2019 SIX-YEAR PLAN: NARRATIVE

INSTITUTION: Virginia Community College System

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OVERVIEW:
The totality of the six-year plan should describe the institution's goals as they relate to goals of The Virginia Plan for Higher Education, the Higher Education Opportunity Act of 2011 (TJ21) and the Restructured Higher Education Financial and Administrative Operations Act of 2005. The instructions under institutional mission and alignment to state goals, below, ask for specific strategies around four priority areas. Other sections will offer institutions the opportunity to describe additional strategies to advance institutional goals and state needs. *Please be as concise as possible with responses and save this narrative document with your institution's name added to the file name.*

Section A. Institutional Mission, Vision, Goals, Strategies, and Alignment to State Goals

Provide a statement of institutional mission and indicate if there are plans to change the mission over the six-year period.

Provide a brief description of your institutional vision and goals over the next six years, including numeric targets where appropriate. Include specific strategies (from Part 3 – Academic-Financial Plan and Part 4 – General Fund Request) related to the following areas: (1) access and enrollment, particularly for underrepresented students; (2) retention, completion and time to degree; (3) affordability and funding; and (4) workforce alignment and retention of graduates. Strategies also can cross several state goals, notably those related to improved two-year and four-year transfer, and should be included here. If applicable, include a short summary of strategies related to research. The description of any strategy should be one-half page or less in length. Be sure to use the same short title as used in the Part 3 and Part 4 worksheets.

RESPONSE:

The Virginia Community College System Six-Year Plan (FY 2020 – FY 2026) supports the goals of the Virginia Plan for Higher Education, the Higher Education Opportunity Act of 2011 (TJ21), and the Restructured Higher Education Financial and Administrative Operations Act of 2005.

Mission:
The mission statement for Virginia's community colleges is:

> **We give everyone the opportunity to learn and develop the right skills so lives and communities are strengthened.**

The State Board for Community Colleges adopted this statement in November 2009. No changes to the mission are anticipated over the next three biennia.

Goals, Strategies, and Alignment to State Goals

Priority 1: Expand Access to Workforce Education Programs

Goal 1: (*Access, Affordability, and Enrollment*) Increase access to workforce education by investing in a Virginia College Promise program. The goal is both to encourage more Virginians to participate in postsecondary education (access) and to help students earn a degree or credential of value in the workforce (completion). Given the success gap between the Commonwealth's white students and students of color, this investment also advances an equity goal of leveling the playing field for all students.

Target: Increase enrollments in workforce education programs that lead to high-demand, high-wage jobs by 5% over the next two years.

Virginia is faced with an unprecedented demand for a skilled workforce, and in many industry sectors, such as information technology & computer science, the demand exceeds the supply tenfold. An analysis of Virginia labor market data shows that Virginia needs a strong mixture of short-term credentials and associate degrees to meet job demands. According to the Georgetown University Center on Education and the Workforce, 65 percent of all jobs in the new economy will require postsecondary education and training beyond high school by 2020. In Virginia, the State Council of Higher Education has set a goal to be the best-educated state by 2030, which means that colleges and universities must increase the percentage of working-age adults with postsecondary credentials—industry certifications, certificates, and degrees—from 51% to 70%.

To meet growing demands for a skilled workforce in Virginia, the Virginia Community College System is undertaking a curriculum redesign initiative to build accelerated pathways into the workforce by creating stackable credentials that begin with short-term certificates or industry certifications. With stackable credentials, students can enroll in short-term skills-based programs, off-ramp to good entry-level jobs, and continue or return later to complete credits toward additional credentials. In fall 2018, Governor Northam provided $5.1M from the Workforce Innovation and Opportunity Act (WIOA)

state set-aside funds to jump start the accelerated pathways redesign. Funds were provided to colleges to restructure programs leading to high demand jobs in the following industry sectors: Computer and Information Sciences, Education, Engineering Technologies, Protective Services, Construction Trades, Mechanic and Repair Technologies, Precision Production, and Health Professions. This curriculum redesign work will continue in 2019-2020.

To increase the pipeline of students enrolling in programs leading to jobs in these high-demand fields, VCCS requests the General Assembly's support of a **workforce-focused College Promise program** in Virginia. With a specific focus on students enrolling in programs leading to high demand jobs, the Virginia Promise will be a "last-dollar" investment to eliminate tuition and fee costs facing low and middle-income community college students. The goal is both to encourage more Virginians to participate in postsecondary education (access) and to help students earn a degree or credential of value in the workforce (completion). Given the success gap between the Commonwealth's white students and students of color, this investment also advances an equity goal of leveling the playing field for all students.

A College Promise investment is not only an investment in minority and students from low- and middle-income populations, it is also an investment in the Commonwealth's continued economic growth. According to a 2016 College Board report titled "Education Pays," the median income of associate degree recipients working full time in 2015 was $46,000, and the median income of full-time workers with certificates was $41,700. Those with associate degrees paid 33% more in taxes than high school graduates with no post-secondary credentials (trends.collegeboard.org).

As of April 2019, twenty-four states had enacted statewide College Promise programs (collegepromise.org). These states are making a commitment to fund a college education for every eligible student who is on a pathway to earning a community college certificate or degree. By investing in community college Promise programs, these states are investing in preparing students for the 21st century workforce without the burden of unmanageable college debt.

College Promise programs in other states have resulted in increased lifetime earnings for graduates, higher college-going rates, higher completion rates, and decreased student debt. VCCS looks forward to working with appropriate constituencies and stakeholder groups to flesh out the details of a Virginia Promise programs.

Goal 2: (*Workforce Alignment*) Restructure workforce education programs to Build Accelerated Pathways into the Workforce by creating stackable credentials that align with high-demand, high-wage jobs.

Target: Implement restructured workforce education programs in Fall 2020. Increase the number of degrees and certificates awarded by 6 percent by 2024.

As described above, the VCCS is redesigning associate degree workforce education programs to build stackable credentials that accelerate students into the workforce. A 2018 article published in *EvoLLLution* found that "the benefit of certificates that stack into degrees is that shorter programs may appeal to students who need or want to work while learning. They also create clear pathways with incremental goals, allow for more agility in curriculum design and delivery, and support a more open-loop lifelong approach to education."

VCCS's stackable credentials will help working students develop critical skills for advancement in their careers. The redesigned programs will have three levels:
- Level 1 is a short, skills-based career studies certificate leading to entry-level employment; this level may include FastForward programs that lead to industry certifications.
- Level 2 builds from entry-level skills to advanced skills and includes work-based learning experiences.
- Level 3 provides broader knowledge in theoretical, management, and general education competencies to prepare students for middle-management positions.

Accelerated Pathways into the Workforce will be implemented at all 23 community colleges in Fall 2020.

Goal 3: (*Workforce Alignment)* Pursue legislative opportunities to implement Institutional Partnership Performance Agreement and Tech Talent Pipeline programs to meet the Commonwealth's economic development goals.

Targets: Scale cloud computing programs across the VCCS. Increase enrollments in computer science and computer engineering transfer programs with pathways to the bachelor's degree.

VCCS requests funding for two innovative statewide workforce development initiatives, as defined in subsection F of § 23.1-306 and Section 23.1-306. (Full proposals are included in Section H.)

Institutional Partnership Performance Agreement. The VCCS submitted a letter to the Governor and other policymakers proposing to partner with Northern Virginia Community College (NOVA) and Amazon Web Services (AWS) Educate to scale NOVA's cloud computing degree to a total of 7 additional colleges in the biennium. This expansion will be accomplished in stages and will rely on the lessons learned from NOVA's development and implementation of their associate of applied science in information systems technology with a cloud computing specialization. In addition, VCCS will develop dual enrollment pathways for Career Technical Education students to accelerate their completion of certificate-level credentials while in high school. When fully implemented, VCCS anticipates producing an additional 400-500 graduates each year.

For the second biennium of the Six-Year Plan, VCCS will request IPPA funding to partner with hospital systems and other healthcare providers to meet the increasing demand for graduates of our healthcare programs, especially nursing. In future years, VCCS also will evaluate the opportunity for partnerships with the manufacturing sector.

Tech Talent Pipeline. The Virginia Community College system seeks to support the Tech Talent Investment Fund (TTIF) goal of increasing the number of bachelor's and master's degrees in the fields of computer science, computer engineering, or other closely related fields of study. Virginia's community colleges will contribute to this effort by increasing the number of students transferring from our colleges to four-year institutions in computer science, computer engineering, and computer software engineering fields. VCCS has identified three colleges that are most well prepared to scale with impact in the initial years of TTIF implementation: Northern Virginia Community College, Lord Fairfax Community College, and Virginia Western Community College. Funding is requested to develop outreach and recruitment strategies to generate more students entering these pathways; develop, expand, and/or re-engineer existing programs and transfer agreements; add high quality faculty, advisors, and tutors to support students at critical points in the educational pathway; and build out state-of-the-art IT facilities. Requests for TTIF investments for additional colleges will be made in future years.

Priority 2: Increase Completion through Enhanced Coaching Capacity to Support Onboarding, Retention, Progression, and Completion

Goal 1: (*Retention, Completion, and Time to Degree*) Invest in Increased Coaching Capacity for Virginia's Community Colleges to better serve minority and disadvantaged students, military veterans, and returning adult students.

Targets: Increase fall-to-fall retention by five percent by 2024. Increase the number of certificates, diplomas and degrees awarded by six percent by 2024.

The comprehensive 2017 report from the Joint Legislative Audit and Review Commission (JLARC) identified the need to expand the advising capacity at VCCS colleges. The report articulated the connection between the shortage of coaching/advising resources and the success (retention, successful transfer or earning a credential) of community college students. Virginia's community colleges have, over the years, attempted to address challenges in advising, but these efforts have often been piecemeal instead of comprehensive. As a result, VCCS faces four significant advising challenges: 1) lack of clearly defined advising roles and models; 2) inadequate advising personnel; 3) high student-to-advisor ratios; and 4) poorly designed advising strategies that focus on transactional activities rather than meaningful discussions about educational and career goals.

The impact of inadequate advising on student success outcomes is clear. According to JLARC's analysis, only 39 percent of community college students earned a community college credential or a bachelor's degree within seven years of their initial enrollment. Our community colleges enroll more older students, part-time students, first generation students, and lower income and African American students than do public four-year universities, yet JLARC identified these student populations as most at-risk of not completing a credential or transferring.

A critical JLARC finding is that Virginia's Community Colleges do not currently have sufficient advising staff to ensure that students receive regular, proactive coaching, especially for at-risk students. Data outcomes show that current VCCS coaching caseloads are well above national benchmarks and recommended averages. NACADA, a national association of professional advisors, recommends a student-to-advisor ratio of 300:1. The VCCS student-to-advisor ratio is currently 548:1. (Even when VCCS faculty are counted as advisors, the ratio still exceeds the recommendation.) Coaches across the VCCS are supporting a larger number of advisees than the median benchmark for community colleges, limiting the amount of quality time a coach can spend with an individual student. To increase VCCS' capacity to serve students who are

at-risk of not completing and to achieve an optimal student-to-advisor ratio of 300:1 would require an additional coaching workforce of 353 people.

While increasing the number of advisors is a key to student success, it is not enough. The Community College Research Center published a report in July 2018 called *Redesigning Advising with the Help of Technology*, which described advising redesign case studies at three institutions. The report concludes that successful advising redesign requires (1) structural changes to transform how students experience advising, (2) professional development to support advisors as they adopt comprehensive coaching strategies, and (3) engaging multiple stakeholders in transformational coaching redesign.

A recent study of the Detroit Promise program by MDRC (April 2019) found that students from low-income and disadvantaged populations face a variety of systemic barriers to success when attempting higher education. To improve success outcomes for these at-risk students, Detroit invested in comprehensive coaching supports including academic counseling and financial supports as well as access to community-based support services. The results of MDRC's randomized study show that students who received the coaching supports had higher enrollment and persistence rates and earned more credits than students in the control group. MDRC concluded that "the Detroit Promise Path shows that adding student support services to an existing scholarship can have a meaningful impact on students' academic progress."

The Chancellor's College Success Coach Initiative, created in Fall 2012, has similar outcomes for historically marginalized (minority), under-resourced (Pell Grant eligible), and first-generation students. Colleges had an opportunity to add a third coach to their existing team of two for a total of three coaches at the 10 smallest VCCS colleges to expand institutional capacity to serve students who are at risk of not earning a credential. With a 100:1 student-to-coach ratio, students served by the program receive intensive, intentional, holistic student support services. Recent results find program participants complete developmental and college-level English and math at higher rates than comparable students; additionally, students served by the coaches have higher term-to-term and fall-to-fall retention rates. As a result, 31.8% of program students are reaching 24 credit hours each year with a grade point average of 2.5 or higher, compared with only 16.6% of peers who reach that benchmark. These results lead to a 7.3% higher rate of credential attainment for College Success Coach program participants.

Finally, advisors who serve our military veterans and their families face other challenges. Changing federal laws and regulations regarding benefit eligibility, the need for specialized academic advising, and health issues are a few of the barriers that our veterans face. Currently, only seven VCCS institutions have established VERITAS (Veteran Education Resource Initiative for Transition, Advising, and Success) centers to support veterans and their families, but the need for specialized support for veterans exists at all 23 colleges.

VCCS requests an appropriation of $26 million in FY 2021 to support additional advisors to expand VCCS' capacity to support students who are at risk of not being successful; to establish veteran centers (VERITAS) at each VCCS college, and to develop a Strategic Plan for Student Success.

Goal 2: Improve Transfer Outcomes and Close Equity Gaps in Transfer Outcomes for minority and underserved student populations by improving transfer advising capacity.

Targets: Increase the number of students who successfully complete community college math and English in the first year; increase the number of students who transfer with associate degrees after two years and three years; increase timely completion of BA/BS for transfer students; increase transfer rates of students from under-represented populations to match those of the traditional population; and improve efficiency of transfer and course credit acceptance to reduce average earned credits

In recent years, legislators and policy makers in Virginia have mandated improvements to college transfer so that students do not lose credits in the transfer process. The 2017 JLARC report found that advisors are critically important to students' transfer success, especially for students from disadvantaged populations who are unfamiliar with the complex processes of higher education. Significantly, JLARC found that transfer students earn bachelor's degrees at lower rates and accumulate more credits compared to other four-year students.

VCCS is partnering with SCHEV and the public and private universities to simplify the transfer process by identifying courses that are guaranteed to transfer and building a Transfer Portal to provide transfer pathway information to advisors and students. Recent case studies reported by the Community College Research Center indicate that students who are supported by onboarding coaches who help them select a transfer goal and get on the right pathway are more likely to complete gateway courses, make progress, complete their programs of study, and transfer to four-year colleges and universities.

A 16-credit hour Passport and a 32-credit hour Uniform Certificate of General Education, comprised of general education courses guaranteed to transfer to universities, will be implemented Fall 2021. In addition, community colleges are partnering with universities to develop 4-year program pathway maps using a common program template that will launch Fall 2021.

Providing standardized general education courses and accessible transfer information for students and their advisors will improve the transfer process for all students and support the goals of TransferVA: increase the number of students who successfully complete math and English in the first year; increase the number of students who transfer with associate degrees after two years and three years; increase timely completion of BA/BS for transfer students; increase transfer rates of students from under-represented populations to match those of the traditional population; and improve efficiency of transfer and course credit acceptance to reduce average earned credits.

Priority 3: Expand Workforce Credential Grants in High Demand Fields

Goal: (*Workforce Alignment*) Expand non-credit workforce credential grant programs that align with high-demand jobs.

Target: Produce an additional 13,000 high-demand, high-value credentials by 2024.

With broad support from Virginia's business community, industry organizations, chambers of commerce, a bi-partisan coalition of legislators, and the Governor in response to the recommendations in "*Workforce Credentials: The Pathway to Virginia's New Middle Class*," legislation approved in the 2016 Session established a first-in-the-nation funding formula for noncredit workforce training leading to workforce credentials, based on performance and outcomes rather than enrollments. The 2016 Appropriation Act included general fund support of $4.0 million in FY 2017 and $8.5 million in FY 2018 in the SCHEV budget to fund the new Workforce Credentials Grant (WCG) program. In 2017, the General Assembly approved transfer of $1.0 million from FY 2018 to FY 2017 to address very strong demand for the outcome-based program.

Performance outcomes collected in the first two and a half years of the WCG program clearly reflect that the program is delivering on its responsibilities to Virginia's businesses and citizens. Specifically, the WCG program enhanced Virginia's talent pool by upskilling more than 9,500 Virginians in the fields of greatest business demand. VCCS has leveraged the state's investment in WCG to provide education for individuals who are sponsored by third-party payers, such as employers, trade associations, and federal employment programs. In total, more than 15,000 high-demand credentials have been earned by Virginia workers since the program began in 2016. Moreover, wage record data indicate that a majority of credentials earners experienced 25-50% wage gains. Surveys of hundreds WCG graduates also revealed that they enjoy employment benefits, including employer-sponsored health care and paid leave.

Based on such performance outcomes and continued business demand, general fund support for the program was increased to $9.5 million in FY 2019, with $13.5 million appropriated for FY 2020. To continue this progress in closing the skills gap identified by Virginia's business community, funding for the Workforce Credentials Grant should continue to increase. Every $1 million dollars invested in the Workforce Credential Grant program leverages additional funding to generate 1,000 high-demand, high-value industry credentials, strengthening the talent pool needed by Virginia's

businesses, moving more Virginians toward family-sustaining wages, and advancing the commonwealth's economic vibrancy.

As the WCG program concludes its third year, VCCS plans to conduct an evaluation to make sure that current programs still meet current and future workforce needs and that resources will support the costs for programs in emerging high-demand fields.

Priority 4: Increase Faculty and Staff Compensation

Goal: (*Access, Enrollment, Retention*) Build faculty and staff compensation towards competitive market rates and realignment with other institutions of higher education.

Target: Ensure retention of a talented workforce.

This Plan builds in modest salary increases of 2 percent in FY 2021 and 2 percent in FY 2022 to recognize the continued value and importance of faculty and staff in meeting the Virginia Plan goals. The cost of the increase is $9.9 million in FY 2021 and an additional $10.1 million in FY 2022.

Priority 5: Enterprise Resource Planning (ERP) System

Goal: (*Access, Enrollment, Retention*) Research and plan for a future cloud-based ERP system to better manage the student, business, and human resources functions of the VCCS.

Target: Produce a roadmap and long-range plan for implementing a cloud-based ERP system by 2022.

Enterprise resource planning (ERP) systems – which support the complexities of administering student information, human resources, and finance – have become essential to the efficient and effective delivery of higher education. A student information system ERP alone is comprised of such essential applications as admissions, course catalogs, registration, student finance, financial aid, scheduling, analytics, reporting, and more. While ERP applications have typically resided on premises, ERP systems are increasingly moving to the cloud. The VCCS is currently monitoring the functionality of cloud-based ERP systems to determine whether a business case exists for their adoption, realizing the significant monetary and personnel costs associated with making the initial move as well as the increased and ongoing costs of cloud-based platforms. As such, VCCS may seek additional funding in the second or third biennium to further explore cloud-based ERPs and, potentially, their implementation.

Section B. Tuition and Fees Predictability Plans Provide information about the assumptions used to develop tuition and fee charges shown in PART 1. The tuition and fee charges for in-state undergraduate students should reflect the institution's estimate of reasonable and necessary charges to students based on the institution's mission, market capacity and other factors. Include information, if applicable, on tuition increase plans for program- and level-specific charges or on any other alternative tuition and fee arrangement.

RESPONSE:

VCCS Tuition and Fees Predictability Plans

Building upon the General Assembly's intent to hold the line on tuition increases, the VCCS tuition and fee predictability plan assumes continued public investment to mitigate cost factors impacting the need for incremental tuition increases. The predictability plan includes four scenarios with various levels of state support.

Scenario 1: Per the six-year plan worksheet instructions, this scenario assumes no additional general fund support, including no support for enhanced academic advising as recommended by the JLARC study of the VCCS. Tuition would also cover the full costs of the 2% per year faculty and staff salary increases in the first biennium, funding for new buildings coming-online, increase utility costs and ongoing operational increases. The plan also includes a $0.50 per credit hour targeted increase supporting on-going technology operations. **In this scenario the VCCS would increase tuition by $6.42/C.H. (4.2%) in FY 2021 and by $7.65/C.H. (4.8%) in FY 2022, followed by a planned 2% increase FY 2023.**

Scenario 2: This scenario assumes the state would provide additional general fund support over the next two biennia to fully support for enhanced academic advising as recommended by the JLARC study of the VCCS. The scenario assumes the state would provide its customary 60% general fund split for the 2% per year faculty and staff salary increases in the first biennium, tuition would cover the full cost of new buildings coming-online, utility costs and ongoing operational increases. **In this scenario, state support allows the VCCS to only increase tuition by $2.24/C.H. (1.5%) in FY 2021 and by $2.20/C.H. (1.4%) in FY 2022, followed by a planned 2% increase in FY 2023.**

Scenario 3: This scenario assumes no state support and tuition would provide only limited additional support in the next biennium to support must-fund operations programs only. This scenario includes no funding to support priority Virginia Plan goals and provides no salary increases for faculty or staff. **In this scenario, minimal tuition increases would be $1.24/C.H. (less than 1.0%) in FY 2021 and $1.81/C.H. (less than 1.0%) in FY 2022, followed by a planned 2% increase in FY 2023.**

Scenario 4: This scenario assumes that in addition to supporting the strategies of the academic plan to meet the goals of the Virginia Plan, faculty and staff compensation increases, the state would continue investing in the In-State Undergraduate Tuition

Moderation Fund to both support program academic program expansion and moderation of tuition increases for in-state students over the next biennium.   **In this scenario, tuition would remain at the current $154/C.H. in FY 2021 and FY 2022, with a planned 2% increase in FY 2023.**

In each of the scenarios above, the predictability plan assumes no increase in differential tuition rates during the first biennium of the plan but would allow a potential $1.00 per credit hour tuition differential in FY 2023. The corresponding tuition increases for Northern Virginia Community College are included in the plan for reference.

<u>Section C. Other Budget Items</u>: This section includes any other budget items for which the institution wishes to provide detail. Descriptions of each of these items should be one-half page or less.

<u>RESPONSE</u>:

No other budget items

Section D. Programs and Instructional Sites: Provide information on any new academic programs, including credentials and certificates, or new instructional sites, supported by all types of funding, that the institutions will be undertaking during the six-year period. Note that as part of the revised SCHEV program approval process, institutions will be asked to indicate if a proposed new program was included in its six-year plan. Also, provide information on plans to discontinue any programs.

RESPONSE:

VCCS Program Continuance/Discontinuance and Potential New Sites

Tables listing new academic programs, new instructional sites, and program discontinuances projected for FY 2020 – FY 2026, by college, follows.

Planned New Programs

College	Biennium	Degree	Program
Blue Ridge	2020-2022	Associate of Applied Science	Early Childhood Development
Blue Ridge	2020-2022	Associate of Applied Science	Fire Science
Blue Ridge	2022-2024	Associate of Applied Science	Emergency Preparedness/Safety
Blue Ridge	2022-2024	Associate of Applied Science	Physical Therapy Assistant
Blue Ridge	2024-2026	Associate of Applied Science	Surgical Technology
Central Virginia	None	N/A	N/A
Dabney S. Lancaster	2020-2022	Associate of Applied Science	Technical Studies
Dabney S. Lancaster	2024-2026	Associate of Applied Science	Mechatronics
Dabney S. Lancaster	2022-2024	Associate of Arts and Sciences	Fine Arts
Danville	2020-2022	Diploma	Light Diesel Mechanics
Danville	2020-2022	Associate of Arts and Sciences	Liberal Arts-Human Services Specialization

College	Biennium	Degree	Program
Danville	2020-2022	Associate of Applied Science	Amazon Web Services
Eastern Shore	None	N/A	N/A
Germanna	2020-2022	Associate of Arts and Sciences	Math
Germanna	2020-2022	Associate of Arts and Sciences	Emergency Medical Technoogy
Germanna	2020-2022	Associate of Arts and Sciences	Medical Laboratory Technician
Germanna	2022-2024	Associate of Arts and Sciences	Medical Sonography
Germanna	2022-2024	Associate of Arts and Sciences	Dietetic Technology
Germanna	2022-2024	Associate of Applied Science	Digital Game and Simulation
J. Sergeant Reynolds	2020-2022	Associate of Applied Science	Health Care Admin
J. Sergeant Reynolds	2022-2024	Associate of Applied Science	Medical Assisting
J. Sergeant Reynolds	2022-2024	Associate of Applied Science	Surg Tech
J. Sergeant Reynolds	2022-2024	Associate of Applied Science	Therapeutic Tech/OT PT Assistant
J. Sergeant Reynolds	2020-2022	Associate of Applied Science	Technical Studies
John Tyler	2020-2022	Associate of Applied Science	Web Design
John Tyler	2020-2022	Associate of Applied Science	Cloud Computing and/or other in demand IT Programs
John Tyler	2020-2022	Associate of Applied Science	Automation and Robotics

College	Biennium	Degree	Program
John Tyler	2022-2024	Associate of Applied Science	Physical Therapy Assistant
John Tyler	2022-2024	Associate of Applied Science	In demand healthcare programs
John Tyler	2020-2022	Associate of Applied Science	Electronics Technology
Lord Fairfax	2020-2022	Associate of Applied Science	Cloud Computing
Lord Fairfax	2020-2022	Associate of Science	Computer Engineering
Lord Fairfax	2020-2022	Associate of Science	Data Science
Lord Fairfax	2020-2022	Associate of Applied Science	Technical Studies
Lord Fairfax	2020-2022	Associate of Applied Science	Aviation
Mountain Empire	2020-2022	Associate of Applied Science	Speech Pathology Assistant
New River	2020-2022	Associate of Applied Science	Early Childhood Education
Northern Virginia	2020-22	Associate of Science	Biology
Northern Virginia	2020-22	Associate of Fine Arts	Music
Northern Virginia	2020-22	Associate of Arts	History
Northern Virginia	2022-24	Associate of Science	Architecture
Northern Virginia	2020-22	Associate of Science	Mathematics
Northern Virginia	2020-22	Associate of Science	Data Analytics
Northern Virginia	2020-22	Associate of Applied Science	Cloud Computing
Northern Virginia	2022-24	Associate of Applied Science	Data Science & Analytics (Chad and Sam will figure out whether we need transfer or applied degree)

College	Biennium	Degree	Program
Northern Virginia	2024-26	Associate of Applied Science	Mobile Application Design & Development
Northern Virginia	2024-26	Associate of Applied Science	Software Design & Development
Northern Virginia	2022-24	Associate of Applied Science	Data Center Operations
Northern Virginia	2024-26	Associate of Applied Science	Data Center Technology
Northern Virginia	2024-26	Associate of Applied Science	Autonomous & Drone Technology
Northern Virginia	2020-22	Associate of Science	Computer Engineering
Northern Virginia	2022-24	Associate of Applied Science	Applied Computer Science
Northern Virginia	2024-26	Associate of Applied Science	Game Design, Programming & Development
Northern Virginia	2024-26	Associate of Science	Computer & Information Systems Management
Northern Virginia	2022-24	Associate of Applied Science	Computer & Network Security
Northern Virginia	2024-26	Associate of Applied Science	Digital Forensics
Northern Virginia	2022-24	Associate of Science	Economics
Northern Virginia	2022-24	Associate of Science	Public Health
Northern Virginia	2024-26	Associate of Science	Pre-Pharmacy
Northern Virginia	2022-24	Associate of Applied Science	Medical Assisting
Northern Virginia	2024-26	Associate of Applied Science	Mental Health/Psychiatric Technician
Northern Virginia	2024-26	Associate of Applied Science	Histology Technician

College	Biennium	Degree	Program
Northern Virginia	2022-24	Associate of Applied Science	Polysomnographic Technician
Northern Virginia	2022-24	Associate of Applied Science	Licensed Practical Nurse
Patrick Henry	None	N/A	N/A
Paul D. Camp	2020-2022	Associate of Applied Science	Emergency Medical Services
Paul D. Camp	2020-2022	Associate of Applied Science	Cybersecurity
Paul D. Camp	2020-2022	Associate of Arts and Sciences	Computer Science
Paul D. Camp	2020-2022	Associate of Science	Health Professions
Piedmont	2020-2022	Associate of Applied Science	Medical Laboratory Technician
Piedmont	2020-2022	Associate of Applied Science	Early Childhood Education
Piedmont	2020-2022	Associate of Applied Science	Surgical Technology
Piedmont	2020-2022	Associate of Applied Science	Engineering Technology
Piedmont	2022-2024	Associate of Science	Mathematics
Rappahannock	2020-2022	Associate of Arts and Sciences	Elementary Education
Rappahannock	2020-2022	Associate of Applied Science	Early Childhood Education
Rappahannock	2020-2022	Associate of Applied Science	Virtualization and Cloud Computing
Rappahannock	2020-2022	Associate of Applied Science	Digital Design and Media
Rappahannock	2020-2022	Associate of Applied Science	Office Administration

College	Biennium	Degree	Program
Rappahannock	2020-2022	Associate of Applied Science	Medical Assistant
Rappahannock	2022-2024	Associate of Applied Science	Medical Laboratory technician
Rappahannock	2024-2026	Associate of Appled Science	Physical Therapy Assistant
Rappahannock	2020-2022	Associate of Applied Science	Paramedic
Rappahannock	2020-2022	Associate of Applied Science	Human Services
Rappahannock	2020-2022	Associate of Applied Science	Information Technology
Rappahannock	2024-2026	Associate of Applied Science	Fired Science Technology
Rappahannock	2024-2026	Associate of Fine Arts	Visual Arts
Rappahannock	2024-2026	Associate of Arts	Theatre
Rappahannock	2024-2026	Associate of Arts	Music
Rappahannock	2020-2022	Associate of Arts and Sciences	Pre-Forensic, Biomedical, and Clinical Laboratory Sciences
Rappahannock	2022-2024	Associate of Science	Accounting
Rappahannock	2022-2024	Associate of Science	Engineering
Rappahannock	2020-2022	Associate of Science	Computer Technology
Rappahannock	2022-2024	Associate of Applied Science	Broadcasting and Production Technology
Rappahannock	2022-2024	Associate of Applied Science	Technical Studies - Facility Maintenance
Rappahannock	2022-2024	Associate of Applied Science	Technical Studies - HVAC
Rappahannock	2022-2024	Associate of Applied Science	Technical Studies - Diesel Technology

College	Biennium	Degree	Program
Rappahannock	2022-2024	Associate of Applied Science	Technical Studies - Residential Wiring and Electricity
Rappahannock	2022-2024	Associate of Applied Science	Technical Studies - Carpentry and Cabinet Making
Rappahannock	2022-2024	Associate of Applied Science	Technical Studies - Precision Machining Technology
Rappahannock	2022-2024	Associate of Applied Science	Technical Studies - Precision Machining Computer Numerical Control
Rappahannock	2022-2024	Associate of Applied Science	Welding and Soldering
Rappahannock	2024-2026	Associate of Applied Science	Technical Studies - Residential Repair and Maintenance
Southside Virginia	2020-2022	Associate of Applied Science	Physical Therapy Assistant
Southside Virginia	2020-2022	Associate of Applied Science	Early Childhood Education
Southwest Virginia	2020-2022	Associate of Applied Science	Welding
Southwest Virginia	2020-2022	Associate of Applied Science	Construction Trades
Southwest Virginia	2020-2022	Associate of Applied Science	Adventure Tourism
Southwest Virginia	2022-2024	Associate of Applied Science	Veterinary Technology
Southwest Virginia	2022-2024	Associate of Applied Science	Energy Generation and Maintenance
Thomas Nelson	2020-2022	Associate of Applied Science	Dental Assisting
Thomas Nelson	2020-2022	Associate of Applied Science	LPN
Thomas Nelson	2020-2022	Associate of Applied Science	AWS

College	Biennium	Degree	Program
Thomas Nelson	2020-2022	Associate of Fine Arts	Visual Arts
Thomas Nelson	2020-2022	Associate of Applied Science	Unmanned Systems
Tidewater	2020-2022	Associate of Applied Science	Cloud Computing
Virginia Highlands	2022-2024	Associate of Arts and Science	Computer Science
Virginia Highlands	2022-2024	Associate of Applied Science	Sonography
Virginia Highlands	2020-2022	Associate of Applied Science	Health Information Management
Virginia Western	2020-2022	Associate of Applied Science	Physical Therapist Assistant
Virginia Western	2020-2022	Associate of Applied Science	Occupational Therapist Assistant
Virginia Western	2020-2022	Associate of Applied Science	Surgical Technology
Wytheville	2020-2022	Associate of Applied Science	Agriculture
Wytheville	2020-2022	Associate of Applied Science	Paramedic/EMS/EMT
Wytheville	2020-2022	Associate of Applied Science	Administration of Justice
Wytheville	2020-2022	Associate of Applied Science	Computer Science
Wytheville	2020-2022	Associate of Applied Science	Automotive Technology

Planned Program Discontinuances

College	Biennium	Degree	Program
Blue Ridge	None	N/A	N/A
Central Virginia	None	N/A	N/A
Dabney S. Lancaster	None	N/A	N/A
Eastern Shore	None	N/A	N/A
Germanna	2020-2022	Associate of Applied Science	Fire Science
J. Sergeant Reynolds	2024-2026	Associate of Applied Science	Veterinary Tech
J. Sergeant Reynolds	2022-2024	Associate of Applied Science	Biotechnology
J. Sergeant Reynolds	2022-2024	Associate of Applied Science	Electrical Engineering Tech
J. Sergeant Reynolds	2024-2026	Associate of Applied Science	Advance Man Tech
J. Sergeant Reynolds	2022-2024	Associate of Applied Science	Electronics Technology
John Tyler	None	N/A	N/A
Lord Fairfax	2020-2022	Associate of Arts and Sciences	Liberal Arts - Fine Arts
Lord Fairfax	2020-2022	Associate of Applied Science	General Engineering Tech - Technical Operations
Lord Fairfax	2020-2022	Associate of Applied Science	General Engineering Technology - Computer Aided Drafting
Mountain Empire	2020-2022	Associate of Applied Science	Accounting
New River	None	N/A	N/A
Northern Virginia	2020-2022	Associate of Applied Science	Fire Science
Northern Virginia	2020-2022	Associate of Arts	Music

College	Biennium	Degree	Program
Northern Virginia	2020-2022	Associate of Fine Arts	Music
Northern Virginia	2020-2022	Associate of Applied Science	Marketing
Patrick Henry	None	N/A	N/A
Paul D. Camp	2022-2024	Associate of Arts and Sciences	General Studies - Specialization in Computer Science
Piedmont	2020-2022	Associate of Arts	Music
Rappahannock	None	N/A	N/A
Southside Virginia	None	N/A	N/A
Southwest Virginia	None	N/A	N/A
Thomas Nelson	2020-2022	Associate of Applied Science	Photography
Tidewater	None	N/A	N/A
Virginia Highlands	None	N/A	N/A
Virginia Western	None	N/A	N/A
Wytheville	2020-2022	Associate of Applied Science	IST, Networking

Planned New Sites

College	Biennium	Locality
Blue Ridge	None	
Central Virginia	None	
Dabney S. Lancaster	2024-2026	Buena Vista
Danville	None	
Eastern Shore	None	
Germanna	2020-2022	Locust Grove
Germanna	2020-2022	Stafford
Germanna	2020-2022	Fredericksburg
J. Sergeant Reynolds	None	
John Tyler	2022-2024	Chester, Prince George
John Tyler	2020-2022	Richmond
Lord Fairfax	2020-2022	Luray
Lord Fairfax	2022-2024	Warrenton
Mountain Empire	None	
New River	2020-2022	Floyd
Northern Virginia	None	
Patrick Henry	None	
Paul D. Camp	None	
Piedmont	2020-2022	Charlottesville
Rappahannock	2020-2022	Providence Forge
Rappahannock	2020-2022	King George
Rappahannock	2020-2022	Providence Forge
Rappahannock	2020-2022	King George
Rappahannock	2020-2022	King George
Rappahannock	2020-2022	Quinton

College	Biennium	Locality
Rappahannock	2020-2022	Providence Forge
Rappahannock	2020-2022	Quinton
Rappahannock	2020-2022	Providence Forge
Rappahannock	2020-2022	Providence Forge
Rappahannock	2020-2022	King George
Rappahannock	2020-2022	Quinton
Rappahannock	2020-2022	King George
Rappahannock	2020-2022	Quinton
Rappahannock	2020-2022	Quinton
Rappahannock	2022-2024	King George
Rappahannock	2024-2026	King George
Southside Virginia	None	
Southwest Virginia	2020-2022	North Tazewell
Thomas Nelson	2020-2022	Williamsburg
Tidewater	2020-2022	Virginia Beach
Tidewater	2022-2024	Chesapeake
Tidewater	2020-2022	Norfolk
Virginia Highlands	None	
Virginia Western	2020-2022	Roanoke
Wytheville	2020-2022	Wytheville

Section E. Financial Aid: TJ21 requires "plans for providing financial aid to help mitigate the impact of tuition and fee increases on low-income and middle-income students and their families, including the projected mix of grants and loans." Virginia's definitions of low-income and middle-income under TJ21 are based on HHS Poverty Guidelines. A table that outlines the HHS guidelines and the definitions is attached.

RESPONSE:

VCCS Financial Aid

This item addresses the TJ21 requirement to provide "plans for providing financial aid to help mitigate the impact of tuition and fee increases on low-income and middle-income students and their families, including the projected mix of grants and loans."

In 2017-2018, 79,371 VCCS students completed the Free Application for Federal Student Aid (FAFSA). Of these, the VCCS enrolled 70,672 students who fell into either low (50,599) or middle (20,073) income ranges. Acquiring resources to cover the cost of educational expenses for middle-income families and their children is becoming more challenging. Recent data from the VCCS show nearly $95 million of unmet need exists for middle-income students enrolling in community colleges, and 81% of VCCS students classified as middle income have some level of unmet financial need. To offset the rising costs of enrolling in and obtaining a college credential, the VCCS is pursuing the following activities and strategies:

College packaging paradigms have been revised to increase state awards made to middle-income students, particularly those who are not eligible for the federal Pell Grant. Tuition set-aside programs have also been repurposed to better accommodate this population.

The colleges' foundations and the Virginia Foundation for Community College Education continue to expand efforts to raise funds to support non-need based aid for low and middle-income students.

The VCCS is expanding and refocusing the functionality of the Virginia Education Wizard's financial aid literacy capacity. A module for grades 6-12 will allow students to complete a practice FAFSA, calculate EFC, and explore other college funding sources. The new FA module will be a part of the student's personalized profile that each public school student in Virginia already has. After the K-12 module is built, a similar tool will be built out for Virginia community college students that will also include financial literacy modules.

VCCS has been engaged with Blackboard (Bb) Student Services since 2015 to provide 24/7/365 call/chat/email and additional automated support services to answer financial aid and student account questions from students. Student utilization of weekend and after-hours support has increased from 14.7% of interactions in 2015 to 24.59% in 2019. The multiple communications platforms have also been instrumental in better engaging and assisting our students with only approximately 50% to 60% of the

contacts originating via live phone calls while the remainder are initiated through chat, email, and automated systems. The Bb Student Support Center is able to provide students faster answers to questions, quicker resolutions to problems, increased availability of resources, and gives back valuable time to college staff who can then work more strategically with students and their families.

The Financial Aid Course Audit tool, or FACA, ensures that our colleges comply with the U.S. Department of Education's (ED) Title IV regulations, which affect federal financial aid funds. Colleges that participate in Title IV programs are required to ensure that funds are only applied to courses within the student's program of study. Title IV programs include loans, grants (including Pell), and federal work-study. All state aid (including the Commonwealth Grant, VCCS Grant, PTAP, and the Virginia Guaranteed Assistance Program) are also impacted. The FACA tool automatically reviews whether a student's courses are eligible for financial aid. If a student is registered for a course that is not in their program of study (i.e., needed to complete their degree or certificate), they receive an automated notice stating that course is NOT eligible for aid. Therefore, any course they want to take that is not covered by financial aid must be paid for out of pocket, or the student will need to pick a course that IS required in their program of study to use financial aid. The FACA tool rolled into production in late summer 2016. FACA eliminates the compliance risk, as well as connecting students with their advisors more than ever before. It helps ensure students are on the path to completion. By only allowing them to pay for classes with financial aid that apply to their degree or certificate, they are not going to get off track.

A new verification solution, called Automation Engine, was launched at the colleges for Aid Year 2018-2019. This solution replaced a custom, antiquated process for requesting items from students in response to the FAFSA in order to determine financial aid eligibility. The solution allows for more targeted requests for information and fully supports the U.S. Department of Education's transition to customized verification. The tool also delivers the ability for students to complete forms and upload documents online right within our Student Information System (SIS). Data feeds directly into SIS for staff to verify. Therefore, this tool has streamlined the process for students and staff alike as there are less items being requested of students, less information for staff to process, and a more convenient platform for the exchange and verification of data. As a result, students have an easier time completing the verification process and are being awarded in a more timely fashion.

Open Educational Resources (OER) initiative is driving down the cost of textbooks for all students. More than 25,000 students enrolled in courses with OER course materials in Spring 2019.

The number of VCCS students receiving aid (grant or loan) decreased from 84,047 in 2015-16 to 72,799 students in 2017-18 (a decrease of about 13%). However, the percentage of students receiving aid (grant or loan) stayed roughly the same at about 45%, as reported in annual financial aid files submitted to SCHEV. Of the VCCS students receiving aid (grant or loan) in 2017-18, 70% of students received grants only,

11% of students received loans only, and 19% of students received both grants and loans. The percentage of aid recipients receiving only grants rose slightly from 66% in 2015-16, while the percentage of recipients receiving both grants and loans decreased from 22% in 2015-16 to 19% in 2017-18. The percentage of aid recipients receiving only loans stayed constant at about 11%.

While it is difficult to project the future mix of grants and loans, future data on grant and loan recipients may be comparable to the three-year history shared here. However, several factors, each of whose relative impact cannot be predicted, are in play:

Federal Aid (Pell Grants): Summer Pell grants were re- implemented in 2018. Increases in summer enrollment were not readily apparent. VCCS found that many of the students who are receiving Summer Pell would have likely been offered state aid in the past to compensate for the lack of availability of Pell. It is hoped that in future years, more students will take advantage of these expanded grants and the state aid. The impact on retention and completion will continue to be monitored.

State Aid: State aid to VCCS students has increased since 2015-16. Despite a decrease in enrollment and a decrease in the number of students receiving any aid (state, federal or private), the total amount of state aid increased from $36 million in 2015-16 to $ 42 million in 2017-18 (a 17% increase). With the changes to Pell, VCCS intends to use state aid funds to serve more low- and middle-income students to decrease reliance on loan aid.

Additionally, state aid has been targeted to support student access to short-term noncredit credentialing programs leading to high demand occupations through the Workforce Credentials Grant (FastForward). When the FastForward began in 2016, $1 million was allocated to offset the student tuition for low and middle-income students. This allocation has since increased to $3 million in 2019-2020.

Section F. Capital Outlay: Provide information on your institution's top two Education and General Programs capital outlay projects, including new construction as well as renovations, that might be proposed over the Six-Year Plan period that could have a significant impact on strategies, funding, student charges, or current square footage. Do not include projects for which construction (not planning) funding has been appropriated.

RESPONSE:

VCCS Capital Plan

The VCCS 2020-26 Capital Plan responds to the extensive capital outlay needs of Virginia's community colleges, and fully supports the institution's mission and strategic plan.   With declining enrollments negating the need for additional space in accordance with SCHEV space guidelines, generally, VCCS top priority projects address renovations or replacements of circa 1970 era buildings, which have exceeded useful life expectancy and have space configurations not suited to meeting the academic instruction and workforce training needs of the 21st century.

The capital plan consists of 4 projects previously authorized for detailed planning by prior Acts of Assembly (for which construction funding will be requested in the 2020-21 budget request) and 35 non-funded projects for which planning and design funding will be requested. The top 2 VCCS capital project requests are summarized as follows:

Capital Priority 1: Request Language Amendment to Section

Currently, the VCCS is the only institution of higher education with Appropriation Act language requiring the use of non-state local funds, trust and agency or locality funding for site development outside the five-foot perimeter of a building. Historically, the local jurisdictions were responsible for providing the land and site development costs when establishing a new community college campus. While existing campuses are fully developed, the current language requires the use of non-state funds for the construction of new buildings, or expansion of existing buildings on established campuses. Not all local jurisdictions have the financial resources to meet the requirement, and local funds at most colleges come from restricted resources. As such, most colleges struggle to meet the requirements of the language, which can result in project delays until supplemental funding can be identified.

The VCCS will request the following language amendment to § 4-4.01, m.2 of the Appropriation Act to remove the requirement for site development costs outside of 5 feet of the building to be paid from local funds. The proposed new language is shown in bold italics:

> ***"For new campuses to be established within the Virginia Community College System***, expenditures for land acquisition, site preparation beyond five feet from the building, and the construction of additional outdoor lighting, outdoor

athletic and recreational facilities, and parking lots in the Virginia Community College System shall be paid only from appropriated federal funds, Trust and Agency funds, including local government allocations or appropriations. ***For approved capital projects for the new construction or renovation of buildings on established community college campuses, the site development costs shall be made from any capital project appropriation fund source,*** including but not limited to the general fund, Trust and Agency funds, local government allocations or appropriations, or the proceeds of indebtedness authorized by the General Assembly."

Capital Priority 2: Umbrella-Replace Roofing Infrastructure System-wide

With a total of 39 priority projects in the VCCS six-year capital plan for the 2020-22 biennium alone, identifying a single project as the strategic priority across 23 community colleges is a difficult task. However, given the strategic importance for overall infrastructure improvements throughout the system, **the VCCS identifies the umbrella capital project associated with the system-wide replacement of roofing structures and related appurtenances as the priority 2 need within the academic-financial plan.** The VCCS has over a billion dollars of deferred maintenance needs and a separate umbrella request addressing critical roofing and infrastructure improvements, which is in addition to outstanding Maintenance Reserve needs, is of strategic interests to the successful delivery of educational services throughout the Commonwealth.

Section G. Restructuring: Provide information about any plans your institution has to seek an increased level of authority, relief from administrative or operational requirements, or renegotiation of existing management agreements.

RESPONSE:

VCCS Restructuring Goals

The Higher Education Restructuring Act has provided significant benefits to Virginia's institutions of higher education. The VCCS appreciates that authorization for Level II Delegation of Authority for information technology and capital outlay has been extended to 2022. Language in the 2019 Appropriation Act permits the VCCS through the Shared Services Center to pursue authorization for Level II authority for Procurement. VCCS staff has started working with the Division of Purchasing and Supplies staff to develop a plan for the SSC to obtain delegated authority and then decentralized authority within the period of this six-year plan.

RESPONSE:

VCCS Institutional Partnership Performance Agreement.

Pursuant to subsection F of § 23.1-306 of the *Code of Virginia*, the Virginia Community College System proposes a performance pilot consistent with the details conveyed in the letter of intent dated March 29, 2019. The VCCS system office will work in partnership with Northern Virginia Community College (NOVA) and Amazon Web Services, Inc. (AWS) to expand NOVA's cloud computing specialization to a total of 7 additional colleges in the biennium. This expansion will be accomplished in stages and will rely on the lessons learned from NOVA's development and implementation of their associate of applied science in information systems technology with a cloud computing specialization. This pilot will address "…employment pathways for undergraduate Virginia students, strategic talent development, state or regional economic development…" as referenced in the revised *Code*.

Since September 2016, monthly job postings in this field have increased from approximately 5000 per month to 20,000 per month. Last year in Virginia, there were over 68,000 unique positions requiring these skills and credentials that remained vacant for over 40 days on average.

Currently, the cloud computing associate degree offered by NOVA is the only such program in Virginia. VCCS must expand its offerings in this field if we are to meet the exploding demand. NOVA will be the lead institution in the proposed performance pilot, and AWS, through AWS Educate, a global initiative to support cloud learning for students and faculty, will provide significant curricular support and subject matter expert consultation to the participating colleges. AWS Educate has provided significant support and guidance to NOVA over the past two years and has committed to provide the same supports to the seven colleges that will implement the performance pilot (see letter of support provided with VCCS's initial letter of intent, Attachment 1).

In year one of the biennium, the system office will conduct a selection procedure that will identify two colleges with the capacity and commitment to work with identified NOVA faculty and staff, as well as AWS staff, to identify an existing AAS degree at each college, align the curriculum to the knowledge and skills required of cloud computing jobs, develop required new courses or revise existing courses, provide professional development for faculty, and launch an initial cohort in the new specialization at each college in the spring 2021 semester. VCCS has already begun early analysis to identify colleges most likely to successfully participate in year one. In year two of the biennium, five additional colleges will be selected to follow the same processes to develop and launch their specializations.

Based on the NOVA's experiences, funding will be needed to pay for faculty release time to work on curriculum development and digitalization for online delivery; computer lab upgrades, professional development and credentialing of faculty; tuition for high school students to enroll in cloud computing dual enrollment academies; development of work-based learning opportunities and apprenticeships; testing fees for industry credentials embedded in the degree programs; and incentive funding to compensate faculty based on market demand.

VCCS expects that cohorts of both dual enrollment students and traditionally enrolling adult students will populate these cloud computing specialized degree programs. Based on the development and growth of the current NOVA program (and including its numbers in the totals below), we anticipate a total of 455 students in the pipeline by the end of year two of implementation. By year three, the program would begin to yield approximately 100 graduates per year. At scale in the fifth year, projections would be 400-500 graduates per year.

    <u>Enrollments Year One</u>
    DE Academy Cohorts (4) year 1: 80 HS students
    Traditional Enrollment Cohorts (4): 60 TE students

    <u>Enrollments Year Two</u>
    DE Academy Cohorts (9) year 1: 180 HS students (new)
    DE Academy Cohorts (4) year 2: 80 HS students
    Traditional Enrollment Cohorts (9): 135 TE students (new)

    Total: 455 students in the pipeline by the end of the biennium; with approximately 100 graduates per year beginning year 3. In light of the aforementioned demand in this sector, and the criteria that will be used to select colleges for participation,

it is anticipated that there would be 100% employment placement for those graduates of this program.

Budget Year One
Project Coordinator at VCCS – $102,000 salary/fringe; $2500 travel
Computer Lab Upgrades at 2 Colleges – $200,000
Faculty Release at 2 Colleges for Program Development – $20,000
Dual Enrollment Academies (4 at Junior Year) – $64,800
Professional Development and Certification for 3 Faculty – $15,000
Incentives to Attract/Retain Key Faculty – $20,000
Industry Credentials Embedded in AAS Courses – $210,000
Total Year One: $634,300

Budget Year Two
Project Coordinator – $104,040; $2500 travel
Computer Lab Upgrades at 5 Colleges – $500,000
Faculty Release at 5 Colleges for Program Development – $50,000
Dual Enrollment Academies (4 at Senior Year; 9 at Junior Year) – $367,560
Professional Development and Certification for 8 Faculty – $40,000
Incentives to Attract/Retain Key Faculty – $50,000
Industry Credentials Embedded in AAS Courses – $472,500
Total Year Two: $1,586,600

Section I. Evaluation of Previous Six-Year Plan: Briefly summarize progress made in strategies identified in your institution's previous six-year plan. Note how additional general fund support and reallocations were used to further the strategies.

RESPONSE:

VCCS Evaluation of Previous Six-Year Plan

The VCCS has made substantial progress on implementation of strategies in its previous Six-Year Plan. The additional funding provided in the 2018 Appropriation Act for the New Economy Workforce Credentials Grant helped the VCCS make substantial progress on the several strategies included in the Plan.

Additional federal and grant funds supported many of the initiatives and a number were funded within existing budgets. In addition, the VCCS reallocated resources to start establishing a Shared Services Center to reduce the burden and costs for processing administrative transactions. The information below provides specific updates to the strategies in the previous VCCS Six-Year plan.

Priority 1: Build Accelerated Pathways to the Workforce by Partnering with K-12
A tuition increase in FY 2019 supported the hiring of additional coaches and supported an increase in dual enrollment students who were placed in program pathways.

In FY 2019, 45,486 students were dually enrolled in high school and community college. Of those students, only 3,280 percent were placed in a program pathway. Thirty-six percent were enrolled in Occupational/Technical programs.

Incremental state funding of $300,000 was provided to VWCC to pilot a career education academy. Outcomes are being tracked currently.

Priority 2: Meet Current and Anticipated Business Needs of Virginia's Employers

<u>Increase Funding To Expand WCGs and CTE in High Demand Fields</u>

Funding for the Workforce Credentials Grant was increased to $9.5 million in FY 2019 and $13.5 million in FY 2020. Nearly 17,000 total WCG-funded participants have enrolled in Fast Forward courses since its inception in 2016. More than 9,500 industry recognized credentials have been earned by WCG students.

Additionally, WIOA funds and other third-party grants were leveraged to increase credential attainment for credit and non-credit students. Over 10,000 additional participants have enrolled in Fast Forward courses since its inception in 2016, and more than 5,500 industry recognized credentials have been earned by those students.

Colleges used funds to expand CTE offerings and clarify pathways. In the past two years, colleges have added 10 associate degrees, 4 certificates and 38 career studies certificates in new and emerging career technical fields.

Priority 3: Increase Faculty and Staff Salaries

The state provided funding to fully support salary increases up to 5% for full-time classified staff and 3% for faculty in FY 2020. The In-state Undergraduate Tuition Moderation Fund negated the need for additional tuition increases.

Priority 4: Raise Awareness of Career Pathways that Lead to Family Sustaining Wages

In FY 2018, Chancellor DuBois empaneled a systemwide enrollment management taskforce that identified ten strategies to better manage the community college enrollment decline. One of the recommendations was a modest tuition increase of $0.25 per credit hour in FY 2019 to support a research-based, state level outreach campaign. Based on research collected during the first year, the campaign will leverage social and mobile media to promote the value of post-secondary education and the pathways that lead to careers with family-sustaining wages.

Priority 5: Create Seamless Pathways between Education, Training and Employment Experiences

VCCS continues to expand opportunities to accelerate completion through credit for prior learning, seamless pathways to bachelor's degrees and work-based learning. In addition to the Credits2Careers portal for military veterans, VCCS is creating a second portal to articulate industry certifications to academic credit funded through external grants. Working closely with SCHEV and the universities, VCCS has created the Passport and Uniform Certificate of General Studies, and is developing transfer agreements will provide transparent information for students and their families. Supported by $480K in incremental state funding in FY2020, VCCS is creating an online portal to house this transfer information. Additionally, supported by $130,000 incremental state-funding beginning in FY2020, VCCS is working with employers and

the Department of Labor and Industry (DOLI) to expand and promote apprenticeships and other work-based learning opportunities.

Priority 6: Improve Efficiency and Effectiveness of Administrative Services to Focus Resources on Mission-Critical Program

To date, all twenty-three community colleges and the system office use shared services in delivering accounts payable procurement, travel and expense, as well as time, labor, and absence management. The majority of colleges are now using shared services for employee onboarding, travel booking, and payroll.

Priority 7: Develop and Maintain a Technology Infrastructure for Student Success and Data Security

Upgrade the Enterprise Planning (ERP) System
Several notable IT ERP projects are underway with the Financial System upgrade slated to complete this fall. The implementation of the new identity management system is estimated to go-live in Q2 of 2020 and will introduce new levels of data security while simultaneously enhancing the end user experience of anyone accessing VCCS resources. The VCCS funded the projects through reallocation of existing resources of $3.1 million in FY 2019 and FY 2020.

Replace the Enterprise Learning Management System (LMS)

VCCS moved from the locally hosted Blackboard Learning Management system to the cloud-based Canvas system in FY 2019. The VCCS funded this project through reallocation of existing resources.

Priority 8: Provide Affordable Education and Training for all Citizens of the Commonwealth

Enhance and Expand Online Course Delivery

In FY 2019, VCCS became a partner in the Online Virginia Network, collaborating with GMU and ODU, to develop affordable online pathways to bachelor's degrees. The community colleges will provide an important avenue to lowering costs and appropriately credentialing students. VCCS is developing a fully online Passport (fully transferrable general education courses) at five of its largest institutions which will be offered through the Online Virginia Network beginning in FY2020.

<u>Expand Open Education Resource Offerings to Reduce Textbook Costs and Improved Student Readiness on the First Day of Classes</u>

In FY 2019, VCCS offered more than 5,550 sections with Zero or low cost course materials, an increase of 43% over the previous year. VCCS colleges have developed OER resources for all Passport courses, except for three recently revised math courses. VCCS was awarded a VIVA Course Redesign Grant in Spring 2019 to develop the open course materials for the new math courses.

Section J. Economic Development Annual Report (Due October 1): Describe the institution's contributions to stimulate the economic development of the Commonwealth and/or area in which the institution is located. If applicable, the information should include:

1. University-led or public-private partnerships in real estate and/or community redevelopment.
2. State industries to which the institution's research efforts have direct relevance.
3. High-impact programs designed to meet the needs of local families, community partners, and businesses.
4. Business management/consulting assistance.

RESPONSE:

VCCS Six-Year Plan
Section F – Contributions to Economic Development

Virginia's Community Colleges align education and economic development to extend workforce development courses, training, and programs into the community. The Commonwealth's 23 colleges prepare a workforce able to respond to new and expanding businesses and industries across Virginia. Last year, one in three VCCS students enrolled in technical education degree programs as well as short-term workforce training programs that allow emerging or incumbent employees to upgrade their skills and earn industry-recognized credentials. Fast Forward students have earned more than 17,000 new high demand credentials in the past three years. Half of all credential earners increased their wages by 17% or more. Many began receiving benefits such as medical insurance, paid sick leave and paid vacation leave. Recipients reported better job schedules, better work environments and more job stability as a result of the training.

Colleges also offer customized training services that provide Virginian's businesses with tailored programs that meet specific training needs. For example, in 2018, Northern Virginia Community College partnered with Amazon Web Services to offer an associates degree in cloud computing. In September 2019, VCCS and AWS announced a statewide partnership to offer the program statewide to meet the growing demand for certification in cloud computing. Tidewater Community College's maritime apprenticeship program supports the one of the largest industries in the state—the ship-yards – by offering students a way to learn skills while employed in their field of study. The result is a workforce that is better prepared to meet quickly changing workplace demands, ensuring that businesses are better able to provide direct benefit to their community and economy.

Details about the number of programs, students, and resources are included in Part I of this Plan.

Attachment – IPPA Supporting Documents

March 29, 2019

The Honorable Ralph S. Northam
Office of the Governor
P.O. Box 1475
Richmond, VA 23218

Dear Governor Northam:

This letter from the Virginia Community College System (VCCS) signals our intent to submit a proposal for a performance pilot authorized by the changes made to Section 23.1-306 of the *Code of Virginia* with the passage of House Bill 2653 during the 2019 General Assembly. The VCCS system office will work in partnership with Northern Virginia Community College (NOVA), Amazon Web Services, Inc. (AWS), and multiple colleges yet to be selected to expand and scale NOVA's recently launched cloud computing associate degree specialization. This pilot will address "…employment pathways for undergraduate Virginia students, strategic talent development, state or regional economic development…" as referenced in the revised *Code*.

No later than July 1, 2019, VCCS will submit the performance pilot proposal in concert with the preliminary version of our six-year plan per the requirements outlined in *Code*. The pilot request will include funding to scale NOVA's cloud computing curriculum to additional colleges in both urban and rural areas. The VCCS proposal will include funding requests for curriculum development and digitalization for online delivery; professional development and credentialing of faculty; tuition for high school students to enroll in cloud computing dual enrollment academies; development of work-based learning opportunities and apprenticeships; and incentive funding to compensate faculty based on market demand. NOVA will be the lead institution in the proposed performance pilot, and AWS, through AWS Educate, a global initiative to support cloud learning for students and faculty, will provide the following supports. Please see a letter of support from AWS, also attached.
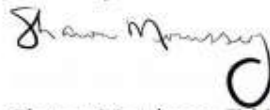
- Guidance in building our colleges' degree programs in Cloud Computing to ensure that the program outcomes align with the skills necessary to prepare a student for industry certifications and employment in the field of cloud computing
- Access to curriculum resources – including syllabi, instructional content, hands-on activities and assessments – that support student learning in Cloud Computing
- Access to content to support professional development and technical training for faculty members who will deliver program coursework
- Promotional AWS credits to ensure that students have an opportunity to practice and apply their knowledge using the AWS console
- Access to the AWS Educate Job Board, which contains cloud-related job postings from Amazon and its customers and partners, to help match students with employers looking for cloud-skilled talent

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44

Funding to scale this program to additional colleges is imperative if we are going to meet the rapidly growing demand for credentialed cloud computing technicians. Last year in Virginia, there were over 68,000 unique positions requiring these skills and credentials that remained vacant for over 40 days on average. Since September 2016, monthly job postings in this field have increased from approximately 5000 per month to 20,000 per month. Currently, the cloud computing associate degree offered by NOVA is the only such program in Virginia.

Other states, including California, Wyoming, Rhode Island, Ohio, and Louisiana, are prioritizing investments in cloud computing education and credentialing. The proposed performance pilot will help ensure that Virginia remains competitive in the fast growing cloud computing market place. While it took NOVA nearly two years to develop and implement their program, with their leadership and the supports from AWS and the VCCS system office, funding for the aforementioned activities will allow us to scale the program quickly and efficiently in an effort to increase competitiveness and meet demand.

Please do not hesitate to contact me by phone at (804) 819-4972 or by email at smorrissey@vccs.edu should you have any questions or concerns.

Sincerely,

Sharon Morrissey, Ed.D.
Senior Vice Chancellor, VCCS
Academic and Workforce Programs

CC LS 00107799 2019 TR

aws

Amazon Web Services, Inc. • 410 Terry Avenue N. • Seattle, WA 98109

March 27, 2019

Dr. Sharon Morrissey
Senior Vice Chancellor for Academic and Workforce Programs
Virginia Community College System
300 Arboretum Place, Suite 300
Richmond, VA 23236

Re: Letter of Support

Dear Dr. Morrissey:

Amazon Web Services, Inc. (AWS) is very pleased to support Virginia Community College System's proposal for funding through the Innovative Internship Fund and Innovative Internship Pilot Program. Through AWS Educate, our global initiative to support cloud learning for students and faculty, member educational organizations receive benefits such as:

- Guidance in building an educational institution's degree programs in Cloud Computing to ensure that the program outcomes align with the skills necessary to prepare a student for AWS industry certifications and employment in the field of cloud computing.
- Access to curriculum resources – including syllabi, instructional content, hands-on activities and assessments – that support student learning in Cloud Computing.
- Access to content to support professional development and technical training for faculty members who will deliver program coursework.
- Promotional AWS credits to ensure that students have an opportunity to practice and apply their knowledge using the AWS console.
- Access to the AWS Educate Job Board, which contains cloud-related job postings from Amazon and our customers and partners, to help match Educate members with employers looking for cloud-skilled talent.

AWS offers commercially available, web-scale computing services that help organizations avoid much of the heavy-lifting typically associated with launching and growing successful applications. These services are based on Amazon's own back-end technology infrastructure and incorporate over a decade and a half of experience building one of the world's most reliable, scalable, and cost-efficient web infrastructures. The use of AWS will provide you with access to expertise in large-scale distributed computing and operations and will enable your applications to be robust and scalable.

AWS values and appreciates the opportunity to support the Virginia Community College System, and we look forward to a long and productive partnership. If you have any questions, or require additional information, please contact Mike Berman, Global Program Manager for Higher Education, at mbberman@amazon.com or 650-400-6853.

Sincerely,

Patty Bedard

Patty Bedard
Senior Manager, AWS Educate