



UNIVERSITY OF SOUTH FLORIDA ST. PETERSBURG

MAPP Report

Measure of Academic Proficiency and Progress (MAPP) Fall 2008 and Spring 2009

Executive Summary

The Measure of Academic Proficiency and Progress (MAPP) was administered in fall 2008 to USF St. Petersburg First-time Freshmen and Graduating Seniors. Findings show that in four areas assessed by the instrument (Critical Thinking, Reading, Humanities and Social Sciences) seniors performed better than freshmen. However in the areas of Writing, Math and Natural Sciences, performance by seniors was not significantly greater than performance by freshmen.

USF St. Petersburg MAPP scores were then compared with freshmen and senior scores at Master's Comprehensive Institutions. Freshmen and seniors performed at-level on total scores compared to freshmen and seniors at comparative institutions. Within subscales, USF St. Petersburg freshmen performed at-level compared to freshman at comparative institutions; however, USF St. Petersburg seniors performed lower in Writing and Math than seniors at comparative institutions.

Lastly, percentile scores were used to compare USF St. Petersburg students to Master's Comprehensive Institutions. Total scores for USF St. Petersburg freshmen and seniors were at the 50th percentile. Of the fifty-five institutions that used the MAPP to assess freshmen, twenty-one were at or below the 50th percentile in total score; and of the ninety-two institutions that used the MAPP to assess seniors, forty four were at or below the 50th percentile in total score. Subscale scores for USF St. Petersburg freshmen and seniors were also in 50th percentile range.

The findings from this study suggest that USF St. Petersburg's General Education curriculum is contributing to student's overall academic success. However, performance by seniors in Math, Writing and perhaps Natural Sciences may require institutional attention. Findings from this study also suggest that USF St. Petersburg's comparative performance at the 50th percentile represents an additional opportunity for dialog on improvement of student learning in General Education.

Background

The Measure of Academic Performance and Progress (MAPP) was selected for use in assessment of General Education at USF St. Petersburg in 2008-09. The MAPP, an Educational Testing Service (ETS) product, has been used throughout the country for many years; first as the "Academic Profile" and now more recently re-normed and re-named the Measure of Academic Performance and Progress (MAPP). The MAPP assesses critical thinking, reading, writing and mathematics, all important college-level competencies. The MAPP is available in full-length or abbreviated versions and can be administered in paper or online. The MAPP can be administered to any group of students.

In developing the research protocol for the initial institutional assessment study of General Education, USF St. Petersburg determined that the comparison groups that would establish the

best baseline information would include first-time freshmen and graduating seniors that had originally matriculated as freshmen at USF St. Petersburg—native graduating seniors. The first-time freshmen population totaled 344 and the graduating senior group totaled 140. In order to expedite the study, the abbreviated fifty-minute on-line version of the MAPP was selected for use.

Students were invited to participate in the online assessment via an e-mail notification; and the inducements that were offered included a \$10 gift certificate and entry into a drawing for an iPod (one iPod for each of the two groups of students). The on-line MAPP was conducted on campus in a computer laboratory and was proctored by an institutional research staff person. The MAPP assessment window opened on: 10/14/08 and closed on: 12/11/08.

Special Observations

The online version of the MAPP requires a minimum of fifty participants per group to ensure valid results. The minimum threshold for validity was met for first-time freshmen, but not for native graduating seniors. The senior group was expanded to include native seniors as well as graduating seniors that transferred to USF St. Petersburg as upper-division students. A follow-up study of seniors that transferred as upper-division students was conducted in spring 2009 to help add validity to the current findings.

Findings

The abbreviated MAPP provides norm-referenced group statistics for total score and seven subscales as well as criterion-referenced proficiency levels for each skill area. The range for the total MAPP scaled score is 400 to 500; and scores range between 100 and 130 for each of the subscales: Critical Thinking, Reading, Writing, Mathematics, Humanities, Social Sciences and Natural Sciences. Proficiency is categorized as: “Proficient,” “Marginal” or “Not Proficient.” Proficiency skill areas include: Reading, Levels 1 & 2; Critical Thinking; Writing Levels 1, 2 & 3; and Mathematics Levels 1, 2 & 3. It was determined that the comparison group for USF St. Petersburg was Master’s Comprehensive Institutions.

The total scaled score for USF St. Petersburg native seniors was 445.2; for transfer seniors it was 450.2, and for freshmen it was 437.5. When compared to total scaled scores for freshmen (437.5) and seniors (447.9) at Master’s Comprehensive Institutions—USF St. Petersburg freshmen and both groups of seniors performed at an average level (See [Table 1](#)).

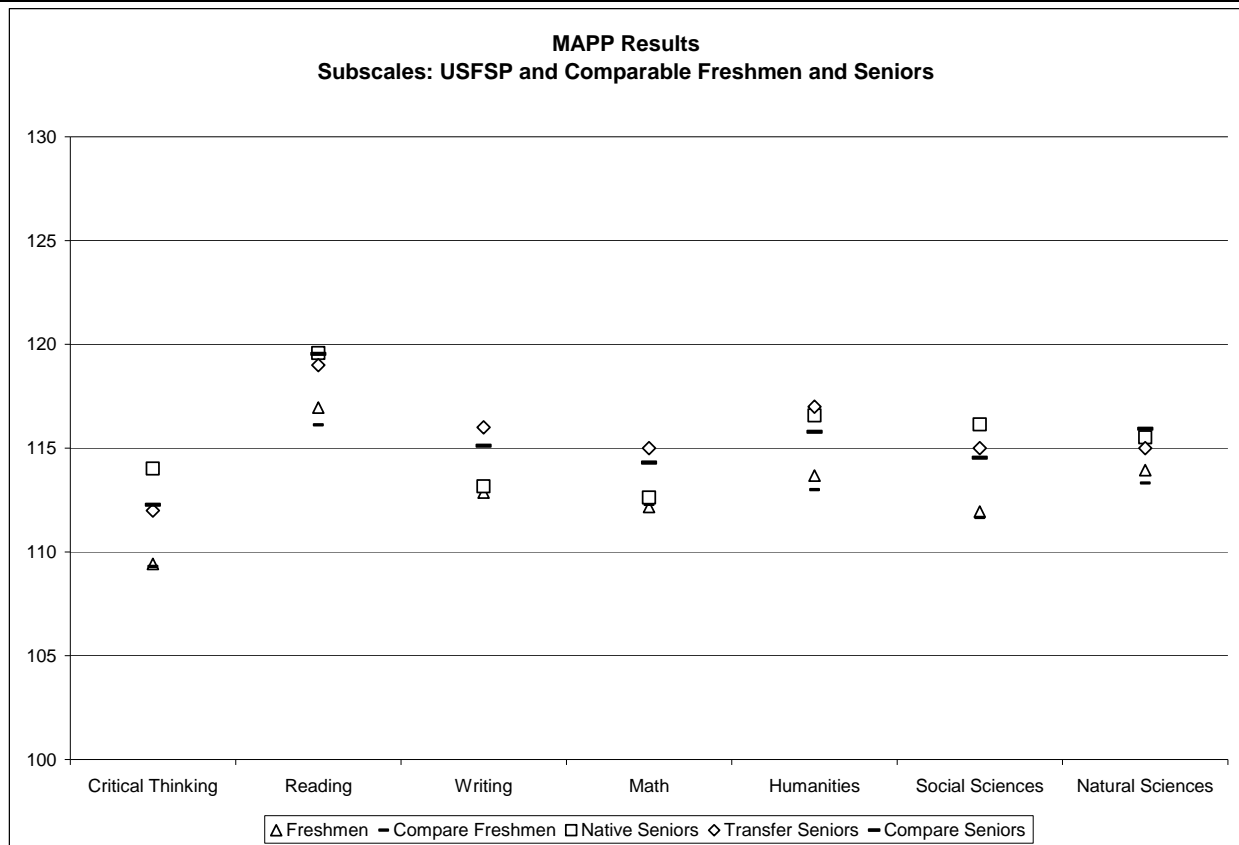
When compared by percentile, total scores place USF St. Petersburg freshmen and seniors at the 50th percentile compared to Master’s Comprehensive Institutions. Of the fifty-five institutions that administer the MAPP to freshmen twenty-one are at or below the 50th percentile; and of the ninety-two institutions that administer the MAPP to seniors forty-four are at or below the 50th percentile.

Table 1
Total Scaled Scores for Freshmen, Native and Transfer Seniors at USF St. Petersburg and Comparative Institutions

USFSP Freshmen		Native Seniors		Transfer Seniors	
Mean	437.5	Mean	445.2	Mean	450.2
Std. Dev.	12.9	Std. Dev.	18.6	Std. Dev.	21.9
25 th Percentile	430	25 th Percentile	435	25 th Percentile	436
50 th Percentile	439	50 th Percentile	446	50 th Percentile	447
75 th Percentile	443	75 th Percentile	454	75 th Percentile	462
<u>Comparable Freshmen</u>			<u>Comparable Seniors</u>		
Mean	437.9	Mean	447.9		
Std. Dev.	6.9	Std. Dev.	7.3		
25 th Percentile	425	25 th Percentile	433		
50 th Percentile	435	50 th Percentile	446		
75 th Percentile	448	75 th Percentile	462		

Figure 1 shows the comparison of subscale scores for USF St. Petersburg students and comparable students. Across all subscales, native and transfer seniors performed slightly better than freshmen. However, in the areas of Writing, Math, and Natural Science, the absolute difference in scores between freshmen and seniors was slight.

Figure 1
Summary of Subscale Performance of USF St. Petersburg Students and Comparable Students



To place USF St. Petersburg findings in context, subscale scores for freshmen and seniors were compared to subscale scores for freshmen and seniors at Master’s Comprehensive Institutions (See [Table 2](#)). Relative to comparable institutions, USF St. Petersburg freshmen performed similarly on all subscales; but USF St. Petersburg seniors performed slightly lower in Writing and Math than seniors at comparable institutions.

Subscale scores for USF St. Petersburg freshmen and seniors were similar to freshmen and seniors subscale scores at Master’s Comprehensive Institutions in that all scores were at the 50th percentile (see [Table 2](#)).

Table 2
Sub-scale Scores for USF St. Petersburg Freshmen and Seniors and Comprehensive Institutions

GE Domain	Critical Thinking	Reading	Writing	Math	Humanities	Social Sciences	Natural Sciences
USFSP Freshmen							
Mean	109.4	116.9	112.9	112.2	113.7	111.9	113.9
Std. Dev.	4.4	5.9	4.2	4.9	5.7	6.0	4.7
50 th Percentile	109	117	112	112	113	112	113
Comparable Freshmen							
Mean	109.3	116.1	113.2	112.3	113.0	111.7	113.3
Std. Dev.	1.7	2.4	1.6	1.9	1.7	1.8	1.8
50 th Percentile	108	116	113	111	113	111	113
Native Seniors							
Mean	114.0	119.6	113.2	112.6	116.6	116.1	115.5
Std. Dev.	6.8	6.7	5.0	6.0	6.2	6.7	6.0
50 th Percentile	113	121	114	113	118	116	117
Transfer Seniors							
Mean	112.3	119.4	115.8	115.4	116.5	114.8	114.7
Std. Dev.	6.9	6.9	5.1	7.2	5.9	7.1	5.8
50 th Percentile	112	119	115	115	118	116	113
Comparable Seniors							
Mean	112.3	119.5	115.1	114.3	115.8	114.5	115.9
Std. Dev.	2.0	2.1	1.4	2.2	1.8	1.8	1.7
50 th Percentile	111	120	115	113	115	115	116

Of interest in [Table 3](#), is the distribution of percent proficiency scores for each skill area. Skills range from Reading Level 1 to Level 2 and in Writing and Mathematics skills range from Level 1 to Level 3. The proportion of seniors that are proficient in Reading, Levels 1-2 is greater than for freshmen; and this pattern holds true for Writing, Levels 1-3 and Mathematics, Levels 1-3 where proficiency for seniors was greater than proficiency for freshmen.

Table 3
 Summary of Percent Proficiency Classifications for USF St. Petersburg Freshmen and Seniors

Skill Dimension	Percent Proficiency Classification P=Proficient, M=Marginal and N=Not Proficient								
	Freshmen			Native Seniors			Transfer Seniors		
	P	M	N	P	M	N	P	M	N
Reading, Level 1	64.0	22.0	14.0	78.0	10.0	12.0	72.0	20.0	8.0
Reading, Level 2	30.0	16.0	54.0	48.0	20.0	32.0	44.0	16.0	40.0
Critical Thinking	0.0	10.0	90.0	10.0	30.0	60.0	4.0	24.0	72.0
Writing, Level 1	48.0	40.0	12.0	58.0	30.0	12.0	76.0	16.0	8.0
Writing, Level 2	6.0	42.0	52.0	12.0	42.0	46.0	28.0	32.0	40.0
Writing, Level 3	4.0	16.0	80.0	2.0	20.0	78.0	16.0	24.0	60.0
Math, Level 1	50.0	32.0	18.0	54.0	22.0	24.0	72.0	12.0	16.0
Math, Level 2	16.0	34.0	50.0	20.0	34.0	46.0	44.0	28.0	28.0
Math, Level 3	0.0	14.0	86.0	8.0	10.0	82.0	20.0	24.0	56.0

Discussion and Actions

The General Education (GE) requirements at USF St. Petersburg include courses in: English Composition, Quantitative Methods, Natural Sciences, Social Sciences, Historical Perspectives, Fine Arts, ALAMEA, Major Works and Major Issues, and Literature and Writing. These areas of GE generally correspond to the subscale areas assessed by the MAPP: Critical Thinking, Reading, Writing, Math, Humanities, Social Sciences and Natural Sciences. Although there is not 100 percent correspondence between USF St. Petersburg's GE areas and the GE areas assessed by the MAPP, the MAAP is a reasonable instrument that can be used on an institutional-level to assess student performance. Given valid results, the norm-referenced data also allows for the comparison of USF St. Petersburg student performance to student performance at Master's Comprehensive Institutions.

It is not unreasonable to be cautious in the interpretation and use of results until the MAPP is better understood by the GE assessment community at USF St. Petersburg. However, the University should celebrate these early findings as evidence of USF St. Petersburg success in the area of General Education; and recognize that the MAPP is a very promising assessment tool.

Draft copies of this report were issued to the General Education Committee and to the Institutional Effectiveness Committee as they are the primary decision-makers in matters relating to General Education. This final report includes refinements in tabled data and more comparative information to facilitate interpretation of results. It is recommended that these committees include these findings in their evaluation of General Education at USF St. Petersburg; as well as support the continued use of the MAPP as an institutional tool for use in evaluation of General Education and in development of the University's Quality Enhancement Plan (QEP).

The demographic profile of MAPP participants from self-reported data is shown in [Appendix 1](#). [Appendix 2](#) shows select demographic profile variables for USF St. Petersburg students and [Appendix 3](#) shows Academic Indicators for USF St. Petersburg students.

Appendix 1
 Summary of Self-Reported Demographic Information Compiled in MAPP

	Demographic Information					
	Freshmen		Native Seniors		Transfer Seniors	
	N	Pct.	N	Pct.	N	Pct.
<u>Gender</u>						
Female	30	60.0	35	70.0	10	40.0
Male	17	34.0	14	28.0	13	52.0
Missing Data	3	6.0	1	2.0	2	8.0
<u>Ethnicity</u>						
African American	4	8.0	4	8.0	3	12.0
Asian	2	4.0	2	4.0	0	0.0
Hispanic	9	18.0	3	6.0	3	12.0
White	35	70.0	36	72.0	18	72.0
Unknown	0	0.0	5	10.0	1	4.0
<u>Major*</u>						
Accounting	0	0.0	3	6.0	5	20.0
Anthropology & Archeology	0	0.0	6	12.0	0	0.0
Art/Art History	2	4.0	0	0.0	0	0.0
Banking & Finance	1	2.0	0	0.0	3	12.0
Biological Sciences	2	4.0	1	2.0	0	0.0
Business Administration	6	12.0	1	2.0	15	60.0
Communications	0	0.0	5	10.0	0	0.0
Criminal Justice	3	6.0	4	8.0	0	0.0
Education	3	6.0	1	2.0	0	0.0
Engineering	2	4.0	0	0.0	0	0.0
English	5	10.0	1	2.0	0	0.0
Environmental Science	4	8.0	4	8.0	0	0.0
Health & Medical	5	10.0	0	0.0	0	0.0
Marketing	3	6.0	1	2.0	1	4.0
Music	0	0.0	0	0.0	0	0.0
Philosophy	1	2.0	0	0.0	0	0.0
Political Science	2	4.0	1	2.0	0	0.0
Psychology	4	8.0	16	32.0	0	0.0
Social Work	1	2.0	2	4.0	0	0.0
Sociology	1	2.0	0	0.0	0	0.0
Undecided	6	12.0	3	6.0	1	4.0
<u>Enrollment Status</u>						
Full-time	49	98.0	41	82.0	20	80.0
Part-time	1	2.0	9	18.0	5	20.0

*Respondents were asked to fit themselves into this list of majors compiled by MAPP.

Appendix 2

Summary of Select USF St. Petersburg Demographic Variables from the Institutional Database (Unofficial)

Gender	<u>Freshmen</u>		<u>Native Seniors</u>		<u>Transfer Seniors</u>	
	N	%	N	%	N	%
Female	209	60.8	87	62.1	765	65.6
Male	135	39.2	53	37.9	400	34.3
Missing	0	0.0	0	0.0	1	.1
Ethnicity	N	%	N	%	N	%
Native American	0	0.0	0.0	0.0	5	.4
African American	28	8.1	7	5.0	101	8.7
Asian	16	4.7	5	3.6	42	3.6
Hispanic	37	10.8	6	4.3	95	8.1
White	257	74.7	121	86.4	897	76.9
Unknown	4	1.2	1	.7	26	2.2
Major	N	%	N	%	N	%
Accounting	17	4.9	17	12.1	119	10.2
Anthropology	3	.9	4	2.9	21	1.8
Art	16	4.7	5	3.6	26	2.2
Business Economics	2	.6	0	0.0	9	.8
Criminology	11	3.2	2	1.4	43	3.7
Economics	0	0.0	1	.7	12	1.0
Education	13	3.8	19	13.5	190	16.3
English	12	3.5	10	7.1	52	4.5
Environmental Science	44	12.8	5	3.6	42	3.6
Finance	10	2.9	12	8.6	72	6.2
General Business	33	9.6	12	8.6	131	11.3
History	5	1.5	2	1.4	30	2.5
ISS	5	1.5	4	2.9	59	5.1
Management	15	4.4	8	5.7	75	6.4
MIS	4	1.2	4	2.9	23	2.0
Marketing	18	5.2	7	5.0	47	4.0
Mass Communication	32	9.3	9	6.4	63	5.4
Political Science	11	3.2	5	3.6	34	2.9
Psychology	26	7.6	14	10.0	118	10.1
Undecided	67	19.5	0	0.0	0	0.0

Appendix 3

Summary of Select USF St. Petersburg Academic Indicators from the Institutional Database (Unofficial)

	Freshmen		Seniors		National/State
<u>Academic Indicators:</u>					
<u>HS GPA</u>					
	Low	2.41		Low	1.37
	Avg.	3.5		Avg.	3.13
	25%	3.27		25%	2.80
	50%	3.47		50%	3.36
	75%	3.76		75%	3.79
	High	4.51		High	4.82
<u>ACT</u>					
	<u>USF St. Petersburg</u>			<u>2008 National Norms</u>	
	English	21.1		English	20.6
	Mathematics	21.1		Mathematics	21.0
	Reading	22.8		Reading	21.4
	Science	21.2		Science	20.8
	Composite	21.7		Composite	21.1
				<u>2008 Florida Norms</u>	
				English	19.0
				Mathematics	20.0
				Reading	20.3
				Science	19.3
				Composite	19.8
<u>SAT</u>					
	<u>USF St. Petersburg</u>			<u>2008 National Norms</u>	
	Reading	533.1		Reading	502
	Math	525.1		Math	515
				<u>50th Percentile</u>	
				Reading	500
				Math	510
				<u>2008 Florida Norms</u>	
				Reading	496
				Math	497
				<u>50th Percentile</u>	
				Reading	490
				Math	490