Transitional Math Public Commenting Summary and Recommendations

Public Commenting Process

The following approach was used to comprehensively inform through multiple means all affected parties of the PWR Act and transitional math as well as gain ample feedback to inform the decisions of the transitional math statewide panel.

Public commenting for the proposed transitional math competencies and policies was held from October 23, 2017 through January 15, 2018. A website with the proposed documents and a survey were provided for feedback. In addition to feedback from the public commenting website as well as consultation meetings with colleges and high schools, input was sought using the following methods and events of outreach. At each event listed below, public commenting was requested using the survey on the public commenting website. Additionally, the public commenting period was extended from its original deadline of December 31, 2017 to January 15, 2018 to allow for more feedback.

Presentations on PWR Act Transitional Math were given to:

- Regional superintendents
- Conferences (Forum for Excellence, College Changes Everything, RSAC)
- Illinois K-12 math content specialists
- Illinois CCA corequisite pilot colleges
- P20 Network
- IMACC board
- Community college presidents
- Community college chief academic officers
- Community college chief student service officers
- Illinois Workforce Innovation Board members
- P20 College and Career Readiness Committee
- IAI general education math panel
- IBHE faculty advisory council
- IBHE academic leadership committee

Webinars:

Two statewide webinars were advertised, and recordings were sent out through multiple K-12 listservs and community college contacts (chief academic officers, transitional math subcommittee members, and math faculty). The webinars focused on the following issues related to implementing PWR Act Transitional Math:

- Teacher-focused issues
- Administrative and student service issues

Newsletter articles:

- Capture the Core (K-12 math)
- IMACC (community college math)

Transitional math survey summary and recommendations

Questions 1 – 3: Name, position, email address

Summary:

There were 205 survey responses received; however, many responses did not include any results or only results for a few questions. Respondents represented all geographic regions of the state as well as small, medium, and large schools in rural, suburban, and urban areas. Those who responded include teachers, administrators, and math specialists for secondary and postsecondary levels. Disciplines represented include math, science, and CTE. Additionally, respondents included EFE directors and the president for Illinois Federation of Teachers.

Recommendations:

None

Question 4: Comments on competencies overview

Summary:

- Concern for lack of data supporting improved remediation rates
- Request to remove use of "citizen" since not all students are or will be U.S. citizens
- Approve of having 3 years of math required for entrance
- Request for more specificity of how the competencies will look in the classroom
- Concern for authenticity of problems without talking to employers
- Concern that real problem is at the lower levels of math and that the Act does not address that
- Concern for the effectiveness of three years of high school math
- Request for a state mandated fourth year of math
- Approve of philosophy of the PWR Act
- Questions about implementation including lack of resources and how transcripting will operate
- Request for a profile of an ideal student for each pathway
- Concern for funding for development of curriculum to support these courses and that such a curriculum, if developed, be available for adoption
- Suggestion to offer the courses in other disciplines as opposed to standalone courses
- Concern that this approach is a back door to adding a fourth year of math
- Concern for rigor of courses and that implementation will ensure that rigor

Recommendations:

1. Develop a comprehensive data plan to capture effects of implementation at the classroom, course, school, and state levels. Use the results to inform changes as needed to ensure rigor so that outcome pass rates are satisfactory.
2. Change "citizen" to "community member" in competencies overview.
3. Develop a detailed implementation plan that includes funding for resources, particularly for curriculum development, as well as a plan for transcripting courses between high schools and colleges.

4. Create detailed pathway information, such as curriculum maps, that will explicitly define the development of content.
5. Create an advising implementation plan that includes information on students each pathway is best suited for.
6. Develop resources in consultation with employers and CTE teachers.

Question 5: Comments on process competencies

Summary:

- Concern that process competencies will not be assessed directly
- Request for more information on how the process competencies are to be taught and incorporated in the courses
- Concern that assessing processing competencies will be difficult
- Support for incorporation of the Essential Employability Skills Framework

Recommendations:

1. After further discussion with the transitional math subcommittees and specifically with high school teachers who incorporate the Common Core Standards of Mathematical Practice, it is recommended to maintain the approach of not assessing the process competencies directly. Instead, it is recommended that process competencies are indirectly assessed over time with problem-based or project-based assignments. Curriculum and assessment examples, such as performance tasks and rubrics, should be provided to illustrate how the process competencies can be assessed indirectly. Professional development and curriculum maps will assist in providing guidance for teachers to incorporate these competencies. Additionally, a directory of activities and assessments that address college knowledge and soft skills should be created to augment any transitional math course.

Question 6: Comments on STEM competencies

Summary:

- Concern that the name "STEM" misrepresents the purpose of the course and the audience it best serves
- Concern that the course will become a traditional intermediate algebra class instead of a robust course based on authentic applications and contexts
- Request for removal of statement allowing the STEM course to substitute for Algebra 2
- Request for incorporation of science contexts such as physics, engineering, and chemistry

Recommendations:

1. After further discussion with several groups of stakeholders, it is recommended that the name "STEM" be changed to reflect that this is the college algebra pathway. The name change should be throughout any PWR transitional math document where "STEM" is currently used, including the law.

2. Create detailed pathway information, such as curriculum maps, activities, and assessments along with professional development that will explicitly define the development of content and its pedagogy.
3. Incorporate science contexts into sample resources that will be produced.
4. Remove the use of this pathway as a substitute for Algebra 2.

Question 7: Comments on Quantitative Literacy & Statistics competencies

Summary:

- Concern that there is not enough detail in the competencies to ensure the execution of the course is in line with the information in the document's overview
- Request the use of authentic materials like Geometry in Construction and other CTE-specific mathematical problems
- Concerns that there is too much statistical content in the course
- Concerns that there is not enough statistical content in the course
- Belief that this pathway should be the only transitional math pathway offered

Recommendations:

1. Create detailed pathway information, such as curriculum maps, activities, and assessments along with professional development that will explicitly define the development of content and its pedagogy.
2. Develop a list of resources designed to support this course.

Question 8: Comments on Technical Math competencies

Summary:

- Request for incorporation of these competencies into existing CTE courses
- Request for sample problems and activities
- Concern that geometry and measurement are not addressed sufficiently
- Concern that there is no need for this course at a community college
- Support for this type of course
- Concern that CTE teachers have not been included in development of the course competencies
- Concern that this pathway will be seen as "less than" the others

Response:

Input was obtained from employers and CTE teachers to develop the technical math competencies. Teachers with industry experience and technical course experience were also included in the development of the competencies.

Further, technical math courses at community colleges vary considerably throughout the state. A statewide scan will be done in 2018 and recommendations will be formed and presented later in the year. Currently, there are several existing technical math courses for which this transitional path would be an appropriate prerequisite. The technical math subcommittee did a scan of several technical math courses to ensure the competencies developed would be applicable to courses being currently offered.

Recommendations:

1. Create detailed pathway information, such as curriculum maps, activities, and assessments along with professional development that will explicitly define the development of content and its pedagogy.
2. Develop a list of resources designed to support this course.
3. Create marketing materials for this and the other pathways to help high schools promote them and ensure that students understand the value and level of content included.

<u>Question 9: Comments on proposed policies</u>

Summary:

- Concern for making dual credit the norm for fourth year high school math
- Need for clarity that the college provides placement, not credit, for a transitional math course
- Request for CTE teachers to be primary teacher in technical math pathway
- Concern for mandating a fourth year of high school math through this Act
- Multiple concerns about funding for professional development and training, that it will be essential to the initiative working
- Question of who will be designing and offering training
- Concern that a fourth year transitional math course will compete with a student's elective options, especially CTE electives
- Statement of the need for support for advisors since they are critical to this effort's success
- Concern that much is being asked of teachers (develop curriculum, participate in professional development, provide support, etc.) and that without adequate funding, it is too much to ask
- Request for the state to provide significant support with professional development and materials
- Concern about the integrated course option requiring a math teacher to teach with a CTE teacher instead of allowing the CTE teacher to provide instruction
- Request for removal of this statement, "Nothing in this policy prevents a school district and community college from aligning an Algebra II course to the STEM transitional math competencies and enabling completion of that course to determine placement into dual credit College Algebra." Concern that schools will use the STEM course for juniors and/or adapt

existing Algebra 2 offerings to operate in two ways, which they contend, undermines the entire philosophy of transitional math
- Concern for loss of rigor and no common evaluation structure
- Support for concept but concern that no common exit exams leads to unprepared students
- Concern that college requirements to provide liaisons is financially burdensome, particularly for colleges with many high schools in their districts
- Concern that a CTE teacher cannot have primary teaching responsibilities for a technical course
- Concern for rigor
- Request for a common exist exam for each transitional math path in the way that AP has an exit exam
- Concern that teachers will have enough support to offer these courses as intended

Recommendations:

1. Adjust language of law to clarify that high schools will transcript the transitional math course but that colleges do not transcript it.
2. Create statewide course codes for each of the three pathways, similar to IAI course codes, to provide a clear mechanism for appropriate college placement when college registrars read transcripts.
3. Adjust language in policy #1 to allow for teachers in other disciplines, particularly CTE teachers, to have the primary teaching responsibilities when using transitional math competencies in an integrated approach within other courses and instead to have a math teacher in a resource role in those cases.
4. Remove statement in policy #2 that allows for the STEM transitional math course to function as an Algebra 2 course.
5. Acquire funding through public and private resources to sufficiently fund a comprehensive professional development program and resource development program as well as provide funding for time for high school and college math faculty to work on curriculum and implementation.
6. Require memos of understanding to include a component on program evaluation and improvement over time based on data and outcomes in college-level courses.
7. Establish transitional math outcomes report, generated by ISBE and ICCB, for each high school.

<u>Question 10: Choice of two proposed policy statements regarding rigor</u>

Do you prefer the second component to the rigor and standards as they are currently stated (option 1 below) or a more specific version (option 2 below)?

Option 1:
Grading limits on formative and summative assessments (e.g., 25% of the grade is from homework) should be established and agreed upon by both the high school and college so that the final grade is not determined entirely by participation nor by a single assessment. Problem and/or project-based learning tasks must be included in the grading scheme.

Option 2:

• At least 25% of the overall grade must come from problem or project-based learning tasks
• A single assessment may not be more than 50% of the final grade in the course
• No more than 25% of the course grade can come from formative assignments such as homework.

Summary:

- 41% of respondents chose option 1
- 59% of respondents chose option 2

Recommendations:

1. Use option 2 wording in policies document for rigor and standards section.

Question 11: Comments on choice of response for question 10 (rigor and standards)

Summary:

- Concern that colleges will not work with their high school partners collaboratively
- Multiple comments that option 2 provides some consistency while still allowing for some flexibility
- Request for neither option as each school district should have local control to determine quality and rigor
- Support for both options in that they establish a grade must be based on many facets instead of a single test or type of assessment
- Request for an outcome placement test to factor into the course grade in some way
- Support for both options in that they will help students adjust to the expectations of college
- Support for option 2 because it promotes the inclusion of rich and engaging tasks

Response:

Local control is a hallmark of education throughout Illinois. The policies stated here provide some consistency to ensure the integrity of the portability component of these courses while allowing for some flexibility and local needs. Through this flexibility, partnerships have the means to incorporate a placement test score into the final grade in some manner, provided that it is not the sole means of determining placement.

Recommendations:

None

Question 12: Final thoughts

Summary:

- Concern for how college readiness will be determined by the agencies
- Caution against a fourth year of math being required
- Concern that students will be placed into courses for which they are not ready
- Support for the overview and description but concern that the competencies don't support its intent
- Strong concern for lack of funding and that without dedicated state-level funding, this initiative will not succeed
- Support for the emphasis on partnerships between high schools and colleges
- Request for all universities to accept the placement since community colleges must accept it
- Concern about implementation details
- Concern that the PWR Act pushes students to choose a career before they are ready
- Concern that this will be another unfunded mandate
- Question as to who will implement and monitor transitional math

Recommendations:

1. Create a comprehensive communication plan to provide information and updates throughout the implementation of transitional math courses.
2. Secure funding to support the coordination, implementation, and portability of the transitional math courses.
3. Investigate "cross walks" and other means to allow students to change meta-majors with minimal additional math coursework.