

Institutional Effectiveness Audit of Educational Programs Update: 2008-09 to 2012-13

Research Report No. 78-14

Office of Institutional Research, Planning, and Assessment

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OFFICE OF INSTITUTIONAL RESEARCH, PLANNING, AND ASSESSMENT

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Institutional Effectiveness Audit of Educational Programs for 2008-09 to 2012-13

Introduction

This Research Report is an update to the Institutional Effectiveness Audit of Educational Programs: 2002-03 to 2011-12 Research Brief. The data to update the Research Brief was gathered from submissions for the 2012-13 Annual Planning and Evaluation Report for Instructional Programs. This Report examines the number and type of uses of results for 2012-13 compared to the previous four years.

Assessment is a continuous process aimed at improving student learning. The Annual Planning and Evaluation Report is a way for programs to publicly report on student learning outcomes and program goals. Each year programs choose at least four student learning outcomes and two program goals to assess. The segment on student learning outcomes is divided into four sections: what students are learning (Student Learning Outcomes); how programs evaluate student learning (Evaluation Methods); evidence of student learning, inclusive of results (strengths and weaknesses) and possible areas for improvements (Assessment Results); and actions based on those results to further improve student learning (Use of Results). Two program goals are required to be assessed each year: one on graduation totals and one on program-placed students. This segment of the report is divided into four sections as well: Program Goals, Evaluation Methods, Assessment Results, and Use of Results.

Over the past five years, the College has offered numerous workshops and presentations on assessment to further develop and promote a culture of assessment. As a result of those workshops and meetings, faculty and staffs' recognition and understanding of the process of assessment have increased, and the expectations for reports have grown. Additionally, the College has improved and clarified its own assessment of the yearly reports. In 2012-13, reporting requirements were raised, and reports were assessed on a higher scale than previous years.

The coding method for the use of results has also improved as programs' understanding and awareness of the assessment process has grown. Results that were counted in prior reports, such as "target met," have been removed as a use of results. The 2012-13 report is focused on more advanced use of results per category and sub-category that include specific dates (semester/year) for actions. More general items, such as discussing the results at cluster meeting is now understood to be part of the assessment process and was removed from the coding categories. These changes have increased the accuracy of the classifications as well as the reliability of the total number of actions.

Section 1. Submission of Annual Planning and Evaluation Reports

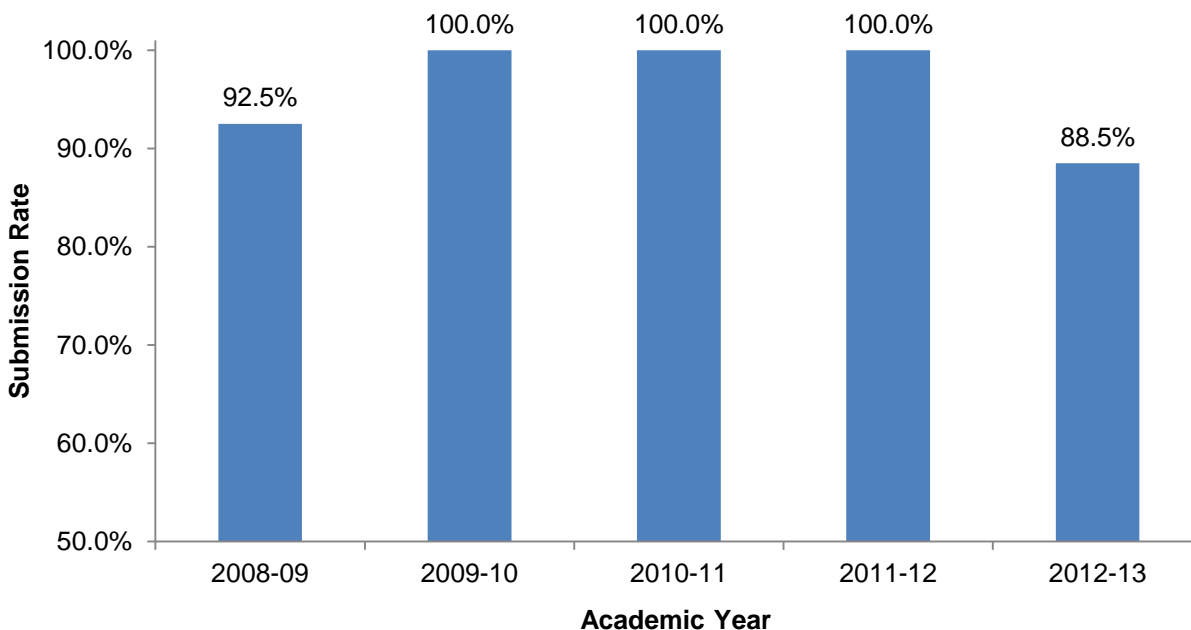
Table 1 and Figure 1 (on the next page) present the number and percentage of programs submitting Annual Planning and Evaluation Reports from 2008-09 through 2012-13. Results for 2012-13 show that the number of annual reports submitted in 2012-13 (46 reports) decreased

from 2008-09 (49 reports). Most of the programs that did not submit reports were undergoing program changes or a new SLO Lead Faculty was appointed during this reporting period.

Table 1. Number of Submissions of Annual Planning and Evaluation Reports by Educational Programs: 2008-09 through 2012-13

Academic Year	# of Annual Reports to be Submitted ¹	# of Annual Reports Submitted	% of Annual Reports Submitted
2012-13	52	46	88.5%
2011-12	56	56	100.0%
2010-11	56	56	100.0%
2009-10	56	56	100.0%
2008-09 ²	53	49	92.5%

Figure 1. Submission Rate of Annual Planning and Evaluation Reports by Educational Programs: 2008-09 through 2012-13



Section 2. Quality of Reporting in Annual Planning and Evaluation Reports

As a culture of assessment has spread at NOVA, standards for assessing student learning and the quality of the reports have increased. In order to provide clear guidelines for assessment reporting, a checklist was developed to clarify requirements in each of the four areas of the

¹ Both degree-awarding programs and select stand-alone certificates were required to submit reports.

² Due to program review, non-disciplinary-specific degree programs were exempt from submitting reports.

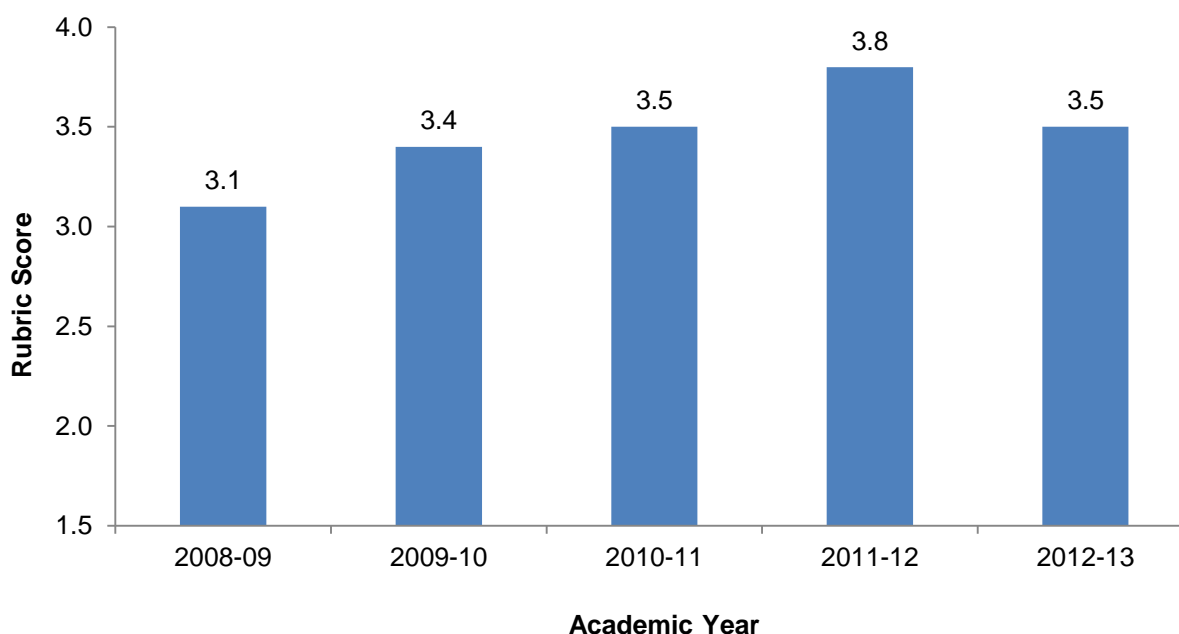
report as described in the introduction above. Based on those requirements, detailed feedback was provided to each program on their first draft. Final drafts were then scored using the rubric shown in Table 2 based on the level of detail and completeness of the final reports. A score of '4' is the highest score possible.

Table 2. Quality of Reporting in Annual Planning and Evaluation Reports: Rubric Score Scale

Score	Definition
4	Reporting is detailed and specific. All or almost all of the requirements are met. Use of results relates to student learning outcomes or goals. Action taken is focused, realistic, tangible, and achievable.
3	Reporting is detailed and specific. Many of the requirements are met. There are some minor changes that would improve the quality of the report. Use of results relates to student learning outcomes or goals. Action taken is specific, however, could be more focused.
2	Reporting has some details, but overall is still broad and general. Some, but not all, use of results relate to student learning outcome or goal. Action taken has some focus, but overall is diffused. Few of the requirements were met. Further revisions/additional information is needed for the report to be acceptable.
1	Reporting is broad and general. Use of results does not relate to student learning outcomes or goals. Action taken is unclear or lacks focus. Requirements were not met.

Figure 2 shows the average rubric score for the annual planning and evaluations reports. From 2008-09 to 2012-13, rubric scores increased in value. In 2012-13, scores decreased slightly compared to 2011-12 from an average rubric score of 3.8 to 3.5 (0.3 percentage points). This was due to the increased expectations for programs to meet all the report requirements in greater detail.

**Figure 2. Quality of Annual Planning and Evaluation Reports
Average Rubric Score: 2008-09 through 2012-13**



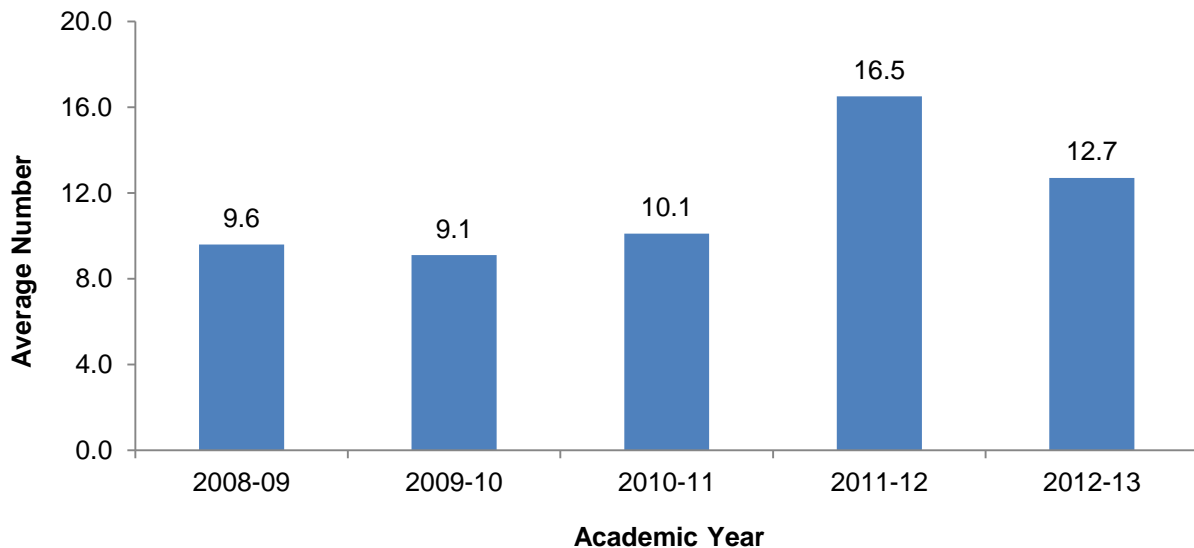
Section 3. Use of Assessment Results to Improve Student Learning

An important component of assessing student learning is using the results from assessments to make changes that lead to student learning outcome improvements. The total number of instances where programs used results from an assessment to improve student learning increased from 3.1 in 2008-09 to 3.5 in 2012-13, as shown in Table 2 and Figure 2. In the 2008-09 academic year, programs indicated, on average, 9.6 uses of results to improve student learning as presented in Table 3 and Figure 3. Since then, the average uses of results to improve student learning has increased to 12.7 for the 2012-13 academic year, a 33.3 percent increase in the use of results per program. The total number of use of results per program for 2012-13 ranged from 3 to 38. While there was a decrease in the number of use of results from 2011-12, improvements to the coding system have produced a more accurate count of the most current actions for improvement. For past reports, every change was counted as a use of results. For the current academic year (2012-13), only changes made since the last assessment and changes specified to occur before next assessment were counted. Additionally, after 2011-12, “Target Met” was removed as a use of results.

Table 3. Average Number of Use of Results Per Program: 2008-09 through 2012-13

Academic Year	Annual Reports Submitted	Total # of Use of Results	Average # of Use of Results per Program
2012-13	46	583	12.7
2011-12	56	922	16.5
2010-11	56	565	10.1
2009-10	56	510	9.1
2008-09	49	471	9.6

Figure 3. Average Number of Use of Results Per Program: 2008-09 through 2012-13



3a. Use of Results by Major Category

In addition to counting the total number of use of results, programs' Annual Planning and Evaluation Reports are analyzed to determine how programs are using the results from assessments to improve student learning and assessment processes. The five major types of actions that programs make include: curriculum-specific, program resources, co-curricular resources, assessment process, and college-level. Table 4 and Figure 4 present the use of results for the five major categories by both number and percentage of the total. During the 2012-13 academic year, over 50 percent of the actions that programs determined from assessment results focused on curriculum changes (57 percent). This is an increase of 14 percentage points from 2011-12 results (43 percent). Using results to improve assessment processes remained approximately the same at 20 percent, down one percentage point from 2011-12 at 21 percent. Co-curricular resources were next at 12 percent, down six percentage points from 2011-12.

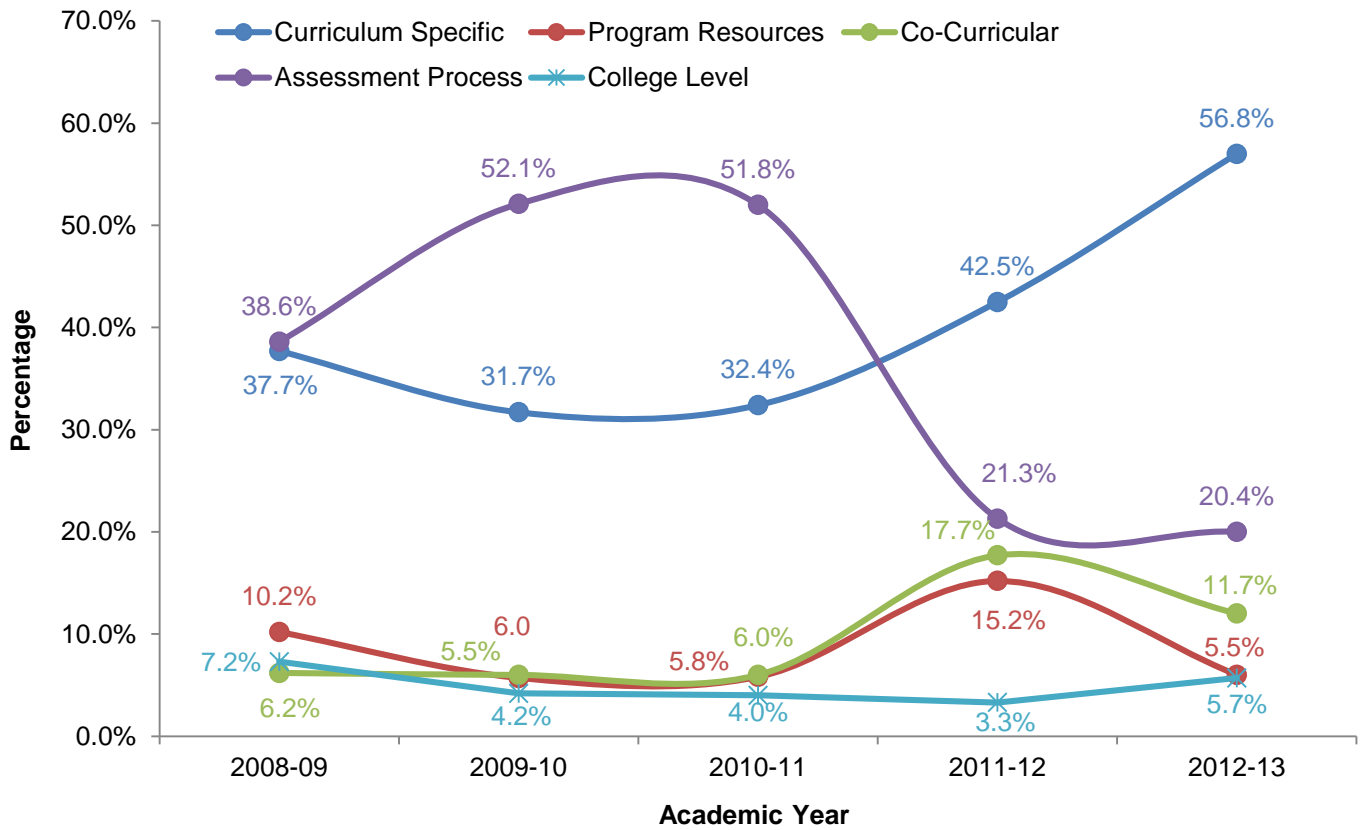
Table 4. Use of Results by Major Category: 2008-09 through 2012-13

Use of Results Major Categories											
Year	Curriculum-Specific		Program Resources		Co-Curricular Resources		Assessment Process		College-Level		Total*
	#	%	#	%	#	%	#	%	#	%	#
2012-13	331	56.8	32	5.5	68	11.7	119	20.4	33	5.7	583
2011-12	388	42.5	139	15.2	162	17.7	195	21.3	30	3.3	914
2010-11	178	32.4	32	5.8	33	6.0	285	51.8	22	4.0	550
2009-10	159	31.7	30	6.0	30	6.0	261	52.1	21	4.2	501
2008-09	177	37.7	48	10.2	29	6.2	181	38.6	34	7.2	469

*Other category removed from 2008-09 through 2011-12 totals for comparison.

As seen in Figure 4 (on the next page), prior to 2011-12, results were most often used to improve the assessment process; this is a natural step in developing a continuous and useful assessment cycle that provides detailed results. As programs have refined their methods as part of changing the assessment process, their assessment methods have improved. Figure 4 illustrates how programs in 2012-13 are focused currently on using results to address curriculum-specific concerns, such as course revisions or pedagogical or curricular changes to improve student learning. Co-curricular resource actions (12 percent) based on programs' results were twice as common as program resource actions (6 percent) in 2012-13.

Figure 4. Use of Results by Major Category: 2008-09 through 2012-13



3b. Use of Results by Sub-Categories

The five major categories break down into a total of twelve sub-categories. Table 5 presents the sub-categories by each major category. The “Other” category was removed this cycle, 2012-2013, because of greater clarification in coding method.

Table 5. Use of Results Codes: Major and Sub-Categories

Major Category	Sub-Categories
Curriculum-Specific	Curricular Change
	Course Revision
	Pedagogy
	Subject-Matter Expert Feedback
Program Resources	Financial
	Human Resources
	General Resources
Co-Curricular Resources	Co-Curricular Opportunities
	Academic Support/Advising
Assessment Process	Assessment Methodology
College-Level	Pipeline (Dual enrollment and Transfer to 4-year university)
	Recruitment/Marketing

Curriculum

Curriculum-specific changes divide into four sub-categories: curricular change, course revision, pedagogy, and subject-matter expert feedback. This category has increased the most since 2008-09, from 38 percent to 57 percent in 2012-13, and currently is the largest major category. Table 6 and Figure 5 (see next page) illustrate how the proportions for the curriculum-specific sub-categories have all increased from 2008-09 to 2012-13, except for curricular change which decreased slightly from 11 percent in 2008-09 to 9 percent in 2012-13.

Pedagogical changes have increased the most from 2008-09 to 2012-13, from 5 percent to 19 percent (+14 percentage points). Pedagogical changes are related to “how” students learn and consequently how teachers structure the learning environment. This could mean fewer lectures, more student involvement (e.g., class discussion or small group work), or more interactive or experiential activities, such as labs, role-playing, hands-on learning, or even gaming.

The use of results for course revision has increased from 14 percent in 2008-09 to 18 percent in 2012-13. Course revision describes “what” students learn, i.e., the content of the course. Examples of course revision could be adding to or revising course content; supplementing or revising assignments, tests, reading, projects, handouts; or changing textbooks.

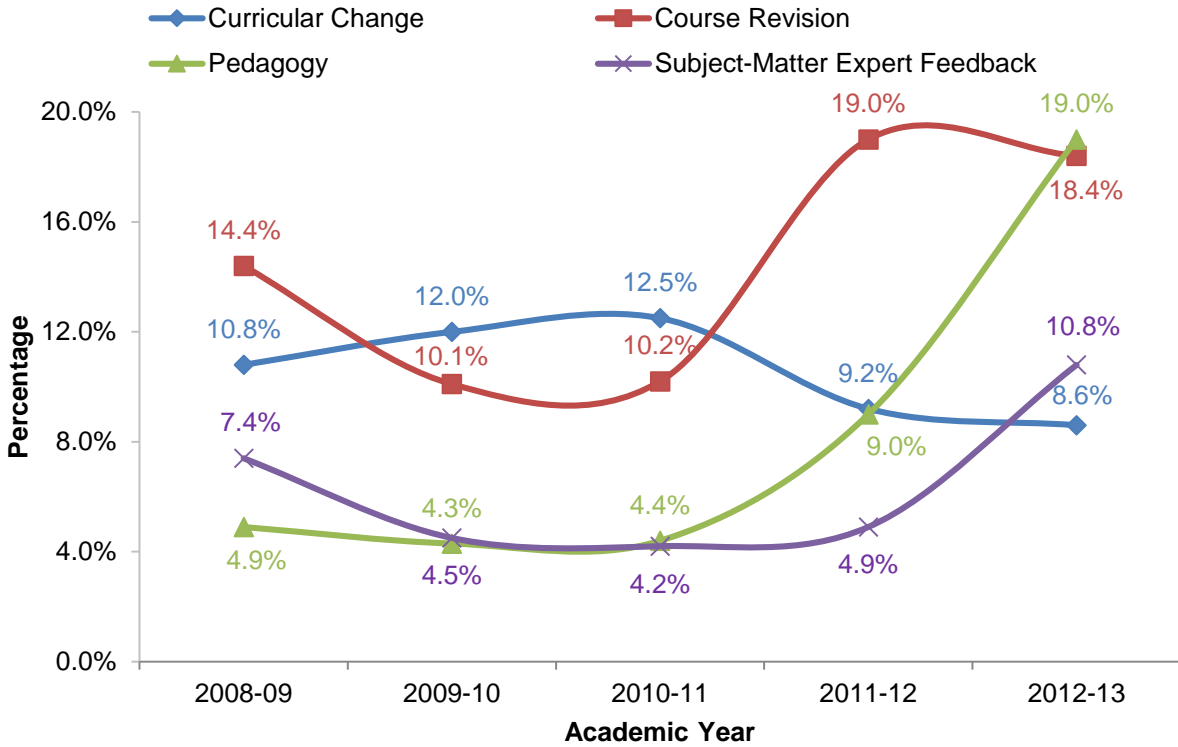
Curricular change relates to broader changes in to the degree program itself: e.g., adding a course or other requirement, such as a prerequisite, changing the sequence of courses or the program focus, or varying how or when a program offers classes. Curricular changes have decreased slightly since 2008-09 from 11 percent to 9 percent of use of results in 2012-13.

Subject-matter expert feedback, on the other hand, has increased from 7 percent to 11 percent over the same time period. Subject-matter expert feedback includes seeking recommendations from the faculty cluster or external stakeholders, such as, employers, on-site clinical supervisors, the program advisory board, or an accreditation body.

Table 6. Use of Results by Sub-Category – Curriculum-Specific: 2008-09 through 2012-13

Use of Results Sub-Categories: Curriculum-Specific	2008-09		2009-10		2010-11		2011-12		2012-13	
	#	%	#	%	#	%	#	%	#	%
Curricular Change	51	10.8	62	12.0	71	12.5	85	9.2	50	8.6
Course Revision	68	14.4	52	10.1	58	10.2	175	19.0	107	18.4
Pedagogy	23	4.9	22	4.3	25	4.4	83	9.0	111	19.0
Subject-Matter Expert Feedback	35	7.4	23	4.5	24	4.2	45	4.9	63	10.8
Total	177	37.5	159	30.9	178	31.3	388	42.1	331	56.8

Figure 5. Use of Results by Sub-Category – Curriculum-Specific: 2008-09 through 2012-13



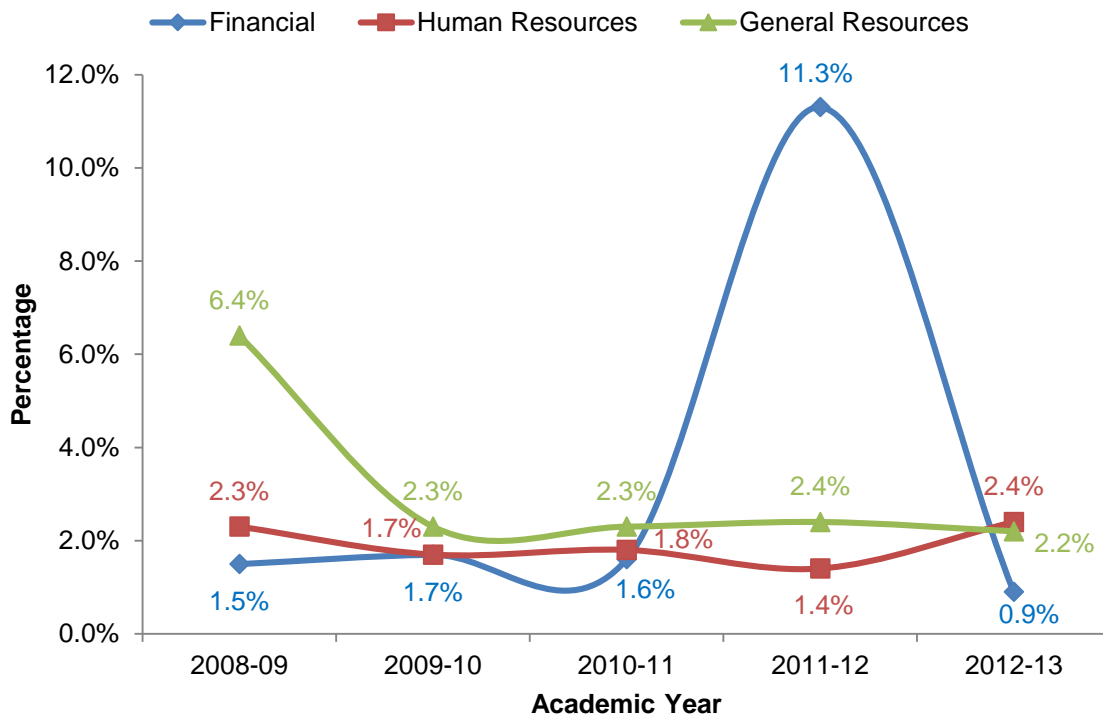
Program Resources

The program resources category comprised 6 percent of total use of results for 2012-13. Program resources include three sub-categories: financial, human resources, and general resources. Financial resources entail requesting or allocating additional funds to achieve SLO outcomes or program goals. Human resources could include professional development for faculty or staff or hiring new faculty or lab instructors. General resources consist of physical resources, such as new software, new computers, expansion of physical space, or utilizing external partners as guest speakers, for example. Table 7 and Figure 6 (see next page) show that while use of financial resources increased in 2011-12 to over 11 percent, in 2012-13 it has declined to less than 1 percent. The decrease was most likely due to more emphasis on specific actions that programs could make within their individual programs without requesting additional fiscal resources.

Table 7. Use of Results by Sub-Category – Program Resources: 2008-09 through 2012-13

Use of Results Sub-Categories: Program Resources	2008-09		2009-10		2010-11		2011-12		2012-13	
	#	%	#	%	#	%	#	%	#	%
Financial	7	1.5	9	1.7	9	1.6	104	11.3	5	0.9
Human Resources	11	2.3	9	1.7	10	1.8	13	1.4	14	2.4
General Resources	30	6.4	12	2.3	13	2.3	22	2.4	13	2.2
Total	48	10.2	30	5.7	32	5.7	139	15.1	32	5.5

Figure 6. Use of Results by Sub-Category – Program Resources: 2008-09 through 2012-13



Co-Curricular Resources

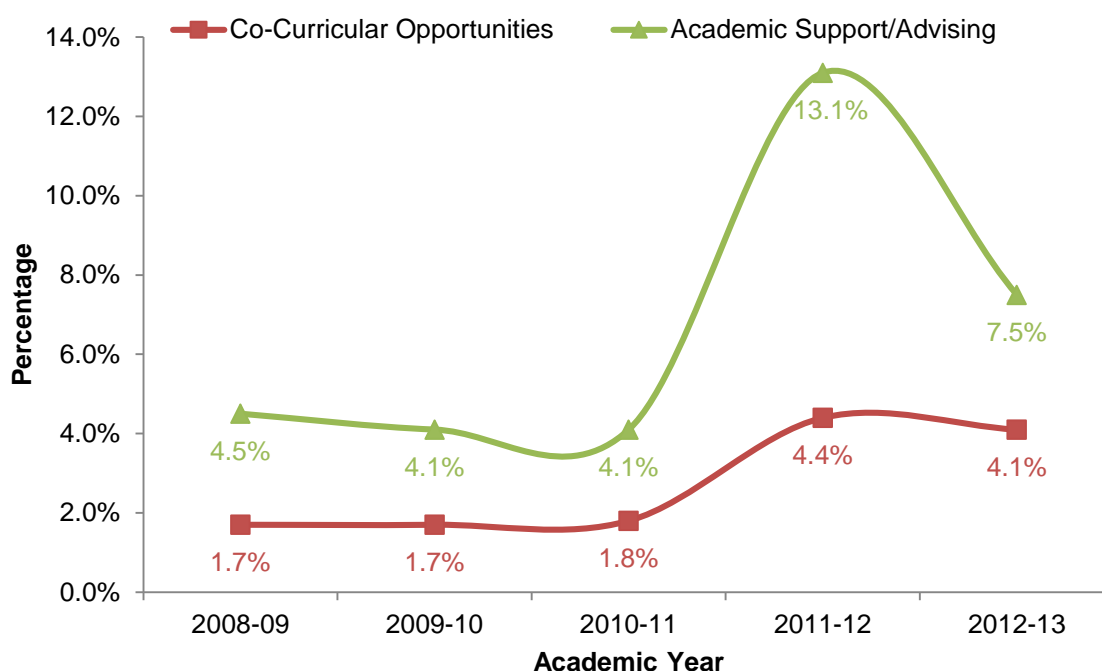
The co-curricular resources category comprised 12 percent of total uses of results for 2012-13. This category includes co-curricular opportunities and academic support/advising. Co-curricular opportunities are coordinated opportunities to engage outside of the classroom that are not a required part of a course. They include field trips, internships, social gatherings, career fairs, study sessions, and participation in professional or student organizations. Co-curricular opportunities have increased from 2008-09 at almost 2 percent to 4 percent in 2012-13, as seen in Table 8 and Figure 7. Academic support actions refer students to academic support resources like the Writing Center, Science Lab, Math Lab, or peer tutoring. Academic advising

includes increased faculty advising and/ or guidance on degree related topics or referring students to a counselor or an academic advisor. Academic support/advising increased from 5 percent in 2008-09 to 8 percent in 2012-13.

Table 8. Use of Results by Sub-Category – Co-Curricular Resources: 2008-09 through 2012-13

Use of Results Sub-Categories: Co-Curricular	2008-09		2009-10		2010-11		2011-12		2012-13	
	#	%	#	%	#	%	#	%	#	%
Co-Curricular Opportunities	8	1.7	9	1.7	10	1.8	41	4.4	24	4.1
Academic Support/Advising	21	4.5	21	4.1	23	4.1	121	13.1	44	7.5
Total	29	6.2	30	5.8	33	5.9	162	17.5	68	11.6

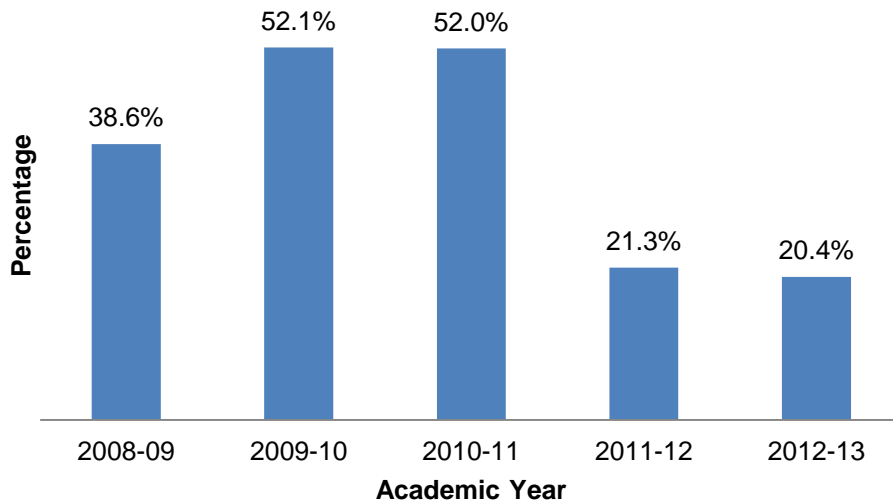
Figure 7. Use of Results by Sub-Category – Co-Curricular Resources: 2008-09 through 2012-13



Assessment Process

Assessment process describes a variety of topics, such as modifying the assessment, changing the method of data analysis, adding another assessment method, revising the achievement target, and changing the system of gathering data or providing feedback. The assessment process category aligns directly with the assessment methodology sub-category currently since the sub-category “Target Met” was removed after 2011-12. Figure 8 shows the decline in the use of results to improve assessment processes since 2009-10 when it comprised over 50 percent of the use of results. As described above, this pattern is expected; as assessments are improved, the need to make changes declines.

Figure 8. Use of Results to Improve Assessment Process: 2008-09 through 2012-13*



*Other category removed from 2008-09 through 2011-12 totals for comparison.

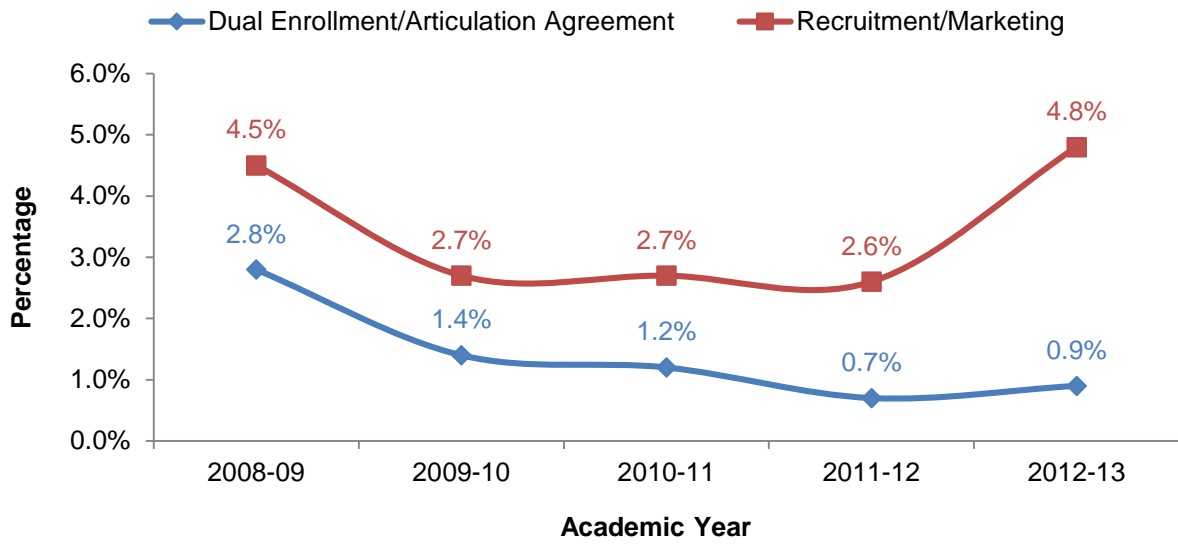
College-Level

The college-level category comprised 6 percent of total use of results for 2012-13. This category includes two sub-categories: pipeline and recruitment/marketing. Pipeline actions include dual enrollment programs with local high schools and articulation agreements with 4-year institutions. Pipeline actions using results have decreased from 3 percent in 2008-09 to one percent in 2011-12 as presented in Table 9 and Figure 9. Recruitment/ marketing actions are efforts to increase access through outreach to high school students, non-traditional students, and non-declared students, etc. Recruitment/marketing actions have risen to 5 percent from where they were in 2008-09, after decreasing to 3 percent in the interim period.

Table 9. Use of Results by Sub-Category – College-Level: 2008-09 through 2012-13

Use of Results Sub-Categories	2008-09		2009-10		2010-11		2011-12		2012-13	
	#	%	#	%	#	%	#	%	#	%
Pipeline (Dual enrollment and Transfer to 4-year university)	13	2.8	7	1.4	7	1.2	6	0.7	5	0.9
Recruitment/Marketing	21	4.5	14	2.7	15	2.7	24	2.6	28	4.8
Total	34	7.3	21	4.1	22	3.9	30	3.3	33	5.7

Figure 9. Use of Results by Sub-Category – College-Level: 2008-09 through 2012-13



Conclusion

In summary, NOVA's educational programs continue to increase the quality of its efforts to improve student learning through academic assessment. The results of the 2012-13 Institutional Effectiveness Audit of Educational Programs show that NOVA has progressed from the majority of use of results being changes to assessment methodology to more curriculum-specific changes aimed to improve student learning directly (57 percent). The two sub-categories with the largest percentage of use of results were pedagogy at 19.0 percent and course revision at 18.4 percent. Pedagogy had the largest total increase in use of results from 2011-12 at 9 percent to 19 percent in 2012-13. The average rubric score for 2012-13 with increased assessment standards remains high at 3.5 out of a possible 4.0. The number of use of results per program is 12.7, lower than last year at 16.5, but the results are more reliable because the actions counted in 2012-13 must have specifically indicated the semester and year when changes did or will occur. The culture of assessment at NOVA is clearly growing stronger with each assessment cycle as more faculty and staff participate in the process and gain a better understanding of the purpose and benefits of assessment to improve student learning.

NOVA Mission and Strategic Goals: 2005 – 2015

Mission

With commitment to the values of access, opportunity, student success, and excellence, the mission of Northern Virginia Community College is to deliver world-class in-person and online post-secondary teaching, learning, and workforce development to ensure our region and the Commonwealth of Virginia have an educated population and globally competitive workforce.

Strategic Goals

- I. **STUDENT SUCCESS** – Northern Virginia Community College will move into the top tier of community colleges with respect to the college readiness, developmental course completion, retention, graduation, transfer, and career placement of its students.
- II. **ACCESS** – Northern Virginia Community College will increase the number and diversity of students being served to mirror the population growth of the region.
- III. **TEACHING AND LEARNING** – Northern Virginia Community College will focus on student success by creating an environment of world-class teaching and learning.
- IV. **EXCELLENCE** – Northern Virginia Community College will develop ten focal points of excellence in its educational programs and services that will be benchmarked to the best in the nation and strategic to building the College's overall reputation for quality.
- V. **LEADERSHIP** – Northern Virginia Community College will serve as a catalyst and a leader in developing educational and economic opportunities for all Northern Virginians and in maintaining the quality of life and economic competitiveness of the region.
- VI. **PARTNERSHIPS** – Northern Virginia Community College will develop strategic partnerships to create gateways of opportunity and an integrated educational system for Northern Virginians who are pursuing the American Dream.
- VII. **RESOURCES** – Northern Virginia Community College will increase its annual funding by \$100 million and expand its physical facilities by more than one million square feet in new and renovated space. This includes the establishment of two additional campuses at epicenters of the region's population growth, as well as additional education and training facilities in or near established population centers.
- VIII. **EMERGENCY PREPAREDNESS AND CONTINUITY OF OPERATIONS** – Northern Virginia Community College will be recognized as a leader among institutions of higher education in Virginia for its development and testing of emergency response and continuity of operation plans.

NOVA

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