SMC Assessment 1: State Licensure Test

a. A brief description of the assessment and its use in the program

All secondary math teacher candidates take the required state licensure test during their senior year. Results of the test are shared at assessment retreats, department meetings and Teacher Education Council meetings. The state test for secondary English majors is the Mathematics: Content Knowledge test (0061/5061). The test consists of three main sections: Algebra and Number Theory, Measurement/Geometry/Trigonometry, Functions/Calculus, Data Analysis and Statistics/Probability, and Matrix Algebra/Discrete Mathematics. For 2014 graduates, a new pedagogy test was required (Pearson Core Developmental (Pedagogy) Assessment for Secondary Education (006). This test measured pedagogical knowledge across seven objectives: Student Development and Diversity, Learning Processes, Learning Environment, Instruction Planning and Delivery, Assessment, Reading Instruction and Professional Environment. When comparing our Math teacher candidates to the state, note that the state averages include all secondary education teacher candidates and not just Math teacher candidates. This assessment does not align well with NCTM standards, however, the results are included because it is a required state test. One 2011 teacher candidate (candidate 1) took the exam in 2012 so the exam scores are included.

b. A description of how this assessment specifically aligns with the standards it is cited for in Section III.

Mathematical Domain	Competency Addressed	Technology and Varied Representational Tools Including Concrete Models
A.1 Number and Quantity	A.1.1, A.1.2, A.1.3, A.1.4	0061: Graphing calculator 5061: Online graphing calculator
A.2 Algebra	A.2.1, A.2.2, A.2.3, A.2.5	0061: Graphing calculator 5061: Online graphing calculator
A.3 Geometry and Trigonometry	A.3.2, A.3.3, A.3.4, A.3.5, A.3.6, A.3.7	0061: Graphing calculator 5061: Online graphing calculator
A.4 Statistics and Probability	A.4.1, A.4.3, A.4.4	0061: Graphing calculator 5061: Online graphing calculator
A.5 Calculus	A.5.1, A.5.3, A.5.5	0061: Graphing calculator 5061: Online graphing calculator
A.6 Discrete Mathematics	A.6.1, A.6.2	0061: Graphing calculator 5061: Online graphing calculator

For the Pearson Pedagogy Test, Student Development and Diversity, Learning Processes, Learning Environment are aligned with NCTM standard 4. Instructional Planning and Delivery are aligned with NCTM standard 3. Assessment is aligned with Standard 5. Professional Environment is aligned with NCTM standard 6. This assessment is not included in Section III of the SPA report.

c. A brief analysis of the data findings;

Using the overall test score as a general indicator of mathematical domains required by NCTM standards, our teacher candidates have performed well above proficiency. With a state passing rate of 136, our teacher candidates have averaged no lower than 163 over the past three years. On average, our teacher candidate performance on this test outpaces the state average by 20 scale score points. In addition,

100% of our 2014 graduates achieved scores high enough to achieve Recognition of Excellence. In 2013, 5 of our 7 graduates achieved Recognition of Excellence and in 2013, 2 of our 4 graduates achieved Recognition of Excellence as granted by PRAXIS II Mathematics: Content Knowledge Test.

Over the past three years, 100% of our teacher candidates have passed the state test and our percent passing and average scores are higher than the state percent passing and average scores. Eleven of our thirteen candidates obtained scores at or above the Average Performance Range (the range of scores earned by the middle 50 percent of the examinees taking the test). In 2011-12, Notre Dame math majors (average score 177) outperformed Saint Mary's math majors (149). In 2012-13, a less prominent difference was shown between the Notre Dame and Saint Mary's math majors with every Saint Mary's math major scoring at or above the Average Performance range and three of the four Notre Dame majors scoring at or above the Average Performance Range. No comparisons could be made in 2013-14, however, the differences will continue to be monitored.

In the category of Algebra and Number Theory (NCTM Standards (A.1.1, A.1.2, A.1.3, A.1.4, A.2.1, A.2.2, A.2.3, A.2.5) all 13 of our candidates matched or exceeded the upper range of the Average Performance Range. For Measurement/Geometry/Trigonometry (NCTM A.3.2, A.3.3, A.3.4, A.3.5, A.3.6, A.3.7) and Functions/Calculus (A.5.1, A.5.3, A.5.5) 10 of our 13 candidates matched or exceeded the upper range of the Average Performance Range.

Eight of the 13 teacher candidates earned scores at or above the upper range of the Average Performance Range in the category of Data Analysis and Statistics/Probability (NCTM Standards A.4.1, A.4.3, A.4.4) and Matrix Algebra/Discrete Mathematics (A.6.1, A.6.2). In 2012, Notre Dame students outperformed Saint Mary's students in the category of Algebra and Number Theory, but no difference showed up between the two groups of teacher candidates on the 2013 test. In 2013, Saint Mary's students outperformed Notre Dame students in the category of Functions/Calculus. In 2014, Notre Dame students performed exceptionally well with one student obtaining a perfect score and the other student exceeding the State Percent Correct (65.5%) by 30 percentage points (85.7% correct). Remarkably, not a single secondary math candidate over the past three years scored below the Average Performance Range in any category.

On the pedagogy test, both teacher candidates answered a larger percentage of items correct than the state average in Learning Processes, Instructional Planning and Delivery, Assessment, and the Professional Environment and at least one teacher candidate exceeded the state average in the areas of Student Development and Diversity and Learning Environment. A performance strength was found in Professionalism where both teacher candidates exceeded the state average by 10 percentage points.

d. An interpretation of how that data provides evidence for meeting standards, indicating the specific SPA standards by number, title, and/or standard wording.

As matched to the NCTM standards, the outstanding performance of our teacher candidates on the Mathematics: Content Knowledge test over the past three years suggests that our candidates meet NCTM Standard 1. Well above average subcategory scores more closely linked to individual elements of the standards (A.1.1, A.1.2, A.1.3, A.1.4, A.2.1, A.2.2, A.2.3, A.2.5, A.3.2, A.3.3, A.3.4, A.3.5, A.3.6, A.3.7, A.4.1, A.4.3, A.4.4, A.5.1, A.5.3, A.5.5, A.6.1, A.6.2) also suggests students are proficient on this assessment and Standard 1. The Pedagogy test does not measure content but as it measured pedagogical knowledge aligned with NCTM standards 3, 4, 5, and 6, our teacher candidates outperformed the state average. This assessment is not included in Section III of the SPA report.

e. The assessment tool itself or a rich description of the assessment.

State licensure exam

f. The scoring guide for the assessment:

Scored by ETS

g. Charts that provide candidate data derived from the assessment:

Mathematics: Content Knowledge test (0061/5061)			*Saint Mary's College*				*State of Indiana*		
NCTM Standards	*Grad Year*	*Number Taking Assessment*	*Number Passing Assessment*	*Institutional Pass Rate*	*Institutional Average Scaled Score*	*Institutional Scores Range*	*Assessment Cut Score[2]*	*Statewide Pass Rate*	*Statewide Average Scaled Score*
A.1.1, A.1.2, A.1.3, A.1.4, A.2.1, A.2.2, A.2.3, A.2.5, A.3.2, A.3.3, A.3.4, A.3.5, A.3.6, A.3.7, A.4.1, A.4.3, A.4.4, A.5.1, A.5.3, A.5.5, A.6.1, A.6.2	2011-12	4	4	100%	163.0	138-183	136	66.7	147.7
	2012-13	7	7	100%	167.7	150-189	136	79.8	151.3
	2013-14	2	2	100%	178.5	170-187	136	76.07	149.5

Grad Year 2011-12	Score	Pass (Y/N)	Recognition of Excellence	State Cut Score	State Average Score	Average Performance Range	Saint Mary's College	Notre Dame
Candidate 1	■	Y		136	147.7	129-160	■	
Candidate 2	■	Y	E	136	147.7	129-160		■
Candidate 3	■	Y		136	147.7	129-160	■	
Candidate 4	■	Y	E	136	147.7	129-160		■
Average	163						149	177

Grad Year 2012-13	Score	Pass (Y/N)	Recognition of Excellence	State Cut Score	State Average Score	Average Performance Range	Saint Mary's College	Notre Dame
Candidate 5	■	Y	E	136	151.3	119-155	■	
Candidate 6	■	Y		136	151.3	119-155	■	
Candidate 7	■	Y	E	136	151.3	119-155		■
Candidate 8	■	Y		136	151.3	130-160		■
Candidate 9	■	Y	E	136	151.3	130-160		■
Candidate 10	■	Y	E	136	151.3	119-155		■
Candidate 11	■	Y	E	136	151.3	119-155	■	
Average	167.7						164.3	170.3

Grad Year 2013-14	Score	Pass (Y/N)	Recognition of Excellence	State Cut Score	State Average Score	Average Performance Range	Saint Mary's College	Notre Dame
Candidate 12	■	Y	E	136	147.7	126-160		■
Candidate 13	■	Y	E	136	147.7	126-160		■
Average	178.5							178.5

Standards	A.1.1, A.1.2, A.1.3, A.1.4, A.2.1, A.2.2, A.2.3, A.2.5					A.3.2, A.3.3, A.3.4, A.3.5, A.3.6, A.3.7					A.5.1, A.5.3, A.5.5				
Category	**Algebra and Number Theory**					**Measurement/Geometry/Trigonometry**					**Functions/Calculus**				
Grad Year **2012**	Candidate*	Score	Points Available	Percent Correct	State Percent Correct	Average Performance range	Score	Points Available	Percent Correct	State Percent Correct	Average Performance range	Score	Points Available	Percent Correct	State Percent Correct	Average Performance range
2012	1		8	75	59.7	2-5		12	41.7	63.9	5-9		14	50	58.7	6-10
2012	2		8	100	59.7	2-5		12	91.7	63.9	5-9		14	92.9	58.7	5-10
2012	3		8	62.5	59.7	2-5		12	83	63.9	5-9		14	78.6	58.7	5-10
2012	4		8	100	59.7	4-6		12	91.7	63.9	5-9		14	78.6	58.7	5-10
Average		6.75		84.4			9.25		77			10.5		75		
Range		5-8					5-11					7-13				

Standards	A.4.1, A.4.3, A.4.4					A.6.1, A.6.2				
Category	**Data Analysis and Statistics/Probability**					**Matrix Algebra/Discrete Mathematics**				
Grad Year **2012**	Candidate*	Score	Points Available	Percent Correct	State Percent Correct	Average Performance range	Score	Points Available	Percent Correct	State Percent Correct	Average Performance range
2012	1		8	75	76.7	5-7		8	62.5	63.1	3-6
2012	2		8	87.5	76.7	4-7		8	75	63.1	3-6
2012	3		8	62.5	76.7	4-7		8	50	63.1	3-6
2012	4		8	62.5	76.7	4-7		8	62.5	63.1	3-6
Average		5.75		71.9			5		62.5		
Range		5-7					4-6				

Standards	**A.1.1, A.1.2, A.1.3, A.1.4, A.2.1, A.2.2, A.2.3, A.2.5**					**A.3.2, A.3.3, A.3.4, A.3.5, A.3.6, A.3.7**					**A.5.1, A.5.3, A.5.5**				
Category	**Algebra and Number Theory**					**Measurement/Geometry/Trigonometry**					**Functions/Calculus**				
Grad Year 2013	Candidate*	Score	Points Available	Percent Correct	State Percent Correct	Average Performance range	Score	Points Available	Percent Correct	State Percent Correct	Average Performance range	Score	Points Available	Percent Correct	State Percent Correct	Average Performance range
2013	5		8	100	67.7	4-6		12	66.7	67	6-9		14	85.7	65.8	6-10
2013	6		8	75	67.7	4-6		12	75	67	6-9		14	57.1	65.8	6-10
2013	7		8	75	67.7	4-6		12	83.3	67	6-9		14	57.1	65.8	6-10
2013	8		8	75	67.7	4-6		12	58.3	67	6-9		14	71.4	65.8	6-10
2013	9		8	100	67.7	4-6		12	100	67	6-9		14	92.9	65.8	6-10
2013	10		8	87.5	67.7	4-6		12	83.3	67	6-9		14	78.6	65.8	6-10
2013	11		8	87.5	67.7	4-6		12	75	67	6-9		14	78.6	65.8	6-10
Average		7		85.7			9.57		77.4			10.86		74.5		
Range		6-8					7-12					8-14				

Standards	**A.4.1, A.4.3, A.4.4**					**A.6.1, A.6.2**									
Category	**Data Analysis and Statistics/Probability**					**Matrix Algebra/Discrete Mathematics**									
Grad Year 2013	Candidate*	Score	Points Available	Percent Correct	State Percent Correct	Average Performance range	Score	Points Available	Percent Correct	State Percent Correct	Average Performance range				
2013	5		8	75	75.9	4-6		8	87.5	65.5	3-6				
2013	6		8	62.5	75.9	4-6		8	100	65.5	3-6				
2013	7		8	87.5	75.9	4-6		8	100	65.5	3-6				
2013	8		8	62.5	75.9	4-6		8	50	65.5	3-6				
2013	9		8	100	75.9	4-6		8	75	65.5	3-6				
2013	10		8	87.5	75.9	4-6		8	75	65.5	3-6				
2013	11		8	87.5	75.9	4-6		8	62.5	65.5	3-6				
Average		6.57		80.4			6.57		78.6						
Range		5-8					4-8								

Standards		A.1.1, A.1.2, A.1.3, A.1.4, A.2.1, A.2.2, A.2.3, A.2.5					A.3.2, A.3.3, A.3.4, A.3.5, A.3.6, A.3.7					A.5.1, A.5.3, A.5.5				
Category		**Algebra and Number Theory**					**Measurement/Geometry/Trigonometry**					**Functions/Calculus**				
Grad Year **2014**	Candidate*	Score	Points Available	Percent Correct	State Percent Correct	Average Performance range	Score	Points Available	Percent Correct	State Percent Correct	Average Performance range	Score	Points Available	Percent Correct	State Percent Correct	Average Performance range
2014	12	▮	8	100	65.8	4-6	▮	11	90.9	67.7	5-8	▮	14	100	65.5	6-11
2014	13	▮	8	87.5	65.8	4-6	▮	11	72.7	67.7	5-8	▮	14	85.7	65.5	6-11
Average		7.5		93.8			9		81.8			13		92.9		
Range		7-8					8-10					12-14				

Standards		A.4.1, A.4.3, A.4.4					A.6.1, A.6.2				
Category		**Data Analysis and Statistics/Probability**					**Matrix Algebra/Discrete Mathematics**				
Grad Year **2014**	Candidate*	Score	Points Available	Percent Correct	State Percent Correct	Average Performance range	Score	Points Available	Percent Correct	State Percent Correct	Average Performance range
2014	12	▮	8	100	75	5-7	▮	8	87.5	63.5	3-6
2014	13	▮	8	87.5	75	5-7	▮	8	100	63.5	3-6
Average		7.5		93.8			7.5		93.8		
Range		7-8					7-8				

2014 State Assessment (new)

Developmental (Pedagogy) Assessment (006)		Saint Mary's College					State of Indiana		
NCTM Standards	Grad Year	Number Taking Assessment	Number Passing Assessment	Institutional Pass Rate	Institutional Average Scaled Score	Institutional Scores Range	Assessment Cut Score	Statewide Pass Rate	Statewide Average Scaled Score
3, 4, 5, 6	2013-14	2	2	100%	268.5	267-270	220	98%	248.6

Secondary Developmental Pedagogy (006) Objective Scores

NCTM 5		Student Development and Diversity				
Graduation Year	**N**	**EPP Avg Percent Correct**	**EPP Range of Percent Correct**	**State Avg Percent Correct**	**n of EPP Above State Percent Correct**	**Percent of EPP Above State percent Correct**
1314	▮	81.3	75-88	78	1	50

NCTM 5		Learning Processes				
Graduation Year	**N**	**EPP Avg Percent Correct**	**EPP Range of Percent Correct**	**State Avg Percent Correct**	**n of EPP Above State Percent Correct**	**Percent of EPP Above State percent Correct**
1314	▮	87.5	83-92	78	2	100

NCTM 5		Learning Environment				
Graduation Year	**N**	**EPP Avg Percent Correct**	**EPP Range of Percent Correct**	**State Avg Percent Correct**	**n of EPP Above State Percent Correct**	**Percent of EPP Above State percent Correct**
1314	▮	83.3	75-92	82	1	50

NCTM 3		Instructional Planning and Delivery				
Graduation Year	**N**	**EPP Avg Percent Correct**	**EPP Range of Percent Correct**	**State Avg Percent Correct**	**n of EPP Above State Percent Correct**	**Percent of EPP Above State percent Correct**
1314	▮	87.5	81-94	77	2	100

NCTM 4		Assessment				
Graduation Year	**N**	**EPP Avg Percent Correct**	**EPP Range of Percent Correct**	**State Avg Percent Correct**	**n of EPP Above State Percent Correct**	**Percent of EPP Above State percent Correct**
1314	▮	88.0	88-88	77	2	100

		Reading				
Graduation Year	**N**	**EPP Avg Percent Correct**	**EPP Range of Percent Correct**	**State Avg Percent Correct**	**n of EPP Above State Percent Correct**	**Percent of EPP Above State percent Correct**
1314	▮	88.0	88-88	78	2	100

NCTM 6		The Professional Environment				
Graduation Year	**N**	**EPP Avg Percent Correct**	**EPP Range of Percent Correct**	**State Avg Percent Correct**	**n of EPP Above State Percent Correct**	**Percent of EPP Above State percent Correct**
1314	▮	93.8	88-100	79	2	100