May 19, 2006

Dear Reader:

Georgia’s *Innovation Forums of 2006 Report* is a tremendous success. The forums provided an excellent opportunity to benchmark what Georgians are achieving in the areas of innovation and technology. As you will read in the following pages, Georgians are excited about the opportunities that innovation has to offer them. We have tried to answer this call through several initiatives including OneGeorgia funding for small businesses, the Entrepreneur Friendly Program, Centers of Innovation, and the new Georgia K-12 curriculum. It is clear that Georgians understand that innovation is not an option, it is imperative to our future success.

Georgians realize it is up to all of us to create a better environment for fostering innovation. This will require the enthusiastic involvement of stakeholders across the demographic spectrum. We must ensure that all Georgians have access to the technology tools they need to spur innovation. Addressing fundamental issues like high school completion rates, workforce development, and lifelong learning are keys to bridge this divide. Efforts must also be made to help those small-to-medium sized businesses in Georgia maintain their competitiveness in a world driven by rapid technological change. Our rural communities are greatly affected by the lack of broadband infrastructure, and we are working to close this infrastructure gap through the Broadband Rural Initiative to Develop Georgia’s Economy (BRIDGE) program.

While Georgia has made significant strides in its pursuit of innovation, a plethora of opportunities are available for us to better prepare our citizens and businesses for the global economy. This report demonstrates an increased awareness about entrepreneurship as a cornerstone in our economic development strategy. Many stakeholders have expressed desires to become Entrepreneur Friendly Communities. The impact of the Georgia Centers of Innovation is evident and more Georgians should be aware of this excellent resource for bridging the innovation gap. There are many potential and exciting “to do” items that resonate from this report. Georgia’s future depends on our ability to make innovation a priority for all of our citizens and business.

Sincerely,

Sonny Perdue
Georgia’s Innovation Forums of 2006 Report

“...It is clear that Georgians understand that innovation is not an option, it is imperative to our future success.”

Governor
Sonny Perdue

ABOUT THE FORUMS

Georgia’s 2006 forums were conducted in support of the Southern Innovation Initiative and as part of the Southern Growth Policies Board annual effort to explore pertinent economic development issues. Georgia’s participation in Southern Growth is led by the following Trustees:

Governor Sonny Perdue
Office of the Governor
Georgia State Capitol
Atlanta, GA 30334
404-656-1776

Senator Jeff E. Mullis
Georgia Senate
421-A State Capitol
Atlanta, GA 30334
404-656-0057

Representative David Casas
Georgia House of Representatives
Room 601
Coverdell Legislative Office Building
Atlanta, Georgia 30334
404-656-0254

Chris Clark, CEcD
Deputy Commissioner
Global Commerce
Georgia Department of Economic Development
75 Fifth Street, NW, Suite 1200
Atlanta, GA 30308
404-962-4070

Nancy Cobb
Executive Director
One Georgia Authority
1202-B Hillcrest Parkway
Dublin, GA 31021
478-274-7734

O.B. McCorkle
President
Warren County Chamber of Commerce
552 Main Street
Warrenton, GA 30828
706-465-9604
The Southern Growth Policies Board is a non-partisan public policy think tank based in Research Triangle Park, North Carolina. Formed by the region's governors in 1971, Southern Growth develops and advances visionary economic development policies by providing a forum for collaboration among a diverse cross-section of the region's governors, legislators, business and academic leaders, and the economic and community development sectors. Supported by the governments of 13 Southern states – Alabama, Arkansas, Georgia, Kentucky, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Tennessee, Virginia, West Virginia - and the commonwealth of Puerto Rico - Southern Growth provides a gathering place for regional collaboration.

The Board’s research focus encompasses the major drivers for economic development in the South – innovation and technology, globalization, the changing nature of the workforce, and the vital role of the community. Southern Growth provides its members and the region with authoritative research, discussion forums, and pilot projects that define the critical issues shaping the South. The Board develops new regional strategies for economic development and identifies best practices to facilitate action.

For further information on Southern Growth or the forums, visit www.southerngrowth.com or contact:

Jim Clinton
Executive Director
Southern Growth Policies Board
100 Capitola Drive, Suite 100
Durham, NC 27713
(919) 941-5145

Linda Hoke
Director of the Council on the Southern Community
Southern Growth Policies Board
100 Capitola Drive, Suite 100
Durham, NC 27713
(919) 941-5145
Communities and businesses that fail to innovate are at great risk for being left behind.

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ACKNOWLEDGEMENT

The authors of this report express grateful appreciation for the partnership provided by the Georgia Centers of Innovation and the many other local and regional organizations across the state, as listed on page 5 of this report.

Each year the Southern Growth Policies Board conducts a major policy research project to explore a vital issue related to economic development. A central component of the research project is to gather the opinions and experiences of citizens across the South. Partners are recruited across the South to assist in gathering stakeholder input.

In 2005, Southern Growth launched its “Southern Innovation Initiative” noting that “The South’s competitiveness relies on establishing a culture of innovation - the ability to continuously invent and bring high value products and processes to the global marketplace. Technology is the primary tool for innovation.” Thus, the fundamental question for the 2006 policy research project is:

“How can communities across the South harness the economic potential of technology and innovation?”

Georgia’s economic development leaders strongly agree that there is a critical link between innovation capacity and the ability of our state’s communities, businesses, and citizens to thrive in the 21st Century. Innovation is recognized as not an option but a requirement - and those who fail to innovate are at great risk for being left behind.

Two of Georgia’s flagship research universities, in partnership with the Georgia Centers of Innovation and several other local and regional partners, conducted forums to seek answers to Southern Growth’s policy question. Eighteen discussion forums were held across the state during February and March, and approximately 370 Georgians participated in these forums.

While there are a variety of approaches to fostering innovation, the forums focused on exploring four select approaches to fostering innovation:

Building knowledge,
Encouraging entrepreneurship,
Boosting existing business, and
Recruiting innovation (people and investment).

The forums were widely publicized, and invitations were offered to a wide variety of citizens. It is important to note that participation at all forums was optional and, therefore, based on self selection. As a result, it was noted at several of the forums that certain groups were under-represented. The Government, Business, and Education sectors accounted for the largest participation by stakeholders, overall. Forum participants were fairly well educated as more than three-quarters had earned a college degree. Two thirds of the participants indicated they hailed from a rural community. While participants were most frequently those who already recognized the importance of innovation and technology, that familiarity enabled many of them to identify key competitive challenges faced by today’s communities and businesses.
Georgia’s Innovation Forums of 2006 Report

“I have been personally challenged to facilitate and develop means in which to attract and engage youth, through technology, i.e. computers, to become knowledgeable and entrepreneurial savvy.”

Overall, the forums proved to be a positive force in igniting dialogue about what innovation and technology means for Georgia, and increasing the appetite among stakeholders across the state for both. In addition, they revealed and fostered information sharing about various “pockets of innovation” in Georgia.

Overwhelmingly, EDUCATION was the dominant issue, and the “Building Knowledge” approach was viewed as pre-requisite to all other approaches for fostering innovation. Improvements in K-12 were seen as absolutely critical. There was also a significant call for improvements in reaching the technology “have nots.” Lack of parental involvement in their children’s education was cited as a general societal issue across Georgia that is hampering the educational experience and the quality of learning. Other specific recurring issues included: lack of cultural expectations for learning and achievement, a public school system oversaddled with administrative requirements, the need for greater emphasis on teaching problem-solving skills through math and science, the high school dropout rate, a missing link between school learning and practicality, and issues related to persistent poverty.

In general, stakeholders preferred homegrown innovation as a means to economic prosperity and competitiveness as opposed to relying on external forces.

There were a number of major themes that emerged from the forums offering potential implications for future program or public policy development. These themes are introduced below, and they are discussed in Georgia’s Innovation Forums of 2006 Report in detail.

1. Spread the word on the importance of and vehicles to innovation.
2. Foster a “culture of learning.”
3. Develop a more customized approach to education.
4. Conduct special outreach, starting as early as third and fourth grade, to students and their parents, before the “light” goes out.
5. Increase emphasis on developing critical thinking and problem solving skills among youth.
6. Focus on fostering home-grown innovation among existing enterprises, including entrepreneurs.
7. Improve access to computers and Internet in all communities, across all socio-economic categories.
8. Expand support programs for communities to learn how to create a desirable environment for talented and creative people as a route to fostering innovation.
9. Think regionally.
10. Continue the dialogue...

There is no doubt that Georgia has made significant strides in its pursuit of innovation. However, there are great opportunities to better prepare our people and businesses for future success in the global economy.
BACKGROUND

The Innovation Imperative: Call for Action

During December 2005, the Southern Growth Policies Board issued invitations to its partners across the South to conduct community forums to initiate dialogue about innovation and technology and to further its pursuit of the Southern Innovation Initiative. Two of Georgia’s flagship research universities, in partnership with the Georgia Centers of Innovation and several other local and regional partners, answered this call for action.

This effort is part of a major policy research project conducted by Southern Growth each year to explore a pertinent issue related to economic development. Written findings are presented at Southern Growth’s Annual Conference in a “Report on the Future of the South.”

This initiative is intended to generate high-level discussion, policy options, and action strategies for the fourteen states and their communities within the region. A considerable part of the project involves holding community discussion forums across the South to provide citizen discussion and input for the research effort. For example, in the 2005 Report on “rural prosperity,” 1,065 citizens of the South participated in 51 community discussion forums.

“How Innovation & Technology” is the policy focus for 2006. According to Southern Growth, “The South’s competitiveness relies on establishing a culture of innovation - the ability to continuously invent and bring high value products and processes to the global marketplace. Technology is the primary tool for innovation.” Georgia leaders concur - there is a critical link between innovation and the ability of our state’s communities and businesses - new, emerging, and existing - to not only thrive but also survive in the 21st Century. That is, competing successfully in today’s global economy demands innovation which will continue to play a key role in the ongoing economic revolution. This is nothing new but rather is accelerated through the growing impact of information and communication technologies that are increasingly enabling companies as well as people (talent) to locate just about anywhere. Therefore, innovation is not an option but a requirement and those communities and businesses that fail to innovate are at great risk for being left behind.

The basic policy question raised by Southern Growth is:

“How can communities across the South harness the economic potential of technology and innovation?”

With that in mind, eighteen discussion forums were held across Georgia involving approximately 370 Georgians. While there are a variety of approaches, the forums focused on exploring four key approaches to fostering innovation—building knowledge, encouraging entrepreneurship, boosting existing business, and recruiting talent and investment.
The purpose of the forums was fourfold:

1. To contribute to the Southern Growth’s 2006 Conference on the Future of the South.
2. To share information about the challenges that exist for bridging the innovation gap.
3. To help local stakeholders learn about programs that can foster innovation.
4. To begin to chart a customized path of action for each region.

This report focuses on responses by Georgian stakeholders to Southern Growth’s policy question and highlights many of the findings from these forums. County and region-specific reports have been prepared and are available upon request.

About Georgia’s Forums

Eighteen discussion sessions were held across Georgia in response to Southern Growth Policies Board’s request for assistance in pursuing its Southern Innovation Initiative. Five were regional in reach, conducted in partnership with the Georgia Centers of Innovation and the Georgia Rural Economic Development Center at East Georgia College, and thirteen were conducted within a single community, conducted in partnership with local chambers of commerce and development authorities. Table 1 lists the forums’ host organizations, demonstrating the statewide collaborative effort involved in conducting the forums. Figure 1 shows the locations of the regional and community forums.

County Forums

Thirteen county-specific discussion forums, listed in Table 1, were conducted during February and March. A total of 186 local citizens participated. Participants included elected officials, business owners and operators, community volunteers, educators, economic and community development professionals, college students, and other interested citizens. Local host organizations were usually the local chamber of commerce and/or development authority.

Regional Forums

A total of 188 stakeholders participated in one of the five regional forums conducted in Georgia. Three of the forums - Gainesville (Hall County), Savannah (Chatham County), and Tifton (Tift County) - were hosted by the Georgia Centers of Innovation. The largest of the regional forums was the forum in Savannah (Chatham County), where nearly 100 stakeholders turned out. This forum not only had the highest level of participation but also the broadest representation of stakeholders.
Table 1. Discussion Forum Locations & Host Organizations

<table>
<thead>
<tr>
<th>Location</th>
<th>Geographic Scope</th>
<th>Host Organizations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Athens</td>
<td>County</td>
<td>University of Georgia</td>
</tr>
<tr>
<td>Calhoun</td>
<td>Northwest Georgia Region</td>
<td>Georgia Institute of Technology</td>
</tr>
<tr>
<td>Carnesville</td>
<td>County</td>
<td>Franklin County Chamber of Commerce</td>
</tr>
<tr>
<td>Ellijay</td>
<td>County</td>
<td>Gilmer County Development Authority</td>
</tr>
<tr>
<td>Folkston</td>
<td>County</td>
<td>Charlton County Chamber of Commerce &amp; Development Authority</td>
</tr>
<tr>
<td>Gainesville</td>
<td>Northeast Georgia Region</td>
<td>Manufacturing Excellence Innovation Center</td>
</tr>
<tr>
<td>Hawkinsville</td>
<td>County</td>
<td>City of Hawkinsville &amp; Hawkinsville Downtown Development Authority</td>
</tr>
<tr>
<td>La Grange</td>
<td>County</td>
<td>La Grange Troup County Chamber of Commerce &amp; Development Authority</td>
</tr>
<tr>
<td>Milledgeville</td>
<td>County</td>
<td>Baldwin County Chamber of Commerce &amp; Development Authority</td>
</tr>
<tr>
<td>Monroe</td>
<td>County</td>
<td>Walton County Chamber of Commerce &amp; Development Authority</td>
</tr>
<tr>
<td>Moultrie</td>
<td>County</td>
<td>Colquitt County Chamber of Commerce &amp; Development Authority</td>
</tr>
<tr>
<td>Richland</td>
<td>County</td>
<td>City of Richland</td>
</tr>
<tr>
<td>Savannah</td>
<td>Coastal Georgia Region</td>
<td>Maritime Logistics Innovation Center, The Creative Coast Initiative</td>
</tr>
<tr>
<td>Statesboro</td>
<td>County</td>
<td>Bulloch County Chamber of Commerce</td>
</tr>
<tr>
<td>Swainsboro</td>
<td>Middle Georgia Region</td>
<td>Georgia Rural Economic Development Center (GREDC) at East Georgia College</td>
</tr>
<tr>
<td>Tifton</td>
<td>South Georgia Region</td>
<td>Agriculture Innovation Center</td>
</tr>
<tr>
<td>Vidalia</td>
<td>County</td>
<td>Toombs County Development Authority</td>
</tr>
<tr>
<td>Washington</td>
<td>County</td>
<td>Wilkes County Payroll Development Authority</td>
</tr>
</tbody>
</table>
Figure 1. Geographic Distribution of Discussion Forums

- ○ County Forum Site
- ● Regional Forum Site
A LOOK AT GEORGIA’S PARTICIPANTS

It is important to note that participation at all forums was optional and, therefore, based on self selection. As a result, it was noted at several of the forums that certain groups were under-represented. Some forums had high participation by service providers (e.g., education, economic development, local government); others had higher participation by entrepreneurs and other business representatives. While participants were most frequently those who already recognized the importance of innovation and technology, that familiarity enabled many of them to identify key competitive challenges faced by today’s communities and businesses.

The majority of participants completed pre-forum surveys providing their demographic information and baseline opinions on innovation and technology. An analysis of the information they provided on these surveys resulted in the following overall demographic profile.

Two-thirds (67.7 percent) of the participants indicated they were from a rural community. Almost one-fifth (19 percent) indicated they were from a suburban community. The remaining 13.3 percent indicated they were from an urban community. The regional forums had a larger share of participation from stakeholders with urban or suburban origins than the county forums. Likewise, the county-specific forums had a larger share of participation from ruralites.

- 52.3 percent of participants in the regional forums were from urban and suburban areas
- 87.2 percent of participants in the county forums were from rural areas

![](pie_chart.png)

Approximately two-thirds (65.9 percent) of participants were male. The county forums had a higher percent (39.2 percent) of female participation than did the regional forums (28.2 percent).

Reflecting the demographics of those in community and business leadership positions, 43.9 percent of the participants were between
Georgia’s Innovation Forums of 2006 Report

Participants were fairly well-educated as more than three quarters had earned a college or graduate degree. Another 43.9 percent were younger professionals between the ages of 30 and 49.

Participation was not very diverse in terms of race and ethnicity. This factor is largely reflective of a lack of diversity among those in community and organizational leadership positions. The vast majority (86.7 percent) of participants were White. Another 7.2 percent were Black, and 6.1 percent were Asian, Hispanic, Native American, or of some other descent. Participation in the regional forums was slightly more diverse with non-Whites accounting for 16.3 percent of the stakeholders, compared to 10.5 percent of the stakeholders in the county forums.

Participants were fairly well-educated as more than three quarters (78.1 percent) earned a college or graduate degree. The largest share of participants in the regional forums (52.7 percent) reported to have a graduate degree. Those reporting to have a college degree (40.8 percent) accounted for the largest share of the participants in the county forums.

Overall, government accounted for the largest share (28.2 percent) of stakeholder affiliations, and business accounted for the second largest share (23.1 percent). Just over one-fifth (22.7 percent) were stakeholders affiliated with the education system, not including
students. Students accounted for 12.1 percent of the participation. There were some differences in the stakeholder representation in the county forums from the regional forums. The county forums had higher participation from students, for example. Also, the regional forums had higher participation from business leaders.

28.2% 23.1% 5.1% 12.1% 8.8% 22.7%

Business Government Education Non-Profit Student Other

THE VIEW FROM GEORGIA

Overall

Almost without exception, EDUCATION was the dominant issue, and improvements in K-12 were seen as absolutely critical. Participants cited poor preparation in math and science, lack of academic challenge, failure in teaching the “love of learning,” inability among kids to see relevance in the real world, and other factors. They also recognized that responsibility for educating children rests with parents as well as teachers. Lack of parental involvement in their children's education was cited as a general societal issue across Georgia that is hampering the educational experience and the quality of learning. These problems in education were said to be characteristic of the general population's low expectations for or low commitment to academic schools. There was overall recognition by stakeholders that this must be reversed in order to produce a workforce with the skills needed today and tomorrow.

Following is a summary of additional key findings:

- Successfully implementing the “Building Knowledge” approach was seen as a pre-requisite and inextricably linked to success in all the approaches to foster innovation.
- The “Building Knowledge” and “Encouraging Entrepreneurship” approaches ignited the highest amount of dialogue among forum participants.
- At all forums, the opinion was expressed that cultural support for pursuing knowledge was generally absent - especially for math and science - and was largely viewed as “nerdy” with
many referencing findings from Tom Friedman’s *The World is Flat*.

- Many participants praised the K-12 system in the area of technology, noting that children were getting good hands-on technology training at school. Yet many students had little or no access at home. And when their parents had little or no experience with technology, the students could not benefit from continued and consistent exposure. High cost associated with innovation and technology adoption - coupled with a lack of financial capital - were identified as factors further increasing the disparity between the haves and have-nots.

- While some concerns were raised about the availability of broadband and other technological infrastructure, there were also concerns raised about limited resources for even basic infrastructure - e.g., water, sewer, and housing - thus impeding communities’ capacity for innovation.

- Libraries were praised as fulfilling a very valuable function with free public access to computers and Internet service. It was noted that these resources were always busy. Yet “market penetration” of the access was believed to be quite low; i.e. numerous challenges prevent those with little access from taking advantage of the libraries’ services.

- Many of Georgia's communities, with support from multiple state agencies, have dedicated high-level attention and resources to becoming “entrepreneur friendly.” Thus, several forum participants believed their attention to the “Encouraging Entrepreneurship” approach was already well under way. Others identified several unmet needs.

- Numerous examples were cited of colleges and businesses having to provide remedial training in math and other basic skills to many new recruits and recent high school graduates.

- The university system was largely viewed as having a closed architecture with business access to resources such as research, technical assistance, and intellectual capital considered to be fairly limited.

- Stakeholders in regions housing a Georgia Center of Innovation viewed the program as providing a better bridge to university resources and, therefore, a catalyst for fostering innovation. However, the level of awareness about the program’s existence varied greatly across the state.

- Successful businesses already in communities (even those that are part of a distant corporation) expressed the view that an entrepreneurial spirit is required of them because of international competition. They cited cost cutting, technology upgrades, productivity gains, new & improved techniques, new product development, and creative control systems as routine concerns of all business owners & operators - not just start-ups.

- Several businesses cited two significant challenges to adoption of innovative techniques: (1) significant investment in new equipment that is expected to need to be replaced in 3-4 years...
Stakeholders expressed greater support for investing in strategies for home-grown innovation – through entrepreneurship and talent development - than for attempting to attract innovative businesses from the outside.  

in order to remain competitive and (2) finding quality workers who can use the current innovations and adapt to new ones as they are replaced by later generations of innovation.

- Investing in research and new product development was largely viewed as impractical for small-to-medium sized firms due to being in “survival mode.”
- Likewise, some communities seem to be in a survival mode and characterized innovation efforts as discretionary. They cited more fundamental needs to address before tackling innovation and technology. These needs largely involved leadership development, sense of shared community vision and direction, competing priorities for scarce resources, and alleviation of social challenges.
- Many participants noted the rapid pace of development in technology has made it cost prohibitive for many communities to invest in infrastructure that is generally believed to become quickly outdated.
- Participants in several forums noted that the “Recruiting Innovation” approach ought to include recruitment of knowledge workers, e.g. Richard Florida’s “creative class,” and ought to position communities as destinations for innovative and talented people - retirees as well as families.
- Generally, more support was expressed for investing in strategies for home-grown innovation as opposed to attempting to attract innovative businesses from the outside.
- Several “pockets of innovation” were identified in Georgia, but the challenge has been in spreading the word about their existence.
- Lack of unity or cooperation between state, local government, educational institutions, business development authorities, and private entrepreneurs was noted, with a call to move beyond special interests to support regional interests.

**Innovation & Technology Bandwidth**

Stakeholders completed pre-forum and post-forum surveys to gauge the impact the forums had on their understanding and appetite for innovation and technology. The following findings are based on the results of those surveys.

The majority of participants (62.5 percent) had a general sense about what should be done to make the most of innovation and technology in their community before the forum, and 15.4 percent had a definite opinion. The share of those participants with a general sense or definite opinion about innovation and technology after the forums increased to 67.7 percent and 26.6 percent, respectively, signaling the forums had a positive impact on their understanding about innovation and technology.
Perhaps most indicative of the forums’ educational impact: While just over one-fifth (22.1 percent) of the participants had indicated they were not sure about innovation and technology before the forums, only 5.6 percent continued to feel so following the forums.

While also evidently growing in their understanding about the role of innovation and technology through the forums, stakeholders in the regional forums appeared to have a more definite opinion before and after the forums than those at the county level, perhaps reflecting a greater exposure due to their more urbanized origins.

While less than half of the stakeholders supported the “Encouraging Entrepreneurship” and “Recruiting Innovation” approaches prior to the forums, the opposite was true following the forums.

The approach of most central interest was the “Building Knowledge” approach, with the vast majority of participants highly favoring this approach before, during, and after the forums. This approach had, by far, the greatest amount of support which increased somewhat as a result of the forums. It also accounted for the lion’s share of the dialogue at the forums as it ended up dovetailing into discussions on the other approaches.

In terms of how to build knowledge, participants were asked to indicate their support for two specific action items. The majority of participants strongly agreed with the need to strengthen math and science requirements for high school graduation before and after the forums. However, the support for doing so dropped slightly. The forums appeared to increase support notably for teaching entrepreneurship skills during the K-12 years. Support for these two
action items appeared to be more evident among regional stakeholders.

Views concerning the role of government were also collected. Support for government involvement appeared to increase among participants following the forums. While less than half strongly agreed with reducing regulations prior to the forums, the opposite was true following the forums, as the share of those strongly agreeing increased notably. Support for providing tax and other incentives appeared to be stronger among county stakeholders, while support for reducing regulations and increasing services was more evident among regional stakeholders.

**Building Knowledge**

While participants were asked to ponder four select approaches to fostering innovation, the “Building Knowledge” approach repeatedly resurfaced in the discussion concerning the other approaches. This recurrence was largely due to the overwhelming recognition that building knowledge is the foundation for innovation and, therefore, inextricably linked to all other approaches.

Participants were asked to consider, “How well do community schools prepare children for jobs that require skills in science and math?” The general consensus by stakeholders across the state was that there is much room for improvement. Following are the more common issues that appeared to resonate among the stakeholders.
Absence of a Culture of Learning

Stakeholders cited a need to teach the “love of learning” - with many references made to Tom Friedman’s The World is Flat - and saw this goal being achieved through a shared responsibility among parents, students, teachers, and community role models.

South Georgia leaders in Tifton (Tift County) cited a culture of non-achievement evident in many rural communities, pointing to young people’s overall lack of motivation for learning and the mediocre performance on math and science assessments. Higher achievers were reported to be “victimized.” Insufficient economic means, lack of parental guidance, low standards for academics, and lack of learning support were among the factors cited by stakeholders as affecting the culture for learning.

Local leaders in Statesboro (Bulloch County) also cited societal acceptance of “mediocrity” as the reason for having lower expectations about the ability to produce a high tech workforce.

While Richland (Stewart County) leaders called for the need to explore ways to “close the gap” in education caused by disinterested parents and acknowledged a lack of work ethic among youth. They pinpointed a “chicken and the egg” type challenge faced by several rural communities. Leaders questioned the feasibility of raising young adults with an interest in innovation and technology, while high-tech jobs are unavailable in region.

Coastal Georgia stakeholders in Savannah (Chatham County), when asked to consider the meaning of creativity, tied its potential to the level of tolerance within an area’s culture. They saw openness to new and different ideas, cultures, and nationalities and the freedom to fail as important for fostering creativity and enthusiasm for learning. They also noted that structural issues within public education and the home environment that may inhibit creativity. Asked one participant, “Do we take our kids to a science fair or to Chuck-E-Cheese?”

In Calhoun (Gordon County), Northwest Georgia leaders observed that young people are not pushed to achieve more than their parents. While they saw the schools doing well for top achievers, there was concern about the majority of students that reportedly come from families that do not value math, science and technical fields. They saw a need for incentives for universities and role models to help children understand the importance of math and science. And, they saw a need for children to gain recognition and status at home, in school, and within the community at-large for their efforts.

Gainesville (Hall County) participants from Northeast Georgia most squarely cited challenges resting with parents and students not being aware of the need to excel in math and science and contrast that with countries like China. Stakeholders shared that as parents do not value education, especially math and science, and, therefore, the children do not value it.
The importance of teaching “real” math and science for developing critical thinking and problem-solving skills was discussed by stakeholders across the state.

In Moultrie (Colquitt County), community leaders also saw the “burden” of improving education to be shared by families and other role models. In addition, they cited the need for improving adult literacy and technological access in the home, among other things, as key to improving home support.

An Oversaddled System?

Leaders in Milledgeville (Baldwin County) shared that math and science appear to be of less importance and emphasis in the K-12 school system. They noted that there are so many other subjects to cover today than there was in the past that each subject competes with the others for student attention. Stakeholders noted that there are now a “cafeteria of classes,” comparing it to when they were in school and the core subjects of math, reading, and writing were the focus.

Northeast Georgia stakeholders in Gainesville (Hall County) noted that the fault is not so much with educators as with lack of resources for education that lead to large classes and poorly trained and oversaddled teachers. They saw teachers as burdened with onerous administrative duties that keep them from teaching and drive them into other professions. Stakeholders also cited concerns about performance standards, and whether a mandate to improve all children’s performance was creating an environment where students are not truly challenged, where no one can fail or truly excel.

Likewise, increased mandates, resulting in a reduction of curriculum flexibility were cited as a key problem inhibiting teacher creativity in Savannah (Chatham County) among Coastal Georgia stakeholders. They saw an absence of challenging programs available for the general student population, echoing how the schools do well for top achievers such as for those in the “gifted” programs. In addition, it was noted that some teachers go above and beyond but the mandates make it difficult for them to do so.

Lack of Problem-Solving Skills

The importance of teaching “real” math and science for developing critical thinking and problem-solving skills was discussed by stakeholders across the state.

Hawkinsville (Pulaski County) leaders shared their belief that the current deficit in math and science within the K-12 education system is perpetuated by teachers “teaching to the test” rather than teaching skills of critical thinking.

Several South Georgia stakeholders in Tifton (Tift County) were concerned that the use of technology tools (i.e., calculators, computers) were often introduced and encouraged in American schools before students master the basic skills of reading, writing, math, and science.
This view was echoed by community leaders in Folkston (Charlton County). There, they discussed a general tendency for people to become so dependent on technological improvements that they use it in “excess.”

The school system was described by some regional leaders in Savannah (Chatham County) as inhibiting creativity, citing several explanatory challenges beyond an over-emphasis on test performance. For example, the elimination of fine arts and music programs in the school system was identified as adversely affecting the development of creative minds.

Concerns about the arts in schools were echoed by community leaders in Vidalia (Toombs County) and Athens-Clarke County, questioning whether an over-emphasis on math and science could be a detriment to the arts.

In Swainsboro (Emanuel County), regional leaders noted a high level of college students requiring learning support in basic math, problem-solving, and other skills as an indication that students are not receiving the preparation they need during their formative years. They also cited a lack of students entering engineering type programs.

Stakeholders in Milledgeville (Baldwin County) acknowledged that the schools did a good job of teaching computer skills but echoed that children are becoming too dependent on technology. They pointed to students working as cashiers in local retail stores who are unable to do basic arithmetic in their heads when the cash registers aren’t working. They also noted that many college entrants need remedial work.

**The Dropout Issue**

Beyond the curriculum, participants expressed concerns about keeping students in school. Parental support, or lack thereof, was again raised as a major contributing factor.

The dropout issue was top of mind for Middle Georgia leaders in Swainsboro (Emanuel County) who cited several factors including: parental apathy, inability of some families to meet basic needs (e.g., food), a lack of interest in the coursework at school, seeing peers drop out and go on assistance programs, and the enticement to enter the drug trade, to mention a few. One discussed the “light” going out as early as fourth or fifth grade; another discussed how students emotionally drop out before they physically drop out.

The light going out at an early age was echoed by a stakeholder in Savannah (Chatham County). The stakeholder explained how her daughter had a curiosity at a younger age. However, it which decreased starting in first grade, when she began taking tests and the focus on getting grades and performance on report cards became greater.

Franklin County stakeholders also shared several concerns about the drop out rate, not just in high school but also middle school.
“When you go into industry, this is what you see: things that are clean. You don’t see dark and dingy buildings. You see this modern stuff, technology all around you, and it’s exciting. These are the things that kids, and more importantly, the parents, need to know about.”

**Practicality: The Missing Link**

The inability among students to see real-life applications of math and science was cited as an issue by several stakeholders and was seen to stem in large part from their lack of exposure to such applications. Participants in several forums suggested having executives, entrepreneurs, and technical professionals visit with students to talk about their businesses, the importance of math and science, and opportunities in technical professions.

**Vidalia (Toombs County)** stakeholders identified the need for developing models that focus on the practical values of education, versus what they referred to as “political intrusions into educational process.” They called for a better focusing of educational content and techniques on the students’ capabilities, as opposed to forcing them into a standard mold.

The need to move away from teaching the same basic curriculum to all was echoed by those in **LaGrange (Troup County)**, who called for moving toward a better identification of student interests, aptitudes, and aspirations in order to better steer them accordingly to corresponding educational and work experiences.

College students in **Swainsboro (Emanuel County)** would have appreciated such a move as they shared that understanding career choices came later than desired when they discovered that they had not taken the appropriate courses during high school to prepare them for their degree program in college. They also noted that college was pushed more than technical schools.

Northeast Georgia stakeholders in **Gainesville (Hall County)** observed that students are not aware of modern professional opportunities. It was noted that manufacturing is viewed as “dirty” and “boring” by students who don’t understand what modern manufacturing is about. The need to show students the “look and feel” of today’s manufacturing was seen as key to helping them see the types of opportunities available for motivated individuals.

South Georgia stakeholders in **Tifton (Tift County)** maintained that community schools should adopt some of the “applied learning approaches” and “hands on techniques” used within technical college curricula to encourage students to excel in math and science. Participants suggested that universities, businesses, and community role models should partner with local school systems.

In **Calhoun (Gordon County)**, several Northwest Georgia leaders were concerned that even top performers are not going into areas that require math and science. Several participants maintained that math and science are best when applied to fixing things or improving how things work, but because things are now so cheap and disposable there is no motivation to do so. They explained that the tendency toward replacing products rather than fixing them results in more limited exposure to real life application of math and science skills.
Community leaders in Moultrie (Colquitt County) acknowledged that the local K-12 math and science curriculum is excellent for providing “basic skills,” but also noted that it does not allow for adequate integration of “applied” experiences or specialization of subject matter.

Monroe-Walton County leaders highlighted the local Career Academy as a program for introducing high school juniors and seniors to real life applicability through which they obtain near full-time technical college training. They also emphasized the value of a dual degree award that enabled students to receive a degree with dual seals in college prep and career technology.

The “Persistent Poverty” Link

In several forums, the issue of poverty was raised. The linkage between poverty and the “Building Knowledge” approach was expressed in several ways. The linkage can be generalized by stating that, in order for a community to take best advantage of technology and innovation benefits, the community must place a high priority on the “Building Knowledge” approach. In order to derive best benefit from the “Building Knowledge” approach, certain societal attitudes and the reality of poverty must be addressed.

This perception reflects a growing body of evidence regarding what is variously called “the culture of poverty,” “intergenerational poverty,” and/or “the cycle of persistent poverty.” For example, the effects of this linkage were quantified in a 2005 study jointly sponsored by the Georgia Chamber of Commerce and the Georgia Partnership for Excellence in Education. Just one indicator that they illuminated:

“As educational attainment and poverty are highly correlated, if everyone over the age of 25 in Georgia obtained a high school diploma, an estimated $8.8 billion would be added to the state’s economy.”

While stakeholders in several forums acknowledged the availability of computers and the Internet at public places (e.g., libraries) and through school, they also discussed how that technology wasn’t easily accessible by all and often not accessible on the home front due to lack of affordability. The question about whether technology is widening the gap between the “haves” and “have-nots” was a recurrent one. Some examples are listed below.

Folkston (Charlton County) stakeholders acknowledged the rapid pace of change and raised concerns about the fate of those unable to keep up with the pace.

South Georgia stakeholders in Tifton (Tift County) discussed how lack of basic infrastructure - such as water, sewer, and housing - was

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1 The entire report presentation can be viewed at www.gpee.org/parameters/gpee/uploads/rte/Econ of Ed PowerPoint - Nov. 29.ppt. (INSERT TITLE)
prevalent in certain parts of the region, making it difficult for parents to provide a supportive learning home environment for their children.

In Washington (Wilkes County), stakeholders echoed concerns about keeping up with the pace of change and about the lack of community resources for advancing, adopting, promoting, and capturing innovation and technology.

Moultrie (Colquitt County) stakeholders discussed the prevalence of adult illiteracy and lack of technological access, contributing to a lack of educational role models. They also discussed the high cost of investing in cutting edge infrastructure, given the generally short lifespan of new technologies, as being a key barrier.

Middle Georgia stakeholders in Swainsboro (Emanuel County) cited the inability of some families to meet basic needs (e.g., food) as a factor in the high incidence of dropouts.

Athens-Clarke County stakeholders called for the need to address societal issues that contribute to persistent poverty, that prevent complete involvement in the community, and prevent expectations of success for the young. They saw this as a potential pre-requisite to success in education and workforce development.

**Encouraging Entrepreneurship**

Stakeholders largely saw encouraging entrepreneurship as a key vehicle to innovation, viewing home-grown opportunities as having higher potential payoff dividends than other alternatives.

**The Importance of Collaboration**

Several groups attributed the State of Georgia’s leadership in connecting communities to a collaborative network of business development resources - through the Entrepreneur Friendly Community program, Georgia Centers of Innovation, and other initiatives - as pivotal to raising local and regional awareness concerning entrepreneurship as a viable economic development strategy.

In Tifton (Tift County), South Georgia stakeholders pointed to the University of Georgia’s Small Business Development Center, the Georgia Department of Economic Development’s Entrepreneur Friendly Community program, and the Agriculture Innovation Center as all pivotal for encouraging entrepreneurship in the region. They remarked on how these and other resource providers offer good support for entrepreneurs through a state and regional collaborative framework. They noted the importance of that work continuing.

Middle Georgia stakeholders in Swainsboro (Emanuel County) agreed that collaboration was key - among entities within a community and communities within a region. The importance of collaboration among local technical, transfer, and four-year colleges was cited as an example.
In Vidalia (Toombs County), it was noted how the regional technical college has a designated “Director of Entrepreneurialism” to be the point of contact for entrepreneurs for all resources to help entrepreneurs and to facilitate collaborative support among those resources.

The Building Knowledge Link

Much of the discussion about encouraging entrepreneurship built on the discussion on building knowledge. Entrepreneurship was generally viewed as “off the radar screen” among youth.

Northwest Georgia stakeholders in Calhoun (Gordon County) cited the tendency for the best and brightest to go to work for large corporations and become “institutionalized”. They asserted that there should be a career track for students to become entrepreneurs. It was suggested that every student should come out of high school with a basic understanding of what is required to start and run a business.

Stakeholders in Folkston (Charlton County) expressed strong support for instilling a sense of entrepreneurial spirit among those in the K-12 ages. They advocated incorporating entrepreneurial skills and practice through programs like Junior Achievement, and creating a greater desire and sense that entrepreneurship is a viable career option.

College students in Swainsboro (Emanuel County) acknowledged that entrepreneurship is often not seen as a viable option, noting they had not heard about it as a career strategy during their younger years.

In Gainesville (Hall County), the general consensus among Northeast Georgia stakeholders was that young people do not view entrepreneurship as a viable job option due to lack of role models, higher education, and parental support. Regarding the latter, they noted how parents would prefer their kids become something “safe” like a lawyer.

While some South Georgia stakeholders in Tifton (Tift County) saw that there is a growing awareness among the youth to develop their own companies, about half shared that most students are not aware of the opportunities because it is not widely promoted in school.

In Savannah (Chatham County), the need to teach entrepreneurship to youth in school was echoed by Coastal Georgia stakeholders who discussed the need to have it taught by business people, as opposed to academia. Incorporating entrepreneur training across university curriculum offerings [as opposed to a singular program in the school of management] was also advocated.

Those in Milledgeville (Baldwin County) saw exposure to entrepreneurship at a younger age as a good idea. It was noted that students are asked “what do you want to be when you grow up” and not “what kind of business would you want to start,” which prompts
them to think about where they want to go to work rather than creating their own work.

Participants in Tifton (Tift County), Gainesville (Hall County), and Calhoun (Gordon County), also pointed to another obstacle, sharing that many students of today have higher expectations for immediate payback than those of yesteryear, and less patience for activities with a longer timeframe for realizing a return on investment.

**Removing the Regulatory Bottlenecks**

Stakeholders generally viewed local government as a barrier to entrepreneurship but also saw opportunities for it to play a key role in removing some bottlenecks.

In Savannah (Chatham County), Coastal Georgia stakeholders advocated a smaller role for local government with the removal of regulatory barriers that inhibit business start-ups. Some discussed the failure of local government to recognize that assisting entrepreneurs helps their tax base.

Northeast Georgia stakeholders in Gainesville (Hall County) agreed with a minimal role for local government, also citing the need to break down regulatory and bureaucratic barriers to entrepreneurship.

In Swainsboro (Emanuel County), it was pointed out by Middle Georgia stakeholders how local government views entrepreneurship as largely a risky undertaking, and it’s difficult to convince them of the risk’s worth. Stakeholders echoed others in pointing to regulatory barriers.

Participants in Calhoun (Gordon County) called for improving information about permitting, zoning, and other regulatory requirements. The Northwest Georgia stakeholders noted that the challenge was not just to meet these requirements but also to know what they are in the first place.

Stakeholders in Tifton (Tift County) also saw a need for improving information about government requirements, calling for an easier process and the development of a customer service attitude toward potential business owners. Like those in Coastal Georgia and Middle Georgia, they’d like to see greater recognition of the contribution made by entrepreneurs to the tax base.

**Need for Greater Community Support**

While stakeholders commended the State of Georgia for its leadership in encouraging entrepreneurship through local, regional, and statewide vehicles, they also identified several unmet needs.

Hawkinsville (Pulaski County) stakeholders cited a general lack of awareness regarding resources available to entrepreneurs for applying their innovative ideas. They identified the need for a local program to connect entrepreneurs to these resources and to encourage local innovation through entrepreneurship.
South Georgia stakeholders in Tifton (Tift County) advocated that government play a proactive role in helping to provide financing for entrepreneurs (e.g., low interest loans, seed money, grants, tax incentives) particularly to fuel R&D of new products and processes. The majority of the group felt that local chambers, development authorities, and others could do a better job supporting entrepreneurs (e.g., mentoring, networking, training) but also recognized the pivotal role the Agriculture Innovation Center can play for the region.

In Swainsboro (Emanuel County), while noting the benefits of an existing regional program that provides outreach to entrepreneurs, Middle Georgia stakeholders pointed generally to the lack of community support mechanisms as the main reason why the majority of small businesses fail, as such businesses lack know-how for developing a business plan or financing the business.

Those in Savannah (Chatham County) called for local government to “put skin in the game,” with some comparing the support provided for tourism to that provided for other types of businesses. Venture capital, tax incentives, and providing backing to bank loans were potential tools stakeholders would like to see local communities explore.

In Calhoun (Gordon County), beyond connecting entrepreneurs with available resources, several Northwest Georgia stakeholders noted the importance of connecting entrepreneurs with each other. They echoed the need to help fuel R&D and the importance of the Centers of Innovation program, citing a need for additional knowledge about research and intellectual resources available through universities.

Northeast Georgia stakeholders in Gainesville (Hall County) also saw the need for providing R&D support to entrepreneurs. While they echoed the need for financial resources, several participants felt that if the community used tactics—such as an incubator, mentoring, and support services—to strengthen entrepreneurial companies, those with good ideas and good management would find the money they need.

Stakeholders in Milledgeville (Baldwin County), citing an initiative underway in the community, advocated the importance for assessing what types of businesses are right for the community, and then encouraging entrepreneur development for those specific types.

Boosting Existing Business

While Georgia stakeholders cited several natural, physical, and other supportive assets in their communities and regions for boosting existing business, helping local businesses be competitive in the accelerating global economy was viewed as a major challenge by virtually all stakeholders across the state.
Lag in Technology Adoption

Stakeholders saw technology adoption increasing in its importance for helping companies remain competitive. Basic adoption in what has become standard information technology applications such as email and the Internet was reported to be fairly widespread. Those in rural areas of the state largely viewed the business community as lagging in its adoption of new technologies. Several stakeholders cited the lack of broadband infrastructure as one reason; others described a lack of technology know-how.

In Tifton (Tift County), when asked how knowledgeable businesses are about technology trends, most of the South Georgia stakeholders stated that businesses are generally aware of technology trends but lag in the adoption of new technologies primarily due to rising costs of supplying the infrastructure and the lack of knowledge of the business proposition for upgrading to new technologies.

This view was echoed in Milledgeville (Baldwin County) where stakeholders shared that businesses, educational institutions, and local governments are having trouble keeping up with the pace of technology due to the lack of “budgets to be innovative” as well as a lack of know how. It was advocated that a credible source for consistent information on technology products and trends would be valuable so business owners and others could make the “right” decisions regarding technology choices.

Middle Georgia stakeholders in Swainsboro (Emanuel County) noted that local companies don’t always see the value of investing in technology, particularly those that are experiencing some success and may not see the potential for greater success through technology.

Colquitt-Miller County stakeholders cited the lack of telecommunications infrastructure in areas of the community where major existing industries (especially agribusiness enterprises) are already located as hampering their ability to innovate and adopt new technologies. While acknowledging the tremendous pressures to innovate due to global competition and low profit margins, they also cited the high cost - and risk given rapid pace of new technological developments - and low available capital for investing in cutting edge infrastructure.

In Hawkinsville (Pulaski County), stakeholders reported a general lack of awareness regarding high-tech services and alternatives now available to the community, such as areas of broadband coverage by fiber and DSL, as well as the satellite alternative in areas not covered by physical infrastructure.

Barriers to R&D

Investing in research and new product development were largely viewed as impractical for small-to-medium sized firms.
In Gainesville (Hall County), Northeast Georgia business stakeholders shared personal stories about how their company resources are focused on getting product out the door, and they don’t have the “luxury” to invest in R&D. They shared that beyond R&D capacity, local companies cannot afford to stop or slow production in order to test or implement innovations, and by the time the “life cycle” enables them to do so, it’s too late.

Middle Georgia stakeholders in Swainsboro (Emanuel County) concurred about the challenge for smaller firms to invest in product development. So many companies in the region are reported to be in survival mode and can’t take the time (let alone make the investment) to be innovative in producing their products.

Stakeholders in Savannah (Chatham County) called for greater support provided to help local companies develop their own labs. The Herty Foundation was identified as a key asset for connecting local industries with international technological resources, but Coastal Georgia stakeholders also advocated a greater role for universities in fostering innovation within declining industries, citing North Carolina as an example.

In Tifton (Tift County), South Georgia stakeholders were not aware of R&D investments made by regional businesses toward innovation. The university cost-reimbursement structure was cited as a barrier for accessing university research. Stakeholders noted the need for businesses and citizens to learn and take advantage of the research taking place at nearby colleges and universities and the role that the Center of Innovation can play in the process.

The Building Knowledge Link

Some of the discussion concerning supporting existing businesses built on the discussion on building knowledge. Quality was the operative word.

Stakeholders in Statesboro (Bulloch County) discussed the dissatisfaction among existing employers with those graduating from the K-12 school system. They noted that it is not only a skills issue but also one of worker attitudes.

In Savannah (Chatham County), Coastal Georgia stakeholders pointed to the need for focusing on life-long workforce development from Kindergarten through post-secondary. They also pointed to the importance of quality of life, mainly for growing and attracting knowledge-based workers, and cited contributors to that quality of life such as the area’s recreation and educational assets.

Several South Georgia stakeholders in Tifton (Tift County) stated that business and industry should encourage and provide incentives for employees to develop professionally. Stakeholders identified talent development as the greatest area of need - describing it as the “human dimension” of innovation in business - and called for better education, training, and other workforce support.
In Milledgeville (Baldwin County), stakeholders emphasized the critical role that the community’s three colleges play in supporting existing businesses, particularly with their ability to draw in students (talent, customers) and support businesses. One area of challenge identified was in linking existing businesses with talented students from the colleges.

Success Requires Entrepreneurism

An entrepreneurial mindset by owners of businesses, small and large, was identified as critical.

In Calhoun (Gordon County), a Northwest Georgia stakeholder shared an anecdote about a business that lost its sole customer. The owner, rather than closing down, totally recreated his product and pursued completely new markets, including exporting, with the assistance from state government agencies. As a result, the firm not only survived; it grew, nearly doubling in size. Building on this story, several participants pointed out that the most successful existing businesses were also very entrepreneurial and innovative.

Many of the businesses in Milledgeville (Baldwin County) were reported to be relatively small by community stakeholders by design as of at least 10 years ago. Stakeholders shared how business owners are entrepreneurial “jacks of all trades” to keep their businesses alive.

Need for Greater Community Support

As with entrepreneurs, stakeholders in Georgia’s two largest forum gatherings pointed to the lack of community recognition concerning the value of sustaining and growing existing businesses, as opposed to luring someone from the outside.

In Tifton (Tift County), South Georgia stakeholders advocated the need for existing businesses to receive the same level of community support that new businesses receive when locating to the community. Most participants agreed that existing businesses are a key source for future growth in jobs and investment. Participants noted that the Centers of Innovation can provide guidance and counseling, business coaching, networking opportunities, and knowledge transfer to existing businesses.

Colquitt (Miller County) stakeholders also called for a greater focus on special community assistance to existing major industries, especially agribusiness enterprises. They noted that industries could adopt “appropriate” technology and accelerate their innovation through partnerships with community assistance programs.

Business retention and helping create opportunities for expansion are keys to encouraging innovation and adopting new technologies, agreed stakeholders in Hawkinsville (Pulaski County). There stakeholders recognize that community support has been lacking and are working to
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“Existing employers present communities with significant opportunity to promote innovation and technology, especially given competitive pressures and available resources for assistance.”

develop and implement a program to proactively identify opportunities for local businesses taking advantage of resources already available that can assist with improving operations and expansion potential.

Several Northeast Georgia stakeholders in Gainesville (Hall County) identified the need for greater tax credits for R&D expenditures, especially for small-to-medium sized firms. They also identified the need for assistance with developing, protecting, and profiting from intellectual property such as patents.

Coastal Georgia stakeholders in Savannah (Chatham County) discussed the lack of business-to-business (B2B) support for existing businesses and the consequential lack of awareness concerning the resources that can help. Noting the success of Silicon Valley and the model provided by the Advanced Technology Development Center for entrepreneurs, they advocated creating a similar web and networking vehicle for existing businesses where they can connect and provide support to each other.

Recruiting Innovation

Regardless of the size of community they hailed from, stakeholders were generally least enthusiastic about the notion of focusing on traditional industry recruitment as a means to fostering innovation. Several generally considered the “Recruiting Innovation” approach to encompass drawing in existing industry, knowledge workers, in addition to attracting new firms from outside the community. Some focused on challenges for their community or region’s competitiveness for recruitment.

In Gainesville (Hall County), consensus among Northeast Georgia stakeholders was that the best way to leverage innovation was to support innovative homegrown firms. They viewed these firms as being more likely to stay and grow as better corporate citizens, and as a valuable recruitment tool as a prosperous businesses speak to the quality of the business environment, and provide supply chain growth opportunities.

Middle Georgia participants in Swainsboro (Emanuel County) generally viewed recruiting innovation as important but saw entrepreneur development as a more viable strategy than recruiting new firms. While they also saw greater local support for putting efforts into recruiting new firms than in supporting entrepreneurs, they called for the need to educate local officials and the communities at-large on the value of entrepreneurship.

Coastal Georgia stakeholders clearly favored growing, retaining, and recruiting innovators over firms and pointed to Savannah (Chatham County)’s success in attracting and developing talent through the Savannah College of Art and Design and other educational assets. They credited the downtown Savannah environment as “ideal for creative and technical people” due to its informal gatherings, wireless internet access and walkability. It was noted that persons between the ages of
”Putting a spotlight on small business is helping communities without assets in place to bring in an industry as small business can turn into large business. But it is a balance; you need to nurture what you have, as well as grow and pursue industrial [development].”

25 and 35 are ideal to target because they are most attractive for knowledge-based businesses that will follow.

Likewise, in Calhoun (Gordon County), Northwest Georgia stakeholders focused on talent development and connecting with universities and saw them as an important recruitment tool, outweighing building infrastructure and industrial parks. They saw business development following talent and including supporting entrepreneurs and existing businesses in their approach.

South Georgia stakeholders in Tifton (Tift County) favored targeting emerging growth industries for recruitment. They also identified factors that would attract individuals with the science and technology-related talents and skills needed by such industries, including area colleges and universities. They cited R&D being conducted by the University of Georgia, schools, and local PhDs, but also noted challenges in broadband and other key infrastructure.

While stakeholders in Milledgeville (Baldwin County) considered their community to have great infrastructure, including telecommunications which continues to be enhancing, they noted that their challenge is competing with communities that have had the technology infrastructure in place for 10 years.

Stakeholders in Colquitt (Miller County) identified another “chicken and egg” issue relating to workforce. They noted that communities may have the infrastructure to produce the “high tech” workers over time, but, in a recruitment opportunity, a community may not have the adequate workforce at the point in time a firm is interested.

MOVING FORWARD: NEXT STEPS

The forums had the tendency to attract those stakeholders in leadership positions who were already interested in innovation and technology and, as noted earlier in this report, therefore attuned to the approaches that were the focus of the dialogue. While participants were strongly encouraged by the forum coordinators to attend, they self selected themselves to participate. In addition, the majority of participants had a minimum of a college degree. In general participants have a strong “feel” for the importance of innovation and technology in the continuing success of their enterprises. In many respects, these forums were akin to “preaching to the choir.”

Still, when asked whether they were thinking differently following the forum than the way they were prior to the forum, nearly half (47.2 percent) said yes. This percentage was just slightly more evident among participants in the more rurally based county forums.
In the county forums, stakeholders indicated that though they may not have changed their minds during the forum, they did become even more convinced of the importance of these issues and they have a better awareness of progress being made. This realization was echoed by participants in the regional forums.

Participants who responded “Yes” that they had changed their thinking, offered several general comments to explain their response. Several shared that they found the forums beneficial in broadening their perspectives and providing them with new ideas. Some discussed how the forums opened their eyes to ways in which innovation and technology issues impact the entire community’s future and, therefore, opened their eyes to the need for collaboration across broader segments of the community and/or region. Others discussed having a better focus on specific actions to take. Following are some examples of other thoughts shared.

- “Our community needs to grow and change with the new world. I am encouraged by the people who want to improve this community.”
- “I have heard many who are afraid of this change. We will have to pass them by.”
- “I am more aware of what is available and what needs to be done. I see opportunity and growth potential in our community.”
- “I need to be more in tune with all the changing technology.”
- “Issues are clearer now - opportunities and challenges.”
- “I see more clearly the obstacles limiting our growth.”
- “Collaborative effort needs to be implemented in actual business practice, not just in government and policy.”
- “There are community-supportive businesses that can be created to provide better quality and competition to the big businesses.”
- “Workforce development is a large key to the growth of this community.”
- “There is not just one solution.”
“I now believe we need more emphasis on recruiting innovative individuals, not just high-tech businesses.”

• “Jobs will depend on how we encourage technology in our area.”
• “I realize the need to raise our level of education in the early years to better develop technology. The point about children being in school for just 14% of their time puts a lot of emphasis on the family to reinforce what they are learning.”
• “I changed my mind about the issue of incentives to attract high-tech businesses.”
• “I now believe we need more emphasis on recruiting innovative individuals, not just high-tech businesses.”
• “We need to build innovative individuals, not bricks & mortar. By doing so, the development will follow the people, and some of the innovative individuals will stay in the area.”
• “I think it’s all the more important to scale how we view innovation and technology to all business sizes, to government, to education, to community development-- we must move it beyond just seeing high tech companies. It must permeate all sectors.”
• “I have been personally challenged to facilitate and develop means in which to attract and engage youth, through technology, i.e. computers, to become knowledgeable and entrepreneurial savvy.”
• “We must expand the capabilities of existing businesses and promote technology in K-12.”
• “The education system should focus more on basics (math/science) and follow that by entrepreneurship.”
• “I have four approaches to pursue now versus the two [I had] prior to the forum.”

Participants were also asked about aspects of the discussion that troubled them, and most of their responses fell in three general areas: lack of funding assistance to accomplish change, lack of community enthusiasm and/or awareness, and socio-political inertia. Some of the more insightful responses are listed below.

• “Society, parents, and tough issues all contribute to young people not achieving what they need for successful lives.”
• “Schools are teaching the skills that I, as an employer, need to hire for today but not for tomorrow.”
• “We have to identify students at an early age that are tech-interested.”
• “Cost of infrastructure, stratification of planning, advantages/disadvantages of factor price equalization.”
• “Developing tech jobs in preparation for loss of industrial jobs.”
• “Challenges presented by the pace of change; i.e., staying ‘ahead of the curve’ with the latest and greatest available, and being able to afford it.”
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“I think it's all the more important to scale how we view innovation and technology to all business sizes, to government, to education, to community development--we must move it beyond just seeing high tech companies. It must permeate all sectors.”

- “Is our community really ready to accommodate technology-based development?”
- “We may be thinking wrongly about what constitutes technology. Basic education, job skills, and talent may be our greatest technology need.”

Next Steps

When asked whether or not the forums generated some thoughts on new ways to foster innovation, nearly three-fourths (72.4 percent) answered affirmatively.

Do You See New Ways for People to Work on This Issue?

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Those answering affirmatively had several suggestions for next steps ranging from very broad general suggestions (e.g., taking a communitywide approach toward planning and acting, improving the flow of information) to very specific action steps. In most forums, stakeholders called for:

1. Widely disseminating of the results of all the forums
2. Developing an action plan based on results of their particular forum
3. Holding future forums either tied to action plans or specific topics of interest
4. Involving greater participation from the business community, youth, and sectors that were not well-represented at the initial forums, in future efforts

Following are some other examples of suggested next steps. Most of the suggestions centered on furthering the “Building Knowledge” approach.

Building Knowledge

- Emphasize more testing to identify student capabilities, interests, aptitudes, and recognize that not all are college material. Steer them toward technical skills training instead of college prep if that’s what their aptitude calls for.

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“We need to build innovative individuals, not bricks & mortar. By doing so, the development will follow the people and some of the innovative individuals will stay in the area.”

- Start at home with support for education. Education is the key aspect of resolving poverty.
- Increase parental participation in skill-based knowledge of students.
- Integrate programs in middle and high schools to have a single coordinated program.
- Foster greater coordination between educational institutions and business community. For example, need more presence of community’s business & industry people in the schools.
- Enact education reform to teach the “love of learning” and not just teaching to the tests.
- Promote dual enrollment [in college prep and career technology degrees] and have an earlier detection of students who can be veered toward particular careers.
- Stress to young people the importance of work ethic and getting involved in local job shadowing.
- Work to get government politics out of education.
- Share comments from discussions at the forum with educators and others “on the ground.”

Encouraging Entrepreneurship

- Have successful innovators who have left the area return and advise the local community.
- Bring more people through the Innovation Center and take the Center to the people.
- Convey resources (through government and other entities) to help entrepreneurs.

Boosting Existing Business

- Develop a Website for our businesses to help recruit special-skill employees.
- Identify companies that could benefit by global growth and offer to help.

Recruiting Innovation

- Assess potential for bringing overseas business to the community and take more advantage of export benefits.
When asked to indicate whether they would do anything differently as a result of the forum, approximately one-in-five stakeholders indicated they would.

Other

- Work toward better relations and communications throughout the community.
- Spread the word by discussing these issues in meetings of other groups.
- Look toward technology instead of away from it.
- Provide high speed wireless Internet for entire state.

When asked to indicate whether they would do anything differently as a result of the forum, approximately one-in-five stakeholders indicated they would. Some discussed becoming directly involved in improving education such as seeking ways to foster creativity in the schools, providing mentoring to students, and working to assist local science and math department heads. Others discussed working to expand overall support to local businesses and helping to encourage innovation in such businesses. And others discussed the need to promote and celebrate the examples of innovation that are evident in their region so these examples can inspire others to innovate.

**IMPLICATIONS**

Approximately 370 Georgia stakeholders participated and provided input on the subject of innovation and technology, several major themes emerged from the forum offering potential implications for future program or public policy development.

The State of Georgia has made a significant investment in fostering community and regional innovation and technology transfer through its Georgia Centers of Innovation and Georgia Research Alliance. These and other programs could be ideal platforms for following up on some of these implications. Georgia has a great foundation, one that could be expanded upon through additional initiatives undertaken by a number of collaborative partners.

The forums have been a positive force in igniting dialogue about what innovation and technology means for Georgia and in stimulating local and regional groups to plan on re-convening with broader participation for additional discussions and/or action planning.

However, there were a number of underrepresented groups participating in the forums. Any potential policy or program action should be confirmed with feedback from these groups - for example, minorities, economically disadvantaged persons, unskilled workers, strategic business representatives, K-12 educators, and others.

1. **Spread the word on the importance of, and vehicles to, innovation.**
   - Conduct regular outreach to community stakeholders, including the general citizenry, on the importance of talent
development, entrepreneur developing, and supporting existing enterprises as a means for fostering innovation.

- Examine other mechanisms for providing “reinforcement” to local economic development officials interested in pursuing what may be, for their community or region, “non-traditional” approaches toward innovation.

2. Foster a “culture of learning.”

- Develop a massive public relations campaign, in partnership with the media, to market math, science, and technical professions to youth and their parents. Recruit “stars” from the highest levels of government and business, across all of Georgia, in the promotional effort and encourage parental involvement in their child’s education, K-12. Local promotion efforts should include actively “telling the story” about successes whether they are academic or creative, among students of all ages and consideration of “incentive” or “recognition” programs.

- Explore ways to reduce the negative stigma among students associated with performing well or being a “high achiever.” Counsel students and their parents to have “higher expectations” for their children.

- Work to reduce negative judgments among parents and the general public regarding the vocational path as well as entrepreneurial pursuits.

- Explore the feasibility of creating a volunteer corps of successful business executives, to be deployed as career mentors, speakers, and advocates, in helping youth see the value of math and science and greater real-life applicability of what they’re learning in school.

- Offer career mentoring at the earliest age possible. Introduce careers to children as early as Kindergarten.

- Increase demonstration of “cool” science and technology initiatives and projects geared to appeal to K-12 graders across the state.

- Introduce entrepreneurial skills into all K-12 curricula. Make it “cool” and life-style relevant/practical.

- Identify those teachers who are loved by students and, therefore, typically have the ability to inspire, as potential mentors to young teachers and new recruits.

3. Develop a more customized approach to education.

- Assess student needs through mechanisms other than standardized tests. Look at all areas of performance, including work product and by subject and skill area. Gauge their interests and “passions” by talking to them early and regularly.

- Customize student’s educational experience based on the needs identified through the assessments. For example, if a
student has a talent and interest in writing, work to connect
the student with more creative writing opportunities.

• Refrain from advocating students select either college prep or
career technology high school paths in 9th grade. Instead,
eourage more dual seal pursuits that enable them more
flexibility to customize their course load.

• Explore ways that enable teachers to teach to the skill level of
each student rather than to what the curriculum may require.

• Assure teachers have the flexibility and resources to develop
project-based experiences that foster opportunities for critical
thinking and other problem-solving skills.

4. Conduct special outreach, starting as early as third and fourth
grade, to students and their parents before the “light” goes out.

• Educate all parents about the potential risk of losing interest
among third and fourth graders as a regular component of
“orientation” night so they can be on alert.

• Create a special alert system where teachers can immediately
inform parents and vice versa if they are noticing any signs of a
loss in intellectual curiosity.

• Consider a mentoring program for all students, whether they
are at the top, middle, or bottom of the class, as they are all
at-risk for losing interest.

• Identify creative (e.g., arts, music, writing, math, science)
enrichment programs for all students that match their natural
passions.

5. Increase emphasis on developing critical thinking and problem
solving skills among youth.

• Continue efforts to expand hands-on and individualized math
and science training at every age.

• Support arts and music programs in the school system, as they
also foster critical thinking skills.

• Inventory the specific math and other basic skill areas of
highest need for learning or remedial support among post-
secondary institutions and the business community, and work
to calibrate curriculum in secondary schools to better address
those needs.

• Strengthen math and science requirements for high school
graduation. Provide alternative post-high school options (e.g.
gifted, academic college prep, technical skills prep, life skills
prep) to any student’s interested, no matter the track they’re
on.

“Jobs will
depend on how
we encourage
technology in
our area.”
6. Focus on fostering home-grown innovation among existing enterprises, including entrepreneurs.

- Spread awareness about the Centers of Innovation among local businesses and leverage the talents and resources available through the centers for connecting local businesses to university research.

- Make it easier to learn about intellectual property developed at universities that is available for licensing or other use. Increase efforts to publicize university innovations, and explore ways to reduce barriers to technology transfer.

- Develop strategies for helping enterprises learn how to best apply the available technology, and then leverage state and federal programs for expanding broadband to underserved areas.

- Identify those businesses that are adopting new technologies in value-added ways and provide public recognition of them for their efforts.

- Educate businesses concerning technology trends, emerging technology tools, and “smart buys” regarding equipment upgrades and other technological investments.

- Encourage local governments and media to provide the same, if not greater, level of enthusiasm and support for their existing businesses as they do for new recruits.

- Expand programs that link potential entrepreneurs with those who know the “nuts and bolts” of being an entrepreneur through actual, direct experience.

- Examine ways to reduce regulatory barriers and to foster greater customer friendliness toward businesses by government. Explore the feasibility of local one-stop shops for small business regulations.

- Foster greater business-to-business learning networks, particularly in key clusters, and build on programs that may be available through chambers of commerce or other entities, to enable knowledge-sharing, cross-mentoring, joint ventures, and other value-producing interactions.

- Strengthen vocational and technical skills programs, especially with more business involvement, to ensure business world practicality. Build on existing Chamber of Commerce programs and other third party programs.

- Increase marketing of the menu of existing financial programs to help small businesses, as there appears to be a lack of awareness. Foster greater learning about innovative tools that can be applied locally for providing financial support to emerging enterprises.
Georgia’s Innovation Forums of 2006 Report

“There is not just one solution.”

7. Improve access to computers and Internet in all communities, across all socio-economic categories.
   - Identify those at risk of being the “have-nots” who are of special concern. Improved access to technology is an important factor in breaking the cycle/culture of persistent poverty.
   - Provide free basic training in computer and Internet for all. Make the training “cool” and life-style relevant/practical to attract those who may be resistive in adopting the technology/innovation.
   - Foster greater knowledge about programs, such as the OneGeorgia Authority’s Broadband Rural Initiative to Develop Georgia’s Economy (BRIDGE) program and those available through the U.S. Department of Agriculture, to expand broadband infrastructure in underserved communities and connect those communities to technical resources that can help them best leverage that infrastructure to reach the highest possible economic value.

8. Expand support programs for communities to learn how to create a desirable environment for talented and creative people as a route to fostering innovation.
   - Further connect communities with existing resources that focus on fostering quality growth and a desirable community “sense of place.” Expand those resources that appear to be over-tapped.
   - Link those communities that are successful in their talent development, attraction, and recruitment efforts with those who wish to learn.

9. Think regionally.
   - Increase awareness among community stakeholders that community competitiveness is based on their regional advantage.
   - Look for “natural” or economic synergies with nearby counties as the basis for identifying those it makes most sense to develop a relationship with, if one doesn’t already exist. These “natural” regions may not be the same as those defined as regions for service delivery purposes by state or federal agencies.
   - Foster regular dialogue and interaction among those counties in the “natural” regions in order to create the framework for knowledge-sharing, cross-mentoring, joint-venturing, and other value-producing activities.

10. Continue the dialogue...
   - Consider reconvening forum participants across the state to review the results and determine next steps.
Engage greater and more widespread participation, particularly from underrepresented groups, in future forums to ensure more diverse representation.

Engage regional and statewide partners in any follow up initiatives that may result from these and other forums.

Use results from the forums to generate a review by policy makers in determining gaps and determine how organizations such as the Georgia Centers of Innovation and Georgia Research Alliance, among others, can fill the gaps.

ABOUT THIS REPORT

This report is based on a compilation of feedback offered by approximately 370 Georgian stakeholders attending 18 discussion forums conducted across the state during Winter 2006, in support of the Southern Growth Policies Board’s Southern Innovation Initiative. The forums were developed through a collaborative effort among more than 20 partnering organizations across the state in service to Georgia and the South.

Insights and advisement were provided by Linda Hoke of the Southern Growth Policies Board which greatly aided in the report’s development.

Development of this report has been a joint effort by a team of faculty and staff from the Georgia Tech Enterprise Innovation Institute and the University of Georgia’s Public Service & Outreach Division, Fanning Institute:

Mac Brown, CEcD (Principal)  Paul Kreager, EDFP
Karen Duncan  Greg Laudeman
Dennis Epps  Bill Russell, CEcD
Hortense Jackson  Phaedra Tucker
Inna Kharoujk  Joy Wilkins, CEcD (Principal)

The cover was designed by Tyson Young at the University of Georgia.

For further information, please contact the principals of this report:

At Georgia Tech, contact Joy Wilkins at 404-895-6115 or joy.wilkins@innovate.gatech.edu.

At the University of Georgia, contact Mac Brown at 706-583-8284 or macbrown@fanning.uga.edu.

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