

State Council of Higher Education for Virginia
Fund for Excellence and Innovation

**SCHEV Affordable Pathways Partnership Grant
Cover Page**

January 1, 2016 - June 30, 2017

I. Applicant Information

Organization Applying for Grant:	Richard Bland College of William & Mary	Date:	20 Oct 2016
Project Administrator:	Dr. Vern L. Lindquist		
Title:	Dean of Faculty & Chief Academic Officer		
Mailing Address:	8311 Halifax, Petersburg VA 23805		
Telephone:	804.862.6491	E-Mail:	vlindquist@rbc.edu

Fiscal Administrator:	Penny Howard		
Title:	Dean of Finance & Administration		
Mailing Address:	8311 Halifax, Petersburg VA 23805		
Telephone:	804.862.6100	E-Mail:	poward@rbc.edu

II. Type of Grant

Directions: Check the type of grant you are applying for.

Implementation Grant

Expansion Grant

III. Submission Certification

By signing this application, I certify that the statements herein are true, complete and accurate to the best of my knowledge and that the filing of the Affordable Pathways Partnership application is duly authorized by the institution. I also certify that we will comply with any resulting terms, if an award is accepted. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to penalties, as determined by the granting agency.

Authorized Representative

Name: Vern Lindquist

Title: Dean of Faculty & Chief Academic Officer

Entity: Richard Bland College

Signature:



Abstract

Richard Bland College of William & Mary, in partnership with local high schools—Petersburg, Sussex, and Hopewell—will be expanding our successful Summer Bridge Mathematics program this coming summer. This program is a part of RBC’s overall Exceptional Student Experience program, which uses data analytics to identify at-risk students and offer them programming designed to ward off problems before they cause students to drop out.

Richard Bland College has found that one of the biggest risk factors in determining a student’s potential to drop out is being enrolled in a developmental mathematics course. Therefore, it seemed clear to us that we could increase graduation rates and reduce time-to-degree by identifying these students before they enroll at RBC and offer them a way to bring their math skills up to college level in the summer, allowing them to enroll in credit-bearing mathematics right away in their first semester.

We ran a small pilot Summer Bridge Mathematics program last year (with support from SCHEV’s *Initiative Supporting Student Success and Completion*) to test the efficacy of this approach. The results exceeded our expectations: 86% of participating students advanced to credit-bearing mathematics courses.

The program was an intensive mathematics educational experience using two of our most experienced math professors in conjunction with student tutors and *ALEKS (Assessment and Learning in Knowledge Spaces)*, a computer-based placement and educational system.

This summer, we propose expanding this program to include 70-100 students from four of our local feeder high schools with high percentages of students placing into developmental mathematics. As we did with the pilot last summer, we will offer the program without cost; additionally, this summer we will add transportation from the high schools to RBC to widen access to the program.

The model we are using is certainly scalable to other areas of the Commonwealth. If similar successes are found this summer, we will be in a strong position to pursue additional grant funding from other providers. Even without such assistance, however, we will continue the program with internal funding as it will certainly be in the best interests of RBC to move students more quickly to graduation and to increase our overall student retention rates.

Program Narrative

Program Design

The RBC Summer Bridge Math Program will serve at-risk students from partner high schools by moving them through developmental math coursework before they enter college. It will help RBC additionally by strengthening our partnerships with these high schools. If successful, the program will be in a strong position to apply for additional grant funding; increased retention and graduation rates (which should follow from the program's success) will make the program sustainable on its own terms even without grant assistance.

Need

One of the most widely recognized barriers to college completion is successful completion of developmental/remedial coursework—especially mathematics. As *Complete College America* identifies, 52% of 2-year students nationally enroll in at least one developmental course. Of that group, only 22% successfully complete that remediation within two years, and fewer than 10% ultimately graduate within three years. These statistics are frightening and unacceptable. At Richard Bland College, we found that our own student population is no exception to this general rule. As about 70% of our students are first-generation college students and 50% are Pell-eligible, our population is particularly at-risk. The partner local high schools we are including in this effort are the schools where many of our most at-risk students come from.

Our pilot effort last summer was successful—see the analysis in the next section—but small. It served to prove the concept, but was not large enough to address the need to reduce remedial coursework in a meaningful way. For this effort to be truly transformational (both for RBC and, potentially, the Commonwealth) we need to share the benefits of the program with a much larger audience.

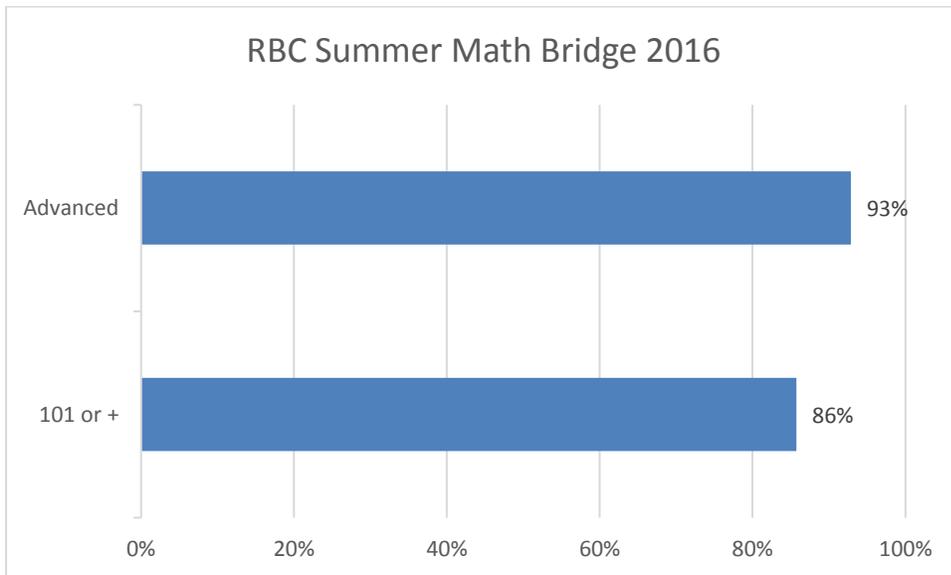
Services/Activities

Over the course of four weeks during the mid-summer of 2017, Richard Bland College will offer a greatly expanded version of its successful Summer Bridge Math Program focusing on students from local partner high schools. We will offer the program, inclusive of transportation from the high school to the RBC campus, to 70-100 students identified by the high schools and our enrollment services personnel at RBC. We will offer the program at no charge to the student. Students should benefit whether or not they ultimately register for classes at RBC—though certainly we hope they will enroll at our college.

The program last summer (which we are expanding here) used a combination of face-to-face human instruction and supplemental computer-based instruction using ALEKS. ALEKS is “*Assessment and LEarning in Knowledge Spaces...a Web-based, artificially intelligent assessment and learning system. ALEKS uses adaptive questioning to quickly and accurately determine exactly what a student knows and doesn't know in a course. ALEKS then instructs the student on the topics she is most ready to learn. As a student works through a course, ALEKS periodically reassesses the student to ensure that topics learned are also retained. ALEKS courses are very complete in their topic coverage and ALEKS avoids multiple-choice questions. A student who shows a high level of mastery of an ALEKS course will be successful in the actual course she is taking. ALEKS also provides the advantages of one-on-one instruction, 24/7, from virtually any Web-based computer*” (ALEKS website).

We identified 14 students who had placed into developmental math (at RBC, Math 100A or 100B) and offered the program to students at no cost. Students received access to ALEKS, which they could use from home or campus—and classroom instruction included a mixture of human instruction and ALEKS tutorials. In addition to the direct instruction from full professors, students benefitted from peer tutors who were embedded in the classroom. Students received instruction for about 3 1/2 weeks, daily, for three hours per day.

The value of the approach was undeniable and greatly exceeded our goals and expectations. Only one student did not benefit from the program, and the data from ALEKS showed that she did not actually spend much time in the system and failed to put forth a sustained effort. For the other students, the experience was overwhelmingly positive, as the following chart evidences:



93% of program participants advanced at least one level of math (from 100A to 100B or from 100B to 101—the credit bearing course) and 86% of students advanced to Math 101 or higher.

Goals and Outcomes

We believe that we will be able successfully to scale the pilot model for this larger group of students next summer. Given the small sample size last year, we are not absolutely certain that we can perform at precisely the same level with a larger group, but we do expect to have similar success with at least 70% of the participating students.

Therefore, if we assume 70 students at a 70% success rate (defined as advancing to credit-bearing competency in math), students who skip Math 100B will save \$952 each, or a total of about \$46,000 in direct tuition costs. If this same group of students is able to move one semester closer to graduation than they would have otherwise, each student would save an additional \$3,570, or about \$174,000 total (not including fees or housing charges). If success in

the program makes it more likely that the students will graduate—which seems entirely reasonable given the data from *Complete College America*, then the savings, both to the students and to the Commonwealth, would be even more dramatic. Obviously, from the perspective of RBC, the increased persistence and graduation rates which we believe will follow from success in this program are substantial: if we can move the graduation rate for this group from less than 10% to something approaching our current graduation rate (around 30%), the benefit to the college and the Commonwealth will be substantial.

Partnership Sustainability

Currently, the effort is being supported primarily by Richard Bland College. Our partner high schools (Hopewell, Petersburg, and Sussex) are responsible for helping us to identify students who will potentially benefit from the program. Therefore, their primary role is to utilize the resources of the program and not to contribute resources to it. The success of the grant is only possible, however, if these local high schools can work with our enrollment services personnel at RBC to identify the potential participants and to encourage them to participate.

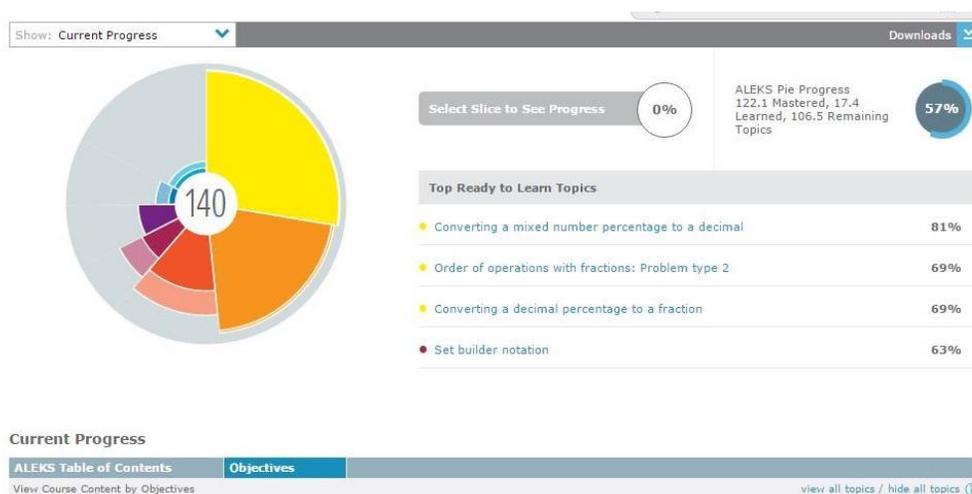
To sustain the program going forward, program administrators will need to demonstrate its positive value towards increasing persistence and matriculation. Given the modest costs of the program and the strong desire of the Commonwealth and Richard Bland College to increase both of these metrics, we fully expect to be able to make successful arguments for continuing program funding internally. We also believe that the program's success, and the confidence of SCHEV that attaining this grant will demonstrate, will make it likely that we can find additional grant funding for possible expansion of the program to include more students in subsequent years.

We also believe that a less quantifiable but still substantial benefit of the program will be in our developing and sustaining closer relationships between our math faculty and the math faculty at the local high schools. These relationships, we hope, will further productive discussions about next steps in curriculum alignment and design between the institutions.

Given the simplicity of the program’s design and its modest costs, it seems clear that the program could be scaled both internally and externally. Especially if we are successful in obtaining other grant funding, we can easily increase the number of students we serve proportionally. Additionally, the purchase of necessary computers is a one-time cost. Other colleges and high schools in the Commonwealth could also quite easily replicate our efforts (and our results). Though it is likely that they could do so simply by reading our report at the conclusion of this project, we would also be willing to present the program at SCHEV-sponsored events to encourage others to follow the model. Colleges would need only to develop relationships with feeder high schools (or deepen already existing relationships) and find the funding necessary to procure ALEKS and to pay the instructional staff (assuming they have sufficient computing facilities for ALEKS).

Evaluation Plan

Assessing the program outcomes in this project is made easy by the nature of the ALEKS system itself. Student success is quantifiable in incredibly precise ways. For example, ALEKS gives instructors dashboards that allow them to know, as the program is in progress, averages for achieved competencies in each individual learning outcome in the course.



Additionally, for each individual student, the instructor can see which knowledge areas are complete, which still need to be covered, and total time on task.



Using this data, it is simple for the program administrators to measure the success of the program for each individual student and for the entire cohort. At the end of the program, aggregate data on the numbers of students who progress to credit-bearing mathematics will be reported and the ultimate success of the program will be shared with all participants, partners, and SCHEV.

In addition to tracking these important metrics, we will (as we did with the pilot last summer) constantly monitor student reactions and observations about the program and their own progress in order to find ways to modify the program positively even as it is in progress. We will also share the success data with our partners as well as other potential future program participants and ask them for feedback. Finally, we will survey both program participants and administrators & teachers from the partner high schools to gauge their perceptions about the program's weakness and potential areas of growth.

Appendix A: Partner Identification forms

Affordable Pathways Partnership Grant
Partner Identification Form
(January 1, 2016 - June 30, 2017)

Partner Contact Information

Partner Organization:	Sussex County Public Schools	
Name of Point of Contact:	Julius Hamlin	
Title:	Director of Instruction	
Mailing Address:	21302 Sussex Drive, Stony Creek, Va. 23882	
Telephone:	434-246-1099	E-Mail: jhamlin@sussex.k12.va.us

Partner Organization Type

(place an "X" by the category that best describes the organization, as named above)

<input checked="" type="checkbox"/>	LEA (at least one partner must be a local public high school)
<input type="checkbox"/>	IHE
<input type="checkbox"/>	State agency
<input type="checkbox"/>	Community-based organization
<input type="checkbox"/>	Professional association
<input type="checkbox"/>	Philanthropic organization
<input type="checkbox"/>	Business
<input type="checkbox"/>	Other, please describe below (expand cell, as needed):

Sussex Central High School

Please describe the organization's specific role(s), support and commitment to the project in the space below. Note how the partnership will help fulfill the goals of the proposed program and purpose of the grant. (Expand cell as needed.)

Our role will be to recruit applicants and provide transportation to the Summer Bridge Math

By my signature, I certify that the above named organization is committing to be a partner, as described, with the applying institution of higher education in its proposed Affordable Pathways Partnership program. I certify that the statements above are true, complete and accurate to the best of my knowledge and that the filing of these commitments is duly authorized.

Authorized Representative:

Title Director of Instruction Signature 

Affordable Pathways Partnership Grant Partner Identification Form (January 1, 2016 - June 30, 2017)

Partner Contact Information

Partner Organization:	Petersburg High School		
Name of Point of Contact:	Shannon Bryant		
Title:	School Counselor		
Mailing Address:	3101 Johnson Road Petersburg, Va. 23805		
Telephone:	804-862-7095	E-Mail:	shbryant@petersburg.k12.va.us

Partner Organization Type

(place an "X" by the category that best describes the organization, as named above)

<input checked="" type="checkbox"/>	LEA (at least one partner must be a local public high school)
<input type="checkbox"/>	IHE
<input type="checkbox"/>	State agency
<input type="checkbox"/>	Community-based organization
<input type="checkbox"/>	Professional association
<input type="checkbox"/>	Philanthropic organization
<input type="checkbox"/>	Business
<input type="checkbox"/>	Other, please describe below (expand cell, as needed):

Please describe the organization's specific role(s), support and commitment to the project in the space below. Note how the partnership will help fulfill the goals of the proposed program and purpose of the grant. (Expand cell as needed.)

As a feeder school to Richard Bland College of William & Mary we fully support the summer bridge program. We understand the importance of getting students into college credit bearing mathematics courses early in their college journey. Through this program, we will make our students and families aware of the summer bridge opportunity and send students to participate in this free 4 week program.

By my signature, I certify that the above named organization is committing to be a partner, as described, with the applying institution of higher education in its proposed Affordable Pathways Partnership program. I certify that the statements above are true, complete and accurate to the best of my knowledge and that the filing of these commitments is duly authorized.

Authorized Representative:

Title_Principal _____

Signature _____



Affordable Pathways Partnership Grant

Partner Identification Form

(January 1, 2016 – June 30, 2017)

Partner Contact Information

Partner Organization:	Hopewell High School	
Name of Point of Contact:	Ashley Denton	
Title:	School Counselor	
Mailing Address:	400 South Mesa Drive. Hopewell, VA 23860	
Telephone:	804-690-2146	E-Mail: adenton@hopewell.k12.va.us

Partner Organization Type

(place an "X" by the category that best describes the organization, as named above)

<input checked="" type="checkbox"/>	LEA (at least one partner must be a local public high school)
<input type="checkbox"/>	IHE
<input type="checkbox"/>	State agency
<input type="checkbox"/>	Community-based organization
<input type="checkbox"/>	Professional association
<input type="checkbox"/>	Philanthropic organization
<input type="checkbox"/>	Business
<input type="checkbox"/>	Other, please describe below (expand cell, as needed):

Please describe the organization's specific role(s), support and commitment to the project in the space below. Note how the partnership will help fulfill the goals of the proposed program and purpose of the grant. (Expand cell as needed.)

As a feeder school to Richard Bland College of William & Mary we fully support the summer bridge program. We understand the importance of getting students into college credit bearing mathematics courses early in their college journey. Through this program, we will make our students and families aware of the summer bridge opportunity and send students to participate in this free 4 week program.

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Authorized Representative:

Title High School School Counselor Signature *Ashley N. Denton*

Appendix B: Workplan Spreadsheets

State Council of Higher Education for Virginia		IHE Applicant Name: Richard Bland College	
Fund for Excellence and Innovation			
AFFORDABLE PATHWAYS PARTNERSHIP GRANT			
WORK PLAN		From 1/1/2017 To	
Goal: Produce student cost savings through the implmentation or expansion of affordable pathways.			
Proposed Strategies and Activities	Expected Results and Measurements	Person/Dept./Partner Responsible	Timeline
Using ALEKS and in person instruction, help 70% of 70 students avoid developmental math	Each student saves \$952, total of \$46,000 in direct tuition	Dupre	17-Aug
70% of 70 students move one semester closer to graduation	\$3,500/student; \$174,000 total	Dupre	17-Aug

State Council of Higher Education for Virginia	IHE Applicant Name: Richard Bland College
Fund for Excellence and Innovation	

AFFORDABLE PATHWAYS PARTNERSHIP GRANT

WORK PLAN From 1/

Goal: Enhance partnerships, specifically between PK-12 and higher education.

Proposed Strategies and Activities	Expected Results and Measurements	Person/Dept./Partner Responsible	Timeline
Develop closer relationships between math departments at RBC and high schools	More students sent to RBC; closer alignment of math prep courses at high schools to RBC standards	Smith (Math dept chair)	July 17-August 18
Develop additional similar partnerships in other high schools and with other departments in partner high schools	Encourage at least two more high schools to participate next year; encourage faculty in English to work on similar program.	Dupre/Lindquist (Deans at RBC)	July 17-Aug 18
Partner HS need to identify appropriate students for program and promote program in the HS	Students will enroll in bridge program	Hart/Dupre (Deans at RBC); HS guidance counselors and principals	July 17-Aug 18

State Council of Higher Education for Virginia	IHE Applicant Name: Richard Bland College
Fund for Excellence and Innovation	

AFFORDABLE PATHWAYS PARTNERSHIP GRANT

WORK PLAN

Goal: Increase education outcomes for underrepresented populations.

Proposed Strategies and Activities	Expected Results and Measurements	Person/Dept./ Partner	Timeline
Reduce need for remedial/developmental math for program students	70% of students will place into credit-bearing course	Dupre	Aug-17

State Council of Higher Education for Virginia		IHE Applicant Name: Richard Bland College	
Fund for Excellence and Innovation			
AFFORDABLE PATHWAYS PARTNERSHIP GRANT			
WORK PLAN		From 1/1/2017 Through	
Goal: Program and partnership sustainability.			
Proposed Strategies and Activities	Expected Results and Measurements	Person/Dept./Partner Responsible	Timeline
Using results of this grant, develop further grant applications	Continuing program for multiple iterations; receiving additional grant assistance, making successful argument for budget line in RBC operating budget	Lindquist	18-Aug
Purchase of computers is a one-time expense; therefore, the program should continue in subsequent cycles with considerably less cost, especially if we can get our HS partners to provide the transportation in future cycles.	Program will continue at reduced costs in the future	Lindquist	18-Aug

State Council of Higher Education for Virginia		IHE Applicant Name: Richard Bland College	
Fund for Excellence and Innovation			
AFFORDABLE PATHWAYS PARTNERSHIP GRANT		From	
WORK PLAN		From 1/1/2017 Thru	
Goal: Scalability.			
Proposed Strategies and Activities	Expected Results and Measurements	Person/Dept./Partner Responsible	Timeline
Presenting results of program at SCHEV events	Encouraging other colleges and high schools to develop program	Dupre	Aug 17-18

Appendix C: Budget Spreadsheet

State Council of Higher Education for Virginia

IHE Applicant Name: **Richard Bland College**

Fund for Excellence and Innovation

AFFORDABLE PATHWAYS PARTNERSHIP GRANT - DETAILED BUDGET From 1/1/2017 Through 6/30/2018
(Direct Costs Only)

Personnel - List staff/titles working on/being paid by the project and percent of time dedicated to the project
Enter dollar amounts requested (omit cents) for Salary Requested and Fringe Benefits

Staff/Title	Role on Project	% of Time on Project	Salary or Wages Requested	Fringe Benefits Requested	Total (salary + fringe)
Kim Dupre, Associate Dean	Project Lead	30%	27000	6750	33750
Matt Smith, Math Dept. Chair	Project Lead	30%	19000	4750	23750
Math Professor	Math Instructor	100%	3680	920	4600
Math Professor	Math Instructor	100%	3680	920	4600
Math Professor	Math Instructor	100%	3680	920	4600
Student Tutor	Tutorial Assistance	100%	540	0	540
Student Tutor	Tutorial Assistance	100%	540	0	540
Student Tutor	Tutorial Assistance	100%	540	0	540
Student Tutor	Tutorial Assistance	100%	540	0	540

Expand rows, as needed

SUBTOTALS \$58,660.00 \$14,260.00 \$72,920.00

Consultants and Contracts (itemize, describe and provided detailed cost calculation) \$ -

Materials & Supplies (itemize, describe and provide detailed cost calculation) \$ -

Cost of ALEKS program per student	\$109 per student	x 100			\$ 10,900.00
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Laptops & Cart	two carts required, 25 computers per cart; \$892 ea				\$ 44,600.00
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Travel (itemize, describe and provide detailed cost calculations) \$ -

Travel expenses for five staff participants to kickoff event (mileage only)	Roundtrip mileage 68 @ .54/mile				\$ 35.00
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Transportation for students to/from high schools to RBC	36 trips from/to high schools to RBC, 130 miles @ \$2/mile--9,360 plus hourly driver rate (\$15/hr x 36 hrs x 3 drivers) 1,620				\$ 10,980.00
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Other Expenses (itemize, describe and provide detailed cost calculation) \$ -

TOTAL DIRECT COST \$139,435.00

