7-15-2019

Vol. 22 No. 1 (full issue)

Recommended Citation

(2019). Vol. 22 No. 1 (full issue). *Inquiry: The Journal of the Virginia Community Colleges, 22* (1). Retrieved from
https://commons.vccs.edu/inquiry/vol22/iss1/15

INQUIRY

THE JOURNAL OF THE VIRGINIA COMMUNITY COLLEGES
VOLUME 22 | SPECIAL EDITION | SUMMER 2019

July 1, 2019

Dear Readers:

Virginia's Community Colleges are fortunate to have passionate and talented people throughout all of our institutions. You see that regularly throughout the volumes of this publication. However, this is a special edition of *Inquiry*, opening yet a wider view on some incredible people we get to call colleagues.

We decided to try something different with two of our successful professional development programs: the 2017 Faculty & Administrators Leadership Academy and the 2018 Chancellor's Leadership Academy. In addition to the skills and experiences those programs traditionally offer, we challenged participants to tackle some of the biggest questions confronting community colleges across the commonwealth, and across the country – from institutional diversity and inclusion to student enrollment, from blending credit and non-credit programs to expanding online offerings, and more.

The men and women who enrolled in those academy programs are to be commended!

Their hard work, creative thinking, and fresh approaches allowed us as a system to look at these issues anew. Not only is their work being offered in this publication but it continues forward to influence the policy conversations we have with leaders and partners both inside and outside our organization. We are grateful for their tremendous efforts.

A quick glance across the roster of VCCS presidents reveals some half-a-dozen leaders who began at some other level within our organization and went on to become presidents, and that doesn't include those who've become community college presidents elsewhere. As I reflect on the caliber of the work created by these academy participants, I'm encouraged by how we continue to grow our pool of talent and prepare the next wave of community college leaders.

Sincerely,

Glenn DuBois

INQUIRY

THE JOURNAL OF THE VIRGINIA COMMUNITY COLLEGES
VOLUME 22 | SPECIAL EDITION | SUMMER 2019

CONTENTS

2018-19 Chancellor's Leadership Academy

Increasing Success with Online Degree Courses and Programs in the VCCS
Dave Dick, Wytheville Community College
Thomas Chatman, Tidewater Community College
Paula Ford, Northern Virginia Community College
Pamela Henry, Germanna Community College
Kim Hobert, VCCS System Office
Miles Keller, John Tyler Community College
Kevin Riley, Central Virginia Community College
Christina Tidwell, Rappahannock Community College
Roberta Wright, Patrick Henry Community College

Promoting the Value of Career Education Programs
Shawn Anderson, Piedmont Virginia Community College
Rachel Dodson, Lord Fairfax Community College
David Howell, Tidewater Community College
Joshua McDowell, Danville Community College
Jesse Miller, Reynolds Community College
Dana Newcomer, Community College Workforce Alliance
Regina Sanders, Northern Virginia Community College
Maryanne Serignese, VCCS System Office
Brooklyn Shehan, Dabney S. Lancaster Community College

Using Artificial Intelligence to Enhance Educational Operations and Student Services in Higher Education
Mandy Barrett, Southwest Virginia Community College
Lisa Branson, Northern Virginia Community College
Sheryl Carter, New River Community College
Frank DeLeon, Northern Virginia Community College
Justin Ellis, Reynolds Community College
Cirrus Gundlach, Paul D. Camp Community College
Dale Lee, Mountain Empire Community College

Accelerating Student Success: The Case for Corequisite Instruction
Nekisha Burgess-Palm, John Tyler Community College
Sandra Davis, Virginia Highlands Community College
Amanda Decker, Virginia Western Community College
Heather Diritto, Germanna Community College
Shana Dix, Southside Virginia Community College
Maggie Emblom-Callahan, Northern Virginia Community College
Camisha Parker, Northern Virginia Community College
Eric Styles, Tidewater Community College

Taking the LEAP (Learner Engaged Advising Programs): VCCS Advising Practices and Recommendations
Valerie Burge-Hall, Thomas Nelson Community College
Latoya Garrison, Blue Ridge Community College
Leigh Giles-Brown, Northern Virginia Community College
Lisa Jordan, Southside Virginia Community College
Dan Lepore, VCCS Systems Office
Melanie McNall, Thomas Nelson Community College
Christine Pauley, Tidewater Community College
Andrew Quinn, Reynolds Community College

INCREASING DIVERSITY OF FACULTY AND ADMINISTRATORS IN THE VIRGINIA COMMUNITY COLLEGE SYSTEM

RACHEL ANGEL, MAZHAR ANIK, SYLVIA CLAY,
LORRAINE JUSTICE, CHERI MAEA, GENA MCKINLEY,
TIM MERRILL, NICOLE MUNDAY, & AARON ROSENTHAL

ABOUT THE AUTHORS

Rachel Angel is Coordinator of Student Support Technologies at the VCCS System Office.

Mazhar Anik is an Assistant Dean at the School of Business at J. Sergeant Reynolds Community College.

Sylvia Clay is the Engineering Program Head and an Instructor at J. Sergeant Reynolds Community College.

Lorraine Justice is an Administrative Officer for Student Support Services at Rappahannock Community College.

Cheri Maea is Director of Enrollment at Germanna Community College.

Gena McKinley is an Associate Professor of English at Rappahannock Community College.

Tim Merrill is Associate Vice President of Strategic Planning and Institutional Effectiveness at J. Sergeant Reynolds Community College.

Nicole Munday is Associate Director of Assessment at Germanna Community College.

Aaron Rosenthal a Decision Support Systems Reports Coordinator at the VCCS System Office.

PREVIOUS VCCS DIVERSITY INITIATIVES

In 2013, Chancellor DuBois convened a Task Force on Diversity with the aim of making the Virginia Community College System (VCCS) a model for diversity by "increasing the demographic diversity of the VCCS so that teaching faculty and leaders look more like the communities we serve" (Chancellors Diversity Task Force, 2014, p. 3). The hard work of the Task Force members culminated in a report that summarized their findings and recommendations, including a "Call to Action" list of 11 steps, many of which have been implemented or are in progress. Several of these key initiatives have put the VCCS on track to meeting its diversity goals: the adoption of a VCCS policy statement on diversity and inclusion; the hiring of a Chief Diversity Officer and appointment of College Diversity representatives at each of the 23 VCCS colleges; the formation of diversity steering committees at each college; and the creation of an online *Diversity Dashboard* database which provides "institutional and system-wide longitudinal data on gender and minority status" (p. 12). We commend these efforts and would like to build on the foundation provided by the Task Force. Furthermore, we maintain that the success of the *Complete 2021: Educating for a Competitive Commonwealth* VCCS Strategic Plan depends upon increasing diversity and inclusion across the colleges, particularly in the hiring and retention of more diverse faculty and administrators. Although increasing diversity on college campuses has many benefits, improving student success and completion arguably being the most significant, we believe that campus diversity is *intrinsically* valuable, apart from the many benefits it affords institutions.

DEFINING DIVERSITY

We begin with the assumption that diversity and inclusion should be defined as broadly as possible. As the Task Force report notes, definitions of diversity have historically focused on race and ethnicity, while current definitions are often more expansive, encompassing gender,

sexual orientation, socio-economic status, nationality, (dis)ability, and other categories by which individuals are marginalized. However, given the complexity of our mission to increase diversity among faculty and administrators, a scarcity of data in some categories, and the limitations of time, we have chosen to focus primarily on addressing underrepresented racial and ethnic minority groups. Our group's decision to focus on gaps between minority representation among employees and minority representation within the larger population of a college's surrounding service region was grounded in a careful study of the data (see Appendix A).

DIVERSITY AND STUDENT SUCCESS

A growing body of research suggests that hiring and retaining a diverse faculty and staff are crucial to student success. Studies show that enrollment, retention, and completion of minority students, in particular, are likely to increase when they feel that their learning environment is inclusive and when their instructors share their culture or heritage. In addition to research cited by the Task Force, there are additional studies worth highlighting, some very recent. For example, a 2014 study from De Anza Community College in California shows that the equity gap in student success among minority students compared to non-minority students decreased in classes taught by faculty of color (Fairlie, Hoffman, & Oreopoulous). This is explained in part by research that suggests diverse faculty are more likely to incorporate teaching methodologies that are relevant to their students' cultural backgrounds; this phenomenon, called "cultural synchronicity," has proven advantageous for minority student success and completion (Villegas & Irvine, 2010). The California Community College system has made great strides in both researching and increasing diversity among its faculty. Their studies show that students of color are more likely to reach out to faculty who share their racial and ethnic background (Cole & Griffin, 2013) and that minority faculty are essential in providing students of color with a

"sense of belonging" (Benitez, James, Joshua, Perfetti, & Vick, 2017). This sentiment is illustrated by one African American faculty member who, in describing how a Latina student sought his counsel, remarked that "there's some deep, deep unmet need that goes far beyond… curricular" (Levin, Walker, Jackson-Boothby, & Harberler, 2013, p. 13). This example demonstrates the strong need some students of color have for being able to access faculty of color, regardless of specific race, ethnicity, or even gender.

OUR RECOMMENDATIONS

Individual-Level

As VCCS continues to build on the work of the Task Force, we believe much of the momentum will happen on the individual level. Our group has found it useful to draw upon the concept of "tempered radicals" as a theoretical framework for how individual VCCS employees might serve as catalysts for change on their respective campuses. In her book *Rocking the Boat: How to Effect Change Without Making Trouble,* D. E. Myerson (2008) defines tempered radicals as "everyday leaders" (p. 17) who effect incremental change by challenging the status quo in smaller, more subtle ways than organizational leaders do. The Action Cycle, detailed in *Rocking the Boat,* describes how visible, local actions help like-minded people find one another. Myerson writes, "When environmentalists do something *as environmentalists*, for instance, they become visible to other environmentalists" (p. 14). Visibility of individual actions is important for relationship building among those committed to increasing workplace diversity and inclusion.

The work of the Task Force will take flight as individual VCCS colleagues reach out to one another in daily, informal ways to communicate a shared commitment to promoting a culture of diversity and inclusion. Tempered radicals can communicate their interest in increasing diversity among faculty members and administrators by sharing ideas for hiring and retention practices; making efforts to plan social engagements or eat lunch with colleagues with attributes

different from you; displaying visual markers to signify a commitment to diversity and inclusion on an office shelf or posted on an office door; circulating and/or discussing relevant articles and TED talks; among other strategies. We recognize that our VCCS colleagues already engage in many of these practices—and many more than we can list or imagine here. We hope that these undocumented, informal practices become even more frequent, visible, and intentional. As Myerson (2008) notes, "When people believe they can make a difference, they are more likely to search for opportunities to act, which makes it more likely that they will locate opportunities. When people recognize opportunities for action, their environment will seem less threatening and more amenable to action" (p. 14). Cultivating our own tempered radicals at each college would foster a nurturing workplace environment for underrepresented students, faculty and administrators.

There are several key benefits to individual change agency: it requires little to no financial investment, and change comes with more alacrity because individuals often have a greater ability to assess and respond quickly to local needs, without being dependent on infrastructure. Educator J. Tagg (2003) distinguishes between "structural leaders" who gain their authority through their place on an organizational chart and "functional leaders" who act, not from formal positions of power, but from a sense of personal mission and in response to immediate situations and needs (p. 338). Bottom-up initiatives that originate from functional leaders spread organically and can often be scaled-up more quickly. In addition, the flexibility inherent in planning individual actions can allow for a greater emphasis on the importance of intersectionality. The richness within human lives means that individuals have intersecting identities with simultaneous, multiple, overlapping affiliations regarding categories such as race, ethnicity, gender, age, religious affiliation, ability, and socioeconomic status. Informal, organic

conversations are particularly useful vehicles for acknowledging and celebrating intersectionality within our diversity and inclusion efforts.

College/Campus-Level

While individual agents can help bring about significant positive change, the leadership of all VCCS colleges must continue to pursue initiatives and enact policies that will lead directly to the hiring and retention of diverse faculty and administrators. Individual colleges, and even campuses, have different needs when it comes to closing the gap between minority faculty and administrators and the student bodies they serve. Therefore, colleges should implement an institutional framework to ensure that their diversity and inclusion efforts are documented and sustained over time. Some of what we propose below overlaps with recommendations made by the Task Force, but in highlighting them, we hope to bring renewed energy to these action steps and suggest specific ways to ensure their sustainability and accountability. To that end, our college-level recommendations focus on initiatives that are concrete, measurable and easily embedded into the fabric of the institution.

Hiring-process best practices

In an effort to learn more about the hiring practices at our member colleges, we began by interviewing our directors of Human Resources and learned that some of the more successful colleges are highly intentional in their efforts to recruit, hire, and retain minorities. For example, J. Sargeant Reynolds reports the following best practices, among others: job openings are advertised in publications that target minorities (racial and gender); human resources representatives attend HBCU (Historically Black Colleges and Universities) job fairs; efforts are made to hire from the Minority Professional Teaching Fellows Programs; and hiring committees are required by policy to have gender and racial diversity. Rappahannock Community College (RCC) and Germanna Community College target a diverse pool of strong

candidates in their job postings and recruitment efforts and remain highly intentional throughout the interview and hiring process. At RCC, when screening applicants, hiring committee members do not have access to identifying information about applicants' race or ethnicity. However, if qualified minorities are not selected for interviews, the recruitment coordinator will question the committee and help ensure that the process is fair and equitable. This has proved highly successful as minority teaching faculty at RCC increased from 6% to 24% in the span of about 10 years. Sharing successful hiring and retention practices among all VCCS colleges should be a formalized and ongoing process.

Cultural awareness

We agree with the Task Force that diversity efforts should include college-supported activities—both on campus and in the larger community—that raise awareness about cultural differences. One specific recommendation we propose is that colleges sponsor speaker series and book groups that address issues of diversity and inclusion. Reading groups could be comprised of diverse readers across campus focused on a common book, possibly taken from a selection of titles curated by the library. Alternatively, books could be selected based on a particular diversity issue and sponsored by specific campus departments or divisions. For example, nursing faculty and their students could read and discuss a book about the importance of diversity in the healthcare profession. When faculty become more familiar with topics and debates surrounding diversity and develop a vocabulary for discussing these issues, they will be more likely to incorporate these materials into their curricula. One specific recommendation of the Task Force was to "[i]nfuse diversity into the general education portion of the curriculum" (p. 9). Emphasizing diversity and inclusion within general education courses aligns well with the State Council of Higher Education for Virginia's addition of civic engagement as one of the required General Education competencies. Because we believe that being an engaged citizen in a

democratic society necessitates a commitment to diversity and inclusion, and since educational access is a central tenet of VCCS's mission, merging them through civic engagement is a natural fit.

System-Level (VCCS)

Our group vigorously supports the Diversity Advocates program and VCCS Chief Diversity Officer Kate Haselhorst's efforts to implement it, and we predict that the Advocates will play a significant role in sustaining diversity initiatives at their colleges and at the System level. We would like to see a robust participation in the Diversity Advocates program among all levels of faculty, staff and administrators, ensuring diversified membership. As definitions of diversity evolve and best practices emerge nationally and statewide, we hope that leaders and members of the Diversity Advocates program will remain open to renewing and reinvigorating its processes and professional development. We envision the Advocates program as a vibrant, participatory community of practice that embraces lifelong learning, and is not focused narrowly on compliance. We believe the VCCS Diversity Advocates program has the potential to be a catalyst for positive change, providing the diversity and inclusion infrastructure we can rally around.

One strategy for developing a permanent link between the Diversity Advocates program and VCCS's long-standing commitment to professional development is to set aside time in the conference program for New Horizons 2019 to launch an inaugural Special Interest Group session. Special Interest Group (SIG) sessions are commonplace events among academic professional conferences, as they provide participants an opportunity for networking and coalition building. Furthermore, the selection of SIG topics often signal the host organization's values and support for the affinity groups listed in the official conference program. SIGs are

relatively easy to launch because they require minimal start-up organization. A SIG session at New Horizons 2020 would need a room and time set aside that is not in competition with other keynote or concurrent sessions (e.g. an early-morning or late-evening time slot) and advance promotion on the New Horizons website and via email, as appropriate. SIGs can evolve organically without an official leadership structure or pre-determined agenda, though it would be wise to designate a few people who could facilitate conversation and collect contact information of attendees at the inaugural SIG session. The main purpose of a Diversity Advocates SIG at New Horizons 2019 would be to provide space for the Advocates—and others interested in diversity and inclusion efforts—to gather, network, brainstorm, and plan for future action(s).

VCCS has made some great strides in its diversity and inclusion efforts, but perhaps the time has come to make a more significant financial investment by collaborating with an outside organization that has a proven record of accomplishment. The University of Southern California's Center for Urban Education (CUE) has been at the forefront of equity-minded research and practical strategies to promote diversity. CUE staff members facilitate positive change by guiding colleges—and even entire systems of higher education—as educators "question their own assumptions, recognize stereotypes that harm student success, and continually reassess their practices to create change" ("Equity-Mindedness"). One of CUE's innovations is *The Equity Scorecard*™, which is both a "process and a data tool" whereby diversity data is collected and evaluated to tailor strategies to an institution's unique diversity equity needs (see Appendix B). Nearly 100 college and universities have collaborated with CUE, and the results are promising. One shining example is CUE's partnership with Los Angeles Trade-Technical College (LATTC), where researchers and higher education practitioners addressed common barriers to student success. The results were so impressive that the California

Committee on Awards for Innovation in Higher Education announced that LATTC will receive a $2 million award for "boosting completion rates and making postsecondary education more accessible" ("Pathways").

There are several tiers of involvement with CUE and the Equity process, from one-day workshops to a two-year contract that involves a greater commitment of resources. This year the CUE is hosting its second annual Institute for Equity in Hiring at Community Colleges, an event that was so popular in the first year that they are considering a biannual conference (Gordon, 2017).

We propose the following timeline of engagement with the CUE:

- VCCS Diversity and Inclusion Steering Committee and a coalition of diversity delegates study CUE research and documents.

- VCCS sends a coalition of diversity delegates to CUE's March 2020 Institute for Equity in Hiring at Community Colleges.

- VCCS allocates funding and hosts a one or two-day CUE workshop at the System Office or another centrally located venue where a critical mass of VCCS diversity delegates would be invited to attend (see Appendix C, "Equity Scorecard™ Services and Partnerships," which lists CUE's range of costs).

CONCLUSION

Improving the diversity of faculty and administrators is a responsibility owned by everyone within the VCCS. At the foundation of these efforts are the intentions to improve student success and reflect the diversity within our colleges and communities. The recommendations in the paper suggest actions at three levels: individual, college, and system. There are great people who care deeply for students at all levels, and with some coordination and collaboration, we conclude that improved diversity among faculty and administrators is within our reach.

If the VCCS were to partner with the Center for Urban Education (CUE), or another diversity center, it would be a positive step in the right direction for all our colleges. Additionally, we believe that bolder—and more enduring—moves would be to both 1) determine how to best partner with the CUE or a similar east coast center on diversity and inclusion to implement strategies such as the *Equity Scorecard*™ across the state (expensive), and 2) add measurable benchmarks to increase diversity within faculty and administrators to both President's and the Chancellor's annual goals (inexpensive). With its commitment to system-wide diversity and inclusion, the VCCS is poised to become a leader in positive change among all institutions of higher learning.

The colleges, with their appointed campus diversity advocates, are also currently well situated to support the system-wide work to improve faculty and administrator diversity. The institutional framework we propose to support best hiring practices and raise awareness of cultural differences would positively impact diversity among our faculty and administrators to support student success and community alignment.

Individual faculty and administrators on our college campuses can work to improve the diversity within their ranks through the promotion of a culture of diversity and inclusion. This culture is nurtured by tempered radicals who engage with peers through informal interactions and direct engagement with campus structures to provide a welcoming and supportive environment for colleagues from a variety of cultural and ethnic backgrounds.

Ultimately, all these efforts to improve diversity among faculty and administrators are intended to improve student success in a variety of measures: retention, academic achievement, and completion. This work requires the coordinated efforts of numerous key stakeholders in our communities and on our campuses. We are excited for these challenges and eager to continue the work already underway.

REFERENCES

Benitez, M., James, M., Joshua, K., Perfetti, L., & Vick, S.B. (2017). Someone who looks like me: Promoting the success of students of color, promoting the success of faculty of color. *Liberal Education*, 103(2), 50-55. Retrieved from

https://www.aacu.org/liberaleducation/2017/spring/benitez

California Community Colleges Chancellor's Office (2012). Data Mart. Retrieved June 12, 2013 from http://www.cccco.edu

Chancellor's Diversity Task Force. (2014). *Report of the Chancellor's task force on diversity: Making Virginia's community colleges a model for diversity and inclusion.* Retrieved from http://cdn.vccs.edu/wp-content/uploads/2014/10/Diversity-Report-Final-Chancellors-Task-Force-on-Diversity-August-2014.pdf

Cole, D., & Griffin, K.A. (2013). Advancing the study of student-faculty interaction; A focus on diverse students and faculty. In M.B. Ed., *Higher education: Handbook of theory and research* (Vol. 28) (pp. 561-611). Dordrecht, The Netherlands: Springer.

"Equity-Mindedness." *The Center for Urban Education*. Retrieved from https://cue.usc.edu/equity/equity-mindedness

Fairlie, R. W., Hoffmann, F., & Oreopoulos, P. (2014). A community college instructor like me: Race and ethnicity interactions in the classroom. *The American Economic Review*, 104(8), 2567-2591. Retrieved from https://people.ucsc.edu/~rfairlie/papers/published/aer%202014%20%20minority%20instructors%20and%20community%20college.pdf

Germanna Community College. (n.d.) *Diversity and inclusion.* Retrieved from https://www.germanna.edu/diversity-and-inclusion/

Gordon, D. (2017, Nov. 27). How can California community colleges increase faculty diversity? *USC News.* Retrieved from https://news.usc.edu/131088/usc-studies-how-can-californias-community-colleges-increase-faculty-diversity/

J. Sargeant Reynolds Community College. (n.d.) *Diversity and inclusion at Reynolds.* Retrieved from http://www.reynolds.edu/who_we_are/diversity-and-inclusion/default.aspx

Levin, J.S., Walker, L., Jackson-Boothby, A., & Harberler, Z. (2013). Community colleges and their faculty of color: Matching teachers and students. Riverside, CA: California Community College Collaborative, University of California at Riverside. Retrieved from http://c4.ucr.edu/documents/GSP2report_C4finalJuly152013.pdf

Myerson, D. E. (2008). *Rocking the boat: How to effect change without making trouble*. (2nd ed.). Boston, MA: Harvard Business Press.

"Pathways, partnership, and progress: Transforming a community college." (n.d) *The Center for Urban Education*. Retrieved from https://cue.usc.edu/pathways-partnerships-report

Tagg, J. (2003). *The learning paradigm college.* Bolton, MA: Anker.

Villegas, A. M., & Irvine, J. J. (2010). Diversifying the teaching force: An examination of major arguments. *Urban Review,* 42, 175-192.

APPENDIX A

Diversity Data

The data on the following pages is a summary of the "Diversity Gap" for all 23 colleges as well as for the System Office. The three categories we studied were: Full-time faculty (F-T Faculty), part-time faculty (P-T Faculty), and Administrators/Managers. The data were gathered from the VCCS Diversity Dashboard, and the differences between the minority percentage in the service area were compared to the minority percentage within the larger population of the surrounding service regions of the colleges in each of the three categories. Once the "Diversity Gaps" were calculated, they were sorted and color-coded based on the smallest gap to the largest gap (green to red and respective shades in-between). The shading only indicates where the college stands in relation to the other colleges (i.e. green does not denote that the numbers are always positive). A positive number indicates that the diversity at the college is higher than the diversity in the service area (smaller or no gap). Negative numbers indicate areas where the percentage of the college's diversity population is lower than the diversity percentage in the service area.

2017 Differences between College and Region							
F-T Faculty Minorities			**P-T Faculty Minorities**			**Admin/Mgrs Minorities**	
Mountain Empire	2%		Paul D. Camp	2%		Northern Virginia	10%
Rappahannock	0%		Northern Virginia	-1%		Wytheville	6%
Southwest Virginia	-2%		Mountain Empire	-3%		Southwest Virginia	5%
Blue Ridge	-2%		Wytheville	-3%		Paul D. Camp	3%
Wytheville	-2%		Virginia Highlands	-3%		Rappahannock	3%
Dabney S. Lancaster	-2%		Southwest Virginia	-4%		Eastern Shore	1%
Virginia Highlands	-2%		Lord Fairfax	-4%		Patrick Henry	-1%
Northern Virginia	-3%		Reynolds	-6%		Mountain Empire	-1%
Piedmont Virginia	-5%		Patrick Henry	-6%		Reynolds	-3%
Lord Fairfax	-6%		Thomas Nelson	-6%		Lord Fairfax	-3%
New River	-7%		Blue Ridge	-6%		VCCS	-3%
Patrick Henry	-7%		Dabney S. Lancaster	-6%		Virginia Western	-4%
Germanna	-8%		New River	-7%		Virginia Highlands	-4%
VCCS	-10%		Rappahannock	-7%		Southside Virginia	-4%
Central Virginia	-10%		VCCS	-7%		Thomas Nelson	-5%
Virginia Western	-12%		Eastern Shore	-9%		Tidewater	-5%
Eastern Shore	-13%		Germanna	-10%		Germanna	-7%
John Tyler	-15%		Central Virginia	-10%		Dabney S. Lancaster	-7%
Thomas Nelson	-15%		Tidewater	-10%		Central Virginia	-9%
Reynolds	-17%		Piedmont Virginia	-10%		Blue Ridge	-9%
Tidewater	-20%		Virginia Western	-11%		John Tyler	-10%
Paul D. Camp	-21%		John Tyler	-12%		New River	-11%
Southside Virginia	-27%		Danville	-18%		Danville	-16%
Danville	-29%		Southside Virginia	-18%		Piedmont Virginia	-16%

2017 Differences between College and Region								
F-T Faculty Women			**P-T Faculty Women**			**Admin/Mgrs Women**		
Rappahannock	25%		Southside Virginia	22%		Eastern Shore	40%	
Germanna	20%		Wytheville	19%		New River	33%	
Paul D. Camp	19%		Paul D. Camp	19%		Southside Virginia	26%	
Wytheville	12%		Patrick Henry	17%		John Tyler	24%	
Virginia Western	11%		Rappahannock	16%		Virginia Western	22%	
Lord Fairfax	10%		Eastern Shore	11%		Mountain Empire	21%	
John Tyler	9%		Tidewater	10%		Southwest Virginia	20%	
Thomas Nelson	9%		Lord Fairfax	9%		Germanna	19%	
Northern Virginia	8%		Reynolds	9%		Northern Virginia	19%	
New River	8%		John Tyler	8%		Rappahannock	16%	
Southside Virginia	5%		Thomas Nelson	7%		Tidewater	15%	
Virginia Highlands	5%		Piedmont Virginia	7%		VCCS	14%	
VCCS	5%		Germanna	7%		Lord Fairfax	12%	
Piedmont Virginia	4%		Danville	6%		Thomas Nelson	10%	
Blue Ridge	3%		VCCS	5%		Blue Ridge	9%	
Tidewater	1%		Mountain Empire	4%		Virginia Highlands	7%	
Southwest Virginia	1%		Virginia Western	3%		Reynolds	6%	
Reynolds	1%		Northern Virginia	1%		Dabney S. Lancaster	4%	
Eastern Shore	-1%		Dabney S. Lancaster	1%		Patrick Henry	2%	
Patrick Henry	-2%		Virginia Highlands	0%		Wytheville	1%	
Dabney S. Lancaster	-5%		Southwest Virginia	-1%		Piedmont Virginia	1%	
Central Virginia	-9%		Blue Ridge	-3%		Paul D. Camp	-1%	
Mountain Empire	-10%		New River	-8%		Central Virginia	-5%	
Danville	-11%		Central Virginia	-8%		Danville	-20%	

APPENDIX B

CENTER *for* URBAN EDUCATION

THE CENTER FOR URBAN EDUCATION &
CUE'S EQUITY SCORECARD

The Center for Urban Education leads socially conscious research and develop tools for institutions of higher education to produce equity in student outcomes.

Using data, process and benchmarking tools as well as structured inquiry activities embodied in what is called the Equity Scorecard™, CUE helps two- and four-year colleges and state higher education systems identify problems, develop interventions and implement equity goals to increase retention, transfer and graduation rates for historically underrepresented racial-ethnic groups.

Since its founding, more than ninety two-year and four-year colleges and universities in ten states have partnered with CUE to use the Equity Scorecard™ and learn about the concept of "equity-mindedness" that is the foundation for institutional responsibility. Our work is made possible with the financial support of many foundations.

CUE's Equity Scorecard

The Equity Scorecard™ is an inquiry process and set of data analysis tools organized in a five-phase course of action. It brings together education practitioners—administrative leaders, faculty and staff—to investigate issues of educational equity. In colleges and universities across the United States, equity issues concern the disparities in educational participation and outcomes among racial-ethnic groups that leave African Americans, Latinas, Latinos, Native Americans, Southeast Asians and Pacific Islanders, and other underrepresented groups at a disadvantage.

The Equity Scorecard empowers practitioners and decision makers to use data effectively to achieve equitable outcomes among racial-ethnic groups. Equity goals become real, manageable, and attainable through inquiry, the systematic process of using data for experimentation and improvement.

The Scorecard tools enable faculty, academic leaders, and staff in two- and four-year colleges to gain a nuanced understanding of the barriers that impede racial and ethnic equity.

cue.usc.edu - rsoecue@usc.edu - Join our mailing list text "CUE" to 22828

APPENDIX C

CENTER *for* URBAN
EDUCATION

EQUITY SCORECARD SERVICES AND PARTNERSHIPS

WORKSHOPS

One-day workshops hosted by your institution include CUE staff and facilitators on-site, with groups of 10 to 60 people. Multi-day workshops and workshops for groups larger than 60 individuals are also possible. Cost for one day workshops: $9,000 - $30,000, two day $20,000 - $60,000.

Past webinar and workshop topics and themes:

- Equity-mindedness
- Data Use - Can include custom Vital Signs or BESST
- Creating and Sustaining Change
- Becoming practitioner-researchers
- Inquiry Protocols - examples include Syllabus review, web scan, and site-observations
- STEM education

DATA TOOLS

This option is recommended as an add-on to either a webinar or a workshop. CUE will create Vital Signs or a BESST tool based on data you provide. Each tool comes with a ½ day of instruction on how to use it, which can be done in-person on via virtual meeting: $3,000 - $8,000.

THE EQUITY SCORECARD PROCESS

The Equity Scorecard process is designed as a two-year, five phase initiative. Engaging in the full Equity Scorecard process has proven to be the most effective way to create and sustain changes that positively impact students, but for institutions that are not able to devote resources to the full process, CUE is able to create a custom partial process.

FULL EQUITY SCORECARD

For more information on the Equity Scorecard process and the success past partners have had, please visit cue.usc.edu. Cost for full Equity Scorecard (2 years): $250,000 - $400,000 per campus or team.

PARTIAL EQUITY SCORECARD

If you are interested in forming a team and engaging with CUE and the Equity Scorecard in a limited capacity please contact the center at rsoecue@usc.edu. Partial Equity Scorecard projects are developed in tandem with CUE and based around a specific area or topic. Cost for partial Equity Scorecard (6 months - 2 years): $150,000 - $250,000 per campus or team.

Note: The items and events below give only a general guideline as to past activities and prices. If you'd like to partner with CUE for anything from a one-day workshop to the full Equity Scorecard process the exact details of the partnership and the cost would be negotiated based on your needs. CUE is also available to do direct inquiry, such as interviews and document analysis, on your organizations.

IMPROVING TRANSFERABILITY: CASE STUDIES
"BUILDING A BETTER BRIDGE TO THE BACHELOR'S"

DAVID BRAUN, KATHERINE CLATTERBUCK, FAISON DANA, LEONDA KENISTON,
JOHN LIPP, TAMRA LIPSCOMB, CHRISTIAN MASON, & CINDY WALLIN

INTRODUCTION

Many Virginians aspiring to earn a four-year degree intentionally begin their journey at one of the 23 community colleges within the Virginia Community College System (VCCS). In concert with those aspirations, the VCCS is committed to providing its residents an affordable and accessible program of study that prepares them to transfer and earn a bachelor's degree at any one of Virginia's colleges and universities. The establishment of an affordable and accessible pathway was one of the emanating purposes of the community college (Mellow & Heelan, 2015). The dream of affordable transfer education is one of three key legislative efforts of the VCCS, and statute 23.1-907 of the Commonwealth of Virginia mandates transfer agreements between the institutions. With at least 38 transfer agreements and more than 300 articulation agreements developed between the VCCS and the four-year colleges and universities, the State Council of Higher Education for Virginia (SCHEV) states that up to 32% of transfer students do so under the auspices of guaranteed admission agreements (Joint Legislative Audit and Review Commission, 2017).

As students progress to the baccalaureate, the completion of the associate's degree is crucial, in that it affects the rate of degree attainment. In 2014-15 alone, Virginia's four-year colleges accepted over 14,000 transferring students, with more than half of them having previously earned an associate's degree. According to data from SCHEV, students who transfer with the

associate's degree attain their baccalaureate at a rate of 79.7%. However, students transferring with less than 15 community college credits earn their bachelor's degree at a significantly lower rate of 48.8%. Similarly, Shapiro, Dundar, Ziskin, Chiang, Chen, Harrell & Torres (2013) found that 73% of students who transferred with a degree earned their baccalaureate within 6 years, compared to 59.6% of those who transferred without a degree.

All agree that the transfer pathway must be accessible and easily achieved in the least amount of time, with the least amount of required credits, and the least amount of cost and debt. To build a better bridge to the bachelor's degree, Virginia must examine the current situation, consider best practices within the Commonwealth and across the nation, and seek to enact policies and procedures that achieve that goal. In that vein, the 2017 Virginia Joint Legislative Audit and Review Commission (JLARC) conducted a thorough investigation of the VCCS, provided a review of the current logistics, and suggested areas of improvement.

THE CURRENT TRANSFER SITUATION

The JLARC report clearly validates the commitment of the VCCS to provide viable transfer options for its citizens. Sixty-six percent of the community college transfer students earn a bachelor's degree within 7 years, with a median of 5 years (Joint Legislative Audit and Review Commission, 2017). Of the 11,600 students who transferred from VCCS community colleges in 2014-2015, two-thirds transferred to George Mason University, Virginia Commonwealth University, and Old Dominion University, while the rest of them transferred to various colleges and universities, both public and private.

Nested within these tremendous success stories, however, are myriad challenges and struggles relating to the transfer and completion of the bachelor's degree. The journey to degree attainment can be arduous for any college student; nationwide, less than 60% of native four-year

students earn their degree within 6 years (Aud, Wilkinson-Flicker, Kristapovich, Rathbun, Wang, & Zhang, 2013). Virginia proudly boasts a higher rate; more than three-fourths of native students attain the baccalaureate. Although only two-thirds of community college transfer students earn their bachelor's degree, the Community College Research Center (CCRC) indicates a comparable rate of degree attainment of transfer students from other institutions (Wyner, Jenkins, & Fink, 2017).

Community college transfer students traverse an uncertain path with obstacles and barriers far greater than those of the native college student. With no clearly articulated pathway or program map, transfer students navigate a black hole of numerous articulation agreements that are often vague, convoluted and restrictive. Large numbers of them experience accumulation of excessive credits, loss of credits due to non-transferability into the intended program of study, increased costs and debt, and extended time to degree attainment. Transfer students, in comparison to non-transferring students, accumulate, on average, up to 17 additional credits, while one-fourth of those transfer students graduate with 31 additional credits beyond the requisite program (Joint Legislative Audit and Review Commission, 2017). The loss of savings and time consumed by extraneous credits will ultimately place the affordability of the community college in jeopardy.

Clearly, the myriad articulation agreements lack standardization, accessibility, currency, and organization. With no single repository for the agreements, one is unable to truly quantify the total number of agreements. The shortcomings are numerous and appear to benefit only a minority of students, with less than 25% of transferring students utilizing them; however, this low rate also aligns with the low percentage (23-35%) of students who are transferring post-associate (Joint Legislative Audit and Review Commission, 2017).

Vague agreements and course equivalency guides are helpful, but lack clarity. The agreements fail to specify if the associate's degree is required for transfer, and whether courses transfer as program credits or electives. More often than not, the course transfers as an elective, as opposed to program credit, and the course must be repeated at the four-year school. Many transfer students, who are first-generation students, make the journey without an academic GPS or a well-defined program map. To compound the problem, some agreements require transfers to complete additional prerequisite work upon transferring. These situations are barriers to the transfer student and increase the number of credits and time-to-degree. While SCHEV currently tracks the completion rates and time-to-degree for the transfer student, it fails to collect or analyze the number of credits earned by transfers, or the completion rates of particular academic pathways for transfers versus non-transfers (Joint Legislative Audit and Review Commission, 2017).

In light of the need for a more transparent and accessible transfer pathway, the Commonwealth is committed to improving the transfer process, and the following JLARC recommendations focus on system and state-level responses that will reduce barriers for the VCCS transfer student.

- All four-year institutions should develop, in conjunction with the VCCS, program maps for transfer pathways, based on a SCHEV-developed standardized template.
  - Program maps may be unique to the community college and the four-year institution but should clearly specify the required community college courses to transfer into a particular program as well as the required academic standards.

- Receiving institutions should accept the transfer student into both the general undergraduate and intended program major and accept the community college coursework as program credits.

- All four-year institutions annually update transfer agreements and the VCCS maintain a single repository of agreements and course equivalency tools; and,

- SCHEV should annually identify transfer pathways, which have marginal outcomes— lower completion rates, longer time-to-degree, more accumulation of credits, and lower success rates.

Even as the JLARC study was ongoing, the General Assembly passed an important bill of promise for the VCCS transfer student. SB 1234 requires that SCHEV develop a "Passport" transfer program with uniform standards and competencies for general education courses guaranteed to transfer from community colleges to four-year institutions as fulfillment of a lower division general education requirement.

Building on that legislation, the 2018 Virginia General Assembly promises to enact additional statutes to enhance transferability. Upcoming bills include a General Education Certificate to include a 15-hour guaranteed Passport Program, the development of program maps for transfer pathways, and the creation of an online transfer portal to guide and support students in the transfer process. With coordination between SCHEV and the VCCS the goal is to standardize the curriculum of the general education courses such that the community college courses transfer as a guaranteed parallel track to Virginia's public four-year universities and simultaneously fulfill the general education requirements at the university.

CASE STUDIES—WHAT IS WORKING IN OTHER STATES?

Virginia is not alone in its effort to provide a clear and transparent pathway for its community college transfer students to the four-year university, but there are opportunities for improvement. Lawmakers from several states—North Carolina, Florida, Kentucky, Massachusetts, Tennessee, Illinois, and Washington, among other states—have received recognition for their policies and best practices which enable its residents to more successfully journey across the bridge from associate's to baccalaureate. These states have adopted one of three different architectural approaches, a 2+2 system, a credit-equivalency system, or an institution-driven system (Hodara, Martinez-Wenzl, Stevens, & Mazzeo, 2016).

States such as Florida, Tennessee, Massachusetts, Illinois, and New Jersey have adopted a 2+2 system in which policies guarantee the transfer and application of general education and pre-major course credits across institutions. Transfer students seamlessly enter the university ready for upper-division major coursework due to the 2+2 system wide plan of study that incorporates common core and pre-major course agreements. Consistent and clearly articulated major programs of study allow most students upon completion of the associate's degree to meet all lower-division general education and pre-major requirements and enter the university major-ready, and earn their bachelor's degree within two years, regardless of the program of study or the receiving institution.

Florida's pathway is a progressive example of the 2+2 system. Florida's Board of Governors manages Florida's State University System and ensures the coordination between all institutions of higher education in Florida. In partnership with the State Board of Education, the Board of Governors adopted standard rules regarding the transfer pathway, including a common course numbering system, a common calendar, a common 36-credit general education core curriculum, and a 60-credit Associate in Arts (A.A.) degree (Florida Department of Education, 2014).

The 36-hour general education core curriculum—communication, mathematics, social sciences, humanities, and natural sciences—applies to all students interested in pursuing a baccalaureate degree. Students who complete the general education core curriculum at any Florida school may transfer to another Florida school with no further general education requirements. However, those who transfer prior to completing the 36-hour general education requirements may be required to complete additional course work by the receiving school (Florida Department of Education, 2014).

Florida statues mandate that students who complete the 60-credit associate's degree with a 2.0 grade point average (GPA) have guaranteed admission to an upper division school, but not necessarily to a specific program. However, community college students experience equal opportunity with native university students to enter limited access programs of study. Uncommon to most higher education institutions, a D grade transfers and counts toward degree completion as it does for native students. The Board of Governors also provides incentives for students to complete their A.A. degree prior to transferring. If a student transfers before completing their A.A. degree, all classes taken count toward their GPA; however, if the A.A. has been completed, only the most recent grade in repeated courses will apply toward the cumulative GPA. Transfer students without the associate's degree compete along side other incoming freshman for degree programs. These incentives and the ease of transfer serve to increase graduation rates and the student diversity at 4-year institutions (Drew et al., 2015).

Additionally, Florida has recently passed legislation regarding performance funding and in particular, has placed a "tax" on excessive credits. As a result, Florida has strongly encouraged native and community college transfer students to select a major during their first or second semester to minimize excessive credits and ensure that students complete perquisite courses.

Florida universities have further strengthened their program maps and have improved their website to provide clarity about their majors and pre-requisite coursework (State University System of Florida, Board of Governors, 2015).

The College System of Tennessee has implemented multiple measures to improve transfer and completion outcomes among transfer students. The Tennessee Transfer Pathway certifies the transcript of students who have completed the A.A. or A.S. degree and allows the student to transfer to a Tennessee public or private four-year school with an acceptance guarantee of all completed courses by the receiving institution (Tennessee Board of Regents, 2018). The student is guaranteed that all courses taken will be accepted by the transfer institution and will count toward completion of the particular major.

Concurrent with the transfer pathway, Tennessee facilitates increased momentum among transfer students by encouraging them to enroll in 15, rather than 12, credits per semester. Evidence supports a strong positive effect of the increased load, particularly for those who start at the community college (Attewell & Monaghan, 2016). Belfied, Jenkins, & Lahr (2016) found that those who attempted 15 credits were nine percentage points more likely to obtain a degree.

Similar to the proposed Passport Program of Virginia's HB 919 and SB 631, community colleges in Massachusetts are a part of the MassTransfer (MT) agreement. Students in the Massachusetts public higher education system who complete the General Education Foundation or MT Block satisfy the general education core requirements at any other public higher education institution. The receiving institution can add no more than six additional credits to a transfer students' general educational core (Massachusetts Department of Higher Education, 2018).

Additionally, the MT associate to bachelors (A2B) program clearly incentivizes its residents to achieve the two-year degree and progress to the bachelor's degree. Massachusetts' community

college offers two transfer degrees--Associates in Arts and Associates in Science with 60-61 credits. The MT A2B agreement rewards students who complete either of the degrees with a 2.0 GPA by guaranteeing full transfer of a minimum of 60 credits, either as program or elective credits. Additionally, these students receive a tuition discount, which amounts to a 28% savings on the typical 4-year degree costs (Massachusetts Department of Higher Education, 2018).

For Massachusetts' high-achieving students desiring to attain the bachelor's degree, the rewards can be even greater through a Commonwealth Commitment known as the MT A2B + CC program. Through faculty collaboration across the campuses, Massachusetts developed fully aligned, course-to-course transfer A2B mapped programs in 10–15 major disciplines, all of which were high transfer programs. Students who opt to commit to the MT A2B + CC program must enroll in one of the state's community colleges, complete their associates within 2.5 years, transfer and enroll full-time in one of the state's university and maintain a continuous enrollment with a cumulative 3.0 GPA. For these students, a freeze is placed on tuition increases and mandatory fees upon program entry, and at the completion of each successful semester, students receive a 10% tuition rebate (Massachusetts Department of Higher Education, 2018).

Through collaboration of the Illinois Board of Higher Education, the Illinois Community College Board, the Illinois State Board of Education and the Transfer Coordinators of Illinois Colleges and Universities, Illinois developed the Illinois Articulation Initiative (2018) (IAI) which serves as a statewide transfer agreement, among 100 participating colleges and universities in Illinois. All participating schools have agreed to accept the General Education Core Curriculum (GECC) as a complete package in lieu of their own comparable lower-division general education requirements; however, unless the entire GECC is completed, no guarantee of particular course-to-course transfer credits is offered.

Illinois also has two transferable two-year degrees—Associates of Arts and Associates of Science—both incorporating the GECC package. For those students earning the A.A. degree and transferring to a participating IAI institution, the general education core is waived. The A.S. degree, designed for transfer students pursuing science, technology, engineering and mathematics related fields, incorporates a slightly modified GECC package. To allow transfer students in these demanding fields to remain on track with the four-year cohort, the IAI allows students to take two additional math and science classes at the sending institutions and complete the remaining two GECC courses at the receiving school after transfer (Illinois Articulation Initiative, 2018).

Additionally, Illinois has collaboratively developed major course recommendations for approximately 20 popular majors and that information is provided through the IAI portal. Although these agreements identify recommended coursework for the specific majors, admission into the major program is not guaranteed. As with other systems, transfer students remain uncertain as to whether courses beyond the GECC transfer as program or elective credit (Illinois Articulation Initiative, 2018).

Along with Florida and Illinois, New Jersey also ranks extremely high in terms of transfer student outcomes (CCRC). New Jersey, in their comprehensive statewide transfer agreement, touts a seamless transition from the associate to baccalaureate degree. An A.A. or A.S. from any one of the 19 New Jersey community colleges is fully transferable as the first two years of any public New Jersey public four-year institutions and such students will be considered as having met the general education requirements. Further, students transferring into a B.A. program from an A.A. or students transferring into a B.S. from an A.S. program will be granted credit for exactly half of the bachelor's degree. In particular, if a typical basic four-year program of study

requires 128 credits, the student's A.A. or A.S. degree and credits transfer into the receiving institution as the first half of the program, and the student will only have 64 remaining credits to complete for the baccalaureate (New Jersey Statewide Transfer Initiative, 2017).

Corollary principles mandate that the receiving institution provide specific guidance to the transfer student as to the remaining half of the program as early as possible. Additionally, the New Jersey governing board encourages and promotes collegiality between the two- and four-year faculty to ensure that the curriculum of the 100 and 200 level courses across the colleges are equivalent in both content and rigor. Some limited instances exists where students must complete additional credits beyond the remaining half; however, these credits are in cases where the transfer student had not completed the prerequisite coursework at the community college level and was unable to fit the prerequisite within the remaining half of the program (New Jersey Statewide Transfer Initiative, 2017).

Credit equivalency systems, as those in Ohio and Washington have enacted policies that guarantee the transfer and application of general education and some pre-major course credits across institutions in the most popular programs, or programs with very specific lower-division coursework (Hodara, Martinez-Wenzl, Stevens, & Mazzeo, 2016). Credit equivalency systems contain policies for ensuring that lower-division general education and some pre-major courses transfer and are uniformly applied to program requirements at all campuses across the system. These systems have developed transfer pathways for the pursuit of particular majors, but do not guarantee that transfer students with an associate's degree will have met all lower-division requirements of the receiving campus; nor do they guarantee entry with major-readiness. Most of these four-year institutions prefer to maintain flexibility in determining lower-division major course requirements for all or some majors.

The state of Washington offers a Direct Transfer Agreement (DTA) for its students. Although their transfer is on a course-by-course basis, the state touts the highest transfer rate at 49% and the highest bachelor completion rate (Tracking Transfer, 2016). With the DTA a structured transfer pathway allows students to complete all lower division general education requirements and transfer with junior status at all four-year colleges and universities in the state.

Kentucky, North Carolina, and Texas have systems that are institutionally driven (Hodara, et.al, 2016). State policies guarantee the transfer and application of general education course credits, but the four-year institutions via individual articulation agreements retain the right to determine the application of credits and dictate how transfer credits apply to major requirements and major-readiness for programs of study. North Carolina updated and approved its statewide Comprehensive Articulation Agreement in 2014, which includes a 30-credit common core guaranteed to transfer and junior status guarantee for transfer students who complete an associate's degree program. However, individual university programs determine any major-specific coursework (North Carolina Community College, Transfer Advisory Committee, 2016).

BEST PRACTICES AND RECOMMENDATIONS

The Aspen Institute of the CCRC of Columbia University in its Transfer Playbook proposes three crucial tenets for a successful transfer pathway (Wyner, Jenkins, & Fink, 2017). First, both the two- and four-year institutions must prioritize transfer. Successful transfer partnerships are marked by a commitment of senior administrators and faculty to the importance of providing and promoting transfer pathways and a willingness to appropriate funding to ensure and maintain a successful pathway.

Secondly, successful partnering institutions have developed major-specific pathways, or transfer program maps, that clearly delineate the course sequences, prerequisites, and

expectations to transfer the institution. Best practices require that partner institutions work collaboratively to create major-specific program maps, while at the same time cooperate to ensure high quality academic experiences and rigorous instruction at all levels. In order to maintain a smooth on-going process, these systems have implemented reliable procedures for updating and improving program maps as requirements and programs change.

Communication between the two- and four-year colleges is paramount for a successful transfer pathway. CCRC indicates that systems with successful transfer pathways communicate regularly about curriculum changes. As also recommended by JLARC, best practices suggest that in order to affect change and improvement, transfer student success outcomes be shared with the community colleges and that the outcomes be broken down by major and in comparison with native students.

Lastly, but perhaps most importantly, CRCC shares that systems with highly successful transfer pathways have incorporated personal guidance—tailored academic transfer student advising—both at the community college and the four-year college. Effective academic advising will articulate transfer options to students and assist them to determine, as early as possible, their major program of study and their potential transfer institution. When students do so early, academic advisors can provide more relevant direction, give specific guidance to program maps, and connect the student with an academic advisor at the receiving school. The sooner the program major and transfer college is decided, the greater likelihood of success.

FALA Recommendations

Recommendation 1: Develop a Passport Program of General Education—The team is in full support of the Virginia SB 1234, which requires SCHEV to develop a Passport of general education core curriculum. The team recommends the core entail 30-36 credits of coursework

that would be a standardized component of all A.A. and A.S. transfer degrees throughout the VCCS. The curriculum should be collaboratively developed by a cross-section of two-and four-year college faculty and deans. Each course in the curriculum should have 8-10 clearly identified common student learning outcomes. Further, the Passport core curriculum should fulfill the general education requirements for all Virginia public universities and students having completed the Passport should not be required to complete further general education coursework.

Recommendation 2: Coordinate the development of Program Maps—The team recommends the creation of 7-9 meta-majors, with sub-majors, based on high demand majors and careers. During the initial phase, the state should develop 5 or 6 common major programs such as business, biology, communications, history, mathematics, etc., and then progress to others. A faculty panel comprised of VCCS and university colleagues specific to the major should collaboratively develop the program map. The panel should reach a consensus on the required coursework (an A.A. or A.S. with General Education Core and Program Core) for the first two years of the program, allowing the receiving institutions to independently determine the second half of the program. The VCCS should categorically offer the first two years of the identified programs as proposed. In turn, the four-year universities should accept A.A. or A.S. degree-holding students with a prescribed GPA at junior status and require no further general education course work.

Recommendation 3: Prioritize and Incentivize Transfer—The team recommends a high priority be given to promoting and incentivizing transfer. Virginia should educate its population regarding the benefits and savings of a community college associate's degree and transfer

options for the bachelor's. Incentivize students to transfer, but only at key milestones. A graduated tuition discount system should be considered for students who transfer after achieving credentials. For example, a student who transfers after achieving the proposed Passport may be awarded a 5% tuition discount at the four-year school and a student who transfers after completing the A.A. or A.S. may be awarded a 10% tuition discount.

Recommendation 4: Prioritize Academic Advising—The team recommends that Virginia Department of Education promote career exploration in K-12 public schools, as early as the middle school grades. Exploration should include career technical fields and transfer options. As students begin to express interest, academic planning should begin. The VCCS should also promote academic advising and provide opportunities for students to explore, receive academic advising, and plan early for transfer success. Academic advising should happen as soon and as often as possible. All students should be required to meet with an academic advisor to discuss their career or future transfer plans within the first 15-30 credits of coursework.

Recommendation 5: Create an Articulation/Transfer Advisory Committee (ATAC)—This committee, a joint group of representatives from the VCCS and SCHEV, should provide direction, oversight, and the development and maintenance of a comprehensive transfer agreement. The ATAC should review data collected from SCHEV regarding student success outcomes in such areas as the major fields of study and the success rates and time-to-degree of transfer versus native students in the least and most effective major programs of study.

Recommendation 6: Create a Virtual Transfer Portal—The team recommends the development of a website that provides tools for career and meta-major exploration, academic planning, major program maps, transfer agreements, and other pertinent transfer information. See Appendix for a list of hyperlinks to states with example virtual transfer portals.

Recommendation 7: Provide Inter-collegial Professional Development Opportunities—The team recommends the promotion of venues where discipline-specific faculty from two- and four-year colleges can interact, discuss pedagogical methodologies, student learning outcomes, program and curriculum changes, and student success. The VCCS should consider the biennial peer group conference sponsored by the VCCS Office of Professional Development as a possible venue.

APPENDIX

Examples of Virtual Transfer Portals

Florida:	https://www.floridacollegesystem.com/students/transfer.aspx
Georgia	http://www.completegeorgia.org/content/credit-when-its-due
Illinois:	http://itransfer.org/
Kentucky:	http://www.knowhow2transfer.org/
Massachusetts:	http://www.mass.edu/masstransfer/
New Jersey:	http://www.njtransfer.org/
North Carolina:	http://www.nccommunitycolleges.edu/academic-programs/college-transferarticulation-agreements/comprehensive-articulation-agreement-caa
Ohio:	https://transfercredit.ohio.gov/pg_1?:::::
Tennessee:	http://www.tntransferpathway.org/

REFERENCES

Attewell, P., & Monaghan, D. (2016). How many credits should an undergraduate take?

Research in Higher Education.

Aud, Wilkinson-Flicker, Kristapovich, Rathbun, Wang, & Zhang. (2013). The condition of

education 2013. Washington, DC. Retrieved from

https://nces.ed.gov/pubs2013/2013037.pdf

Belfield, C. R., Jenkins, D., Lahr, H. (2016). Momentum: The Academic and Economic

Value of a 15-Credit First-Semester Course Load for College Students in

Tennessee. Community College Research Center, Working Paper No. 88.

Retrieved March 2, 2018 from

https://ccrc.tc.columbia.edu/publications/momentum-15-credit-course-load.html

Drew, J. C., Oli, M. W., Rice, K. C., Ardissone, A. N., Galindo-Gonzalez, S., Sacasa, P. R.,

Triplett, E. W. (2015). Development of a distance education program by a land-grant

university augments the 2-year to 4-year STEM pipeline and increases diversity in

STEM. *Plos One, 10*(4). doi:10.1371/journal.pone.0119548

Florida Department of Education, Office of Articulation. (2014). Statewide articulation manual

(Rev.ed.). Retrieved from

http://www.fldoe.org/core/fileparse.php/5423/urlt/statewide-postsecondary-

articulation-manual.pdf

Hodara, M., Martinez-Wenzl, M., Stevens, D., & Mazzeo, C. (2016). Improving credit

mobility for community college transfer students: Findings and recommendations

from a 10-state study. Portland, OR: Education Northwest.

Illinois Articulation Initiative. (2018). iTransfer: Illinois transfer portal. Retrieved from

http://itransfer.org/

Jenkins, Davis & Fink,John. (2016) Tracking Transfer-New Measures of Institutional and

      State Effectiveness in Helping Community College Students Attain Bachelor's Degrees.

      Community College Research Center (CCRC), Teachers College, Columbia University,

      The Aspen Institute, and The National Student Clearinghouse® Research Center™.

      Retrieved from https://ccrc.tc.columbia.edu/media/k2/attachments/tracking-transfer-

      institutional-state-effectiveness.pdf

Joint Legislative Audit and Review Commission (JLARC). (September 11, 2017).

      Operations and performance of the Virginia Community College System.

      Richmond, VA.

Massachusetts Department of Higher Education (2018).

      Masstransfer gen ed foundation: Get started on a bachelor's. Retrieved from

      http://www.mass.edu/masstransfer/gened/home.asp

Mellow, G. O., & Heelan, C. M. (2015). Minding the dream: The process and practice of

      the American community college. Rowman & Littlefield.

New Jersey Statewide Transfer Initiative. (2017). New Jersey transfer: Linking New

      Jersey's colleges and universities. Retrieved from http://www.njtransfer.org/

North Carolina Community College, Transfer Advisory Committee. (2016). Comprehensive

      articulation agreement between the University of North Carolina and the North Carolina

      Community College system (Rev. ed.). Retrieved from

      http://www.nccommunitycolleges.edu/sites/default/files/basic-pages/academic-

      programs/attachments/caa_2016v2.pdf

Rosenberg, T. (March 28, 2017). At College, A Guided Path on Which to Find Oneself.

      Retrieved March 2, 2018 from https://www.nytimes.com/2017/03/28/opinion/at-

college-a-guided-path-on-which-to-find-oneself.html

SCHEV Research. (n.d). Students transferring to in the fall and spring of designated year.

Retrieved from

http://research.schev.edu/schev_navigator/(S(o3wccjkozvn4xqjt0hwcbtcu))/rdPag

e.aspx?rdReport=XFR_FB_Part_A&rdembedded=true&lbCC_UNITID=XX8905

&lbREPYEAR=CCY1&lbGENDER=9&lbRACE_ETHNIC=9&lbCOMPL_TYP

E=ENROLLED_ORIG&lb4YRUNITID=XXFOUR

Shapiro, D., Dundar,A., Ziskin, M., Chiang, Y., Chen, J., Harrell, A., & Torres, V. (July,

2013). *Baccalaureate Attainment: A National View of the Postsecondary*

Outcomes of Students Who Transfer from Two-Year to Four-Year Institutions

(Signature Report No. 5). Herndon, VA: National Student Clearinghouse

Research Center.

State University System of Florida, Board of Governors. (2015). 2013–14 system

accountability report (Rev. ed.). Retrieved from

http://www.flbog.edu/about/_doc/budget/ar_2013-

14/2013_14_System_Accountability_Report_Summary_REVISED_FINAL.pdf

University of North Carolina, General Administration. (2013). The University of North

Carolina transfer student report 2013. Retrieved from

https://www.northcarolina.edu/sites/default/files/item_7_-_unc_transfer_student_report-

6.pdf

Wyner, J., Jenkins, K.C. D. D., & Fink, J. (2017). The transfer playbook: Essential

practices for two-and four-year colleges. New York. Retrieved from

https://www.aspeninstitute.org/publications/transfer-playbook/

ABOUT THE AUTHORS

David Braun is a Professor at Southside Virginia Community College.

Katherine Clatterbuck is a Dual Enrollment Coordinator at Southside Virginia Community College.

Faison Dana is a Biology Instructor and Associate Dean at Blue Ridge Community College.

Leonda Keniston is Dean of Humanities, Fine Arts, and Social Sciences at Piedmont Virginia Community College.

John Lipp is Associate Dean of Engineering, Business, and Public Services at John Tyler Community College.

Tamra Lipscomb is Director of Technical Services at Dabney S. Lancaster Community College.

Christian Mason is Mathematics Department Chair at John Tyler Community College.

Cindy Wallin is Interim Dean of Science, Math, and Engineering at Central Virginia Community College.

BLENDING CREDIT & NON-CREDIT COURSES:
BEST PRACTICES, OPPORTUNITIES, BARRIERS

HEATHER ECKMAN, M. TODD ESTES, KELLY GILLERLAIN, SHANDA JENKINS,
WENDY MILLER-EDWARDS, OLIVIA REINAUER, KEISHA SAMUELS, & G. NICOLE WALKER

INTRODUCTION

Community colleges provide access to postsecondary education for 12 million students annually representing approximately 41% of all United States (US) undergraduates (American Association of Community Colleges [AACC], 2017). Community colleges offer an array of programs designed to help students meet different goals. Transfer associate degrees offer an accessible and lower cost option for students seeking a path to a bachelor's degree. Occupationally focused associate degrees are designed to prepare students for immediate employment in a specific industry. Noncredit education provides training for students seeking targeted, often shorter, courses for personal and professional enrichment (Cohen, Brawer, & Kisker, 2014). Many community colleges are now increasingly emphasizing noncredit workforce education as they support regional workforce development efforts and strive to meet the needs of their local industry partners (Van Noy, Jacobs, Korey, Bailey, & Hughes, 2008).

According to the AACC (2017), 5 million students were enrolled in noncredit courses in 2015. They represent 41% of total community college enrollments, and the revenue generated by noncredit offerings is becoming an important funding stream for many community colleges (D'Amico, Morgan, Robertson, & Houchins, 2014). Despite the millions of students enrolled in these courses and their potential to generate revenue for the institutions delivering programs, Voorhees and Milam (2005) refer to noncredit community college education as the "hidden

college" and existing research on noncredit offerings is limited. Within this context, in 2016, the Virginia Community College System (VCCS) implemented the performance-based Workforce Credential Grant (WCG) Program. The WCG may help reveal the "hidden college" in the Commonwealth of Virginia (VA).

Blending community college credit and noncredit programs with thoughtful and intentional strategies will benefit the students and the institutions. Van Noy, Jacobs, Korey, Bailey, and Hughes (2008) made five recommendations for strengthening noncredit education based on their research. They included the need to expand state funding with clear goals, to increase coordination of credit and noncredit offerings, to promote articulation of noncredit courses into credit programs, to establish non-degree forms of validation for noncredit programs, and to capture more information regarding employment outcomes resulting from noncredit training. These recommendations provide the framework for an analysis of current VCCS programming.

EXPAND STATE FUNDING WITH CLEAR GOALS

In order to stay competitive, it is essential for the Commonwealth of VA to continue to expand its commitment to noncredit coursework and credentials. According to Holzer (2015), California Community Colleges (CCC) currently fund non-credit education at a rate comparable to what school districts receive for adult education. That is the equivalent to approximately $2000 per full-time equivalent (FTE) student. Beyond lump sum investments from the Commonwealth, it is important to examine the possibilities for sustained noncredit funding to support workforce development. Because VA appropriations are based on FTEs rather than by credit hour, one possible suggestion is to include noncredit enrollment (either at equivalent rates or by using a formula) in calculating full time enrollments. It is also important to utilize grant

funding in ways that will support sustainable efforts to increase noncredit to credit transitions. For example, offer grants to colleges for outreach/marketing or grants to employers. Tax credits can also be offered as incentives (Holzer, 2015).

In 2016-17, the VCCS began to integrate a performance based formula into its funding model. Because we expect the percent of funding based on outcomes to increase over time, we should consider how this model can support noncredit education and potentially reward transitions from noncredit to credit courses. While the New Economy Workforce Credential Grant Program has established an innovative pay-for-performance funding model for noncredit workforce training, integrating funding support for noncredit community college courses within regular revenue streams rather than drawing from a separate funding source will provide both philosophical integration and long-term sustainability (Soares, 2010; Eyster, Durham, & Anderson, 2016). Points could be awarded for noncredit to credit transitions, for all credentials/degrees earned rather than highest credential/degree earned (to support a stackable credential pathway), and/or for employment outcomes similar to transfer programs (VCCS Student Success Center, 2015).

Other areas to consider in relation to funding for noncredit to credit transitions is marketing available funds and low-cost programs to students. The state of Texas has focused on jobs and education for adult students, which involves two areas of noncredit coursework, workforce training and developmental/literacy education. One piece of Texas's 60x30TX plan involves the development of a statewide information and funding portal for adult students (Texas Higher Education Coordinating Board, 2016). This portal would be a partnership among institutions of higher education, workforce development organizations, and adult literacy/learning organizations, and would direct students to resources. These resources include funding, training,

and education opportunities. We recommend a similar initiative for VA. Our portal could also adhere to the Guided Pathways model, with credential attainment leading to possible degree attainment. It could highlight the total cost to the student and the financial assistance available.

INCREASE COORDINATION OF CREDIT AND NONCREDIT OFFERINGS

Organizational structure matters as it affects opportunities for collaboration and internal communication. Some institutions manage and deliver noncredit programs using an entirely separate division within the institution. The separate division may be led by a vice president or a director who reports directly to the president of the college. Workforce leadership reporting directly to the president provides visibility for noncredit programs and may promote greater collaboration with academic peers. Managing workforce noncredit education through a separate, dedicated division can also help to solidify the importance of noncredit education within the larger institution and help ensure focused attention on critical noncredit programs. However, managing noncredit programs through a separate division can create organizational boundaries that may hinder communication and negatively affect collaboration. Thus, intentional steps must be taken to promote collaboration and coordination including regular meetings and open communication among divisions.

Institutions may choose to integrate noncredit programs within academic program disciplinary units. Integrating programs can promote improved communications and shared resources. These resources include facilities, equipment, knowledge, and relationships. Facilities and equipment can be scheduled to support both credit and noncredit programs. Faculty experts are available to support all programs and employer interaction is based on disciplinary expertise rather than program type. However, integrating programs could also threaten the necessary focus for

noncredit programs that target specific populations, seek different outcomes, and employ alternate funding models.

Regardless of governance structure, institutions must capitalize on the strengths of each program model and minimize internal competition in an effort to support their regional workforce. Noncredit training provides a tenuous response to address emerging workforce needs. Credit programs provide a longer-term strategy to meet sustained workforce requirements.

Institutions must use the right tool for the job based on the desired outcome. Competition among noncredit and credit programs, real or perceived, diminishes the performance of both. Institutions should address concerns regarding competing priorities directly and take steps to strategically align noncredit and credit programs to meet the needs of regional employers. Identifying college resources available to support all programs will reduce inefficiencies and maximize return on investment which is especially important in an environment with lower enrollments and shrinking budgets.

PROMOTE ARTICULATION OF NONCREDIT COURSES INTO CREDIT PROGRAMS

The research points to several methods to better assess student needs and support efforts to recruit noncredit students into credit programs and to articulate noncredit and credit programs to promote student transfer. Literature and interviews suggest opportunities for the award of advanced standing within credit programs for noncredit participants, the potential for noncredit programs to serve as postsecondary onramps for minorities students, and the need for improved advising for students taking advantage of these options. D'Amico, Morgan, Katsinas, Lucas Adair, & Miller (2017) found that 17 states have guidelines to grant credit retroactively through assessments and other methods and 15 states had ways to give credit for non-credit work. Those

methods included placement tests, credits for certifications, and other college level processes. Unfortunately, according to D'Amico, et al. (2017), only 7.2 % transitioned into credit courses within 6 years. This low transition rate may suggest the need for more advising to help students negotiate the advanced standing process when entering a credit program.

Garza-Mitchell (2017) looked at online career and technical education in community colleges. He found that community colleges have the highest participation in distance education across institutions at 22% for undergraduates. He also found that 76.3% of colleges offer CTE courses via distance learning of some kind and 46.6% of those classes are non-credit. Because distance education reaches more non-traditional students, reduces time constraints, reaches bigger audiences, and allows increased access to courses, schools should consider increasing their online distance education CTE courses. Furthermore, community colleges need to capitalize on the appeal of noncredit online education to nontraditional students by developing strategic onramps to credit programs from these courses.

Arena (2013) looked at the rise of non-credit courses in higher education and found that minority students may avoid credit classes because of the cost, the perceived sacrifice required to complete an academic credential, and the lack of perceived benefit. In addition, many students do not recognize immediate employment benefits associated with degree completion. Rather, minority students feel the cost now outweighs the benefit of degree completion. According to Arena (2013), minority students want careers and better jobs. Partnerships with businesses are very important as are internships that lead to immediate employment. Students in Arena's sample population also wanted classes that were more innovative and flexible. However, proper advising and incentives can result in greater transfer into credit programs. Active recruitment,

simplified registration, thoughtfully offered course locations and class times can also contribute to improved transition outcomes.

ESTABLISH NON-DEGREE FORMS OF VALIDATION FOR NONCREDIT PROGRAMS

When exploring the development of non-degree forms of validation for noncredit workforce education as well as systems for recording outcomes, one must consider the portability of student skills and credentials. The accountability within the VCCS as well as the United States should also be recognized.

In reviewing the literature as well as conducting regional research, currently the VCCS is working with a system of both performance-based assessments within classrooms and work settings as well as assessment through third-party nationally accredited organizations such as NCCER, Comp Tia, Microsoft, CISCO, and Oracle. In essence, a combination approach of first course and setting work is completed, and then nationally accredited organizations validate the student's credentials as well as knowledge and skills. Currently, the VCCS uses the above methods to track and fund non-degree credits and non-credit workforce education.

When considering examples of what other states have implemented to correct the issues of not only portability of workforce credentials, but also validity of workforce credentials, the research shows several interesting trends. Buckwater (2017) reports that Colorado created within the Colorado Community College System (CCCS) a "suite of micro-credentials for the manufacturing industry" that was created in 2015. This suite morphed into digital badges, which allows students to digitally create an online portfolio of their personal achievements and credentials. This not only provides a standardized, uniform location for the student to display earned credentials, but it also provides direct access to any potential employers wishing to hire and/or to educate their employees. It should be noted the CCCS digital badges system is visually

appealing and easy to manipulate allowing for greater student and potential industry employer usage. The program was so successful that CCCS plans on expanding this model to include healthcare and cyber security (Buckwalter, 2017).

Additionally, Lumina created a National Credential Registry called the Credential Engine in 2013. This website acts as a collection agency for reliable data about the different types and the number of credentials as well as who and how these credentials are used. Colleges can contribute their own personal data. Industry employers also participate in the website, making it beneficial for both. Not only is information shared, but also transparency is achieved (Buckwalter, 2017).

Specific recommendations to aide in portability and validity include first creating a state and national transcript, which would unify all individuals obtaining non-credit credentials. This strategy would allow for better record keeping, a repository of data collection, as well as create a system of uniform, accepted credentials. Second, the creation of a VCCCs Badge System similar to Colorado's whereby earned credits can be digitally tracked and marked as an individual's progress report or resume. This strategy would allow not only for ease of record keeping for the earner, but recognition as well. Employers could also use this website to view potential employees as well. Third, participation in the Credential Engine website would allow individuals to see what credentials are needed to obtain specific jobs and track trends for both employers and educators. This strategy needs to be a state-driven mandate. However, it should be noted that currently, due to privacy concerns, the VCCS does not share individual information regarding students' credentials with employers.

CAPTURE MORE INFORMATION REGARDING EMPLOYMENT OUTCOMES

The consistent recommendations of different states are to create more funding for institutions to support noncredit education for students. Currently 35 out of 49 states provide funding through the Workforce Innovation and Opportunity grant. On July 22, 2014, President Obama signed Workforce Investment Act of 1998 (WIOA) into law, which Congress passed with strong bipartisan support. WIOA represented an effort to align the needs of the nation's businesses with those of job-seekers. Two of the WIOA's contributions were the creation of one-stop employment centers, where individuals could gather information and resources on available job training, education, and employment services, and the introduction of individual training accounts, which offered eligible job-seekers more autonomy in choosing and accessing job-training. Virginia's local workforce development boards and One-Stop Career Centers have access to federal WIOA funds that can be directed to supporting employer costs for registered apprenticeships for a broad range of occupations and industries.

The workforce grant supports noncredit funding to institutions as it customized educational training to meet the needs of the employers. To support WIOA efforts, agencies collected data on how many students completed the training program, the number of students that maintained their certificates and credits that was received by the student for prior learning or experience. It was recommended that the data should be collected yearly from students in survey form or by utilizing focus groups to detail training performance and completion. Each state took different approaches to data collection. The research shows that in the future, providing empirical data on noncredit workforce information can help justify state funding for community colleges and state institutions.

CONCLUSION

Blending community college credit and noncredit programs will provide several benefits to all involved. Based on their research, Van Noy, Jacobs, Korey, Bailey, and Hughes (2008) made five recommendations for strengthening noncredit education. They pointed out the need to expand state funding with clear goals, to increase coordination of credit and noncredit offerings, to promote articulation of noncredit courses into credit programs, to establish non-degree forms of validation for noncredit programs, and to capture more information regarding employment outcomes resulting from noncredit training. These recommendations provided the context for an analysis of current VCCS programming. Several innovative solutions have been suggested based on research, interviews, and models from other states.

REFERENCES

American Association of Community Colleges (AACC). (2016). *2016 fact sheet*. Retrieved from http://www.napicaacc.com/docs/AACC_Fact_Sheet_2016.pdf

American Association of Community Colleges (AACC). (2017). *Fast facts.* Retrieved from https://www.aacc.nche.edu/research-trends/fast-facts/.

Arena, M.L. (2013). The crisis in credit and the rise of non-credit. *Innovations in Higher Education*, 38, 369-381

Buckwater, V. (2017). *Four ways to increase the value of short-term credentials: A guide for community colleges.* Retrieved from http://www.jff.org/sites/default/files/publications/ materials/A%20Guide%20for%20Community%20Colleges-121117.pdf: http:www.jff.org.

Cohen, A., Brawer, F., & Kisker, C. (2014). *The American community college* (6th ed.). San Francisco, CA: Jossey-Bass.

D'Amico, M., Morgan, G., Robertson, S., & Houchins, C. (2014). An exploration of noncredit community college enrollment. *The Journal of Continuing Higher Education, 62*(3), 152-162. DOI: 10.1080/07377363.2014.953438

D'Amico, M.M., Morgan, G.B., Katsinas, S.G., Adair, J.L., & Miller, M.T. (2017). A national analysis of noncredit community college education: Enrollment, funding, accountability, and contextual issues. *Community College Journal of Research and Practice, 41*(4), 288-302.

Eyster, L., Durham, C., and Anderson, T. (2016). *Federal investments in job training at community colleges.* Retrieved from https://www.urban.org/sites/default/files/publication/86241/federal_investments_in_job_training_at_community_colleges.pdf

Garza- Mitchell, R.L. (2017). Online career and technical education in the community college. *Community College Journal of Research and Practice, 41*(6), 336-340.

Holzer, H. (2015). *Higher education and workforce policy: Creating more skilled workers (and jobs for them to fill)*. Retrieved from https://www.brookings.edu/wp-content/uploads/2016/06/higher_ed_jobs_policy_holzer.pdf.

Soares, L. (Oct. 4, 2010). *The power of the education-industry partnership: Fostering innovation in collaboration between community colleges and businesses*. Retrieved from https://www.americanprogress.org/issues/economy/reports/2010/10/04/8518/ the-power-of-the-education-industry-partnership/.

Texas Higher Education Coordinating Board (THECB). (2016). *Accelerating pathways to college and careers for students in adult education.* Retrieved from http://www.thecb.state.tx.us/reports/PDF/7612.PDF?CFID=74572126&CFTOKEN=70669477.

Van Noy, M., Jacobs, J., Korey, S., Bailey, T., & Hughes, K. (2008). *The Landscape of noncredit enrollment in workforce education: State policies and community college practices.* Washington, D.C.: American Association of Community Colleges and Community College Research Center.

VCCS Student Success Center (VSSC). (2015). *VCCS Resource Funding Distribution Taskforce metrics data collection.* Retrieved from http://trcenter. vccs.edu/wp-content/uploads/2016/12/ Performance-Funding-Measures-and-Definitions.pdf

Voorhees, R. A., & Milam, J. H. (2005). *The hidden college: Noncredit education in the United States.* Winchester, VA: HigherEd.org.

ABOUT THE AUTHORS

Heather Eckman is a Mathematics Instructor at Paul D. Camp Community College.

M. Todd Estes is Director of Career Education Programs and Workforce Partnerships at the VCCS System Office.

Kelly Gillerlain is a Professor of Business Administration at Tidewater Community College.

Shanda Jenkins is a Psychology Instructor and Department Chair at Thomas Nelson Community College.

Wendy Miller-Edwards is a History Faculty member at Paul D. Camp Community College.

Olivia Reinauer is Interim Coordinator of Library Services at Tidewater Community College.

Keisha Samuels is Assistant Professor and Department Chair of Human Services at Thomas Nelson Community College.

G. Nicole Walker is Interim Director of the Student Center and a Lead Counselor at Tidewater Community College.

COMMUNICATION AND DATA SHARING BETWEEN K-12
AND COMMUNITY COLLEGES

DEBBIE BOND, MITZI JONES, JOSH MEYER, BETH PAGE,
JACOB SURRATT, AMY WEBSTER, & BRIAN WRIGHT

SUMMARY OF ISSUE

The Virginia Community College System (VCCS) Faculty and Administrators Leadership Academy (FALA) tasked Group 4, comprised of faculty and administrators from community colleges in Southwest Virginia, with investigating communication and data sharing between K-12 and community colleges to identify best practices. This wide-ranging topic encompassed many efforts that impact student recruitment, retention and success in their postsecondary education. To prioritize the most pressing issues, Group 4 focused on recent system-wide findings and recommendations.

In 2016, the Virginia General Assembly directed the Joint Legislative Audit and Review Commission (JLARC) to review the VCCS, a process that had not been done since 1991. The JLARC report in 2017 stated that a relatively low percentage of community college students obtain a degree or credential (39 percent). It also found that community colleges serve a large percentage of at-risk students who may be older, part-time, low-income, the first in their family to attend college, and require remedial coursework in English and math. These students' educational outcomes typically are not as successful as those of other students (Joint Legislative Audit & Review Commission Report, 2017).

In addition to the JLARC report on student success findings among Virginia's Community Colleges, community colleges do not consistently ensure the quality of dual

enrollment courses. It stated that dual enrollment programs do not appear to consistently save students time or money in their pursuit of bachelor's degrees.

To address these concerns, the JLARC report included VCCS implementation of the following executive actions:

- Develop a proposal for identifying high school students who are not prepared for college-level course work and actions that could be taken to improve college readiness.

- Develop standard criteria that colleges can use for identifying students who are at risk of not succeeding in community college and a standard policy for colleges to follow to ensure that the most at-risk students receive proactive, individualized, mandatory academic advising and other academic services.

- Require colleges to use recommended quality assurance practices for dual enrollment courses and disclose more information about the transferability of dual enrollment courses.

To meet the JLARC report's call to action regarding these items, strong communication and data sharing between Virginia's Community Colleges and their K-12 partners is essential. Through background literature research, surveys and interviews with key stakeholders, Group 4 members identified current practices in data sharing and communication, including successes and shortcomings.

Group 4's recommendations will provide concrete steps to improve communications and data sharing between Virginia's Community Colleges and their K-12 partners.

KEY RESEARCH FINDINGS

Communication and data sharing between colleges and K-12 partners is a challenging but essential process. According to M. Grady (2016) of the Annenberg Institute for School Reform at

Brown University, "collaboration by K-12 and postsecondary educators can significantly improve data use, research, and analysis and thus enhance the cooperative activities proposed … for a 'shared transition zone.'" Such a shared transition zone between the senior year of high school and first year of college results in more students who are prepared to enter college and earn a post-secondary credential (Annenberg Institute for School Reform, 2014).

In 2012, California established a Student Success Task Force to establish recommendations to better support high school students' transitions to college and careers. The task force's first recommendation was that its 112 community colleges "collaborate with K-12 education to jointly develop new common standards for college and career readiness that are aligned with high school exit standards" (California Community Colleges Student Success Task Force, 2012). The task force suggested community colleges work with K-12 partners to establish assessments to evaluate "career readiness" and guide students' programs of studies. With clearly defined pathways such as those provided in California, the route to success for at-risk students is achievable.

Another effort to determine college readiness nationally is the use of multiple measures for students rather than placement tests alone. A community college in North Carolina made the shift to multiple measures in 2013, using a hierarchy of GPA, college entrance exams like the ACT or SAT and finally placement tests as a last resort. Placement tests alone were not providing a true picture of a student's abilities because "what it really measured was how students performed on a single day and whether or not they had prepared for the exam" (Smith, 2016). But what is important to note here is that in order to implement multiple measures, collaboration between community colleges and K-12 partners is essential.

Implementing multiple measures can present difficulties. For example, "States planning to link data across sectors must consider a number of challenges, including how to match student records, how to protect student privacy, and how the linked data will be used to inform educational programs that prepare students for higher education and the workforce" (Institute for Educational Sciences, 2014). The U.S. Department of Education has developed a toolkit to assist with data-sharing agreements and ensure they do not violate the Family Educational Rights and Privacy Act (FERPA). Although a toolkit exists, "Unfortunately, there is no single data-sharing model for communities to follow. There is, however, one thing communities can do to improve their chances for data-sharing success: build relationships" (U.S. Department of Education, 2016).

Grady (2016) writes, "Building and sustaining data collaborations requires significant commitments of leadership, infrastructure, capacity, and staff-from both K-12 and higher education systems." The key recommendations Grady developed to ensure high-quality and lasting collaboration include the following: 1) promote long-term leadership commitment; 2) invest in core operating capacity; 3) develop faculty incentives for participation; 4) expand partnerships to engage other agencies and community representatives.

Community College Representatives	Public School Representatives
President/VP & Staff Institutional Research	Superintendents/ Assistant Superintendents
Student Services Career Coaches Upward Bound Staff Counselors	Principals/ CTE Directors
Dual Enrollment Staff	Guidance Counselors
Faculty Program Heads Distance Learning Staff	Students Parents/ Guardians
Advisory Committee	High School Teachers
	Central Office Staff
	Governor's School

CURRENT PRACTICES

Communication practices between community colleges and the public school systems in Southwest Virginia are working very well according to local public school superintendents. The primary communication flow seems to occur between high school guidance counselors and college dual enrollment staff but the lines of communication are fluid at several layers. For example, school superintendents tend to communicate with the college presidents; Assistant superintendents tend to communicate with college vice-presidents, and so forth. However, it does depend upon the issue or the type of information provided or sought. As seen in the communication flow chart, numerous offices with both organizations actively contribute to the process.

The exchange of information occurs on a regularly scheduled basis (College Application and FASFA Workshops) as well as on an as needed basis (college faculty conversations with dual enrollment faculty). College personnel are present almost daily in all of the area high schools between dual enrollment, student services including TRIO, plus college career coaches. The constant presence of college personnel in the high schools greatly contributes to the amount of information shared with high school guidance counselors and principals. Conversely, ongoing visits to college campuses by students and high school staff reinforce the connection. The subsequent relationships that develop between college and high school personnel ensure that issues and problems are solved in a timely fashion.

Another common practice that reinforces the relationships between the public schools and the community colleges in Southwest Virginia is the mutual desire and need to share the sometimes limited resources available to each. Perhaps this is the critical factor that promotes the need for strong relationships between these rural based organizations. Types of shared resources include dual enrollment offerings, facilities, technology, personnel, institutional research, and

others.

Feedback from the superintendents indicate they believe the current communication practices are working very well and the only change they would like to see would be to increase the formal meetings they have with the college presidents and vice-presidents. They would also like to have an updated directory of college personnel each year with contact information and especially would like to be informed when a new president is being hired. They appreciate being included in the planning process when the college is undergoing SACSCOC reaffirmation. Superintendents also appreciate when the conversation extends beyond dual enrollment. One superintendent asked for more information about a QEP Soft Skills initiative one college is implementing so that the high schools could begin to conduct similar activities with their students in order to promote a sense of continuity. These requests have been shared with the college personnel and will be implemented to improve upon the well-functioning current practices.

RECOMMENDATIONS

Strengthen Partnerships

The partnership between community colleges and local school agencies is one of the most, if not the most crucial, to successfully serving the community. These partnerships have been in place since the birth of the VCCS; and in order to ensure they remain strong, several steps need to be taken. Rarely do colleges allow involvement and membership of faculty, staff, and administrators from the K-12 partners on committees. Such involvement would provide several benefits, especially when hiring administrators, strategic planning, and initiative and project implementation. One strategy to cultivate such a practice would be for each college to host bi-annual meetings with key stakeholders from the respective colleges and K-12 partners to

enhance communication with intentionality. These purposeful and planned encounters will ultimately improve the consistency of communication and offer an improved platform for open dialogue.

Often, changes in leadership or structure for both VCCS schools and K-12 partners occurs, but is rarely shared or communicated without delays. A recommendation for consideration includes colleges inviting K-12 partners to participate on hiring committees for recruitments that have direct involvement at the K-12 partner school. Include key K-12 administrators in college wide notifications that directly impact or involve K-12 partners such as when leadership changes occur.

Data and Information Sharing to Proactively Implement Programs

Due to the ever-changing nature of education, institutions must have access to reliable, consistent data sources to implement programs and initiatives proactively. One such recent initiative for VCCS schools was multiple measures. In order to effectively implement this initiative, each college must have access to high school transcripts to accurately document and share graduates GPA for appropriate college level placement. Unfortunately, this does not occur in a standardized way across Virginia. Several schools in the Southwest request these documents annually, or only receive them from each individual student. It is recommended that in collaboration with the Department of Education, VCCS identify and implement a strategy to have these high school transcripts shared not only between local education agencies and VCCS schools, but all institutions of higher education in Virginia. Receiving transcripts upon immediate graduation will ensure the ability to accurately advise and place students, as well as ensure compliance with federal regulation for issuing financial aid.

Sharing Information and Data

Sharing information, not only with employees of K-12 partners, but with students is most crucial. We need to explore ways to ensure that students who are enrolled in partner public schools understand the value, options, and pathways to community colleges. To do this, we recommend that VCCS partner with guidance counselors and career coaches embedded in the high schools to provide accurate information as counselors begin advising high school seniors early regarding college options. It is crucial that during these sessions, counselors have an accurate understanding of the mission, vision, offerings, and possibilities for community colleges in the area. It is recommended that during the bi-annual meetings, faculty, administrators, and student services staff share information and open discussions with high school counselors.

Sharing information should be a two-way path from the colleges to the K-12 partners. Each school within the K-12 system has valuable pieces of information that would greatly benefit the colleges. For example, if local school agencies are experiencing increased needs to serve students with physical, intellectual and learning disabilities or other mental health issues, colleges could benefit in planning for changes that result from transitional enrollment. We recommend building a communication loop for this type of information to be shared with leaders at the VCCS schools to implement initiatives, programs, and services to accommodate this potential need if those students plan to enroll at the colleges.

Connecting earlier with potential students would also be a huge asset to the community colleges. This occurs often with dual enrollment students who are already prepared for college level course work, but we need to build opportunities to connect with students who do not fall into that category. For example, student with learning, physical, and mental challenges might not

understand the comprehensive services and options that colleges provide. We recommend that each high school host a meeting for parents and students to learn about opportunities at the local community college. During this meeting, a break out session would be offered for Student Services staff to share information regarding how accommodative services are delivered in the college setting, process for submitting documentation, and other resources available. Not only could individualized sessions be offered for students with learning challenges, but also other sessions focused on career pathways, transfer institutions, athletics, and other services the college provides.

Dual Enrollment Strategies

There are already strong partnerships and lines of communication established between local school systems and the community colleges through dual enrollment offerings. However, there are areas where both can be improved. As is recommended by SACSCOC, developing regular communication between faculty in the discipline is crucial to ensuring quality instruction. We recommend that dual enrollment faculty be invited to division and/or department meetings on a regular basis. If it is not possible for all to attend, these meetings could be recorded, minutes shared, or a teleconference option provided. In addition to regularly providing opportunities for participation, we also recommend that each college perform an annual, internal evaluation of the effectiveness and quality of the dual enrollment program. Each college should conduct this evaluation in collaboration with all K-12 school systems they provide dual enrollment instruction with. This collaborative effort will provide an ongoing opportunity for regular communication and data sharing.

REFERENCES

Annenberg Institute for School Reform, Brown University; John W. Gardner Center for Youth
and their Communities, Stanford University; & University of Chicago Consortium on
Chicago School Research. (2014). *Beyond college eligibility: A new framework for
promoting college readiness*. College Readiness Indicator Systems Resource Series.
Seattle, WA: Bill & Melinda Gates Foundation. Retrieved from:
https://gardnercenter.stanford.edu/sites/g/files/sbiybj8191/f/A%20New%20Framework%
20for%20Promoting%20College%20Readness.pdf

California Community Colleges Student Success Task Force (2012). *Advancing student success
in the California community colleges.* Retrieved from:
http://californiacommunitycolleges.cccco.edu/portals/0/executive/studentsuccesstaskforce
/sstf_final_report_1-17-12_print.pdf.

Grady, M. (August 2016). *How high schools and colleges can team up to use data and increase
student success*. Retrieved from: https://files.eric.ed.gov/fulltext/ED567871.pdf.

Institute for Educational Sciences (May 21, 2014). *Linking K12 student data with postsecondary
data.* Retrieved from:
https://nces.ed.gov/programs/slds/pdf/Linking_K12_Student_Data_to_Postsecondary_Da
ta_May2014.pdf.

Joint Legislative Audit & Review Commission (September 2017). *Operations and performance
of the Virginia Community College System.* Retrieved from:
http://jlarc.virginia.gov/2017-vccs.asp.

Smith, A. A. (May 26, 2016). *Determining a student's place.* Retrieved from:

https://www.insidehighered.com/news/2016/05/26/growing-number-community-

colleges-use-multiple-measures-place-students.

U.S. Department of Education (March 2016). Data-sharing tool kit for communities: How to

leverage community relationships while

protecting student privacy. Retrieved from:

https://www2.ed.gov/programs/promiseneighborhoods/datasharingtool.pdf.

INTERVIEWS CONDUCTED

1.) Dr. Don Stowers, Former Superintendent of Pulaski County, VA Schools on February 5,

2018 by Debbie Bond, NRCC

2.) Dr. Keith Perrigan, Superintendent of Bristol, VA City Schools on February 8, 2018 by Beth

Page, VHCC

3.) Dr. Gregory Clark Mullins, Superintendent of Wise County, VA (Region VII) Schools on

January 29, 2018 by Mitzi Jones, MECC

4.) Dr. Greg Brown, Superintendent of Russell County, VA Schools on February 20, 2018 via

email survey with Brian Wright, SVCC.

5.) Mr. George Brown, Superintendent of Tazewell County, VA Schools on February 21, 2018

by Brian Wright, SVCC.

ABOUT THE AUTHORS

Debbie Bond is Interim Dean of Business and Technologies at New River Community College.

Mitzi Jones is an Assistant Professor at Mountain Empire Community College.

Josh Meyer is Director of Marketing and Strategic Communications at Virginia Western

Community College.

Beth Page is Dean of Professional and Technical Studies at Virginia Highlands Community College.

Jacob Surratt is Dean of Business and Social Science at Wytheville Community College.

Amy Webster is Coordinator of Nursing and Health Sciences at Patrick Henry Community College.

Brian Wright is a Professor at Southwest Virginia Community College.

Improving Completion Rates for Underrepresented Populations: Building on Best Practices

Lynn Bowers, Megan Cook, Mark D'Antonio, Jen Daniels, Amber Foltz, Carlita McCombs, John Sound, & Jenni VanCuren

Executive Summary

Most experienced educators recognize that many students will not complete optional assignments, and often those students who need additional help do not seek assistance. Current research demonstrates that students in underrepresented populations (see definition below) are less likely to seek support than others because they see needing help as a confirmation that they don't really "belong" in college in the first place. Research shows that those who do access currently optional supports such as tutoring are more likely to succeed, so this research group looked for ways to build structured connections between underrepresented students and resources.

We found that our peers at various VCCS colleges had programs that were working to build these connections for our students, so in our resource-constrained environment, we chose to focus on what exists that works, is scalable, and could be implemented in stages as resources permit. Our proposal reflects increased resource allocation on both the academic support (tutoring) side and the student support (TRIO, Pathway to the Baccalaureate, Success Coaches) side to increase <u>structured</u> contact between the student and the support to decrease the "stigma" of seeking help. We propose this because in our roles as administrators and faculty we know that often our students need both academic support and holistic support.

DEFINITION

This proposal uses the current VCCS definition for underrepresented or underserved populations to include "any student who is first generation (both mother's and father's education are high school graduate or below), minority (any student not white/Caucasian or unknown), or Pell-eligible (as indicated by ISIR as of the award year)" (C. Finnegan, personal communication, February 13, 2018). The Joint Legislative Audit and Review Commission (JLARC) study notes that compared to students enrolled in four-year institutions, community college students are more likely be in the underserved population, including being categorized as "low-income, the first in their family to attend college, and requiring remedial coursework in English and math" (Joint Legislative Audit and Review Commission, 2017, p. i).

The JLARC study noted that credential attainment in the VCCS is low compared to state universities, with only 39% of our students reaching degree completion within 7 years after initial enrollment. Completion rates are even lower in the underrepresented populations (Joint Legislative Audit and Review Commission, 2017). To develop best practices to help students successfully persist towards completion, we must first examine the factors that impede that progress.

COMMON BARRIERS TO SUCCESS

Primary causes of attrition for students include inadequate financial support, unsolidified academic decisions, and a variety of life interruptions (Optimizing academic advising at community colleges, 2014). Some students are unprepared for college level work. Others have difficulty understanding how to navigate the higher education system. Colleges strive to provide appropriate resources to alleviate some of these barriers, such as academic tutoring centers, success coaches, first year programs, advising services, student activities, and financial

resources; however, the reality is that many students do not utilize the services. A Community College Survey of Student Engagement (CCSSE) study reported that less than half of students take advantage of these beneficial services (Optimizing academic advising at community colleges, 2014). They are often overwhelmed by too many resources, so instead they rely on "self-advising," or they do not seek assistance due to the stigma associated with asking for help. Additionally, students from underrepresented groups may not seek help because the act of seeking help further perpetuates their sense of "not belonging" (Markle, 2017). **The question becomes how do we connect the underrepresented students who most need the academic and advising resources?**

THE SOLUTION, PART I: PROACTIVE ADVISING

Meeting the complex needs of the various underrepresented community college students is key to addressing enrollment and completion. Studies have shown that proactive (i.e., high-touch or intrusive) advising is effective with underrepresented populations. In a recent summary provided by NACADA, Harrell (2016) builds upon earlier work done by Glennen and Baxley (1985) "that shows that a proactive advising approach can reduce attrition and increase enrollment" for African American students, in particular, through "deliberate intervention," such as "the use of mandatory appointments throughout the semester based on academic preparedness, testing, structured course options, supplemental education, and goal setting—these implementations increased enrollment, decreased attrition, and improved retention rates." This kind of intrusive or proactive outreach is needed since a 2014 CCSSE indicated that 32% of community college students report rarely or never using advising services, and 70% report rarely or never discussing career plans with a faculty or advisor (Optimizing academic advising at community colleges, 2014).

Much of the research on serving students at the highest risk of dropping out of college promotes the provision of extensive supplemental services to support the students academically and personally. Strategies such as hands on financial aid workshops, financial assistance programs and food pantries have contributed to increases in enrollment and graduation (Northern Virginia Community College, n.d.). When the underrepresented students have a place where they belong, where they are understood, and where they can gain guidance and support, research shows that improved student outcomes result. A number of VCCS colleges have programs that have already demonstrated success in retaining students and supporting student success, particularly for underrepresented students. We will focus on three programs, in particular: College Success Coach Initiative (CSCI), TRIO Student Support Services (SSS), and Pathways to the Baccalaureate. Each program is described in more detail in the next section.

In total, 14 of the community colleges in Virginia currently serve underserved students through one of these programs. Eleven have a TRIO SSS Program and ten have a CSCI program. Currently, Northern Virginia Community College (NOVA) has the only Pathway to the Baccalaureate program. For those nine schools who do not house an SSS, CSCI or Pathway program, we recommend an expansion of the College Success Coach Initiative, as it will be the easiest to implement quickly.

While these programs vary in approach and scope, they all provide students with personal support and connection to campus and community resources in the form of wrap-around services to keep the students progressing and assist them in overcoming barriers. These programs require academic advising, check-ins, and other forms of active participation, and are designed to build connections between the student and program staff, as well as other students. Our recommendation, in keeping with the literature on the benefits of wrap-around support programs

and with the JLARC study, is a fuller commitment of funding to expand existing programs for underserved students at our state's community colleges.

WHAT WORKS FOR OUR STUDENTS: COLLEGE SUCCESS COACH INITIATIVES

The VCCS Chancellor's College Success Coach Initiative (CSCI) college success coach model exists at nine Virginia community colleges. Paul D. Camp Community College's S.T.E.P.S. program was one of the original programs on which later ones were modeled. The success coach programs provide intensive interventions for first generation, ethnic minority and Pell grant eligible students, and are designed to improve outcomes for underserved students in the areas of credit program and credential completion and transfer. Coaches work with students to tackle such issues as academic remediation, financial constraints, family responsibilities, and motivational factors through clear goal setting and activities designed give students the awareness of academic and non-academic resources and the comfort and confidence to interact effectively with those resources. Coaches actively monitor and track their students, respond to academic alerts, help with scholarship searches, assist in the development of SMART goals, alert students to pre-exam events, and maintain regular communications. At Paul D. Camp Community College, these interventions had the following results:

(a) 70% of students maintained a 2.0 or above GPA;

(b) 134 degrees, diplomas, certificates, or other credentials have been earned;

(c) over $235,000 in scholarships awarded; and

(d) 3-year average retentions rates: fall to spring (77.86%) and fall to fall (49.46%), which consistently exceed the VCCS and PDCCC rates by 7% to 18%. (2017)

To put that into perspective, in alignment with Complete 2021, S.T.E.P.S. tripled the number of credentials earned by the end of Year 3 funding when compared to the baseline group.

The success coach model has already been assessed by the VCCS and has shown to have a positive return on investment: "In 2015, using FY2013 and FY2014 data, the VCCS calculated the 3-year return on investment at $3,062,800 for the nine-institution coaching initiative" (Paul D. Camp, 2017). See Appendix A for more detail. Of the three programs being showcased here, this model is the one that is most easily scalable and affordable.

WHAT WORKS FOR OUR STUDENTS: TRIO STUDENT SUPPORT SERVICES

One of the longtime cornerstones of Federal Department of Education grant programs are TRIO Student Support Services (SSS) Programs. SSS programs receive funds to serve first-generation students, low income students, and students with disabilities. These programs build wrap-around supports designed to encourage both persistence and completion of underserved students who are statistically at the greatest risk for stopping or dropping off the higher education track. While not all programs are identical, these programs typically offer case management style advising and coaching with low student to advisor ratios, individualized tutoring services, mandatory advising and transfer planning, support for early major selection and require regular touch base points. In a national study of TRIO programs, the persistence rate of two-year institutions was 85.4%, and the three-year completion rate of two-year institutions was 39.2%, exceeding the Federal Department of Education's target (U.S. Dept. of Ed, 2015). Locally, within Virginia community college's, most programs retained students at rates between 70% and 90% and saw completion rates of between 40% and 50%. See Appendices B, C, & D for more detail. The Trio Student Support Services require the host college to manage the grant application and compliance processes, which can be cumbersome, and funding is not guaranteed.

WHAT WORKS FOR OUR STUDENTS: PATHWAY TO THE BACCALAUREATE

Northern Virginia Community College's Pathway to Baccalaureate (Pathway) provides early and ongoing support for students with demonstrated barriers to college access and completion, beginning in high school through attainment of a baccalaureate degree. The Pathway Program provides holistic student services offered on-site at participating high schools and centers during the regular school day, at NOVA campuses, and at George Mason University. In 2016-17, Pathway served "over 3500 12th graders enrolled in 50+ high schools and centers across nine school systems, while over 6800 college-matriculated Pathway students attend[ed] all NOVA campuses and George Mason University" (Pathway, 2017).

Ninety percent of Pathway students come from underrepresented or populations at risk for non-completion:

Pathway Student Demographics

- 79% of participating students are members of minority groups

- 72% of participating students are immigrants or children of immigrant parents

- 73% of participating students are first generation college students

- 63% of participating students report an annual family income less than half the median family income in the Northern Virginia region (Pathway, 2017).

Pathway counselors at the high schools, on NOVA's campuses, and at George Mason University guide students through the transfer process, addressing potential barriers and connecting students with appropriate resources to mitigate their needs. They engage students in service learning, peer mentoring, and career enrichment activities. The program also includes financial supports in the form of emergency funding and scholarships. The students who participate in the Pathway program have had excellent retention and completion rates:

- 90% of students in the program at NOVA are retained from the first to the second semester

- 81% of students at NOVA are retained from year to year.

- 73% of students are in good academic standing after one semester at NOVA.

- 98% of the students in the program earn transferable credit in their first year of college.

- 66% of deferral and stop-out students return to college within one year.

- The community college graduation rate is double that of the NOVA student population, [which JLARC notes is 19%.]

- 80% of Pathway's Mason transfers completed a bachelor's degree within three years of transfer (Pathway, 2017).

The success of the Pathway program is the result of students receiving proactive advising in high school, during their time at the community college, and through the transition to the university. Additionally, in high school, students are identified by counselors and are invited to apply to the program. Since the program has an element of "selectivity," the usual stigma associated with receiving support is reduced. Additionally, the selected students are treated as a cohort, with special Pathways SDV sections and orientations. Students are required to check in at mid-term with their counselors and are not permitted to register for the following semester until they have done so.

This is not an inexpensive model and requires partnerships with both the local high school systems and the major transfer partners; however, the Pathway program does what the JLARC report recommends to support at-risk students, in that it "require[s] at-risk students to attend orientation and complete a one-credit student development course in their first semester" and works with students who are underprepared while still in high school to stay focused on high

school completion and coursework (Joint Legislative Audit and Review Commission, 2017, p. 11). The participating high schools that have embedded Pathway counselors share a portion of the cost of their salaries. NOVA conducts placement testing with the VPT on-site and maintains dedicated counselors. In the recent years, the caseloads have crept up to nearly 600 students per counselor, which is well above the 250, which is the upper limit for "high touch" counseling. For more information, see the Pathway Fact Sheet and the Program Design Presentation available on NOVA's website: http://www.nvcc.edu/pathway/outcomes.html.

What do these three programs have in common? The case management approach to counseling, the interventions, and other supports that build a connection between the student and "their person" all enable the coach/counselor/advisor to engage in problem-solving with the students. It is this connection that helps students overcome the life barriers to their success, and this requires extensive follow-up and connection with other campus and community resources. The student who would have dropped out due to their broken down car now has someone paying attention, reaching out in their absence, and providing options and assistance for continuing through the semester.

Mandatory and intensive advising can help ensure that students are being supported and guided to progress to fulfilling a credential. However, the current number of personnel in student services is insufficient to perform such consistent student advising. Statistically, "The median number of students per non-faculty advisor FTE was 250 students, and more than 500 for three colleges" (Joint Legislative Audit and Review Commission, 2017, p. 21). The JLARC study stated that "Increasing the number of academic advisors or college success coaches was the most commonly identified approach to improve student success across the VCCS, selected from 14 approaches by 28 presidents and vice presidents" (Joint Legislative Audit and Review

Commission, 2017, p. 21). Additionally, the study recommends that the VCCS commit funding, either to increase the number of success coaches or to increase the number of professional advisors system-wide. Therefore, by adding consistent academic advising, the VCCS can allow for greater engagement and an increased likelihood for credential completion of the students within the underrepresented population.

PROPOSAL & COSTS FOR EXPANDED PROACTIVE ADVISING

We propose the commitment of funding to expand existing case-management advising programs for underserved students at our state's community colleges. This includes the addition of one or more success coach(es) or advisor(s) at each VCCS campus that currently has one of the programs described above, and for the nine that do not, we recommend an expansion of the Success Coach Initiative.

The JLARC study (2017) recommends that the CSCI program be expanded and provides this cost estimate:

> This could be done at its current scale, serving 200 students per college. In FY17, the nine participating colleges received a total of $1.2 million in funding, or approximately $130,000 per college. At the current scale of 200 students per college, the cost to expand the program to the remaining 14 colleges would be approximately $1.8 million. The additional cost to serve 400 students per college at all 23 colleges would be $4.9 million, and the additional cost to serve 600 students per college would be $7.9 million (p. 22).

Since we are unlikely to receive $7.9 million from the legislature, we recommend the addition of one or more success coach(es) or advisor(s) at each VCCS campus to supplement and enhance existing programs that have already been shown to be effective.

For example, Lord Fairfax Community College has a TRIO program at the Middletown Campus. Under this model, they would receive one additional TRIO advisor at Middletown and one new TRIO advisor for the Fauquier campus. These new advisors would each manage a load of 100 students and would be supervised by and fall under the direction of the current TRIO program director. NOVA's Pathway program would also expand to enhance the support that students receive once they matriculate to NOVA. Each campus would gain a new advisor/coach to expand the reach of the Pathway program. CSCI programs, like that of Paul D. Camp Community College would expand to add an additional success coach at each location. The colleges that do not have any of these programs would each gain a College Success Coach to serve 100 to 200 students. This model builds upon successful initiatives that already exist within our individual infrastructures and adds 41 new coaches/advisors who would provide intensive wrap-around services, impacting at least 4,100 students. Salary and benefits costs for the 41 positions are estimated between 2.7 and 3.1 million; however, improved retention and completion will potentially give a result in a return on investment.

THE SOLUTION, PART II: CONNECTING STUDENTS TO THE RESOURCES THEY NEED FOR ACADEMIC SUCCESS

In addition to expanding proactive advising within the VCCS, we propose that a core focus of this advising is the connection of students to tutoring services. Coaches/Advisors/Counselors are needed to help students who are first-generation to college, are underrepresented at college, or are underprepared for college-level coursework connect to the existing services that help them succeed. The one-on-one supplemental instruction that students can gain from tutors is a key resource to helping students who are struggling to meet the academic demands of their course work. As the JLARC study (2017) noted, "According to the research literature, students

who seek and receive tutoring have higher grades and higher rates of completion" (p. 24). A study conducted between the NOVA-Annandale Learning and Technology Resources in 2015 showed that students who used tutoring services were 15% more likely to pass their classes and that tutoring was most likely to make a positive impact in the following courses: ACC 211, CST 100, CST 110, ENG 111, ENG 112, and HIS 101 (Bogdewiecz & Miller, 2015).

Effective tutoring takes many forms: one-on-one sessions, group sessions, embedded in-class support, online support, and supplemental instruction. While one method of tutoring may prove to be more effective for one student or one class, another may be more effective for another; therefore, a fluid tutoring environment with multiple options ensures that students can be helped in the manner that best suits them. **The challenge remains: how to get the students who need the additional academic support to use the resources that are available to them?** As many faculty know, the students who take advantage of "extra credit" opportunities are rarely the students who actually need the extra credit. How do we breach the stigma associated with "tutoring"? Too many students see receiving tutoring as translating into failure or as confirmation of their self-imposed assumptions of their perceived inability to perform academically (neither of which are true!). Here are some possible solutions:

Mandatory Tutoring for All in Gateway Courses: Fain (2012), author of "Mandatory Tutoring," claims that tutoring should be a requirement instead of an option. Making tutoring mandatory helps to eliminate the stigma associated with it; since all students must attend, no student is being singled out as needing additional help. For example, in an introductory, "gateway" course, like ENG 111, students could be required to take an initial draft to the Writing or Tutoring Center for feedback or review. This would introduce students to the existence of the resource, and those who found it helpful would be able to return for additional assistance as

needed. *Note: faculty may need to coordinate with the tutoring staff to stagger the flow of students as to not overwhelm the limited campus resources.

Mandatory (or Highly Encouraged) Preparation for Placement Tests: Fain (2012) notes that 48% of colleges in America offer placement testing study aids, but a mere 13% of those colleges make the test prep mandatory. If test prep resources were utilized, more students would place into credit courses. If one aspect of proactive advising was the requirement (or the high-encouragement) of the completion of test prep materials before the first attempt at the test, students would be placed more accurately on their first attempt and less likely to be discouraged by lower than expected results.

Summer Bridge or Immersion Programs for Students Needing Remediation: For those students who do need remediation, <u>free</u> summer or intersession classes could increase retention and success. The City University of New York Community College (CUNY) system is the model for this suggestion. They offer free, compressed summer and winter intersession courses to help students meet college-readiness requirements. These classes are for students who just miss the cut-off scores for placement into Math and English classes. These same compressed, free sessions are available to select students who have made progress but still failed certain developmental Math, English, or English as a Second Language courses. The repeating students are recommended by the developmental Math or English faculty whose classes they have failed.

The Assistant Dean for Academic Support Services at the Borough of Manhattan Community College - CUNY, Dr. J. Zummo, discussed the program by phone and reported that CUNY provides the funding for the program, which is expensive but effective, because they

believe in the importance and effectiveness of remediation. System-wide, as of a 2010 report, the following information was found:

> Immersion programs served almost 21,000 students ... and colleges reported spending a total of approximately $4,730,000 on these programs. This sum includes monies spent on instruction, tutoring, administrative and OTPS costs. Across the campuses, the average price per student enrolled was $139 for January 2010 sessions and $280 per student for summer 2009 sections/ workshops." (Jones, 2010, p. 16)

Faculty teach the intersession and summer classes as "overloads" (BMCC has a different funding model.). The immersion classes vary in size from 15 to 25 and BMCC runs 50+ in any given summer. Dr. Zummo reports that the classes are most effective for Math. Because of their immersive nature (four days a week, four hours a day with a focus on one subject only), they show higher success rates in Math and English compared to regular semester-length classes. She did note that high school seniors often opt *not* to take the classes, even though they are free, because they are seen as "summer school" and start only a few days after graduation. Proactive advising would be needed to recruit and encourage students to take the courses.

These free courses could be powerful incentives to students who either delay taking the initial placement tests for fear of failure or those who need remediation. The Office of Institutional Research at NOVA has found that 44% (6,902 students) of first time to NOVA students did not take the math placement test before starting coursework. Of those who did, 21% (3,289 students) were placed into developmental math, but only 14% (474 students) succeeded in the course during their first semester. If students who made some progress had access to a free opportunity to repeat a "module," they could be retained.

All of the above suggestions require funding, to provide free classes, expand the number of available tutors who can be available when students need the services (mornings, evenings, and weekends), and expand the number of advisors/counselors/coaches to connect students to tutoring services and to encourage compliance with test preparation.

"Light Touch," Lower Cost Tutoring Interventions: There are other "light touch interventions," to borrow South Texas College's term, that could be implemented (MDRC) more cost-effectively. When South Texas College realized that students were not using the existing services, they incorporated tutors into various outreach activities. For example, tutors were part of new student orientations to talk with the students, introduce themselves, and offer assistance. They were invited into classrooms, especially classes that traditionally utilize more tutoring, to introduce themselves and offer help. While this intervention did not improve overall pass rates in the math classes it targeted, it did benefit two populations:

> (1) part-time students were less likely to withdraw from and more likely to pass the math class, earned more credits, and, at least in the developmental math classes, scored higher on the final exam, and
>
> (2) developmental students were less likely to withdraw from math class than students in the control group, and they earned more credits in their non-math developmental courses. (MDRC, 2010)

Having the tutors come to the students seems to create a connection for some underrepresented groups. Being available, visible, and open to helping students bridges the gap. Ultimately, if underrepresented students are retained, then the degree attainment can help close the earnings gap for some underrepresented populations. Deborah Faye reports that "The attainment of any postsecondary degree (particularly a baccalaureate degree) often results in a greater net dividend

for minority populations" (Malveaux, 2003). For example, the median African American family income is 63% of the median white family income ("Holding a Four-Year College Degree," 2005). If income data is analyzed only for individuals who received baccalaureate degrees, however, African Americans on average earn 95% of what white individuals earn ("Holding," 2005).

CONCLUSION

In a recent article in *The Chronicle of Higher Education*, Tyler Hallmark, reflected on his own experience as a student from a low-income background. He argues that colleges should work to "foster a sense of belonging" to help low-income and first-generation students combat the barriers to graduation and should "tell students that they shouldn't be afraid to ask for help--and point them to where help is." Programs like Pathway to the Baccalaureate, TRIO SSS, and College Success Coach Initiative can foster this sense of belonging, which makes it possible for students to ask for and receive tutoring and other help--which can lead to retention and completion--if the programs are well-funded and supported system-wide.

APPENDIX A

College Success Coach Initiative Performance Measures
Fall 2012-2016 Cohort Cumulative Data

	Fall 2012						Fall 2013						Fall 2014					
	Cohort Group			Control Group			Cohort Group			Control Group			Cohort Group			Control Group		
	Total	Successes		Total	Successes		Total	Successes		Total	Successes		Total	Successes		Total	Successes	
	#	#	%	#	#	%	#	#	%	#	#	%	#	#	%	#	#	%
1. SDV	1001	853	85.21	2369	1985	83.79	524	435	83.02	2117	1736	82	384	322	83.85	2191	1805	82.38
2. Dev Eng	423	137	32.39	1032	247	23.93	22	7	31.82	249	81	32.53	188	88	46.81	1419	446	31.43
3. Dev Math	756	148	19.58	1513	301	19.89	326	75	23.01	1929	400	20.74	352	35	9.94	2383	330	13.84
4. Col Eng	1456	642	44.09	5505	2033	36.93	633	307	48.5	4975	1876	37.71	573	234	40.84	5606	1719	30.66
5. Col Math	1601	418	26.11	5632	1361	24.17	676	214	31.66	5164	1118	21.65	614	91	14.82	5878	968	16.47
6. 24 credits	1658	471	28.41	5851	960	16.41	743	262	35.26	5378	1018	18.93	633	151	23.85	6124	1025	16.74
7. Credential	1658	393	23.7	5851	962	16.44	743	138	18.57	5378	500	9.3	633	37	5.85	6124	148	2.42
8. Retain - T	1658	1188	71.65	5851	3673	62.78	743	558	75.1	5378	3394	63.11	633	477	75.36	6124	4051	66.14
9. Retain - Y	1658	840	50.66	5851	2497	42.68	743	415	55.85	5378	2262	42.06	633	316	49.92	6124	2743	44.79
10. Transfer	1658	110	6.63	5851	599	10.24	743	10	1.35	5378	254	4.72	633	1	0.16	6124	0	0

	Fall 2015						Fall 2016						Cumulative (Fall 2012 to Fall 2016 Cohorts)					
	Cohort Group			Control Group			Cohort Group			Control Group			Cohort			Control		
	Total	Successes		Total	Successes		Total	Successes		Total	Successes		Total	Successes		Total	Successes	
	#	#	%	#	#	%	#	#	%	#	#	%	#	#	%	#	#	%
1. SDV	571	522	91.42	2619	2263	86.41	777	664	85.5	2439	2030	83.2	3257	2796	86%	11735	9819	84%
2. Dev Eng	183	97	53.01	1697	473	27.87	212	88	41.5	1595	470	29.5	1028	417	41%	5992	1717	29%
3. Dev Math	380	53	13.95	2826	399	14.12	461	60	13	2704	296	11	2275	371	16%	11355	1726	15%
4. Col Eng	643	317	49.3	7587	2723	35.89	841	388	46.1	7418	2581	34.8	4146	1888	46%	31091	10932	35%
5. Col Math	696	123	17.67	7587	1357	17.89	950	177	18.6	7418	1312	17.7	4537	1023	23%	31679	6116	19%
6. 24 credits	774	244	31.52	7587	1290	17	1075	398	37	7418	1179	15.9	4883	1526	31%	32358	5472	17%
7. Credential	776	36	4.64	7587	279	3.68	1098	131	11.9	7418	300	4	4908	735	15%	32358	2189	7%
8. Retain - T	776	615	83.47	7587	5168	68.12	1098	803	73.1	7418	4995	67.3	4908	3641	74%	32358	21281	66%
9. Retain - Y	776	452	58.25	7587	3363	44.33	1098	616	56.1	7418	3384	45.6	4908	2639	54%	32358	14249	44%
10. Transfer	774	2	0.26	7587	29	0.38	1075	6	0.6	7418	28	0.4	4883	129	3%	32358	910	3%

Measure 1: % of students enrolled in SDV who successfully complete course
Measure 2: % students completing developmental English requirements within one year
Measure 3: % students completing developmental math requirements within one year
Measure 4:% students completing college-level English
Measure 5:% students completing college-level Math

Measure 6: % students completing at least 24 credits in one year with at least 2.5 GPA
Measure 7: % students earning post-secondary, credit-based award
Measure 8: % students graduated or retained in following term
Measure 9: % students graduated or retained in following year
Measure 10: % students transferring to a 4-year institution

APPENDIX B

All TRIO SSS data from: https://www2.ed.gov/programs/triostudsupp/performance.html

Percent of Full-time SSS Freshman in 2013-14

Grantee name	Number of full-time freshmen served in 2013–14	Number enrolled at the grantee institution in 2014–15	Persistence rate
Lord Fairfax Community College	18	16	88.9%
Mountain Empire Community College	12	7	58.3%
Patrick Henry Community College	23	18	78.3%
Paul D. Camp Community College	1	1	100.0%
Rappahannock Community College	11	7	63.6%
Southwest Virginia Community College	14	13	92.9%
Thomas Nelson Community College	16	16	100.0%
Tidewater Community College	5	5	100.0%
Virginia Highlands Community College	8	7	87.5%
Virginia Western Community College	16	15	93.8%

Wytheville Community College	**27**	**23**	**85.2%**

APPENDIX C

Degree completion at two-year institutions:

(Three-year cumulative percent of full-time Student Support Services)

Grantee name	Number of 2011–12 full-time freshmen	Number received AA degree only by 2013–14	Number received AA degree and transferred by 2013–14	Number transferred without receiving AA degree by 2013–14	Number received AA degree and/or transferred by 2013–14	Graduation and/or transfer rate
Dabney S. Lancaster Community College	79	19	7	12	38	48.1%
Lord Fairfax Community College	3	1	1	0	2	66.7%
Mountain Empire Community College	7	0	0	1	1	14.3%
Patrick Henry Community College	39	13	1	1	15	38.5%
Paul D. Camp Community College	10	0	0	0	0	0.0%
Rappahannock Community College	15	0	7	0	7	46.7%

Southwest Virginia Community College	**13**	**1**	**4**	**1**	**6**	**46.2%**
Thomas Nelson Community College	**19**	**2**	**8**	**1**	**11**	**57.9%**
Tidewater Community College	**6**	**2**	**0**	**1**	**3**	**50.0%**
Virginia Highlands Community College	**47**	**4**	**9**	**6**	**19**	**40.4%**
Virginia Western Community College	**11**	**3**	**2**	**0**	**5**	**45.5%**

APPENDIX D

Efficiency measures for Student Support Services grantees:
Difference between the cost per successful outcome and the cost per participant served: 2013–14
(all grantees that submitted an APR in 2013–14)

Grantee name	FY 2013 funding	Number of participants served in 2013–14	(1) Number of participants who received certificates, associate's or bachelor's degrees, transferred to another institution, stayed enrolled at same institution, or completed program in 2013–14	(2) Number of participants who received associate's or bachelor's degrees, transferred to another institution, stayed enrolled at same institution, or completed program in 2013–14 (certificates not included)	Cost per participant served	Success rate (1)	Success rate (2)	Cost per successful outcome (1)	Cost per successful outcome (2)	Efficiency gap (1)	Efficiency gap (2)
LFCC	$234,635	153	128	117	$1,533.56	83.7%	76.5%	$1,833.09	$2,005.43	$299.53	$471.87

MECC	$274,364	166	135	120	$1,652.80	81.3%	72.3%	$2,032.33	$2,286.37	$379.53	$633.57
PHCC	$301,416	215	180	170	$1,401.93	83.7%	79.1%	$1,674.53	$1,773.04	$272.60	$371.11
PDCC	$252,736	176	176	176	$1,436.00	100.0%	100.0%	$1,436.00	$1,436.00	$0.00	$0.00
RCC	$278,285	174	129	127	$1,599.34	74.1%	73.0%	$2,157.25	$2,191.22	$557.91	$591.88
SVCC	$355,532	292	265	261	$1,217.58	90.8%	89.4%	$1,341.63	$1,362.19	$124.05	$144.61
TNCC	$219,016	161	149	149	$1,360.35	92.5%	92.5%	$1,469.96	$1,469.91	$109.56	$109.56
TCC	$266,788	209	176	171	$1,276.50	84.2%	81.8%	$1,515.84	$1,560.16	$239.34	$283.66
VHCC	$341,383	214	161	159	$1,595.25	75.2%	74.3%	$2,120.39	$2,147.06	$525.14	$551.81
VWCC	$266,503	229	167	164	$1,163.77	72.9%	71.6%	$1,595.83	$1,625.02	$432.06	$461.25
WCC	$356,910	223	162	151	$1,600.49	72.6%	67.7%	$2,203.15	$2,363.64	$602.66	$763.15

REFERENCES

Bogdewiecz, S., & Miller, E. (2015). Tutoring support and grading outcomes.

    Retrieved on March 5, 2018 from https://create.piktochart.com/output/21388717-

    tutoring-support-and-grade-outcomes

Carter, D.F. (2006). Key issues in the persistence of underrepresented minority

    students. *Inter Science*. Retrieved March 5, 2018 from:

    https://deepblue.lib.umich.edu/bitstream/handle/2027.42/49309/178_ftp.pdf?sequence=1

Community College Survey of Student Engagement (CCSSE) (2014). *EAB*. Optimizing

    academic advising at the community college." Retrieved February 28, 2018 from

    https://www.eab.com/research-and-insights/community-college-executive-forum/white-

    papers/optimizing-academic-advising-at-community-colleges

Esch, C. (2010, April 14). Pathway to the baccalaureate: how one community college is

    helping underprepared students succeed. Retrieved February 28, 2018, from

    https://www.newamerica.org/education-policy/policy-papers/pathway-to-the-

    baccalaureate/

Fain, P. (2012, February). Make It mandatory? *Inside Higher Ed*. Retrieved from

    https://www.insidehighered.com/news/2012/02/02/academic-support-offerings-go-

    unused-community-colleges

Finnegan, C. (2018, February 13). Personal communication.

Hallmark, T. (2018, February 11). When 'failure is OK,' is not OK. *The Chronicle of Higher

    Education*. Retrieved on March 1 from: https://www.chronicle.com/article/When-Failure-

    Is-OK-Is/242489/#.Wo1_Oi3c7k0.email

Harrell, C. (2016). Advising African American students: African American students in higher

education. *NACADA Clearinghouse*. Retrieved on February 28, 2018 from:

http://www.nacada.ksu.edu/Resources/Clearinghouse/View-Articles/Advising-African-

American-Students.aspx

Joint Legislative Audit and Review Commission. (2017, September). Operations and

performance of the Virginia Community College System. Retrieved from

http://jlarc.virginia.gov/2017-vccs.asp.

Jones, Y. (2010, October). Review of CUNY's USIP programs, 2009/2010. Office of

Undergraduate Education. Office of Academic Affairs City. University of New York.

Retrieved on March 5, 2018 from

http://www.cuny.edu/about/administration/offices/ue/Immersion/ReviewCUNYUSIPPro

grams2010.pdf

Markle, R. (2017, Nov 14). From background to behaviors: framing the strengths and

challenges of traditionally underserved populations. Educational Testing Service

Webinar.

MDRC. (2010, February). *Can improved student services boost community college student

success?* Retrieved from https://www.mdrc.org/publication/can-improved-student-

services-boost-community-college-student-success

New York University. (2015, June 1). New study evaluates remedial pathways for community

college students. *Science Daily*. Retrieved February 21, 2018 from

www.sciencedaily.com/releases/2015/06/150601134957.htm

Northern Virginia Community College. (n.d.) *Studies confirm that pathway students exceed

both college and national benchmarks in all measured outcome areas*. Retrieved from

https://www.nvcc.edu/oir/_files/3111vccsstudentsuccesssnapshot0811.pdf

Northern Virginia Community College. Research Brief (2018). *Identifying prospective students in the NOVA service area.* Office of Institutional Effectiveness and Student Success, 1(18), pp. 1-8.

Optimizing academic advising at community colleges. (2014). Retrieved February 28, 2018, from https://www.eab.com/research-and-insights/community-college-executive-forum/white-papers/optimizing-academic-advising-at-community-colleges

Pathway to the baccalaureate college success consortium 2016-2017 fact sheet. (2017). Retrieved February 28, 2018, from https://www.nvcc.edu/pathway/_docs/pathway-fact-sheet.pdf

Paul D. Camp Community College: student success best practice. (2017). Students Transitioning through Education Programs Successfully (S.T.E.P.S.) - A researched-based, evidence-driven model for effectively serving underserved students. Retrieved February 28, 2018, from http://trcenter.vccs.edu/wp-content/uploads/2017/04/best_practice_PDCCC.pdf

Tukibayeva, M., & Gonyea, R. M. (2014, August). *High-impact practices and the first year student*. Retrieved from Wiley Online Library: http://onlinelibrary.wiley.com/doi/10.1002/ir.20059/full

U.S. Dept. of Education. (2015, December 22). Performance and efficiency measure results: analyses and data tables for multi-years. Retrieved February 28, 2018, from https://www2.ed.gov/programs/triostudsupp/efficiencyresults.html

Virginia Community College System. (n.d.) Complete 2021. Retrieved February 28, 2018 from http://www.vccs.edu/about/where-we-are-going/

Wassmer, R., Moore, C., & Shulock, N. (2004, September). Effect of racial/ethnic composition

on transfer rates in community colleges: implications for policy and practice. *Research in Higher Education*. Retrieved from:

http://www.academia.edu/10460291/Effect_of_Racial_Ethnic_Composition_on_Transfer
_Rates_in_Community_Colleges_Implications_for_Policy_and_Practice

ABOUT THE AUTHORS

Lynn Bowers is a Dean of Learning and Technology Resources at Northern Virginia Community College.

Megan Cook is an Assistant Dean of OTA and an Associate Professor at Northern Virginia Community College.

Mark D'Antonio is Special Assistant to the Provost at Northern Virginia Community College.

Jen Daniels is a Dean of Languages and Literature at Northern Virginia Community College.

Amber Foltz is Dean of Students at Lord Fairfax Community College.

Carlita McCombs is Assistant Coordinator of Counseling at Northern Virginia Community College.

John Sound is an Associate Professor at Northern Virginia Community College.

Jenni VanCuren is an Assistant Professor of English at Lord Fairfax Community College.

INCREASING SUCCESS WITH ONLINE DEGREE COURSES AND PROGRAMS IN THE VCCS

THOMAS CHATMAN, DAVE DICK, PAULA FORD, PAMELA HENRY,
KIM HOBERT, MILES KELLER, KEVIN RILEY,
CHRISTINA TIDWELL, & ROBERTA WRIGHT

ABOUT THE AUTHORS

Thomas Chatman is a First Year Success Coordinator at Tidewater Community College.

Dave Dick is a Coordinator of Online Learning & Instructional Technology at
    Wytheville Community College.

Paula Ford is a Dean at Northern Virginia Community College.

Pamela Henry is a Grant Accountant at Germanna Community College.

Kim Hobert is Director of Contingency Planning, Safety, and Security at the
    VCCS System Office.

Miles Keller is a Policy and Planning Specialist at John Tyler Community College.

Kevin Riley is a Research Analyst at Central Virginia Community College.

Christina Tidwell is a Student Support Services Counselor and Adjunct Faculty
    at Rappahannock Community College.

Roberta Wright is a Facilities Director at Patrick Henry Community College.

INTRODUCTION

Over the last three years, 724,116 online courses were attempted within the Virginia Community College System (VCCS). From these attempts, 206,533 resulted in a grade of D or F or a withdrawal, accounting for 29% of all attempted online courses (Virginia Community College System, 2015). This does not account for the students who may have dropped the course early in the semester to avoid academic and/or financial consequences. Studies have shown that students who do not experience success in their courses drop out significantly more than their counterparts (Thayer, 1973). Additionally, these students experience delayed degree or certificate completions, higher program costs and student debt. It is for these reasons, that we must explore ways to increase student success in online courses and programs. By addressing accessibility to and student readiness for online education as well as applying best practices for distance learning, the VCCS can positively impact student success with online degree courses and programs.

Table 1
Grade Distributions for Attempted VCCS Distance Learning Courses

		Earned grade of A-C		Earned grade of D or F		W grade - Withdrew	
	ALL	N	%	N	%	N	%
2015-16	249426	177588	71.2	45766	18.3	26072	10.5
2016-17	236068	168639	71.4	43280	18.3	24149	10.2
2017-18	238622	171356	71.8	42721	17.9	24545	10.3

IDENTIFIED CHALLENGES AND OPPORTUNITIES

Accessibility

The VCCS community currently includes eleven community colleges housed within rural areas. These campuses form a region commonly referred to as the Rural Virginia Horseshoe (VCCS, 2015). Within this region, which marks 75% of the state of Virginia, resides 2.1 million residents with "more than half a million people having less than a high school education" (VCCS, 2015). This region is also plagued with lower socioeconomic statuses and 30% of the population is dependent on government assistance in order to meet monthly expenses (VCCS, 2015). Additionally, research shows that fewer rural Americans are online: 39 percent of rural Americans lack home broadband access – in contrast to only 4 percent of urban Americans. And 69 percent of rural Americans use the internet, compared to 75 percent of urban residents (Sadowski, Stewart, & Pediaditis, 2018).

Self-regulated Learning and Student Readiness

Pursuing an online education requires a different skill set as compared to traditional face-to-face instruction. Online education requires that students exercise self-regulating learning including metacognition, strategic action, and self-motivation to learn (Cosnefroy, Fenouillet, Mazé, & Bonnefoy, 2018). Students who are unable to exercise self-regulated learning display behaviors such as procrastination and disorganization, both of which have shown to have a negative impact on academic performance (Cosnefroy, Fenouillet, Mazé, & Bonnefoy, 2018). Unfortunately, students do not always develop these skills prior to starting college. The structure of pre-college education can be described as teacher-controlled focusing only on content versus learning skills (Dignath-van Ewik. & van der Werf, 2012). Additionally, industry experts suggest that students are rarely prepared for the responsibility of managing their own learning (Jaggars, S. S., Edgecombe, N., & Stacey, G. W., 2013). Therefore, the VCCS should not assume students are

starting their post-secondary education with the skills necessary to be successful in online courses. One area of opportunity for post-secondary institutions would be to implement policies and procedures that encourage online student readiness and the implementation and development of self-regulated learning behaviors.

SPECIFIC RECOMMENDATIONS

Accessibility

In just one community college within the Rural Horseshoe, 12% of the student population lacks reliable access to internet within their homes (see Appendix A). Although the challenge of increasing access to reliable internet and technology is not one that post-secondary schools can address directly or readily, there is an opportunity for the VCCS to implement policies and practices that support students living in rural areas successfully completing online degree courses and programs.

One recommendation is to encourage VCCS schools to develop partnerships with local businesses throughout rural areas to offer free access to Wi-Fi and study spaces so students have an opportunity to successfully complete their online education. An aspect of this would be conducting a needs assessment regarding accessibility needs among its student population.

This collaboration between VCCS schools and local businesses would be mutually beneficial. Local businesses would experience an increase in customer traffic, which can potentially translate into increased revenue. For VCCS, students living in rural areas as well as those who may not have the means to purchase internet service, will have a known access point to successfully complete their online degree course and programs. This will likely contribute to higher success rates for students taking online courses.

An example of how such a partnership could work was demonstrated in a New York school district looking to increase access for its students in rural areas. This school district partnered with a company to provide SmartSpot® devices (Wi-Fi hotspots) in order for students to access safe, CIPA-compliant Internet at home. According to the superintendent, academic achievement increased, discipline problems decreased, attendance improved, and graduation rates went up (Kajeet).

Although providing Wi-Fi hotspots may not be cost effective for the VCCS, it provides an example of how partnering with community agencies and working collaboratively can potentially increase student success in online degree courses and programs.

Self-regulated Learning and Student Readiness

Current research supports the use of an online orientation to help prepare online students for the unique challenges they will soon encounter in their selected modality (Jones, 2013). One current example of this, within the VCCS system, is an orientation program implemented by J. Sargeant Reynolds Community College (Reynolds) that includes student readiness tool to help students, advisors, and faculty access individual students' levels of preparation for distance learning. Reynolds has reported high success rates for students who have completed this online orientation. Although this was a program contracted through a third-party organization, the premise of their orientation would support our recommendation for an online orientation for all students prior to their attempt of an online course. This orientation program should address specific topics necessary for online student success, such as ensuring reliable access to internet from multiple entry points and certain behaviors necessary for success in online courses (i.e. self-regulated learning). Our recommendation also emphasizes that this orientation should be

required before any online courses are attempted, versus during the first semester of the student's degree or certificate program. This would address student challenges with navigating unfamiliar online learning management systems and practicing self-regulated learning in a safe environment with little impact on student academic performance.

Addressing self-regulated learning behaviors in online students can also be accomplished through curriculum and course design. Certain aspects of the learning environment can intentionally be addressed that encourages the use of self-regulated behaviors. In a small focus group conducted for the purpose of this project, we learned of certain industry practices implemented by other successful online institutions that their students contributed to their academic success (see Appendix B). The participants' feedback inspired our recommendations for improving curriculum and course design through consistent due dates across ALL online course, setting proper expectations at the beginning of the semester of all assignment/exam/project due dates, and expectations that avoid excessive access to internet such as multiple due dates throughout the week or assignments that require prolonged internet access. Course design should consider the needs of our students. Students in rural areas are often students that must work while attending school in order to financially survive. Online education offers an appealing option that would allow them to do both, but it must be built around the unique challenges these students face, such as lower rates of internet access and restrictions on available time to access their online material.

CONCLUSION

The current rates of unsuccessful attempts of online courses has had significant impact on the VCCS. The number of unsuccessful attempts in online courses would account for an estimated

addition 10,327 associate degrees or 25,817 certificates conferred over the three-year period[1].

Because of the severity of this issue, our recommendations address both student preparedness

and accessibility, two factors we believe greatly contribute to the prevalence of unsuccessful

attempts.

---

[1] Calculation is based on dividing the total number of unsuccessful attempted courses (206,533 including fails and withdraws) by an estimated 20 courses for an associates degree and an estimated 8 courses for a certificate program.

REFERENCES

Abrami, P. C., Bernard, R. M., Bures, E. M., Borokhovski, E., & Tamim, R. M. (2012).

   Interaction in distance education and online learning: Using evidence and theory to

   improve practice. In The Next Generation of Distance Education (pp. 49-69). Springer,

   Boston, MA.

Cosnefroy, L., Fenouillet, F., Mazé, C., & Bonnefoy, B. (2018). On the relationship between the

   forethought phase of self-regulated learning and self-regulation failure. Issues in

   Educational Research, 28(2), 329–348. Retrieved from

   https://lopes.idm.oclc.org/login?url=https://search.ebscohost.com/login.aspx?direct=true

   &db=ehh&AN=129070735&site=eds-live&scope=site

Dignath-van Ewijk, C., & van der Werf, G. (2012). What teachers think about self-regulated

   learning: Investigating teacher beliefs and teacher behavior of enhancing students'

   self-regulation. *Education Research International*, 2012.

Howell, S. L., & Baker, K. (2006). Good (Best) Practices for Electronically Offered Degree and

   Certificate Programs. Distance Learning, 3(1), 41–47. Retrieved from

   https://lopes.idm.oclc.org/login?url=http://search.ebscohost.com/login.aspx?direct=true&

   db=ehh&AN=21410650&site=eds-live&scope=site

Jaggars, S. S., Edgecombe, N., & Stacey, G. W. (2013). What We Know about Online Course

   Outcomes. Research Overview. Community College Research Center, Columbia

   University.

Jones, K. R. (2013). Developing and implementing a mandatory online student orientation.

  Journal of Asynchronous Learning Networks, 17(1), 43-45.

Kajeet. (n.d.). Retrieved from https://www.kajeet.net/extracurricular/connecting-rural-students

Sadowski, C., Stewart, M., & Pediaditis, M. (2018). Pathway to success: Using students' insights

  and perspectives to improve retention and success for university students from low

  socioeconomic (LSE) backgrounds. International Journal of Inclusive Education, 22(2),

  158-175.

Virginia Community College System (2015). *Rural Virginia Horseshoe Initiative: One course.*

  One Virginia. Retrieved from

  http://cdn.vccs.edu/wp-content/uploads/2015/03/RVHI-Case-for-Support-Final.pdf.

Yamada, M., Shimada, A., Okubo, F., Oi, M., Kojima, K., & Ogata, H. (2017). Learning

  analytics of the relationships among self-regulated learning, learning behaviors, and

  learning performance. Research & Practice in Technology Enhanced Learning, 12(1),

  1–17. doi: 10.1186/s41039-017-0053-9

APPENDIX A

Academic Performance Outcomes for a Sample VCCS Institution

The following is academic performance data for a VCCS institution that falls within the

Rural Horseshoe. It includes student survey data reported each fall semester from 2014 through

2017. For the sake of anonymity, the institution will remain nameless. However, it was selected

as reference to the current trends of internet access experienced in rural areas in the state of

Virginia.

Table 2

Do you have access to the internet at home?

	Fall 2015		Fall 2015		Fall 2016		Fall 2017	
	% chosen	n	% chosen	n	% chosen	n	% chosen	n
Yes-high speed	83%	531	78%	342	79%	318	82%	414
Yes-dial up	6%	40	7%	29	9%	35	7%	33
No	11%	72	15%	67	12%	50	12%	61

APPENDIX B

Results from Focus Group Study

Research for this project included a small focus group conducted at one of the fourteen community colleges within the Rural Horseshoe. Our purpose for this focus group was to collect information regarding what our competitors in the online education industry are currently doing and what, from both an employee and student perspective, contributed towards academic success. For the sake of anonymity, the name of the institution where this study was conducted, the names of the individuals involved, and the names of the institutions referenced will remain anonymous.

Focus group: Success in the online classroom

Summarized results from 5 participants

Names of participants and institutions were removed for anonymity, Names of institutions were replaced with ***

Question #1: How would you identify? Are you a previous/current employee, or a previous/current student of an online institution, or both?

1. Both:

2. Both

3. Student

4. Student

5. Both: Employee

Question #2 - What learning management systems (LMS) did you encounter?

1. LMS designed and operated by ***

2. Blackboard

3. LMS designed and operated by ***

4. Blackboard

5. Blackboard and a LMS designed and operated by ***

Question #3 – Describe the structure of your online learning environment.

1. Online textbooks, 5 week courses taken 1 at a time for undergrad students and 6 week courses taken 1 at a time for grad students, no specific times to check in, due dates for assignments were always on Sunday each week at midnight, discussion questions with specific requirements of how many times to check in each week, you had to be in the online classroom at least three times each week but not on specific days.

2. Offered as both 15 week and 8 week courses, students were taking both ground and online courses that they selected, used paper textbooks, curriculums were individually designed by instructors but the orientation class was consistent, all sections looked and operated the same

3. The first course was the introduction course to help you figure out your foundation, each class started with a paper, weekly video sessions with the instructor to discuss assignments and expectations, these sessions were not mandatory and were recorded for those not able to attend at the time it was delivered, only one instructor had their session in the middle of the day the rest were after work and at a convenient time. Assignments were due on Monday, Wednesday, Friday and sometimes Sunday, but I did notice a pattern and it became second nature to me, instructors also had office hours

4. Classes were taken 2 at a time each eight weeks, we were required to purchase paper textbooks, due dates were consistent from class to class, we had discuss board with due dates and had to post a certain amount of times, the syllabus told us all of our assignments and due dates ahead of time

5. Took 1 class every 8 weeks, we had 1 assignment each week always due on Sunday by midnight and 2 discussion boards, one due on Saturday and one due Monday by midnight. We also had to respond to 3 other students on 3 separate days each week. Our textbooks and materials were built right into the classroom. The syllabus told us all assignments and due dates so we could plan ahead.

Question # 4: What resources were available to online students

1. Walk to class with your enrollment counselor before you started your first course (like an online orientation one on one, the counselor walked each student through the online learning environment to make sure they were comfortable on their first day). Tutoring, mentoring, online library, IT department that was open 24/7

2. Nothing specific to online students since our set up was both online and face to face courses and students had a mixture of each.

3. A tech package that was charged with tuition, included a macbook and all the software and hardware needed to complete the program. We had an orientation that you had to complete before starting your first course. It consisted of 16 modules that you completed through (the LMS) so you could prepare for future courses.

4. An online writing center, the school would send emails all the time and call all the time to check in on me and if I needed help, our first course was an orientation class, and I had to do a survey

early on regarding if online education was right for me. The results of the survey were reviewed by the instructor.

5. An IT department that was open 24/7, online writing center, instructor had office hours and was required to respond to emails and phone calls within 24 hours, online library and research assistants that you could chat with for help with research for writing assignments.

Question #5: What do you think contributed to online student success?

1. Onboarding into the class, at UOP they walked each student to class over the phone to review the classroom prior to their first day, and the fact that every single class was set up in the exact same format, everything was always in the same place so you knew where your discussion boards were, where assignments were, etc.

2. Instructors were very proactive in terms of follow up. It was such a small university that we knew our students individually and if they were missing assignments or misunderstanding things we could just reach out to them.

3. Expectations, such as assignments and due dates, were always pointed out in the beginning of the class and throughout class, the instructors always made sure to point out important reminders, we also did a lot of peer reviews on our work before submitting it.

4. Asking alot of questions! I called whomever I needed to, I would ask questions of the instructor.

5. The repetition of due dates. I could always plan life around school because I knew that every Wednesday I had an assignment due. I would always study at the same time because I knew each week's requirements would be the same. It was easy to make school a priority because it was constant through to graduation. As an adult student, I had alot of other roles (mom, employee, etc) that I could not control.

Question #6: What do you think made it challenging for online students?

1. *** didn't have classes students could take to get comfortable with technology prior to starting an online class.

2. The students would neglect to drill down (click on the assignment, and then click on the instructions, and then click on where you submit) so they would miss information. It seems like we could have posted each individual item, but it is so hard to present so much information to students in an online environment.

3. It was fast paced, so you really had to manage your time. It became challenging at times to get things done while being a full time employee and student. It was helpful that when you started a new class, they had all of the assignments available for you to look at. They had a syllabus but what was really beneficial was the "course at a glance" tool. It was a chart that had all of the assignments and due dates listed.

4. Not having the instructor in front of you. I feel like I would have learned more if I had the instructor in front of me.

5. Time management. As an online student and an adult learning, I had to juggle many responsibilities. I felt that the times I did not do well in class was when I did not take the time to plan ahead.

Promoting the Value of Career Education Programs

Shawn Anderson, Rachel Dodson, David Howell, Joshua McDowell, Jesse Miller, Dana Newcomer, Regina Sanders, Maryanne Serignese, & Brooklyn Shehan

Introduction

12.5 million secondary and postsecondary students are currently enrolled in Career and Technical Education (CTE) programs in the United States ("Career," 2019). CTE programs provide students with the academic skills, technical skills, knowledge, and training necessary to succeed in future careers and to become lifelong learners ("Career," 2019). Students are prepared for the workplace as a result of a competency-based learning approach and through partnerships with local employers who provide hands-on experience and work-based learning opportunities ("Career," 2019). By 2020, 65 percent of American jobs will require some postsecondary education or training, with half of these positions requiring an associate degree, certificate or credential ("Community," 2017, p.3). The Department of Labor reported 6.2 million unfilled jobs in 2017; community colleges are an essential element in addressing this challenge ("Community," 2017, p.3). Career and Technical Education represents a crucial path from education to employment ("Community," 2017, p.3). The Virginia Community College System (VCCS) works to create opportunities for students to complete CTE pathways and has made great strides in working to promote the value of CTE education for all students. A number of challenges, opportunities, best practices, and recommendations are associated with promoting the value of CTE programs.

CHALLENGES

The following challenges are associated with promoting the value of CTE programs including, (a) outdated perceptions, limited awareness and long-held stigmas, (b) blending of credit and non-credit priorities, (c) access to both institutional and individual student resources, and (d) marketing of CTE programs.

Limited understanding, awareness, and outdated perceptions plague CTE enrollment while the demand for skilled workers in today's global economy continues to rise (Fitzgerald, 2018). Focus groups and a national survey exploring the attitudes of current and prospective parents and students, concluded the following: (a) CTE parents and students are more fulfilled in terms of general satisfaction, quality of their classes and opportunities for career exploration, (b) college and career success are important goals for both parents and students, (c) prospective parents and students are attracted to the "real-world" benefits of CTE, (d) an awareness challenge exists with CTE, and (e) CTE programs need champions and agents to tell the story (Fitzgerald, 2018). A survey of California Community College students found 30 percent of students enrolled in CTE programs were aware of them. However, students did not comprehend that CTE programs encompassed real-world knowledge and skills, opportunities for dual enrollment, industry-recognized credentials and meaningful work-based learning opportunities (Bohn & Mcconville, 2018). Additionally, sixteen percent of students had not heard of the term CTE at all and awareness and understanding was even lower among prospective CTE students (Bohn & Mcconville, 2018).

Within many of the nation's community colleges, credit and non-credit departments have operated in a siloed manner. Today, colleges are blending the priorities and reorganizing their structures to better understand how the components can work together to benefit students. Community colleges have utilized the "one size fits all" approach to addressing students' needs.

Today's students are increasingly confronted with more barriers impacting exposure to enrollment, matriculation and completion, including access to and the ability to earn and retain a competitive career. According to the "Loss Momentum Framework," poor academic preparation, financial obligations, work and school scheduling conflicts, complex life situations, and poor counseling can all impact a student's ability to succeed in their postsecondary education ("Completion by Design Loss and Momentum Framework," 2013). Community college financial sustainability has emerged as a topic of growing importance as college leadership struggles to balance budgetary needs and concerns appropriately. According to Palacios, Johnson, and Leachman (2013), community colleges nationwide are spending 28 percent less per student. In response, colleges are forced to increase tuition rates per student and cut spending efforts to balance budgets (D'Amico, Katsinas, Friedel, & Thornton, 2014). Reductions in funding lead to tighter marketing budgets for the purposes of promoting the value of CTE programs.

OPPORTUNITIES, BEST PRACTICES, AND RECOMMENDATIONS

To promote the value of CTE, reorganization of credit and non-credit department restructuring has occurred at the VCCS system office as well as at least four of the 23 community colleges. This organizational structure change is a direct reflection of the boom in workforce program enrollments and the established state funding formula model. This is an administrative cost saving measure; however, it provides the opportunity to look at students' academic journey holistically. Many students enroll in workforce programs because of their need to find immediate employment in a high-demand field with a living wage; reorganization of the current structure will enable students to create a pathway from a workforce credential to certificate or degree attainment.

The most crucial effort is to foster partnerships amongst the necessary stakeholders including colleges, secondary schools, program leaders, employers, and workforce development (Brown, 2018). In order to ensure that academic programs prepare students for the workforce, employers must be an integral part in curriculum development. Inclusion of work-based learning as part of all CTE programs is necessary to bridge the gap of education to employment, including internships, apprenticeships, clinicals, or program-based work projects that promote hands-on skill development and connection of work-based requirements.

Early adoption of career exploration in secondary schools within each college's service region is also recommended. Washington state was an early adopter of career exploration programs in the middle and high school classroom. In fact, the state of Washington's Superintendent of Public Instruction stated every school district offers CTE career exploration services, classes, and participation in student leadership organizations ("Start," 2018). Washington demonstrates an innovative way to promote CTE programs in conjunction with the more "traditional" route of attending a four-year college. Every student is encouraged to become career and college ready, regardless of their plans to pursue employment, baccalaureate degree, or a terminal degree post high school ("Start," 2018).

Developing an effective scaffolding model can ensure student success. This model is designed to follow the student through the loss momentum framework from enrollment to completion and to eventual employment regardless of whether the student is acquiring a certificate, credential for immediate employment, or taking steps to complete a degree program. In the culinary program at Reynolds Community College (JSRCC), students seeking skills in order to transition to a higher level position in a kitchen can enroll into an advisor suggested sequence of courses or credential program. Hallmarks of this embedded approach at JSRCC

include capitalizing on student interaction, exposing students to global opportunities that exist along their chosen pathway, and the student's ability to develop career progression for advancement.

Another recommendation is to develop a comprehensive marketing campaign that includes a five-step approach recommended by Siemens and Advance CTE for CTE advocates to use in promotion and communication with CTE parents and students including (a) emphasis of real-world skills, (b) finding the right messenger to tell their experience, (c) communicating often and with purpose, (d) leveraging the student voice whenever possible to connect with an audience using the right message and channel of communication, and (e) localizing examples to make them relevant (Fitzgerald, 2018). This plan requires creation and deployment of alumni and employer-focused videos, an advertising campaign, and targeted materials to niche student populations that promote CTE, creating access, equity and opportunity. This recommendation is currently underway through the FastForward program; however, expansion and revised targeted strategies and materials are highly suggested.

An additional strategy is to host a college signing day and develop an effective alumni program at each college within the VCCS. The purpose of this strategy is to recognize students attending community colleges, technical centers, CTE programs and four-year institutions for academic/career reasons alongside those being recognized for participation in collegiate athletics (Dilonardo, 2019). This practice demonstrates that regardless of the post-secondary route students pursue, they are supported and acknowledged for embarking on pathways that improve their career and economic outlook. Development of an alumni program and a scalable alumni communication/tracking platform is recommended. Alumni can then be the voice of the institution to help target high-demand populations and share their success stories.

Lastly, the creation of a communication platform for the colleges within the VCCS to share best practices and challenges is recommended. It is the VCCS's obligation to recognize the vital role it plays in a student's pathway, whether students are transitioning out of high school or adult learners enrolling into post-secondary education to ensure they are aware of the benefits of CTE programs. It is essential to meet every student where they are and provide them with the resources necessary to advance in their careers.

References

Bohn, S. & Mcconville, S. (2018). Stackable credentials in career education at California community colleges. Retrieved from: https://www.ppic.org/publication/stackable-credentials-in-career-education-at-california-community-colleges/

Brown, K. (2018). Powerful partners: Businesses and community colleges. Retrieved from https://www.nationalskillscoalition.org/news/blog/new-report-makes-the-case-for-partnerships-between-businesses-and-community-colleges

Career technical education. (2019). Retrieved from https://careertech.org/cte

Career and technical education (CTE). (2015). Retrieved from http://www.cacollegepathways.org/help-youth-plan/college-options/career-technical-education-cte/

Community colleges: Addressing the skills gap. (2017). Retrieved from: https://www.aacc.nche.edu/wp-content/uploads/2017/10/SkillsGapReportforPrint.pdf

Completion by design loss and momentum framework. (2013). Retrieved from: https://www.achievingthedream.org/resource/12752/completion-by-design-loss-and-momentum-framework

D'Amico, M. M., Katsinas, S. G., Friedel, J. N. & Thornton, Z.M. (2014). Current developments

    in community college performance funding. *Community College Journal of Research and*

    Practice, *38*, 231-241, doi:10.1080/10668926.2014.851971

Dilonardo, M. (2019). 'Signing Day' recognizes high school seniors starting jobs, not college.

    Retrieved from https://www.mnn.com/money/green-workplace/stories/signing-day-

    recognizes-high-school-seniors-starting-jobs-not-

    college?utm_campaign=meetedgar&utm_medium=social&utm_source=meetedgar.com&

    fbclid=IwAR3KOKTZ5UFfzvdNtPz5anyjY_p_7eW99gEo3re0UW60aKE68e9u7ilWHc

    Q

Fain, P. (2017). Helping career education become a first choice. Retrieved from

    https://www.insidehighered.com/news/2017/07/05/california-community-colleges-seek-

    rebrand-cte-state-kicks-new-money?mc_cid=25af1f17f7&mc_eid=17f350dd2

Fitzgerald, K. (2018). Communicating the value and promise of CTE with parents and students.

    Techniques, (2), 48. Retrieved from

    https://ezp.waldenulibrary.org/login?url=https://search.ebscohost.com/login.aspx?direct=t

    rue&db=edsgea&AN=edsgcl.526052245&site=eds-live&scope=site

Jennings, J. (2012). Think big, act small: How America's best performing companies keep the

    start-up spirit alive. New York, NY: Portfolio/Penguin.

Palacios, V., Johnson, I. & Leachman, M. (2013). Recent deep state higher education cuts

    may harm students and the economy for years to come. Retrieved from

    https://www.cbpp.org/sites/default/files/atoms/files/3-19-13sfp.pdf

Start with your imagination – Grow the skills you need. (2018). Retrieved from

    http://www.k12.wa.us/careerteched/

Trafficanda, J. (2016). Common challenges and new opportunities for career and technical

education programs. Retrieved from https://coloradosucceeds.org/work-based-

learning/common-challenges-opportunities-cte-programs/

ABOUT THE AUTHORS

Shawn Anderson is a Coordinator of Student Engagement and Student Life at Piedmont Virginia

Community College.

Rachel Dodson is an Associate Professor of Business Management and Administration at Lord

Fairfax Community College.

David Howell is Faculty at Tidewater Community College.

Joshua McDowell is an Assistant Professor at Danville Community College.

Jesse Miller is a Program Head and Associate Professor at Reynolds Community College.

Dana Newcomer is an Apprenticeship Program Coordinator for the Community College

Workforce Alliance at Reynolds & John Tyler Community Colleges.

Regina Sanders is a CARE Counselor at Northern Virginia Community College.

Maryanne Serignese is an Advancement Services Coordinator at the Virginia Community

College System Office.

Brooke Shehan is a FastForward Career Coach at Dabney S. Lancaster Community College.

Using Artificial Intelligence to Enhance Educational Operations and Student Services in Higher Education The Case for Corequisite Instruction

Mandy Barrett, Lisa Branson, Sheryl Carter, Frank DeLeon,
Justin Ellis, Cirrus Gundlach, & Dale Lee

Introduction

 "Good morning Alexa!" "Siri, what are the top restaurants near me?" "Google, turn off the lights and lock the doors." "Hey, my name is Michael, your chatbot avatar, how may I help you today?" These are all examples of how we use artificial intelligence (AI) in our everyday lives. AI can be used to perform simple tasks like making coffee in the morning or executing more complex chores such as vacuuming the floor without ever touching a vacuum cleaner. The increasing influence artificial intelligence has on everyday life cannot be escaped.

 Artificial intelligence technology is becoming the basis for business. Most businesses use it to improve the customer experience. The education community is just beginning to find ways to successfully implement AI for staff and students. Artificial Intelligence should be leveraged to create a better student experience. For example, Elon University uses AI to assist students with tracking previously taken courses and helps them apply the information to their course-planning (Gardner, 2018). Georgia State University uses Pounce, a chatbot built by AdmitHub, reducing summer melt by over 20% by reaching out to students via text when they have not completed tasks by certain dates (Page & Gehlbach, 2018). The use of this technology can range from help with admissions applications and FAFSA completion, class scheduling, and campus tours. Using AI within higher education will give faculty and staff the ability to be more effective and efficient when communicating with students.

ARTIFICIAL INTELLIGENCE

There are layers and levels to using AI within higher education. The basic level of artificial intelligence is considered conversational interfacing, which allows for surface-level interactions with students. According to Cheston and Shock (2017), "Conversational interfaces…let students interact with often complex services via messaging, something they do every day" (p. 4). There are limits to using this type of technology as the interaction can only go as deep as the knowledge of the student. For example, the artificial intelligence technology could only answer a direct question such as, "When does registration begin?" Conversational AI can only respond with a basic answer, the date. It cannot go deeper and provide other information that may be helpful to the student.

As in face-to-face communication, the words of the conversation are important, but the context of the words give the communication meaning. Contextual User Interface blends the conversational interface with traditional graphic user interfaces (buttons, lists, images, etc.) to help higher education institutions serve students more precisely. Utilizing the conversation with a contextual interface helps the student self-direct based on the information gathered from the conversation. This combination saves the student time and removes the frustration of lengthy textbot chatter. For example, a new student often will say he or she wants to register for classes. The contextual interface of the AI technology will provide the user with a series of steps which provide the student with the proper direction to follow. An added benefit is that contextual interfacing removes some barriers to equity, access, and opportunity but still leaves some places for improvement.

The next level of artificial intelligence connects the contextual aspect of conversation with the ability to interpret the unstated needs of the user. By integrating student behavior, curriculum pace, and progress, it is possible for AI to intervene (anticipate intervention needs)

and "nudge" a student toward their next, best action or refer the student to an advisor/counselor. This level of AI will help students with maintaining pace towards graduation, completing necessary paperwork, and more. Nudges can also be useful to the institution by providing data that can be used for scheduling, program analysis, and making other decisions to make the institution more successful.

IMPROVING THE STUDENT EXPERIENCE

With the decline of students who are enrolling in and completing higher education, it is imperative schools look to use innovative ways to combat these trends. Artificial intelligence (AI) should be used to contest the trend of declining enrollment and completion in colleges and universities. How can the Virginia Community College System leverage AI to improve enrollment through completion system-wide? This is a difficult question to answer because of the varying factors within each school. These factors include student population size, infrastructure within the college and community, and cost. Even with all that being considered, the access AI provides can possibly mitigate most of these concerns.

Georgia State, an institution previously mentioned, has a student population that is sixty percent non-white, one-third first-generation, and fifty-eight percent receiving Pell Grants (McMurtrie, 2018). The VCCS has a Pell Grant rate of around thirty-four percent, based on SCHEV data from 2017-2018 (SCHEV, n.d.). In the entire VCCS, approximately thirty-six percent of students are non-white, and about twenty percent are first-generation college students (VCCS, 2017). Georgia State loses between ten and twenty percent of their students to summer melt each year, with higher rates for these primarily non-white and first generation populations (Page and Gehlbach, 2017). Pounce, Georgia State's chatbot, successfully reduced melt by twenty percent in its first year of implementation, with larger use among first-generation students

for financial aid tasks (Page and Gehlbach, 2017). This impact, especially for first-generation students, provides a support beyond the office or classroom which can greatly improve the student experience.

AI has the potential to assist schools with enrollment and retention. Georgia State University has a high percentage of students who are at risk of non-enrollment or non-completion. Pounce has directly impacted student access and opportunity to higher education. The chatbot increased equity as those with higher risk, such as first-generation students, have made more use of the tool than those without that risk factor. According to Kim (2018) of Inside Higher Ed, only about six of 10 students will be at the same institution by next year.

How can the retention be improved across all colleges in the VCCS? Artificial intelligence can assist greatly by collecting student interaction data from an astounding number of sources and then utilizing the data to "learn" about which students are at risk of not staying enrolled/re-enrolling (Kim, 2018). For example, artificial intelligence can determine the pass/fail rate of numerous courses, show the geographic areas in which students withdraw from the most, which off-campus locations have the best student success, and how often students visit tutoring/library, etc. AI can form algorithms and patterns to determine the "good" behavior of a well-performing student and then relay the information to counselors, advisors, faculty, deans, etc. The faculty/staff can then create orientations or other similar programs to ensure all students are on the path for success. In addition, artificial intelligence will also be able to alert faculty/staff members if a student is in danger of withdrawing much more quickly than traditional advising meetings. While artificial intelligence for retention may take a while to develop, the benefits of the software will be substantial.

ACE: NVCC's AI Assistant

Within the VCCS, Northern Virginia Community College recently implemented the use of AI. "Ace," the NOVA nighthawk chatbot, has been introduced on the NVCC website. The institution has seen some amazing usage numbers which provide a baseline for system-wide implementation, with individual colleges customizing the "bot" to fit their students' needs. In the first three months, December through February, ACE has provided answers to users over 1,200 times (Apendix A). The highest volume of usage occurred within the peak registration window, the week before the start of classes and the first two weeks of classes in a semester (Appendix A). ACE uses information input via content managers and cross references it with information it can find via the NVCC website. For example, if a user wanted to know how to register for classes, ACE will provide the student with those steps.

ACE is constantly improving and learning. This is shown in the breakdown of the monthly interaction statistics NVCC has provided. ACE's knowledge-based responses have increased each month while the, "I don't know" responses to user requests has decreased. ACE provides NVCC with the opportunity to help more students who may not otherwise step foot on campus (Appendix B). If ACE does not know an answer or cannot find an answer, he will refer the student to the make a connection with someone at the college. ACE's ability to answer some of the routine questions has cleared time for NVCC employees to provide even greater service for students who enter the offices on the campuses of the institution, improving the overall experience for students both on and off campus.

CONCLUSION AND FUTURE IMPLICATIONS

Artificial Intelligence has the ability to immediately impact the student experience with regard to the area of student affairs. According to Olawale (2019), "Chatbots are great tools to communicate with customers. With the feedback they collect through simple questions, you can make improvements on your services/products, you can also get them to track patterns and behaviors by monitoring user data." AI can help potential students with completing the steps to enrollment. Current students will benefit from AI through its power to send students reminders about important dates. AI can tell students which classes are necessary for completion of their program while also letting the student know if those classes are being offered. Completion of the FAFSA, which is a major barrier to potential and current students, can be increased through the use of AI. Beyond the student experience, AI can help the institutions with preparation for coming semesters and communication plans.

Future implications include using artificial intelligence to aid in instruction. AI can be used by instructors who teach brick and mortar classes to take detailed notes which can be placed online for student use. This can help minimize the number of students who withdraw from classes because of missed classes. There is the potential for using AI to connect students who take advantage of eLearning opportunities to be more engaged with advising and other resources.

As far as implementation within the VCCS, costs can be a factor. FATV has given a ballpark quote of about $385,000, or about $17,500, for the other twenty-two VCCS schools to join NOVA. This includes GetAnswers videos (the basic FATV) and the financial aid chatbot. This price is comparable to that of other AI being used in higher education. According to Page and Gehlbach, Pounce costs between $7 and $15 per student (2017). The use of AI can only be limited by the imagination of the ones who dare to use it.

REFERENCES

Cheston, A. and Stock, D. (2017, June 5). *The AI-first student experience. EDUCAUSEreview*.

    Retrieved from https://er.educause.edu/articles/2017/6/the-ai-first-student-experience.

Gardner, L. (2018, April 13). How A. I. is infiltrating every corner of the campus. *Chronicle of*

    Higher Education, 64(31), 1-1. Retrieved from https://www.chronicle.com/article/How-

    AI-Is-Infiltrating-Every/243022

Kim, J. (2018, November 14). *Artificial intelligence and retention*. Retrieved from

    https://www.insidehighered.com/digital-learning/blogs/technology-and-

    learning/artificial-intelligence-and-retention

McMurtrie, B. (2018, May 25). Georgia State U. made its graduation rate jump. How? Retrieved

    February 8, 2019, from https://www.chronicle.com/article/Georgia-State-U-Made-

    Its/243514

Olawale, W. H. (2019, February 25). *chatbotslife.com*. Retrieved 2019, from:

    https://chatbotslife.com/5-benefits-of-using-a-chatbot-937b8b793826

Page, L. C., & Gehlbach, H. (2017). How an artificially intelligent virtual assistant helps students

    navigate the road to college. *SSRN Electronic Journal*, 3(4), 1-12.

    doi:10.2139/ssrn.2940297

ABOUT THE AUTHORS

Mandy Barrett is Coordinator of Recruitment and Student Engagement at Southwest Virginia

    Community College.

Lisa Branson is a Financial Aid Manager at Northern Virginia Community College.

Sheryl Carter is an Accounts Payable Specialist at New River Community College.

Frank DeLeon is a Coordinator of Student Success at Northern Virginia Community College.

Justin Ellis is a High School Career Coach at J. Sargeant Reynolds Community College.

Cirrus Gundlach is a Coordinator of Library Services at Paul D. Camp Community College.

Dale Lee is a Student Leadership and Disability Counselor at Mountain Empire Community College.

APPENDIX A

APPENDIX B

APPENDIX C

FATV Chatbot – Analytics
Start date: 12/01/2018 – End date: 02/22/2019

#	Topic	#	Question
1	Refund	1	I am trying to enroll
2	Transcript	2	what is a withdraw clearance letter
3	Tuition	3	How do I know if I was approved for financial aid?
4	FAFSA	4	Is Alexandria campus open today
5	Credit	5	To how many schools should I apply?

Data from https://admin.fatv.us/admin/analytics/dashboard, 2/22/2019

Accelerating Student Success
The Case for Corequisite Instruction

Nekisha Burgess-Palm, Sandra Davis, Amanda Decker, Heather Diritto, Shana Dix, Maggie Emblom-Callahan, Camisha Parker, & Eric Styles

Statement of Problem

The scale of underprepared students entering college appears larger than outside observers may suspect. Approximately 33% of first-year students at four-year colleges and 40% at community colleges place into one or more developmental courses each year according to the U.S. Department of Education (2016). For public two-year college students, the number increases to 55 % taking at least one remedial course after high school (U.S. Department of Education, 2016). For first-time college students (first in their families to attend college), the numbers are highest with 68 % enrolled in some type of remediation (U.S. Department of Education, 2016).

Increasing evidence links the assignment of remediation to low college completion outcomes (Community College Research Center, 2019). Fewer than 25% of community college students who require developmental classes earn a credential within eight years of first enrolling in college (Bailey, Jeong & Cho, 2010; U.S. Department of Education, 2016). This can be compared to 40% of community college students who never take developmental coursework in college completing a degree or certificate within the same time frame (Bailey, Jeong & Cho, 2010). Although neither statistic is particularly impressive, the data clearly demonstrate that degree completion remains a major challenge for underprepared students in need of developmental education.

The Virginia Community College System (VCCS) serves 240,000 students per year (VCCS annual enrollment, 2016). The new strategic plan of the VCCS, Complete 2021, emphasizes student success with the ambitious aspiration to "triple credentials students earn." Closing the achievement gap for underprepared college students is key to meeting this goal.

To address this issue, VCCS and other community colleges around the nation developed a remediation plan based on modularization. Adopted in 2012 by the VCCS, this plan included the modular Math Essentials (MTE) and a similar model for English known as English Fundamentals (ENF). While modestly successful (McNeal, 2016), success rates for students employing these modular modes remain low (Bickerstaff, Fay & Trimble, 2016), impeding the completion goals of the VCCS strategic plan. Subsequently, recent initiatives including multiple measures and "direct enrollment" seek to increase the success of underprepared students requiring remediation by improving course placement processes.

IDENTIFIED OPPORTUNITIES

The successes of corequisite remediation courses and supplemental instruction over traditional remediation courses such as the modular Math Essentials have been widely and recently documented (Logue, Watanabe-Rose, & Douglas, 2016). As a result, several states seek to promote large-scale implementations of corequisite models through policy or legislative changes that limit remedial education (Logue, Watanabe-Rose, & Douglas, 2016; Vandal, 2014; Park, Woods, Hu, Bertrand Jones & Tandberg, 2018). Florida was the first state to pass legislation making developmental education optional for many students (Park, et al., 2017). Colorado, Indiana, Connecticut, Tennessee and other states have passed legislation addressing student placement and remedial education (Vandal, 2014; Bailey & Jaggars, 2016).

In 2007, the Community College of Baltimore County (CCBC) led the way with its Accelerated Learning Program, which uses the corequisite format (Adams, Gearheart, Miller, & Roberts, 2009). A study of CCBC's accelerated learning program by the Community College Research Center shows higher rates of college credit course completion for students who participated in the program (Adams et al., 2009). Consequently, community colleges started to develop and adopt corequisite models to facilitate developmental education and promote completion.

In California, early implementers of the corequisite remediation models have seen promising results, showing significant increases in students completing college-level math and English courses across all demographics (California Acceleration Project, 2018). For example, with corequisite courses, completion rates at Los Medanos College more than doubled for all students and quadrupled among African-Americans and Hispanics when compared to the state average completion rates for student taking college-level mathematics (California Acceleration Project, 2018).

Corequisite models have undergone great development and success in Tennessee. After implementing a corequisite model in 2015, in combination with other systemic reforms, Tennessee experienced notable improvements in pass rates for mathematics and writing introductory college-level courses. Subsequent analysis indicates that the Tennessee corequisite math remediation is significantly more cost-effective than prerequisite math remediation (Belfield, Jenkins, & Lahr, 2016). In fact, the corequisite model in Tennessee required 50% less resources than the prerequisite models to enable an academically underprepared student to succeed in completing the college-level gateway course (Belfield et al., 2016).

IDENTIFIED CHALLENGES

Despite the evidence of its success, several challenges are associated with implementing and sustaining a successful corequisite model. These challenges can be classed as logistical and financial. Logistical challenges include coordinating corequisite placement with multiple measures, identifying the scope of corequisite remediation, concomitantly adjusting faculty workloads, developing meaningful faculty professional development and achieving faculty buy-in.

Solving these implementation challenges is essential to the success of corequisite remediation. Navigating the initial hazard of correct corequisite placement through the appropriate use of multiple measures or direct placement is a key first step (Daugherty, Gomez, Carew, Mendoza-Graf & Miller, 2018). A related critical issue involves identifying the scope of the corequisite model, in other words determining how much remediation may be successfully accomplished through a corequisite course. Concurrently, the number of contact hours along with the associated faculty teaching load needs to be identified per course. Teaching loads need to reflect both the additional work required of instructors when developmental students are integrated into college-level courses as well as the additional required time teaching the corequisite course (Brothen & Wambach, 2012).

Faculty buy-in is also key to successful implementation of a corequisite model. Community colleges in Texas faced challenges resulting from limited buy-in among stakeholders including faculty and advisors (Daugherty, Gomez, Carew, Mendoza-Graf, & Miller, 2018). In Texas, successes with implementing corequisites were more often found in places with faculty "champions" to design and implement the model. A source of faculty "champions" in Virginia may be found in the membership and leadership of the Virginia Mathematical Association for

Two Year Colleges. Additional factors driving success in Texas included a "culture of flexibility and innovation" which fosters a willingness to embrace new challenges and strategies (Daugherty, Gomez, Carew, Mendoza-Graf, & Miller, 2018). Administrative support for faculty innovation is key to creating this culture. Furthermore, instructors need meaningful training to effectively support developmental learners alongside those who are college ready (Brothen & Wambach, 2012).

Changing the remedial education program to include corequisite remediation requires money. However, funding challenges should be broadly considered by policymakers in the context of increased student success (Vandal, 2014). At first glance in Tennessee, the apparent cost of corequisite remediation appears higher than conventional prerequisite remedial education. This seems obvious given that faculty need time and resources to develop these new programs and a corequisite adds to the faculty workload. However, when using student success rates as a measure of cost, corequisite remediation appears to be much more cost effective per student (Belfield, Jenkins & Lahr, 2016). That is to say, the per student cost of students successfully completing a college course in the co-requisite model is about 50% lower than in the pre-requisite model (Belfield, Jenkins & Lahr, 2016).

SPECIFIC RECOMMENDATIONS FOR THE VCCS

Corequisite reform is an important strategy to improve student completion of higher education goals. A robust corequisite model integrates gateway course content with lifelong tools such as time management and study skills that help students beyond the scope of one course. Corequisite remediation may not completely eliminate developmental courses; however, "a fundamental redesign of the support system for academically underprepared students" will include corequisite remediation (Vandal, 2014). This broader "support system" may integrate

corequisite courses with the current (or similar) modular curriculum with non-modular precollege courses such as MTH 5 or MTH 9 in the VCCS. Student placement into the optimal teaching/learning mode may be as key as course level placement (Bickerstaff, 2016).

Policy supporting remediation should not be monolithic, but instead should allow for these multiple approaches and models. A corequisite program should include a robust pedagogy "tool-box" and flexibility for the faculty to implement the most useful tools for the class in question and its unique student population (Vandal, 2018). To make the corequisite course successful, faculty will need to "focus on what the student needs to succeed in the college level course" (Barshay, 2018). A corequisite course should target "what the student is learning each week in the college course" (Barshay, 2018). This type of planning and coordination and spontaneous responsiveness will require pedagogically flexible faculty with a robust pedagogical tool-box and administrative support to develop the faculty.

 In addition to corequisite support classes (Vandal, 2014), extra time, or assigning more credits to a class's instructional time are additional ways to build supplemental instruction (Barhoum, 2018). Robust and mandatory tutoring or an accelerated summer boot camp may be part of the remediation solution (The Charles A. Dana Center at the University of Texas at Austin, 2018). For technical certificate programs, remediation may include "aligned and parallel support" appropriate to the certificate rather than prerequisite course completion (Complete College America, 2017).

While summarizing the importance of adopting corequisite remediation, it is important to acknowledge its specific positive impact on some of our most vulnerable populations. The dramatic improvement for students who tested two levels below college level is especially critical in terms of access for minority and low-income students, since they are more likely to

need remedial courses (Vandal, 2018). Community Colleges in California that have recently broadened access have shown that students of color and low-income complete their degrees at two to three below times the average (Rodriguez, Cuellar Mejia, & Johnson, 2018).

Corequisite remediation provides the VCCS with a powerful tool for student success. Wise integration of corequisite courses as part of a robust remediation program makes the vision of Complete 2021 more clearly attainable.

REFERENCES

Adams, P., Gearhart, S., Miller, R., Roberts, A. (2009). The accelerated learning program: Throwing open the gates. *Journal of Basic Writing*. 28.

Bailey, T., Jeong, D.W., Cho, S.W. (2010). Referral, enrollment, and completion in developmental education sequences in community colleges. Retrieved from https://www.sciencedirect.com/science/article/pii/S0272775709001071

Bailey, T. and Jaggars, S.S. (2016). When college students start behind, college completion series: Part 5. *The Century Foundation*. Retrieved from https://tcf.org/content/report/college-students-start-behind/?agreed=1&agreed=1

Barhoum, S. (2018). Increasing student success: Structural recommendations for community colleges. *Journal of Developmental Education* (41)3, 18-25

Barshay, J. (2018). Which remedial education models work best for students? The Hechinger Report. *US News and World Report*. Retrieved from https://www.usnews.com/news/national-news/articles/2018-02-20/researchers-unsure-which-remedial-education-models-work-best-for-students

Belfield, C., Jenkins, D. and Lahr, H. (2016) Is corequisite remediation cost-effective? Early

findings from Tennessee. Retrieved from https://ccrc.tc.columbia.edu

Bickerstaff, M., Fay, M.P., Trimble, M.J. (2016). Modularization in developmental mathematics
in two states: Implementation and early outcomes. Retrieved from
https://ccrc.tc.columbia.edu/media/k2/attachments/modularization-developmental-
mathematics-two-states.pdf

Brothen, T., and Wambach, C.A. (2012). Refocusing developmental education. Retrieved from
https://files.eric.ed.gov/fulltext/EJ1035680.pdf

California Acceleration Project. (2018). Retrieved from
https://accelerationproject.org/Corequisites

The Charles A. Dana Center at the University of Texas at Austin. (2018). Scaling corequisite
supports at Tulsa Community College: Perspective from a two-year higher education
institution. Retrieved from http://dcmathpathways.org/sites/default/files/resources/2018-
05/0_Notes%20from%20the%20field_number%205_May%2022_FINAL_0.pdf

Community College Research Center (2019). Teachers College of Columbia University
https://ccrc.tc.columbia.edu/Community-College-FAQs.html

Complete College America. (2017). Promoting Gateway Course Success: Scaling Corequisite
Academic Support. Retrieved from
https://completecollege.org/wp-content/uploads/2017/11/Promoting-Gateway-Course-
Success-Final.pdf

Complete College America. (2012). Spanning the completion divide. Retrieved from
http://ccaspanning.wpengine.com/wp-content/uploads/2016/01/CCA-
SpanningTheDivide-ExecutiveSummary.pdf

Daugherty, L., Gomez, C.J., Carew, D.G., Mendoza-Graf, A., Miller, T. (2018). Designing and

implementing corequisite models of developmental education. Retrieved from

https://www.rand.org/pubs/research_reports/RR2337.html

Logue, A.W., Watanabe-Rose, M., & Douglas, D. (2016). Should students assessed as needing

remedial mathematics take college-level quantitative courses instead? A randomized

controlled trial. *Educational Evaluation and Policy Analysis*, (38)3, 578-598. Retrieved

from https://journals.sagepub.com/doi/10.3102/0162373716649056

McNeal, M. (2016). Can bite-sized courses help more students complete remedial math?

EdSurge. Retrieved from https://www.edsurge.com/news/2016-09-19-can-bite-sized-

courses-help-more-students-complete-remedial-math

Park, T., Woods, C.S., Hu, S. Bertrand Jones, T., & Tandberg, D. (2018). What happens to

underprepared first-time-in-colleges students when developmental education is optional?

The case of developmental math and intermediate algebra in the first semester. *The*

Journal of Higher Education, (89)3, 318-340. DOI: 10.1080/00221546.2017.139097

Rodriguez, O., Cuellar Mejia, M., & Johnson, H. (2018). Remedial education reforms at

California's community colleges: Early evidence on placement and curricular reforms.

Public Policy Institute of California. Retrieved from

https://www.ppic.org/publication/remedial-education-reforms-at-californias-community-

colleges-early-evidence-on-placement-and-curricular-reforms/

U.S. Department of Education, Institute of Education Sciences, National Center for Education

Statistics. (September 2016). Remedial coursetaking at U.S. public 2- and 4- year

institutions: Scope, experience, and outcomes. Retrieved from

https://nces.ed.gov/pubs2016/2016405.pdf

Vandal, B. (2014). Promoting gateway course success: Scaling corequisite academic support. *Complete College America*. Retrieved from https://eric.ed.gov/?id=ED558791

VCCS annual enrollment. (2016). Retrieved from http://www.vccs.edu/about/where-we-are/impact/vccs-annual-enrollment/

Virginia Community College System (VCCS) blog. (n.d.). Retrieved from http://www.vccs.edu/vccsblog_post/initiative-update-developmental-education-a-redesign-to-meet-the-promise/

ABOUT THE AUTHORS

Nekisha Burgess-Palm is a Student Account Manager at John Tyler Community College.

Sandra Davis is an Associate Professor of Chemistry and Associate Dean of Art and Science at Virginia Highlands Community College.

Amanda Decker is a Lead Career Navigator at Virginia Western Community College.

Heather Diritto is a Transfer Counselor at Germanna Community College.

Shana Dix is an Assistant Registrar at Southside Virginia Community College.

Maggie Emblom-Callahan is an Associate Dean of Science at Northern Virginia Community College.

Camisha Parker is an Associate Dean at Northern Virginia Community College.

Eric Styles is a Coordinator of Financial Aid at Tidewater Community College.

TAKING THE LEAP (LEARNER ENGAGED ADVISING PROGRAMS): VCCS ADVISING PRACTICES AND RECOMMENDATIONS

VALERIE BURGE-HALL, LATOYA GARRISON, LEIGH GILES-BROWN, LISA VAUGHN JORDAN, DAN LEPORE, MELANIE MCNALL, CHRISTINE PAULY, ANDREW QUINN

ABOUT THE AUTHORS

Valerie Burge-Hall is an Associate Professor at Thomas Nelson Community College.

Latoya Garrison is Assistant Coordinator of Career Services at Blue Ridge Community College.

Leigh Giles-Brown is DMS Program Director at Northern Virginia Community College.

Lisa Vaughn Jordan is an Associate Professor at Southside Virginia Community College.

Dan Lepore is Director of Enterprise Operations Services at the VCCS System Office.

Melanie McNall is a Human Resource Analyst at Thomas Nelson Community College.

Christine Pauly is an Enrollment Services Supervisor at Tidewater Community College.

Andrew Quinn is Assistant Director of Financial Aid at J. Sargeant Reynolds Community College.

EXECUTIVE SUMMARY

The Virginia Community College System (VCCS) administration identified the need for adequate and proactive advising programs to foster student success. This paper presents a review of "best practices" in advising to determine commonalities, provides a comparison with current VCCS advising practices, and offers recommendations that support the goal of ensuring high quality advising programs.

BACKGROUND AND CHALLENGES

In 2015, the VCCS administration identified advising as a critical area needing improvement for its 23 member colleges. This was a direct result of poor retention rates and low graduation rates (Integrated Postsecondary Education Data System). In 2016, the Virginia General Assembly directed the Joint Legislative Audit and Review Commission (JLARC) to review the VCCS (HJR 157). JLARC revealed many students were not receiving needed advising services despite evidence that students who use advising are more engaged and likely to complete a credential (Joint Legislative Audit and Review, 2016). The review recommended community colleges become more strategic about the structure of advising programs and require mandatory advising for some students (Joint Legislative Audit and Review, 2016).
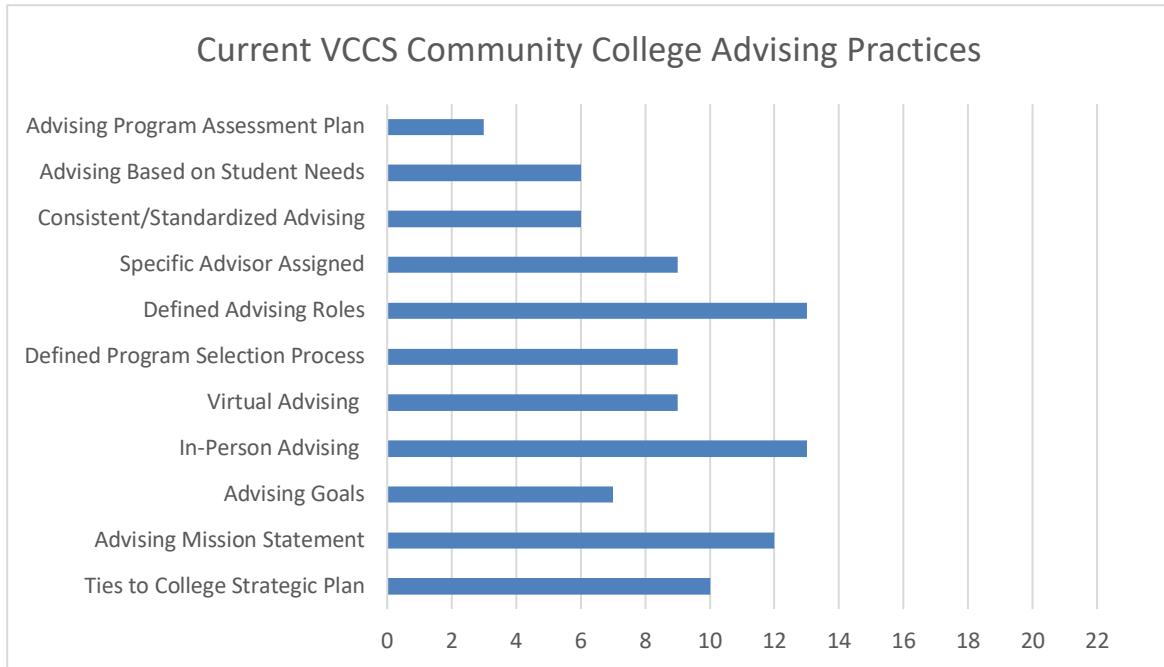
Although establishing student advising as a priority within each institutional strategic plan is a first step, improving student success rates requires a system wide evaluation of institutional barriers (e.g., staff shortages and a lack of consistent guidelines for advising delivery practices and services). Inconsistent and poorly structured student advising programs that vary statewide in delivery, type, assignment, and follow-up negatively impact student success. Utilizing actions based on researched best practices may help address gaps present in the VCCS system.

The chart below summarizes advising best practices that strive to ensure access, equity and opportunity for college students.

BEST PRACTICES IN ADVISING	EXAMPLES
Consistent and Personalized Advising	• Team-based, mandatory, timely advising • Easy access services (e.g. online and in-person) • Knowledgeable personnel giving proactive feedback • Addresses student life, academic, and work goals • Professional development for all advising personnel
Early Identification and Monitoring of Student Risk	• Early identification of at-risk students • Proactive monitoring and response to barriers • Agreements with high schools and 4-year transfer colleges • Extensive new-student orientations • Accelerated development courses • Tiered advising with pre-enrollment, post-enrollment and post-first year advising
Holistic Approach to Advising Beyond Academics	• Addresses career, personal, financial, and social objectives • Ties required coursework to goals • Provides access to financial assistance and links to social services • Involves social structures (e.g. learning communities, experiential learning, tutoring, supplemental instruction, Student Life activities) • Advisors and faculty reinforce behavior and attitudes for success
Variety of Efficient Planning Tools	• Streamlined program pathways with clear milestones • Information workshops and career exploration programs • Electronic course planners and integrated registration systems
Organized Oversight and Accountability	• Clear standards and guidelines for advising services • Designated point person as coach and compliance officer • Sufficient time to develop quality programs over several years

CURRENT VCCS ADVISING PRACTICES

A request for advising program information was sent to all VCCS colleges and an analysis was conducted to determine commonalities and elements of programs indicating "best practices." The response rate was 69% (16 of the 23 VCCS community colleges). Based on the responses, there is evidence of "best practices" in many programs, yet there remains much room for improvement. Highlights of the responses are summarized on the following chart.

Current VCCS Community College Advising Practices

Practice	Value
Advising Program Assessment Plan	3
Advising Based on Student Needs	6
Consistent/Standardized Advising	6
Specific Advisor Assigned	9
Defined Advising Roles	13
Defined Program Selection Process	9
Virtual Advising	9
In-Person Advising	13
Advising Goals	7
Advising Mission Statement	12
Ties to College Strategic Plan	10

Ten (10) colleges have advising programs that are tied to the college strategic plan. Twelve (12) colleges have language indicating an advising program mission or vision statement and seven (7) colleges have advising goal statements. Thirteen (13) colleges offer in-person advising (e.g. one-on-one, group, walk-in, appointments, and/or mandatory requirements for new/first year students) and have defined advising roles. Nine (9) colleges have designated specific advisors per student (some require two advisors to be assigned), provide virtual advising options (e.g. text messages, email, websites, phone, Navigate, etc.), and have defined program selection processes. Six (6) colleges have specific advising steps for data capture, timelines for initial and follow-up meetings (e.g. checklists, "what to expect in advising," etc.), and have advising according to student needs (e.g. early alert systems flag at-risk students for services, plans for non-traditional student needs). Three (3) colleges have plans for annual assessment of advising program effectiveness. One mentioned the use of specific student and advisor surveys.

RECOMMENDATIONS

Although some VCCS colleges' advising programs include some ideal practices, more can be done to encourage accountability and consistent quality across the entire system. The VCCS has an opportunity to establish standards and an implementation strategy for **L**earner **E**ngaged **A**dvising **P**rograms (**LEAP**) at every college in the system. Coordinated practices will encourage students to "Take the LEAP" by investing in their future. Presented in the chart below are recommended goals and action steps based on national "best practices" in college advising.

ADVISING GOALS	ACTION STEPS
Goal 1 Develop an Advising Accountability Program	• Collaborate to develop standards and guidelines for an advising accountability program • Provide ongoing assessment using predictive analytics • Designate Directors of Advising (system office and colleges) (Tennessee) • Report progress and provide timely feedback (Lane Community College)
Goal 2 Create a Culture of Student Success	• Emphasize customer service and success-centered messaging • Partner with non-profits for services to meet diverse needs (Tennessee) • Offer classes with varied times or modes of instruction • Include Accelerated Development Education, Learning Communities, Experiential Learning, Tutoring, Supplemental Instruction, etc. (Center for Community College Student Engagement) • Develop partnerships for donated resources (Amarillo)
Goal 3 Consistent Available, Student-Centered Advising	• Offer accessible intrusive advising to focus on first year, first semester transfer, and at-risk students • Build relationships early, streamline admissions/registration/services • Standard advising schedule for all students by program (Tennessee) • 3-Tiered system of pre-and post-enrollment and post-first year advising (Hanover Research)
Goal 4 Personalized Student Advising	• Implement holistic advising to address varied student needs • Provide short-term targets for career, degree, or professional goals • Offer exploratory courses aligning with general education requirements so students may define an optimal career path (Hanover Research) • Reduce student to advisor ratios (Georgia State University) • Include social services links in early alert systems (Amarillo)
Goal 5	• Train advisors in best practices, advising tools, and ongoing professional development for post-implementation support

Provide Training to Advising Personnel	• Provide specialized training in transfer credit evaluation; diversity, equity and inclusion; relationship development; recognition and response to social needs; and communication strategies to promote student success (NACADA Kansas State University and Amarillo) • Reframe professional development as a strategy that supports the collective involvement of faculty and staff in organizational improvement (Community College Research Center)
Goal 6 Ensure Intentional and Intrusive Advising	• Hold students to high standards and encourage them to take responsibility for academic and career planning through informed decision making • Institute student alerts for registration holds with drops and withdrawals, major changes, faculty alerts, and underperformance in gateway courses (Georgia State University) • Implement mandatory advising including scheduling, degree planning, transfer requirements, and major and career exploration (NACADA Kansas State University) • Ensure early alert systems capture and direct needs to appropriate personnel (Amarillo)
Goal 7 Employ Efficient Technology Resources	• Support students via user-friendly Artificial Intelligence platforms that provide readily available guidance and improved efficiency. (Georgia State University) • Implement short, dynamic online orientations (Michigan State University) • Use phone apps and virtual appointments (Manpower Demonstration Research Corporation) • Utilize modern forms of communication (e.g. text messaging, social media, etc.) that may prove more efficient and result in greater student response (Amarillo)

CONCLUSION

Redesigning VCCS college advising programs will be an extensive, multi-year enterprise with high potential for improvement in student momentum, retention, and completion. Implementing the recommended "best practices" could establish VCCS as a leader among community college systems for collaborative effort that yields notable increases in student success through modern, efficient, and effective advising practices. Overall, crafting advising programs designed to provide access, equity, and opportunity for students is well worth taking the LEAP.

REFERENCES

Academic Affairs Forum. (2018). A Student-centered approach to advising. EAB Global, Inc. Retrieved from https://www.eab.com/-/media/EAB/Research-and-Insights/AAF/Studies/29896-01-AAF-White-Paper-Update.pdf

Advising Redesign Action Group (2016). Re-envisioning academic advising. University of Wyoming. Retrieved from http://www.uwyo.edu/acadaffairs/_files/docs/re-envisioning_advising.pdf

Advising Redesign Team (2012). Best Practices in Undergraduate Academic Advising. UNC Charlotte. Retrieved from https://advising.uncc.edu/sites/advising.uncc.edu/files/media/best-practices-in-undergraduate-academic-advising.pdf

Castor, D. (2015). Challenges for two-year college advisors. NACADA. Retrieved from https://www.nacada.ksu.edu/Resources/Academic-Advising-Today/View-Articles/Challenges-for-Two-Year-College-Advisors.aspx

Center for Community College Student Engagement. (2012). A Matter of Degrees: Promising Practices for Community College Student Success (A First Look). Austin, TX: The University of Texas at Austin, Community College Leadership Program. Retrieved from http://www.ccsse.org/docs/Matter_of_Degrees.pdf

Conzen, C. (2013). Student affairs live: Academic advising in community colleges. Higher Ed Live. Retrieved from http://higheredlive.com/ccacademicadvising/

Donaldson, P., McKinney, L., Lee, M., and Pino, D. (2016). First-Year Community College Students' Perceptions of and Attitudes Toward Intrusive Academic Advising. *NACADA Journal*: 2016, Vol. 36, No. 1, pp. 30-42.

Hanover Research. (2014). Best practices in retention at community colleges. Retrieved from https://www.hanoverresearch.com/wp-content/uploads/2017/08/Best-Practices-in-Retention-at-Community-Colleges.pdf

Hatch, D. K., & Garcia, C. E. (2017). Academic advising and the persistence intentions of community college students in their first weeks in college. *The Review of Higher Education*, *40*(3), 353-390. Retrieved from http://digitalcommons.unl.edu/cehsedadfacpub/40/

Joint Legislative Audit and Review Commission. (2016). Operations and Performance of the Virginia Community College System. Retrieved from http://jlarc.virginia.gov/2017-vccs.asp

Jones, S. J., & Hansen, K. (2014). Technology review: virtual intrusive advising--supporting community college students through web-based synchronous technologies. *Community College Enterprise*, *20*(1), 89-94.

Lewis, B. G. S. (2015). Developmental education at the community college: An exploration of instructional best practices and the relationship between integration, student involvement and rates of completion.

Mechur Karp, M. (2016). A holistic conception of nonacademic support: How four mechanisms combine to encourage positive student outcomes in the community college. *New Directions for Community Colleges*, *2016*(175), 33-44.

Myers, M., & Rankin, P. (2016). A Partnership Between Advising and Academics: Best Practices for Student Support. In *Supporting the Success of Adult and Online Students*. CreateSpace. Retrieved from http://repository.cityu.edu/bitstream/handle/20.500.11803/608/Chap21Supporting.pdf?sequence=2

NAFSA Annual Conference (2012). As summary of best practices. Seminar: Comprehensive Strategic International Enrollment Management: Recruitment, Retention, and Reentry. Retrieved from https://www.nafsa.org/_/File/_/mr_best_practices.pdf

Sapp, L.C. & Williams, S.A. (2015, December). Best practices in advising non-traditional students. *Academic Advising Today*, *38*(4). Retrieved from https://www.nacada.ksu.edu/Resources/Academic-Advising-Today/View-Articles/Best-Practices-in-Advising-Non-traditional-Students.aspx

Schroeder, S. M., & Terras, K. L. (2015). Advising experiences and needs of online, cohort, and classroom adult graduate learners. *The Journal of the National Academic Advising Association*, *35*(1), 42-55.

Schultz, K. (2016). Academic advising practices that support retention rates in two-year college in the Southeastern United States. Retrieved from https://repository.library.northeastern.edu/files/neu:cj82pr53m/fulltext.pdf

Van Noy, M., Trimble, M., Jenkins, D., Barnett, E., & Wachen, J. (2016). Guided pathways to careers: Four dimensions of structure in community college career-technical programs. *Community College Review*, *44*(4), 263-285.

Waiwaiole, E. N. (n.d.). Acknowledgments. *The Power of Advising in Community Colleges 2018 National Report Center for Community College Student Engagement*. Retrieved from http://www.ccsse.org/nr2018/Show_Me_The_Way.pdf

Submissions are still being accepted for our next issue.

Inquiry is interested in publishing your scholarly work in our peer-reviewed journal. Submissions are reviewed by editors on a continuous basis as we have a rolling deadline, so we encourage you to submit any time! Our next issue will be live in October. To learn more and to submit your scholarship, visit Inquiry on the Digital Commons.

Manuscripts are solicited in the following categories.

Scholarly/Conceptual Papers: These full-length manuscripts are limited to 4,000-5,000 words, inclusive of references. Papers should contain a 250-word abstract. Research-based manuscripts should conclude with a section on the implications for practice that are indicated by the research results. Scholarly/conceptual papers should also make connections to practice and applications, and (where appropriate) to future research and policy.

Notes in Brief: These thought-provoking and scholarly short-length manuscripts (1,000 – 2,000 words) should be submitted with the goal of initiating conversations or development of practice among educators and staff within community colleges. Notes in Brief essays may focus upon smaller research projects and their practical applications. Such manuscripts should include a description of the project, implications for practice and/or policy, and analysis of research. Alternatively, Notes in Brief essays may evaluate current issues, policy concerns, or trends relevant to community colleges and/or higher education. These essays should not be considered opinion editorials (op-eds); rather, these essays should strive to build arguments based on data, research, and sound analysis.

Book Reviews: Book reviews (750-1000 words) or review essays (1250 – 3000 words) of contemporary publications relevant to community colleges, higher education, or issues of teaching and learning should focus upon examining the major topics within the publication, and upon assessment and analysis of the publication's focus, its strengths and weaknesses.

If you have any questions, please contact Thomas M. Geary, Ph.D., Managing Editor, at tgeary@tcc.edu.