, Milliken & Company*

Patricia Moody *Dean of the College of Hospitality, Retail and Sport Administration, University of South Carolina*

Darla Moore *Chairwoman, Palmetto Institute*

Frans Mustert *President & CEO, Patricia Resorts*

Maceo Nance *Director, Division of Community & Rural Development, South Carolina Department of Commerce*

Brian Newman *VP of Manufacturing, Honda of South Carolina*

Philip Owens *Director of Business Development, Charleston Metro Chamber*

Al Parish *Director of the Center for Economic Forecasting, Charleston Southern University*

Michael Poynter *VP and General Manager, Radisson Plaza Hotel*

Marcus Propst *CEO, The Timken Company*

Chad Prosser *Director, South Carolina Department of Parks, Recreation and Tourism*

Christian Przirembel *VP of Research, Clemson University*

Bettis Rainsford *President, Rainsford Development Company*

Ed Riggs *Director of Sales, Charleston Area Convention Center*

Joseph Riley *Mayor of Charleston*

Clarence Rogers *Professor of Textiles, School of Materials Science and Engineering, Clemson University*

Jim Rogers *Director of Economic Development, Duke Power*

Dr. Kenneth Roozen *Executive Director, Medical University of South Carolina Foundation for Research Development*

Mike Rose *General Manager, Firestone*

Dick Rosen *Former CEO, FHTP Production*

Sandy Rupprecht *CEO, Westinghouse Electric Company*

Lisa Ryan *Director, ThinkTEC*

Walter Seinsheimer *President, Dolphin Architects*

M. Edward Sellers *Chairman and CEO, Blue Cross and Blue Shield of South Carolina*

David Smith *General Manager Bushy Park Site, Bayer Polymers*

Joel Smith *Dean, Moore School of Business, University of South Carolina*

Andrew Sorensen *President, University of South Carolina*

Tom Sponseller *Executive Director, Hospitality Association of South Carolina*

Robert Staton *Chairman, South Carolina Educational Oversight Committee*

Chris Stone *President, Greenville Convention and Visitors Bureau*

Carson Sublett *Site Director, GlaxoSmithKline*

Steve Swanson *CEO, Automated Trading Desk*

William Timmerman *CEO, SCANA Corporation*

Charles Van Rysselberge *CEO, Charleston Metro Chamber*

Ed Vaughn *Professor of Textiles, School of Materials Science and Engineering, Clemson University*

Dennis Wade *CEO, The Jackson Companies*

James Ward *Executive Director, Space and Naval Warfare Systems Center (SPAWAR)*

John Warner *Founder, Carolina Crescent Coalition*

Tim Washington *Senior VP, Scientific Research Corporation*

Douglas Wendel *CEO, Burroughs & Chapin Co., Inc.*

Jay West *VP of Institutional Relations, Erskine College*

Uwe Wetzel *CEO, Siemens Diesel Engines*

Charlton Whipple *President, South Carolina Economic Developers Association*

Craig White *VP for Public Relations and Legal Affairs, Fuji South Carolina*

Knox H. White *Mayor of Greenville*

Mack I. Whittle *CEO, Carolina First Bank*

Steve Wilmot *Director, Heritage Classic Foundation*

Larry Wilson *Managing General Partner, Trellys*

Keith Wood *Director of Public Affairs, Westinghouse Savannah River Company*

Bill Workman *Chairman, Greenville Area Development Corporation*

Todd Wright *Director, Savannah River Technology Center, Westinghouse Savannah River Company*

Thomas Wyche *Founder, Wyche, Burgess, Freeman & Parham, P.A.*

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ABOUT THE CONTRIBUTORS

MICHAEL E. PORTER

Michael E. Porter is the Bishop William Lawrence University Professor at the Institute for Strategy and Competitiveness, based at the Harvard Business School. He is a leading authority on competitive strategy and international competitiveness. The author of 16 books and over 100 articles, Professor Porter's ideas have guided economic policy throughout the world. Professor Porter has led competitiveness initiatives in nations and states such as Canada, India, New Zealand, and Connecticut; guides regional projects in Central America and the Middle East; and is co-chairman of the Global Competitiveness Report. In 1994, Professor Porter founded the Initiative for a Competitive Inner City, a non-profit private sector initiative formed to catalyze business development in distressed inner cities across the United States. The holder of eight honorary doctorates, Professor Porter has won numerous awards for his books, articles, public service, and influence on several fields.

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