

Virginia State University and Richard Bland College

Virtual School of Technical and Professional Studies

Final Compendium

February 25, 2022



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Virginia State University and Richard Bland College

Virtual School of Technical and Professional Studies

Task 1: Environmental and Market Analysis

Originally shared: November 15, 2021



Task 1 Pre-Read



The entirety of this document serves as a pre-read to the November 15th review of Task 1: Environmental and Market Analysis.

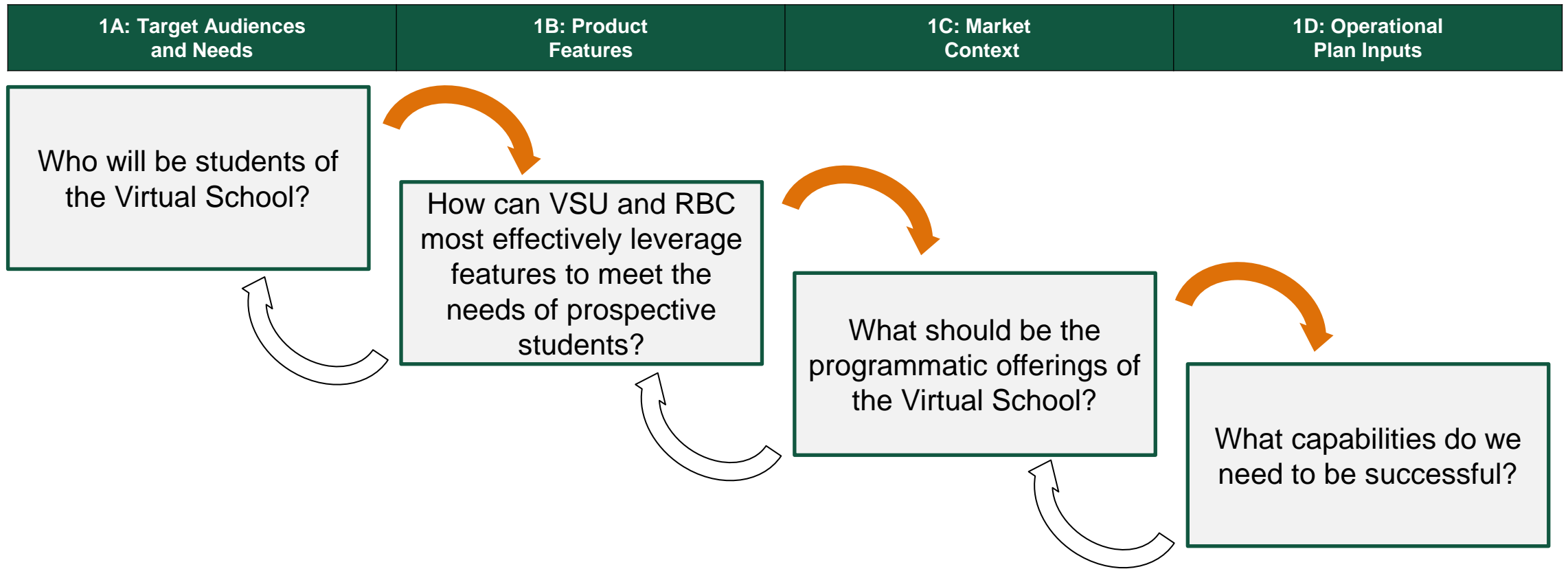
| Task 1: Environmental and Market Analysis | Task 2: Operational, Organizational, and Strategic Alliance Considerations | Task 3: Financial Modeling | Task 4: Implementation Plan |
|--|--|--|---|
| <p>RBC and VSU will align around an initial set of offerings to be delivered by the Virtual School. Offerings will be prioritized based on demand, competitive density, and pricing, among other factors.</p> | <p>RBC and VSU will develop a shared understanding of the operational requirements to launch and grow the School, based on the outcomes of the first Task. This will include an analysis of current resources at both institutions as well as opportunities for third-party partnerships.</p> | <p>The financial model will provide leadership with a tool for evaluating the financial impact of academic and operational decisions in designing the School.</p> | <p>Leadership will come to understand the near, medium, and long-term next steps.</p> |

As you read through this document, we ask that you consider: Are the proposed set of programs and product mix highlighted in this report the ideal set of offerings for the Virtual School?



Virtual School Strategic Choices

The goal of Task 1: Environmental and Market Analysis is to enable VSU and RBC to align on a strategic direction for the Virtual School including decisions on who to serve and how to best serve them.



Task 1: Environmental and Market Analysis



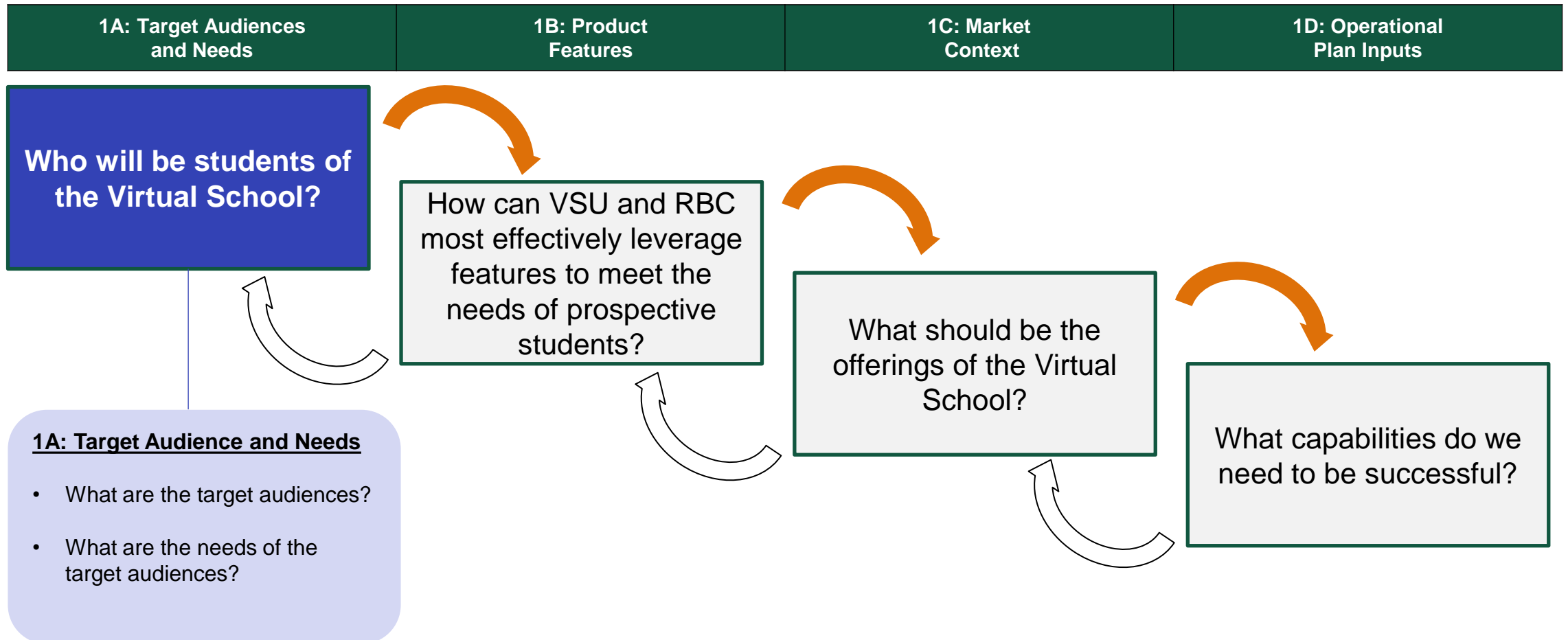
Through market research and internal discussions, VSU and RBC can align on target audiences and products offerings for the Virtual School of Technical and Professional Studies.

| Task 1: Environmental and Market Analysis Outline | | | | |
|---|---|---|--|--|
| | 1A: Target Audiences and Needs | 1B: Product Features | 1C: Market Context | 1D: Operational Plan Inputs |
| Strategic Question | Who will be students of the Virtual School? | How can VSU and RBC most effectively leverage features to meet the needs of prospective students? | What should be the offerings of the Virtual School? | What capabilities do we need to be successful? |
| Section Content | <ul style="list-style-type: none"> Target Audiences Audiences' Needs Mission Alignment 21st Century Technical Jobs | <ul style="list-style-type: none"> Summary of Offering Types Pricing Overview Best Practices | <ul style="list-style-type: none"> Assessment Criteria Occupations vs Related Offerings Supply Program Identification Peer/Competitor Overview | <ul style="list-style-type: none"> Marketing and Branding Strategic Enrollment Recruitment Strategies |



Virtual School Strategic Choices

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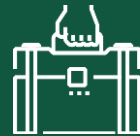
Target Audiences

During the project kickoff meeting, VSU and RBC noted the following populations— mostly, segments of the adult learner market— as potential targets audiences for the Virtual School.



Degree Completers

- As of 2013, the Commonwealth of Virginia had 743K people with some college experience, but no degree. Between 2014 and 2018, 10.6% (94K) re-enrolled and 3.3% (22K) completed their degrees¹
- As of 2021, Virginia has an estimated 1.3 million people that have some college experience but no degree



Career Movers

- In 2021, the General Assembly for the Commonwealth of Virginia budgeted for funding a new Office of Education and Labor Market Alignment to support greater partnerships with higher education regarding labor market demand²



Learners Seeking Flexibility

- In a recent survey, 73% of students noted that they planned to take some courses in a fully on-line format in the return to campus¹
- Stemming from the launch of the Statesman-Trojan Alliance in 2019, VSU and RBC noted that the Virtual School presents an opportunity to build on the partnership by offering dual enrollment opportunities to VSU and RBC students



Military Members and their Families

- VSU and RBC agree that military personnel and their families would be a good target audience for the Virtual School
- As of June 2021, the Commonwealth of Virginia had over 155K active duty and national guard/reserve military personnel

Source: 1) *The Digital Learning Pulse Survey*, Bay View Analytics. April 2021. Survey included 772 faculty, 514 academic administrators, and 1,413 students.

Audiences' Needs



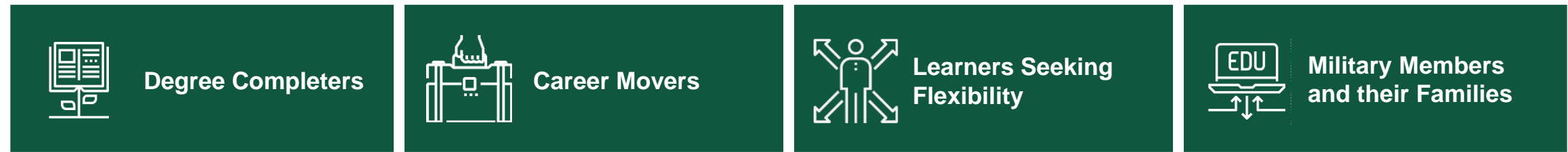
The needs of the target audiences are relevant across the various populations and can be described along the student lifecycle continuum.

Student Lifecycle

Apply and Accept

Enroll and Retain

Graduate



Affordability / Low Cost

Prior Learning Assessment

Flexible Scheduling / Short Duration

Online Delivery

High Quality Offerings

Robust Student Support

Clear Pathways to Employment / Enablement of Upward Mobility in Current Career

In addition to the needs of the target audiences, VSU and RBC can consider the goals of statewide initiatives and how the efforts of the Virtual School would benefit Virginia at-large.

Mission Alignment



In 2020, the State Council of Higher Education for Virginia announced the Virginia Plan which outlines three primary goals and strategies that VSU and RBC can align with the efforts of the Virtual School.

Best State for Education

VSU & RBC Virtual School

EQUITABLE

Close access and completion gaps.



Strategies:

1. **Expand postsecondary opportunities** and awareness to Virginians
2. Advance digital access, adoption and literacy, and high-quality, **effective remote-learning programs**
3. **Strengthen student support services** for persistence and completion



VSU and RBC seek to establish an online school aimed at a **diverse population of Virginians** and differentiated by a **high-touch, student support value proposition**

AFFORDABLE

Lower costs to students.



Strategies:

4. Align tuition and fees, financial aid and state appropriations to **broaden student access**
5. Cultivate **affordable postsecondary education pathways**
6. Update and **reform funding models and policies**
7. **Foster program and administrative innovations** that improve quality, collaboration, and efficiency



The Virtual School could **offer innovative products tailored to meet the needs of target students** and ensure affordability by **pricing offerings competitively according to the market**

TRANSFORMATIVE

Expand Prosperity.



Strategies:

8. Support experiences that **improve students' employment outcomes**, income and community engagement
9. Improve **alignment between post-secondary academic programs and labor market outcomes**
10. **Cultivate a climate of inclusion and innovation** through scholarship, research, and diverse faculty



The Virtual School is considering offerings that are based on growing jobs in Virginia to **prepare students for careers in 21st Century Technical Jobs**

Labor Market Connection



The primary audience for the Virtual School will be the learners as defined on the previous pages. An additional audience will be employers in growing fields who are seeking well-qualified entrants. **The Virtual School's success will depend on bringing the interests of these two audiences into alignment.**

21st Century Technical Jobs



The 15 occupations listed below comprise the 21st Century Technical Jobs identified in Huron's previous work with RBC, along with some added relevant occupations that are also projected to grow in Virginia.

| 21 st Century Technical Job | 2021 Positions | 2031 Positions | Number of Jobs Added (2021 – 2031) | Avg Number of VA Institutions with a Related Offering (2016 – 2021) | Level of Education Required |
|--|----------------|----------------|------------------------------------|---|-------------------------------|
| Software Developers | 81,432 | 95,378 | 13,946 | 12 | Bachelor's degree |
| Information Security Analysts | 17,191 | 20,902 | 3,711 | 65 | Bachelor's degree |
| Computer User Support Specialists | 20,373 | 23,186 | 2,812 | 17 | Alt credential or certificate |
| Operations Research Analysts | 7,741 | 9,029 | 1,288 | 8 | Bachelor's degree |
| Construction Managers | 6,407 | 7,375 | 968 | 33 | Bachelor's degree |
| Computer Occupations, All Other ¹ | 16,291 | 17,238 | 947 | 49 | Bachelor's degree |
| Data Scientists | 2,628 | 3,350 | 722 | 4 | Bachelor's degree |
| Facilities Managers | 5,808 | 6,501 | 692 | 31 | Bachelor's degree |
| Web Developers | 5,848 | 6,539 | 692 | 64 | Associate's degree |
| Database Administrators | 7,703 | 8,346 | 643 | 48 | Bachelor's degree |
| Computer Network Support Specialists | 8,012 | 8,596 | 584 | 16 | Associate's degree |
| Logisticians | 9,976 | 10,244 | 267 | 1 | Bachelor's degree |
| Health Information Technologists | 2,708 | 2,904 | 196 | 29 | Alt credential or certificate |
| Industrial Engineering Technologists | 1,480 | 1,560 | 80 | 23 | Associate's degree |
| Avionics Technicians | 1,633 | 1,679 | 46 | 3 | Associate's degree |

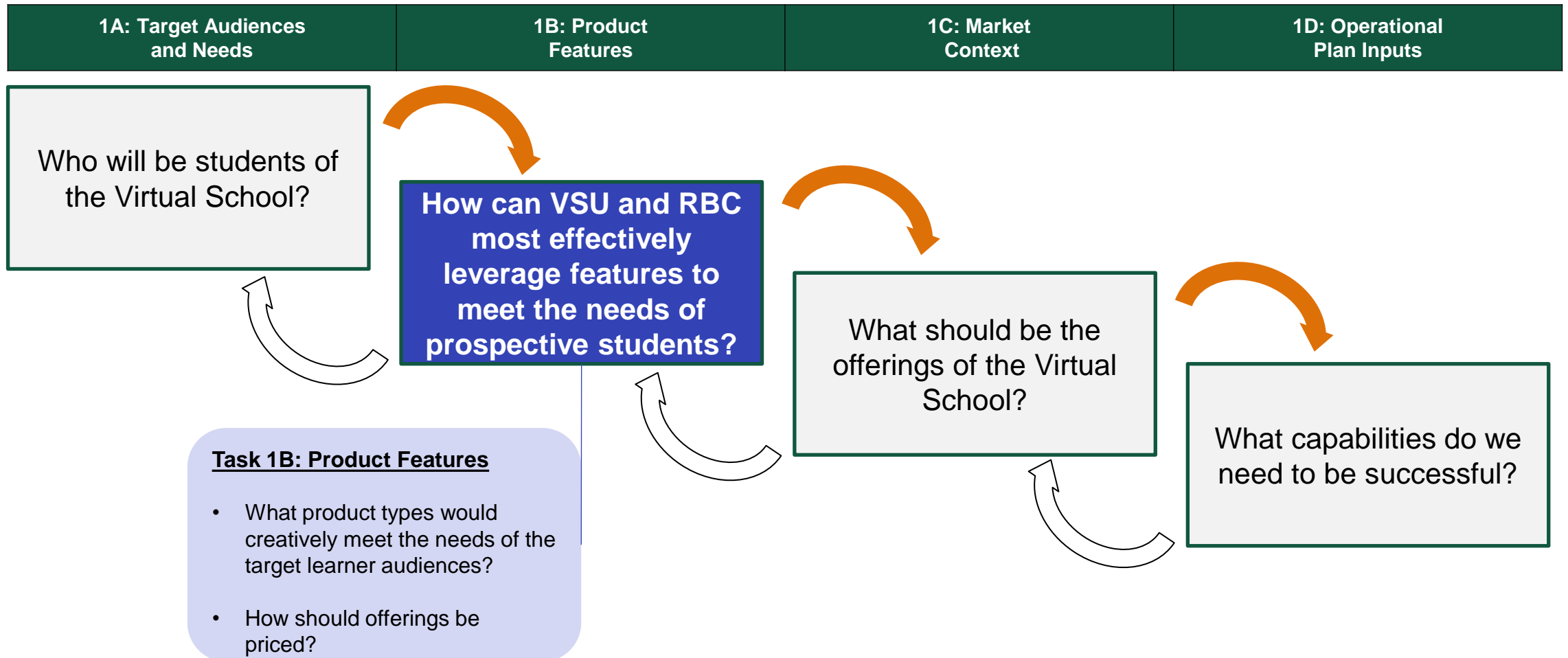
Source: Emsi

1) The Computer Occupations, All Other occupation represents computer occupations with a wide range of characteristics which do not fit into another category (e.g., Web Administrators, Geographic Information Systems Technologists, Blockchain Engineers, etc.)



Virtual School Strategic Choices

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Features of Non-Traditional Offerings

The Virtual School of Technical and Professional Studies will be newly built, thus allowing VSU and RBC the flexibility to consider non-traditional modalities for offerings.

SHORTER DURATION

Many adult learners have turned to offerings that are shorter to quickly and efficiently make career changes.

DIGITAL DELIVERY

The COVID-19 pandemic accelerated the adoption of online academic delivery.

MICRO-CREDENTIALS AND DIGITAL BADGES

Online providers have seen an increase in enrollment for micro-credential offerings as students seek alternative, non-traditional options to demonstrate competency in a particular area.

FLEXIBILITY

Students seek offerings that are suitable for their already busy schedules.

COMPETENCY-BASED EDUCATION

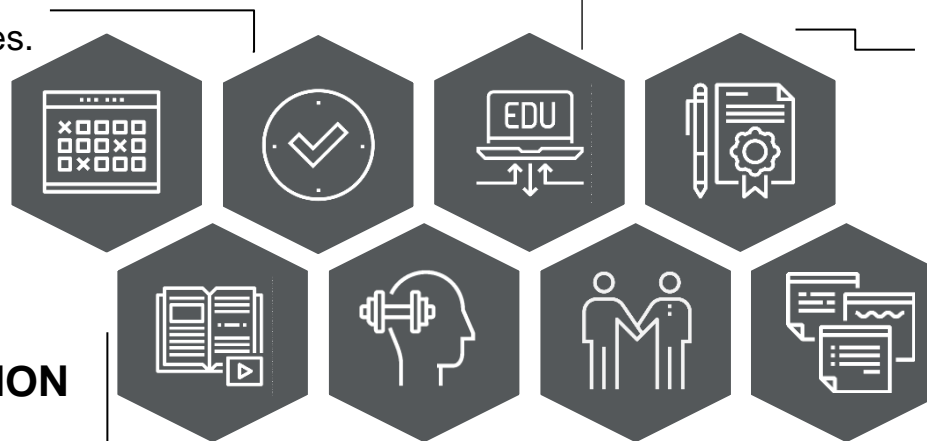
CBE has increased in popularity, allowing students to progress at their own pace.

PRIOR LEARNING ASSESSMENT

Awarding students credit for life and work experience helps reduce overall educational costs and the time it takes to graduate.

EMPLOYER PARTNERSHIPS

More corporations seek to partner with higher education institutions to develop career-specific curriculum to meet their workforce needs and create pathways to specific professions.



CERTIFICATE OFFERINGS

Enrollments in postbaccalaureate and graduate certificate offerings increased in 2019 and 2020 while associate and bachelor's degree programs declined¹ indicating more interests in noncredit certificates.

1) National Student Clearinghouse Research Center, November 2020.

Offering Types



Recent developments in the distance education market point to continued growth in non-traditional offerings as higher education institutions look for creative ways to serve adult learners.

MICRO-CREDENTIALS

During 2020, edX (acquired by 2U in 2021) saw a 10-fold increase in applications for micro-credentials, with 11% seeking new skills because they were unemployed and 25% seeking to advance their careers¹.

CUSTOM EMPLOYER OFFERINGS

The market size for companies that enable employer-university collaboration is expected to increase by an average annual rate of 13.0%⁴ as institutions seek to further connect learning outcomes to the labor market.

NON-TRADITIONAL OFFERING TYPES FOR CONSIDERATION

CERTIFICATES

In Fall 2020, enrollments in postbaccalaureate certificate programs grew 5.0%³ from the previous year as working adults seek cost efficient ways to upskill and reskill for their careers.

COMPETENCY-BASED EDUCATION

A survey conducted in 2020 showed that 73% of institutions surveyed were in the process of adopting or interested in adopting competency-based learning with 13% having already adopted CBE². Of these institutions, two-thirds mentioned expanded access to non-traditional learners.

Sources:

- 1) <https://evollution.com/programming/credentials/microcredentials-empower-change-and-growth/>
- 2) <https://www.air.org/sites/default/files/2021-07/State-of-the-Field-Findings-from-2020-Postsecondary-CBE-Survey-July-2021.pdf>
- 3) National Student Clearinghouse Research Center, November 2020
- 4) <https://medium.com/merge-edtech-insights/mass-collaboration-between-employers-and-universities-is-the-future-of-higher-education-part-1-ed840467bfd5>

Pricing Overview



As VSU and RBC consider the product types of the Virtual School and how to best provide access to prospective students, another important product feature to consider is the pricing strategy.

1B: Product Features

- Calibration of price will be an important factor as many prospective students of the target audiences will be price sensitive.
- The following pages provide context on peer and competitor pricing as well as best practices aligned with attracting the target audience.

ILLUSTRATIVE EXAMPLE

DOSLL Budget Forecasting Tool

Inputs

- 1) Use blue variable input cells to adjust scenarios
- 2) Output to the right will auto-adjust based on scenario
- 3) Only adjust variable inputs on this tab

Legend

| |
|---|
| Variable Input (user-selected; drives all output) |
| Formula Driven/Copied Input |

| Revenues | | | | |
|---|------------|------------|------------|-------|
| Inflation | | | | |
| Annual inflation | 2% | | | |
| For-Credit | G2 Y1 | G2 Y2 | G2 Y3 | |
| Anticipated Growth | 2% | 2% | 2% | |
| Number of For-Credit Learners | 7500 | 7650 | 7803 | |
| Non-Credit | G2 Y1 | G2 Y2 | G2 Y3 | Input |
| Custom (ex. Corporate) | | | | |
| Total Number of Learners | 400 | 640 | 950 | |
| Number of Workshops | 20 | 32 | 48 | |
| Average Workshop Size | 20 | | | |
| Average Workshop Price | \$ 10,000 | \$ 10,200 | \$ 10,404 | |
| Anticipated Growth | | 60% | 50% | |
| Online Revenue | \$ 60,000 | \$ 97,920 | \$ 146,880 | 30% |
| In-Person Revenue | \$ 100,000 | \$ 163,200 | \$ 244,800 | 50% |
| Hybrid Revenue | \$ 40,000 | \$ 65,280 | \$ 97,920 | 20% |
| Open Enrollment / Non-Customized | | | | |
| Total Number of Learner Purchases | 1330 | 2128 | 3192 | |
| Number of Offerings | 7 | 11 | 17 | |
| Average Offering Size | 190 | | | |
| Average Offering Price | \$ 700 | \$ 714 | \$ 728 | |
| Anticipated Growth | | 60% | 50% | |
| Online Revenue | \$ 372,400 | \$ 607,757 | \$ 911,635 | 40% |
| In-Person Revenue | \$ 372,400 | \$ 607,757 | \$ 911,635 | 40% |
| Hybrid Revenue | \$ 400,000 | \$ 607,757 | \$ 911,635 | 40% |

| Definitions | Assumptions/Notes |
|--|---|
| = FY20 For-Credit Learners | Rounded figure based on data from DOSL |
| = Number of Workshops | Initial assumption. BSU to updated workshop numbers based on existing N |
| = Average Workshop Size | |
| = FY22 Average Workshop Price | Competitive pricing based on market benchmarks. |
| = Anticipated Growth of Custom Programs | We anticipate slower growth of these offerings and have entered 1/2 gro |
| = Proportion of Online Workshops | |
| = Proportion of In-Person Workshops | |
| = Proportion of Hybrid Workshops | |
| = Starting Number of Learner Purchases (can include repeat learners) | |
| = Number of Offerings | Initial assumption. BSU to updated workshop numbers based on existing N |
| = Average Offering Size | |
| = Average Price of Offering | Conservative estimate slightly below competitive market benchmarks. |
| = Anticipated Growth of Open Enrollment Programs | |
| = Proportion of Online Offerings | |
| = Proportion of In-Person Offerings | |
| = Proportion of Hybrid Offerings | |



Competitor Online Pricing Summary

31 institutions in VA are offering at least one online or distance offering that could be competitive with an offering provided by the Virtual School (additional detail in provided in peer section).

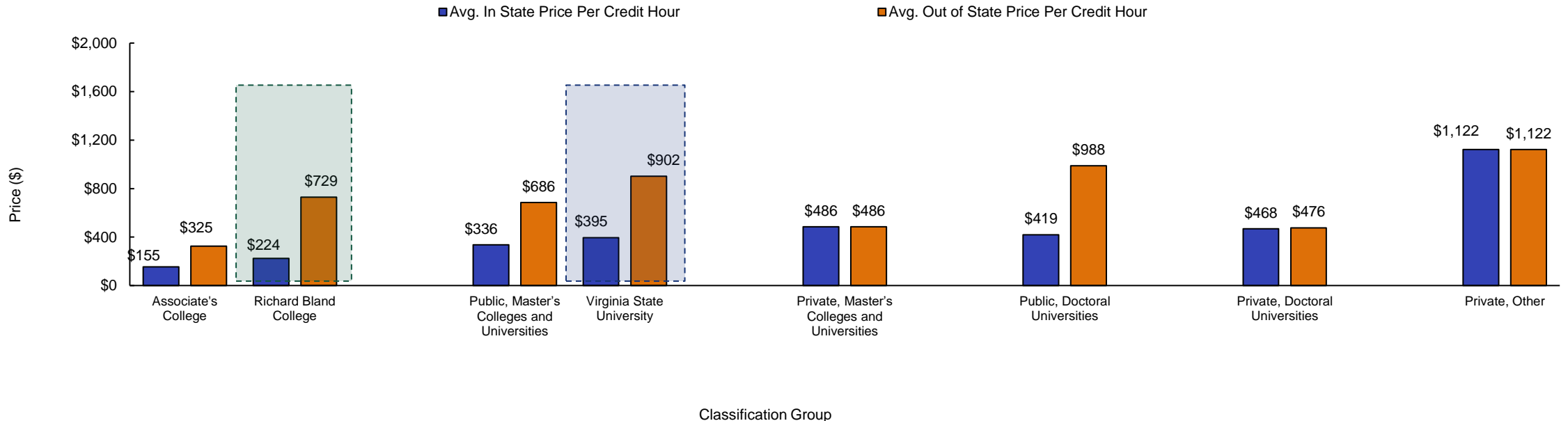
| Institution Type | Example Institutions | Average In State Price Per Online Credit Hour | Average Out of State Price Per Online Credit Hour |
|---|---|---|---|
| Associates Colleges | Tidewater, Patrick Henry, Germanna, John Tyler, Rappahannock, Northern VA | \$155 | \$325 |
| Public, Master's Colleges and Universities | Norfolk State, Radford, James Madison | \$336 | \$686 |
| Private, Master's Colleges and Universities | Strayer University, ECPI, University of Lynchburg, and Stratford | \$486 | \$486 |
| Public, Doctoral Universities | William and Mary, George Mason, Virginia Commonwealth | \$419 | \$988 |
| Private, Doctoral Universities | University of Management and Technology | \$468 | \$476 |
| Private, Other | University of the Potomac-VA Campus | \$1,122 | \$1,122 |

Online Pricing by Institution Type



Generally, competitor prices for the identified programs increase as the degree level provided by the institution advances with price per credit hour ranging from \$155 to \$1,122.

Online and Distance Pricing by Institution Type



VSU and RBC's current price per credit hour are both higher than the in-state averages of their institution classification groups at \$395 and \$224 per credit hour, respectively.

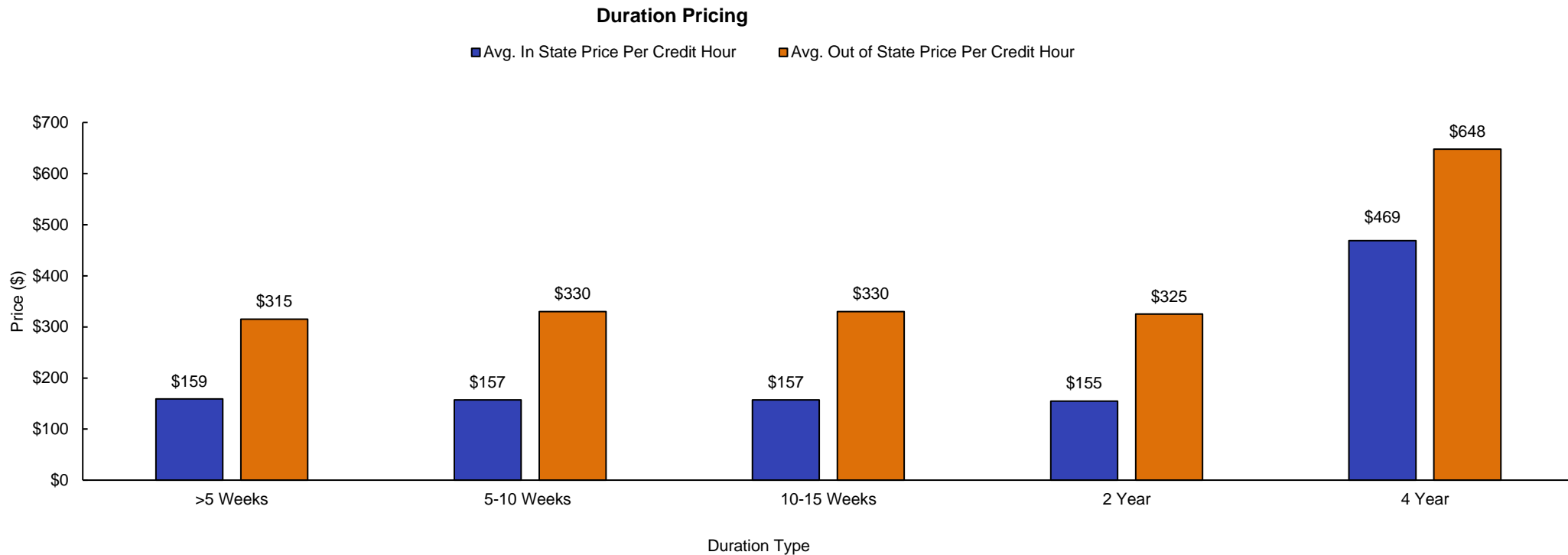
Note: The Richard Bland College and Virginia State University values are price per credit hour.

1B: Product Features



Online Pricing by Duration of Program

Generally, competitor prices for shorter duration programs are lower than those of traditional length programs with price per credit hour ranging from \$155 to \$648.



Huron re-grouped the 31 institutions with distance learning programs by duration to compare cost to student to create accurate pricing opportunities for the Virtual School.



Pricing Best Practices

To create competitive prices for the Virtual School offerings, RBC and VSU may want to consider the following strategies in the marketplace addressing similar audiences to the Virtual School.



Military Pricing

- Roughly 10 institutions in VA* offer discounts for military personnel and their family
- Discounts include in-state pricing for out-state military individuals, waiving of extra fees, and support



In State Versus Out of State

- Most private institution competitors price their online programs at the in-state tuition price regardless of the student's location
- In Huron's experience some schools offer in-state pricing to students living in some neighboring counties



Employer Partnership/ Business Rates

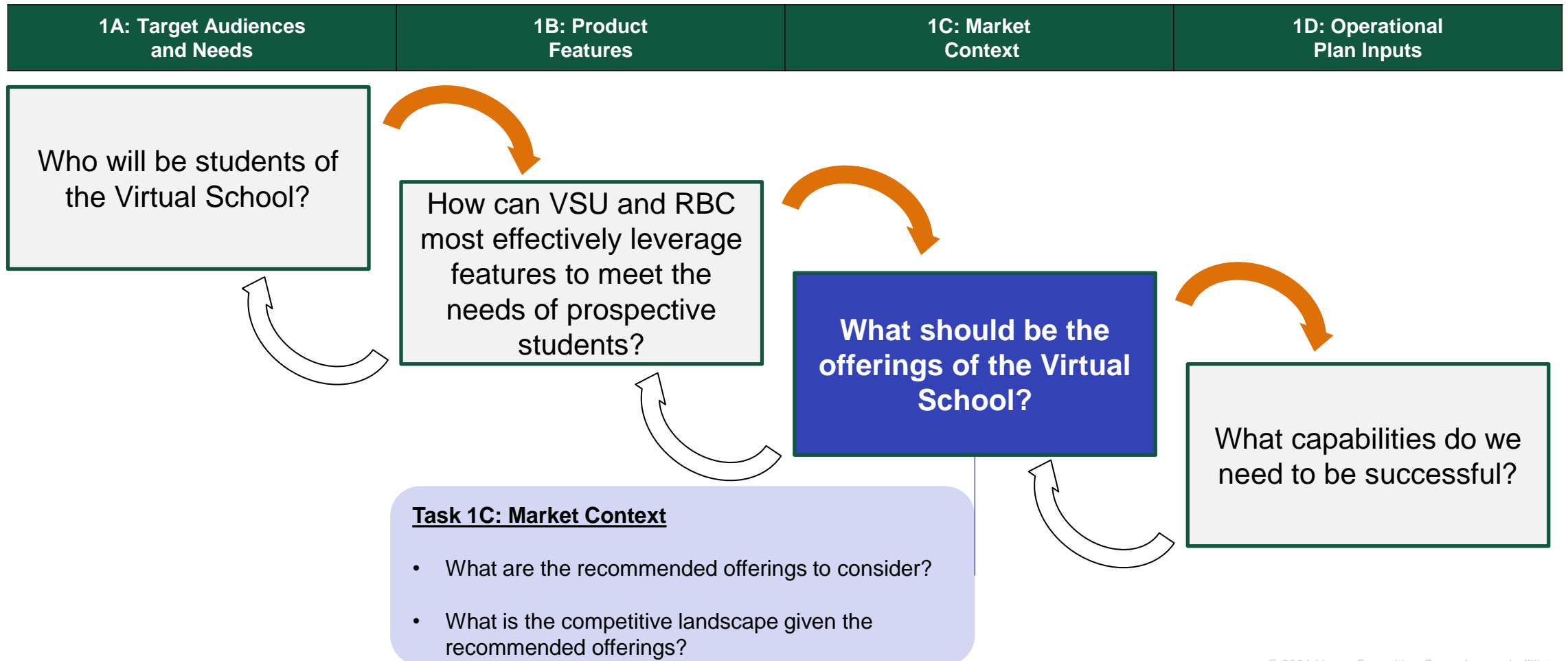
- Equitable access for all
- Encouraging a well-trained workforce
- Institutions offer business rates priced higher than in-state rates, but lower than out of state rates e.g., for Southside Virginia Community College, in-state is **\$154**, out of state is **\$236**, while the **Business Contract Rate for out of state students is \$154**)

A diverse portfolio of pricing options may help the Virtual School acquire and retain its target audience of military, new students, career movers, and education continuers.



Virtual School Strategic Choices

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Assessment Criteria



When determining which programs and courses to offer at the Virtual School, VSU and RBC should prioritize offerings based on market need, feasibility, financial impact, and mission alignment.

MISSION ALIGNMENT

Program and course offerings should be assessed against institutional missions to ensure alignment.



Mission Alignment



Market Needs

MARKET NEEDS

Labor market analysis allows VSU and RBC to consider the development of programs that address growing labor needs in the Commonwealth of Virginia.

MARGIN

Decisions on Virtual School offerings should consider financial implications including both revenue and expense expectations.



Margin



Feasibility

FEASIBILITY

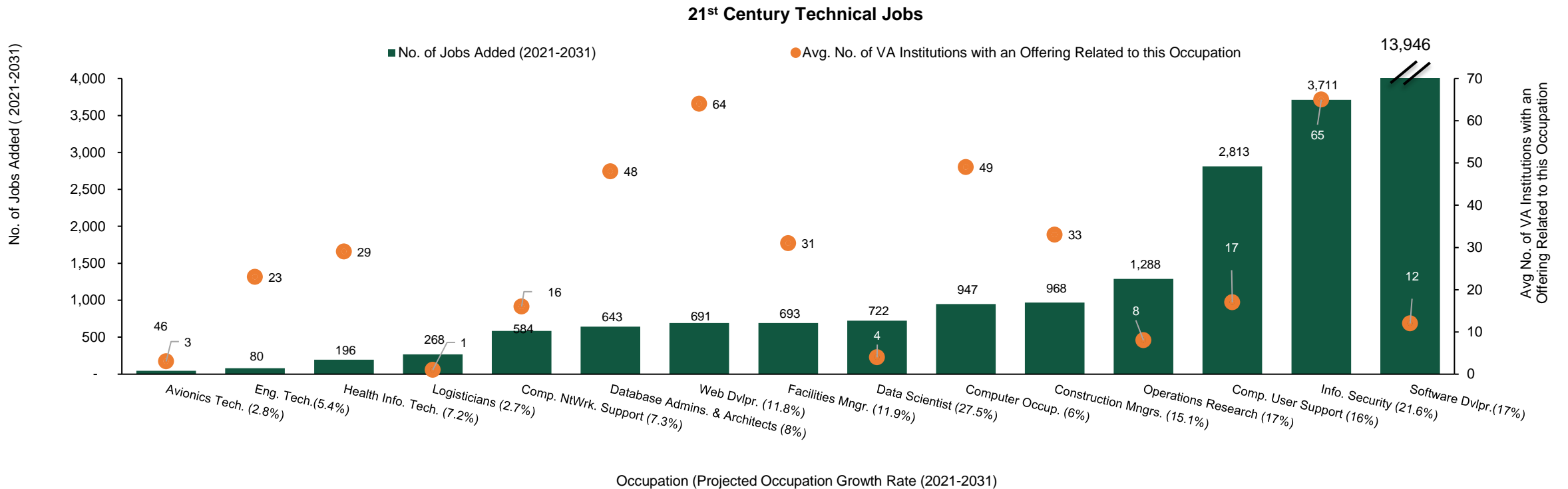
Assessments of VSU and RBC capabilities identify which offerings can be developed and where 3rd parties can address potential gaps.

In addition to these criteria, VSU and RBC can also align Virtual School programs to the workforce initiatives of the Commonwealth of Virginia and aim to aid the state in meeting its goals.

Occupations vs. Related Offerings Supply



The 21st century technical occupations are selected based on job growth, earning potential (>\$50K), and degree level, and further prioritized by number of jobs added and low supply of occupation related offerings.

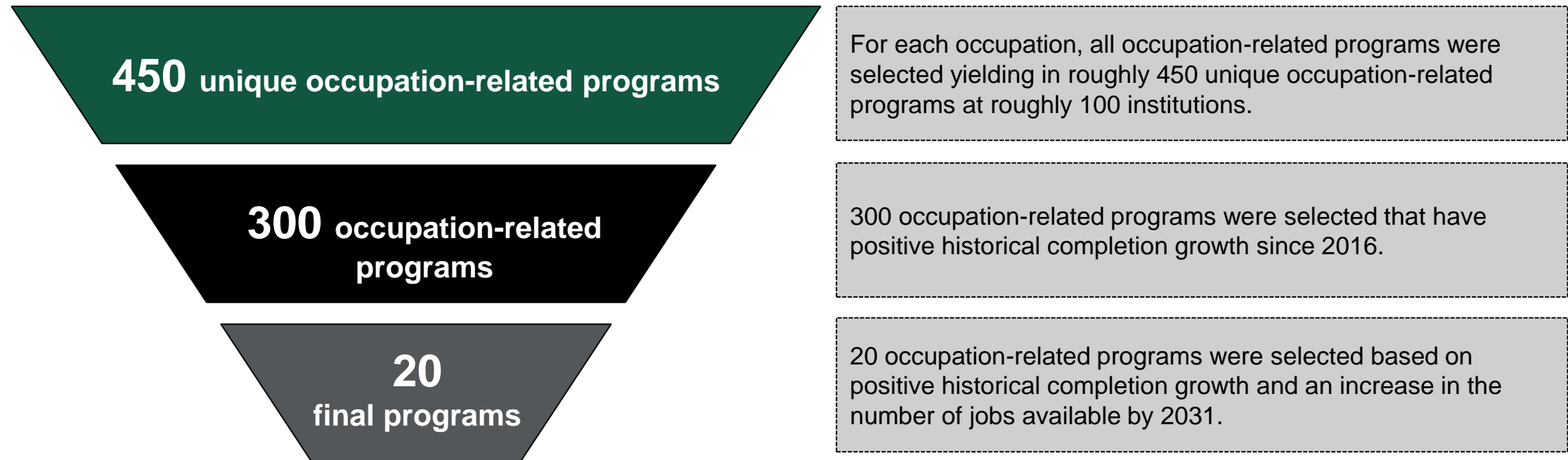


The areas of opportunity for VSU and RBC to develop offerings arise from the alignment of high number of forecasted jobs added with low numbers of institutions with related offerings (e.g., Software Developer).



Program Identification: Filtering Criteria

Building on work from Phase 1 and the selected target audiences, Huron narrowed down the occupation-related offerings to allow focusing of resources and efforts on best opportunities.

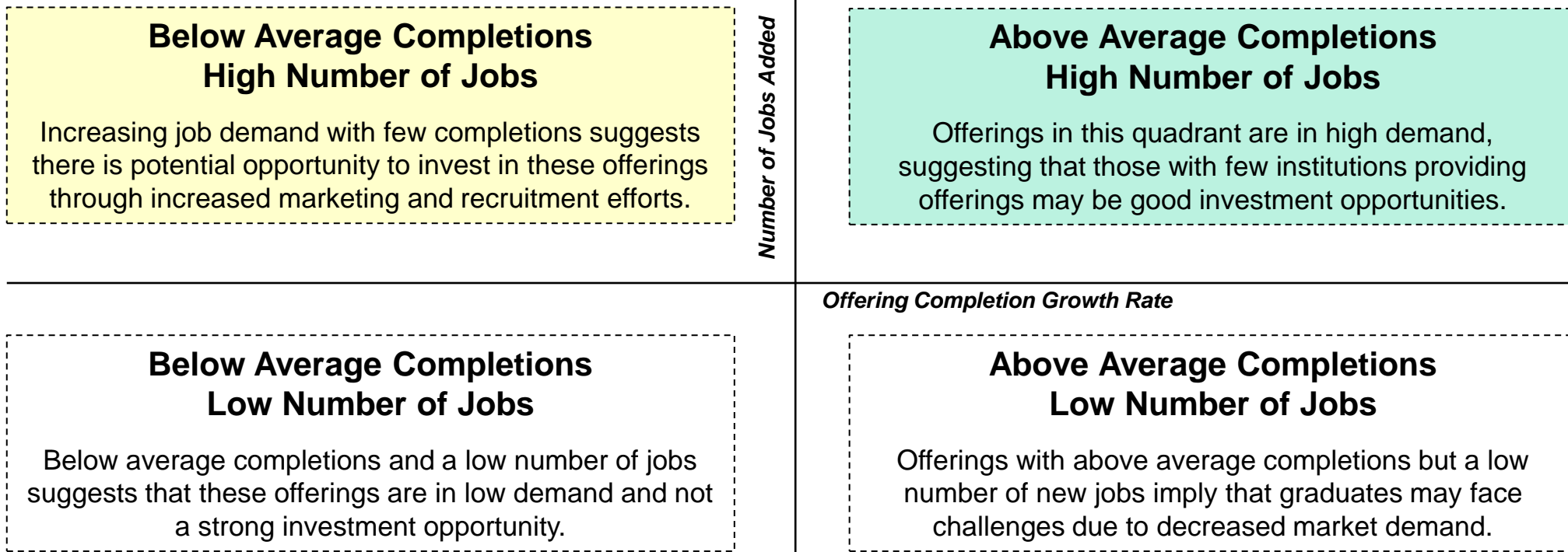


Further evaluation of the 20 occupation-related programs will identify the programs with the highest potential (fastest growing programs associated with the largest number of jobs added).

Program Identification: Offering Market Demand



To further prioritize the 20 occupation-related offerings, Huron plotted these based on past completion rate, number of jobs added by 2031, and the current number of institutions with similar offerings.



1C: Market Context

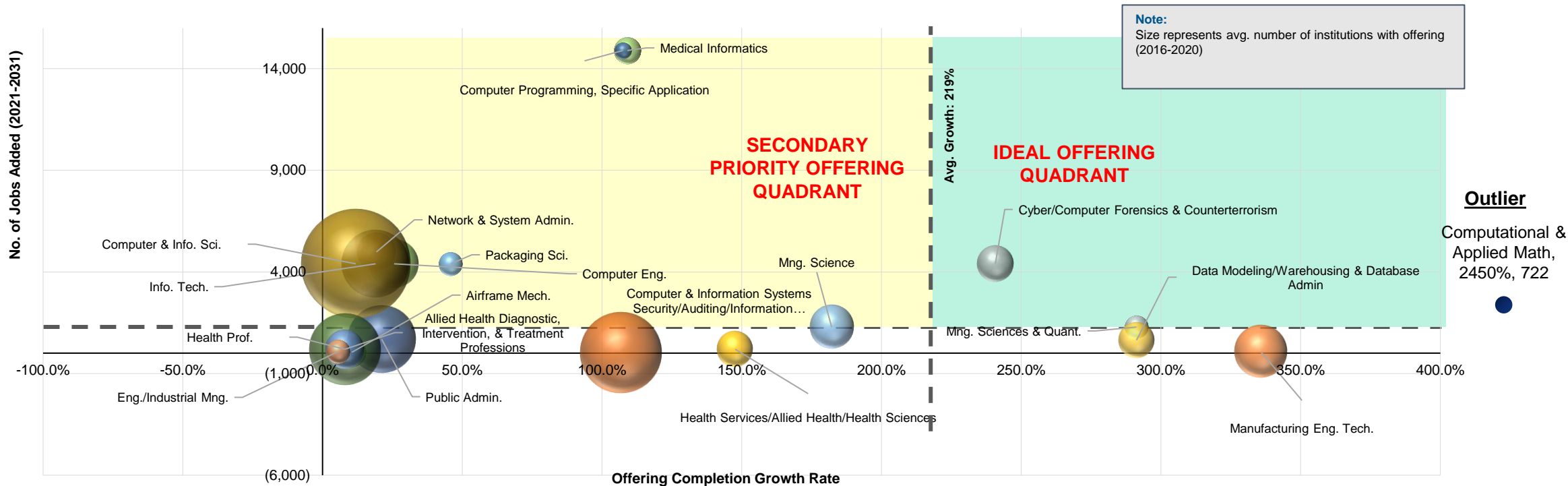
Ideal offerings fall in the upper-right quadrant and have above average increasing completions, a high number of jobs added, and low supply. Secondary priority offerings fall in the upper-left quadrant.



Program Identification : Virginia Offerings

A specific offering-focused competitor market highlights potential areas of investment for the Virtual School of Technology and Professional Studies.

Public and Private Institution's Offering Focused Competitor Market



Cyber/Computer Forensics is above the average completion growth rate and forecasted to increase in the number of jobs, suggesting the development of this offering as a strong investment.

Program Identification: Recommended Offerings



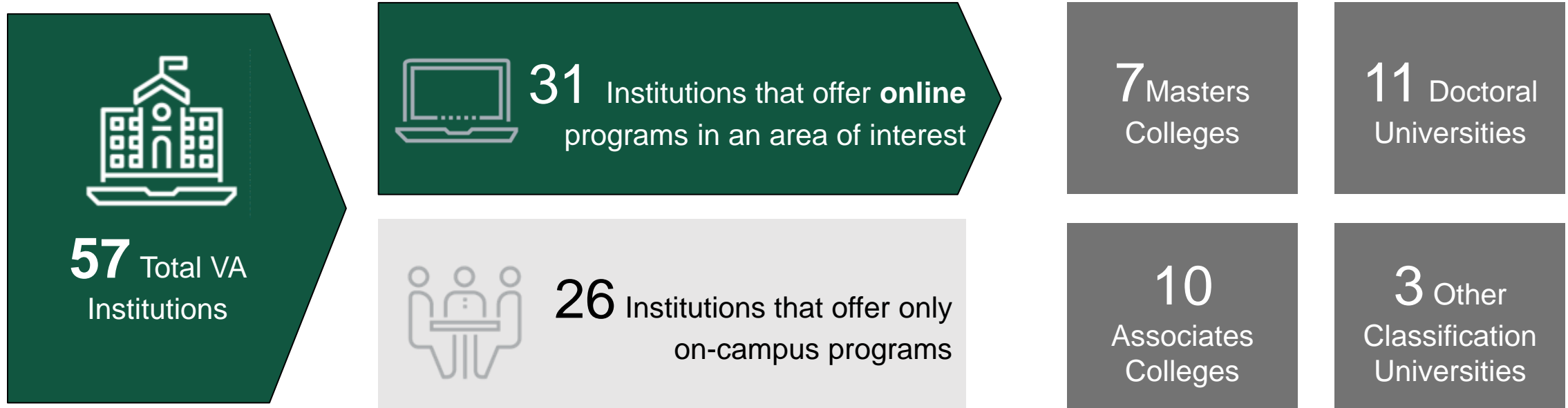
Huron has identified the following programs as recommended offerings for the Virtual School based on low number current offerings, and high population institution growth.

| Program Name | No. of Jobs Added (2021-2031) | Avg. Number of Institutions Offering | No. of Jobs Added / Avg. No. of Institutions Offering | Program Completion Growth |
|--|-------------------------------|--------------------------------------|---|---------------------------|
| Computer Programming, Specific Application | 14,893 | 1 | 14,893 | 107% |
| Network and System Administration / Administrator | 4,986 | 5.6 | 890 | 19% |
| Management Science | 1,288 | 7.2 | 178 | 182% |
| Management Science and Quantitative Methods, other | 1,288 | 2 | 644 | 291% |
| Computer Engineering, general | 4,402 | 9 | 489 | 25% |
| Computational and Applied Mathematics | 722 | 1.8 | 401 | 2450% |
| Medical Informatics | 14,893 | 2.6 | 5,728 | 109% |
| Data Modeling/ Warehousing and Database Administration | 643 | 4.8 | 133 | 241% |
| Information Technology | 4,402 | 17 | 258 | 19% |
| Cyber/Computer Forensics and Counterterrorism | 4,402 | 5 | 880 | 240% |



Peers and Competitors by Institution Type

For the 20 selected occupation-related offerings there are 57 total institutions in Virginia with at least one of the occupation-related offerings.



In addition to competing with the 31 institutions that offer an online program of interest, VSU and RBC will also need to consider competition stemming from non-traditional players in the market.

Non-Traditional Competitors in the Market



In addition to peer higher education institutions, VSU and RBC will be faced with increased competition from non-traditional, for-profit players who aim to provide direct access to online learners.



Section4

Section4 provides short-course, non-credit business education. Section4 delivers content through “sprints” priced at \$1,000 each. Sprints are “frictionless” and led by well-known business leaders and faculty from top MBA programs.



Edge Pathways

Edge Pathways attempts to replace the first year of undergraduate engineering with a low-cost, high-quality learning experience. Targeted to learners of diverse backgrounds, Edge offers a wraparound learner experience and an opportunity to earn credit at the University of New Haven.



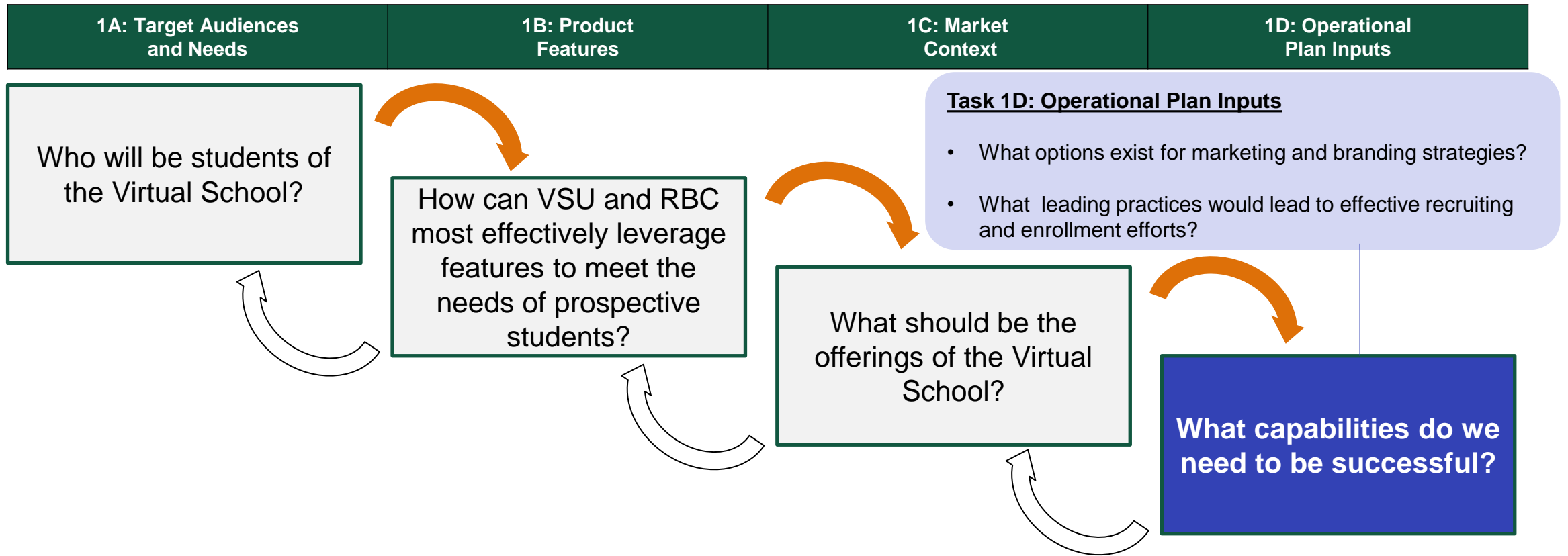
2U

2U provides students access to degree programs, short courses, and bootcamps offered by its University partners. In June 2021, 2U acquired edX, gaining access to 39 million learners in edX’s portfolio.



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Marketing and Branding



Evaluating other higher education alliances and partnerships provides suggestions for marketing and branding of the Virtual School.

Co-Branding



- Headed by the PSU provost and OHSU Provost
- Leadership includes a Dean supported by a team of both OHSU and PSU faculty
- Marketing include both supporting schools' brands
- "Joint School", "collaboration to succeed"
- Separate website and materials

Donor-Funded Branding



- Shared academic and research department for Claremont Mckenna, Pitzer, and Scripps College
- Funded by the W.M. Keck Foundation
- Schools share courses and resources across the department
- Marketing includes all supporting schools' brands and logos
- Separate website and materials
- Leadership includes a Dean for the department

Distinct Branding



- Online Course Provider created by Harvard and MIT (2012)
- Focusing on 3 main principles: Experience, Practice, Apply
- Marketing and branding separate from Harvard and MIT
 - Unique logo and branding
 - Separate website and materials
- Partnered with Microsoft (2014)
- Launched a high school initiative (2014)
- Distinctly branded to allow for expansion in course offerings

Statesman-Trojan Alliance



RBC and VSU may draw on previous branding efforts to situate marketing and branding for the new Virtual School.

1D: Operational Plan Inputs



Statesman-Trojan Alliance

Highlighting **affordability** of degree through alliance

Highlighting **expanded access** to college credentials and **career preparation**

Paying tribute to **past successes** with **nomenclature**

Focusing on the **future** and **overall success of the state of Virginia**

VSU and RBC Virtual School

Highlight **flexibility** and **affordability** of offerings at the Virtual School

Highlight focus on **career preparation** and **acknowledgement of prior learning**

Focus on **branding** for the Virtual School that represents both institutions

Highlight **non-traditional offerings** and **innovation** behind the Virtual School

Recruitment Strategy



The Virtual School may draw on current recruitment efforts by RBC and VSU, and expand to reach target audiences through a focus on the high touch experience, flexibility, and affordability.

Virtual High School Partnerships

- **Continue establishing partnerships with Virtual High Schools** within Virginia and surrounding areas (e.g., Virginia Virtual Academy)
- **Entice students** to begin or continue education (e.g., free tuition credits or free textbooks)
- **Dual credit opportunities** to allow high school students to begin taking college credits while finalizing their high school degree

Strengthening Current High School Partnerships

- **Continue existing partnerships** (e.g., Loudon County Schools)
- **Increase on campus registration events**, develop programs with schools to bring prospective future students, and **connect with high school counselors individually**
- Highlight the **student focused experience** and **high touch online school**
- Expand **on campus registration events**
- Offering dual enrollment or dual credits
- Live chat on website

Military Audiences

- **Offer on campus camaraderie** (e.g., Old Dominion's contact between currently enrolled military personnel and personnel applying)
- **Tailor the application process** (e.g., personalized webpage for veterans)
- Highlight **acknowledgement of prior learning, mentoring, and high touch student services**
- **Provide offerings at military installations** (e.g., Tidewater's Community College's presence at over 10 military bases in VA)

Enrollment Strategy



VSU and RBC should consider the institutional strategy, the student perspective, and ability to respond to changes in the market as students' demands, expectations, and needs continue to evolve.

| | Apply | Acceptance | Enroll | Retain | Graduate |
|---------------------------|--------------------------|------------|---------------------------------|--------------------------------|-----------|
| Student Perspective | Affordability | | | | |
| | Instructional Modalities | | Sense of Belonging | | |
| | Academic Interest | | Technology | | |
| | | | | ROI: Career and Alumni Network | |
| Institutional Perspective | Pricing | | Academic Portfolio | | Support |
| | Diversity | | Instructional Modalities | | Analytics |
| | Application Review | | Budgets | | |
| | Financial Health | | Technology and Student Services | | |

Task 1

Appendix



Cyber/Computer Forensics and Counterterrorism



The cyber/computer forensics and counterterrorism offering realized 240.7% growth between 2016 and 2020 and is associated with three 21st Century Technical Jobs with projected growth through 2031.

Information Security Analyst

Web Developer

Computer Occupations, All Other

OCCUPATIONS

The cyber/computer forensics and counterterrorism offering is a feeder offering for three 21st century technical jobs.

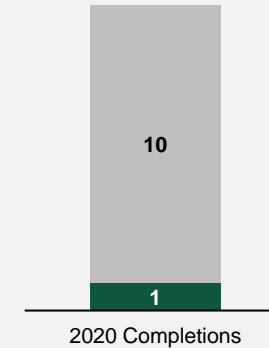
DEFINITION

CIP 43.0116

An offering focusing on the principles and techniques used to identify, search, seize, and analyze digital media and to conduct cyber investigations against criminal and terrorist activity. Includes instruction in cryptography, programming, investigative techniques, forensic imagery, web-based investigation methods, cyber terrorism, and applicable laws and administrative procedures.

COMPLETIONS

In 2020, there were a total of 11 cyber/computer forensics and counterterrorism offering completions at the associate's and bachelor's degree level.



Distance Offered Offerings Non-Distance Offered Offerings

OCCUPATION DETAIL

| 21 st Century Technical Job | Jobs Added (2021 – 2031) | Entry Level Education | Median Salary |
|--|--------------------------|-----------------------|---------------|
| Information Security Analyst | 3,711 | Bachelor's Degree | \$116,376 |
| Computer Occupations, All Other | 947 | Bachelor's Degree | \$112,258 |
| Web Developer | 692 | Associate's Degree | \$80,787 |

KEY TAKEAWAYS

- 3 different institutions in VA offered a cyber/computer forensics and counterterrorism offering in 2020
- The University of Potomac-VA Campus is the only institution to offer Cyber/Computer Forensics and Counterterrorism via online instruction

Medical Informatics



Medical Informatics grew 109.1% from 2016 and 2020 and is a feeder offering for Software Developers which is expected to add the most jobs among the 21st Century Tech Jobs between 2021 and 2031.

Software Developers

Computer Occupations, All Other

OCCUPATIONS

The medical informatics offering is a feeder offering for two 21st century technical jobs.

DEFINITION CIP 51.2706

An offering that focuses on the application of computer science and software engineering to medical research and clinical information technology support, and the development of advanced imaging, database, and decision systems. Includes instruction in computer science health information systems architecture, medical knowledge structures, medical language and image processing, and others.

COMPLETIONS

In 2020, there were 0 completions at the associate's and bachelor's degree level and 31 occurring at the master's level, all of which were distance completions.



OCCUPATION DETAIL

| 21 st Century Technical Job | Jobs Added (2021 – 2031) | Entry Level Education | Median Salary |
|--|--------------------------|-----------------------|---------------|
| Software Developers | 13,946 | Bachelor's Degree | \$112,736 |
| Computer Occupations, All Other | 947 | Bachelor's Degree | \$112,258 |

*Many of the positions in these growing fields are expected to be related to the healthcare industry

KEY TAKEAWAYS

- The 31 offering completions in 2020 are attributable to 1 institution in VA (George Mason University, MS)
- No associate's or bachelor's degree offerings are currently available in VA although associated occupations only require those levels of education for entry positions

Computer Programming, Specific Applications



Computer Programming grew 107.5% from 2016 to 2020 and is a feeder offering for Software Developers which is expected to add the most among the 21st Century Tech Jobs between 2021-2031.

Software Developers

Computer Occupations, All Other

OCCUPATIONS

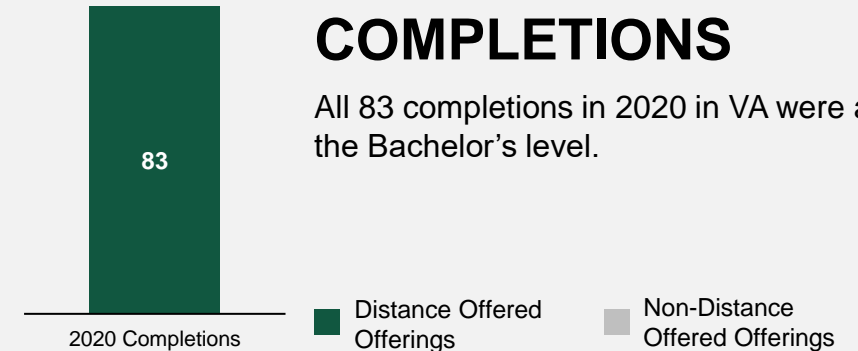
The computer program, specific applications offering is a feeder offering for two 21st century technical jobs.

DEFINITION CIP 11.0202

A program that prepares individuals to apply the knowledge and skills of general computer programming to the solution of specific operational problems and customization requirements presented by individual software users and organizational users. Includes training in specific types of software and its installation and maintenance.

COMPLETIONS

All 83 completions in 2020 in VA were at the Bachelor's level.



OCCUPATION DETAIL

| 21 st Century Technical Job | Jobs Added (2021 – 2031) | Entry Level Education | Median Salary |
|--|--------------------------|-----------------------|---------------|
| Software Developers | 13,946 | Bachelor's Degree | \$112,736 |
| Computer Occupations, All Other | 947 | Bachelor's Degree | \$112,258 |

KEY TAKEAWAYS

- The 83 offering completions in 2020 are attributable to 1 institution in VA (ECPI University)
- The only 2020 VA offerings were at a private university

Network and System Administration/Administrator



Network and System Administration/Administrator grew 19.3% from 2016 and 2020 and is a feeder offering for three 21st century technical occupations.

Information Security Analysts

Web Developer

Computer Network Support Specialist

OCCUPATIONS

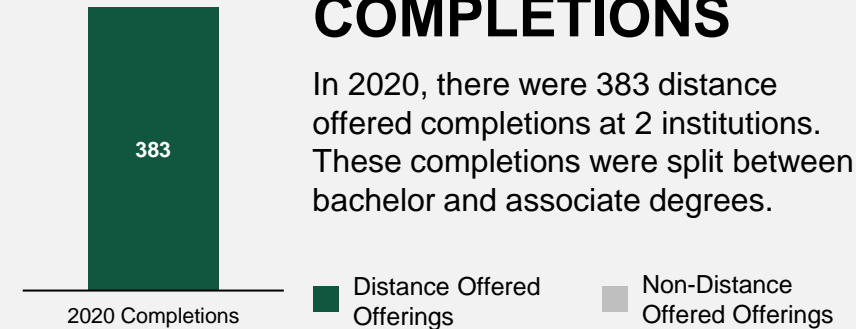
The network and system administration/administrator offering, feeds into three 21st century technical jobs.

DEFINITION CIP 11.1001

An offering that prepares individuals to manage the computer operations and control the system configurations emanating from a specific site or network hub. Includes instruction in computer hardware and software and applications; local area and wide area networking; principles of information systems security; disk space and traffic load monitoring; data backup; resource allocation; and setup and takedown procedures.

COMPLETIONS

In 2020, there were 383 distance offered completions at 2 institutions. These completions were split between bachelor and associate degrees.



OCCUPATION DETAIL

| 21 st Century Technical Job | Jobs Added (2021 – 2031) | Entry Level Education | Median Salary |
|--|--------------------------|-----------------------|---------------|
| Information Security Analysts | 3,807 | Bachelor's Degree | \$116,376 |
| Web Developer | 676 | Associate's Degree | \$80,787 |
| Computer Network Support Specialist | 461 | Associate's Degree | \$70,158 |

KEY TAKEAWAYS

- In 2020, only 2 institutions had completions for this offering, all distance offered.
- This offering is only offered at private universities (ECPI University and American National University)

Management Science



Management Science grew 182.2% from 2016 and 2020 and is a feeder offering for one 21st century occupation.

Operations Research Analysts

OCCUPATION

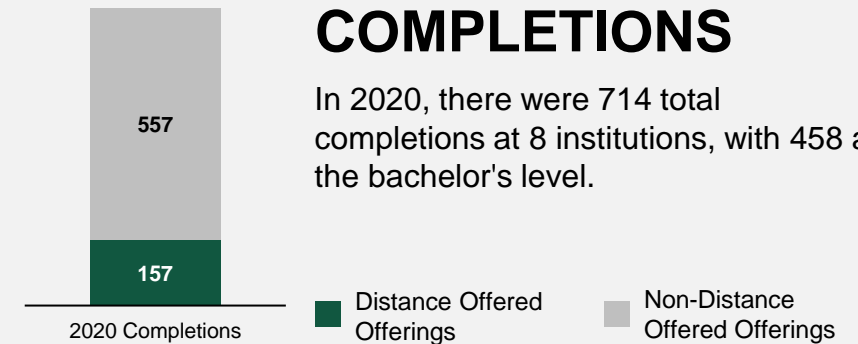
The management science offering feeds into one 21st century technical job.

DEFINITION CIP 52.1301

A general program that focuses on the application of statistical modeling, data warehousing, data mining, programming, forecasting and operations research techniques to the analysis of problems of business organization and performance. Includes instruction in optimization theory and mathematical techniques, data mining, data warehousing, stochastic and dynamic modeling, operations analysis, and the design and testing of prototype systems and evaluation models.

COMPLETIONS

In 2020, there were 714 total completions at 8 institutions, with 458 at the bachelor's level.



OCCUPATION DETAIL

| 21 st Century Technical Job | Jobs Added (2021 – 2031) | Entry Level Education | Median Salary |
|--|--------------------------|-----------------------|---------------|
| Operations Research Analysts | 1,288 | Bachelor's Degree | \$106,246 |

KEY TAKEAWAYS

- In 2020, 8 institutions had all of VA's completions, split between both private and public institutions

Management Science & Quantitative Methods



Management Science and Quantitative Methods, other grew 291.3% from 2016 and 2020 and is a feeder offering into one 21st century occupation.

Operations Research Analyst

OCCUPATION

The management science and quantitative methods, other offering is a feeder offering for one 21st century technical job.

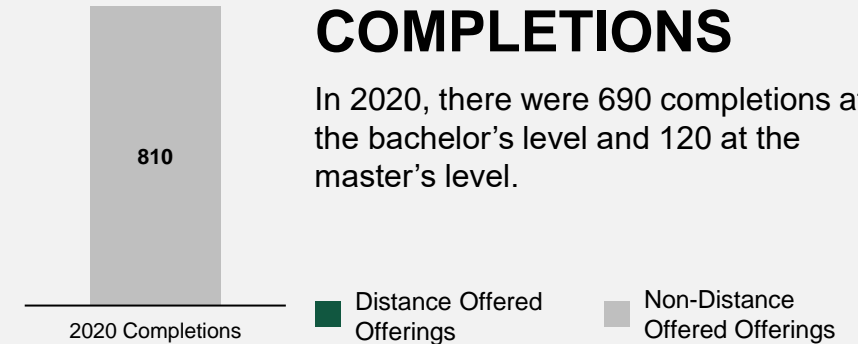
DEFINITION

CIP 52.1399

Any instructional program in business quantitative methods and management science not included in management science.

COMPLETIONS

In 2020, there were 690 completions at the bachelor's level and 120 at the master's level.



OCCUPATION DETAIL

| 21 st Century Technical Job | Jobs Added (2021 – 2031) | Entry Level Education | Median Salary |
|--|--------------------------|-----------------------|---------------|
| Operations Research Analyst | 1,288 | Bachelor's Degree | \$106,246 |

KEY TAKEAWAYS

- 2 institutions had all of VA's 2020 offering completions (University of Virginia and George Mason University)
- Only offered at public VA institutions in 2020

Computer Engineering, General



Computer Engineering, general grew 25.6% from 2016 and 2020 and is a feeder offering for two 21st century occupations.

Information Security Analysts

Web Developer

OCCUPATIONS

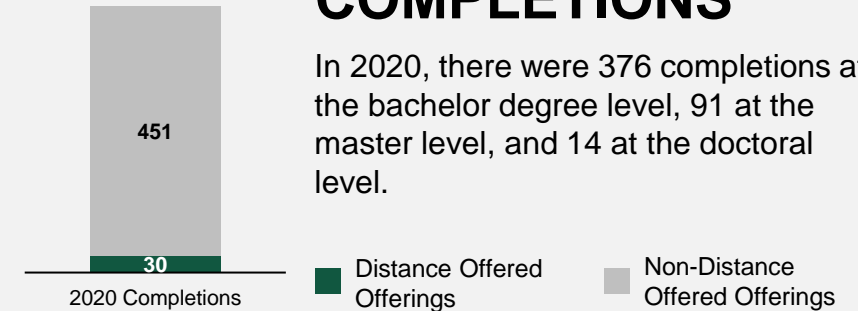
The computer engineering, general offering is a feeder offering for two 21st century technical jobs.

DEFINITION CIP 14.0901

A program that generally prepares individuals to apply mathematical and scientific principles to the design, development and operational evaluation of computer hardware and software systems and related equipment and facilities; and the analysis of specific problems of computer applications to various tasks.

COMPLETIONS

In 2020, there were 376 completions at the bachelor degree level, 91 at the master level, and 14 at the doctoral level.



OCCUPATION DETAIL

| 21 st Century Technical Job | Jobs Added (2021 – 2031) | Entry Level Education | Median Salary |
|--|--------------------------|-----------------------|---------------|
| Information Security Analysts | 3,807 | Bachelor's Degree | \$116,376 |
| Web Developer | 676 | Associate's Degree | \$80,787 |

KEY TAKEAWAYS

- 9 institutions had all of VA's offerings completion in 2020, split between both public and private institutions
- There are currently (2020) no offerings at the associate level which is the entry level of education for one of the offering related occupations

Computational and Applied Mathematics



Computational and applied mathematics grew 2,450% from 2016 and 2020 and is a feeder offering for one 21st century occupation.

Data Scientist

OCCUPATION

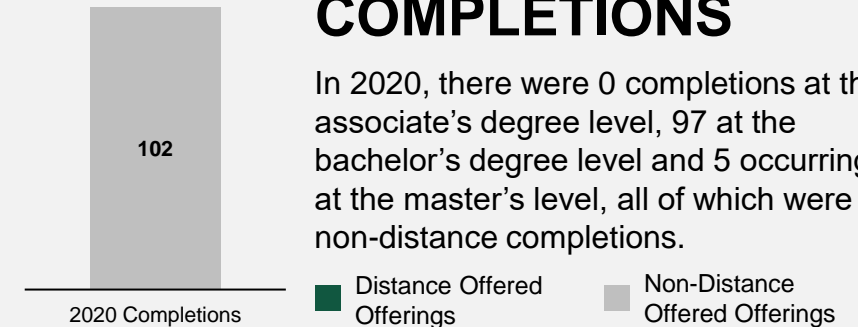
The computational and applied mathematics offering is a feeder offering for one 21st century technical job.

DEFINITION CIP 27.0304

A program that focuses on the application of a broad range of mathematical and computational methods to modeling, analysis, algorithm development, and simulation for the solution of complex scientific and engineering problems. Includes instruction in numerical analysis, discrete mathematics, operations research, optimization, differential equations, statistics, scientific computation, and applications to specific scientific and industrial topics.

COMPLETIONS

In 2020, there were 0 completions at the associate's degree level, 97 at the bachelor's degree level and 5 occurring at the master's level, all of which were non-distance completions.



OCCUPATION DETAIL

| 21 st Century Technical Job | Jobs Added (2021 – 2031) | Entry Level Education | Median Salary |
|--|--------------------------|-----------------------|---------------|
| Data Scientist | 722 | Bachelor's Degree | \$92,414 |

KEY TAKEAWAYS

- Only 1 institution had all completions in 2020 in VA (Virginia Polytechnic Institute and State University)
- There are no distance offered offerings at current VA institutions

Data Modeling/Warehousing & Database Admin



Data modeling/warehousing and database administration grew 241.6% from 2016 and 2020 and is a feeder offering for one 21st century occupation.

Data administrators and architects

OCCUPATIONS

The data modeling/ warehousing and database administration offering is a feeder offering for one 21st century technical job.

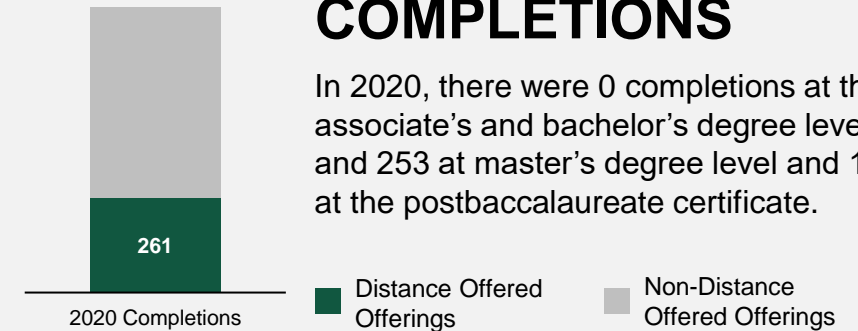
DEFINITION

CIP 11.0802

A program that prepares individuals to design and manage the construction of databases and related software programs and applications, including the linking of individual data sets to create complex searchable databases (warehousing) and the use of analytical search tools (mining). Includes instruction in database theory, logic, and semantics; operational and warehouse modeling; dimensionality; attributes and hierarchies; data definition; technical architecture; access and security design.

COMPLETIONS

In 2020, there were 0 completions at the associate's and bachelor's degree level and 253 at master's degree level and 10 at the postbaccalaureate certificate.



OCCUPATION DETAIL

| 21 st Century Technical Job | Jobs Added (2021 – 2031) | Entry Level Education | Median Salary |
|--|--------------------------|-----------------------|---------------|
| Data administrators and architects | 643 | Bachelor's Degree | \$109,970 |

KEY TAKEAWAYS

- All 2020 completions came from 4 VA institutions split evenly between distance and non distance programs
- No VA programs are offered below the master's degree level

Information Technology



Information technology grew 19.0% from 2016 and 2020 and is a feeder offering for two 21st century occupations.

Information Security Analysts

Web Developer

OCCUPATIONS

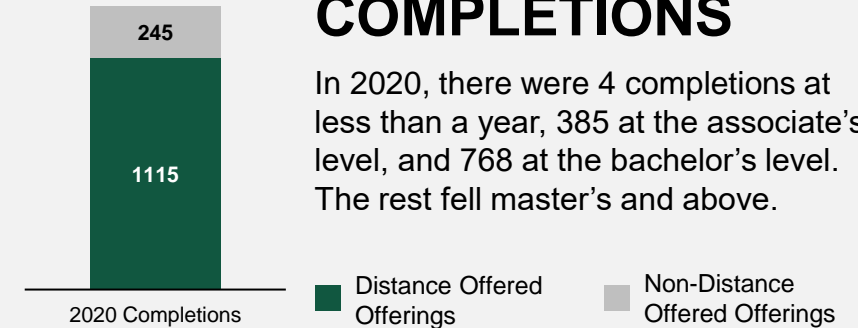
The information technology offering is a feeder offering for two 21st century technical jobs.

DEFINITION CIP 51.2706

A program that focuses on the application of computer science and software engineering to medical research and clinical information technology support, and the development of advanced imaging, database, and decision systems. Includes instruction in computer science, health information systems architecture, medical knowledge structures, medical language and image processing, quantitative medical decision modeling, imaging techniques, electronic medical records, and medical research systems.

COMPLETIONS

In 2020, there were 4 completions at less than a year, 385 at the associate's level, and 768 at the bachelor's level. The rest fell master's and above.



OCCUPATION DETAIL

| 21 st Century Technical Job | Jobs Added (2021 – 2031) | Entry Level Education | Median Salary |
|--|--------------------------|-----------------------|---------------|
| Information Security Analysts | 3,807 | Bachelor's Degree | \$116,376 |
| Web Developer | 676 | Associate's Degree | \$80,787 |

KEY TAKEAWAYS

- All completions occurred at 15 total institutions split evenly between distance and non distance offered

Aeronautics/Aviation/Aerospace Science & Tech.



Aeronautics/ Aviation/ Aerospace Science & Tech. grew 79% from 2016 and 2020 and is a feeder offering for one 21st century occupation.

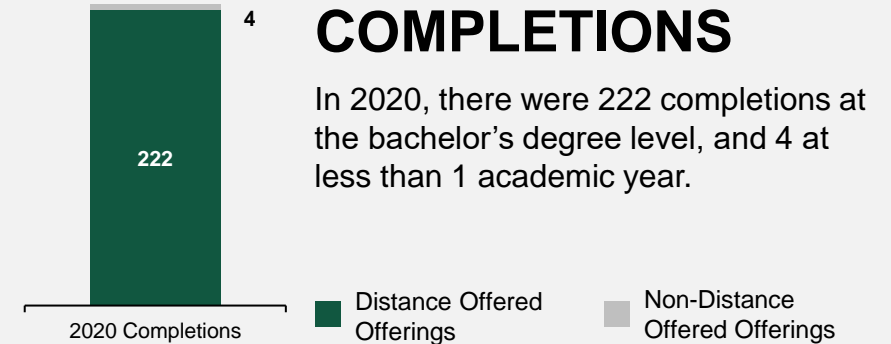
Avionics Technicians

OCCUPATIONS

The information technology offering is a feeder offering for one 21st century technical job.

DEFINITION CIP 49.0101

A program that focuses on the general study of aviation and the aviation industry, including in-flight and ground support operations. Includes instruction in the technical, business, and general aspects of air transportation systems.



OCCUPATION DETAIL

| 21 st Century Technical Job | Jobs Added (2021 – 2031) | Entry Level Education | Median Salary |
|--|--------------------------|-----------------------|---------------|
| Avionics Technicians | 46 | Associate's Degree | \$70,158 |

KEY TAKEAWAYS

- 222 completions in 2020 occurred at Liberty University
- 4 completions in 2022 occurred at Thomas Nelson Community College

Identified Online Programs Competitor List



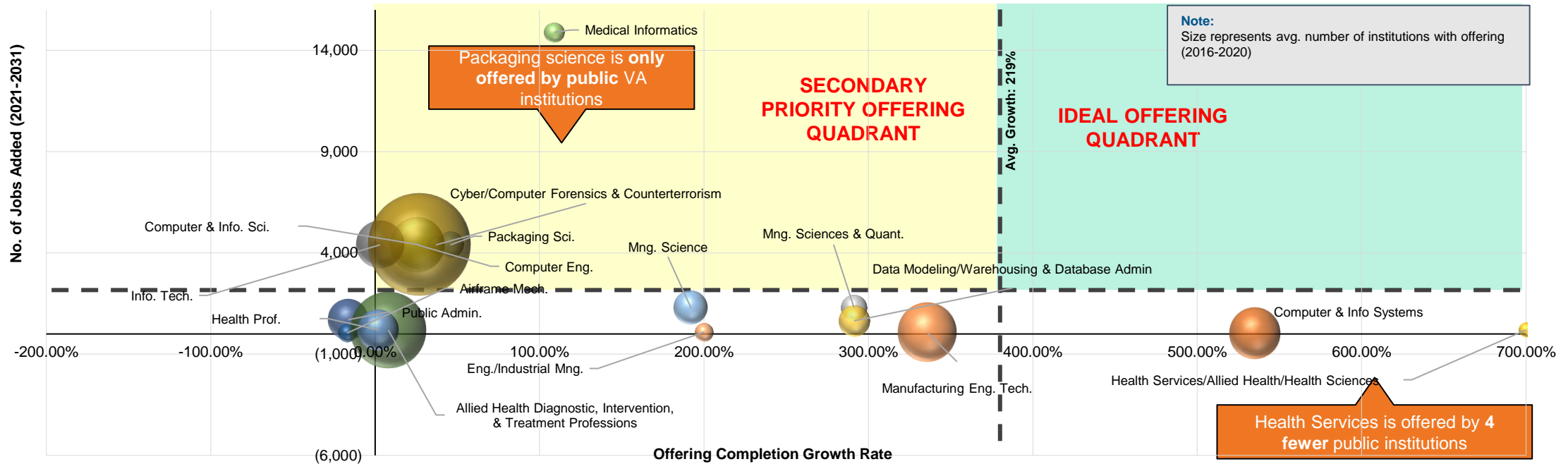
| Carnegie Classification | Institution | Duration | Type | In State Price / Credit Hr. | Out of State Price / Credit Hr. |
|--|--|----------|---------|-----------------------------|---------------------------------|
| Associate's Colleges: High Career & Technical-High Traditional | Tidewater CC | 2 | Public | \$100 | \$387 |
| Associate's Colleges: High Transfer-Mixed Traditional/Nontraditional | Patrick Henry CC | 2 | Public | \$154 | \$331 |
| Associate's Colleges: High Transfer-Mixed Traditional/Nontraditional | Germanna CC | 2 | Public | \$163 | \$269 |
| Associate's Colleges: High Transfer-Mixed Traditional/Nontraditional | John Tyler CC | 2 | Public | \$155 | \$331 |
| Associate's Colleges: High Transfer-Mixed Traditional/Nontraditional | Rappahannock CC | 2 | Public | \$154 | \$330 |
| Associate's Colleges: High Transfer-Mixed Traditional/Nontraditional | Northern Virginia CC | 2 | Public | \$187 | \$359 |
| Associate's Colleges: Mixed Transfer/Career & Technical-Mixed Traditional/Nontraditional | SW Virginia CC | 2 | Public | \$154 | \$360 |
| Associate's Colleges: Mixed Transfer/Career & Technical-Mixed Traditional/Nontraditional | Mountain Empire CC | 2 | Public | \$157 | \$357 |
| Associate's Colleges: Mixed Transfer/Career & Technical-Mixed Traditional/Nontraditional | Thomas Nelson CC | 2 | Public | \$160 | \$359 |
| Associate's Colleges: Mixed Transfer/Career & Technical-Mixed Traditional/Nontraditional | Virginia Western CC | 2 | Public | \$170 | \$170 |
| Baccalaureate Colleges: Diverse Fields | Averett | 4+ | Private | \$480 | \$480 |
| Baccalaureate/Associate's Colleges: Mixed Baccalaureate/Associate's | American National | 4+ | Private | \$216 | \$216 |
| Doctoral Universities: Very High Research Activity | William & Mary | 4+ | Public | \$584 | \$1,573 |
| Doctoral Universities: Very High Research Activity | George Mason | 4+ | Public | \$146 | \$146 |
| Doctoral Universities: Very High Research Activity | Virginia Polytechnic Institute & State | 4+ | Public | \$476 | \$1,248 |
| Doctoral Universities: Very High Research Activity | Virginia Commonwealth | 4+ | Public | \$417 | \$417 |
| Doctoral Universities: Very High Research Activity | University of Virginia-Main Campus | 4+ | Public | \$471 | \$1,556 |
| Doctoral/Professional Universities | University of Mng. & Technology | 4+ | Private | \$390 | \$390 |
| Doctoral/Professional Universities | Old Dominion | 4+ | Public | \$360 | \$407 |
| Doctoral/Professional Universities | Liberty | 4+ | Private | \$390 | \$390 |
| Doctoral/Professional Universities | Regent | 4+ | Private | \$574 | \$574 |
| Doctoral/Professional Universities | Hampton | 4+ | Private | \$634 | \$634 |
| Doctoral/Professional Universities | Mary Baldwin | 4+ | Private | \$460 | \$460 |
| Master's Colleges & Universities: Medium Programs | Norfolk State | 4+ | Public | \$431 | \$431 |
| Master's Colleges & Universities: Medium Programs | Radford | 4+ | Public | \$329 | \$814 |
| Master's Colleges & Universities: Medium Programs | James Madison | 4+ | Public | \$248 | \$812 |
| Master's Colleges & Universities: Medium Programs | Strayer University-Virginia | 4+ | Private | \$329 | \$329 |
| Master's Colleges & Universities: Medium Programs | ECPI | 4+ | Private | \$691 | \$691 |
| Master's Colleges & Universities: Medium Programs | University of Lynchburg | 4+ | Private | \$555 | \$555 |
| Master's Colleges & Universities: Larger Programs | Stratford | 4+ | Private | \$370 | \$370 |
| Special Focus Four-Year: Business & Management Schools | University of the Potomac-VA Campus | 4+ | Private | \$1,764 | \$1,764 |

Program Identification: Public Institution Offerings



Computer Programming, specific application and Network and System Administration are not offered by public institutions in the state of Virginia.

Public VA Institution's Offering Focused Competitor Market



1C: Market Context

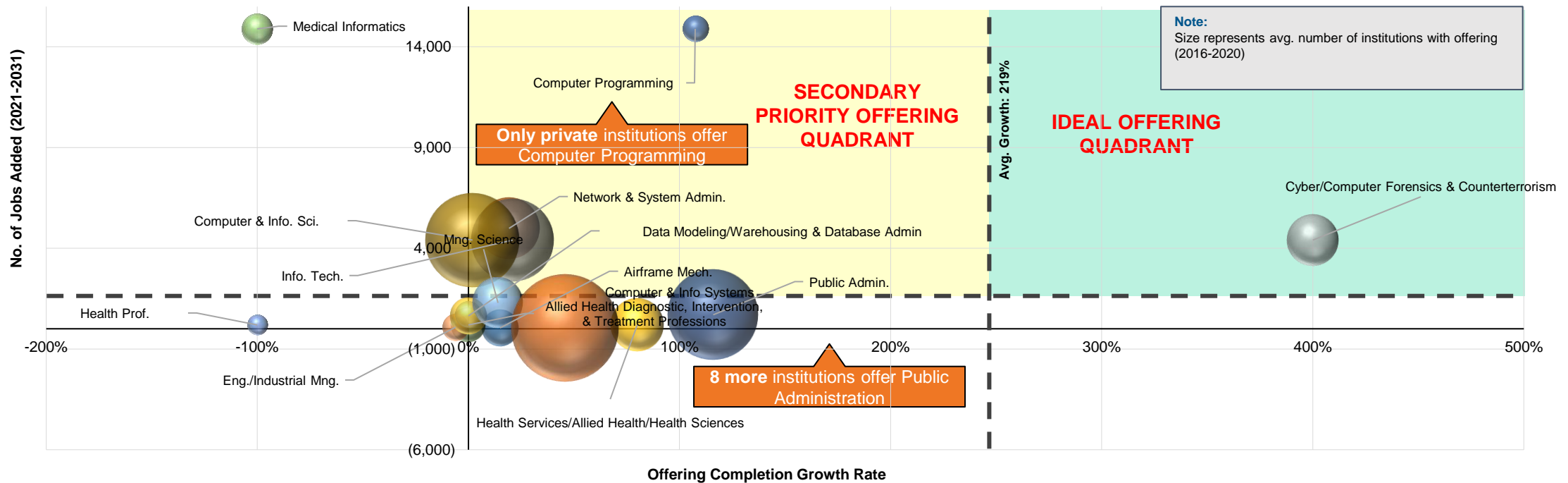
A dissection of the previous graph to show offering by public institutions, highlights potential areas of opportunity for the Virtual School, e.g. inclusion of a Network and Systems Administration offering.

Program Identification: Private Institution Offerings



Packaging Science, Computer Engineering, Management Science and Quantitative Studies, and Manufacturing Engineering are not offered by private VA institutions.

Private VA Institution's Offering Focused Competitor Market

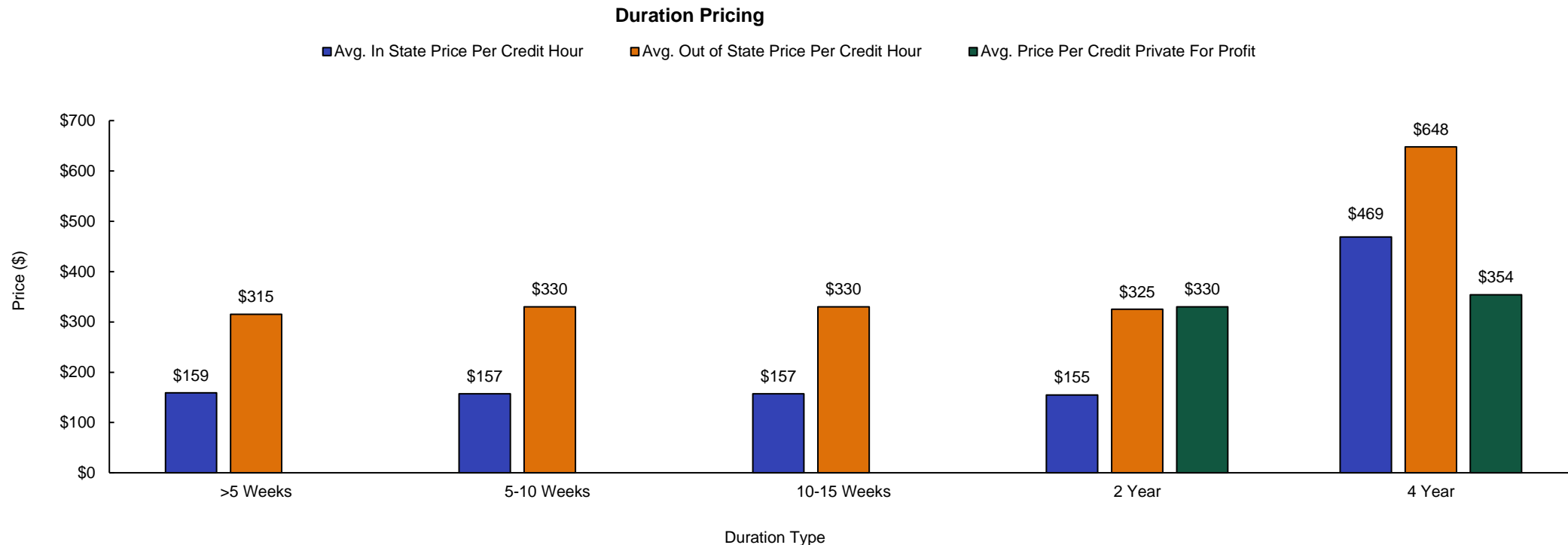


A dissection of the previous graph to show offering by private institutions, highlights potential areas of opportunity for the Virtual School.

Online Pricing by Duration of Program



Generally, competitor prices for shorter duration programs are lower than those of traditional length programs with price per credit hour ranging from \$155 to \$648.



With the inclusion of Private for-Profit Universities, pricing remains constant across shorter duration programs increasing for longer programs.

Virginia State University and Richard Bland College

Virtual School of Technical and Professional Studies

**Task 2: Operational, Organizational, and
Strategic Alliance Considerations**

Originally shared: December 9, 2021





Virtual School Business Plan Approach

To-date, Huron has reviewed with VSU and RBC, a list of potential offerings which can be considered for the Virtual School. Next, we will discuss the operational requirements to launch and grow the School.



Task 1

RBC and VSU will align around an initial set of **offerings** to be delivered by the Virtual School. Offerings will be prioritized based on demand, competitive density, and pricing, among other factors.

Task 2

RBC and VSU will develop a shared understanding of the **operational requirements** to launch and grow the School, based on the outcomes of the first Task. This will include an analysis of current resources at both institutions as well as opportunities for third-party partnerships.

Task 3

The financial model will provide leadership with a **tool for evaluating the financial impact** of academic and operational decisions in designing the School.

Task 4

Leadership will come to understand the near, medium, and long-term next steps.

Task 2 Pre-Read Document



A review of this pre-read document will prepare meeting attendees for the Task 2: Operational, Organizational, and Strategic Alliance Considerations working group session on December 9th, 2021.

This pre-read document introduces the value chain framework which is used to detail the stages, necessary functions, and success factors for delivering value to the target audiences of the Virtual School. The primary objectives for the meeting on December 9th will be to discuss:

- What functions are necessary for operations of the Virtual School?
- How will VSU and RBC divide responsibility of performing the functions?
- Where is there potential for third-party, online program managers (OPMs) to provide support?

This document includes **provisional thoughts on the division of responsibilities**. We will discuss the division as presented to determine where modifications are necessary. As you review, please begin to reflect on the following critical decisions that will need to be answered:

- How do VSU and RBC intend to **engage faculty in the process of developing offerings** for the Virtual School?
- How do VSU and RBC **intend to market the Virtual School's offerings and communicate value**?
- How can VSU and RBC **align and streamline their respective approval processes to promote effective implementation of offerings** that meet changing market demands?
- How many **faculty and staff from each institution** will be positioned to support the Virtual School?
- Will Virtual School students **have dedicated support** or share support services with on-campus students?



Task 2: Operational and Org Considerations

To ensure effective operation, VSU and RBC should consider what functions are necessary, how to best conduct those functions, and how current capabilities inform division of responsibilities.

VALUE CHAIN

What are the array of functions that VSU and RBC will need to execute for the Virtual School?

ORGANIZATION

What division of responsibilities between VSU & RBC will be optimal for the operation of the Virtual School?

OPERATIONS

How can VSU and RBC effectively perform the necessary functions for the Virtual School?

Agenda

1. Introduce Value Chain

- a. What are the array of functions that VSU and RBC will need to execute for the Virtual School?
- b. What factors determine success at each stage of the value chain?
- c. What critical decisions will need to be made at each stage?

2. Discuss Division of Responsibilities

- a. What division of responsibilities between VSU & RBC will be optimal for the operation of the Virtual School?
- b. How will roles and responsibilities be divided in the **ideation, governance, design and delivery, management** stages?

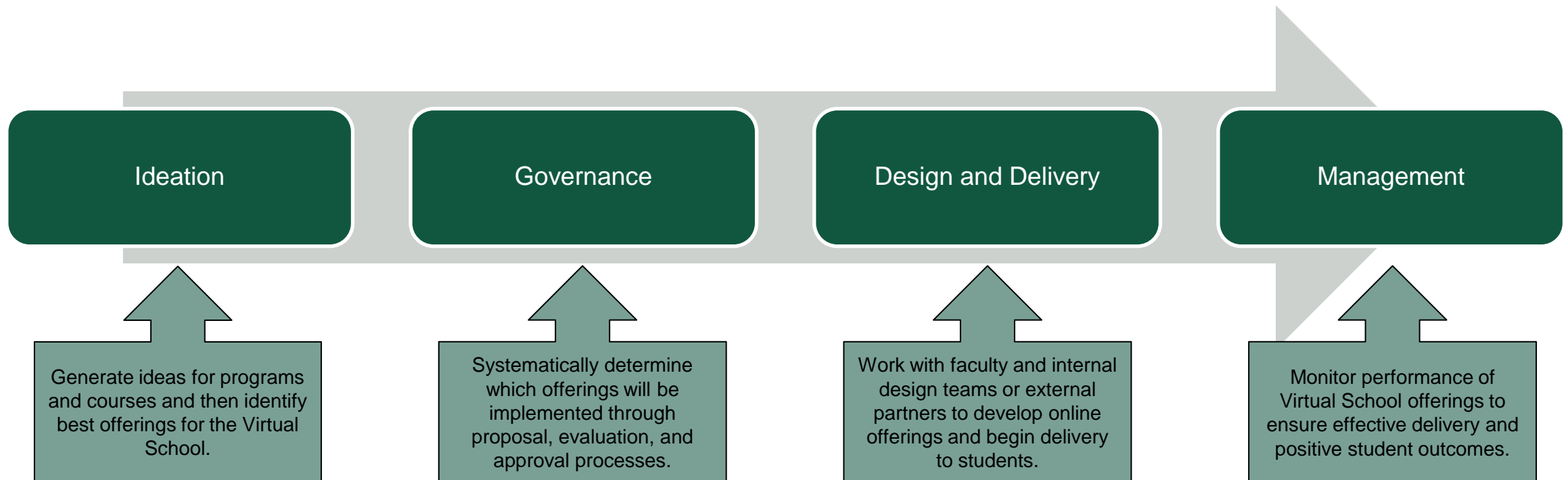
3. Review Potential Role of Third-Party Partners

- a. Which functions will potentially require further investment to ensure success of the Virtual School?
- b. How can third-party partners play a role in supporting operations of the Virtual School?



Value Chain Introduction

The value chain outlines the broad steps for success and the factors that contribute to the final product. Additionally, it creates a framework for internal assessment and division of roles between VSU and RBC.



Various institutional functional units play a role in the success of each stage of the value chain. Understanding where current strengths exist can help VSU and RBC to determine the division of responsibilities.



Value Chain: Functional Unit Overview

The functional units listed below collectively perform the necessary actions in the value chain to convert an offering concept into an actualized program or course in the Virtual School.

| Responsible or Supporting Functional Units | IDEATION | | GOVERNANCE | DESIGN & DELIVERY | | MANAGEMENT |
|---|------------------------------|---|----------------------------------|-------------------|----------|-------------------------|
| | Ideation & Market Assessment | Opportunity Identification & Confirmation | Proposal, Evaluation, & Approval | Development | Delivery | Management & Monitoring |
| Colleges/Faculty | | | | | | |
| Pedagogical Innovation | | | | | | |
| Marketing & Business Development | | | | | | |
| Corporate/Employer Relations | | | | | | |
| Government Relations | | | | | | |
| Quality Assurance | | | | | | |
| Instructional Design & Support | | | | | | |
| Provost or Designee | | | | | | |
| Assessment & Accreditation | | | | | | |
| Finance & Operations | | | | | | |
| Education/Training Offerings & Learning Providers | | | | | | |
| Internal & External SMEs | | | | | | |
| Learner Support Services | | | | | | |
| Information Technology | | | | | | |
| Registration & Records | | | | | | |
| Career Services | | | | | | |
| Enrollment Planning & Management | | | | | | |
| Institutional Research, Analytics, and Decision Support | | | | | | |



Value Chain: Success Factors

Successful execution at each stage of the value chain is determined by certain success factors and should aim to minimize transfers of responsibility between VSU and RBC.

| IDEATION | | GOVERNANCE | DESIGN & DELIVERY | | MANAGEMENT |
|---|---|--|---|---|---|
| Ideation & Market Assessment | Opportunity Identification & Confirmation | Proposal, Evaluation, & Approval | Development | Delivery | Management & Monitoring |
| Success Factors | | | | | |
| Faculty Engagement | Marketing & Communicating Value | Effectiveness of Approval Process | Program Quality | Student Satisfaction | Student Career Placement |
| Faculty should be involved in the generation of ideas for online programs and courses for the Virtual School. | Attracting target audiences through strong marketing efforts and communication of value and differentiation will be critical for the Virtual School. | The approval process for courses should encourage idea generation and effectively identify programs and courses with the highest opportunity of success. | The Virtual School must develop and curate high quality programs that lead to high learning results and positive student outcomes. | The Virtual School must continue to meet the needs of its students to increase student satisfaction and learning outcomes. | Virtual School students must have access to career advising services to aid in after-program career placement and decisions. |
| Market Alignment | Leverage Partnerships | Offering Time-to-Market | Student Experience | High-touch Student Support | New and Repeat Business |
| The Virtual School must identify the needs of the market and develop tailored offerings for target audiences. | The Virtual School should cultivate relationships with corporations and other organizations to promote the development of offerings with direct career placement opportunities. | The Virtual School must react quickly to changing market needs through direct and timely course approval. | Online students seek programs that offer strong student support through faculty/staff interaction and advising and foster a sense of belonging. | Providing online students with highly accessible support and advising will promote student retainment and ultimately increase likelihood of completion. | The Virtual School should develop strategies for both acquiring new audiences and attracting repeat students to pursue further education. |



Value Chain: Critical Decisions

In addition to the success factors within each stage, VSU and RBC should consider the following questions that speak to critical decisions needed to be made for the Virtual School.

| IDEATION | | GOVERNANCE | DESIGN & DELIVERY | | MANAGEMENT |
|---|--|---|--|--|---|
| Ideation & Market Assessment | Opportunity Identification & Confirmation | Proposal, Evaluation, & Approval | Development | Delivery | Management & Monitoring |
| Success Factors | | | | | |
| Faculty Engagement | Marketing and Communicating Value | Effectiveness of Approval Process | Program Quality | Student Satisfaction | Student Career Placement |
| Market Alignment | Leverage Partnerships | Offering Time-to-Market | Student Experience | High-touch Student Support | New and Repeat Business |
| Critical Decisions | | | | | |
| <ul style="list-style-type: none"> How will VSU and RBC engage faculty in the determination of offerings for the Virtual School? How will VSU and RBC continue to leverage market data to aid in the discovery process for new offerings? | <ul style="list-style-type: none"> How do VSU and RBC intend to market the Virtual School's offerings and value to prospective students? How will VSU and RBC continue to cultivate relationships with corporations and other organizations? | <ul style="list-style-type: none"> How can VSU and RBC streamline the approval process to promote effective implementation of offerings that meet changing market demands? | <ul style="list-style-type: none"> What quality standards will be met for Virtual School offerings? How many faculty and staff will be positioned to support the Virtual School? | <ul style="list-style-type: none"> Will Virtual School students have dedicated support or share support services with on-campus students? | <ul style="list-style-type: none"> What career services support will be available for Virtual School students? |



Value Chain: Responsibilities Overview

Under the collaborative agreement of the Virtual School, back-office functions are expected to be managed by VSU, programs will be positioned at RBC, and general management a shared effort.

| | IDEATION | | GOVERNANCE | DESIGN & DELIVERY | | MANAGEMENT |
|--|--|--|---|--|---|---|
| | Ideation & Market Assessment | Opportunity Identification & Confirmation | Proposal, Evaluation, & Approval | Development | Delivery | Management & Monitoring |
| Primary Responsibility Organization | RBC | VSU | VSU | RBC | RBC | VSU |
| Virginia State University | Offering ideation | Operations & marketing; Exploration of corporate and government partnerships | Offering proposal development; Business process and financial planning | Curriculum design and expertise contributions | Technology infrastructure, registrations, and support | Enrollment data; ROI analysis; Enrollment analysis and strategy development |
| Richard Bland College | Offering ideation | Exploration of corporate and government partnerships | Offering proposal development; Academic planning; Quality assurance and accreditation | Curriculum design; Quality assurance; Learner support services; Faculty training | Course delivery | Online offering evaluation; Career services |
| External Partnership | Market assessment and feasibility studies assistance | --- | --- | Instructional design assistance | --- | --- |

Note: The division of responsibilities listed in the table above is based on a provisional understanding and will be modified based on the Task 2 discussion.



Value Chain: Ideation

The ideation stage of the value chain consists of generating ideas for new offerings, exploration of potential partnerships, and vetting of ideas to be moved forward through the approval process.

| Responsible or Supporting Functional Units | IDEATION | |
|--|------------------------------|---|
| | Ideation & Market Assessment | Opportunity Identification & Confirmation |
| | Primary Owner | |
| Colleges/Faculty | RBC | RBC |
| Pedagogical Innovation | RBC | RBC |
| Marketing & Business Development | VSU | VSU |
| Corporate/Employer Relations | VSU | VSU |
| Government Relations | VSU | VSU |

Support Units Role and Responsibilities

Colleges/Faculty: Academic leadership and faculty generate and propose concepts for new programs and courses for the Virtual School of Technical & Professional Studies

Pedagogical Innovation: Academic leadership and academic affairs consider new modes of delivery tailored to meet the needs of the target audience

Marketing & Business Development: These offices conduct feasibility and market studies to assess potential for new programs and courses and capability of implementation

Corporate Employer Relations: The corporate relations office works with corporate partners to determine if new academic offerings can be established to address employer needs

Government Relations: Government relations work with government agencies to identify opportunities to develop academic programming to meet government needs

Note: The division of responsibilities listed in the table above is based on a provisional understanding and will be modified based on the Task 2 discussion.



Faculty Engagement

VSU and RBC could leverage knowledge of current faculty in related academic fields to develop market relevant offerings for prospective students of the Virtual School.

| Program Name | Related Program or Major at VSU | Related Program or Major at RBC |
|---|---|--|
| Computer Programming, Specific Application | 11.0701 Computer Science B.S., M.S. | 30.0801 Science – Math/Computer Science A.S. |
| Network & System Administration / Administrator | 11.0701 Computer Science B.S., M.S. | 30.0801 Science – Math/Computer Science A.S. |
| Management Science | 52.0201 Management B.S. | 52.0201 Business Administration A.S. |
| Management Science & Quantitative Methods, Other | 52.1201 Management Information Systems B.S. | 52.0201 Business Administration A.S. |
| Computer Engineering, General | 14.0901 Computer Engineering B.S. | 30.0801 Science – Math/Computer Science A.S. |
| Computational & Applied Mathematics | 27.0101 Mathematics B.S., M.S. | 30.0801 Science – Math/Computer Science A.S. |
| Medical Informatics | --- | 40.0101 Clinical Lab Sciences A.S. |
| Data Modeling/ Warehousing & Database Administration | --- | 30.0801 Science – Math/Computer Science A.S. |
| Information Technology | 15.0612 Information Logistics Technology | 30.0801 Science – Math/Computer Science A.S. |
| Cyber/Computer Forensics & Counterterrorism | 43.0104 Criminal Justice B.S. | 30.0801 Science – Math/Computer Science A.S. |
| Aeronautics/Aviation/Aerospace Science & Tech. General | Faculty Drone/Aviation Science Research | --- |



Market Alignment

VSU and RBC should continue to use market data to identify the demands of the technical job market and its workers. This will aid in creating offerings that adequately meet the needs of the target audiences.

| Program Name | 21 st Century Technical Job |
|--|--|
| Computer Programming, Specific Application | Software Developers & Software Quality Assurance Analysts & Computer Occupations |
| Network & System Administration / Administrator | Information Security Analysts & Web Developer, & Computer Network Support Specialist |
| Management Science | Operations Research Analysts |
| Management Science & Quantitative Methods, Other | Operations Research Analysts |
| Computer Engineering, General | Information Security Analysts & Web Developer |
| Computational & Applied Mathematics | Data Scientist |
| Medical Informatics | Software Developers & Software Quality Assurance Analysts & Computer Occupations |
| Data Modeling/ Warehousing & Database Administration | Database Administrators and Architects |
| Information Technology | Information Security Analysts & Web Developer |
| Cyber/Computer Forensics & Counterterrorism | Information Security Analysts & Web Developer |
| Aeronautics/Aviation/Aerospace Science & Tech. General | Avionics Technician |

Market Research Process Outline

- 1 Identify growing market industries and sectors
- 2 Inventory related academic programs that feed into the highest growing industries
- 3 Leverage existing partnerships to identify direct workforce needs
- 4 Prioritize programs with highest growth potential but current low supply
- 5 Align priority programs with current capabilities to select immediately actionable programs
- 6 Explore external partnerships to support implementation



Richard Bland College
of WILLIAM & MARY

Leverage Existing and New Partnerships

VSU and RBC should leverage corporate and government partnerships to aid in generating and executing on ideas for Virtual School offerings and courses that align with immediate employer needs.

SEI Ventures

- Online course and program assistance including online course creation
- Aids in cultivating new program and course ideas
- Assists with technology for online learning platforms and student success
- Supports new technology ideas and innovation

Sophia Learning

- Online free course provider service
- Allows students to participate in courses at their own pace
- Assists in channeling employees to affordable, flexible courses
- Sophia Learning is a subset of SEI, Inc.
- Credits awarded through institutions

Wiley Education Services

- Assists with course design and development
- Aids in moving students between education and employment through learning and certificate solutions
- Provides up to date market data on current popular programs

Successful partnerships between external parties and the Virtual School will aid in the creation of unique and high value offerings at an affordable price.



Marketing and Communicating Value

VSU and RBC will need to attract their target audiences through strong marketing efforts and communication of the Virtual School's value and differentiation.

Marketing the Virtual School

Identify Needs of Workforce and Future Student Base

- VSU and RBC must identify the needs of the workforce and future students through conducting feasibility and market studies to assess potential for new programs and courses and capability of implementation

Curate Value Proposition

- The Virtual School must create a value proposition that addresses the needs of the VA workforce and future students
- Leverage the value proposition during the ideation of unique and high-quality offerings

Highlight the Virtual School's Opportunities

- Highlight and promote the range of potential offerings at the Virtual School
- Respond to market feedback towards potential offerings and programs to be provided at the Virtual School



Value Chain: Governance

The governance stage of the value chain is a process to systematically review proposed offering concepts, evaluate the feasibility, and approve new programs and courses for go-to-market.

| Responsible or Supporting Functional Units | GOVERNANCE |
|---|----------------------------------|
| | Proposal, Evaluation, & Approval |
| | Primary Owner |
| Colleges/Faculty | VSU |
| Marketing & Business Development | VSU |
| Quality Assurance | RBC |
| Instructional Design & Support | VSU & External Partners |
| Provost or Designee | RBC |
| Assessment & Accreditation | RBC |
| Finance & Operations | VSU |
| Education/Training Offerings & Learning Providers | RBC |
| Internal & External SMEs | VSU & RBC |
| Learner Support Services | RBC |

Support Units Role and Responsibilities

Colleges/Faculty: Deans and faculty submit proposals for new academic offerings to the Virtual School governance committee

Business Development & Operations/ Marketing and Finance & Operations: Conduct feasibility studies to identify which offerings have highest potential, ROI, and are most marketable

Quality Assurance: Offerings are vetted against current in-house expertise that would support the development of high-quality programs

Instructional Design & Support, Education/Training Offerings & Learning Providers, and Learner Support Services: These personnel aid in proposal development and feasibility studies to determine which programs can be implemented

Provost or Designee: Reviews programs and provides input on those that should be approved

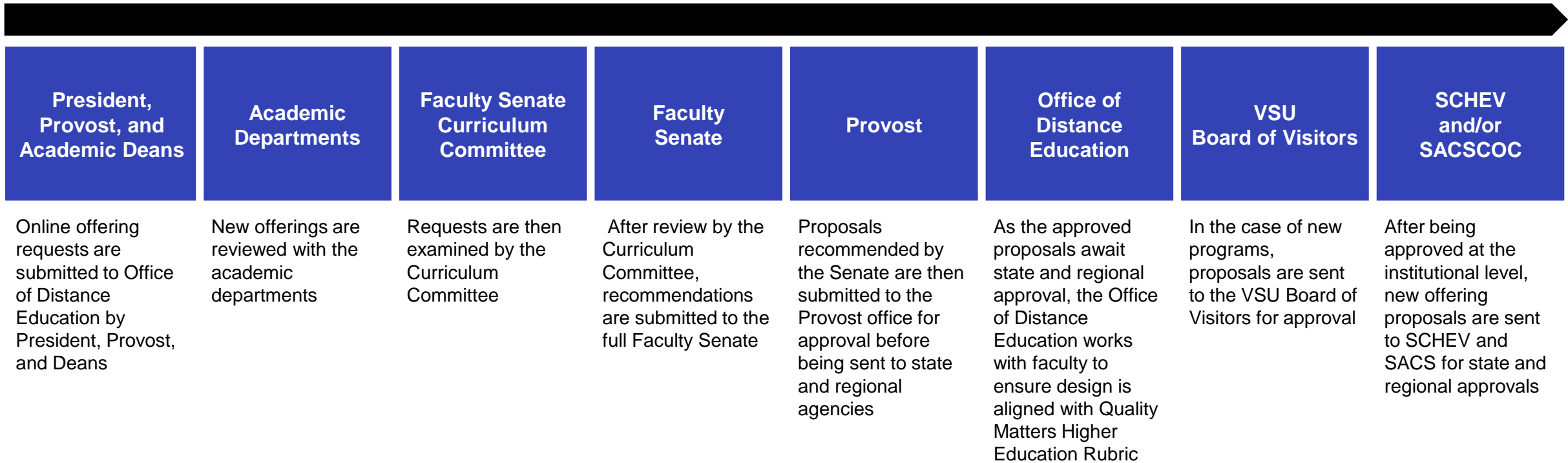
Assessment & Accreditation: Ensures certain standards are met to meet the requirement for accreditation and authorization of delivery

Note: The division of responsibilities listed in the table above is based on a provisional understanding and will be modified based on the Task 2 discussion.



Current Approval Process: VSU Online

The current online offering governance process at VSU requires eight stages of review and approval before offerings are available to students.

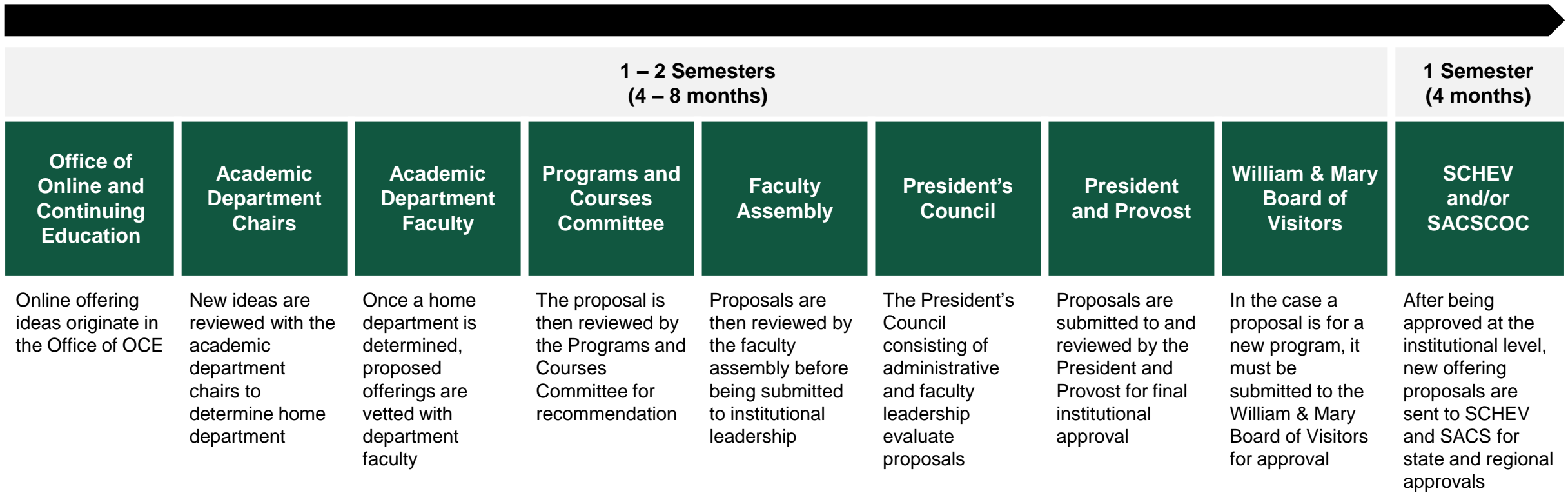


Offerings for the Virtual School will require coordination between VSU and RBC on how offering proposals will be evaluated for consideration and agreement on the proper channels for approval.



Current Approval Process: RBC Online

The current online offering governance process at RBC requires nine stages of review and approval before offerings are available to students.



How can both institutions' current processes be streamlined to promote responsiveness to market trends?

Value Chain: Design & Delivery



The design and delivery stage of the value chain involves the development, implementation, and delivery of instruction to students.

| Responsible or Supporting Functional Units | DESIGN & DELIVERY | |
|---|------------------------|------------------------|
| | Development | Delivery |
| | Primary Owner | |
| Colleges/Faculty | RBC | RBC |
| Pedagogical Innovation | RBC | RBC |
| Quality Assurance | RBC | RBC |
| Instructional Design & Support | VSU & External Partner | VSU & External Partner |
| Education/Training Offerings & Learning Providers | RBC | RBC |
| Internal & External SMEs | VSU & RBC | VSU & RBC |
| Learner Support Services | RBC | RBC |
| Information Technology | VSU | VSU |
| Registration & Records | VSU | VSU |

Support Units Role and Responsibilities

Colleges/Faculty and Pedagogical Innovation: Faculty partner with instructional designers to develop course structure and content

Quality Assurance: Academic and administrative leadership ensure that online offerings adhere to agreed upon standards of learning outcomes

Instructional Design & Support, Education/Training Offerings & Learning Providers, and Internal & External SMEs: These personnel work with faculty to design curriculum, courses, teaching manuals, and student materials

Learner Support Services: Provide academic advising to aid in learner development and establishment of goals

Information Technology: Support digital delivery through management of technology hardware, software, and platforms used in instruction

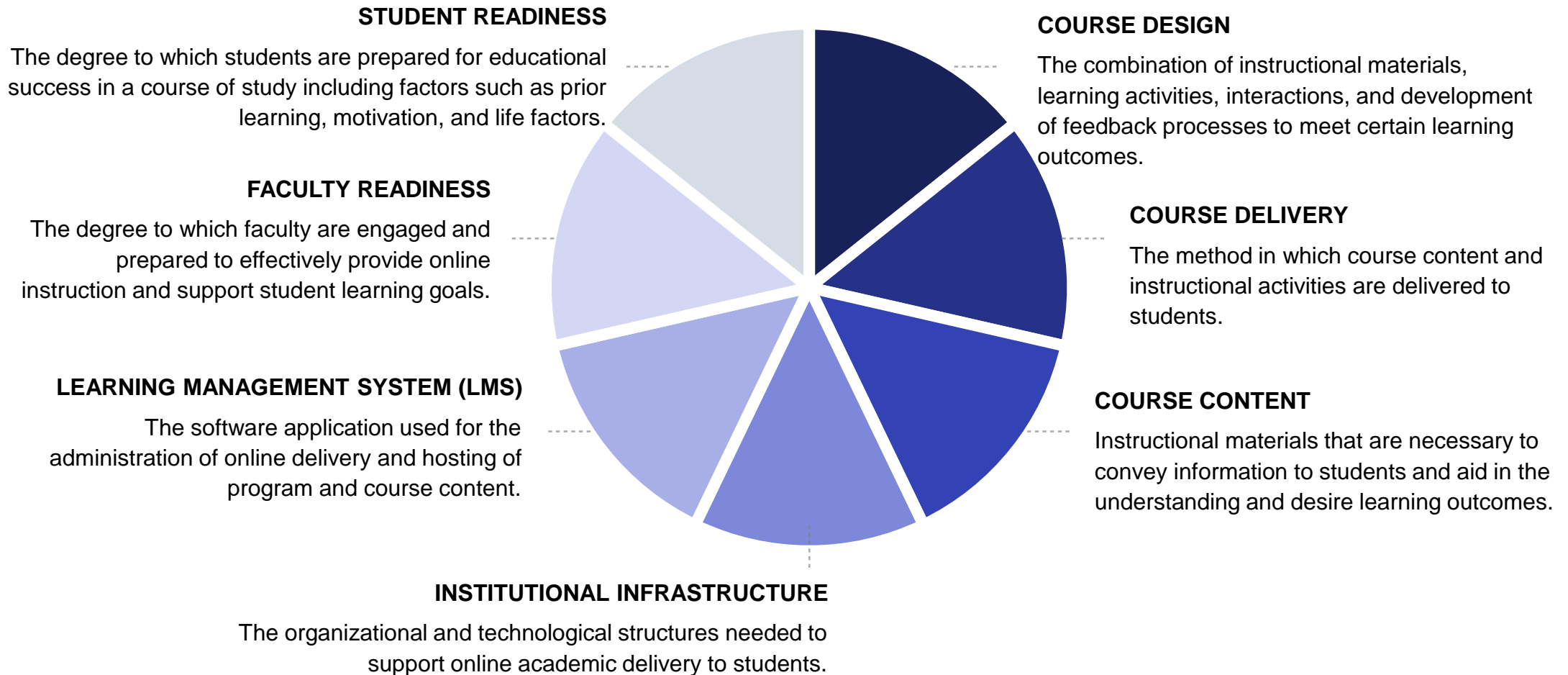
Registration & Records: Aids in student enrollment and maintains records of students in online programs and courses

Note: The division of responsibilities listed in the table above is based on a provisional understanding and will be modified based on the Task 2 discussion.



Program Quality: Factors Affecting Quality

The Quality Matters higher education rubric highlights several factors that determine academic offering quality ranging from design and delivery methodology to faculty and student readiness.





Program Quality: Quality Matters Rubric

Utilizing factors for success outlined in the quality matters rubric will aid in the development of high-quality programs that lead to high learning results.

General Standards:

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|--|--|---|---|---|--|--|---|---|
| Course Overview & Introduction | Learning Objectives - Competency | Assessment & Measurement | Instructional Materials | Learning Activities & Learner Interaction | Course Technology | Learner Support | Accessibility & Usability | |
| Introduces the purpose and structure of the course, and communicates expectations and skills expected of the learner | Describes measurable outcomes that are consistent with the course level objectives and clearly states relationship between objectives and activities | Measures achievement of stated learning objectives and is sequenced, varied and suited to level of course | Contributes to achievement of stated learning objectives and represent up to date theory and practice | Promotes student achievement through clear requirements and instructor interaction | Utilizes a variety of tools that are used to support student engagement | Course instructions clearly show learners can support themselves through highlighting student success resources | Focuses on course navigation, ease of use, and readability | |

Student Experience: Faculty and Staff Support



During a recent survey of an array of higher education institutions, the following indicators were determined to be ideal ratios for online education, faculty and staff support.

Program Design, Development, & Launch

7 full-time faculty per 1 FTE instructional designer and support staff

Instruction Support

7 full-time faculty per 1 FTE support staff

Student Success

200 students per 1 FTE staff

Recruitment

2 programs per 1 FTE staff

Administration and Maintenance

100 students per FTE staff

Career Services and Alumni Experience

86 students per 1 FTE staff

Admissions and Onboarding

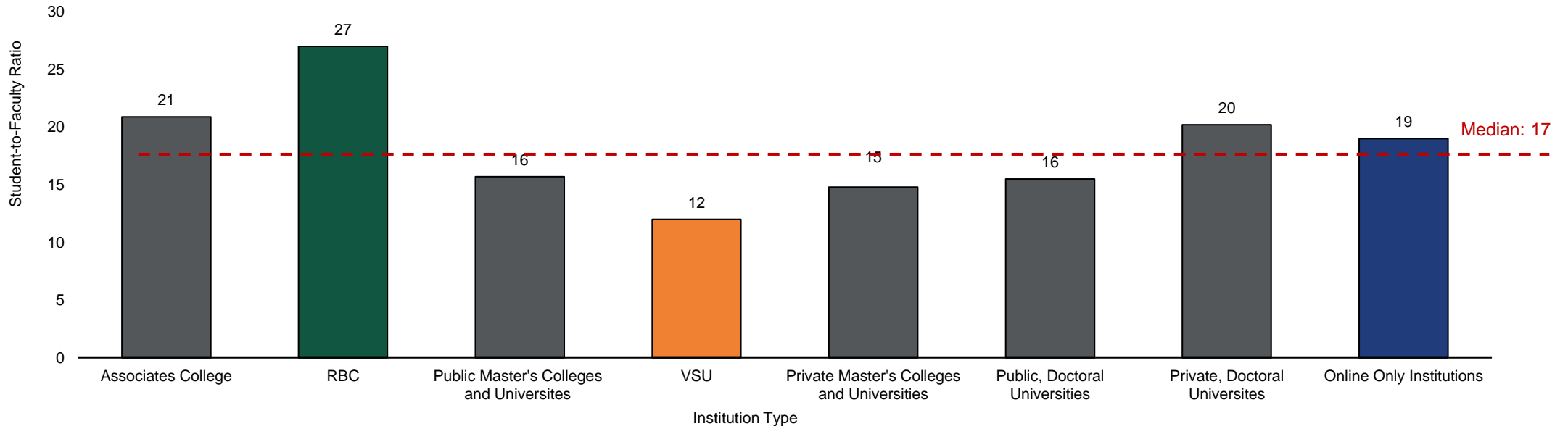
250 applications per 1 FTE staff

Student Experience: Student to Faculty Ratio



Compared to institutions in the comparison set¹, RBC is above the median student-to-faculty ratio with 27 students to 1 faculty member, while VSU is below the median with 12 students to 1 faculty member.

VSU and RBC Student-to-Faculty Ratio Benchmarks
2020 Student and Faculty Counts per IPEDS



Student to faculty ratios determine the level of engagement faculty can have with each student with lower ratios potentially resulting in more chances for interaction and a high touch student experience.

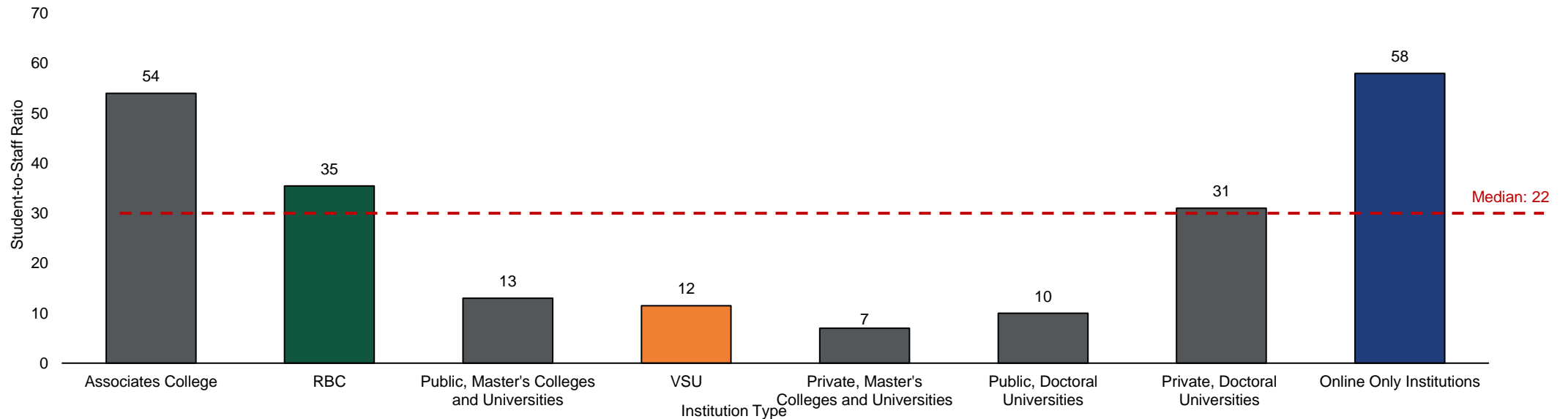
Source: 1) Comparison set includes institutions in VA offering online programs and only online offering national institutions - see appendix for list of only online institutions
Note: Ratio includes total FTE students not in graduate or professional programs divided by total FTE instructional staff not teaching in graduate or professional programs.

Student Experience: Student to Staff Ratio



Compared to institutions in the comparison set¹, RBC is above the median student-to-staff ratio with 35 students to 1 full time staff, while VSU is below peer median with 12 students to 1 full time staff.

VSU and RBC Student-to-Staff Ratio Benchmarks
2020 Student and Staff Counts per IPEDS



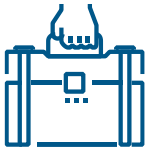
Staffing levels for advising, career services, and other student support should be informed by expected enrollment to ensure that each student is able to receive the support needed for success.

Source: 1) Comparison set includes institutions in VA offering online programs and only online offering national institutions - see appendix for list of only online institutions
 Note: Data missing for 2 institutions; Student Data: Total 12-month unduplicated headcount; Staff Data: Full time non-instructional staff



Student Satisfaction

In a recent student survey, online students noted that career enablement, flexibility, and affordability were among the top factors that were important when considering program enrollment.



Career-Oriented Decision-Making: The top five factors that influence a prospective student's decision to pursue a degree online are all related to career outcomes and advancement.¹



Affordability & Scholarships: 60% of students shared that a modest \$1,000 scholarship could have led them to switch from one institution to another, signaling a search for the most affordable option.¹



Expedited Decision-Making: 48% of online students applied within four weeks of starting their search, signaling the importance of readily available recruitment and marketing material + support.¹



Flexibility: Career movers, military members, and learners seeking flexibility need readily access to student services, i.e., expanded student support office hours.²



Prior Learning Assessment: Students re-entering their education pathways are seeking institutions that acknowledge their prior education and knowledge obtained during past careers.



Demand for Student Services: 66% of online students use student services, with greatest demand for career / internship support and technical support.¹

Providing online students with accessible support will promote student retention, increase repeat business, and increase levels of engagement resulting in long term success of the Virtual School.

Source: 1) Source: "Voice of the Online Learner" Wiley Education. 2021. 1,530 survey responses from prospective, current, or recently graduated students.

2) "Recommendations to Increase Student Engagement in Online Courses" NIU Center for Innovative Teaching and Learning

Value Chain: Management



The management stage of the value chain calls for the review and evaluation of in-place offerings and aims to ensure positive student outcomes and institutional success.

| Responsible or Supporting Functional Units | MANAGEMENT |
|---|-------------------------|
| | Management & Monitoring |
| | Primary Owner |
| Colleges/Faculty | RBC |
| Quality Assurance | RBC |
| Provost or Designee | RBC |
| Assessment & Accreditation | RBC |
| Finance & Operations | VSU |
| Information Technology | VSU |
| Registration & Records | VSU |
| Career Services | RBC |
| Enrollment Planning & Management | VSU |
| Institutional Research, Analytics, and Decision Support | VSU |

Support Units Role and Responsibilities

Colleges/Faculty and Provost or Designee:
Review student feedback and data on outcomes;
Define goals for results

Quality Assurance and Assessment & Accreditation: Evaluates online offerings to ensure continued alignment with quality standards

Finance & Operations: Conduct financial analysis to determine ROI and assess ways to maximize margin while maintaining quality

Information Technology: Monitor online delivery technology to determine future resource needs

Registration & Records: Provide data to aid in enrollment and completion analysis

Career Services: Track online student career outcomes to measure program effectiveness

Enrollment Planning & Management and Institutional Research, Analytics, and Decision Support : Conduct online offering enrollment and student outcome analyses to inform modifications and the development of future programming

Note: The division of responsibilities listed in the table above is based on a provisional understanding and will be modified based on the Task 2 discussion.

Student Career Placement



VSU and RBC may expand current partnerships with corporations to aid Virtual School students with career placement, as well as providing access to online career advising.

Online Career Advising

- Mimic in person services for online students with increased outreach as many online or distance students may be unaware of services
- Assist in finding internships
- Alert students of upcoming job fairs
- Partner with current VA based companies to assist in job attainment
- Work with companies to ensure critical job skills are taught
- Flexible hours for career counseling offices

Working with Employer Partnerships

RBC currently partners with Commonwealth Center for Advanced Manufacturing CCAM and the Manufacturing Institute for the 1st Virginia Chapter of FAME

Possible Partners:

- DXC Technology
- General Dynamics
- SGS
- Northrop Grumman
- Leidos
- Science Logic
- Comscore
- Capitol Advantage

Partnering with employers may increase student job attainment and increase employer partnerships with corporations seeking to educate their workforce.

To ultimately meet student needs, the Virtual School must be effective in aiding students in after-program career placement and decisions.

New and Repeat Business



The Virtual School must evaluate the marketplace for new students, while creating an environment of student success that encourages students to return to pursue further education.

New Audiences

- Continually evaluate needs of the 21st century technical occupation marketplace to reach new students searching to expand their current skills
- Work with the state of Virginia to evaluate population education needs year to year
- Overlooked students seeking flexibility - 80% of youth who have been in foster care hope to attend college, but only 3-5% successfully complete an undergraduate degree¹
- Waive application deadlines and fees² to make education more accessible
- Foster new and existing relationships with Virginia area based high schools

Repeat Students

- Maintain high completion and retention rates
- Market high-quality offerings that are flexible and affordable
- Offer pricing discounts for returning Virtual School students
- Ease of application process for returning students
- Foster alumni relations with current students

Enrollment strategies to attract new and repeat students will lead to consistent revenue sources and help to ensure long-term success of the Virtual School.



Value Chain: Role of External Partners

VSU and RBC can consider the use of external partners for support at certain stages of the value chain including market research and assessment and instructional design assistance.

| | IDEATION | | GOVERNANCE | DESIGN & DELIVERY | | MANAGEMENT |
|--|--|--|---|--|---|---|
| | Ideation & Market Assessment | Opportunity Identification & Confirmation | Proposal, Evaluation, & Approval | Development | Delivery | Management & Monitoring |
| Primary Responsibility Organization | RBC | VSU | VSU | RBC | RBC | VSU |
| Virginia State University | Offering ideation | Operations & marketing; Exploration of corporate and government partnerships | Offering proposal development; Business process and financial planning | Curriculum design and expertise contributions | Technology infrastructure, registrations, and support | Enrollment data; ROI analysis; Enrollment analysis and strategy development |
| Richard Bland College | Offering ideation | Exploration of corporate and government partnerships | Offering proposal development; Academic planning; Quality assurance and accreditation | Curriculum design; Quality assurance; Learner support services; Faculty training | Course delivery | Online offering evaluation; Career services |
| External Partnership | Market assessment and feasibility studies assistance | --- | --- | Instructional design assistance | --- | --- |



Partnership Services

When considering engaging a third-party provider there are three options to explore: full-service, limited partnership, and no partnership.

| No OPM Partnership | Limited OPM Partnership | Full-Service Partnership |
|---|--|---|
| <ul style="list-style-type: none"> The Virtual School may choose to fully develop all functions in-house. May require increased resources to meet capabilities for success. | <ul style="list-style-type: none"> A limited OPM partnership would involve an OPM for select support functions or a shorter duration. OPM's may only be contracted to help aid the start of the Virtual School. | <ul style="list-style-type: none"> The Virtual School may establish a full-service contract with an OPM. Many core functions of the Virtual School would be outsourced, lessening burden on in-house resources. |
| <p>Benefit: VSU and RBC own all tuition revenue.</p> | <p>Benefit: Engages OPMs as needed with a lower cost to the Virtual School.</p> | <p>Benefit: OPM assumes upfront risk of start up cost and brings full expertise to partnership.</p> |
| <p>Risk: Working between two institutions to centralize units and allocate resources.</p> | <p>Risk: Will still need personnel to manage relationship between OPM.</p> | <p>Risk: Longer term contract with increased share of revenue to OPM.</p> |

VSU and RBC should explore a partnership along this spectrum that would best address current needs within the value chain and gaps in current capabilities.

Third-Party Provider Benefits and Disadvantages



OPM partnerships come with varying benefits and costs. It is important that these are considered along with how well a potential partner would be aligned with institutional missions.

| Benefits of an OPM Partnership | Disadvantages of an OPM Partnership |
|---|--|
| <ul style="list-style-type: none"> ▪ Can build flexible partnership models that suit the individual needs of a particular school/system <ul style="list-style-type: none"> ○ Cost to launch is shared by the institution and the service provider, decreasing investment costs | <ul style="list-style-type: none"> • Need internal personnel to manage partnerships <ul style="list-style-type: none"> ○ OPM personnel do not work for VSU and RBC, strategies are not shared across OPM and institution |
| <ul style="list-style-type: none"> • Offers degree and nondegree online credentials | <ul style="list-style-type: none"> • Many require significant revenue sharing (>50%) <ul style="list-style-type: none"> ○ Lack of transparency around performance due to revenue sharing contract |
| <ul style="list-style-type: none"> • Have expertise in areas from market research, enrollment, course design, and retention | <ul style="list-style-type: none"> • Long-term contracts are common that may constrain academic portfolio, course material, technology platform, and key enrollment data |
| <ul style="list-style-type: none"> • Often can increase enrollment <ul style="list-style-type: none"> ○ Easy to implement and realize increase in enrollment | <ul style="list-style-type: none"> • OPM's may work with multiple institutions at once including competitor institutions |

Task 2

Appendix



Online Only Institutions



| Integrated Postsecondary Education Data System Unit ID | Institution Name |
|--|--|
| 163204 | University of Maryland Global Campus |
| 377342 | Vista College-Online |
| 460349 | Johnson & Wales University-Online |
| 475273 | Springfield College-Regional, Online, and Continuing Education |
| 480091 | Bryant & Stratton College-Online |
| 480569 | Florida Institute of Technology-Online |
| 485908 | Antioch University Online |
| 489779 | Purdue University Global |

Online Course Size Best Practices



Achieving well sized online courses will help drive success of the Virtual School.

Institution Wide Limit

- Institutions may choose to **cap the limit of students** in online or distance courses across the whole institution
- Industry leaders report **15 to 25 students** as standard
- Both University of MA Lowell and Bingham Young have smaller online courses than in-person
- **Important to involve both faculty and student perspective's and evaluate online course size frequently**

Faculty Determined

- Institutions may allow **faculty to determine** online or distance course size
- Faculty may be paired **with a course instructional designer** to choose best size for each online or distance class
- Important to **continually evaluate student success and feedback from both student and faculty** to determine if course needs to be resized

Data Informed

- Institutions may differ online, or distance courses **based on student interactions and feedback**
- Course size may be determined by the **number of interactions between instructor and student as a quality marker**
- Explore how many hours a week per faculty and **use LMS reports to evaluate** proper class size

The Virtual School may draw on best practices to situate its online courses for success. Optimal course size may help increase retention and completion rates.

Completion and Retention Rates



VSU and RBC must evaluate their current capabilities to ensure the Virtual School can support measures needed to see positive completion and retention rates.

Completion Rates

- Generally, **MOOCS** have the poorest completion rates
- There has been an increase in online completion rates
 - 2019 2U's online completion rate is up to 88% and Harvard Business School Online has seen completion rates of up to 85%
 - Paid for programs tend to see higher completion rates
- **Work with students to increase accountability**, i.e., create programs that allow students to complete courses with a peer

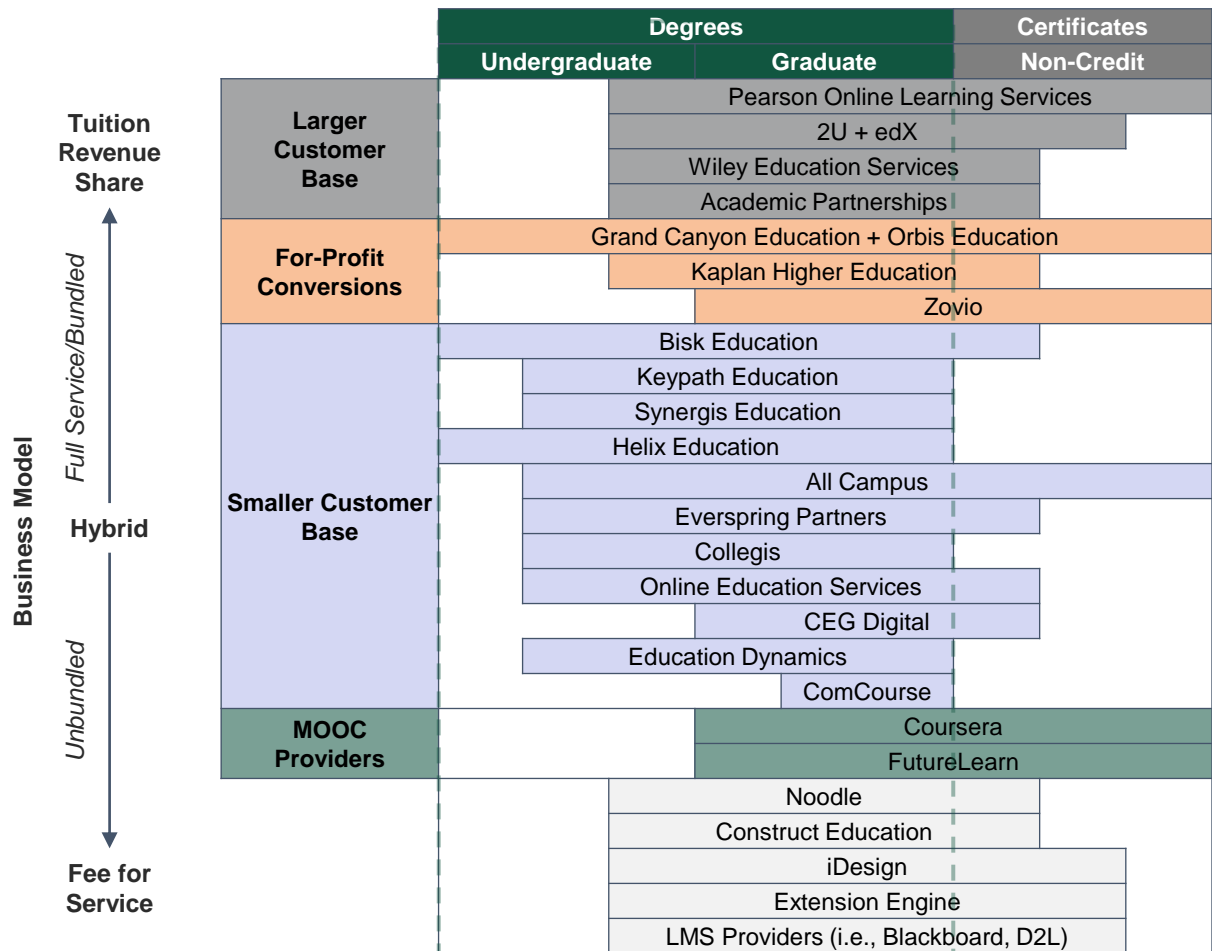
Retention Rates

- Generally, **online retention rates are 10-20% lower** than in-person counterparts at traditional colleges
- US World News reports that average first-time, full-time online college student retention rate at 55% and the average retention rate among first-time part time students is 39% while for in-person classes the rates are 77% and 45% respectively
- Some institutions have seen a spike in retention rates **through different initiatives**, ex. Boise State University has seen an increase through an online bootcamp at the start of course program



Third Party Provider Current Landscape

The current Online Program Management (OPM) business is expanding, providing opportunities for assistance in conducting specific functions for the Virtual School.



Considerations

- This figure illustrates the **current OPM market**
- Business models range from fee-for-service to tuition revenue share with various hybrid business models in between
- Currently, **certificate and graduate courses** are the bulk of offerings by OPMs
- Key vendors are **Academic Partnerships, 2U, and Pearson**¹
- The global OPM market is expected to **grow at a CAGR of 14%** from 2019-2025¹
- Many vendors are currently looking to **expand by increasing undergraduate OPM offerings**²



Offering Types

Utilizing resources from both VSU and RBC, the Virtual School can provide an array of offerings from micro credentials to bachelor's degrees.

| Offering Type | Provisional Primary Owner | Responsibilities | Course Approval Process |
|--------------------|---------------------------|---|---|
| Associate's Degree | RBC | <ul style="list-style-type: none"> Confer associate's degree | Approval needed from William and Mary BOV |
| Bachelor's Degree | VSU | <ul style="list-style-type: none"> Confer bachelor's degree | Approval needed from VSU BOV |
| Joint Program | VSU | <ul style="list-style-type: none"> Deliver micro credentials including certificates Construct curriculum development | Approval needed from both institutions BOVs |
| Dual Degree | VSU | <ul style="list-style-type: none"> Construct curriculum development across both institutions Confer bachelor's degree | Approval needed from both institutions BOVs |

Virginia State University and Richard Bland College

Virtual School of Technical and Professional Studies

Task 3: Financial Modeling

Originally shared: January 31, 2022



Agenda



- 1) Discuss Key Drivers of Financial Impact
- 2) Examine Model Components and Scenarios to Inform Operational Plan
- 3) Review Next Steps



Virtual School Business Plan Approach

To-date, Huron has reviewed with VSU and RBC a list of potential offerings and operational requirements for the Virtual School. Next, we will discuss the financial impact.



Task 1

RBC and VSU will align around an initial set of **offerings** to be delivered by the Virtual School. Offerings will be prioritized based on demand, competitive density, and pricing, among other factors.

Task 2

RBC and VSU will develop a shared understanding of the **operational requirements** to launch and grow the School, based on the outcomes of the first Task. This will include an analysis of current resources at both institutions as well as opportunities for third-party partnerships.

Task 3

The financial model will provide leadership with a **tool for evaluating the financial impact** of academic and operational decisions in designing the School.

Task 4

Leadership will come to understand the near, medium, and long-term next steps.

Uses and Limitations of the Financial Model



The financial model aims to address the feasibility of the Virtual School. It does not specify a division of revenue and expenses between VSU and RBC, though this level of detail could be added in the future.

What the financial model does do:

- Presents list of expected sources of revenue and costs of Virtual School operations
- Acts as a planning tool that provides scenario outcomes based on a set of predetermined assumptions and variables highlighted in prior conversations between VSU, RBC, and Huron

What the financial model does not do:

- Determine the specific arrangement for which VSU and RBC will share revenue and split costs associated with Virtual School operations
- Provide an outlook of actual forecasted results based on historical trends
- Define the precise number of faculty and staff, and allocation of other resources that VSU and RBC should use for the Virtual School



Task 3: Financial Planning

The dynamic financial model aims to evaluate the academic and operational decisions of the Virtual School through outlining factors to cost of delivery, flexible scenarios, and near-term financial outcomes.

3A: Key Financial Drivers

What are the primary factors driving the cost of delivery?

3B: Financial Model Components

What critical questions are answered by each module?

3C: Scenario Planning

How does the adjustment of model assumptions affect financial outcomes?

Key Drivers of Sources and Uses



Revenues for the Virtual School are largely driven by expected student enrollment while costs of delivery are driven by faculty and staff costs, and program costs including offering development, IT, and marketing costs.

| Key Drivers | Model Implications |
|---|---|
| <p>Student Enrollment</p> <ul style="list-style-type: none"> • What is the anticipated enrollment of the Virtual School? • How will student cohorts be distributed across bachelor's programs, associate's programs, and non-degree enrollments? | <p>Student enrollment is the largest driver of operating sources as it determines tuition and fees revenue and state appropriations. Expected enrollment will also determine the amount of faculty and staff support needed for the Virtual School.</p> |
| <p>Faculty and Staff Costs</p> <ul style="list-style-type: none"> • What is the optimal student-to-faculty ratio/student-to-staff ratio that will promote the desired level of high-touch student support? • What is the ideal faculty mix of full-time vs. adjunct faculty? | <p>Faculty and staff costs are the largest driver of the operating uses. Faculty and staff needs are determined via expected enrollment counts and with costs ranging depending on faculty mix.</p> |
| <p>Program Costs</p> <ul style="list-style-type: none"> • What do VSU and RBC expect to invest in program development? • Will the Virtual School partner with an external vendor for marketing, recruiting, instructional design, and career services? | <p>Program costs include program development, IT, and marketing. If developed internally, large, upfront investments in program development are expected resulting in higher operating uses in Year 1.</p> |



Virtual School Base Case Assumptions

Initial assumptions for key drivers were determined based on analysis from Tasks 1 and 2 and help to determine a potential base case for financial results for the Virtual School.

| Key Driver | Base Case Assumptions |
|--|--|
| <p>Student Enrollment Based on current enrollment, what is an achievable first year enrollment goal? What type of programs will Virtual School students most likely seek?</p> | <p>Total Enrollment: 300 Bachelor's Share: 0.25 Associate's Share: 0.25 Non-Degree Share: 0.5</p> |
| <p>Faculty and Staff Using the benchmarking ratios from Task 1 as a reference, what level of faculty and staff would be ideal for high-touch support?</p> | <p>Student/Faculty Ratio: 25 Adjunct Faculty Share: 0.75 Student /Staff Ratio: 50 Salaries: Current VSU and RBC Salaries and Benefits</p> |
| <p>Program Costs What level of investment will be needed to develop the initial set of offerings? Investment costs for program development can be more than \$1 million per program*.</p> | <p>Program Development Costs: \$1 million initial investment per 120 credit hour program or \$8,333 per credit Note: \$2.8 million of year 1 costs are initial program dev.</p> |

Note: Totals may not foot due to rounding.

*Source: <https://www.insidehighered.com/digital-learning/article/2018/06/04/shakeout-coming-online-program-management-companies>

Virtual School Base Case



Based on the base case assumptions, the Virtual School can expect a year 1 deficit due to upfront program development costs though the School would be expected to recover the initial investment within three years.

| Virtual School of Technical and Professional Studies Base Case | | | | | | | |
|--|---------------|-------------|-------------|-------------|-------------|--------------|--------------|
| Category | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Total | CAGR |
| Bachelor's Degree Enrollment | 75 | 145 | 210 | 271 | 279 | -- | 38.9% |
| Associate's Degree Enrollment | 75 | 145 | 149 | 154 | 158 | -- | 20.5% |
| Non-Degree Enrollment | 150 | 165 | 182 | 200 | 220 | -- | 10.0% |
| Total Enrollment | 300 | 455 | 540 | 625 | 657 | -- | 21.6% |
| Net Tuition and Fee Revenue (\$) | 1.2M | 1.8M | 2.2M | 2.5M | 2.7M | 10.3M | 23.5% |
| Other Sources (\$) | 1.3M | 1.4M | 1.4M | 1.5M | 1.5M | 7.1M | 3.0% |
| Total Operating Sources (\$) | 2.5M | 3.2M | 3.6M | 4.0M | 4.2M | 17.4M | 13.8% |
| Faculty/Staff Salaries and Benefits (\$) | 1.2M | 1.9M | 2.3M | 2.8M | 3.0M | 11.3M | 26.2% |
| Program Costs (\$) | 3.3M | 0.3M | 0.4M | 0.4M | 0.4M | 4.8M | -40.4% |
| Total Operating Uses (\$) | 4.5M | 2.2M | 2.7M | 3.2M | 3.5M | 16.1M | -6.2% |
| Operating Margin (\$) | (2.0M) | 0.9M | 0.9M | 0.8M | 0.7M | 1.4M | -- |

| Key Driver | Base Case Assumptions |
|--|---|
| Student Enrollment Based on current enrollment, what is an achievable first year enrollment goal? What type of programs will Virtual School students most likely seek? | Total Enrollment: 300 Bachelor's Share: 0.25 Associate's Share: 0.25 Non-Degree Share: 0.5 |
| Faculty and Staff Using the benchmarking ratios from Task 1 as a reference, what level of faculty and staff would be ideal for high-touch support? | Student/Faculty Ratio: 25 Adjunct Faculty Share: 0.75 Student /Staff Ratio: 50 Salaries: Current VSU and RBC Salaries and Benefits |
| Program Costs What level of investment will be needed to develop the initial set of offerings? Investment costs for program development can be more than \$1 million per program*. | Program Development Costs: \$1 million initial investment per 120 credit hour program or \$8,333 per credit Note: \$2.8 million of year 1 costs are initial program dev. |

Note: Totals may not foot due to rounding.

*Source: <https://www.insidehighered.com/digital-learning/article/2018/06/04/shakeout-coming-online-program-management-companies>

Initial Investment - Program Development Costs



Based on an initial enrollment of 300 students, a \$2.8 million investment would allow for the development for a bachelor's program, associate's program, and 3-6 non-degree offerings.

| Row Reference | Calculation | Description | Amount |
|---------------|-----------------------|---|-----------------------|
| A | | Degree program development investment cost (120 credit hours)* | \$ 1 million |
| B | $A \div 120$ | Program development cost per credit | \$ 8,333 |
| C | | Initial student enrollment assumption | 300 |
| D | | Student to faculty ratio | 25 |
| E | $C \div D$ | Number of faculty | 12 |
| F | | Number of sections taught per year | 8 |
| G | | Average number of credits per section (50% 4 credit and 50% 3 credit) | 3.5 |
| H | $C \times D \times G$ | Total faculty course credit load | 336 |
| I | $B \times H$ | Total program development year 1 | \$ 2.8 million |

Key Considerations

- \$2.8 million program development investment
 - \$1 million for 120 credit bachelor's program
 - \$1 million for 120 credit associate's program
 - \$800 thousand for 96 credits of non-degree offerings
 - 3-6 non-degree offerings based on 15-30 credits per offering

| Offering Type | Credits Per Program | Credit Allocation | Investment \$ in millions |
|---------------|---------------------|-------------------|---------------------------|
| Bachelor's | 120 | 120 | \$ 1.0 |
| Associates | 60 | 120 | 1.0 |
| Non-Degree | 15-30 | 96 | 0.8 |
| Total | -- | 336 | \$ 2.8 |

*Source: <https://www.insidehighered.com/digital-learning/article/2018/06/04/shakeout-coming-online-program-management-companies>

Financial Model Overview



The financial model is based on a set of assumptions that are managed by modules. Collectively, these modules provide VSU and RBC a tool for projecting financial results of the Virtual School.

Questions Answered through Financial Model

- 1 How does the level of enrollment and number of faculty affect the potential net results of the Virtual School operations?
- 2 What sources can be considered for support of operations for the Virtual School?
- 3 Which variable and fixed costs must be considered in determining a program's full cost?
- 4 What is the overall return on investment of various programming portfolio mixes / strategies?

Financial Model Components

Program and Course Module

The program and course module contains assumptions regarding the number of students enrolled by program type and the number of courses that would be made available to them.

Faculty and Staff Module

The faculty and staff module contains assumptions on student-to-faculty and student-to-staff ratios as well as other general expenses that are based on faculty counts (e.g., faculty training, supplies and materials)

Sources and Uses Modules

The sources module contains assumptions on revenue sources for the Virtual School including tuition, fees, grants, etc. The uses module contains expenses that are not based on faculty and staff counts (e.g., IT, marketing expenses)

Sources and Uses Scenarios

The sources and uses scenario modules allow for adjustments to base assumptions to identify how changes to expectations would affect financial outcomes for the Virtual School.



Program and Course Module Overview

The program and course module contains assumptions regarding the number of students enrolled by program type and the number of courses that would be made available to them.

1

How does the level of enrollment and number of faculty affect the potential net results of the Virtual School operations?

| Program and Course Assumptions | | | |
|---|---|--|---|
| Module Modifiable Variables | Questions to Consider | Base Case Value | Assumption Context |
| Total Enrollment | What number of enrolled students can be expected in the first year? | 300 | Over the next 10 years, 21 st Century Tech Jobs are expected to add over 27,500 jobs; captures just over 1% |
| Share of Enrolled Students by Program / Offering Type | How many students will be enrolled in each program type? | 25% Bachelor's students, 25% Associate's students, 50% Non-Degree students | Demand for non-traditional offerings has increased in recent years as learners seek quick, affordable solutions for education |
| Student Enrollment Growth | At what rate will student enrollment grow over time? | 3% Bachelor's and 3% Associates and 10% Non-Degree students | According to the National Student Clearinghouse Research Center, bachelor's and associate's programs have declined in recent years while certificate program enrollment has grown |
| Course Sections Taught per Year | How many courses can a faculty member teach per year? | 8 | Annual course load for an adjunct faculty member |
| Retention | How many students will return to their respective programs each year? | 0.9 | Assumes high-level of satisfaction with program and support provided |

Program and Course Module Effect



Given the base case assumptions for programs and courses, the Virtual School could see an average annual enrollment growth rate of 21.6% allowing the school to regain its initial investment in three years.

| Virtual School of Technical and Professional Studies | | | | | | | |
|--|---------------|-------------|-------------|-------------|-------------|--------------|--------------|
| Category | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Total | CAGR |
| Bachelor's Degree Enrollment | 75 | 145 | 210 | 271 | 279 | -- | 38.9% |
| Associate's Degree Enrollment | 75 | 145 | 149 | 154 | 158 | -- | 20.5% |
| Non-Degree Enrollment | 150 | 165 | 182 | 200 | 220 | -- | 10.0% |
| Total Enrollment | 300 | 455 | 540 | 625 | 657 | -- | 21.6% |
| Net Tuition and Fee Revenue (\$) | 1.2M | 1.8M | 2.2M | 2.5M | 2.7M | 10.3M | 23.5% |
| Other Sources (\$) | 1.3M | 1.4M | 1.4M | 1.5M | 1.5M | 7.1M | 3.0% |
| Total Operating Sources (\$) | 2.5M | 3.2M | 3.6M | 4.0M | 4.2M | 17.4M | 13.8% |
| Faculty/Staff Salaries and Benefits (\$) | 1.2M | 1.9M | 2.3M | 2.8M | 3.0M | 11.3M | 26.2% |
| Program Costs (\$) | 3.3M | 0.3M | 0.4M | 0.4M | 0.4M | 4.8M | -40.4% |
| Total Operating Uses (\$) | 4.5M | 2.2M | 2.7M | 3.2M | 3.5M | 16.1M | -6.2% |
| Operating Margin (\$) | (2.0M) | 0.9M | 0.9M | 0.8M | 0.7M | 1.4M | -- |

Note: Totals may not foot due to rounding.

Key Considerations

1. Bachelor's degree programs are assumed to reach steady state enrollment by Year 4 when the fourth cohort of students join and prepare for graduation in the following year
2. Similarly, associate's degree programs would be expected to reach steady state enrollment by Year 2
3. Non-Degree programs will consist of shorter-term programs and will not receive growth from returning cohorts in the same manner as the degree programs
4. Current enrollment trends assume a 90% student retention rate



Faculty and Staff Module Overview

The faculty and staff module contains assumptions on student-to-faculty and student-to-staff ratios as well as other general expenses that are based on faculty counts (e.g., faculty training, supplies and materials).

1

How does the level of enrollment and number of faculty affect the potential net results of the Virtual School operations?

| Faculty and Staff Module Assumptions | | | |
|---|--|---|---|
| Module Modifiable Variables | Questions to Consider | Base Case Value | Assumption Context |
| Staffing Ratios | What are the ideal ratios of student-to-faculty, student-to-staff, and adjunct faculty to full-time faculty? | Student to Faculty Ratio: 25 Adjunct Faculty Share: 0.75 Student to Staff Ratio: 50 | Average for online institutions student to faculty levels is roughly \$20, while average student to staff is \$57 |
| Annual Faculty and Staff Salary and Wages | How much will faculty and staff be compensated? | Current compensation rates from VSU and RBC | Salaries will be consistent with VSU and RBC rates |
| Yearly Salary and Wages Growth Rate | How will compensation increase each year? | 3% | Average historical inflation rate |
| Employee Benefits | What will be the fringe benefits rate for Virtual School faculty and staff? | 0.31 Full-time Employees | Benefits will remain consistent with VSU and RBC current rates |
| Faculty Training | What are the costs of yearly training for new and existing faculty? | \$ 3,650 | Faculty training cost per faculty |
| Other Investments per Faculty Member | How much will be spent to support faculty members? | IT Costs: \$ 1000* Supplies & Materials: \$ 400 Other General Exp: \$ 200 | Total cost is approximately 2% of overall operating uses |

Faculty and Staff Module



Given the base case assumptions for faculty and staff, salaries and benefits expenses could grow at a similar rate to net tuition revenue maintaining the small surplus of tuition over salary expenses.

| Virtual School of Technical and Professional Studies | | | | | | | |
|--|---------------|-------------|-------------|-------------|-------------|--------------|--------------|
| Category | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Total | CAGR |
| Bachelor's Degree Enrollment | 75 | 145 | 210 | 271 | 279 | -- | 38.9% |
| Associate's Degree Enrollment | 75 | 145 | 149 | 154 | 158 | -- | 20.5% |
| Non-Degree Enrollment | 150 | 165 | 182 | 200 | 220 | -- | 10.0% |
| Total Enrollment | 300 | 455 | 540 | 625 | 657 | -- | 21.6% |
| Net Tuition and Fee Revenue (\$) | 1.2M | 1.8M | 2.2M | 2.5M | 2.7M | 10.3M | 23.5% |
| Other Sources (\$) | 1.3M | 1.4M | 1.4M | 1.5M | 1.5M | 7.1M | 3.0% |
| Total Operating Sources (\$) | 2.5M | 3.2M | 3.6M | 4.0M | 4.2M | 17.4M | 13.8% |
| Faculty/Staff Salaries and Benefits (\$) | 1.2M | 1.9M | 2.3M | 2.8M | 3.0M | 11.3M | 26.2% |
| Program Costs (\$) | 3.3M | 0.3M | 0.4M | 0.4M | 0.4M | 4.8M | -40.4% |
| Total Operating Uses (\$) | 4.5M | 2.2M | 2.7M | 3.2M | 3.5M | 16.1M | -6.2% |
| Operating Margin (\$) | (2.0M) | 0.9M | 0.9M | 0.8M | 0.7M | 1.4M | -- |

Note: Totals may not foot due to rounding.

Key Considerations

1. In this scenario, the ratio of adjunct faculty to full-time faculty remains constant over the first five years
2. Program costs include IT, supplies and materials, and general expenses allowance per faculty and staff FTE. These costs are held constant across the first five years

Sources Module Overview



The sources module contains assumptions on potential revenue sources for the Virtual School including tuition, fees, contracts and grants, and private gifts.

2

What sources can be considered for support of operations for the Virtual School?

| Total Sources Assumptions | | | |
|------------------------------|---|--|--|
| Module Modifiable Variables | Questions to Consider | Base Case Value | Assumption Context |
| Tuition Revenue | What prices will be set for the different types of programs? | Bachelor's tuition: 5,540 Associate's tuition: 5,760 Non-Degree tuition: 3,100 | Student tuition will reflect current institutional prices (\$180-\$200 per credit) |
| Yearly Tuition Growth | At what rate will tuition change? | 3% | Average historical inflation rate |
| Average Discount Rate | What tuition assistance will be provided to students to increase affordability? | 0.4 | Reflects current discount rate provided by VSU and RBC |
| Gifts, Grants, and Contracts | What revenue will the Virtual School receive from gifts, grants, and contracts? | 250,000 | Reflects current grants and gifts received by RBC |
| State Appropriations | What state appropriations will the Virtual School receive? | 200,000 | Reflects current state appropriations from VA per student |

Sources Module Effect



In the base case, total operating sources grow at a rate of roughly 13.8% over the first five years, per faculty costs and faculty salaries are the largest drivers of this increase.

| Virtual School of Technical and Professional Studies | | | | | | | |
|--|---------------|-------------|-------------|-------------|-------------|--------------|--------------|
| Category | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Total | CAGR |
| Bachelor's Degree Enrollment | 75 | 145 | 210 | 271 | 279 | -- | 38.9% |
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| Other Sources (\$) | 1.3M | 1.4M | 1.4M | 1.5M | 1.5M | 7.1M | 3.0% |
| Total Operating Sources (\$) | 2.5M | 3.2M | 3.6M | 4.0M | 4.2M | 17.4M | 13.8% |
| Faculty/Staff Salaries and Benefits (\$) | 1.2M | 1.9M | 2.3M | 2.8M | 3.0M | 11.3M | 26.2% |
| Program Costs (\$) | 3.3M | 0.3M | 0.4M | 0.4M | 0.4M | 4.8M | -40.4% |
| Total Operating Uses (\$) | 4.5M | 2.2M | 2.7M | 3.2M | 3.5M | 16.1M | -6.2% |
| Operating Margin (\$) | (2.0M) | 0.9M | 0.9M | 0.8M | 0.7M | 1.4M | -- |

Key Considerations

1. With a full –service OPM partnership, revenue totals would decrease due to tuition revenue share fee structures, however program costs would also decrease.
2. Other sources include state appropriations based on current rates per student FTE
3. Private gifts could also be a source of funding for the Virtual School but are not currently included

Note: Totals may not foot due to rounding.

Uses Module Overview



The uses module contains other expenses that are not based on faculty and staff counts including IT, program development, and marketing expenses.

3

How does the level of enrollment and number of faculty affect the potential net results of the Virtual School operations?

| Total Uses Assumptions | | | |
|--------------------------------------|---|-----------------|---|
| Module Modifiable Variables | Questions to Consider | Base Case Value | Assumption Context |
| Infrastructure and Technology | What costs will be incurred for infrastructure and technology? | 160,000 | Current estimated VSU LMS costs per year |
| Program Development Cost Per Section | How much does it cost per credit to develop a new online program? | 8,333 | Investment costs for program development can be more than \$1 million per program ¹ . |
| Marketing Expenses | What marketing costs will be needed during the first year and years moving forward? | 5% | 1-6% of total costs is industry norm for marketing costs. Being a new school, the Virtual School is expected to be on the higher end of the range |

1) <https://www.insidehighered.com/digital-learning/article/2018/06/04/shakeout-coming-online-program-management-companies>

2) <https://www.insidehighered.com/blogs/call-action-marketing-and-communications-higher-education/total-marketing-spend-hard-questions>

Uses Module Effect



Upfront program costs such as developing new offerings will occur within the first year, however costs may decrease in following years after programs are already established.

| Virtual School of Technical and Professional Studies | | | | | | | |
|--|---------------|-------------|-------------|-------------|-------------|--------------|--------------|
| Category | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Total | CAGR |
| Bachelor's Degree Enrollment | 75 | 145 | 210 | 271 | 279 | -- | 38.9% |
| Associate's Degree Enrollment | 75 | 145 | 149 | 154 | 158 | -- | 20.5% |
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| Other Sources (\$) | 1.3M | 1.4M | 1.4M | 1.5M | 1.5M | 7.1M | 3.0% |
| Total Operating Sources (\$) | 2.5M | 3.2M | 3.6M | 4.0M | 4.2M | 17.4M | 13.8% |
| Faculty/Staff Salaries and Benefits (\$) | 1.2M | 1.9M | 2.3M | 2.8M | 3.0M | 11.3M | 26.2% |
| Program Costs (\$) | 3.3M | 0.3M | 0.4M | 0.4M | 0.4M | 4.8M | -40.4% |
| Total Operating Uses (\$) | 4.5M | 2.2M | 2.7M | 3.2M | 3.5M | 16.1M | -6.2% |
| Operating Margin (\$) | (2.0M) | 0.9M | 0.9M | 0.8M | 0.7M | 1.4M | -- |

Note: Totals may not foot due to rounding.

Key Considerations

1. Program development costs of \$2.8 million (given no full-service partnership with an OPM) will be realized in year 1 before decreasing in years 2 through 5
2. Program costs also include \$160,000 for LMS fees per year and \$222,827 for marketing costs in year 1



Sources and Uses Scenarios

The sources and uses scenario modules allow for adjustments to base assumptions to identify how changes to expectations would affect financial outcomes for the Virtual School.

| Source Scenarios | |
|-----------------------------|--|
| Scenarios | Guiding Questions |
| 1. Non-Degree Focus | How does increasing student enrollment in non degree programs change revenue and expenses of the Virtual School? |
| 2. Tuition Increase | How does increasing student enrollment in non degree programs change revenue and expenses of the Virtual School? |
| 3. Associate's Degree Focus | How does increasing student enrollment in non degree programs change revenue and expenses of the Virtual School? |

| Use Scenarios | |
|--|--|
| Scenarios | Guiding Questions |
| 1. High Touch Experience | How does increasing faculty and staffing levels change revenue and expenses of the Virtual School? |
| 2. Increased Full-Time Faculty and Staff | How does increasing full-time faculty and staff change revenue and expenses of the Virtual School? |
| 3. Full-Time Faculty Focus | How does increasing share of full-time faculty to adjunct faculty change revenue and expenses of the Virtual School? |

Each of the scenarios above, build off the base case, highlighting financial implications of shifting primary aspects of the Virtual School operations.

Sources Scenarios



The sources scenarios help to evaluate how changes in source category amounts affect total sources. In the examples below, one scenario increases tuition prices while the others adjust program enrollment.

| Source Override Assumptions | Base Case | Non-Degree Focus | Tuition Increase | Associate's Degree Focus |
|--------------------------------------|-----------|------------------|------------------|--------------------------|
| Bachelor's degree tuition (\$) | 5,540 | 5,540 | 6,094 | 5,540 |
| Associate's degree tuition (\$) | 5,760 | 5,760 | 6,336 | 5,760 |
| Non-degree program tuition (\$) | 3,100 | 3,100 | 3,410 | 3,100 |
| Other program fees (\$) | 595 | 595 | 654 | 595 |
| Share of bachelor's degree students | 0.25 | 0.10 | 0.25 | 0.20 |
| Share of associate's degree students | 0.25 | 0.10 | 0.25 | 0.60 |
| Share of non-degree students | 0.50 | 0.80 | 0.50 | 0.20 |
| Average discount rate | 0.40 | 0.40 | 0.40 | 0.40 |

Sources Scenarios



Increasing tuition and fee prices by 10.0% would increase operating revenue by 4.6% from the base case while increasing associate's degree program enrollment increases sources from the base case by 24.1%.

| Category | Base Case | Non-Degree Focus | | | Tuition Increase | | | Associate's Degree Focus | | |
|-------------------------------------|---------------|------------------|---------------|---------------|------------------|-------------|-------------|--------------------------|-------------|--------------|
| | Assumption | Assumption | Difference | % Change | Assumption | Difference | % Change | Assumption | Difference | % Change |
| Bachelor's Degree Enrollment | 75 | 30 | (45) | -60.0% | 75 | - | -- | 60 | (15) | -20.0% |
| Associate's Degree Enrollment | 75 | 30 | (45) | -60.0% | 75 | - | -- | 180 | 105 | 140% |
| Non-Degree Enrollment | 150 | 240 | 90 | 60.0% | 150 | - | -- | 60 | (90) | -60.0% |
| Total Enrollment | 300 | 300 | - | 0.0% | 300 | - | 0.0% | 300 | - | 0.0% |
| Net Tuition & Fee Revenue (\$) | 1.2M | 1.2M | 0.0M | 0.0% | 1.3M | 0.1M | 8.3% | 1.2M | 0.0M | 0.0% |
| Other Sources (\$) | 1.3M | 0.7M | (0.7M) | -53.8% | 1.3M | - | 0.0% | 1.9M | 0.6M | 46.2% |
| Total Operating Sources (\$) | 2.5M | 1.8M | (0.7M) | -26.2% | 2.6M | 0.1M | 4.6% | 3.1M | 0.6M | 24.1% |
| Fac/Staff Salaries & Benefits (\$) | 1.2M | 1.2M | - | 0.0% | 1.2M | - | 0.0% | 1.2M | - | 0.0% |
| Program Costs (\$) | 3.2M | 3.2M | - | 0.0% | 3.2M | - | 0.0% | 3.2M | - | 0.0% |
| Total Operating Uses (\$) | 4.5M | 4.5M | - | 0.0% | 4.5M | - | 0.0% | 4.5M | - | 0.0% |
| Operating Margin (\$) | (2.0M) | (2.7M) | (0.7M) | -35.0% | (1.9M) | 0.1M | 5.0% | (1.4M) | 0.6M | 30.0% |

Note: Totals may not foot due to rounding.

Uses Scenarios



The uses scenarios evaluate how changes in use category amounts affect total uses. The examples below adjust the number of full-time faculty, adjunct faculty, and staff supporting the Virtual School.

| Use Override Assumptions | Base Case | Expanding Faculty | Expanding Staff | Increased Full-Time Faculty |
|--|-----------|-------------------|-----------------|-----------------------------|
| Student-to-Faculty Ratio | 25 | 15 | 25 | 25 |
| Share of Adjunct Faculty | 0.75 | 0.75 | 0.75 | 0.5 |
| Student-to-Staff Ratio | 50 | 50 | 40 | 50 |
| IT Equipment Cost Per Faculty (\$) | 1,000 | 1,000 | 1,000 | 1,000 |
| Supplies and Materials Cost Per Faculty (\$) | 400 | 400 | 400 | 400 |
| General Expenses Per Faculty (\$) | 250 | 250 | 250 | 250 |

Uses Scenarios



Adjustments to the faculty and staff ratios increase salaries and benefits expenditures by \$115.9K to \$131.0K (9.7% to 10.9%) but only increase overall operating uses by at most, 2.8%.

| Category | Base Case | Expanding Faculty | | | Expanding Staff | | | Increase Full-Time Faculty | | |
|-------------------------------------|---------------|-------------------|---------------|--------------|-----------------|---------------|--------------|----------------------------|---------------|--------------|
| | Assumption | Assumption | Difference | % Change | Assumption | Difference | % Change | Assumption | Difference | % Change |
| Net Tuition & Fee Revenue (\$) | 1.2M | 1.2M | - | 0.0% | 1.2M | - | 0.0% | 1.2M | - | 0.0% |
| Other Sources (\$) | 1.3M | 1.3M | - | 0.0% | 1.3M | - | 0.0% | 1.3M | - | 0.0% |
| Total Operating Sources (\$) | 2.5M | 2.5M | - | 0.0% | 2.5M | - | 0.0% | 2.5M | - | 0.0% |
| Student-to-Faculty Ratio | 25 | 15 | (10) | -40.0% | 25 | - | 0.0% | 25 | - | 0.0% |
| Share of Adjunct Faculty | 0.75 | 0.75 | - | 0.0% | 0.75 | - | 0.0% | 0.5 | (0.25) | -33.3% |
| Student-to-Staff Ratio | 50 | 50 | - | 0.0% | 40 | (10) | -20.0% | 50 | - | 0.0% |
| Fac/Staff Salaries & Benefits (\$) | 1.2M | 1.3M | 0.1M | 8.3% | 1.3M | 0.1M | 8.3% | 1.3M | 0.1M | 8.3% |
| Program Costs (\$) | 3.3M | 3.3M | - | 0.0% | 3.3M | - | 0.0% | 3.3M | - | 0.0% |
| Total Operating Uses (\$) | 4.5M | 4.6M | - | 0.0% | 4.6M | - | 0.0% | 4.6M | - | 0.0% |
| Operating Margin (\$) | (2.0M) | (2.1M) | (0.1M) | -5.0% | (2.1M) | (0.1M) | -5.0% | (2.1M) | (0.1M) | -5.0% |

Note: Totals may not foot due to rounding.

1) Does not include employee benefits (remains constant across scenarios)



Next Steps

Building off the previous two tasks and the financial model, the team will design an implementation plan highlighting near, medium, and long-term steps.

1

Incorporate feedback from today's session into financial model

3

Continue Task 4 development of business plan and implementation roadmap

2

Share updated model with VSU and RBC project managers

4

Final meeting of this engagement is scheduled for February 9th, 12:30-2pm ET

Virginia State University and Richard Bland College

Virtual School of Technical and Professional Studies

Task 4: Implementation Plan

Originally shared: February 9, 2022

Agenda

1. Principles of the Virtual School Vision

- a. What audiences will the Virtual School aim to serve?
- b. What types of programs and courses will the Virtual School offer to meet student needs?

2. Virtual School Operations

- a. What is the proposed division of responsibilities that will be optimal for Virtual School operations?
- b. What options exist for external partners to support marketing, instructional design, and career services?

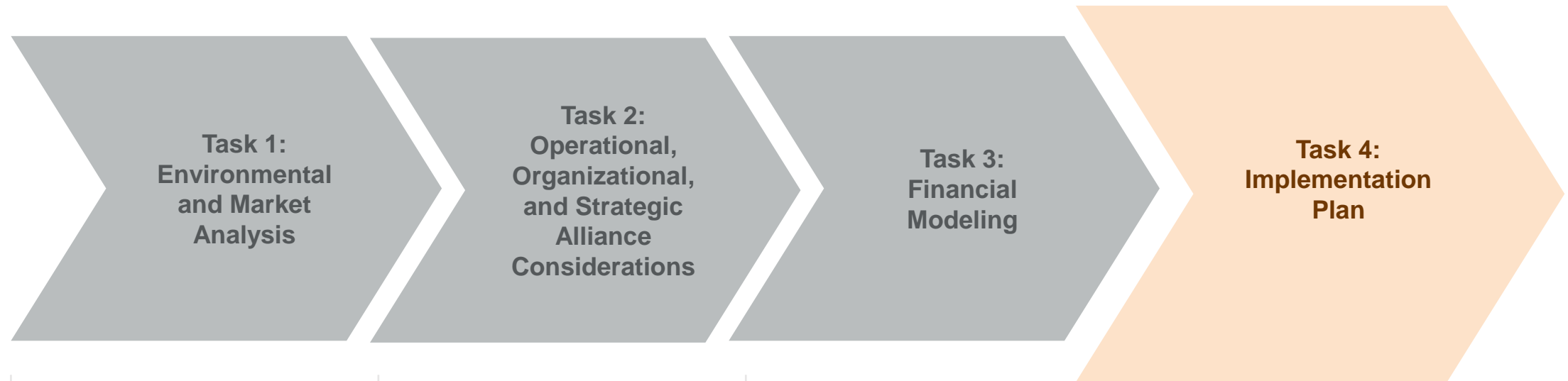
3. Implementation Roadmap

- a. What is the timeline and series of activities that will be necessary for implementation?
- b. What are the proposed structure, roles, and responsibilities of the implementation team?



Virtual School Business Plan Approach

To-date, Huron has reviewed with VSU and RBC a list of potential offerings and operational requirements for the Virtual School. Next, we will discuss the financial impact.



Task 1

RBC and VSU will align around an initial set of **offerings** to be delivered by the Virtual School. Offerings will be prioritized based on demand, competitive density, and pricing, among other factors.

Task 2

RBC and VSU will develop a shared understanding of the **operational requirements** to launch and grow the School, based on the outcomes of the first Task. This will include an analysis of current resources at both institutions as well as opportunities for third-party partnerships.

Task 3

The financial model will provide leadership with a **tool for evaluating the financial impact** of academic and operational decisions in designing the School.

Task 4

Leadership will come to understand the near, medium, and long-term next steps.

Principles of the Virtual School Vision



During Task 1: Environmental and Market Analysis, VSU and RBC defined elements of the Virtual School Mission by determining the target audience and how to best meet their needs and the needs of the state.

EQUITABLE
Close access and completion gaps

VSU and RBC seek to establish an online school aimed at a **diverse population of Virginians** and differentiated by a **high-touch, student support value proposition**

AFFORDABLE
Lower cost to students

The Virtual School could **offer innovative products tailored to meet the needs of target students** and ensure affordability by **pricing offerings competitively according to the market**

TRANSFORMATIVE
Expand prosperity

The Virtual School is considering offerings that are based on growing jobs in Virginia to **prepare students for careers in 21st Century Technical Jobs**

TARGET AUDIENCES AND NEEDS

The Virtual School aims to serve the adult learner market, specifically degree completers, those seeking career changes, and military personnel as well as student seeking educational flexibility

NON-TRADITIONAL OFFERINGS

The Virtual School will offer competitively priced degrees and nontraditional offerings such as certificates and micro-credentials to provide options for students who hope to obtain necessary credentials as quick and cost effectively as possible

21ST CENTURY TECHNICAL JOBS

Virtual School offerings will be directly connected to labor market demand for occupations that are expected to grow in the Virginia Commonwealth



Target Audiences and Needs

As a junior college and an HBCU, RBC and VSU have track records of delivering high-quality education to historically underserved audiences. The Virtual School will continue to focus on the underserved, while also broadening the audiences that each partner institution currently addresses.

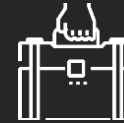
DEGREE COMPLETERS

- Credit for Prior Learning and Experience
- Sense of Belonging



CAREER MOVERS

- Clear Professional Pathways
- Strong Career Services and Advising



VIRTUAL SCHOOL STUDENT

- High-Quality Offerings
- Online Delivery

CAREER ADVANCERS

- Quick, Affordable Options that Provide Additional Credentials
- Flexibility to Balance Coursework with Work



MILITARY MEMBERS AND THEIR FAMILIES

- Special Access to Institutional Support and Dedicated Resources
- Variety of Options
- Military Discounts



APPLICATION AND ADMISSIONS

During the applications and admissions process, the target audience will make decisions based on affordability and in some cases, the ability to transfer in credit based on previous learning

ENROLLMENT AND RETENTION

The target audience will seek flexible scheduling and shorter duration, high-quality offerings. These needs combined with high-touch student support will promote high student retention in the Virtual School.

GRADUATION

With the Virtual School's goal of offering programs and courses tied to labor market needs, Virtual School students will require career services support to help them make the transition to a new occupation.

Non-Traditional Offerings



To meet the needs of the target audience, the Virtual School should consider lower cost, non-traditional offerings that will provide flexible, more affordable options alongside traditional degree programs.

MICRO-CREDENTIALS

Online providers have seen an increase in enrollment for micro-credential offerings as students seek alternative, non-traditional options to demonstrate competency in a particular area.



Only 13% of surveyed institutions currently offer micro-credentials indicating low supply for current demand¹

CUSTOM EMPLOYER OFFERINGS

More corporations seek to partner with higher education institutions to develop career-specific curriculum to meet their workforce needs and create pathways to specific professions.



13% expected annual growth in employer-university collaborations²

CERTIFICATES

Enrollments in certificate offerings increased in 2019 and 2020 while associate and bachelor's degree programs declined indicating more interests in noncredit certificates.



5% growth in postbaccalaureate certificate programs in 2020³

COMPETENCY-BASED EDUCATION

Competency-based education has increased in popularity, providing students the flexibility to progress through academic programs at their own pace.



73% of surveyed institutions noted they were in the process or interested in adopting competency-based education⁴

1) UPCEA, Demographic Shifts in Educational Demand and the Rise of Alternative Credentials, 2017

2) 4) <https://medium.com/emerge-edtech-insights/mass-collaboration-between-employers-and-universities-is-the-future-of-higher-education-part-1-ed840467bfd5>

3) National Student Clearinghouse Research Center, November 2020

4) 2) <https://www.air.org/sites/default/files/2021-07/State-of-the-Field-Findings-from-2020-Postsecondary-CBE-Survey-July-2021.pdf>

21st Century Technical Jobs



The Virtual School will be focused on providing direct pathways to in-demand careers through consistent assessments of the market and the alignment of programs and course offerings to labor market needs.

| CIP Code | Program | Example Occupation | Typical Level of Education | Median Salary |
|----------|---|--|----------------------------|---------------|
| 11.0202 | Computer Programming, Specific Application | Software Developers | Bachelor's Degree | \$112,736 |
| 11.1001 | Network and System Administration / Administrator | Web Developer | Associate's Degree | \$80,787 |
| 52.1031 | Management Science | Operations Research Analyst | Bachelor's Degree | \$106,246 |
| 52.1399 | Management Science and Quantitative Methods | Operations Research Analyst | Bachelor's Degree | \$106,246 |
| 14.0901 | Computer Engineering | Web Developer | Associate's Degree | \$80,787 |
| 27.0304 | Computational and Applied Mathematics | Data Scientist | Bachelor's Degree | \$92,414 |
| 51.2706 | Medical Informatics | Software Developers | Bachelor's Degree | \$112,736 |
| 11.0802 | Data Modeling/ Warehousing & Database Admin | Database Administrators and Architects | Bachelor's Degree | \$109,970 |
| 51.2706 | Information Technology | Information Security Analyst | Bachelor's Degree | \$116,376 |
| 43.0116 | Cyber/Computer Forensics and Counterterrorism | Information Security Analyst | Bachelor's Degree | \$116,376 |
| 49.0101 | Aeronautics/Aviation/Aerospace Science & Tech. | Avionics Technician | Associate's Degree | \$70,158 |



Division of Responsibilities

During Task 2: Operational and Organizational Considerations, VSU and RBC discussed the division of responsibilities and decided on potential areas where an external partnership could be beneficial.

| Value Chain Stage | Success Factors |
|---|--|
| Ideation and Market Assessment | <ul style="list-style-type: none"> Faculty Engagement Market Alignment |
| Opportunity Identification & Confirmation | <ul style="list-style-type: none"> Marketing & Communicating Value Leveraging Partnerships |
| Proposal, Evaluation, & Approval | <ul style="list-style-type: none"> Effectiveness of Approval Process Offering Time-to-Market |
| Development | <ul style="list-style-type: none"> Program Quality Student Experience |
| Delivery | <ul style="list-style-type: none"> Student Satisfaction High-tough Student Support |
| Management and Monitoring | <ul style="list-style-type: none"> Student Career Placement New and Repeat Business |

| Virtual School Function | Primary Responsibility Organization | | |
|------------------------------|-------------------------------------|-----|------------------|
| | VSU | RBC | External Partner |
| Program Ideation | | ✓ | |
| Market Assessment | | | ✓ |
| Marketing | | | ✓ |
| Offering Approval | ✓ | ✓ | |
| Curriculum Design | | ✓ | |
| Instructional Delivery | | ✓ | |
| Information Technology | ✓ | | |
| Student Registration | ✓ | | |
| Student Advising and Support | | ✓ | |
| Career Services | | | ✓ |
| Human Resources | ✓ | | |
| Finance | | ✓ | |

OPM Partnership Options



During Task 2, VSU and RBC also discussed the potential for an OPM partnership to support market research, marketing, instructional design, and career services efforts for the Virtual School.



| | Noodle | Wiley University Services | 2U + edX | Pearson Online Learning Services | Academic Partnerships | All Campus | Coursera |
|--------------------------------|--------|---------------------------|----------|----------------------------------|-----------------------|------------|----------|
| Marketing with Lead Generation | ● | ● | ● | ● | ● | ● | ● |
| Instructional Design | ● | ● | ● | ● | ● | ● | ● |
| Career Development | ● | ◐ | | | | | ◑ |

● Service provided by company

◐ Some services provided by company

◑ Limited services provided by company

OPM Partnership Pricing



OPM vendors largely offer two different fee structures including tuition revenue sharing for bundled services or fee for service for select services.



| | Noodle | Wiley University Services | 2U + edX | Pearson Online Learning Services | Academic Partnerships | All Campus | Coursera |
|-----------------------------|--|--|-------------------------------------|--|---------------------------|-------------------------------------|---|
| Tuition Revenue Share (TRS) | ● | ● | ● | ● | ● | ● | ● |
| Fee for Service (FFS) | ● | ● | | ● | | | |
| Notes | Flat fee structure plus fee per credit hour enrolled each semester | 30-40% TRS for packaged services; Some FFS options | More than 50% Tuition Revenue Share | 40-60% TRS for packaged services; Some FFS options | 50% Tuition Revenue Share | More than 35% Tuition Revenue Share | 25-40% Tuition Revenue Share based on revenue generated |

Two Pathways for Virtual School Implementation



Pathway for New Offerings

| | Phase 1: Design and Readiness | Phase 2: Offering Development | Phase 3: Virtual School Launch | Phase 4: Growth and Expansion |
|---|---|---|---|--|
| | Spring 2022 – Fall 2022 1-8 months | Fall 2022 – Summer 2023 9-17 months | Fall 2023 18-21 months | Post-Launch/Ongoing |
| Pathway for New Programs and Courses | Define set of offerings, student support structure, & scope of external partnership | Develop offerings and establish processes to support operations | Launch first term and set plan for evaluation and future planning | Continue to expand offerings and program types |

Rebrand Existing Offerings

| | Phase 1: Student Support Development | Phase 2: Establish Processes for Business Ops | Phase 3: Virtual School Launch | Phase 4: Growth and Expansion |
|--|--|--|---|--|
| | Spring 2022 1-3 months | Summer 2022 4-6 months | Fall 2022 6-9 months | Post-Launch/Ongoing |
| Rebrand Existing Programs and Courses | Design student support structure and marketing strategy for Virtual School | Develop processes to support business operations | Launch first term and set plan for evaluation and future planning | Continue to expand offerings and program types |



Implementation Roadmap - Overview

KEY ACTIVITIES

| | Phase 1: Design and Readiness | Phase 2: Offering Development | Phase 3: Virtual School Launch | Phase 4: Growth and Expansion |
|-----------------------------|---|---|--|--|
| | Spring 2022 – Fall 2022 1-8 months | Fall 2022 – Summer 2023 9-17 months | Fall 2023 18-21 months | Post-Launch/Ongoing |
| Purpose | Define set of offerings, student support structure, & scope of external partnership | Develop offerings and establish processes to support operations | Launch first term and set plan for evaluation and future planning | Continue to expand offerings and program types |
| Academic Affairs | Establish new offering approval policies and determine resources needed | Approve and develop new offerings in accordance with policy standards | Deliver courses for inaugural term of Virtual School; request student feedback | Evaluate student feedback for how to improve delivery and plan for new offerings |
| Student Support | Form student support services: advising, career services, health services, etc. | Work with OPM and define criteria for external career services support | Aid first cohort in academic and career planning; request student feedback | Evaluate student feedback for how to improve student support |
| Technology and Partnerships | Lead discovery for OPM and determine scope of potential partnership | Prepare IT resources for instruction and LMS for student and course content | Support delivery of courses through management of student and course content | Assess need for updated IT resources and faculty, staff, and student IT needs |
| Administrative | Establish processes for student registration, finance, and human resources | Prepare workflows for Virtual School Launch | Execute registrar, finance, and human resource operations in support of VS | Forecast enrollment and financial outcomes for budget planning |



Implementation Roadmap – Academic Affairs

| | Phase 1: Design and Readiness | Phase 2: Offering Development | Phase 3: Virtual School Launch | Phase 4: Growth and Expansion |
|------------------------------------|--|---|---|--|
| | Spring 2022 – Fall 2022 1-8 months | Fall 2022 – Summer 2023 9-17 months | Fall 2023 18-21 months | Post-Launch/Ongoing |
| Purpose | Define set of offerings, student support structure, & scope of external partnership | Develop offerings and establish processes to support operations | Launch first term and set plan for evaluation and future planning | Continue to expand offerings and program types |
| Academic Affairs | Establish new offering approval policies and determine resources needed | Approve and develop new offerings in accordance with policy standards | Deliver courses for inaugural term of Virtual School; request student feedback | Evaluate student feedback for how to improve delivery and plan for new offerings |
| Student Support | <ul style="list-style-type: none"> Engage faculty to help design streamlined approval process and criteria for programs and courses | <ul style="list-style-type: none"> Review proposed offering against policy criteria Work with instructional designers (and OPM) to develop offering content | <ul style="list-style-type: none"> Begin delivery of Virtual School courses Solicit feedback from students for ways in which to improve delivery and course content | <ul style="list-style-type: none"> Continuation ideation of new programs and courses for Virtual School Maintain ongoing training for online instruction |
| Technology and Partnerships | <ul style="list-style-type: none"> Define faculty qualifications needed to teach for Virtual School | <ul style="list-style-type: none"> Follow processes for SCHEV/SACSCOC and discipline-specific accrediting bodies for approval and accreditation as well as other regulatory bodies | | |
| Administrative | <ul style="list-style-type: none"> Select initial offerings | | | |

KEY ACTIVITIES



Implementation Roadmap – Student Support

| | Phase 1: Design and Readiness | Phase 2: Offering Development | Phase 3: Virtual School Launch | Phase 4: Growth and Expansion |
|------------------------------------|---|---|--|--|
| | Spring 2022 – Fall 2022 1-8 months | Fall 2022 – Summer 2023 9-17 months | Fall 2023 18-21 months | Post-Launch/Ongoing |
| Purpose | Define set of offerings, student support structure, & scope of external partnership | Develop offerings and establish processes to support operations | Launch first term and set plan for evaluation and future planning | Continue to expand offerings and program types |
| Academic Affairs | Form student support services: advising, career services, health services, etc. | Work with OPM and define criteria for external career services support | Aid first cohort in academic and career planning; request student feedback | Evaluate student feedback for how to improve student support |
| Student Support | <ul style="list-style-type: none"> Design student support services including level of staff support, mechanisms for requesting and receiving support | <ul style="list-style-type: none"> Establish connections with local employers Design online mentoring program | <ul style="list-style-type: none"> Align students with mentor or advisor to map our academic and career plans Communicate suite of support services to students and ways to access Solicit feedback | <ul style="list-style-type: none"> Review student feedback to assess if adjustments to support structure are needed |
| Technology and Partnerships | | | | |
| Administrative | <ul style="list-style-type: none"> Work with Technology team and faculty to assess potential for OPM partnership | | | |

KEY ACTIVITIES



Implementation Roadmap – Technology

KEY ACTIVITIES

| | Phase 1: Design and Readiness | Phase 2: Offering Development | Phase 3: Virtual School Launch | Phase 4: Growth and Expansion |
|------------------------------------|---|--|--|---|
| | Spring 2022 – Fall 2022 1-8 months | Fall 2022 – Summer 2023 9-17 months | Fall 2023 18-21 months | Post-Launch/Ongoing |
| Purpose | Define set of offerings, student support structure, & scope of external partnership | Develop offerings and establish processes to support operations | Launch first term and set plan for evaluation and future planning | Continue to expand offerings and program types |
| Academic Affairs | Conduct exploratory conversations with OPM and evaluate options for potential partnership | Prepare IT resources for instruction and LMS for student and course content | Support delivery of courses through management of student and course content | Assess need for updated IT resources and faculty, staff, and student IT needs |
| Student Support | <ul style="list-style-type: none"> Partner with faculty and Student Support team to evaluate potential for OPM partnership | <ul style="list-style-type: none"> Work with faculty to ensure they have resources for instruction Configure LMS and import offering content | <ul style="list-style-type: none"> Provide technical support for students and faculty | <ul style="list-style-type: none"> Conduct maintenance of IT resources Review IT infrastructure to determine if updates are required Manage archives of content and update as necessary for new programs and courses |
| Technology and Partnerships | <ul style="list-style-type: none"> Establish technology support for students | | | |
| Administrative | | | | |



Implementation Roadmap – Administrative

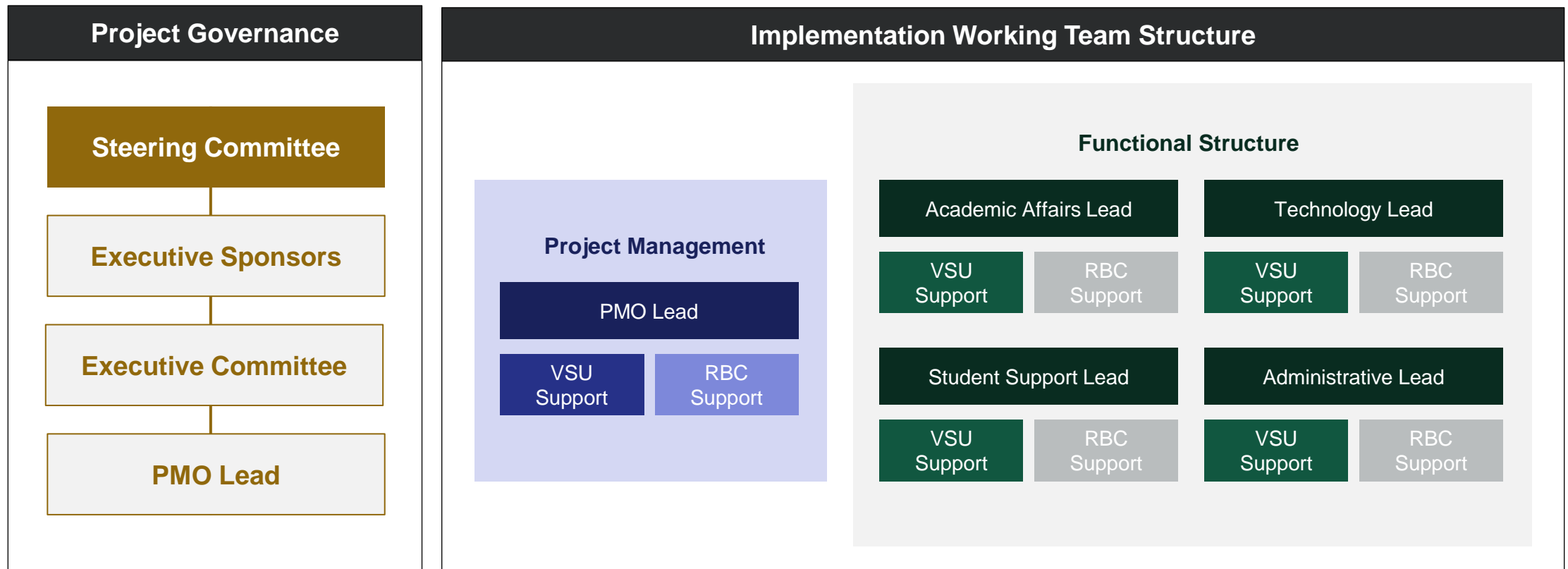
KEY ACTIVITIES

| | Phase 1: Design and Readiness | Phase 2: Offering Development | Phase 3: Virtual School Launch | Phase 4: Growth and Expansion |
|------------------------------------|--|--|--|--|
| | Spring 2022 – Fall 2022 1-8 months | Fall 2022 – Summer 2023 9-17 months | Fall 2023 18-21 months | Post-Launch/Ongoing |
| Purpose | Define set of offerings, student support structure, & scope of external partnership | Develop offerings and establish processes to support operations | Launch first term and set plan for evaluation and future planning | Continue to expand offerings and program types |
| Academic Affairs | Establish processes for student registration, human resources, and finance | Prepare workflows for Virtual School Launch | Execute registrar, finance, and human resource operations in support of VS | Forecast enrollment and financial outcomes for budget planning |
| Student Support | <ul style="list-style-type: none"> Design process for student registration | <ul style="list-style-type: none"> Setup and test flow of information for registrar and financial system | <ul style="list-style-type: none"> Track student program and course registrations | <ul style="list-style-type: none"> Project enrollment and aid in development of enrollment strategy |
| Technology and Partnerships | <ul style="list-style-type: none"> Work with Academic Affairs team to determine additional personnel need | <ul style="list-style-type: none"> Develop and execute marketing plan for Virtual School (possibly in partnership with OPM) | <ul style="list-style-type: none"> Collect information on courses taught by faculty members | <ul style="list-style-type: none"> Forecast projected financial results |
| Administrative | <ul style="list-style-type: none"> Determine ideal split of revenues and costs between VSU and RBC | <ul style="list-style-type: none"> Work with Academic Affairs to form pricing | <ul style="list-style-type: none"> Receive student payments | <ul style="list-style-type: none"> Develop budget for next year of Virtual School |



Implementation Team Structure

VSU and RBC can structure the implementation team with strategic direction provided by the executive sponsors and executive committee and the operational aspects handled by the functional teams.





Implementation Team Responsibilities

The implementation of the Virtual School will be complex and require execution of responsibilities by the various functional teams, guided by a Project Management team consisting of internal or external support.

| | Team | Example Members | Responsibilities | Time Commitment | Frequency of Interaction |
|-------------|-----------------------------|-------------------------------------|---|-----------------|--------------------------|
| Strategic | Executive Sponsors | Presidents and Provosts | Vision, strategic direction and alignment, scope, schedule, cost, policy, competing priorities, organizational roadblocks | 0.05 FTE | Monthly |
| | Executive Committee | VPs of Academic Affairs, Finance | Business strategy issues, budget issues, project integration issues, campus impact, resistance issues, success criteria | 0.10 FTE | Bimonthly |
| | Project Management | Dirs. of Distance/ Online Education | Strategic and tactical decision making, escalation of high risk/high impact issues, oversight and guidance | 0.50 FTE | Weekly |
| Operational | Academic Team | Faculty Representatives | Program and course design, student experience, student learning outcomes | 0.60 FTE | Daily |
| | Technology Team | Directors of IT | Configuration values, technical solutions, business process designs, OPM partnership management | | |
| | Student Support Team | Director of Student Affairs/Success | Student experience, career services and student placement | | |
| | Administrative Team | Directors of HR, Finance, Registrar | Business process design, enrollment forecasting, budget forecasting | | |

In addition to institutional senior leadership, the executive committee can appoint Board of Visitors members, external partners, and other key stakeholders to aid in the progression of the Virtual School implementation.

Task 4

Appendix



Current Offerings for Virtual School Launch



VSU and RBC may capitalize on current offerings at each institution that can be rebranded and offered at launch of the Virtual School. The following are example VSU courses.

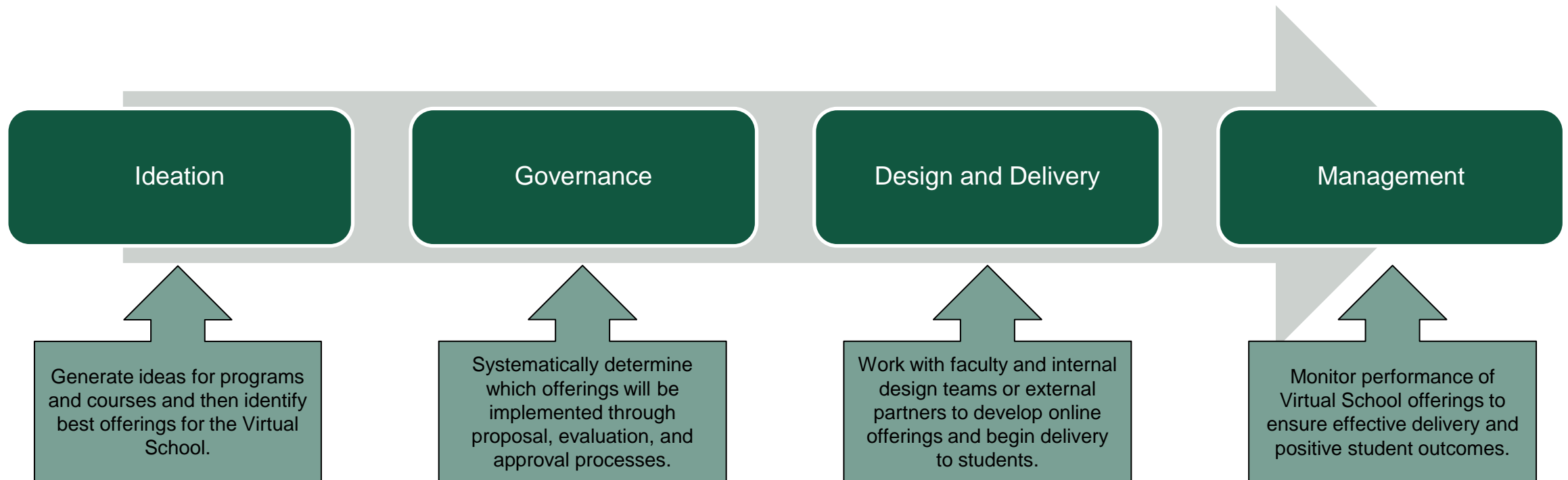
| Virginia State University Official Certificate Programs | | | | | |
|--|---|------|---------------|-------------------|---------------|
| CIP | Title | ABBR | Program Level | Certificate Level | Student Level |
| 01.0701 | International Agriculture | INAG | 55 | Undergraduate | 91 |
| 11.0401 | Enterprise Systems | ENSY | 55 | Undergraduate | 91 |
| 15.0399 | Wireless Technology | WRLT | 55 | Undergraduate | 91 |
| 19.0501 | Nutrition and Dietetics | DIET | 55 | Undergraduate | 91 |
| 44.9999 | Homefront Readjustment for the Armed Forces | HRAF | 55 | Undergraduate | 91 |

For example, The Virtual School can capitalize on stackable certificates currently offered at VSU



Value Chain Overview

The value chain outlines the broad steps for success and the factors that contribute to the final product. Additionally, it creates a framework for internal assessment and division of roles between VSU and RBC.



VSU and RBC discussed the division of responsibilities at each stage of the value chain and should continue to discuss how to best leverage the resources outlined in the following pages to ensure effective operations.



Faculty Engagement

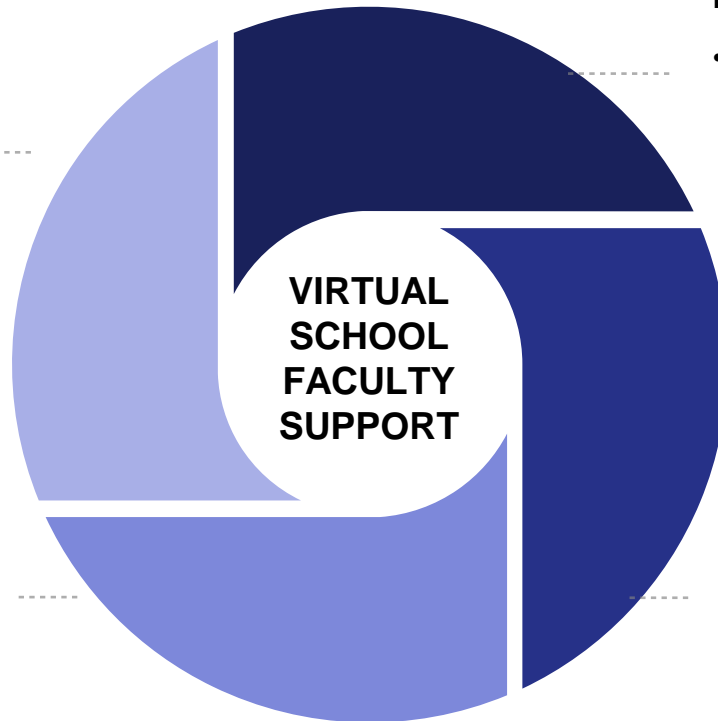
VSU and RBC discussed using a variety of options for Virtual School instructional delivery including leveraging current VSU and RBC faculty expertise, hiring adjunct faculty, and outsourcing.

EXTERNAL VENDOR SUPPORT

- How can an external vendor support faculty at the Virtual School?

HIRE ADJUNCT FACULTY

- How can adjunct faculty supplement current faculty at the Virtual School?



LEVERAGE CURRENT FACULTY EXPERTISE

- What are the additional areas of specialty for current faculty at both VSU and RBC?

FULL-TIME FACULTY

- How many current faculty members can be utilized for the Virtual School?

Current Decisions

- Current full-time faculty at both institutions could be engaged to support the Virtual School
- Full-time faculty can manage a pool of adjuncts who would provide delivery of instruction
- External partners could aid faculty in course development
- VSU and RBC will need to agree on the criteria for hiring highly-qualified faculty

Next Steps

1. Continue discussing need for external support for faculty course development assistance
2. Agree on criteria to assess qualifications of new faculty
3. Begin hiring process for additional full-time and adjunct faculty

Assessment Criteria



VSU and RBC discussed prioritizing offerings based on market need, feasibility, financial impact, and mission alignment.

MARKET NEEDS

How will VSU and RBC continue to leverage market data to aid in the discovery process for new offerings?

MISSION ALIGNMENT

How will the Virtual School support the strategic plan of the state of Virginia?



FEASIBILITY

Will offering market research be conducted in house or through a third-party vendor?

MARGIN

How will the initial set of offerings impact the revenue and expense expectations of the Virtual School?

Current Decisions

- Virtual School offerings will need to be aligned to market need through consistent market research efforts
- The financial model allows for views of different scenarios and can be used for planning purposes
- Principles of the Virtual School mission align with the mission of The Virginia Plan for Higher Education

Next Steps

1. Continue discussion around potential for a third-party partnership that best fits the needs of the Virtual School and aligns with the interests of VSU and RBC
2. Identify best offerings for the Virtual School based on a balance of margin and student outcomes



Marketing Services Partner Options

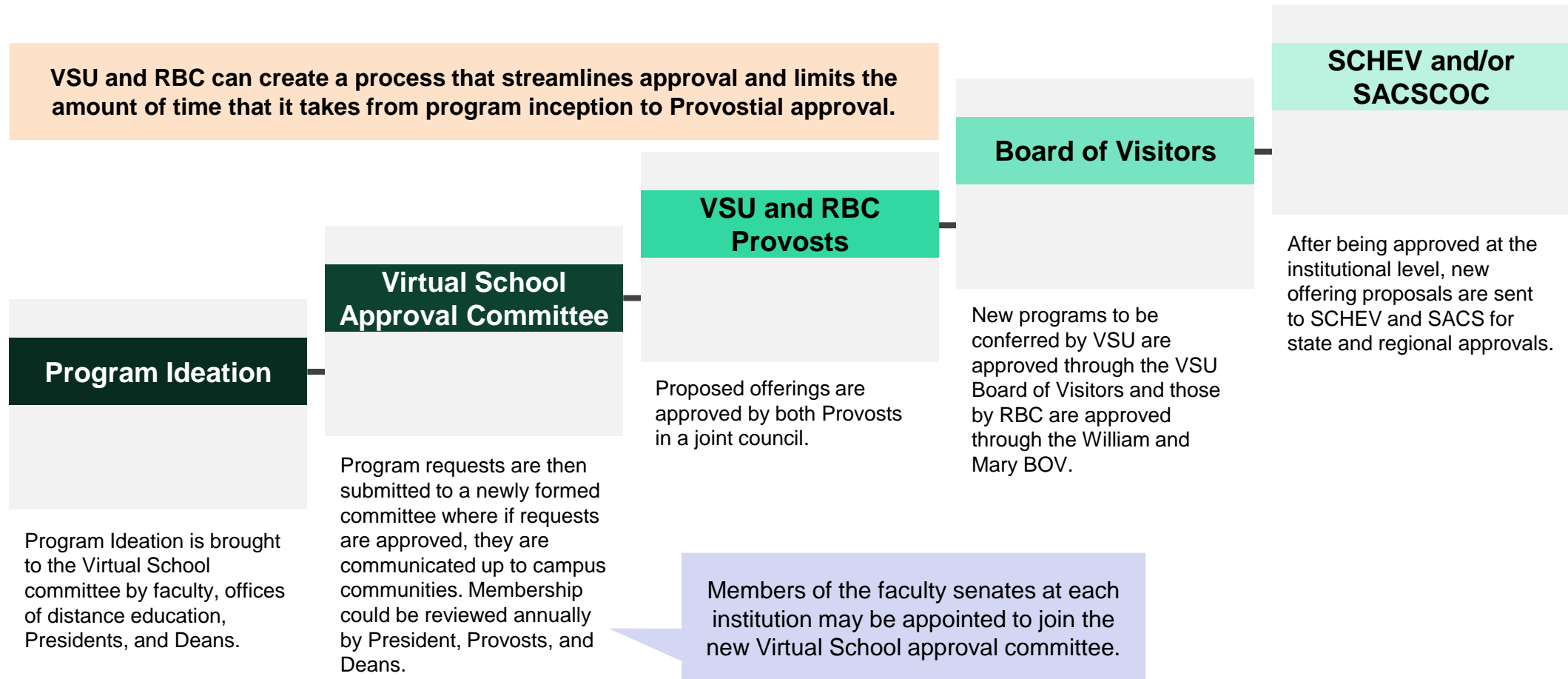
VSU and RBC will need to agree on the specific marketing functions needed for the Virtual School to aid in the external partner selection process.

| OPM Partnership | | | | | | | |
|---|---|--|--|--|---|---|---|
| | Noodle | Wiley University Services | 2U + edX | Pearson Online Learning Services | Academic Partnerships | All Campus | Coursera |
| Marketing Support Provided: | <ul style="list-style-type: none"> Provides market research to aid in marketing materials Web design and content management Aid in recruitment marketing leads | <ul style="list-style-type: none"> Strategic portfolio growth Provides current market research in line with job market | <ul style="list-style-type: none"> Aids in institution branding Provides market research | <ul style="list-style-type: none"> Provides market research Aid in student acquisition | <ul style="list-style-type: none"> Market research capabilities Aid in brand and offering promotion Aid in student recruitment and retention | <ul style="list-style-type: none"> Build paid search and social media content development Aid in student recruitment Provides innovation tools | <ul style="list-style-type: none"> Build global reputation to aid in student recruitment |
| Tuition Revenue Sharing (If bundled with other services) | Temporary revenue sharing to aid in upfront costs | 30%-40% of tuition revenue shared | >50% of tuition revenue shared | 40-60% of tuition revenue shared | 50% of tuition revenue shared | ~35% of tuition revenue shared | 25%-40% depending on amount of revenue |
| Fee for Service | Flat fee structure plus fee per credit hour enrolled each semester | Allow for unbundled services for fee for service | | Offers a fee for service model, as well | | | |



Virtual School Program Approval Process






To streamline the approval process, VSU and RBC can create a Virtual School specific policy for offering approval and charge a new committee with reviewing proposals and communicating decisions.





High-Quality Offerings

VSU and RBC discussed creating quality standards across multiple criteria of program quality. Next steps include finalizing these standards into policy.

| | | | | |
|--|---|--|---|---|
|  |  |  |  |  |
| <p>STUDENT READINESS</p> <ul style="list-style-type: none"> • Build learning communities throughout program duration to assist in student engagement | <p>FACULTY READINESS</p> <ul style="list-style-type: none"> • Provide faculty with both technical LMS training, as well as pedagogy training with a clear focus on the principle of effective moderation and facilitation of online discussions | <p>COURSE DESIGN, IMPLEMENTATION, AND EVALUATION</p> <ul style="list-style-type: none"> • Review and adapt syllabi each period • Review enrollment counts during course period • Frequent request for student feedback on course architecture and student comfort with class/environment | <p>LEARNING MANAGEMENT SYSTEM (LMS)</p> <ul style="list-style-type: none"> • RBC currently uses Canvas LMS which VSU is in the process of switching to from Blackboard LMS. | <p>INSTITUTIONAL INFRASTRUCTURE</p> <ul style="list-style-type: none"> • Create an organized grievance process to ensure quality targets are being achieved by infrastructure, staff, and faculty |

Current Decisions

- VSU and RBC will create a policy that defines quality standards for Virtual School offerings
- Faculty will need to undergo mandatory and consistent training for online instruction

Next Steps

1. Agree on shared process for program quality standards
2. Build policy outlining quality standards for course content to build consistency across the Virtual School

Student Satisfaction



VSU and RBC discussed decisions for the Virtual School that will increase student satisfaction across multiple criteria.

Career Oriented Decision Making

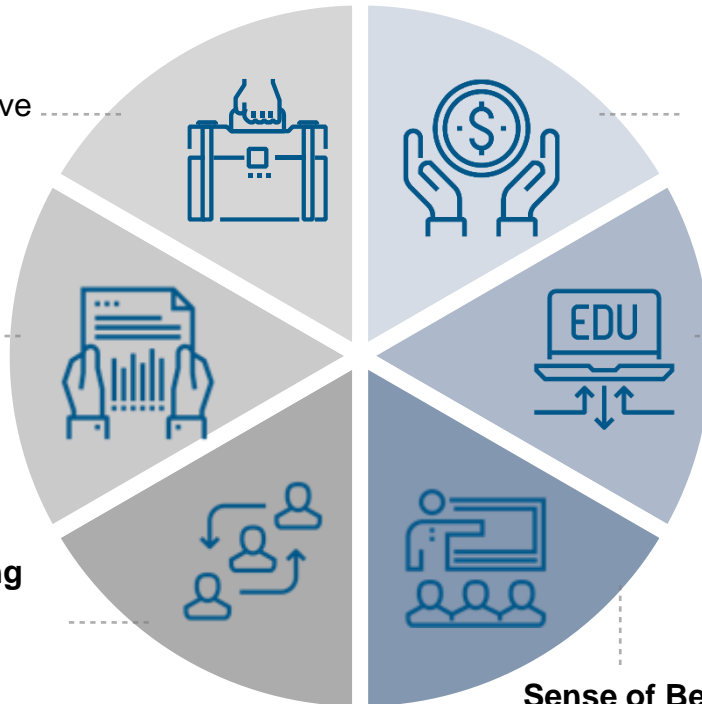
Will the Virtual School have dedicated student career support services?

Expedited Decision Making

How will the Virtual School streamline the process of admission decisions?

Prior Learning Assessment

How will the Virtual School meet the needs of degree completers?



Affordability & Scholarship

How will the Virtual School ensure student satisfaction with offering pricing?

Flexibility

How will the Virtual School meet the scheduling needs of students?

Sense of Belonging

Will Virtual School students have access to all of the support services of on campus students?

Current Decisions

- Career support services for the Virtual School maybe outsourced to an OPM
- VSU and RBC agreed that offering prices should be competitive with the market and contingent on the program
- The Virtual School will offer an array of bachelor's, associate's, and non-traditional, non-degree options to meet the needs of different student populations

Next Steps

1. Discuss option of 24/7 student support through external partnership
2. Discuss admission process for the Virtual School and dual enrollment for VSU and RBC
3. Discuss how to best assure that students are acclimated to each institution and how to strengthen the sense of belonging

Career Services Partner Options



VSU and RBC discussed a desire to explore partnering with an external vendor for career services support to aid students in career placement.

| Online Program Managers | | | Additional Options | |
|---|---|--|---|---|
| Noodle | Coursera | Wiley University Service | uConnect | Career Core (Kaplan/Wake Forest Partnership) |
| <ul style="list-style-type: none"> Connects partner university with companies to assist with career services Provides technology support to assist with online programming Provides success coaching to online learners Integrate students in Noodle career programming to set up for career success Mentoring program | <ul style="list-style-type: none"> Aid students in learning skills valued by employees through programs Coursera skill sets such as communication skills and successful negotiations Track students progress within industry standards | <ul style="list-style-type: none"> Aids with military and veterans through the Wiley Military and Veteran Center of Excellence Connect students with career-ready programs to support career needs Use robust technology and data enabled reporting of the student journey to ensure students career outcomes are being met | <ul style="list-style-type: none"> Synthesis career resources data and information into one central online platform Offer career advice and education support Integrates with platforms such as Handshake Built in online mentoring | <ul style="list-style-type: none"> Partnered together to launch Career Core Uses a shared model to provide valuable services and resources Access to role specific advisors Asynchronous career course curriculum |

Support Provided:

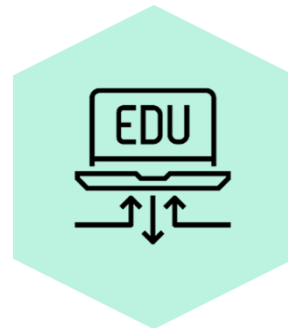


Financial Management

VSU and RBC will need to reinforce several functions related to fiscal oversight and controls in order to support the financial health of the Virtual School.

ROI ANALYSIS: PROGRAMS AND EXTERNAL PARTNERSHIPS

Analyze revenues compared to costs of specific programs and partnerships to determine margin and financial sustainability of each offering



ASSESS NEED FOR TECHNOLOGY AND OTHER INVESTMENTS

Review technology infrastructure and other resources to determine need for additional investment to ensure high-quality delivery



FINANCIAL MANAGEMENT FUNCTIONS



LONG-TERM BUDGET PLANNING

Forecast Virtual School resource needs based on expected revenues and expenses

OFFERING PRICING REVIEW

Review offering pricing periodically to ensure programs and courses are affordable to students and priced competitively

FINANCIAL DATA MANAGEMENT

Manage tracking and storage of financial data to understand program costs and to support strategic decision making

