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*Report on the Analysis of
Education Demand in
Southside Virginia and
Recommendations for Action*



State Council of Higher Education for Virginia

Advancing Virginia through Higher Education

Table of Contents

Executive Summary	1
Scope of Report	4
Background	4
Analysis of Student Demand	5
Analysis of Academic Program Demand	8
Recommendations for Academic Programs	9
Recommendation for Higher Education Model	14
Recommendations for K-12 Outreach	16
Recommendations for Economic Development	18
Cost Estimates	19
Conclusion	19

Executive Summary

The Executive Director and Council Members of the State Council of Higher Education for Virginia (SCHEV) provide this report on the educational demand in Southside Virginia and recommendations for action. For purposes of this report, the Southside is defined as including the cities of Martinsville, Danville, and South Boston and the counties of Henry, Pittsylvania, Patrick, and Franklin.

The Southside region has been beset by economic woes with the collapse of the area's textile, timber, and tobacco industries. For families previously participating in the manufacturing and agricultural economies, a strong culture of college attendance does not exist, and educational attainment levels are comparatively low. Local leaders believe that a new college, or a branch campus of an existing college, would promote a college-going culture and spur economic growth in the region.

Consensus began to build among legislators that additional postsecondary opportunities were needed in the Southside region as the means to both produce a better-educated workforce and to attract businesses into the area. In the 2004 legislative session, the Virginia General Assembly passed HJ 197, which directed SCHEV to “consider the establishment of a public four-year degree granting institution of higher education in South Central Virginia in developing its system wide needs assessment plan for higher education in the Commonwealth.” The legislation mandated that, should an institution be deemed necessary for establishment in the region, it “must strengthen and support existing public and private institutions of higher education in the South Central region.” During its deliberations to develop the plan, SCHEV was required to “solicit the participation of and collaborate with all interested parties, and evaluate all available options, including, but not limited to, the creation of a branch campus of an existing institution.”

In April 2004, the Harvest Foundation announced its support for a New College of Virginia in Martinsville and pledged a \$50 million matching grant towards its development. A preliminary planning report was approved by the Foundation in June, and Dr. Ron Carrier was named the director of its planning initiative. In December 2004, SCHEV submitted a report to the General Assembly responding to HJ 197. SCHEV concluded that a needs assessment needed to be completed. The General Assembly concurred. Thus, \$100,000 was allocated in 2005 to the agency to conduct or contract for an assessment of the postsecondary enrollment and program needs of Southside Virginia.

This assessment, conducted by Chmura Economics and Analytics (CEA), revealed that:

- Approximately 66% of the students in the region completed high school (compared to 78% statewide), and 2/3 of those graduates stated that their continuing education plans included attendance at a two- or four-year college or university.

- There is strong interest in attending a college in the Martinsville area. A clear preference was expressed by respondents for a local college to be a branch campus or “affiliated with” an existing institution.
- More than half of respondents in both surveys indicated that financial aid is a necessity. Similarly, 4 of 10 indicated the need to work and attend school at the same time.
- About one-third of respondents indicated a desire for part-time enrollment, and about one-third indicated a desire to commute. Depending on the survey population, about one-half to two-thirds of respondents were interested in living on campus. These data suggest that any Southside educational solution would need to be broad-based in its student service offerings and program scheduling to meet a wide range of student needs.
- The CEA report concludes that students and employers in the Southside area need specific baccalaureate degree programs, and that access to a local public university would promote regional educational attainment. For prospective traditional and non-traditional students, as well as employers and local leaders, the highest-demand baccalaureate degree programs include health-related programs, education-related programs, business administration programs, and computer-related programs.

In addition, regional economic development could be strengthened by the availability of promising new programs such as nanotechnology and programs that capitalize on local assets, e.g., the Southside fine arts facilities, and enhanced occupational and entrepreneurial training. These provide relevant responses to a wide range of identified Southside student characteristics and employer needs.

In evaluating the need for a new Southside higher education institution, SCHEV determined that the recommended model should serve the entire Southside region and should leverage existing public and private institutions’ assets and resources. Although there is an identified need for physical space and dedicated faculty “on the ground” in the Southside region, the recommended model should also utilize current and emerging educational technologies whenever possible. To that end, SCHEV presents three sets of recommendations formulated to capitalize on existing assets within three Southside sub-regions—Martinsville, Danville, and South Boston.

Based on analyses of student and employer demand, SCHEV recommends that there be four year degree programs available in Southside in the following fields: (1) health-related, (2) education-related, (3) business administration, and (4) computer studies. Additionally, regional economic development could be strengthened by the availability of programs such as nanotechnology and entrepreneurial education, which provide relevant responses to a wide range of identified Southside student characteristics and employer needs.

Because a strong culture of college attendance does not exist in the region, outreach to K-12 students, families, and school personnel will be essential to begin to change that culture. K-12 student, family, and teacher initiatives such as college awareness and preparation programs, the FIRST Robotics program, and the No Child Left Behind program would promote enthusiasm for continued education in the Southside region.

All groups connected with the assessment acknowledged that one institution, or a series of four year degree granting programs, could not single-handedly reform a region economically. It is important that careful analysis and planning regarding economic development be an integral part of the overall effort. To that end, SCHEV recommends the development of a comprehensive Southside economic development plan.

Projected costs are rough estimates. A free-standing autonomous institution with a fully-articulated leadership structure would be the most expensive alternative. An entity created in partnership with existing four-year colleges and community colleges is a cost-effective way to meet the region's needs. Phasing in 300 students each year could require an estimated initial general fund appropriation of \$2 – 4 million per year to provide faculty and incentives for them to travel or relocate to Southside Virginia, leased space for facilities, and outreach efforts to K-12 students, parents, and teachers.

The planning commission of the New College of Virginia is to be commended for its steadfast efforts to develop innovative higher education options for Southside residents. The year-round schedule, internship options, outreach to the K-12 sector, and contributions to local economic and workforce development are among the innovative strategies that should be incorporated into any plan for higher education in that region. As they are implemented and their impact is evaluated, it may be found that they have laid the groundwork for a new stand-alone model that can be supported by the Commonwealth. In the meantime, a partnership model provides a more cost-effective alternative that is consistent with Virginia's rich history of establishing new higher education institutions in affiliation with existing institutions. That model recognizes the importance of cooperative education efforts across sectors and levels and lays the groundwork for the evolution of new higher education solutions. As education efforts move forward in the Southside region, periodic updates and reports to SCHEV will be instrumental in determining how the Southside solution will evolve.

**State Council of Higher Education for Virginia
Report on the Analysis of Education Demand in Southside Virginia
and Recommendations for Action**

I. Scope of Report

The Executive Director and Council Members of the State Council of Higher Education for Virginia (SCHEV) provide this report on the educational demand in Southside Virginia and recommendations for action. For purposes of this report, the Southside is defined as including the cities of Martinsville, Danville, and South Boston and the counties of Henry, Pittsylvania, Patrick, and Franklin.

II. Background

The Southside region has been beset by economic woes with the collapse of the area's textile, timber, and tobacco industries. For families previously participating in the manufacturing and agricultural sectors, a strong culture of college attendance does not exist, and educational attainment levels are comparatively low. Local leaders believe that a new college, or a branch campus of an existing college, would promote a college-going culture and spur economic growth in the region.

Consensus began to build among legislators that additional postsecondary opportunities were needed in the Southside region as the means to both produce a better-educated workforce and to lure businesses into the area. In the 2004 legislative session, the Virginia General Assembly passed HJ 197, which directed SCHEV to "consider the establishment of a public four-year degree granting institution of higher education in South Central Virginia in developing its system wide needs assessment plan for higher education in the Commonwealth." The legislation mandated that, should an institution be deemed necessary for establishment in the region, it "must strengthen and support existing public and private institutions of higher education in the South Central region." During its deliberations to develop the plan, SCHEV was required to "solicit the participation of and collaborate with all interested parties, and evaluate all available options, including, but not limited to, the creation of a branch campus of an existing institution."

In April 2004, the Harvest Foundation announced its support for a New College of Virginia in Martinsville and pledged a \$50 million matching grant towards its development. A preliminary planning report was approved by the Foundation in June, and Dr. Ron Carrier was named the director of its planning initiative.

In December 2004, SCHEV submitted a report to the General Assembly responding to HJ 197. SCHEV studied two proposals as possible solutions to the questions embedded in HJ 197: Longwood University (LU), Old Dominion University (ODU), and Patrick Henry Community College (PHCC) submitted The Collaborative 2+2 proposal. The Harvest Foundation submitted the New College of Virginia (NCV) proposal. Neither of the two proposals included a thorough needs assessment of the region to determine

what programs and opportunities were most appropriate or if there was sufficient demand to support a four-year program.

The 2005 General Assembly concurred with SCHEV's determination that a needs assessment was necessary prior to any significant investment by the Commonwealth. Thus, \$100,000 was allocated in 2005 to the agency to conduct or contract for an assessment of the postsecondary enrollment and program needs of Southside Virginia. Chmura Economics and Analytics (CEA) was hired to conduct an objective needs assessment of the region.

III. Analysis of Student Demand

Staff review of Virginia Department of Education data for the period 1996 – 2004 provided the following trend data on Southside K-12 graduates:

1. The region includes seven school districts. The annual number of graduates across the region has remained relatively stable during the period 1996-2004, increasing by about 200 students (2,611 to 2,807).
2. Approximately half of the graduates satisfied the requirements for Virginia's Standard Diploma (22 Credits), while slightly more than 40% completed coursework necessary to qualify for the Advanced Studies Diploma (24 Credits).
3. The number of high school students from the region who dropped out declined steadily during this period (from 1,102 to 311) and the number of students who received the General Education Development (GED) Certificate increased.
4. Approximately 66% of the students in the region completed high school (compared to 78% statewide) and 72% of those graduates stated that their continuing education plans included attendance at a two- or four-year college or university.

Current Enrollment and Transfer Activity

Over the past 10 years, DCC has awarded 1,977 associate degrees (an average of almost 200 per year) and PHCC has awarded 2,666 (an average of 266 per year). DCC has seen the largest increases in degrees awarded in the fields of Education and Engineering Technologies; degrees in business-related fields have also grown significantly. PHCC has seen an increase in degrees conferred in Engineering Technologies, Business, and Liberal Arts.

These degree award numbers reinforce the point that there is not a strong tradition of Southside community college student transfer and four-year degree completion. For example, of the 1998 cohort of 122 first-time students at DCC, only eight transferred and completed a bachelor's degree. Of the 1998 cohort of 37 students at PHCC, only one student transferred and completed a bachelor's degree; seven of the 36 students in

the PHCC 1997 cohort transferred and completed a bachelor's degree. It is likely that more of the 6000-plus current community college students would complete a bachelor's degree if there were a public four-year college in the Southside region, convenient course schedules were available for working students, and/or attendance could be made more affordable.

Additionally, transfer and articulation agreements are essential for seamless transfer, in which there is no loss of credits earned at the community college. Formal transfer agreements specify which previously completed courses the receiving institution will accept and articulation agreements specify which course requirements they will satisfy. When a course transfers as "excess elective credit" because it can't be used to satisfy a course requirement at the receiving institution, the student must take additional courses. That delays graduation and increases costs to the student and to the Commonwealth, and it can discourage students from continuing their studies. Among the community colleges in the Southside region, transfer agreements outnumber more specific articulation agreements. No articulation agreements for health care professions were identified in the Southside region, and only one of the region's community colleges maintains an articulation agreement for business management. All of the region's community colleges participate in a pre-teacher education articulation agreement forged by the Virginia Community College System with a number of four-year colleges in the Commonwealth.

Demand by Traditional Prospective College Students in the Region

Chmura Economics & Analytics (CEA) and Royall & Company (R&C) performed surveys of prospective college students. Using differing approaches, both parties surveyed a population of approximately 3,000 high school students. CEA used a paper survey mailed to high school students in Martinsville, Danville, Franklin County, Henry County, Patrick County, and Pittsylvania County. A total of 579 responses were received. R&C deployed an electronic survey, announced via email list, to high schools in Danville, Martinsville, Franklin County, Floyd County, Henry County, Patrick County, Pittsylvania County, five border counties in North Carolina, and other localities across Virginia. R&C received 1,369 responses – 85.9% of which came from the localities overlapping with the CEA target region. There was a significant difference in the numbers of students reporting they would be first-generation college students. In the CEA report, 56% identified themselves as such, compared to 28% in the R&C report. This discrepancy can most likely be explained by the relationship between educational attainment and access to computers and the Internet; that is, families without a tradition of college going are less likely to have access to computers and the Internet, and therefore less likely to complete an electronic survey.

Both surveys reported that approximately 69% of respondents intended to attend college in the fall immediately following high school graduation.

Both surveys demonstrated strong Southside student interest in attending a local four-year education institution. Of those respondents in the CEA study that were not planning to attend college, 53% said they would be more likely to seek a four-year degree if there were a four-year college in Martinsville. Respondents for attending a local college that would be a branch campus or “affiliated with” an existing institution expressed a clear preference.

Survey responses highlighted the fact that prospective students do not have the financial resources to enroll full-time. More than half of respondents in both surveys expressed strong interest in attending college but noted the necessity of financial aid. Similarly, 4 of 10 indicated the need to work and attend school at the same time. About one-third of respondents indicated a desire for part-time enrollment, and about one-third indicated a desire to commute. In the CEA survey, 67% of students planning to enroll in college full-time indicated a desire to live on campus, while only 45% of R&C respondents indicated that living on campus would be “desirable” or “highly desirable.” Greater numbers might plan to attend full-time if they could be provided sufficient financial assistance and relieved of competing commitments, e.g. the need to provide for their families.

Demand by Non-traditional College Students (Heads of Households) in the Region

CEA also performed a postal survey of a random sample of 1,470 heads of households with a response rate of 11.9% for 168 responses. The surveyed region consisted of the same study region as the student survey. Those surveys of heads of households revealed that 62% of respondents would not be likely to attend a new four-year college in Martinsville.

The majority of these respondents were 45 years of age or older. A quarter of the respondents indicated they already had completed a four-year degree. Other reasons cited for their lack of interest included cost, children/family responsibilities, need to keep working, happy or satisfied with current job, have not finished high school, and a lack of transportation. These responses to the household survey over-represent the more educated families in the region, in that 86% of the sample had completed high school compared to 68% for the region. Likewise, 28% of the sample had completed a four-year degree or higher, compared to 12% of the region.

Although these results may not be truly representative of the population as a whole, of the 37% who indicated an interest in attending a new four-year institution, about half of them expressed interest in graduate education, completing a four-year degree based on previous college experience, or continuing education.

The survey results suggest that the traditional-age student population should be the focus of the initial response to education needs in the Southside region.

IV. Analysis of Academic Program Demand

Student Program Interest and Demand

In the CEA survey of traditional-age students regarding primary degree program interest, almost 20% of respondents were as yet undecided. Those responding to the CEA questionnaire expressed the greatest interest in nursing, education, business administration, engineering, and health sciences and health policy. In the R&C survey, respondents were “interested” or “very interested” in digital communications, visual design, health sciences/health policy, teacher education, and managerial economics. Interestingly, at least one in five respondents responded positively to each of the proposed majors. This suggests that prospective students assigned higher priority to attending a local institution than they did to pursuing any particular degree program.

Interest in majors as expressed by respondents to CEA’s head of household (non-traditional student) survey who had indicated that they would “possibly” or “probably” attend a new college in Martinsville followed a similar response pattern. Once again, undecided and unknown was the largest group of respondents. When expressing an interest, heads of households identified nursing, business administration, education, social science, and computer and design graphics and information science as the programs of greatest interest.

Market Demand

CEA conducted a total of three focus groups in August 2005 with local business leaders, elected officials, and representatives from local school districts. R&C conducted two focus groups in July 2005 with participants representing local business interests.

All local leaders’ focus groups identified a specific need for graduates in the following fields: computer sciences/software engineering/information technology, health sciences and allied health, accounting/business administration/organizational development, and teaching. Also, all employers emphasized a preference for local graduates, because recruitment to the region tends to be a problem for them unless a potential employee already has roots there. Participants in the R&C focus group saw the proposed 28-month, 8 to 5 schedule found in the New College of Virginia proposal as a way to acclimate students to a regular work shift common in the work place and a way to reinforce work ethic. However, student responses to surveys and focus groups did not indicate much support for the 28-month program option as only 36% of respondents in the R&C study indicated that the option was “desirable” or “highly desirable.”

CEA also conducted 94 interviews with employers in the region. The survey sample represented different industries and different sizes of employers. Of that sample, 60% of local employers did not hire for positions requiring a four-year degree; 39% hired for positions requiring an associate’s degree. However, of the largest employers, those hiring 501 or more employees, all hire for positions requiring a four-year degree. Of the

employers hiring for positions that require a four-year degree, 65% responded that they would need more employees with four-year degrees in five years. In terms of current workforce, about one-third of employers reported that half or more of their employees had at least a four-year degree. Finally, only one-fourth of employers needing four-year degree-qualified workers reported having a career development program. Employers suggested that most job growth will occur in healthcare and hospitals, food services, mining, retailing, social service, telecommunications, civil engineering and construction. In South Central Virginia, growth is in warehousing, nursing and residential care, management, and credit intermediation and retailing.

Using projections from the Virginia Employment Commission (VEC), SCHEV staff estimated the potential for job creation in the study area. The following conclusions suggest a set of academic programs with potential to respond to market demand in the Southside region:

1. The projections indicate that job growth in Patrick, Henry and Pittsylvania counties over the next seven years will be slower than the rate of job growth overall for the Commonwealth, which suggests that entrepreneurial education might help residents create new jobs.
2. Approximately 60% of all the new jobs projected for the Patrick/Henry/Pittsylvania area are expected to occur within just six of the VEC's 22 occupational groupings (1-Education, Training and Library; 2-Healthcare Practitioners & Technical Occupations; 3-Building & Grounds Cleaning & Maintenance; 4-Business and Financial Operations; 5-Healthcare Support Occupations; and 6-Sales and Related Occupations). Comparatively, these six groupings are expected to represent 43% of all new jobs in Virginia.
3. Eight hundred and eighty-six (886) of the 5921 new jobs projected for the Patrick/Henry/Pittsylvania area are expected to occur in education-related fields.
4. Over one-quarter (25.8%) of all the new jobs projected for the Commonwealth is expected to occur within four of the occupational groupings (1-Computer & Mathematical Occupations; 2-Office and Administrative Support; 3-Construction & Extraction; and 4-Installation, Maintenance & Repair). The 'Computer & Mathematical Occupations' grouping is projected to represent the second largest percentage of the new jobs occurring in Virginia over the next seven years, but for the three-county area, this grouping's percentage and total are comparatively low. Comparatively, these four groupings are expected to represent 11% of all new jobs in the Patrick/Henry/Pittsylvania area.

V. Recommendations for Academic Programs

The CEA report concludes that students and employers in the Southside area need specific baccalaureate degree programs, and that access to a local public university

would promote regional educational attainment. For prospective traditional and non-traditional students, as well as employers and local leaders, the highest-demand baccalaureate degree programs include health-related programs, education-related programs, business administration programs, and computer-related programs.

In addition, regional economic development could be strengthened by the availability of promising new programs such as nanotechnology, programs that capitalize on local assets, e.g., the Southside fine arts facilities, and enhanced occupational and entrepreneurial training. These provide relevant responses to a wide range of identified Southside student characteristics and employer needs.

Health-related Programs

Health-related programs are the most-needed types of degree programs in the Southside area. The VEC's projected employment changes indicate that, between 2002 and 2012, almost 1,200 health-related jobs will be created just in Patrick, Henry and Pittsylvania counties (which will constitute almost 1 of every 5 new jobs created in these counties). The CEA report's gap analysis shows annual market demand exceeding annual supply of graduates in five of seven health-related academic-program areas.

Two-thirds of the VEC's projected health-related job growth in Patrick, Henry and Pittsylvania counties is expected to come in the "Healthcare Practitioners and Technical Occupations" grouping, and one-third in the "Healthcare Support" group. Efforts will need to be made not only to strengthen and expand healthcare support programs at local community colleges, but also to expand practitioner programs at other institutions offering degrees at the bachelor's level and above. The CEA report points specifically to programs preparing pharmacists, vocational rehabilitation counselors, clinical/medical social workers, and physical therapists.

Education-related Programs

Education-related programs are the second-most-needed types of degree programs in the Southside area. The VEC projects employment in education-related occupations in Patrick, Henry and Pittsylvania counties to increase by 886 positions between 2002 and 2012 (surprising in a static or declining population); this total is the largest projected for all occupational groups for these three counties and accounts for over 15% of all the new jobs expected to be created in the three counties during the period. The CEA report's gap analysis shows the second largest annual gap across all degree fields for Southside as being in elementary education; significant gaps are also identified in physical education teaching/coaching, special education, and educational leadership/administration.

Business Administration Programs

Business-related programs are the third-most-needed types of degree programs in the Southside area, and this recommendation supports the CEA report's determination that these programs "should focus on specialized areas . . . , rather than general business administration." The VEC projects that, between 2002 and 2012, about 462 jobs will be created in Patrick, Henry and Pittsylvania counties in "Business and Financial Operations Occupations" and another 458 jobs in "Sales and Related Occupations." The CEA report's gap analysis indicates a large annual oversupply of general business administration graduates, but large annual shortfalls in business/commerce, general finance, operations management/supervision, and management information systems. Its business survey also indicates that the two skills most frequently cited by Southside employers as "needed by new employees" are business administration and accounting.

Computer-Related Programs

Despite the fact that the VEC's projections show the rate of growth between 2002 and 2012 in "computer and mathematics occupations" for Patrick, Henry and Pittsylvania counties will continue to be half the rate of the Commonwealth, the CEA report's gap analysis indicates that the largest annual gap between demand (positions) and supply (graduates) exists in computer and information sciences. In the modern economy, computer and information science programs have become core needs. This review cannot foresee new postsecondary opportunities in Southside that do not feature such programs. Such programs are thus identified as the fourth-most-needed types of programs in the region. Such programs, such as the specialized business programs previously noted, might also represent useful opportunities to market a new Southside entity to working adults, if these programs can be offered economically and at convenient times (evenings or weekends).

Additional Programmatic Considerations

In addition to the four broad program areas described in the preceding section, several niche programs could be developed that would respond to identified strengths and opportunities in the Southside region. The following niche programs would stimulate additional investment in the area, increase student demand for post-secondary education, and provide a workforce poised to respond to employer needs or develop new businesses in the Southside region.

Nanotechnology

There are several indications that the Southside region would serve as an appropriate locale for the development of nanotechnology initiatives. Importantly, state policymakers, industry leaders, and academics have identified nanotechnology as a rapidly-developing and potentially profitable sector in the high-tech economy. A report by the Secretary of Technology noted that nanotechnology is expected to be a \$1 trillion market worldwide and employ more than 800,000 workers in the United States by the

year 2015. The Joint Commission on Technology and Science (JCOTS) has expressed additional interest in nanotechnology as a means to spur research activity and economic development.

The presence of the Institute for the Advanced Learning and Research and the establishment of high-tech industries such as EIT and Luna nanoWorks in Danville provide the region with needed infrastructure to enhance the region's ability to attract additional high tech firms. The Commonwealth has provided tax incentives for investing in technology industries and research activities in tobacco-dependent localities such as Southside. Representatives from Danville Community College and Luna nanoWorks reported to the Nanotechnology Advisory Committee of JCOTS in July 2005 that the region's "manufacturing culture" and access to tobacco indemnification funds would support the development of "nanomanufacturing," if the region could overcome a lack of educational attainment by the workforce.

Building on Regional Assets

In scanning the local environment, several assets could be leveraged to enhance student demand for postsecondary education. By creating or supplementing relevant academic programs that capitalize on these local assets, higher education could help strengthen the local economy. Examples of local assets include: (a) the Education Grant Program, part of the Tobacco Indemnification and Community Revitalization Commission that awards almost one million dollars each year for programs and projects in higher education in the Southside region; (b) the Martinsville and South Boston Speedways; (c) the Piedmont Art Association, the Virginia Museum of Natural History in Martinsville, and the Walker Fine Arts Center at Patrick Henry Community College; and (d) the Danville Museum of Fine Arts and History, the Danville Science Center, and the Franklin County Guild.

Entrepreneurial Education

Entrepreneurial education provides the knowledge and hands-on training experiences to help students develop skills associated with starting a business venture. To facilitate economic development in Martinsville and Henry County, goals for economic sustainability, education and workforce development include: to create a climate where existing and new businesses and local entrepreneurs can effectively create quality local jobs and to build the capacity to produce workers with the skills to benefit from the high-wage jobs of the future. In successful entrepreneurial education programs, models range from K-12 to higher education. Innovative K-12 programs such as The Rural Entrepreneurial through Action Learning Program, sponsored by the Kauffman Foundation; Kids for Kids (BKFK); and YoungBiz should be considered. The connection with K-12 would be crucial to help stimulate a culture of college going.

In higher education, students learn about entrepreneurship while they learn a trade or branch out and create a small business. An entrepreneurial education program could help Southside college students create and establish their own businesses to expand

the local economy. Including entrepreneurship principles with vocational training could help communities address unmet business needs and create high-paying jobs

Experiential Education

In Martinsville and Henry County there are many professionally focused learning opportunities for area students. These include job shadowing, workplace mentorships, student apprenticeships, cooperative education, internship programs, and enhanced occupational training.

Experiential education is an approach that combines an important learn-by-doing component and an academic component, to help students understand the relationship between their studies and their careers, between living and learning. This will be important in attracting students to higher education who might not have seen the relevance of more academic programs, thus raising the educational attainment level in the Southside region. Experiential education would provide opportunities for students to participate in the world of work prior to graduation. Every student would be required to participate in experiential education for credit (ideally as a paid internship to assist with financial need) in conjunction with coursework.

A report commissioned by the New College of Virginia indicates that the local business community of Martinsville and Henry County supports the use of internships and cooperative education for the purpose of developing well-trained graduates who may remain in the local area upon graduation. Employers in technology firms, K-12 education, health care facilities, financial institutions, retirement facilities, and manufacturing companies should be invited to help develop a program where these types of supervised field experiences can be developed, coordinated, and offered to students in the Southside region.

Workforce Training and Industry Certification

Grass-roots efforts are emerging that would address barriers (e.g., transportation) to students' participation in post-secondary occupational training. "Operation Moving Beyond" (OMB) is such a program. It fosters a career mindset for young men and women between the ages of 18 to 30 by giving them an opportunity to explore the different facets of a specific industry's workforce needs through educational and first-hand job experience. OMB's mission is to provide skilled workers in the mechanical field, i.e., HVAC (heating, air-conditioning, and plumbing). OMB assists in developing the skills needed by students to obtain a degree or certificate from a community college or vocational school to become skilled journeymen and tradesmen, i.e., Master HVAC and Master Plumber. A good wage scale will be used to allow trainees to earn a living while staying in school, and minority participation will increase in this industry.

VI. Recommended Higher Education Model

In evaluating the need for a new Southside higher education institution, SCHEV started with the premise that the recommended model should 1) serve the entire Southside region and 2) should leverage existing public and private institutions' assets and resources. Although there is an identified need for physical space and dedicated faculty "on the ground" in the Southside region, the recommended model should also utilize current and emerging educational technologies whenever possible.

To that end, SCHEV reviewed numerous higher education models. As a result of this review, SCHEV presents three sets of recommendations formulated to capitalize on existing assets within three Southside sub-regions—Martinsville, Danville, and South Boston. Although each has a special focus, and some programs would be available only in one sub-region, Southside students would have more convenient access to each of these sub-regions than to other four-year universities in Virginia.

These recommendations assume a partnership relationship among two- and four-year institutions.

This partnership model does not create a new higher education institution, but rather creates a local administrative structure that identifies student demand for four-year degree programs, receives state funding, and issues Requests for Proposals (RFP's) to existing two- and four-year public and private institutions to provide those programs "on-the-ground" in the Southside region. Local administrators may choose to broker electronic courses and degree programs and may issue RFP's to out-of-state public institutions certified by SCHEV to operate in the Commonwealth. For example, four of the ten participating Virginia Out-of-State, Non-profit Colleges and Universities expressed an interest in supporting the Southside initiative. These colleges--Cambridge College, Embry-Riddle Aeronautical University, National-Louis University, and St. Leo University--offer bachelors and master's degree programs.

The recommended model features a set of recommendations tailored to each of three Southside sub-regions—Martinsville, Danville, and South Boston.

Martinsville

There should be a physical presence in Martinsville to serve geographically-constrained students while building on strong community college enrollments at Patrick Henry Community College (PHCC). PHCC currently has excess capacity of 17,500 square feet, sufficient to accommodate an additional 600 students per year. Bachelor's degree seeking students could be served immediately at that site, perhaps with consideration given to funding for additional parking capacity, while local administrators determine if enrollment growth will necessitate additional capital construction. To leverage the Commonwealth's investment in a new health/technology facility recommended for PHCC, the primary new four-year degree programs at that site should be health-related. Teacher education and specialized four-year business programs should also be offered,

and local administrators should strongly consider interdisciplinary options including “entrepreneurship for establishing health-related companies” and “health education.”

Danville

There should be a physical presence in Danville to serve geographically-constrained students while building on strong community college enrollments at Danville Community College (DCC). To leverage the Commonwealth’s investment in the Institute for Advanced Learning and Research (IALR) and the current public-private partnerships like that between DCC and Luna nanoWorks, the primary new four-year degree programs at that site should be grounded in science, math, and technology. Local administrators should strongly consider interdisciplinary options including nanotechnology, science education, math education, and computer and information science. New degree programs should also be considered for their potential to feed into the research areas led by the IALR.

South Boston

The Southern Virginia Higher Education Center (SVHEC) is funded by the Commonwealth to function as an independent educational institution to encourage the expansion of higher education in the Southside region. Specifically, the Center focuses on: expanding adult and continuing education, associate, undergraduate, and graduate degree opportunities in the region; facilitating teacher training programs; and serving as a resource and referral center by maintaining and disseminating information on existing educational programs and resources.

In creating a two and four year institutional partnership model, there is a strong foundation in place for the first two years. Both campuses of the Southside Virginia Community College are at capacity and the SVHEC offers primarily associate degree programs. It will be important to identify a partner(s) for the second 2 years. Although the SVHEC has identified the need for a set of four-year degree programs that could be delivered there, particularly entrepreneurship and travel and tourism, participation in delivery of four-year degree programs at the SVHEC has been constrained by lack of funding and incentives for faculty to teach off-campus. It will be essential for local administrators to have funds at their disposal to attract “on-the-ground” faculty who can provide the second two years of a bachelor’s degree program.

Additionally, an emerging initiative of the continuing education deans to provide joint electronic delivery of selected four-year degree programs may align well with identified needs in all three sub-regions. A proposed SCHEV Office of Learning Technologies could also create a model for providing technology-enabled higher education in Virginia that leverages existing resources in public and private institutions, provides for the open sharing of new materials developed among participating institutions, and encourages partnerships among public and private stakeholders to provide for local and regional needs for advanced learning.

VII. Recommendations for K-12 Outreach

For many families previously participating in the manufacturing economy, a strong culture of college attendance does not exist. Outreach to Southside K-12 students, families, and school personnel will be essential to begin to change that culture. K-12 student, family, and teacher initiatives should be expanded throughout the Southside region, including college awareness and preparation programs, the FIRST Robotics program, and the No Child Left Behind programs would promote enthusiasm for continued education in the Southside region. These programs are described below.

College Awareness and Preparation

SCHEV has worked collaboratively since 2001 with 16 Virginia school districts and public and private two- and four-year colleges and universities to implement the GEAR UP/ACCESS Virginia program. The purpose of GEAR UP/ACCESS Virginia is to increase the rate at which students from low-income families who attend Virginia high schools enroll, persist and succeed in college. The project provides assistance to students through tutoring, homework assistance, use of technology, and mentoring programs. In addition, students and their parents receive financial aid counseling and are encouraged to attend workshop sessions to discuss career options and to receive academic advice. Through the course of the GEAR UP program, students have visited college campuses and have been involved in job-shadowing and visits to job sites, and engaged in other educational programs designed to help them aspire to continue their education beyond high school. Results recorded during the first five years of the GEAR UP program suggest that students who have participated in this outreach college awareness program are better prepared to attend college, understand the value of a college education, and have embraced achieving a college education as a personal goal. Although all of the Southside K-12 school divisions were invited in 2000 to participate in the GEAR UP grant, none accepted that invitation. SCHEV intends to invite five of the seven Southside school divisions that meet the federal guidelines for participation in GEAR UP (cities of Martinsville and Danville, counties of Halifax/Town of South Boston, Pittsylvania, and Patrick) to become SCHEV partners in the upcoming grant to be submitted in early 2006. Whether or not it is done through GEAR-UP, it is recommended that similar types of outreach/college awareness programs be made available to students attending middle and high schools in Southside Virginia to complement initiatives currently underway.

FIRST Robotics

FIRST (*For Inspiration and Recognition of Science and Technology*) is a 501 C3 global organization that connects classroom lessons and real-world applications and prepares students for profitable careers in science, technology, engineering and business. To reach high school students, FIRST takes the best from an athletic competition and combines it with an engineering challenge to attract students. FIRST immerses high school students in the exciting world of design, engineering and technology and partners them with engineers, university mentors, teachers, parents and sponsors to

solve a problem that is posed to them by FIRST; this effort involves computer programming, computer-aided design, wiring, electronics, welding, machining, graphic design, marketing, teamwork, and communication. Students use these skills to design a website, create an animation, and design and build a robot. All this excitement culminates in a high-tech sporting event, the NASA/Virginia Commonwealth University Regional in March. Several teams operate in Southwest Virginia, and have been embraced by the local community. Additional programs should be developed in the Southside area to stimulate interest in math, science, and technology and to promote enthusiasm for advanced education in these fields.

No Child Left Behind Initiatives

The Improving Teacher Quality State Grant (*No Child Left Behind Act*) administered by SCHEV for institutions of higher education, is currently funding Southside projects led by Radford University and the Science Museum of Virginia. Both provide professional development programs with participating K-12 school and district partners in the Southside region.

With funding from the previous and current grants, Radford University has been actively providing professional development to participating elementary teachers, principals and administrators from the cities of Danville and South Boston and the counties of Henry, Pittsylvania and Halifax. The programs have focused on increasing student achievement by providing instructional strategies of hands-on and mind-on techniques in Math, Science and Reading to pre-service and in-service teachers in these high need areas. In addition, administrators and principals are provided leadership skills and mentoring strategies. Participants have developed research books and videotapes to disseminate information and continue to foster them within the schools via mini workshops for other teachers and administrators. The recent programs for the 2004-05 and the 2005-06 school years have provided for eight courses delivered to approximately 175 teachers and 25 principals and administrators in the Southside region.

The Science Museum of Virginia's (SMV) program will help address the need for comprehensive staff development and curriculum integration of technology by using Geographic Information (GIS) and Geographic Positioning (GPS) systems in high-need schools. The main objective is to train teachers in grades 6–9 in a collaborative learning environment that focuses on student mastery in content areas of math, science, social studies and technology and to make students aware of career opportunities for those with geospatial skills.

It is interesting to note that the stated ambition of graduating high school seniors in Southside to attend college (72%) is not materially different from the rest of the Commonwealth (75%). When it comes to actually attending a two- or four-year institution, however, Southside student attendance is significantly below the rest of the State, particularly with respect to two-year institutions.

For each of the years 1996 to 2002, approximately 16 – 23% of Southern Piedmont students who intended to enroll in a two-year college did not do so, in comparison to four other regions with single-digit discrepancies or even more students who enrolled than those who had stated that intent.

A different pattern emerges from a comparison of enrollment intent vs. actual enrollments during the same time period in four-year institutions. Only 6 – 12% of Southern Piedmont students who intended to enroll in a four-year institution did not actually do so, in contrast to four other regions with double-digit discrepancies. One can only speculate as to what these differences mean, but one interpretation is that Southside students with four-year college ambitions recognized that they would have to leave the region and were sufficiently determined to get an education to do so. On the other hand, those with two-year college ambitions fell by the wayside because of access, affordability or other factors. All this suggests that the region's high schools need to make a stronger effort to explain the benefits of a post high school education and its availability.

VIII. Recommendations for Economic Development

A critical contribution made by higher education is the development of the local workforce in skills such as critical thinking and analysis, oral and communication skills, computer skills and comfort of computer use for non-IT employees, the ability to work in teams and forge collaborations—basic people skills, a strong work ethic and self-discipline, and the self confidence that comes with a higher level of educational attainment. Employers that provide internships and other cooperative education experiences could help build workforce capacity. Employers that provide financial support for their employees to further their education also could help develop a college-going culture.

All groups connected with the assessment acknowledged that one institution could not single-handedly reform a region economically. It is important that careful analysis and planning regarding economic development be an integral part of the overall effort. To that end, SCHEV recommends the development of a comprehensive Southside economic development plan. Such an initiative might be led by the Longwood Small Business Development Center, which has established branches in Danville, Martinsville and South Boston.

Economic development efforts should include collaboration with the area's community colleges (Patrick Henry, Danville, and Southside Community Colleges) and with other Virginia public institutions already involved in economic development efforts, such as Virginia Tech and The University of Virginia. Community partners, such as the area's planning district commissions, local and regional economic development organizations, the Tobacco Commission, and business and industry, should play a principal role in strategic alliances. Such partnerships and strategic alliances help serve a broad set of constituencies—from neighborhood to corporate citizens—and create expanded

opportunities for learning and increased public participation. The Commonwealth has several examples of successful economic development efforts, including the Virginia Institute for Marine Science (VIMS)/William & Mary Industry Partnership, the Mason Enterprise Center at George Mason University, and the Institute for Advanced Learning and Research (IALR) in Danville.

IX. Cost Estimates

Calculating costs related to any business plan at this junction is premature. There are too many unknowns and too many variables for costs to be estimated with any accuracy. These facts notwithstanding, some figures are known and can be used to provide very rough estimates.

A free-standing autonomous institution with a fully-articulated leadership structure would be the most expensive alternative; an entity created in partnership with existing four-year universities and community colleges is a more cost-effective way to meet the region's needs. Phasing in 300 students per year would require an estimated initial general fund appropriation of \$2 – 4 million per year to provide faculty and incentives for them to travel or relocate to Southside Virginia, leased space for facilities, and outreach efforts to K-12 students, parents, and teachers.

Conclusion

Many individuals and organizations contributed to this report and are to be commended. This is particularly true of the Harvest Foundation and the planning commission of the New College of Virginia and their steadfast efforts to develop innovative higher education options for Southside residents. The year-round schedule, internship options, outreach to the K-12 sector, and contributions to local economic and workforce development are among the highlights that should be incorporated into any plan for higher education in that region. As they are implemented and their impact is evaluated, it may be found that they have laid the groundwork for a new stand-alone model that can be supported by the Commonwealth.

In the meantime, a collaborative approach such as the partnership model proposed by SCHEV provides a more cost-effective alternative that is consistent with Virginia's rich history of establishing new higher education institutions in affiliation with existing institutions. Savings that would result from shared administrative, physical and instructional resources would lower the costs considerably to both the students and the state. The proposed partnership model recognizes the importance of cooperative education efforts across sectors and levels and lays the groundwork for the evolution of new higher education solutions. As education efforts move forward in the Southside region, periodic updates and reports to SCHEV will play a key role in determining how the Southside solution will evolve.