# St. Petersburg College <br> Institutional Research 

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Summary of Results from Academic Profile General Education Assessment Academic Year 2005-06

The Academic Profile is a test of general academic knowledge and skills. It is intended for use by colleges and universities in assessing the outcomes of their general education programs to improve the quality of instruction and learning. The test focuses on the academic skills developed through general education courses rather than on the knowledge acquired about the subjects taught in these courses. It does this by testing college-level reading, writing, critical thinking, and mathematics in the context of humanities, social sciences, and natural sciences.

The Academic Profile assumes that students have completed most or all of the general education, or core curriculum, requirements at their institution. The questions have a broad range of difficulty; some are quite easy, others are more difficult. It is an objective test using a multiplechoice format.

The Academic Profile yields eight norm-referenced scores on college-level skills:

- Humanities
- Writing
- Social Sciences
- Critical Thinking
- Natural Sciences
- Mathematics
- Reading
- Total Score

Norm-referenced scores derive their meaning only from comparisons with other scores-scores of other students, scores from the same students at different time periods, or scores from other colleges and universities.

The Academic Profile also yields criterion-referenced proficiency levels for three skill areas:

- Writing
- Mathematics
- Reading/Critical Thinking

Three levels are reported for each area. Criterion-referenced scores have meaning in and of themselves. Such scores are defined in terms of an established level of performance or proficiency, and a student is proficient, marginal, or not proficient in each criterion or proficiency level.

Beginning in 2005 as part of assessment of general education competencies, St. Petersburg College administered the Academic Profile to the following groups of students:

- First-time-in-College (FTIC) students
- Students who had completed all or the majority of their general education requirements

The Academic Profile was administered in the testing center at the campuses. FTIC students were tested as part of their admission process. Other students were contacted by letter and were given a bookstore voucher upon completion of testing. Testing was conducted during the Fall 2005 and Spring 2006 terms. A total of 473 students were tested; 281 entering freshman (FTIC), 21 freshman, 43 sophomores, 45 juniors and 74 seniors. The results for all students are shown in Table 1 below.

Table 1: Summary of SPC Student Scores

|  | FTIC |  | Freshman |  | Sophomore |  | Junior |  | Senior |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | n | Mean Score | n | Mean Score | n | Mean Score | n | Mean Score | n | Mean Score |
| Total Score | 281 | 432.75 | 21 | 434.43 | 43 | 445.60 | 45 | 446.18 | 74 | 444.93 |
| Critical Thinking | 281 | 108.67 | 21 | 109.29 | 43 | 112.00 | 45 | 110.69 | 74 | 110.53 |
| Reading | 281 | 115.41 | 21 | 113.81 | 43 | 118.84 | 45 | 119.49 | 74 | 119.42 |
| Writing | 281 | 111.98 | 21 | 112.57 | 43 | 114.44 | 45 | 115.24 | 74 | 115.24 |
| Math | 281 | 109.91 | 21 | 111.33 | 43 | 113.58 | 45 | 114.00 | 74 | 112.74 |
| Humanities | 281 | 112.39 | 21 | 112.38 | 43 | 115.81 | 45 | 114.49 | 74 | 114.16 |
| Social <br> Sciences | 281 | 111.04 | 21 | 110.90 | 43 | 113.88 | 45 | 113.36 | 74 | 113.68 |
| Natural Sciences | 281 | 112.69 | 21 | 111.81 | 43 | 115.15 | 45 | 115.60 | 74 | 115.70 |

In each category, the scores of seniors exceeded those of the FTIC students. There is some variation in the freshman, sophomore and junior categories that may be due to the smaller sample sizes.

The categories of FTIC and Freshman were combined to include students who had completed little or none of their general education requirements, while the remaining categories of sophomore through senior were combined to include students who had completed most or all of their general education coursework. By combining these groups, the resultant sample sizes allowed for statistical comparisons. The standard deviation for the Total Score was assumed to be 20 while the standard deviation for the subscores was assumed to be 7. The FTIC/Freshman group was compared with the sophomore through senior group using two-sample t-test. Table 2 below shows the combined groups and the results of the $t$-tests.

Table 2: Comparison of FTIC + Freshman with Sophomores and
Higher

|  | FTIC + Freshman |  |  |  | Sophomores and higher |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
|  |  | Mean <br> Score | All <br> Students | n | Mean <br> Score | All <br> Students | p-value |  |
| Overall | 302 | 432.9 | 438.7 | 162 | 445.5 | 444.9 | $<.001$ |  |
| Critical Thinking | 302 | 108.7 | 109.5 | 162 | 111.0 | 111.3 | $<.001$ |  |
| Reading | 302 | 115.3 | 116.9 | 162 | 119.3 | 119.3 | $<.001$ |  |
| Writing | 302 | 112.0 | 113.3 | 162 | 115.0 | 114.5 | $<.001$ |  |
| Math | 302 | 110.0 | 112.4 | 162 | 113.3 | 113.1 | $<.001$ |  |
| Humanities | 302 | 112.4 | 113.4 | 162 | 114.7 | 115.3 | $<.001$ |  |
| Social Sciences | 302 | 111.0 | 112.1 | 162 | 113.6 | 113.8 | $<.001$ |  |
| Natural Sciences | 302 | 112.6 | 113.7 | 162 | 115.5 | 115.4 | $<.001$ |  |

As expected, the sophomores and higher had significantly higher scores than the FTIC and freshman students. These data are shown also shown in the graph below.

## Graph 1 Comparison of FTIC/Freshman with Sophomores-Seniors



Graph 2 shows the results for the total score of SPC students by academic level was compared with scores of students from associate degree granting colleges nationwide.


The SPC sophomores scored higher than students at colleges nationwide while the seniors were comparable to students from other colleges. There is an increase in total score from freshman to sophomore/senior.

Data are also provided on criterion-referenced proficiency levels for three skill areas:

- Writing
- Mathematics
- Reading/Critical Thinking

Focusing on the students who have completed their general education requirements, SPC students are compared to all students at the sophomore level from two-year granting schools in the following table.

| ETS ACADEMIC PROFILE <br> Summary of Proficiency Classifications <br> Proficient |  |  |  |  |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All | Marginal | Proficient + Marginal |  |  |  |
|  | SPC | Students | SPC | Students | SPC | All |
| Ctudents |  |  |  |  |  |  |

The proficiency of SPC students was comparable to that of the comparison students. When the categories of proficient and marginal are combined, SPC students were superior to the comparison group in all categories.

Summary
The ETS Academic Profile was administered to samples of SPC students, including FTIC and students who had completed their general education requirements. Although, SPC FTIC students scored somewhat lower than comparable students at other two-year colleges, the SPC students tested who had completed their general education scored comparable to or exceeded the performance of students at two-year colleges. The change in scores between FTIC and students who completed their general education prior to testing were statistically significantly higher overall and in all skill areas.

