



2014-15 Assessment of Undergraduate Writing Competency

The State Council of Higher Education for Virginia (SCHEV) requires that all institutions of higher education assess undergraduate core competencies. Each year, the University assesses one of six designated competencies. The 2014-15 assessment focused on written communication.

The assessment was designed to address three questions:

1. Do UVa third- and fourth-year students meet expectations for writing proficiency overall?
2. In which of the five learning outcomes (context, content, genre, sources, control/syntax) are students most likely to be proficient or, in contrast, in need of additional instruction?
3. How does writing proficiency vary by school and discipline?

At least one academic program in all eight schools with undergraduate programs as well as the three disciplinary divisions in the College conducted assessments of student writing. In all, 15 programs, including ENWR, participated in the assessment of 502 papers. Third- and fourth-year students' writing was the primary focus. While papers submitted by first-year students in the ENWR Program were assessed, those results are described in a separate report. One program conducted a pre-post assessment (Fall vs. Spring) of students' writing.

All programs conducted assessments of the five learning outcomes by applying the same rubric—the AAC&U [VALUE Rubric for Written Communication](#) (Appendix A). Each program was allowed to make limited revisions to the rubric to reflect disciplinary definitions of learning outcomes. Total scores could range from 5 to 20, scores for each of the five outcomes from 1 (minimally competent) to 4 (highly proficient).

The University Undergraduate Writing Competency Assessment Committee (Appendix B), representing all participating schools, provided oversight—confirming the assessment design and plans, setting standards, considering and interpreting results, and providing guidance for the final report. The final university-wide report will be sent to the Provost and deans and a summary report to SCHEV. Each participating program received an analysis of program-specific results.

The following report contains detailed results of the overall assessment of third- and fourth-year student writing competency.

Undergraduate Writing Competency Assessment 2015 Results for Third- and Fourth-Year Students

Executive Summary

The Office of Institutional Assessment and Studies coordinated the 2014-2015 assessment of undergraduate competency in written communication. A faculty committee composed of representatives of the undergraduate schools provided oversight for the process, from establishment of the learning outcomes and standards for the assessment to the determination of findings and recommendations.

Individual schools and programs were invited to participate. At least one academic program in all eight schools with undergraduate programs as well as the three disciplinary divisions in the College conducted assessments of student writing. Fourteen separate assessments constituted the overall assessment of third- and fourth-year students' writing. All programs conducted assessments of the five learning outcomes by applying the same rubric—the AAC&U [VALUE Rubric for Written Communication](#)—with adjustments as needed to reflect disciplinary definitions and expectations. The 425 papers assessed varied widely, ranging from short memos to course assignments to lengthy capstone projects.

While the percentage of papers rated as “competent” more than met expectations, fewer papers were rated as “highly proficient” than were expected. Overall, the results for each outcome varied only slightly. While some programs scored consistently across the outcomes, however, others showed specific strengths or weaknesses.

As one expectation for student writing—40% Highly Proficient—was not met, the committee concluded that increased investment in instruction could have a substantial impact on students' writing proficiency. The committee recommended that the University should 1) emphasize the importance of student proficiency in writing—both for instructors to teach writing well and for students to learn to write well; 2) invest in support for faculty and graduate student instructors to teach writing; and 3) require all academic programs to provide writing-enriched course(s) for their majors and all students to take a writing-enriched course within their major.

Process

Fourteen undergraduate programs participated in the assessment of third- and fourth-year students' writing competency. Seven of the programs were in the College, representing the three divisions: Humanities (3 programs), Sciences (2 programs), and Social Sciences (2 programs). The seven other programs were in Architecture, Batten, Commerce, Curry, Nursing, SCPS, and SEAS.

Participation consisted of, first, identifying and collecting third and/or fourth year students' writing that had been submitted as coursework. The papers, ranging from 4-page class assignments to memos to lengthy capstone projects, had all been submitted as coursework during AY 2014-15. Second, programs

solicited participation by faculty and, in some programs, graduate students to read and score the papers according to the rubric. Five of the 14 programs, all in the College, included graduate students as raters alongside faculty. Raters were compensated for time spent reading and scoring papers.

Third, participation required that the same basic rubric—the AAC&U Written Communication Rubric (Appendix A)—be applied in the assessments. Some programs modified the rubric text slightly to better reflect program specifics although in all programs the same five outcomes were retained and the possible scores ranged from 1 (Not Competent) to 4 (Highly Proficient).

In all, raters read and scored a total of 425 third- and fourth-year students' papers. Each paper was scored by at least two raters. One program conducted a pre-post assessment, comparing a sample of students' writing early in the school year and late in the school year.

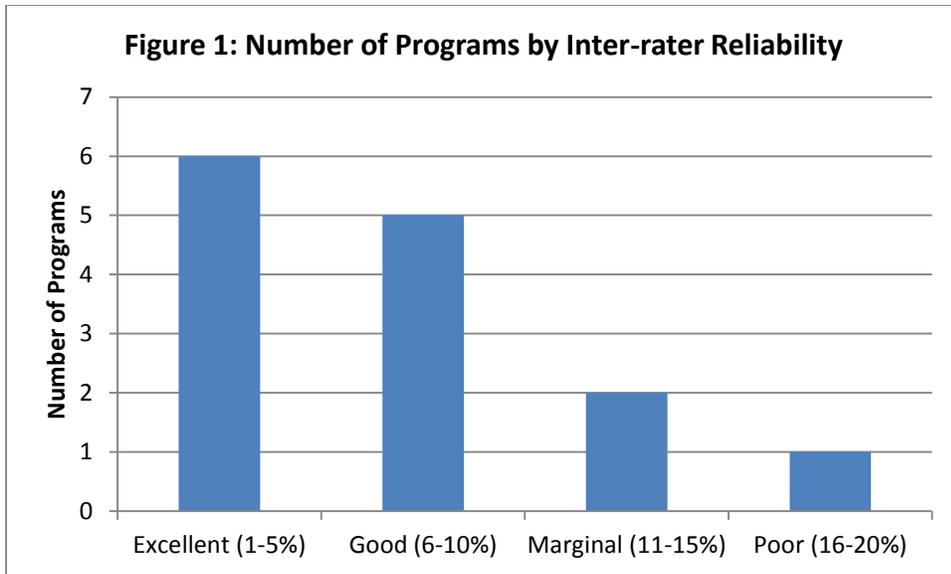
Applying the AAC&U Written Communication Rubric, raters assessed each paper according to the five learning outcomes, each on a scale from 1 (minimally competent) to 4 (highly proficient). The maximum achievable score was 20. The five learning outcomes were:

1. Context of and purpose for writing, consideration of audience
2. Content- development of ideas/argument, flow, appropriate use of content
3. Genre and disciplinary conventions for writing in the academic field; organization
4. Sources and evidence- use of credible, relevant sources to support ideas; argument
5. Control/Syntax-mechanics, tone, use of language

This report describes the analysis and results for inter-rater reliability and for rubric results for the third- and fourth-year students' papers overall and by outcome.

Inter-rater Reliability

Among the 14 programs, 11 (79%) met the inter-rater reliability standard that no more than ten percent of paired scores differ by more than one point (Figure 1). The remaining three programs ranged from 14-18% of ratings differing by more than one point. Low reliability could be attributed to lack of a norming session in one program, to raters' unfamiliarity with undergraduate writing or with differing assignments, and to time pressures. The three programs accounted for 15 percent of papers scored.

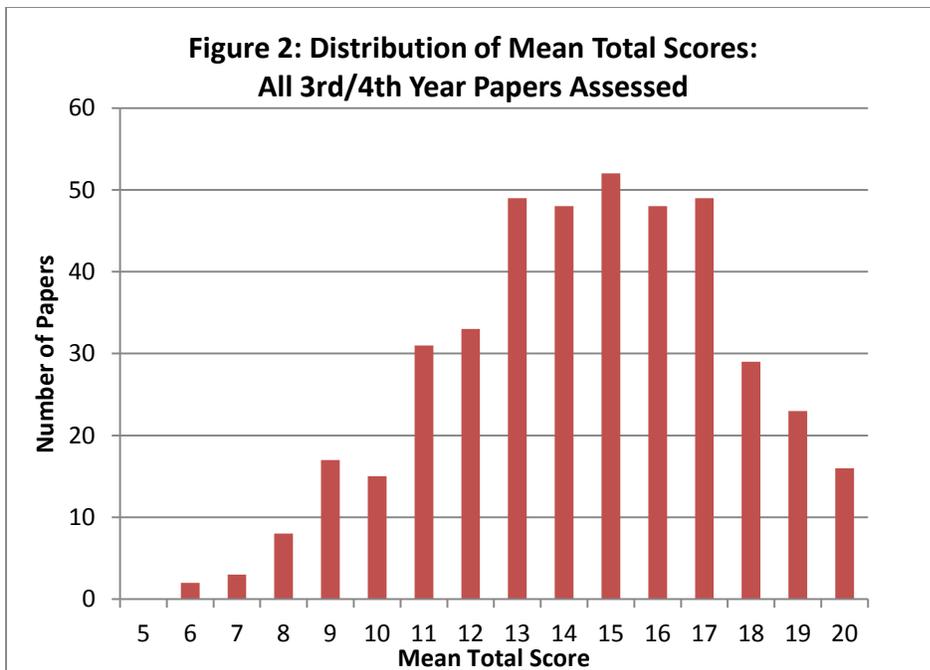


Results

Total Scores

Mean total scores were calculated by summing ratings across outcomes for each of the papers’ raters and then averaging the raters’ scores. Mean total scores ranged from a low of 5.7 (28% of possible points) to a high of 20 (100% of possible points). The median was 14.5 and the mode was 15. The mean total score across all 14 programs was 14.13 (SD=3.01) out of a possible 20 points. That is, on average, students earned 71% of possible points.

The mean total scores approximate a normal distribution (Figure 2).



Total score by program:

The mean total score differed substantially among the 14 programs, ranging from a low of 11.9 (60% of possible points) to a high of 17.4 (87% of possible points) (Table 1). Students' performance as writers is a function of their knowledge or ability to write well and their commitment to applying that knowledge in each of these writing samples. The types of papers assessed differed widely by program, ranging from short memos to course assignments to lengthy capstone projects. The types of papers would also have reflected differences in students' depth of experience in or knowledge of the paper topic. The type, length, and topics of the papers would have placed varying demands on students and elicited varying commitments to excellence in writing, all of which could have affected eventual scoring.

Table 1: Descriptive Statistics

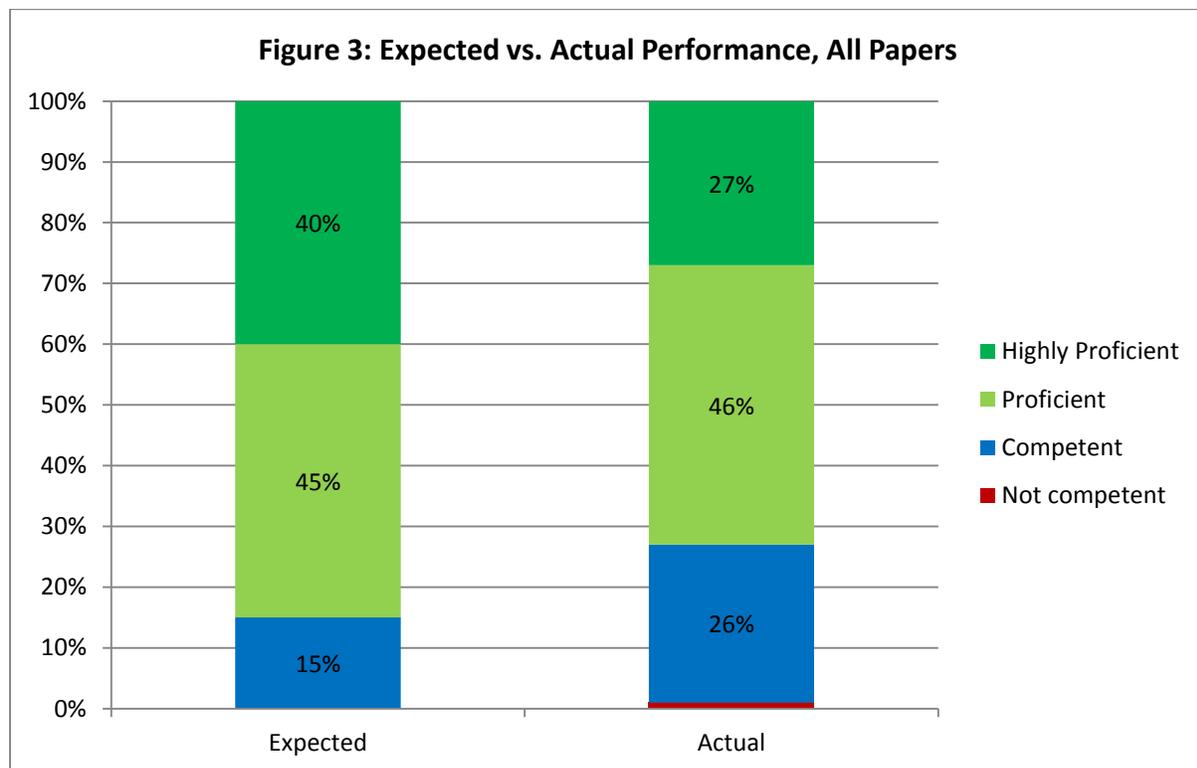
	# Papers	Type of Paper	Mean Total	S.D.	Lowest Total	Highest Total
Architecture	18	course assignment - 10-20 pgs	14.2	2	11	18.5
Batten	13	capstone team projects- 25-60 pgs	14	1.69	11.5	17.25
Commerce	36	memo assignments - 2-3 pgs	17.4	1.94	13.5	20
Curry	20	course assignment - 5 pgs	13.6	2.7	7.5	18
Humanities (College)	118	course assignments - 4-20 pgs	15.8	2.67	5.75	20
Nursing	35	course assignment - 8-12 pgs	14.2	2.77	7.75	18.5
Sciences (College)	39	course assignments- 10-25 pgs	12.4	2.74	5.7	19
SCPS-BIS	11	capstone projects- 25-75 pages	11.9	4.5	6.75	17.5
SEAS	93	STS projects- 10-25 pgs	13	2.5	7.5	17.5
Social Sciences (College)	42	course assignments- 9-30 pgs	14.8	2.45	9.5	20
Total	425		14.1	3.01	5.7	20

Total score by expectation:

The University Undergraduate Writing Competency Assessment Committee set overall expectations for writing competency as follows:

- 40% Highly Proficient (Total score=16.5-20)¹;
- 45% Proficient (Total score=12.5-16);
- 15% Competent (Total Score=7.5-12);
- 0% Not Competent (Total Scores 7.0 or less).

Across all third- and fourth-year papers, the assessment found that none of the expectations were met exactly, some more or less substantially than others (Figure 3). Primarily, more papers were rated as merely competent than expected (26% vs. 15%), and fewer were rated as highly proficient than expected (27% vs. 40%)

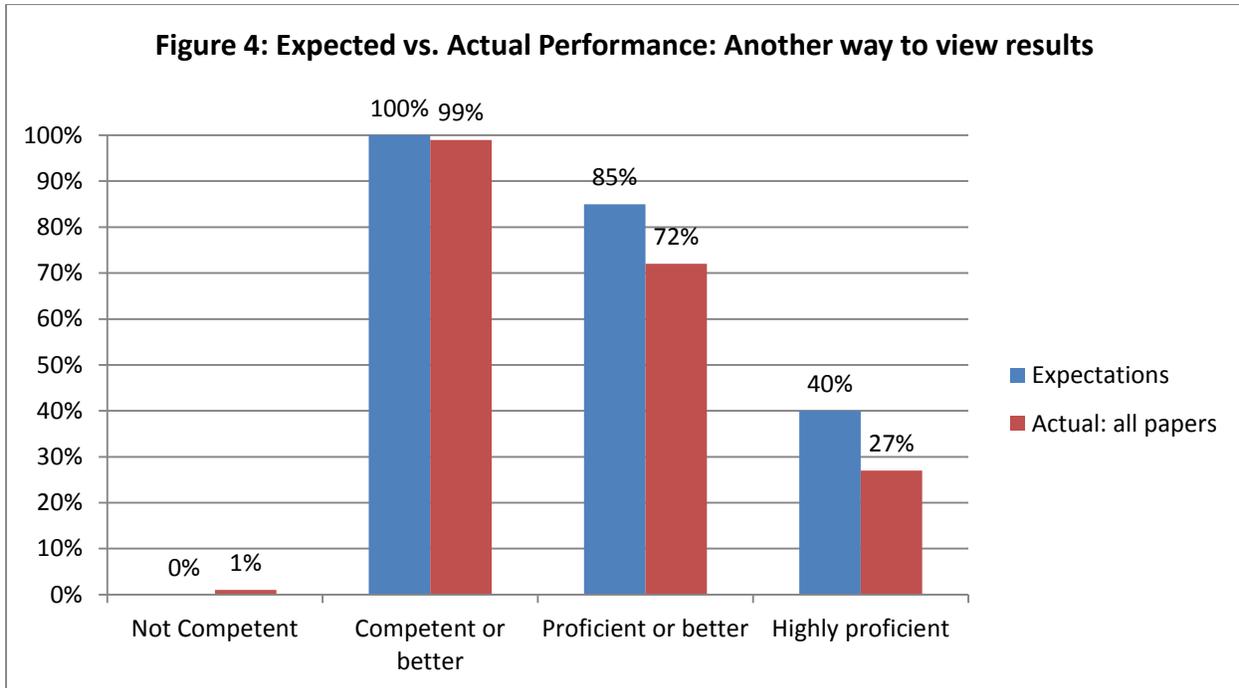


As another way to state these expectations, among the sample of papers assessed:

- none (0%) should be rated as not competent
- 100% should be rated at least competent
- 85% should be rated at least proficient
- 40% should be rated highly proficient.

¹ For example, to define Highly Proficient, the Committee determined that a mixture of three “3’s” and two “4’s” could describe Highly Proficient. With the need to average raters’ scores, yielding mean scores of, e.g., 3.5, the lower bound of Highly Proficient was set at 16.5. The other levels were defined using the same method.

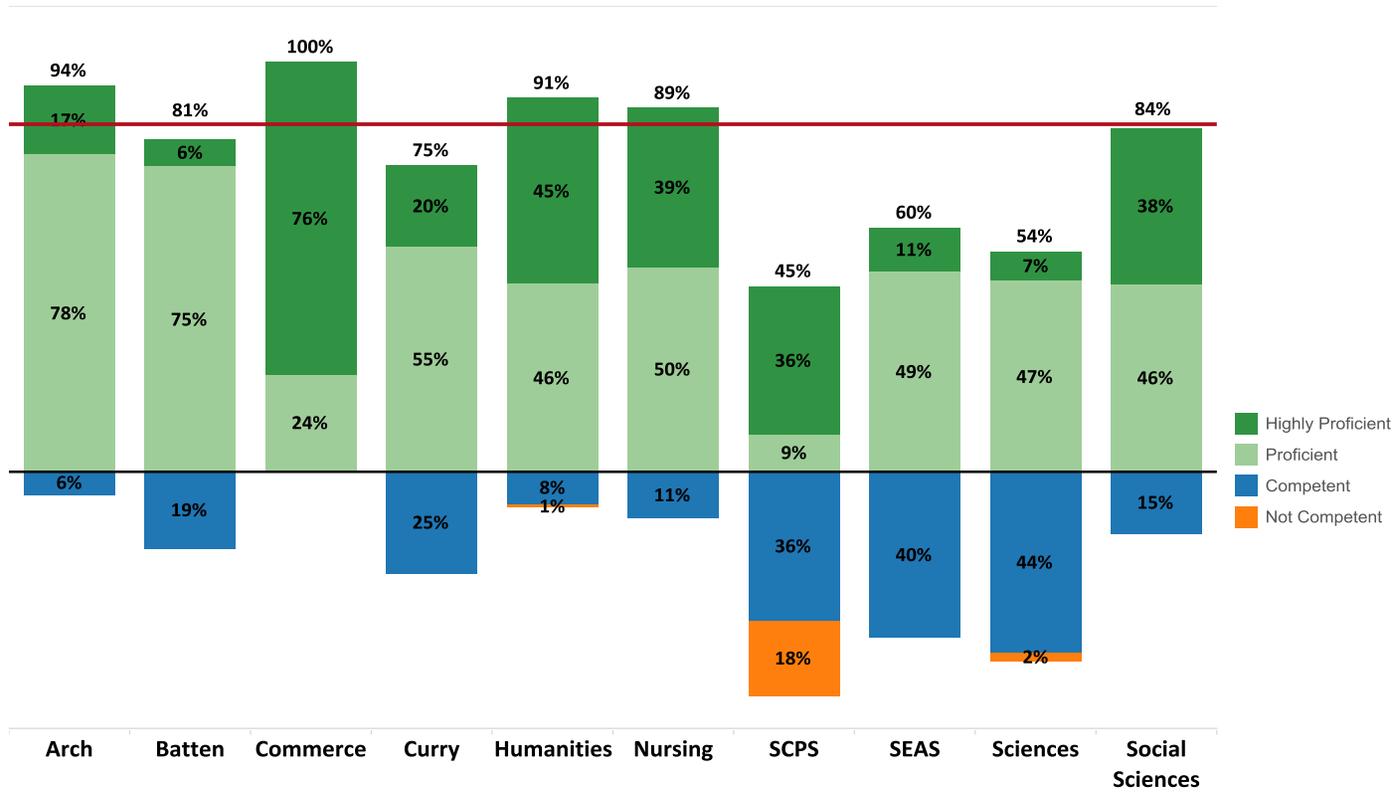
Although 85 percent of papers were expected to reflect at least proficiency in writing, only 72 percent did so, a 13 percent gap. The gap was as great for papers rated as Highly Proficient: the committee expected 40 percent of papers to be so rated, but only 27 percent were (Figure 4).



Expectations by programs/disciplines within schools

Programs in four schools/divisions (Architecture, Commerce, Nursing, Humanities (College)) met the expectation that 85 percent of papers reflect student proficiency (Figure 5). Two—Batten and College-Social Sciences—nearly met the standard. Programs in four schools, however, fell short to varying degrees (Curry, SEAS, BIS, and Sciences (College)). Worth noting, two of the four are from scientific, engineering, or more technical disciplines.

Figure 5: Expectations vs. Performance, by School and A & S Division



Results by Outcome

Applying the AAC&U Written Communication Rubric, raters assessed each paper according to the five outcomes, each on a scale from 1 to 4. The five outcomes were:

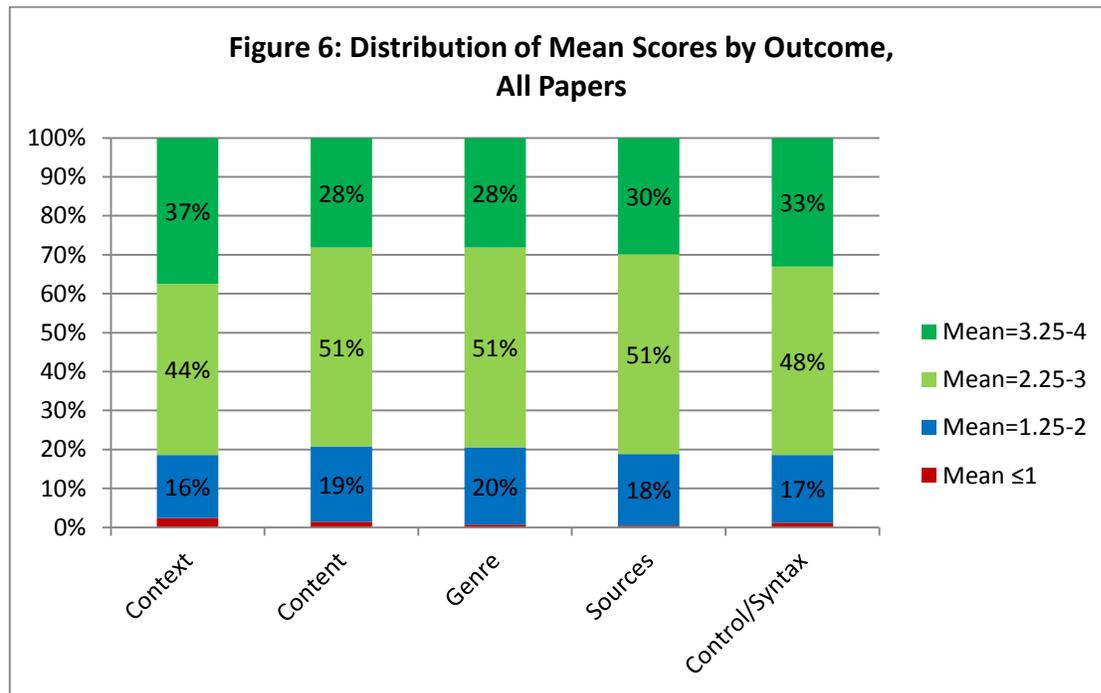
1. Context of and purpose for writing, consideration of audience
2. Content- development of ideas/argument, flow, appropriate use of content
3. Genre and disciplinary conventions for writing in the academic field; organization
4. Sources and evidence- use of credible, relevant sources to support ideas; argument
5. Control/Syntax-mechanics, tone, use of language

Across all papers and schools/divisions, the mean scores for each outcome varied only slightly between 2.8 and 2.9 (Table 2).

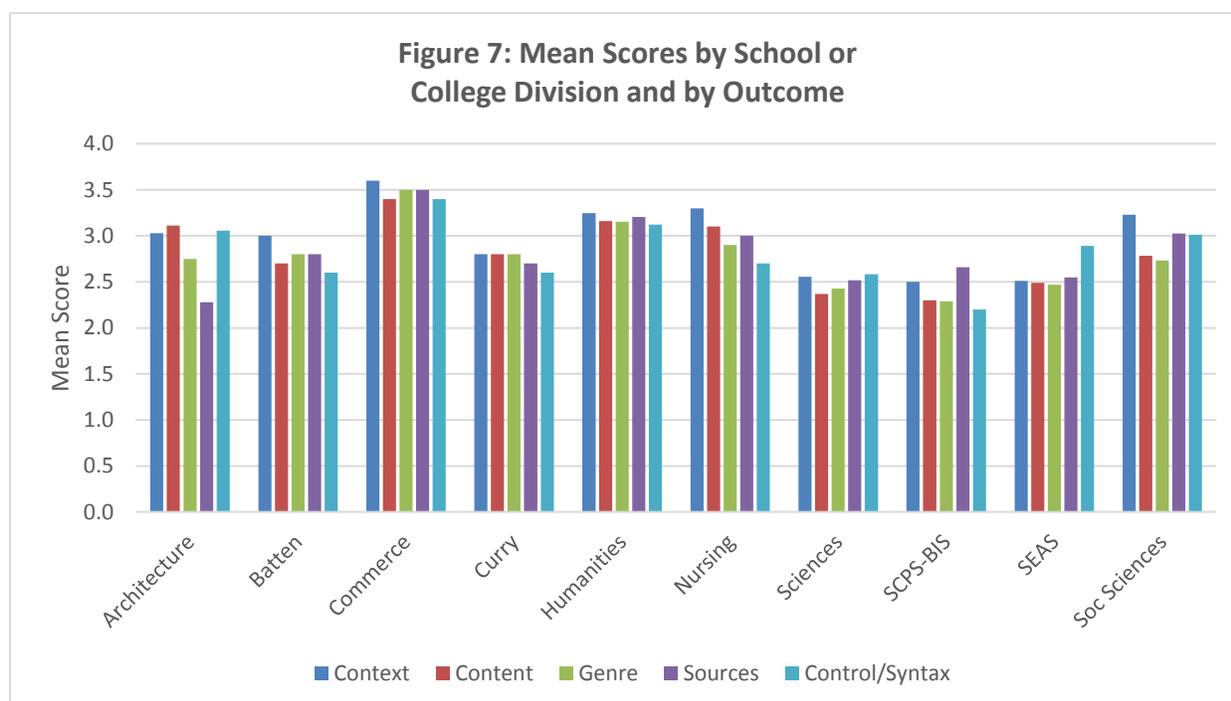
Table 2: Descriptive Statistics

	Mean	S.D.	Minimum	Maximum
Context	2.94	0.72	1	4
Content	2.81	0.68	1	4
Genre	2.80	0.67	1	4
Sources	2.86	0.68	1	4
Control/Syntax	2.90	0.70	1	4

The distribution of scores also varied only moderately by outcome: 28-37% rated between 3.25 and 4.0, 44-51% rated 2.25-3.0, 16-20% rated 1.25-2 (Figure 6).



Mean scores by outcome varied more substantially by school and by Arts and Sciences division (Figure 7). Some programs scored somewhat consistently across the outcomes (e.g., Commerce, Humanities, Curry, Sciences) while others clearly showed specific strengths (e.g., Context for Social Sciences, Batten, SON; Sources for BIS; Control/Syntax for SEAS) or specific weaknesses (e.g., Sources for Architecture). SEAS students' strength in control/syntax likely reflects the writing instruction they receive through the required Engineering and Society program. In some cases, such as Sources in Architecture, apparent weaknesses may reflect a mismatch between the assignment(s) and the rubric.



Conclusions

- Although three-quarters of students' papers reflect Proficient or Highly Proficient writing abilities, the committee's overall expectations for student writing—85% Proficient or Highly Proficient—was not met. The gap between expectations and actual performance suggests that there is room for improvement in most schools.
- The variability in results by program suggests that increased investment in instruction could have a substantial impact on students' writing proficiency, perhaps especially in the sciences or technical disciplines. Additional support, such as to keep section sizes small enough to teach and evaluate extended writing assignments in technical areas, would extend the benefits of instruction to other aspects of students' writing.
- The rubric appeared to have served well across a wide variety of programs and assignments, in part because raters could make adjustments to the descriptive language.

Recommendations

- The University should emphasize the importance of student proficiency in writing—both for instructors to teach writing well and for students to learn to write well.
- The University should invest in support for faculty and graduate student instructors to teach writing in their disciplines. Support should consist of:
 - Instruction in best practices in writing pedagogy
 - A commitment to limit class size in writing-enriched courses.
- All students should be required to take a writing-enriched course within their major. Likewise, all academic programs must provide writing-enriched course(s) for their majors.
- The University should provide greater support for international/ESL students to learn to write well in English.
- The University should support development of a certificate program in professional writing.

Appendix A

Paper # _____

Reviewer _____

Rubric: Written Communication

Performance Level- →	Highly Proficient	Proficient	Competent	Minimally Competent
Context of and purpose for writing: includes consideration of audience, purpose, and the circumstances surrounding the writing task(s)	Demonstrates a thorough understanding of context, audience, and purpose that is responsive to the assigned task(s) and focuses all elements of the work.	Demonstrates adequate consideration of context, audience, and purpose and a clear focus on the assigned task(s), e.g., the task aligns with audience, purpose and context.	Demonstrates awareness of context, audience, purpose, and to the assigned task(s), e.g., begins to show awareness of audience's perceptions and assumptions.	Demonstrates minimal attention to context, audience, purpose, and to the assigned task(s), e.g., expectation of instructor or self as audience.
Content is relevant to the writer's objective. Development of ideas shows forethought and appropriate use of content.	Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the writer's understanding, and shaping the whole work.	Uses appropriate, relevant, and compelling content to explore ideas within the context of the discipline and shape the whole work.	Uses appropriate and relevant content to develop and explore ideas through most of the work.	Uses appropriate and relevant content to develop simple ideas in some parts of the work.
Genre and disciplinary conventions: formal and informal rules inherent in the expectations for writing in particular forms and/or academic fields	Demonstrates detailed attention to and successful execution of a wide range of conventions particular to a specific discipline and/or writing task(s) including organization, content, presentation, formatting, and stylistic choices.	Demonstrates consistent use of important conventions particular to a specific discipline and/or writing task(s), including organization, content, presentation, and stylistic choices.	Follows expectations appropriate to a specific discipline and/or writing task(s) for basic organization, content, and presentation.	Attempts to use a consistent system for basic organization and presentation.
Sources and evidence	Demonstrates skillful use of high quality, credible, relevant sources to develop ideas that are appropriate for the discipline and genre of the writing.	Demonstrates consistent use of credible, relevant sources to support ideas that are situated within the discipline and genre of the writing.	Demonstrates an attempt to use credible and/or relevant sources to support ideas that are appropriate for the discipline and genre of the writing.	Demonstrates an attempt to use sources to support ideas in the writing.
Control of syntax and mechanics	Uses graceful language that skillfully communicates meaning to readers with clarity and fluency, and is virtually error-free.	Uses straightforward language that generally conveys meaning to readers. The language has few errors.	Uses language that generally conveys meaning to readers with clarity, although writing may include some errors.	Uses language that sometimes impedes meaning because of errors in usage.

Source: <http://www.aacu.org/value/rubrics/written-communication>

Appendix B

University Undergraduate Writing Competency Assessment Committee

Members

James Seitz, co-chair, College of Arts and Sciences-English
Lois Myers, co-chair, Assessment and Studies
Timothy Beatley, School of Architecture
Jon D'Errico, College of Arts and Sciences -English
Charity Fowler, Batten School of Leadership and Public Policy
Lynn Hamilton, McIntire School of Commerce
Stephen Levine, School of Continuing and Professional Studies
Aaron Mills, College- Environmental Sciences
Kay Neeley, School of Engineering and Applied Science
Randall Robey, Curry School of Education
Josipa Roksa, College of Arts and Sciences -Sociology
Adriana Streifer, College of Arts and Sciences -English
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