

2018-20 Executive Progress Report

Commonwealth of Virginia
Secretary of Education

Southern Virginia Higher Education Center

At A Glance

The mission of the Southern Virginia Higher Education Center (SVHEC) is to advance Southern Virginia's economic potential through education, innovation, and collaboration.

Staffing 37 Salaried Employees, 1 Contracted Employees, 60 Authorized, and 17 Wage Employees.

Financials Budget FY 2019, \$7.53 million, 47.08% from the General Fund.

Trends Legend

↑ Increase, ↓ Decrease, → Steady

Key Perf Areas

↑ Credentials Earned
↑ STEM-H Outreach to K-12 Students and Divisions

Productivity

↓ Direct operating costs

Legend

↑ Improving, ↓ Worsening, → Maintaining

For more information on administrative key, and productivity measures, go to www.vaperforms.virginia.gov

Background and History

Agency Background Statement

The Southern Virginia Higher Education Center (SVHEC) builds critical workforce capacity in rural Southern Virginia, a historically underserved region, by providing affordable access to comprehensive post-secondary education and training opportunities. For 33 years the SVHEC has brokered unique academic and industry partnerships, leveraging resources to overcome barriers to economic advancement.

Long the region's key economic sectors, employment in manufacturing and tobacco production required a high school diploma or less. Both sectors shrank considerably in the 1980's and the region's workforce, with low educational attainment and few transferable skills, was not prepared to transition to jobs in other industries. The need for post-secondary preparation became apparent. The SVHEC, then known as the "Continuing Education Center (CEC)," was established in 1986 as a county-funded initiative in a mobile unit on the grounds of Halifax County High School to offer community college courses. A year later, the CEC became an off-campus site for Longwood University, allowing the Center to offer classes towards a four-year degree while still offering community college classes.

By 2005 it had become imperative that access to post-secondary education and training be vastly expanded in the region to meet the employer need and enable individuals to obtain living wage jobs. But access to institutions and programs that could prepare the workforce for jobs in the "new economy" was still limited in Southern Virginia.

On July 1, 2005, the General Assembly made inroads toward addressing the access problem by establishing the SVHEC as an institution of higher education and a state-agency. The agency was established not as a degree-granting institution itself, but rather as a collaborative "education facilitator" to connect education partners and citizens of the Southern Virginia region. The Center's name changed from the Continuing Education Center to the Southern Virginia Higher Education Center, and the focus became providing accessible, affordable education across the spectrum from General Education Development preparation to PhD programs.

As employers increasingly sought the agency's services to develop non-credit and customized workforce training, the SVHEC responded by providing access to high-quality noncredit training leading to stackable, industry-recognized credentials. In FY 2018, the agency's statutory authority was amended to certify this development, enabling the agency to develop and deliver noncredit training itself to fill gaps where there are no other education partner programs to meet the need. Students in the SVHEC's noncredit workforce training programs earn industry-recognized credentials in welding, mechatronics, heating, ventilation, and air conditioning (HVAC), information technology, and work ready foundations. Employers often recruit students while they are still training and eighty-five percent of training program completers are employed within six months.

of completing training.

The SVHEC fosters partnerships between the public and private sectors to enhance post-secondary education and training opportunities in the region. Industry leaders, municipal representatives, and education partners serve on the advisory committees for the SVHEC's Center of Nursing Excellence (CNE) and for the SoVA Center for Manufacturing Excellence (SoVA CME), allowing for efficient input and dissemination of expert information from those entities. Through advisory committees and other forms of public-private interface the SVHEC connects education and training to employment. Since 2005, the SVHEC, with its education and industry partners, has had a significant impact on the region. The SVHEC and its partners are providing individuals with advancement opportunities, and employers with a skilled workforce. This in turn strengthens local economies and enables the region as a whole to prosper. These efforts will ultimately transform Southern Virginia into a region where current industries thrive, new industries seek to locate, and individuals want to live and work.

Major Products and Services

The Southern Virginia Higher Education Center (SVHEC) builds workforce capacity by providing educational products and services in four distinct yet related categories:

Turnkey Operations For Degree-Granting Institutions: By providing turnkey operations for degree-granting institutions, the SVHEC makes it financially feasible for degree-granting partners to bring high-demand degree and certificate programs to Southern Virginia. The SVHEC provides facilities, technology, equipment, and complete operational support services (custodial, security, and IT support). Education partners have access to more than 100,000 square feet of technologically-sophisticated space including: classrooms equipped with networked personal computers and digital audio-visual projection systems; labs featuring advanced machining and simulation technology; and a tiered conference center equipped with dual high definition (HD) projection systems and digital audio-visual presentation capabilities. Facilities are continually being upgraded to meet the needs of degree-granting partners and their students. Upgrades slated for the 2018-20 Biennium include adding two video conference web classrooms compatible with next generation VCCS schools, upgrading the campus wireless system to support the latest student mobile devices, upgrading five classroom projector/AV systems to wide format high definition, adding a new large format touch enabled computer classroom and purchasing new laptops for the student "day-loaner" laptop checkout

program. In 2019, the SVHEC IT Academy will be expanded by an additional 10,000 square feet with support from Microsoft.

Non-Degree Technical Training and Credentials: As the economy improves and workforce training needs expand, employers are increasingly seeking out the SVHEC to develop and deliver non-degree, credential-based technical training. The SVHEC's slate of third-party, industry-approved, credential-based programs in high-demand careers such as welding, mechatronics, heating, ventilation, and air conditioning (HVAC), and information technology enable the SVHEC to meet employer needs. Training is offered on a compressed schedule, allowing employers to rapidly fill new jobs or upgrade existing ones. For program participants who are out-of-work, the compressed schedule also means getting back into the workforce quickly. Training is developed around real-world, practice-based exercises so program completers offer employers an immediate "value-add" when they are hired. Credentials are stackable and can be built up over time to increase job qualifications supporting a sequenced career path. In the 2018-20 Biennium, the SVHEC continues to build capacity of its non-degree programs. This includes developing articulation agreements with degree-granting partners to award college credit to SVHEC training program participants for industry-recognized credentials earned. Allowing non-degree program participants to receive college credit for credentials earned is another example of how stackable credentials are expanding educational opportunities and access in Southern Virginia.

Prekindergarten-12th (PreK-12) Science, Technology, Engineering, Math, and Healthcare (STEM-H) Outreach: Developing a robust worker pipeline in STEM-H careers is vital to building workforce capacity in Southern Virginia. The agency recognizes this work begins early, at the elementary school level. The SVHEC invests significant resources to prime the worker pipeline by delivering hands-on activities that introduce PreK-12 students to STEM-H careers and build awareness about available jobs and training in Southern Virginia. In the 2018-20 Biennium, the agency is increasing its STEM-H outreach significantly. The SVHEC Area Health Education Center has launched a campaign to recruit students to community college and university nursing programs in an effort to stem the regional nursing shortage. A project also is underway to expand regional high school career and technical programs and build connections to high-demand community college technical programs. Because the high price tag for career and technical programs makes them cost-prohibitive for individual rural school systems, the SVHEC is leveraging current resources with grant funds to build out lab facilities for the new Career Tech Academy (CTA). The CTA serves students from three geographically-connected public school systems, providing access to high-demand community college technical programs at the centrally located SVHEC-based labs. CTA students can earn college credit, the Career Studies Certificate, and industry-recognized credentials preparing them to enter a degree-program or the workforce.

Research & Development Services: The SVHEC R&D Center for Advanced Manufacturing & Energy Efficiency (R&D Center) provides affordable, business-boosting research and development services to help regional industry and entrepreneurs succeed. R&D Center staff advise industries and entrepreneurs on technology adoption, provide short production runs and offer proof-of-concept services. The R&D Center also collaborates regularly with the Commonwealth's research universities on a variety of energy efficient construction materials projects. In the 2018-20 Biennium, the R&D Center is assisting in the commercialization phase for a proof-of-concept project to develop and commercialize a recyclable wine barrel. If successful, the barrel will be manufactured in Southern Virginia with the SVHEC developing an apprenticeship/internship opportunity tied to one of the agency's non-degree programs. The R&D Center also continues to investigate solar and micro-grid opportunities in the new biennium.

Customers

Customer Summary

The Southern Virginia Higher Education Center (SVHEC) serves customers in nine distinct yet related groups:

1. Higher Education Institutions - Public and private two and four-year institutions of higher learning - Located on the service area fringes of the closest community colleges and more than 75 minutes from the nearest state-supported four-year institution, the SVHEC provides vital educational access and workforce training to an under-served rural population by forging academic and industry partners. The SVHEC offers more than 100,000 square feet of technologically innovative educational facilities, equipment, and information technology (IT) assets, along with a comprehensive array of support services that enable accredited higher education partners to offer degree, diploma, and certificate programs to a historically underserved rural population. Without SVHEC-provided facilities and resources, educational partners could not afford to provide this level of educational access to the region.

Partners include two community colleges serving localities to the east and west of the SVHEC; four public universities; and two non-degree granting institutions of higher education which, with the SVHEC, form the Southside Higher Education Coalition. More information about SVHEC partners can be found in the "Partners section" of this Strategic Plan.

The SVHEC's education partners experienced enrollment declines from fiscal year (FY) 2013-FY 2019 as the economy recovered from the 2008 recession. During the decline some partners stopped offering onsite programming at the SVHEC; others modified program offerings to target specific markets. Enrollment trends at the SVHEC reflects the national trends in higher education and are beginning to stabilize. For-credit partners will be added as demand warrants and aligns with SVHEC sustainability.

2. Higher Education Students - Partner-enrolled students - Through its collaborative relationship with public and private higher education partners, the SVHEC provides students access to for-credit higher education programs without leaving the region. The SVHEC's education partners bring students seeking credit-based higher education more than 100 degree, diploma, and certificate options and provide enrollment, advising, and financial aid services to their students choosing a program offered at the SVHEC.

In the SVHEC's early years (1986-2000), the majority of students were working adults taking classes on a part-time basis; some were returning to finish a degree and others beginning college courses for the first time. Since calendar year 2000, the proportion of traditional (18-24 year old) college students at the SVHEC has significantly increased as the campus offers an affordable and geographically accessible education option compared to residential higher education programs outside of the region.

3. Individuals seeking workforce training program - The SVHEC serves individuals by facilitating, developing, and providing noncredit workforce training and career development services with opportunities to obtain third-party, industry-recognized credentials. SVHEC staff analyze regional workforce needs, identify existing training resources, and connect individuals with the training programs they need. Where programs does not already exist, the SVHEC Workforce Development division works collaboratively with education and industry partners to develop programming needed.

An example of this is the Welding@SVHEC program, requested by local and regional employers. Since the program was established in FY 2015 with funding from the Virginia Tobacco Region Revitalization Commission (TRRC), eleven cohorts have completed training. The TRRC later also provided funding to the SVHEC, in partnership with Southside Virginia Community College and Danville Community College, to establish the SoVA Center for Manufacturing Excellence (SoVA CME) in response to industry demand and labor market analyses pointing to a regional shortage of skilled manufacturing labor. The SoVA CME offers advanced and specialty-level training in welding, mechatronics, and precision machining to prepare individuals for employment in manufacturing. Trainees earn credentials conferred by American Welding Society (AWS), National Center for Construction Education & Research (NCCER), National Institute for Metalworking Skills (NIMS), and Siemens AG.

The SVHEC IT Academy provides short-duration training programs preparing individuals for employment in IT jobs. Trainees have the opportunity to earn third-party, industry-recognized credentials requested by regional employers. Programs are designed to accommodate working adults through flexible scheduling, and evening and weekend classes. Through a co-enrollment agreement between Southside Virginia Community College (SVCC) and the SVHEC, SVCC students can also enroll in IT Academy programs on a for-credit basis; those students earn college credit and while still having the opportunity to earn industry-recognized credentials. In FY 2018, Microsoft established the Microsoft Scholars program at the SVHEC to encourage individuals who are underrepresented in the IT field to enroll in IT Academy programs.

The SVHEC is an approved Pearson VUE testing center and provides assessment services so that individuals and incumbent workers pursuing industry-recognized certifications can take assessments locally.

The SVHEC's Center of Nursing Excellence (CNE) also supports workforce development: with partners Danville Community College and Southside Virginia Community College, the CNE supports clinical and simulation learning experiences for all levels of nursing and other healthcare providers.

SVHEC workforce training programs provide individuals opportunities to pursue training and credentials without leaving the region; these programs help meet employer workforce needs. Additional programs will be developed as demand warrants and as align with SVHEC sustainability.

4. Student – Regional high school students – The SVHEC Career Tech Academy (CTA) provides career technical education for high-demand advanced manufacturing and information technology careers to high school students from three public high school systems. Students from Charlotte, Halifax, and Mecklenburg County Public Schools spend a portion of each school day with SVHEC instructors who teach community college technical curricula with industry-recognized credentials imbedded. In one academic year, Career Tech Academy students can earn Career Studies Certificates and up to five industry credentials. Upon graduation, these students have three viable options: continue into an advanced credential program at the SVHEC, transfer into a technical community college associate degree program, or enter the workforce. This collaboration between the SVHEC, the local community colleges, and public school systems allows rural public school students to access training that leads to well-paying jobs.

5. Student - Regional Prekindergarten-twelfth (PreK-12) grade students - The SVHEC helps prepare the educational pipeline to post-secondary degree and training programs with outreach as early as elementary school. The SVHEC works with regional public school divisions, higher education partners, and foundations to provide year-round Science, Technology, Engineering, Math, and Health (STEM-H) outreach opportunities to prekindergarten-12th grade (preK-12) students to promote a culture of higher education.

6. Employer/Business Owner - Regional employers - The SVHEC provides workforce assessment, consulting, and customized training for regional employers whose sustained competitive advantage depends on a skilled workforce. SVHEC foundational and advanced skills programs prepare individuals with the skills employers need, and offer opportunities to earn assessment-based industry-recognized credentials. Where training needs are not met through existing partner programs, the SVHEC develops and offers proprietary workforce training programs that include opportunities to earn third-party, industry-recognized credentials.

SVHEC's Workforce Development division supports the manufacturing industry with foundational training programs in welding, mechatronics (Siemens Level 1), "heating, ventilation, and air conditioning (HVAC), and Work Ready Foundations. Advanced skills training in these areas, including Siemens Levels 2 and 3 and HVAC Levels 2 and 3 training, is provided within the SoVA Center of Manufacturing Excellence (SoVA CME) at the SVHEC. The SoVA CME is a collaborative training model operated by the SVHEC, Danville Community College, and Southside Virginia Community College with support from the Virginia Tobacco Revitalization Commission, the Commonwealth Center for Advanced Manufacturing (C-CAM), and industry partners.

In FY 2015, the SVHEC responded to the regional shortage of skilled Information Technology (IT) workers by establishing the Information Technology Academy (IT Academy) with input and support from employers and the TRRC. The SVHEC's IT Academy provides foundational and advanced IT training to support information technology businesses and other businesses that depend on skilled IT workers. The IT Academy offers programs including CompTIA A+, Server+, Network+, Security+, IT Fundamentals+, Linux+, PenTest+, and Cloud+. Industry partners provide input on specific skills needs and participate in IT Academy job fairs. Employer interest in the IT Academy training programs is increasing and additional third-party, industry-recognized credential-based programs are being added to meet demand.

The SVHEC Workforce Development team works with regional industry to tailor training to the employer's specific needs. Since completing a multi-year pilot "customized" training program meet the needs of one of Halifax County's largest manufacturers (over 400 employees were trained), the SVHEC has developed relationships with additional industry partners seeking customized training. Over 85 percent of SVHEC workforce training program completers are employed within six months of completing an SVHEC workforce training program, a success rate that reflects industry confidence in the SVHEC programs.

7. Manufacturing - Regional industry - The SVHEC serves business and industry through applied research and technological innovation. The SVHEC's Research & Development Center for Advanced Manufacturing & Energy Efficiency (R&D CAMEE) works to advance regional industry's knowledge and competitive capabilities transfer of technology. R&D CAMEE staff work with industry and university researchers to develop innovative product design, materials, and advanced manufacturing techniques, and to subsequently move them into the hands of regional industry.

An example is prototyping and fabrication for a locally-based but nationally-known high performance automotive engineering and manufacturing company, TMI Autotech, Incorporated (South Boston, VA). R&D CAMEE leverages staff expertise, fluency in Computer-Aided Design/Computer Assisted Manufacturing (CAD/CAM) software, and advanced technology machining equipment, including three- and five-axis routers and a Computer Numeric Controlled (CNC) water jet, to quickly and efficiently produce parts to specification for TMI's high performance vehicles. Ability to acquire these parts quickly and in a cost-effective manner allows TMI to minimize the time to commercialization for its products. Another example is the design and engineering of an innovative wood barrel for use in the wine, spirits, and brew industries. With support from the USDA Forest Service Wood Innovation program, materials engineering and design features allow the barrel to be handled, transported, put into use, and prepared for re-use with more ease, more flexibility, and potentially more cost-effectiveness.

8. Organization - Regional organizations - Regional organizations, including businesses, localities, educators, community-based organizations, and professional groups utilize the SVHEC's facilities for educational, civic, and community-building events. The SVHEC provides a reservation-based system and spectrum of services and equipment are available.

With support from the Virginia Tourism Corporation the SVHEC partners with The Prizery (Halifax County's Community Arts Center), and the Halifax County Department of Tourism to provide coordinated meeting space and services. This initiative is known as the "Bruce Street Conference Facilities," named for the street where the SVHEC and The Prizery are located (see <http://www.brucestreet.org>).

9. Consumer - Attendees at regional organization events

Over 1,200 individuals annually attend events held by businesses, community-based organizations, and professional organizations at the SVHEC. This number is expected to increase as the Bruce Street Conference Facilities partners leverage resources and efforts (see section above). Numbers in the Current Customer List Table (below) reflects the proportion of the Bruce Street Conference Facilities initiative outcomes that are attributable to the SVHEC alone.

Customer Table

Predefined Group	User Defined Group	Number Served Annually	Potential Number of Annual Customers	Projected Customer Trend
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Higher Education Institutions	Public and private two and four year colleges and universities, and higher education centers	8	12	Increase
Higher Education Students	Students enrolled in post-secondary degree programs at the Southern Virginia Higher Education Center through the Center's accredited partners	1,200	1,450	Increase
Adult Workforce / GED Student	Individuals in SVHEC workforce training programs, Center of Nursing Excellence clinical and simulation training, Volunteer Literacy Program, and SVCC GED program	550	700	Increase
Secondary Student	High School juniors and seniors attending the Career Tech Academy from Charlotte, Halifax, and Mecklenburg County Schools	30	60	Increase
Student	Prekindergarten-12th grade students to whom the SVHEC provides Science, Technology, Engineering, Math, and Health (STEM-H) outreach services to encourage pursuit of higher education	6,100	7,000	Increase
Employer/ Business Owner	Business and industry entities whose labor force receives training at the Southern Virginia Higher Education Center	5	15	Increase
Manufacturing	Industry organizations receiving applied research services through the Research & Development Center for Advanced Manufacturing & Energy Efficiency	19	30	Increase
Organization	External organizations using the Southern Virginia Higher Education Center facilities for conferences, meetings, and events	26	50	Increase
Consumer	Individuals attending conferences, meetings and events at the Southern Virginia Higher Education Center	1,200	2,000	Increase

Finance and Performance Management

Finance

Financial Summary

The Southern Virginia Higher Education Center's (SVHEC) facilities, operations, and services are supported by both general and nongeneral fund dollars. General fund appropriation supplies approximately 47 percent of the resources required to operate SVHEC facilities and to provide personnel who (a) support SVHEC degree-granting educational partners and their students, (b) deliver customized workforce services to local and regional employers, (c) deliver non-credit credential-based technical training for in-demand regional careers, (d) stimulate awareness and interest in STEM-H careers through K-12 and (e) provide applied research services to industry. Nongeneral funds are nonrecurring and are comprised of grants, donations, partner and tenant fees, and fee-based training and services. With the tremendous growth in programs and services being provided at the SVHEC, the demand on nongeneral funds continues to increase.

Fund Sources

Fund Code	Fund Name	FY 2019	FY 2020
01000	General Fund	\$3,543,932	\$3,718,615
02937	Svhec Special Revenue Fund	\$3,982,992	\$4,089,450

Revenue Summary

The Southern Virginia Higher Education Center (SVHEC) relies on the non-general fund revenues obtained through grants from both state and federal agencies, as well as private foundations. Other critical non-general fund sources are revenues earned through services provided such as training for industry workforce, facility usage fee, partner fees, and applied research services to industry. These revenues provide support for key personnel. Developing a skilled workforce and providing applied research services help in the economic growth necessary for the region and the Commonwealth of Virginia.

Performance

Performance Highlights

Performance Highlights

Performance metrics for the Southern Virginia Higher Education Center (SVHEC) demonstrate that the agency has adjusted and continues to adjust to the sea change currently churning higher education. Educators, legislators, employers and parents are rethinking the "college for all" mindset as college graduates collect degrees and debt but not jobs. Well-paying skilled jobs on the other hand are going unfilled in Southern Virginia. While high school graduates were being pushed into four-year degrees, the skilled worker pipeline dried up. On the verge of economic recovery and with skilled worker baby boomers aging out, employers are in the unenviable position of gearing up without a trained workforce. As a result, the agency has adjusted its program and service mix to reflect the changing environment.

While college degrees continue to be needed in Southern Virginia, demand has shifted. Performance numbers bear this out. Degree program

enrollments are down to 2,500 in 2019 from a high of over 4,000 in 2011. The agency recognizes this as a market adjustment and is working with two and four-year degree-granting partners to ensure the “right” programs – programs that lead to jobs in the region – continue being offered. The agency has also implemented new technology to increase access without increasing partner costs. Linking classrooms remotely across the region prevents the need to replicate programs in multiple locations and is a better educational option for SVHEC students than strictly online offerings. The agency sees degree program enrollments stabilizing and does not anticipate further significant declines. It should be noted that lower degree program enrollment has negatively impacted fees generated under the SVHEC’s partner cost share agreements. While the fees generated are minimal, (approximately three percent of total revenues) any decrease in funding affects the SVHEC’s ability to maintain operational standards.

The numbers of credentials being produced by SVHEC demonstrates the agency’s response to employer demand for non-degree credential-based technical programs. In 2019, nearly 400 credentials were produced in information technology, mechatronics, heating, ventilation, air conditioning (HVAC), welding, and Work Ready Foundations programs. The agency expects to produce more certifications as programs are expanded to meet employer need. Increased access to financial support for non-degree programs through initiatives such as the New Economy Workforce Credential Grant Program also is anticipated to drive enrollment. A positive, yet unanticipated consequence of credential attainment, is the tendency for non-degree students to continue their higher education pursuits into degree programs. As non-degree students become more confident in their ability to perform in the higher education setting and more proficient in their job positions, they increasingly are seeking additional post-secondary opportunities in degree programs. The local community colleges are making this easier by developing articulation agreements that give credit for credentials earned in non-degree SVHEC programs.

Building the skilled worker pipeline begins by developing an early interest in science, technology, engineering, math and health (STEM-H) careers. In 2019, the agency engaged nearly 6,000 public school students STEM-H career activities and events. The agency will continue to expand public school outreach in the next biennium.

As the region’s economy recovers, the SVHEC R&D Center for Advanced Manufacturing & Energy Efficiency (R&D Center) provides affordable services to help regional industry and entrepreneurs grow and succeed. In addition to serving clients, R&D CAMEE accomplished two additional major milestones in FY 2019. First, the SVHEC contracted with GENEDGE to engage in a comprehensive R&D CAMEE "Mission & Model: Strategic Review." The review used Technology Driven Market Intelligence research to zero-in on a meaningful and manageable domain of problem areas faced by regional small to medium-sized manufacturers (SMEs) and to identify technologies through which R&D CAMEE can offer solutions. Second, the R&D CAMEE machine centers and other tangible assets were relocated to a newly up fitted space on the SVHEC campus. During a six-month period, R&D CAMEE staff coordinated the logistics, sub-contracts and overall project management of this major move. The number of businesses is expected to rise again in the next fiscal year as the R&D Center continues to forge new relationships with wholesale and retail businesses, manufacturers, materials producers, and equipment manufacturers. Many of these new relationships involve R&D Center consulting and prototyping services. The R&D Center also continues to build its relationship with Siemens AG especially through the SVHEC's designation as a Siemen's GO PLM Training Center. These relationships and the establishment of the SoVA Center of Manufacturing Excellence at the SVHEC have raised the R&D Center's profile among industry partners.

The SVHEC’s productivity measure reflects the most distinct impact that changes in the higher education environment are having on the agency. The ratio of direct operating costs to course enrollments – the cost of supporting a single enrollment – rose. This increase is the result of (1) declining enrollment in degree programs and (2) increasing enrollment in high-cost non-degree technical programs. Declining degree enrollment is associated most immediately with the recovering economy but also increasingly with the cultural shift away from a “college-for-all” mindset. As the economy improves and the number of available jobs increases, individuals leave or forego enrollment in degree programs to take jobs. Community colleges are disproportionately impacted by this counter-cyclical response to the economy. Because over 90 percent of degree program enrollments are through community college partners, degree enrollments at the SVHEC have taken a correspondingly disproportionate hit, decreasing approximately 20 percent annually. The SVHEC operating costs to support those enrollments have decreased by nine percent. In the future, however, it is anticipated that the costs associated with delivering SVHEC technical programs (e.g. specialized equipment, materials and instructors) will experience higher increases relative to costs required to support traditional, lecture-based academic programs.

Selected Measures

Measure ID	Measure	Alternative Name	Estimated Trend
937.0001	Number of credentials conferred through workforce development programs offered by Southern Virginia Higher Education Center (SVHEC).	Credentials Earned	Improving
93719900.002.001	Number of Prekindergarten-12th grade (PreK-12) students participating in science, technology, engineering, math, and healthcare (STEM-H) enrichment opportunities offered by or in conjunction with the Southern Virginia Higher Education Center (SVHEC).	STEM-H Outreach to K-12 Students and Divisions	Improving
937.0002	Number of businesses assisted by Southern Virginia Higher Education Center's (SVHEC) Research & Development Center for Advanced Manufacturing & Energy Efficiency (R&D CAMEE) through transfer of technology in the form of design, prototyping, production, and training services, and sharing of applied research results.	Business and Industry Support	Improving
M937SA12003	Ratio of Direct Operating Costs to Course Enrollments During the Fiscal year	Direct operating costs	Worsening
93719900.001.001	Number of students enrolled in for-credit courses offered in Southern Virginia Higher Education Center-based post-secondary educational programs, including associate, bachelor, master, and doctoral level programs and career studies certificate programs.	For-credit enrollments	Improving

Key Risk Factors

TECHNICAL PROGRAM CHALLENGE: The SVHEC has responded to employer demand for technically skilled workers by developing and delivering a slate of non-degree, industry-approved, stackable credential programs. These programs are producing increasing numbers of in-demand credentials and putting Southern Virginians to work in well-paying jobs in the region. In spite of this success, however, maintaining these programs is proving to be a challenge. Unlike traditional, seat-based degree programs, technical programs require specialized and costly equipment, materials, lab spaces and instructors. Recruiting instructors that possess both technical experience and classroom competency is difficult. In addition, because technical programs do not facilitate large enrollments, the amount of revenue generated is limited. Raising fees to a breakeven amount would price most program applicants out of the market. While programs like the New Economy Workforce Grant Program are extremely helpful in reducing financial enrollment barriers for students, the challenge for the agency is finding a comprehensive way to sustain these in-demand yet high-cost technical programs. Overcoming this challenge is vital in order for the agency to meet the growing need for skilled workers in Southern Virginia.

PARTNER OFFERINGS: Like the SVHEC, the agency's degree-granting partners are adjusting to changes in the higher education environment. Both two and four-year educational partners are struggling to adjust to declining student enrollment and decreasing revenue. Rather than maintaining an onsite SVHEC presence, universities have responded by relying on online education to meet the needs of students in outlying areas. While cost-efficient, this modality is not ideal for most Southern Virginia students who often lack the hardware, software or high speed connectivity required to reliably access online programs. The agency's two community college partners have been the most impacted by declining enrollment. Each has experienced lay-offs and been forced to significantly reduce degree offerings.

PERSONNEL: The SVHEC's continued success is directly associated with maintaining the agency's unique and talented complement of staff. Because the agency is small, however, the talent bench is not deep. Combined with the fact that 70 percent of the SVHEC's key leadership is within five years of retirement, the agency is vulnerable to an approaching brain drain. With this in mind, the SVHEC Strategic Plan (2018-20) includes an objective to develop a leadership succession plan by July 2019. Another personnel related vulnerability relates to the significant percentage (50 percent) of full-time positions that continue to be compensated through non-general funding – grants and other funding that is non-recurring and will expire in the next several years. The uncertainty of funding to compensate these full-time employees puts the SVHEC at additional risk of losing essential human capital. These are the individuals that drive the agency's mission-critical programs and services.

Agency Statistics

Statistics Summary

The statistics below show the magnitude of Southern Virginia Higher Education Center (SVHEC) operations and investments supporting education and workforce training activities during FY 2018.

Statistics Table

Description	Value
Number of educational partners	8
Number of degree & certificate programs offered	100
Number of classroom seats	670
Number of Windows O/S student computers (PCs)	250
Number of dual-booting Mac student computers	20
Number of servers supporting SVHEC and partners	26
Number of classrooms equipped with audiovisual capabilities	27
Number of Operations "Help" requests handled	250
Number of Information Technology (IT) "Help" requests handled	860
Number of meeting spaces seating for 50+ persons, wireless & audio visual equipped	2
Number of grant-funded projects currently underway	12

Management Discussion

General Information About Ongoing Status of Agency

The Southern Virginia Higher Education Center (SVHEC) continues to grow its short-duration, non-degree, credential-based technical training programs in order to build Southern Virginia's workforce capacity. One of the agency's most important initiatives involves credential-based training to support manufacturing, Southern Virginia's third largest employment sector. Because manufacturers are increasingly incorporating automation in production and distribution, the SVHEC is focused on training that provides the predicted "skills mainstay" of automation and robotics-based processes – Mechatronics. Since 2015 the agency has partnered with Siemens AG to offer the Siemens Mechatronics System Certification Program (SMSCP) in South Boston. The central theme of SMSCP is the System Approach, a special set of teaching and learning methods developed over 25 years in Siemens technical schools in Germany. SVHEC instructors traveled to Berlin in 2016 to learn the System Approach and become certified to teach Mechatronics Level 1 and 2. Siemens also tapped the SVHEC to develop a condensed, non-degree version of its Level 3 Mechatronics Credential; the SVHEC is now the only location in the world where non-degree Level 3 Mechatronics training is offered. Level 3 training is most closely aligned with academic-level engineering courses and provides the skills to design and build mechatronics systems. SVHEC instructors developed the Level 3 curriculum and traveled to Siemens Academie Technik in July 2017 to receive Level 3 instructor certification. Siemens executives were onsite in September 2017 when the SVHEC officially launches the Mechatronics Program with regional manufacturers and distributors. A Summer Siemens Experience is also under development with Virginia State University (VSU). Students in VSU's engineering technology program are slated to put classroom theories into practice at the SVHEC's Mechatronics' labs while earning Level 1 and 2 SMSCP, and eventually Level 3, credentials. Because there is increasing international demand for non-degree Level 3 Mechatronics training, the agency has engaged a consultant to determine the requirements for accepting nonimmigrant M-1 Visa students.

Another important initiative involves building workforce capacity by growing the science, technology, engineering, math and health (STEM-H) worker pipeline. Over the next biennium, the SVHEC will collaborate with two local community colleges and three geographically connected public school systems (Charlotte, Halifax, and Mecklenburg) to increase access to high-quality technical training for careers in in-demand fields. By leveraging its current resources with existing grants, the agency has established high school dual enrollment labs at the SVHEC for high-demand but otherwise cost-prohibitive technical programs. The SVHEC Career Tech Academy (CTA), launched in fall 2018, provides career technical education in advanced manufacturing and information technology. Students spend a portion of each school day with SVHEC instructors who teach community college technical curricula with industry-recognized credentials imbedded.

In its inaugural year, the CTA had 31 students complete their training programs, earning college credit and over 75 industry-recognized credentials. In Year 2, seniors who completed CTA Year 1 will enroll in the year-long "Work-Based Learning Experience," where they will spend two days each week in class and three working in a job related to their CTA field of study. The CTA will feed the pipeline to sought-after community college technical programs. This initiative is consistent with the call to work regionally to leverage resources and advance potential.

Partnership 2.0 is an initiative formed to address the degree access gap created as a result of declining degree program enrollment and decreasing revenues. Identified as an objective in the SVHEC Strategic Plan (2018-20), Partnership 2.0 brings together the SVHEC and its founding partners, Danville Community College, Southside Virginia Community College, and Longwood University, for a partnership "reset." The purpose of the initiative is to revisit the original reasons for the partnership, determine if and how this has changed, determine what degree programs are needed (e.g. lead to jobs in the region), identify gaps and challenges to offering these programs, and determine how resources can be leveraged to overcome the gaps and challenges. Much has changed since the original partnership was forged in 1986, but educational access remains a priority.

Information Technology

The Southern Virginia Higher Education Center (SVHEC) provides current, reliable, and sustainable technologies to meet the needs and expand the horizons of our students, faculty, partner institutions, and staff. The SVHEC's campus includes several renovated historic industrial building in downtown South Boston that are interconnected by the SVHEC fiber optic network. The SVHEC has three premier workforce training labs. The

SVHEC's Innovation Center, home to the SoVA Center of Manufacturing Excellence (CME), houses the Welding Lab and the Mechatronics Lab, the latter containing a high-performance Dell workstation windows-based Computer Aided Drawing (CAD) lab, three dimensional (3D) printers, a reverse engineering robotic arm, and CAD/Computer Aided Machining (CAM) workstations running Siemens' GO PLM and Tecnomatix software. In addition, the Bruce Street building houses the IT Academy (ITA) which contains a 1,250 square-foot student operated data center equipped with hundreds of donated servers from Microsoft, network hardware gear, a "sandbox" security experimental learning-lab, and 24 seat computer repair workstation lab supported by two connecting computer classrooms.

The SVHEC's IT network operation center (NOC) utilizes a virtualized server environment supporting local and cloud services, campus wide wireless local area network (LAN) and a single gateway "BYOD" (Bring Your Own Device) wireless network controller, single authorization network, supporting over 320 student computers in 12 computer classrooms and three -portable laptop labs. Laptops are available for check-out by students for daily use throughout the SVHEC campus. Campus facilities includes 27 classrooms of various sizes equipped with high definition (HD) digital audio-visual (AV) projection systems. An 80 seat tiered executive classroom outfitted with dual high definition projection digital audio-visual presentation technology. An iMac computer based Adobe Suite Digital Technology & Design computer lab.

Through interagency collaboration, the SVHEC's educational partners are able to deliver distance education using Virginia's Mid-Atlantic Broadband open access fiber network, the SVHEC's Internet gateway providing multiple distance education classes simultaneously from educational partners including Danville Community College, Longwood University, Old Dominion University, Southside Virginia Community College, University of Virginia, Virginia Tech; and collaborative partners including the Southern Virginia Regional Technology Consortium (SVRTC) (Prekindergarten-12th grade regional consortium), Longwood University's Institute for Teaching Through Technology and Innovative Practices and Lake Country Distance Education Center.

Workforce Development

The Southern Virginia Higher Education Center workforce is susceptible to future brain drain associated with top leaders approaching retirement and the difficulty of replacing highly-skilled workers should they choose to relocate or leave. Succession planning and ongoing professional development are essential to mitigating these impacts. A recent agency reorganization continued streamlining and flattening the organization for efficiency and effectiveness. All full-time staff have now received project management training and are regularly called on to participate in cross-functional project teams.

Physical Plant

The Southern Virginia Higher Education Center (SVHEC) is housed in two facilities totaling 116,000 square feet. These buildings are former tobacco processing facilities that were renovated using historical tax credits and grant funds, including grants from the Virginia Tobacco Region Revitalization Commission.

In the current appropriation act, general capital maintenance is funded through Central Maintenance Reserve. Chapters 759 and 769 (2016) provide Virginia College Building Authority construction funds to replace the roof and address other HVAC system needs. Because the SVHEC's facilities were originally built in the 1800s, with one building renovated in 2001 and one in 2010, access to facility maintenance and replacement funds is critical to maintaining the buildings' mechanical and physical infrastructure.
