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High Impact Practices (HIPS) Assessment Model: 2015-2016 Pilot Mid-Year Report

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Abstract

A systematic institutional assessment model was developed to investigate the impact of high impact educational practices (HIPs) on undergraduate student success at Virginia Commonwealth University (VCU). The proposed VCU HIPs Assessment Model provides a systematic framework for assessing the impact of high impact educational practices on VCU undergraduates. Recommendations for institutionalizing the VCU HIPs Assessment Model are made.

Keywords

high impact practices, VCU, Virginia Commonwealth University, university, higher education, experiential learning

Disciplines

Higher Education

HIGH IMPACT PRACTICES (HIPS) ASSESSMENT MODEL

2015-2016 Pilot Mid-Year Report

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Contents

Executive Summary

A systematic institutional assessment model was developed to investigate the impact of high impact educational practices (HIPs) on undergraduate student success at Virginia Commonwealth University (VCU). This new HIPs Assessment Model aligns with VCU's strategic and quality enhancement plans as well as with theory and best practice in higher education assessment (Astin, 1993). The model uses institutional data (i.e., Banner) and program data (i.e., surveys, direct assessments) to ask assessment questions in three categories. Category 1 investigates the degree to which diverse and underrepresented diverse students participate in HIPs (Inclusive Excellence Objective). Category 2 researches whether participating in VCU HIPs increases students' retention and graduation rates (Degree Completion Objective). Category 3 explores the relationship between VCU HIPs participation and student learning and development (Quality of Learning Objective).

"Results indicate that both service-learning and the ASPiRE living-learning program are succeeding as high-impact educational practices at Virginia Commonwealth University."

The new assessment model was piloted during the 2015-2016 academic year on two VCU HIPs: service-learning and the ASPiRE living-learning program. Results indicate that both service-learning and the ASPiRE living-learning program are succeeding as high-impact educational practices at Virginia Commonwealth University. Underrepresented and diverse student groups are well represented as participants in these two VCU HIPs, and participating students are retained and/or graduate at higher rates than undergraduates who have not participated. The pilot study also provides preliminary support for the hypothesis that participating in service-learning and ASPiRE engages students in high-quality educational experiences that research has correlated with student engagement and learning.

The proposed VCU HIPs Assessment Model provides a systematic framework for assessing the impact of high impact educational practices on VCU undergraduates. Recommendations for institutionalizing the VCU HIPs Assessment Model are made. These recommendations include the (a) establishment of a standing VCU HIPs Assessment Committee within the Provost's Office, (b) establishment of assessment definitions, processes and timelines for other VCU HIPs, (c) establishment of assessment policies and protocols that support program improvement and institutional accountability, and (d) implementation of the VCU HIPs Assessment Model with additional high-impact educational practices, (e.g., other VCU living-learning programs) during 2016-2017.

Introduction

A growing body of research supports the notion that *where* students attend college is not as important as *what they do* while they are there. In particular, participation in high impact educational practices (HIPs) during the undergraduate years has been consistently shown to correlate with higher levels of student engagement and increased graduation rates (Kuh, 2008; Center for Postsecondary Research, 2014).

High impact educational practices (HIPs) are educational strategies that actively engage students in learning and link their learning to their personal and work lives. HIPs benefit all students, including those from diverse and underrepresented groups. Specifically, first-year students who participate in educationally purposeful activities including HIPs tend to show improvements in their grade point averages, persistence, and report being more engaged in their educations (Kuh, Cruce, Shoup, Kinzie & Gonyeau, 2008).

> **"A growing body of research supports the notion that *where* students attend college is not as important as *what they do* while they are there."**

According to the Association of American Colleges and Universities (AAC&U, 2013), HIPs include the following ten educational practices: service- or community-based learning, learning communities, undergraduate research, diversity and global learning in courses or programs that examine "difficult differences", internships, capstone courses and projects, first-year seminars, common intellectual experiences, writing-intensive courses, and collaborative assignments and projects.

According to Kuh (2008), common elements exist across these practices that—when employed—make the practices high-impact. Specifically, HIPs (a) require students to put forth purposeful effort, (b) help students build substantive relationships, (c) provide students with rich and frequent feedback, (d) enable students to integrate and apply what they are learning to new situations, and (e) encourage reflection that deepens learning and increases self-awareness.

Policy arguments regarding the benefits of HIPs to students have pointed primarily to measures of improved degree production (Humphreys, et al., 2015). However, as early as 2008, AAC&U President Carol Geary Schneider argued for an understanding of "student success" that includes evidence of learning as a measure of educational quality.

> Retention and graduation are best described as partial indicators of student success—necessary, but scarcely sufficient. The college degree is meaningful, after all, only when it represents forms of learning that are both valued by society and empowering to the individual. Twenty-first Century metrics for student success need to capture that reality. They need to address evidence about the quality of learning as well as the evidence about persistence and completion.
>
> (Schneider, 2008)

As recently as the end of 2015, AAC&U has, in response to the U.S. Department of Education's proposal to rank higher education institutions based primarily on employment outcomes, reiterated the call for "new frameworks" for student success, frameworks that include evidence of the quality of learning in complement to the "completion agenda" (Humphreys, et al., 2015; Schneider, 2015).

Virginia Commonwealth University employs many HIPs. However, simply the presence of high impact practices on a campus does not guarantee the achievement of better student outcomes. As Kuh (from the forward by George Kuh in Brownell, & Swaner, 2010) indicates,

> high impact practices are…at the heart of a liberal education. Equally important, all of the evidence so far suggests that they benefit all students. At the same time, while promising, they are not a panacea. Only when they are implemented well and continually evaluated to be sure they are accessible to and reaching all students will we realize their considerable potential.

Therefore, during the 2015-2016 academic year, the VCU Office of Planning and Decision Support (OPDS) and the VCU Division of Community Engagement (DCE) collaborated to create an assessment framework for strategically assessing the impact of HIPs on VCU undergraduates.. In September 2015, a six-member VCU HIPs Assessment Task Force was charged with developing an institutional assessment model that could be used to regularly measure the impact of VCU HIPs. The resulting model should be applicable to all HIPS, use readily available institutional and program-level data[1], answer important questions related to student success and the quality of learning, provide actionable data to HIPs program administrators, and provide data for institutional level accountability. The HIPs Assessment Task Force was also charged with piloting the model it developed using two VCU HIPS, service-learning (servicelearning.vcu.edu) and the ASPiRE living-learning program (aspire.vcu.edu). These two specific HIPs were selected for the 2015-2016 pilot because clear institutional definitions were already in place that differentiated participants from nonparticipants and because rich institutional data for both currently existed and could be readily accessed. Additionally, both direct and indirect assessment of the quality of student learning was underway and in some cases, well established in both of this VCU high impact practices.

The HIPS Assessment Task Force met weekly throughout the Fall 2015 semester. During that time, Task Force members reviewed the literature on high impact educational practices, created the VCU HIPs assessment model framework, and piloted the model on both service-learning and ASPiRE using institution- and program-level data. This model is based upon best practices in educational assessment, specifically Alexander Astin's (1993) Inputs, Environment, and Outcomes (IEO) Framework. The VCU HIP

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[1]Institution- and program-level data used in this report is not yet available for all VCU HIPs. To replicate this approach for other HIPs, HIP participants must be distinguishable from nonparticipants, and program-level assessment methods must be articulated.

assessment model accounts for inputs (I) such as the personal qualities and demographic characteristics that students bring to the educationally purposeful activity. VCU's model also explores the environment (E) within the high-impact experience itself with the aim of identifying characteristics that may be enhancing the students' engagement and learning. Finally, the model incorporates specific institution- and program-level outcomes (O). The model also replies to AAC&U's and the National Institute for Learning Outcomes Assessment call for including evidence of learning quality in "new" frameworks of student success (Humphreys et al., 2015; Kuh, G.D., et al, 2015; National Institute of Learning Outcomes Assessment).

The VCU HIPs Assessment Model also specifically aligns with the university's strategic plan, *Quest for Distinction (Virginia Commonwealth University, 2011)*. Theme I goals and strategies of the refocused *Quest* emphasize VCU's objective to retain diverse students who will graduate at high rates and to ensure high impact educational experiences for all students.

The HIPs assessment model developed by the Task Force addresses three critical questions related to the impact of VCU HIPs on undergraduate student success. These questions are:

VCU HIPs Assessment Model Category 1 (Inclusive Excellence Objective)

Which VCU undergraduates are participating in HIPs and which are not? Is VCU achieving its goals regarding the participation of underrepresented and diverse students in HIPs? Brownell, H. E. and Swaner, L. E. (2010). Finley S. and McNair, T. (2013).

VCU HIPs Assessment Model Category 2 (Degree Completion Objective)

What is the relationship between participation in HIPS to student persistence and degree completion? What do these relationships look like amongst various subgroups of students? Finley, A. and McNair, T. (2013). Kuh, G and O'Donnell, K. (2013)

VCU HIPs Assessment Model Category 3 (Quality of Learning Objective)

What levels of learning and development do students participating in specific HIPs demonstrate on critical learning objectives? How do these levels compare with those of students who do not participate in those HIPs? Do students within each HIP achieve the stated learning and/or developmental objectives identified for that HIP? Humphreys, D., et al (2015), Schneider, C (2008; 2015).

The remainder of this report describes the three assessment categories in more detail and overviews findings within each category for service-learning and ASPiRE. The report concludes with recommendations for future high impact practice assessment at VCU.

VCU HIPs Assessment Model Category 1: Inclusive Excellence Objective

Within Category 1 of the VCU HIPs Assessment Model, institutional data from Banner is analyzed to determine whether undergraduates who participate in the specified high impact educational practice match the institution's undergraduate population on key demographic variables. These analyses provide important information related to VCU's inclusive excellence objective. Category 1 addresses the question, 'Are students from underrepresented and diverse student groups participating in the specified HIP to the same degree as are other students?' Significantly low levels of HIPs participation in specific student subgroups, especially across multiple years, can alert program administrators to the need for targeted recruitment efforts.

Service-learning. For service-learning, 'participants' were defined as any undergraduate student who was enrolled in at least one designated service-learning class at Census 2[2] in each semester of the academic year. 'Nonparticipants' were defined as any undergraduate student who took no designated service-learning classes during the academic year. Demographic category comparisons for service-learning class enrollment during 2012-2015 included: gender, ethnicity, full-time/part-time, Pell vs. non-Pell recipients, high school GPA, and SAT scores. These comparisons are shown in Table 1 below and indicate that undergraduate students from underrepresented and diverse groups are represented in service-learning classes at expected levels, and in some cases at higher levels, given the proportion of these student groups in the overall VCU undergraduate population.

> **Category 1**
> "Are students from underrepresented and diverse student groups participating in the specified HIP to the same degree as are other students?'

Male students and part-time students are less likely to take service-learning classes than would be expected given the percentage of students in these groups in the general VCU undergraduate population. Although explanations for these findings are unknown and would need to be explored in future studies, there is some evidence to support the hypothesis that male and female students differ in their perceptions regarding the degree of academic and professional skill development they derive from participating in service-learning classes. According to a recent study by Pelco, Ball & Lockeman (2014) female students report similarly high levels of perceived growth regardless of their generational, racial, or financial status. However, for male students, the amount of perceived growth differed significantly as a function of generational, racial, and financial status.

Service-learning students showed lower SAT scores compared to non-service-learning students; however, no difference between the two groups was observed in high school grade point average.

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[2]At VCU, Census 2 is the enrollment and admissions data snapshot taken on October 15 in the fall and March 15 in the spring. Census 2 is the university's official reporting date for enrollment and admissions data.

Table 1: Percent of Service-Learning and Comparison VCU Students (i.e., all non-service-learning students) Across Demographic Categories

Gender	2012-2013		2013-2014		2014-2015	
	SL	nonSL	SL	nonSL	SL	nonSL
Male	33	45	33	44	29	44
Female	67	54	67	54	71	54
Not Reported	<1	1	<1	2	<1	2
Ethnicity	2012-2013		2013-2014		2014-2015	
	SL	nonSL	SL	nonSL	SL	nonSL
Asian	10	11	10	11	10	12
Black/African American	23	17	23	17	22	16
Hispanic/Latino	7	7	8	7	9	7
Two or More Races	4	4	5	4	5	4
White	49	50	48	50	48	49
All Other[1]	6	11	6	11	5	12
Status	2012-2013		2013-2014		2014-2015	
	SL	nonSL	SL	nonSL	SL	nonSL
Full Time	93	78	94	80	91	81
Part Time	7	22	6	20	9	19
Pell	2012-2013		2013-2014		2014-2015	
	SL	nonSL	SL	nonSL	SL	nonSL
Received Pell	39	31	42	32	37	31
No Pell	61	69	58	68	63	69

SAT Scores [2]	2013-2015 Population			
	Number	Average	Minimum	Maximum
SL	3,878	1056	0	1600
nonSL	22,556	1082	0	1600

High School GPA [2]	2013-2015 Population			
	Number	Average	Minimum	Maximum
SL	4,297	3.41	1.47	5
nonSL	25,553	3.41	1.17	5

[1]unknown, American Native, Hawaiian, International

[2]SAT difference was significant, High School GPA difference was not significant.

ASPiRE. ASPiRE is a 2-year, 4-semester living-learning program into which students enter as a cohort beginning each academic year in the fall semester. For ASPiRE, 'participants' were defined as any undergraduate student who was enrolled in ASPiRE's foundational course, CMST 300[3], at Census 2 in the fall semester of the academic year. This participant group definition, therefore, aligns with a single ASPiRE student cohort group. Because the vast majority of CMST 300 ASPiRE students are sophomores,

[3]Or CMST 399 in the 2012-2013 academic year.

'nonparticipants' were defined as all sophomore-level undergraduate students who were not enrolled in CMST 300 in the fall semester. Demographic category comparisons for ASPiRE cohort enrollment during 2014-2015 included: gender, ethnicity, Pell vs. non-Pell recipients, high school GPA, and SAT scores. No comparisons for full-time vs. part-time status were made because all ASPiRE students are full-time.

These comparisons are shown in Table 2 below and indicate that undergraduate students from underrepresented and diverse groups are represented in the 2014-2015 ASPiRE student cohort at expected levels, and in some cases at higher levels, given the proportion of these student groups in the overall VCU undergraduate population.

Table 2: Percent of 2014-2015 ASPiRE Cohort Students and Comparison VCU Sophomore Students Across Demographic Categories

	ASPiRE students	non-ASPiRE students
Gender		
Male	16	43
Female	84	57
Not reported	<1	<1
Ethnicity		
Asian	13	12
Black/African American	46	18
Hispanic/Latino	12	8
Two or more races	5	5
White	23	51
All other[1]	1	6
Pell		
Received Pell	38	30
No Pell	62	70
SAT Scores [2,3]		
Number of students	173	5,918
Average score	1,061	1,096
High School GPA [2,4]		
Number of students	173	5,918
GPA	3.63	3.57

[1] unknown, American Native, Hawaiian, International

[2] SAT difference was significant, High School GPA difference was not significant.

[3] ASPiRE SAT Lower Quartile = 990/ Upper Quartile = 1000; nonASPiRE Lower Quartile = 1000/ Upper Quartile = 1180

[4] ASPiRE GPA Lower Quartile = 3.37/ Upper Quartile = 3.87; nonASPiRE Lower Quartile = 3.28/ Upper Quartile = 3.85

VCU HIPs Assessment Model Category 2: Degree Completion Objective

Within Category 2 of the VCU HIPs Assessment Model, institutional data from Banner is analyzed to determine whether undergraduates who participate in the specified high impact educational practice are being retained and graduated at higher rates than are comparable students who have not participated in the HIP. These analyses provides important information related to VCU's degree completion objective. Category 2 analyses address the question, 'Do students who participate in the specified HIP graduate at higher rates than do students who do not participate?'

Service-learning. Service-learning 'participants' were defined as any first-time, full-time degree seeking undergraduate student who enrolled in at least one designated service-learning class during their first two years at VCU. 'Nonparticipants' were defined as any first-time, full-time degree seeking undergraduate student who took no designated service-learning classes during their first two years at VCU.

> **Category 2**
> "Do students who participate in the specified HIP graduate at higher rates than do students who do not participate?'

Comparisons of the percent of students retained and graduated in each group are shown in Table 3. For students matriculating in Fall 2011, these data indicate that taking a service-learning class during the first two years of study significantly improved both retention and graduation rates. The 4-year graduation rate for service-learning students was 44% while the graduation rate for non-service-learning students was 39%. Service-learning students in the Fall 2012 and Fall 2013 matriculation cohorts were significantly more likely to be retained than were students who took no service-learning classes in their first two years. These findings corroborate other research that shows service-learning students are retained and graduated at higher rates than non-service-learning students (Lockeman & Pelco, 2013). Explanations for these findings may relate to increased levels of student-faculty interaction, reflection and integrative learning in service-learning classes (see *VCU HIPS Assessment Model Category 3* section below).

Table 3: Percent of VCU Undergraduate Students Retained or Graduated by Cohort

Cohort	N	Group[1]	Retain. 1 yr	Grad. <2 yrs	Retain. 2 yrs	Grad. <3 yrs	Retain. 3 yrs	Grad. <4	Retain. 4 yrs
F2011	3,393	NonSL	84	0.0	73	1	63	39	27
F2011	382	SL	97**	<1	88**	5**	80**	44*	27
F2011	3,775	All	85	<1	75	2	70	40	27
F2012	3,254	NonSL	86	0.0	77	2	72	-	-
F2012	345	SL	95**	0.0	87**	3	80**	-	-
F2012	3,599	All	87	0.0	78	2	73	-	-
F2013	3,122	NonSL	85	<1	78	-	-	-	-
F2013	453	SL	98**	<1	88**	-	-	-	-
F2013	3,575	All	87	<1	77	-	-	-	-

[1]SL group includes all students in the cohort who were first-time, full-time degree seeking students who took at least one service-learning course in the first two years.

* p < .05   **p < .01

ASPiRE. ASPiRE 'participants' were defined as above in Category 1. That is, as any undergraduate student who was enrolled in ASPiRE's foundational course, CMST 300[4], at Census 2 in the fall semester of the academic year. A comparison group of 'nonparticipants' was created using all VCU sophomore and junior students living in campus housing who did not take an ASPiRE course in the fall semester.

Comparisons of the percent of students retained and graduated for each group are shown below in Table 4. Because ASPiRE is a new program, data are not yet available for 4, 5, or 6-year graduation rates. Retention rates for the 2012, 2013 and 2014 cohort comparisons show equivalent or higher percentages for ASPiRE students. In particular, two-year retention rates for the 2013 cohort and one-year retention rates for the 2014 cohort showed statistically significant differences with rates for ASPiRE students that were 4% higher than for comparison group students. The large two-year retention rate difference for the 2012 cohort was not retained after 3 years, and 4-year graduation data for this cohort are not yet available.

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[4]Or CMST 399 in the 2012-2013 academic year.

Table 4: Percent of VCU ASPiRE Undergraduate Students and Comparison Group Students Retained or Graduated by Cohort

Cohort	N	Group[1]	Retain. 1 yr	Grad. 1 yr	Retain. 2 yrs	Grad. <2 yrs	Retain. 3 yrs	Grad. <3 yrs
F2012	145	ASPiRE	93	<1	88***	1***	33	49
F2012	1,733	Comparison	88	<1	69	15	29	50
F2012	1,878	All	89	<1	71	14	30	50
F2013	71	ASPiRE	94	<1	83*	7	-	-
F2013	1,527	Comparison	88	<1	79	5	-	-
F2013	1,598	All	88	<1	79	6	-	-
F2014	100	ASPiRE	93	<1	-	-	-	-
F2014	1,447	Comparison	89	<1	-	-	-	-
F2014	1,547	All	89	<1	-	-	-	-

[1]Comparison group includes all VCU sophomore and junior students living in campus housing who did not take an ASPiRE course in the fall semester.

* $p < .05$ **$p < .01$ ***$p < .001$

These data show similar retention gains for ASPiRE students as did a pilot study conducted in 2015 by VCU Economics professor, Dr. Leslie Stratton. In the Stratton (2015) study, the Fall 2012 ASPiRE cohort was compared with a matched sample of 514 undergraduates. Students were matched on gender, race, age, family income and SAT scores, but not on-campus residence. Stratton's (2015) results are shown in Table 5 below and indicate that ASPiRE enrollment lowers the probability of not enrolling by 50%.
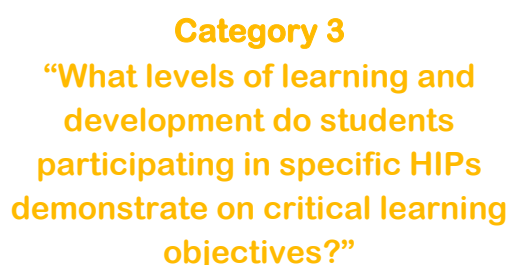
Table 5: Probability of Not Enrolling After 1 and 2 Years for the Fall 2012 ASPiRE Cohort Versus a Matched Comparison Group

	ASPiRE female	Comparison female	ASPiRE male	Comparison male
Fall 2013	2%	6%	1%	3%
Fall 2014	3%	8%	2%	5%

VCU HIPs Assessment Model Category 3: Quality Learning Objective

Leading higher education policy groups in the U.S. advocate for including evidence of the quality of student learning in a framework for student success. Including evidence of quality learning serves both the expectation for an institution to be accountable to stakeholders and for providing data to inform program stewardship. Such is the purpose of Category 3: Quality Learning Objective in the VCU HIPs Assessment Model.

Category 3 data for assessing the quality of student learning comprises both direct and indirect assessments administered at the institutional and program levels. Indirect assessments are student reports of their learning experiences and perceived learning gains; direct assessments are student work products that can be assessed against a rubric or test key. Some of these assessments may already be established, such as the National Survey of Student Engagement (NSSE, Center for Postsecondary Research, 2014) and the Service-Learning Impact Measure (SLIM, Service-Learning Office,

> **Category 3**
> **"What levels of learning and development do students participating in specific HIPs demonstrate on critical learning objectives?"**

2014), while others, especially direct measures of student learning and development, may need to be developed. The NSSE, SLIM, and direct assessments piloted by ASPiRE in Fall 2015 comprise the instruments used in this report to assess Category 3 objectives. As other VCU HIPs begin to adopt this assessment model, assessments of quality of learning will vary according to the expected learning outcomes within those HIPs.

Service-learning. According to Kuh's (2008) research, HIPs foster increased student success when they require student effort and engagement, help students build substantive relationships, provide students with rich and frequent feedback, enable students to integrate and apply what they are learning, and encourage reflection. Using these quality indicators as a guide, Category 3 analyses for service-learning address the following questions: Do service-learning participants report higher levels of reflective and integrative learning than do nonparticipants? Do service-learning participants report strong faculty-student relationships?

For this pilot project, two instruments were used to assess the relationship between service-learning and student engagement and learning: (a) the 2014 VCU National Survey of Student Engagement (NSSE) results for seniors and (b) the 2014-2015 VCU Service-Learning Impact Measure (SLIM, Service-Learning Office, 2014). Within Category 3, the definition used to identify a service-learning participant and nonparticipant varies depending upon the assessment instrument being analyzed. The SLIM is a course evaluation survey administered by the VCU Service-Learning Office to all students enrolled in designated service-learning classes. VCU seniors responded to the 2014 NSSE at a rate of 30% (n=1,584), and the overall response rate for the 2014-2015 SLIM was 26%

(n=783). For this HIPs Assessment Pilot, Banner data was used to identify which of the senior 2014 NSSE responders had passed at least one designated service-learning class during their VCU undergraduate education. The number of VCU seniors who responded to 2014 NSSE and who had passed at least one designated service-learning class was 388.

For the VCU HIPs Assessment Pilot, reflection and integrative learning were selected as important educationally purposeful activities to evaluate because this type of learning is characteristic of students who engage in deep approaches to learning (Nelson Laird, Shoup, & Kuh, 2006). In addition, a central objective in VCU's current Quality Enhancement Plan (QEP, Virginia Commonwealth University, 2014) is increasing undergraduates' integrative thinking.

Both the 2014 NSSE and 2014-2015 SLIM data lend evidence to support the hypothesis that service-learning classes provide students with opportunities for integrative and reflective learning (see Tables 6 and 7 below). Appendix A provides a listing of the specific NSSE questions that comprise the Reflective and Integrative Learning Engagement Indicator. Statistically significant differences were observed between the ratings given by service-learning students and non-service-learning students on the following NSSE items, with service-learning students giving higher ratings: (a) During the current school year, I connected learning to societal problems or issues, (b) During the current school year, I included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments, and (c) During the current school year, I examined the strengths and weaknesses of my own views on a topic or issue.

Table 6: 2014 NSSE Reflective and Integrative Learning Engagement Indicator Mean Scores for Service-Learning and Non-Service-Learning Seniors

Non-SL Seniors		SL Seniors	
N	Mean Score	N	Mean Score
1,130	38.5**	364	41.0**

**p<.01

Table 7: 2014-2015 SLIM Mean Scores for Reflection and Integrative Learning Questions

SLIM Question	N	Mean Score[1]	Standard Deviation
How beneficial to your learning were the reflection activities/ assignments of this class?	771	5.26	1.72
As a result of this service-learning class, I am better able to connect my learning to societal problems or issues.	777	5.81	1.48
As a result of this service-learning class, I am better able to consider different cultural perspectives when evaluating social problems.	773	5.77	1.57
As a result of this service-learning class, I am better able to examine the strengths and weaknesses of my own views on a topic or issue	777	5.75	1.53

[1]Scores range from 1= Not at All/Not Beneficial at All to 7=Very Much/Very Beneficial

Faculty-student interaction was selected as an educationally purposeful activity to evaluate for service-learning because meaningful interactions with faculty impact a student's college experience in a multitude of ways (Kuh & Hu, 2001). Faculty-student interactions appear to have a positive influence on student development, retention, and cognitive growth (Pascarella & Terenzini, 2005). The NSSE Student-Faculty Interaction Engagement Indicator and items from the SLIM were used to assess the quality and quantity of student-faculty interactions. The NSSE Student-Faculty Interaction Engagement Indicator score is based on students' responses to four NSSE questions—how often students discussed their course topics, academic performance, and career plans with faculty members, and how often they worked with faculty members on committees or activities other than coursework.

Both the 2014 NSSE and the 2014-2015 SLIM data lend evidence to support the hypothesis that service-learning classes provide a venue for students to participate in student-faculty interactions that are beneficial to learning. As shown below in Table 8, the mean NSSE Student-Faculty Interaction Engagement Indicator score for service-learning students was significantly higher than the mean score for students who took no service-learning classes. On the following two NSSE items, service-learning students gave significantly higher ratings than their non-service-learning classmates: (a) During the current school year, I talked about career plans with a faculty member and (b) During the current school year, I worked with a faculty member on activities other than coursework (committees, student groups, etc.). As shown below in Table 9, service-learning students rated their interactions with service-learning instructors as being highly beneficial to their learning.

Table 8: 2014 NSSE Student-Faculty Interaction Engagement Indicator Mean Scores for Service-Learning and Non-Service-Learning Seniors

Non-SL Seniors		SL Seniors	
N	Mean Score	N	Mean Score
1,112	22.0**	353	24.9**

**p<.01

Table 9: 2014-2015 SLIM Mean Scores for Faculty-Student Interaction Questions

SLIM Question	Mean Score[1]	Standard Deviation
How beneficial to your learning were your interactions with the instructor of the class?	5.71	1.63

[1]Scores range from 1= Not at All/Not Beneficial at All to 7=Very Much/Very Beneficial

Although the differences between NSSE Indicator mean scores for service-learning and non-service-learning students were statistically significant, the strength of these observed differences was very small (i.e., Cohen's d < .2). For this reason, it is important to recognize that the combined NSSE and SLIM results provide only preliminary evidence to support the hypotheses that service-learning classes provide students with high quality educational experiences that include reflection, integrative learning, and

faculty-student interactions.

ASPiRE. Within Category 3, ASPiRE 'participants' were defined as any undergraduate student who was enrolled in AS-PiRE's foundational course, CMST 300[5], at Census 2 in the fall semester of the academic year. NSSE scores were not used in this pilot due to the low number of ASPiRE participants who were eligible to complete the 2014 NSSE survey. In future years, NSSE data will be included as an ASPiRE quality engagement indicator.

ASPiRE used the Civic Minded Graduate (CMG) Narrative Prompt as a direct assessment of student learning and development. The CMG (IUPUI Center for Service and Learning, nd) assesses the level of student civic mindedness, a critical ASPiRE learning outcome, across several dimensions. The CMG asks students to write a reflective response to the prompt, "I have a responsibility and a commitment to use the knowledge and skills I have gained as a college student to collaborate with others who may be different from me to help address issues in society." A rubric is used to rate the student's response within the following five categories: (a) civic identity, (b) understanding how social issues are addressed in society, (c) active participation in society to address social issues, (d) collaboration with others, and (e) benefit of education to address social issues (Steinberg and Norris, 2011).

At the beginning of the Fall 2015 semester, every ASPiRE student enrolled in the program's foundational course, CMST 300, completed the CMG as a required course assignment. Rubric ratings for individual students and for the cohort group will serve as the pre-test for evaluating changes in ASPiRE students' civic mindedness over the 4 semesters of the program. All ASPiRE students will complete the same CMG prompt again at the end of the program as a required assignment in the programs' capstone course, CMST 401, thereby providing the civic mindedness post-test.

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[5]Or CMST 399 in the 2012-2013 academic year.

The Fall 2015 pre-test CMG scores are shown below in Table 10 and were determined by ASPiRE staff members who participated in a CMG assessment training session and then read and scored blinded copies of all 84 responses. Two staff members independently scored each blinded response, and raters' scores were then averaged to obtain one score per category per student. A composite for the cohort was established by taking the mean, standard deviation, and percentage of scores within a set of ranges for each category on the rubric (IUPUI Center for Service and Learning, 2014).

Table 10: Fall 2015 ASPiRE Cohort Civic Minded Graduate (CMG) Pre-test Results[1]

Dimensions	Mean	Standard Deviation	Percentage of Scores > 5	Percentage of Scores 2 - 5	Percentage of Scores <2
Civic Identity	3.29	1.31	6%	81%	13%
Benefit of education to address social issues	2.23	1.18	0%	56%	44%
Active participant in society to address social issues	1.99	1.38	2%	42%	56%
Collaboration with others across difference	3.25	1.42	4%	80%	17%
Understanding of how issues are addressed in society	3.33	1.42	5%	79%	17%
Overall	2.82				

[1] Scores range from 1 to 7 with higher scores indicating more advanced development in the category.

Findings indicate that ASPiRE students who are just beginning the program fell within the 'Apprentice' level on three of the five CMG categories, indicating they possessed a basic understanding of these community engagement concepts at program entry. Comparisons between these Fall 2015 pre-test CMG data and the Spring 2017 post-test CMG data collected from the same students will provide evidence of the degree of ASPiRE students' growth and development in civic mindedness across the 4 semesters of the program. Analyses of the cohort's score profile across the five CMG categories at these two time points will be used to inform ASPiRE programming decisions (e.g., categories that show lower rates of change may be targeted for improvement through the creation of additional curricular and/or co-curricular activities). Additionally, in the future data from the NSSE will provide additional evidence of ASPiRE student growth and levels of engagement in educationally purposeful activities.

Conclusion and Recommendations

This 2015-2016 pilot of the proposed VCU HIPs Assessment Model indicates that both service-learning and the ASPiRE living-learning program are succeeding as high-impact educational practices at Virginia Commonwealth University. Underrepresented and diverse student groups are well represented as participants in these two VCU HIPs, and participating students are retained and graduate at higher rates than are undergraduates who have not participated. Results indicated that both male and part-time students are under-represented in service-learning classes; and future investigations regarding the reasons and remedies for these discrepancies should be conducted. These pilot data also provide preliminary evidence to support the hypotheses that students who take service-learning classes are benefiting from faculty-student interactions and are having more opportunities for integrative and reflective learning than are their non-service-learning classmates. Students enrolled in their first semester of the ASPiRE program demonstrated 'apprentice' level functioning on a direct assessment of civic mindedness, the Civic Minded Graduate Narrative Prompt. Re-testing of these same students with the Civic Minded Graduate Narrative Prompt at the end of the 4-semester ASPiRE program will provide information regarding student development across time for this important ASPiRE learning outcome. The VCU HIPs Assessment Model has demonstrated its utility for providing a systematic institutional framework that can strategically assess the impact of high impact educational practices on VCU undergraduates.

Developing and implementing a comprehensive framework for the assessment of student success that includes the assessment of HIPs and educational quality will position VCU to take its position as one of the U.S. universities in the vanguard.

The Task Force members make the following recommendations:

1. **Share findings from this report and recommendations for establishing a VCU HIPs Assessment Committee (see #6 below) with VCU Provost Gail Hackett and President Michael Rao.**

2. **Establish VCU Reporting Center reports for the analysis of HIPs Assessment Model Category 1 and Category 2 service-learning and ASPiRE data.** These reports would enable program and university administrators to access Categoy 1 and Category 2 data analyses for both service-learning and the ASPiRE living –learning program as needed, without burdening OPDS staff members.

3. **Continue HIPs Pilot Assessment Model analyses during the remainder of the 2015-2016 academic year to examine, develop, and implement Category 3 direct and indirect assessment data in greater detail.** Specifically, analysis of NSSE data for service-learning student subgroups (e.g., gender, race, family income) is needed to illuminate the relationships between student engagement in educationally purposeful activities and service-learning class participation for

specific student subgroups. Qualitative analysis of the Fall 2015 CMG pre-test essays may identify community engagement concepts that beginning ASPiRE students have particular difficulty in understanding; and these findings may stimulate ideas for improving the program, particularly the first-semester ASPiRE student experience.

4. **Fully enroll the ASPiRE Program and increase service-learning course offerings in 100- and 200-level courses and within the VCU Core Education Program (esp., Tier I and Tier II courses) as institutional strategies for improving undergraduate student engagement, retention, and graduation in line with both Quest and VCU's QEP goals.**

5. **Conduct follow up studies to help explain why (a) males are under-represented in both service-learning classes and the ASPiRE Program, and (b) part-time students are under-represented in service-learning classes.** Develop programmatic strategies to address these disparities.

6. **Establish an ongoing VCU HIPs Assessment Committee within the Provost's Office to oversee the development of assessment protocols for other VCU high impact educational practices beyond service-learning and ASPiRE.** This VCU HIPs Assessment Committee should (a) develop VCU's institutional definition of the term 'high impact educational practice' and establish a short list of VCU HIPs, and (b) oversee and coordinate the development of operational definitions, assessment protocols and timelines for assessing the impact of VCU HIPs on student success.

7. **Develop clear institutional definitions for other VCU HIPs that will distinguish in Banner the HIP's 'participants' from 'nonparticipants'.** Other VCU HIPs may include: (a) the GLOBE, LEAD, and INNOVATE living learning programs, (b) Global learning opportunities, (c) Undergraduate Research, and (d) Internships. Once operational definitions have been determined, faculty and administrators from each HIP will need to convene with the VCU HIPs Assessment Committee to specify Category 2 and Category 3 outcomes. We recognize that in the future employability and career outcomes will be important Category 2 outcomes for all VCU HIPs.

8. **Add the demographic category of 'first-generation student' in Category 1 analyses for all VCU HIPs.** This demographic category is being collected from all entering VCU undergraduate students beginning Fall 2014.

Appendix 1
National Survey of Student Engagement (NSSE)
Reflective & Integrative Learning Engagement Indicator

Reflective and integrative learning occurs when students personally connecting with course material and relate their understandings and experiences to the content at hand. Instructors emphasizing reflective and integrative learning motivate students to make connections between their learning and the world around them, reexamining their own beliefs and considering issues and ideas from others' perspectives.

Items for the NSSE Reflective & Integrative Learning Engagement Indicator include:

During the current school year, how often have you:

- Combined ideas from different courses when completing assignments

- Connected your learning to societal problems or issues

- Included diverse perspectives (political, religious, racial/ethnic, gender, etc.) in course discussions or assignments

- Examined the strengths and weaknesses of your own views on a topic or issue

- Tried to better understand someone else's views by imagining how an issue looks from his or her perspective

- Learned something that changed the way you understand an issue or concept

- Connected ideas from your courses to your prior experiences and knowledge

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