**Assessment Summary for Mathematics Education Program Completers (2008-2013)**

Attached are data summaries for six key assessments for all (five) mathematics education teacher candidates, representing data from Decision Points 1, 2, and 3. Assessment rubrics for practice teaching, student teaching, and final portfolio are structured according to the EPP’s conceptual framework (the 4C’s). Assessment 1 is specifically aligned with NCTM Standards 1-15. Assessment 2, Mathematics Major Coursework grades, reflects the College mission to cultivate intellect, scholarship, and personal growth, and courses are aligned with NCTM standards. Course descriptions specific to NCTM standards are also attached. Teacher dispositions are directly assessed in the culminating student teaching evaluation and final portfolio (Assessment 4 and 6). Student learning is most directly assessed in key assessment 5, the pre/post assignment. The student teaching evaluation (Assessment #4) includes 21/68 indicators that are linked to the Indiana teacher evaluation rubric (RISE). As in all program student teaching evaluation rubrics, these indicators are marked with (r). The final portfolio is (Assessment 6) the clearest view of how INTASC principles are linked to candidate assessment. All teacher candidates write rationales for portfolio documents for each of ten INTASC principles.

Data indicates that 100% of program completers from 2008 through 2013 passed the required teacher placement exam (PRAXIS II) by at least 75% of the possible 200 points. The most recent program completer (2013) received an “E” from ETS in recognition of top score. General program completer area of weakness included knowledge of different perspectives on algebra (Standard 10) and discrete mathematics (Standard 13). Program completer strengths included knowledge of calculus (Standard 12) and knowledge of data analysis, statistics, and probability (Standard 14). The Mathematics Department has discussed the merits of requiring Mat 217 Applied Statistics or Mat 327 Probability and Statistics to best address Standard 14. The data indicated that either course seems appropriate. Mat 324 Algebraic Systems is consistently a challenge for teacher candidates. There was no significant difference between the 3 male and 2 female test taker results for Assessment 1.

Culminating grade point averages for mathematics major course requirements generally have increased since 2008. Three of five program completers exceeded the College gpa average of 2.97 in their mathematics major as they graduated. All program completers averaged at least better than B- in the mathematics major. The EPP dismissed one mathematics major since 2008 because of low grades in mathematics. Generally, major course grades have had insignificant bearing on strength of teaching or pedagogy except in the way of teacher candidates rarely having to worry about content competence while teaching.

The Assessment 3 Practice Teaching rubric has been more recently revised so that the two most recent teacher candidates have valid scores. The first candidate met or exceeded 66% of NCTM/Indiana standard indicators and the second candidate met or exceeded 86% of standard indicators. The second candidate met the EPP’s benchmark of 80% on this key assessment. General strengths for two junior or mid-level candidates included mathematics content, use of multiple representations, and use of appropriate instructional levels. General weakness for two candidates included engaging/effective introduction to lessons and integration of multicultural curriculum. The EPP decided to emphasize engaging introductions during student teaching. The mathematics methods instructor and supervisor of mathematics student teaching requires that candidates prepare lesson using Banks’ model for integrating multicultural curriculum. A simple example would be one junior candidate who included the history of Egyptian pyramids when teaching solid geometry.

Assessment 4 Student Teaching Evaluation was recently revised and the latest program completer exhibits the first valid set of scores. This program completer (2013) met or exceeded 100% of 68 indicators. Scores (1 to 4) were determined by consensus between faculty supervisor, student teacher, and teacher mentor. Scores were determined in 4th, 8th, and 12th week of student teaching. The final scores are reported. Clearly, the 2013 program completer exceeded the EPP’s 80% benchmark. General strengths and weaknesses could not yet be determined given results from one program completer.

Again Assessment 5 was most recently revised, and the 2013 program completer might have valid scores. All Assessment 5 data comes from the student teaching experience. All candidates use the same rubric at least twice at mid-level during their two methods courses. The 2013 program completer met 75% of four clusters of standards. Technically, student teachers should meet all clusters of standards in order to reach the 80% benchmark. Student teacher typical area of weakness is the alignment of student standards to student pre/post assessment and to student results. Student teachers are asked to revise Assessment 5 analysis in order to reach the 80% of standard indicators met. The rubric was “filled in” with better descriptors and scores of 1 through 4 were more specifically described. SPA feedback has included that clusters of standards are too vague in measuring candidate ability to document student learning and ability to adjust instruction. This rubric and corresponding instruction will most likely be revised in the next SPA reviews.

Not all scores on Assessment 6 Final Portfolio are equally valid. There were numerous revisions made between 2008 and 2013. All five program completers met at least 82% of 38 standard indicators. Again, there was no significant distinction between male and female results. General strengths included understanding of content, use of student standards, teaching of inquiry, and planning. Areas of weakness included access and use of professional mathematic resources and differentiation (RtI), Student teaching goals now include access and use of mathematics resources (especially electronic) and strategies for differentiating instruction. For example, annotated seating charts assist the student teaching in first knowing who their student are, the profile of student performance, and how to arrange student grouping/peer support. The last major category of indicators in the portfolio scoring guide are dispositions expected of student teachers. These indicators are grouped under the fourth C of the EPP’s conceptual framework, COMMITMENT. Generally, by the time candidates are student teaching, dispositions are solidly established. To date, the EPP has focused on the student teacher’s ability to respond productively to feedback. Student teachers are expected to document their response to feedback in an analysis of teaching and student learning for each of six formally observed lessons during student teaching. This response to feedback consequently becomes part of documentation in the student teacher’s final portfolio. Teacher dispositions are also documented in other more generic assessments in Decision Points 1 and 2.