

Inventory of Developmental Education in Public Community Colleges and Universities in Illinois

Illinois Board of Higher Education

Illinois Community College Board

March 31, 2020

Executive Summary

This report describes results of an inventory of models employed by all public community colleges and universities in Illinois for students placed into developmental education or otherwise determined to need additional skills development in mathematics or English/Language Arts, as required by the Senate Joint Resolution (SJR) 41 of the state of Illinois. The report includes course sequences associated with the developmental models studied through the inventory process as well as the placement policies that are used to determine where students enter their college pathway. (For definitions of the developmental models inventoried in this report, see Appendix A.)

Data were gathered using a survey instrument distributed to all public community colleges and universities in Illinois in late January and continued through early March 2020. The instrument was developed collaboratively by researchers and leaders of the Illinois Board of Higher Education (IBHE) and Illinois Community College Board (ICCB), and reviewed by members of the SJR 41 Advisory Council at its January 10, 2020 meeting in Springfield, Illinois. Feedback on various aspects of the inventory instrument and data collection process was incorporated into the final inventory process, including incorporating Advisory Council member recommended refinements to the definitions of developmental models and numerous aspects of implementation.

Results of this statewide inventory must be transmitted to the Illinois Governor and Legislature by April 1, 2020 and also used by the SJR 41 Advisory Council to develop an implementation plan for public higher education by July 1, 2020. Entering this information on developmental education into the public record is important to providing a baseline of knowledge for this current work and to future efforts to continuously improve public higher education in ways that benefit all residents of Illinois.

This inventory reflects the current state of developmental education in public higher education in the state of Illinois to the extent institutions reported findings accurately and comprehensively. The results are valuable to providing a baseline of descriptive information from which to understand the full scope and status of developmental education for future planning, but they should not be interpreted as evaluative of the impact of developmental models on student outcomes (for clarification of methods, see the limitations section where the purpose of this inventory is distinguished from a rigorous impact evaluation that is based on student-level data).

Notable results that reflect the current state of developmental education, including placement policies and practices, in public higher education in Illinois include:

- Developmental education is evolving in Illinois, with all public community colleges offering developmental English/Language Arts and mathematics, and nearly all public universities reporting implementing developmental mathematics and half implementing developmental English/Language Arts.
- Data gathered by the Illinois Community College Board (ICCB) reveal that developmental education enrollment in the community colleges has declined over the last decade, possibly revealing that more students are starting higher education by taking college-level courses. This decline in developmental enrollment outpaces declines in credit, adult education, and noncredit programs. Comparable data on developmental enrollment are not available from the Illinois Board of Higher Education (IBHE) at this time but are beginning to be collected to provide a full picture of developmental education in Illinois public higher education.

- Looking at the implementation of developmental models, the traditional and co-requisite models are implemented on some level in English/Language Arts in nearly all community colleges in the state, with a larger number of students enrolled in the co-requisite model in the 2018 cohort than the 2017 cohort. The compressed model was implemented English/Language Arts reported by eight community colleges, and other models (such as the contextual, modularized, or emporium) were identified by one or two colleges only.
- The traditional model is offered by 45 public community colleges in Illinois, enrolling the majority of students in the traditional model in mathematics at the two-year level. However, implementation of the traditional model is increasing in the community colleges, with the majority of community colleges (n=32) reporting currently developing, testing or implementing the co-requisite model. Specifically, 19 public community colleges report implementing the co-requisite model in mathematics. Two other developmental models mentioned by community colleges are the compressed model (n=12) and the emporium model (n=9). These models also enrolled fairly substantial numbers of students in the two cohorts (2017 and 2018) included in this inventory.
- The public universities in Illinois implement the traditional model in both developmental English/Language Arts and mathematics, typically offering one or two developmental courses to prepare students for the related gateway college-level course. In addition, the co-requisite model is implemented in English/Language Arts in one university and in mathematics in four universities and under development in two more. The stretch model was mentioned by one university in association with English/Language Arts, and the stretch and studio models were each mentioned by one university in association with mathematics.
- With respect to mathematics at the university level, it is noteworthy that nearly all public universities mentioned implementing differentiated pathways that align to students' college majors. The pathways approach appeared to be evolving and becoming more closely aligned to the mathematics requirements of the major. These refinements to align developmental mathematics to college majors are important to document into the future as they may have broader implications for higher education across the state.
- With respect to enrollments and outcomes in developmental education, enrollments are highest in the traditional model in English/Language Arts and mathematics in both the public community colleges and universities, with the co-requisite model tending to have the next highest number of students enrolled in the two cohorts (2017 and 2018) included in this inventory.
- In nearly all analysis of cohort enrollments and course completions, the co-requisite model showed the highest developmental course completion and related-gateway course completion rates. In a few cases the percentage of student completions of developmental courses and related-gateway course completion was not considerably different between the co-requisite model and traditional or another model, but the consistency of higher completion outcomes for the co-requisite model is noteworthy and important to recognize.
- Placement policies are closely linked to developmental education course-taking and therefore important to understand. This inventory documents that placement policies are evolving in the community colleges and universities, with variation in implementation of placement policies and practices at both levels. Seventeen public community colleges report fully implementing the multiple measures placement policy adopted by the Illinois Community College Board and Illinois Council of Community College Presidents, with twelve community colleges currently implementing and expecting to be a full-scale by Fall 2020. Another seven community college

report being ready to implement the new placement policy by fall 2020, and three colleges did not provide information on placement policy implementation for this inventory.

- The public universities implement placement policies independently and without a common approach, such as the multiple measures policy adopted by the public community colleges. Even so, placement policies reported by the universities suggest a wide range of measures are being used for placement in English/Language Arts and mathematics, ranging from using standardized tests, high school grade point average (GPA), and institution-specific assessments solely and in conjunction with one another.
- The inventory also revealed numerous examples of newly implemented developmental education reforms and innovations, as well as long-standing programs and practices that are valued on college and university campuses. These promising programs and practices are included in inventory data and available to the Advisory Council members to use in developing the implementation plan required by SRJ 41.

Finally, this inventory of developmental models in public community colleges and universities has helped to achieve an important goal of understanding the current state of developmental models and placement policies in public higher education in Illinois. Results of this inventory are useful to for future work of the SJR 41 Advisory Council, and hopefully others who are committed to understanding the current state of developmental education. By gathering these inventory data for future planning using a comprehensive, descriptive approach, an important baseline of information has been created for future research and evaluation. Already, the state of Illinois and numerous institutions within the state are reporting results of studies they are conducting on developmental education on their campuses, and more of this evidence-based approach should be encouraged. To continually improve developmental education, it is important for higher education to invest in continuous improvement that delivers equitable outcomes for all of Illinois.

Table of Contents

Introduction.....	1
Senate Joint Resolution (SJR) 41	1
SJR 41 Advisory Council Membership and Timeline	2
The Evolving Developmental Education Landscape.....	2
The National Landscape	2
The Illinois Landscape	4
Inventory Methods.....	5
The Inventory Process.....	5
Limitations	6
Inventory Results	6
Developmental Models	7
Developmental Models in Public Community Colleges.....	8
English/Language Arts	8
Mathematics.....	11
Developmental Models in Public Universities.....	14
English/Language Arts	14
Mathematics.....	16
Placement Policies	18
Public Community Colleges.....	18
Public Universities.....	21
Implications for the SJR 41 Implementation Plan.....	26
References.....	28

Appendices:

Appendix A: Definitions of Developmental Models Included in Inventory of Public Higher Education Institutions in Illinois	30
Appendix B: SJR 41 Membership	31
Appendix C: SJR 41 Timeline.....	33
Appendix D: Inventory Instrument (IBHE version).....	35

List of Tables

Table 1.	Summary of Developmental Model Implementation in English/Language Arts by All Public Community Colleges	9
Table 2.	2017 Cohort Enrollment and Completion of Developmental Model-English/Language Arts Course and Related Gateway Course in All Public Community Colleges	10
Table 3.	2018 Cohort Enrollment and Completion of Developmental Model-English/Language Arts Course and Related Gateway Course in All Public Community Colleges	11
Table 4.	Summary of Developmental Model Implementation in Mathematics by All Public Illinois Community Colleges	12
Table 5.	2017 Cohort Enrolled in Developmental Model in Mathematics Course and Related Gateway Course in All Public Community Colleges	13
Table 6.	2018 Cohort Enrolled in Developmental Model in Mathematics Course and Related Gateway Course in All Public Community Colleges	14
Table 7.	Summary of Developmental Models in English/Language Arts by All Public Universities	14
Table 8.	2017 Cohort Enrolled in Developmental Model in English/Language Arts Course and Related Gateway Course in All Public Universities	14
Table 9.	2018 Cohort Enrolled in Developmental Model in English/Language Arts Course and Related Gateway Course in All Public Universities	15
Table 10.	Summary of Developmental Models in Mathematics by All Public Universities.....	16
Table 11.	2017 Cohort Enrolled in Developmental Model in Mathematics Course and Related Gateway Course in All Public Universities	1u
Table 12.	2018 Cohort Enrolled in Developmental Model in Mathematics Course and Related Gateway Course in All Public Universities	17
Table 13.	Recommended Test Scores and High School Grade Point Average (GPA) for Placement into College-level Course	19
Table 14.	All Public Community College District Report on Implementation of Placement Policies	19
Table 15.	Public Community College Implementation Level by Placement Method	21
Table 16.	Developmental Model, Course Sequence and Placement Policy for English/Language Arts offered by Public Universities	22
Table 17.	Developmental Model, Course Sequence and Placement Policy for Mathematics offered by Public Universities.....	23

Introduction

This report responds to Senate Joint Resolution (SJR) 41 to conduct an inventory on developmental education in all public community colleges and universities in Illinois and provide results to the state legislature by April 1, 2020. The report begins by summarizing SJR 41's goals, advisory council membership, and timeline, followed by a brief discussion of developmental reforms occurring nationally and in the state of Illinois. The methods used by researchers of the Illinois Community College Board (ICCB) and Illinois Board of Higher Education (IBHE) to conduct the statewide inventory are described, followed by major results organized according to three areas specified by SJR 41: developmental (instructional) models and course sequences for all public community colleges; developmental (instructional) models and course sequences for all public community colleges, and placement policies and practices. The report concludes with discussion of implications of the inventory results for the next steps in SJR 41 Advisory Council's mandate to create an implementation plan by July 1, 2020 that speaks directly to the need to implement developmental education that improves student success in public community colleges and universities in Illinois.

Senate Joint Resolution (SJR) 41

In 2019, the Senate of the General Assembly of the State of Illinois passed a Senate Joint Resolution (SJR) 41 that called for the Illinois Community College Board (ICCB) and the Illinois Board of Higher Education to establish the SJR 41 Advisory Council. This Council was charged with providing a benchmarking (inventory) report to the General Assembly on or before April 1, 2020, that includes the following:

- (1) An inventory of all instructional models and developmental course sequences employed by Illinois' public colleges and universities for students placed into developmental education or otherwise determined to need additional skills development in math or English;
- (2) An analysis of all instructional models employed by Illinois' public colleges and universities for students placed into developmental education or otherwise determined to need additional skills development in math or English, including, at a minimum, the number and percentage of students completing gateway courses within their first two semesters under each model; and
- (3) An inventory and analysis of developmental education placement practices and policies (including cut off scores) employed at all public colleges and universities in the State.

The inventory report is organized according to these three specific directives in SJR 41, beginning with descriptive results on implementation of developmental models and analysis of enrollment and completion pertaining to these models for public community colleges and universities. Description of course sequences and placement policies follow the presentation of results on developmental models, delving more deeply into the courses taught in association with the models and how students are placed into these models and courses.

This report provides important baseline information for a detailed implementation plan for scaling developmental education reforms, including placement measures within a timeframe to be set by the SJR 41 Advisory Council specifying how all Illinois community college and university students will be placed in a developmental model that maximizes their likelihood of completing a college-level course within their first two academic semesters. This implementation plan will also describe public policy and funding requirements, institutional policy and practice changes, operational definitions and measures to study reform at the institutional and state levels, and other critical aspects of change aligned with the SJR 41 Advisory Council's scope of work. On January 1, 2021, the SJR 41 Advisory Council will report on progress made since submission of the implementation to the Illinois General Assembly on July 1, 2020.

SJR 41 Advisory Council Membership and Timeline

In accordance with the SJR 41 policy, Advisory Council members were identified and invited to participate in a series of six face-to-face meetings beginning September 9, 2019 and continuing through June 4, 2020. The names and affiliation of individuals agreeing to participate as SJR 41 Advisory Council members appear in Appendix B.

A timeline was created by the state leadership team for the SJR 41 Advisory Council, including selecting the meeting dates to align with reporting deadlines. The timeline also recommends the timing of various activities that Advisory Council members need to engage in gathering input from their respective constituencies on the implementation plan required by SJR 41. This timeline is shown in Appendix C.

The Evolving Developmental Education Landscape

This section provides a brief description of developmental education from a national and state perspective. Whereas the literature on developmental education is extensive, this discussion is focused on source material that informs issues and concerns specific to SJR 41 Advisory Council. Important studies, essays and perspectives that pertain to the scope of work of SJR 41 and its Advisory Council members are summarized to support the use of the inventory results for Illinois public higher education policy and practice.

The National Landscape

Developmental education has been a vital component of higher education in the United States since colleges and universities first began forming 400 years ago. Without question, developmental education is a far cry from its original offering by Harvard, expanding and shifting in purpose and form as higher education has become more universal to the education of all of America's citizens. Since the middle of the 20th Century, developmental education has been viewed largely as the purview of community colleges but universities throughout the country deliver considerable developmental education instruction as well. Understanding what developmental education is helps us to understand why it is so pervasive and important to higher education.

As stated in SRJ 41, the focus of the SJR 41 Advisory Council is on developmental education. The term developmental education deserves explanation to clarify its meaning with respect to higher education. The deliberate use of this term in SJR 41 is important as it situates the work of the Advisory Council in particular way with respect to matters influencing the student success. To this end, the profession associated with developmental education offered definitions that help us to understand what developmental education is and how and why it is different from remediation or remedial education (Parker, Barrett, & Bustillos, 2014). These definitions have been discussed by SJR 41 Advisory Council members and are therefore important to include in this narrative for purposes of clarification and anchoring this work in the larger context that situates the inventory results.

Thus, the SJR 41 Advisory Council focuses on developmental education as opposed to remediation or remedial education. By developmental education we mean education that recognizes individuals as learners that have a range of capabilities that are strengthened and advanced through the learning process. Students vary in their academic preparedness and college readiness and this is to be expected as the educational system itself varies in capacity and functionality. What this means is the public higher education is needed to provide a critical role in preparing students to participate in the collegiate experience in ways that are meaningful and beneficial to them, with developmental education playing this critical role. In contrast, remediation or remedial education tends to focus on students as themselves having academic deficits that need to be treated with interventions. Rather than focusing on developmental

education as enhancing learning as a primary function of the educational process, remedial education attempts to fill gaps in students who are seen as deviating from an idyllic view of higher education. Interventions that are associated with remedial education often focus exclusively on instruction whereas developmental education tends to be associated with a more holistic approach, coupling instruction to student supports (Casazza & Silverman, 1996).

Also without question, developmental education is linked to access, equity and completion issues in higher education, with students of color, lower-income students, and first-generation students being more likely than their white middle and upper-class peers to be placed below the level of coursework that generates college credits. Speaking to equity concerns pertaining to developmental education in higher education, Parker et al. (2014) observe,

Given the high need evident among matriculating college students, serving students who are considered underprepared through developmental education is not just an academic necessity; it is a social and economic imperative. Because to limit students, who are more likely to be students of color or low income, to begin their college careers in one sector of postsecondary education (community colleges) while white and high income students have greater freedom to choose any college sector raises important questions of equity.

Recognizing this tendency to associate developmental education with community colleges and separate from universities, the SJR 41 Advisory Council commends the state legislature for involving Illinois' public higher education system in this careful examination of developmental education across the entire system. Considering implications of the work of SJR 41 for the system is important to the future planning required by the SJR 41 Advisory Council to address how public higher education continues to implement state policy and institutional practice on developmental education.

In actuality, concerns about inequity in higher education begin before students enter college, starting at the point when students' readiness for college is assessed using standardized testing in the ACT and SAT, and also when placement tests are given to make initial college course placement decisions. Inaccuracy in placement of students of color based on standardized exams, in which test scores are also correlated with family income (The National Center for Fair and Open Testing, n.d.), needs to be recognized when examining the way developmental education functions for Illinois' diverse student population. Placement decisions are integral to course enrollment and related-gateway course completion that is necessary to enable students to progress through college and achieve successful completion. Understanding the ways inequities affect how underserved student populations, particularly students of color, are able to participate and benefit from higher education is necessary to improving policies and practices in Illinois (Martinez and the Partnership for College Completion, 2017).

Empirical research on developmental education has focused primarily on community colleges where the preponderance of instruction is provided in most states (Parker et al., 2014). Studies of the effectiveness of developmental education are debated, with some suggesting models such as co-requisite and other reforms do not work (see, for example, Goudas & Boylan, 2012). Other scholars (see, for example, Schak, Metzger, Bass, McCann, & English, 2017) advocate for significant change, suggesting students who take multiple pre-college courses from basic- to college-level are at greater risk failing and never entering college, and they also tend to incur greater costs by taking developmental coursework. Beyond this debate, the data are clear that students of color, low-income students, and first-generation students are more likely to access college through developmental courses than White, middle- and upper-income students. This access and equity issue goes at the heart of ensuring that developmental education is effective for the students it is intended to benefit, enabling these students to prepare to enter college-level course work and succeed in progressing on their college journey in as timely, efficient and effective a way as possible (Goldman & Abrahamson, 2019).

Research on developmental models remains relatively limited despite the fact that improved practices have been advocated for some time. Bragg (2012) summarized emerging reforms in college mathematics, including developmental education, for the National Academy of Sciences (NAS) wherein approaches to contextualization, modularization, compression, and acceleration were reported. The Dana Center's work on Quantway™ and Statway™ were already launched at this time and recommended as possible ways to improve normative pre-college mathematics.

Over the last decade, reforms to developmental education in mathematics and English/Language Arts have accelerated nationwide and in Illinois. Efforts to test new developmental curriculum and instruction are continuing nationwide, often combining the use of the co-requisite model with multiple measures for developmental placement. Research on the co-requisite model is most prevalent of all research on developmental education because of the priority placed on studying this model by the Institute for Education Sciences (IES) through the Center for Analysis of Postsecondary Readiness (CAPR), Columbia University. Results of studies led by Scott-Clayton et al. (2012, 2014, 2015) suggest co-requisite has a positive impact on student completion of developmental education and gateway courses, particularly for students who place closest to college-level. The results are less conclusive on longer-term college outcomes, such as college completion, though recent results of mathematics pathways do show positive outcomes for college-level placement and number of math credits earned, and a small effect on certificate attainment (Rutschow, 2019).

In research conducted for CAPR, Barnett et al. (2018) demonstrate the importance of using multiple measures for college placement, including not relying solely on standardized developmental tests (e.g., Accuplacer) and instead integrating high school grade point average (GPA) and/or college placement testing (ACT and SAT) with other measures (essays, self-placement, etc.). With the goal of using one or more of these measures to place students as close to college level or into college level, the goal is to accelerate college-level placement for as many students as possible. The literature reports strengths and weaknesses of these methods, including concerns that even with garnering the most extensive research many questions remain about whether co-requisite, multiple methods and other reform strategies improve college student success and for whom student success is most attainable.

The Illinois Landscape

Before presenting inventory methods and results, we present some basic information on developmental education in public community colleges and universities in Illinois. To begin, over the last 14 years developmental education accounted for about 15% and 21% of all credit student enrollments in community colleges in Illinois. Developmental education as a proportion of all community college enrollment has declined over the last decade, outpacing declines in credit, adult education, and noncredit programs. Whereas these results suggest a slightly higher proportion of students are entering community colleges on track to begin studies at the college level, developmental education persists in many students' college-taking portfolios (as noted below). Mathematics tends to be the content area where the preponderance of students are enrolled in developmental education, with approximately 80% of community colleges students placed in developmental education taking at least one developmental mathematics course.

Of all full-time, first-time degree- or certificate-seeking students attending community colleges in Illinois, about 50% enroll in one or more developmental education course in entering fall term. The first-year credit accumulation, graduation, and transfer rate of these students is lower than students who do not take developmental courses. These outcomes are especially important to understand from the standpoint of access and equity. Data from the ICCB suggest Latino and African American students continue to be over-represented in developmental courses compared to other racial and ethnic groups, with college attainment outcomes reduced compared to white, middle- and higher-income students (Lichtenberger & Wilson, 2019a, 2019b).

Based on a report of IBHE researchers, nine of the 12 public universities in Illinois reported enrollments in developmental education between the academic years beginning fall 2014 to fall 2017 in the Integrated Postsecondary Education Data System (IPEDS) maintained by the federal government. All institutions reported developmental enrollments under 20% of all 12-month undergraduate enrollments, and 6 of the 9 institutions reporting enrollments showed developmental education enrollments under 10% of all 12-month undergraduate enrollments. Looking at the fall 2018 enrollment reported in IPEDS, we see approximately 11% of new freshman are enrolled in developmental education (mathematics or English/Language Arts). Similar to the students enrolled in developmental education in community colleges, African-American and Hispanic students are overrepresented in developmental education in the universities and Whites and Asian students are underrepresented relative to their proportion of the overall college student population. Developmental education is offered in mathematics and English/Language Arts in half the public universities, and developmental mathematics is offered in ten (Lichtenberger & Wilson, 2019a, 2019b).

It is also noteworthy that, similar to community colleges, developmental education has been evolving in the public universities in Illinois. The co-requisite model has been tested on some campuses and other strategies to improve instruction and support students have been implemented. To this end, numerous efforts have been implemented throughout the state of Illinois to strengthen relationships between high schools and universities (as well as community colleges), including improvements supported by Illinois state legislation to improve rising high school students' college readiness (going back well over a decade ago). Though these reforms are not named explicitly in this inventory, the SJR 41 is identifying them and recognizing their importance to improving developmental education in public higher education in Illinois.

Inventory Methods

The developmental education inventory methods, including development of the inventory instruments, survey administration, and data analysis processes, were led by the state leadership team of the and Illinois Board of Higher Education (IBHE) and Illinois Community College Board (ICCB). ICCB and IBHE researchers prepared plans for the instrumentation and data collection process and shared these plans with SJR 41 Advisory Council members at the January 10, 2020 meeting. At that time, the Council members broke into small group (team) meetings corresponding to the design thinking process utilized for the work of SJR 41, with these design teams focusing on a) models, b) implementation, c) information/data, and d) student experiences and voice. Critical review and feedback were obtained from each time in the form of notes that were synthesized and used to address concerns and improve the inventory instrumentation and methods.

The Inventory Process

Following the January 10th SJR 41 Advisory Council meeting, the IBHE and ICCB researchers integrated feedback into the inventory instrument and processes and circulated drafts of the instrument for review by key stakeholders, including the SJR 41 Advisory Council facilitator and a sub-set of campus institutional researchers. Additional feedback was integrated into the inventory instrument and processes, with implementation of the inventory instrument by both state agencies by the end of January 2020 (to review the final instrument used for this inventory, see Appendix D). The data collection period varied slightly between IBHE and ICCB but took place roughly through the end of February 2020, with follow-up extending into early March for colleges and universities requiring more time to generate a complete response. During the late February to mid-March period the IBHE and ICCB researchers and staff contacted campuses to clarify and validate responses, including addressing missing and inconsistent data. By Monday, March 16, 2020, all 61 public community colleges and universities had provided substantive responses that were subsequently analyzed and included in this report.

Though rather minor, there are a few differences in the inventory process for the IBHE and ICCB that are important to noting. First, the IBHE gathered data using an email (attached file) format whereas the ICCB conducted the inventory using online survey software. Given the considerably larger scope of data collection for the community colleges versus the universities, the online software offered a means to expedite the ICCB's inventory process. Second, the ICCB utilized other forms of survey methods besides the inventory instrument because some data needed by the inventory were already being gathered from the community colleges during the of Fall 2019 semester. Data on course sequences and placement policy were gathered using these complementary survey methods. Finally, whereas the inventory questions and response sets (scales) are very similar in the IBHE and ICCB versions of the instrument, there are slight differences in the versions. These differences do not appear to affect the validity of the results but are important to point out for the sake of completeness and accuracy.

Limitations

Understanding what the stateside inventory can and cannot tell us about developmental education in public higher education institutions in Illinois is important. Any inventory that relies on self-reported information as this one does provides a snapshot in time and is dependent on the thoroughness of responses. The descriptive findings provided through this method are a useful means of establishing a statewide baseline for future implementation, as was anticipated by SJR 41, but this method should not be confused with impact evaluation. The summary information collected to meet the inventory requirements of this report should not be used to determine which developmental models are working and for whom, either on their own or in relationship to one another. Establishing the impact of developmental education models at Illinois' public higher education institutions would require significantly more sophisticated research designs that measure enrollment and completion on a student level for a longer time period than one or two years, and also account for numerous contextual factors that could potentially affect both short- and long-term outcomes. Some colleges have already undertaken or are beginning to undertake this level of analysis to understand the impact and effectiveness of various models, and these efforts will be vitally important to decision-making about developmental education in the state.

Moreover, whereas both IBHE and ICCB have established student-level data collection systems and both collect nuanced developmental education data, neither agency has markers for the myriad of models in which students may enroll with IBHE beginning to collect this information only a short time ago (winter of 2020). To this end, more rigorous research designs are recommended to evaluate developmental models and the varying levels of college readiness of students that these models are designed to assist. Such analysis needs to clearly identify the student populations that these models are hypothesized to benefit, carefully measure full-implemented models and appropriate outcomes, and adequately account for contextual factors that may also impact results. Our primary point is that the descriptive information presented in this report should not be used as a substitute for more rigorous research designs. Because of the importance of this matter, we urge Illinois to support more rigorous study of developmental models in public higher education Illinois, and we return to explicate this point more fully in the implications section of this report.

Inventory Results

This section summarizes inventory findings on the implementation of developmental (instructional) models for all public community colleges and universities in Illinois, as required by SJR 41. The findings and discussion begins with definitions of the developmental models that may be implemented on some level by the public community colleges and universities. After this section, there are three additional sections that focus on: 1) developmental models in public community colleges, 2) developmental models in public universities, and 3) placement policies and course sequences for community colleges and universities. The findings on developmental models refer to implementation of the eight models included

in the inventory instrument: traditional, co-requisite, compressed, modularized, emporium, contextualized, stretch, and studio. The community colleges and universities could also report on other models to represent the full array of developmental education in both English/Language Arts and Mathematics

Developmental Models

The inventory instrument used by the ICCB and IBHE used common definitions for reporting on implementation of eight developmental models in English/Language Arts and Mathematics, “other” models, and Gateway Courses (also see Appendix A). These models are defined as follows:

- 1) **Traditional** developmental instruction places a student into a course level and the student completes the course sequence that leads to the course required for their respective degree. Courses are typically a semester long each.
- 2) **Co-requisite** developmental instruction or tutoring supplements credit instruction while a student is concurrently enrolled in a credit-bearing course. For example, a student would be enrolled in a credit-bearing course and take a related lab/course to supplement their learning.
- 3) **Compressed** developmental instruction accelerates student progression from developmental instruction to college-level coursework by reducing the length of the course. Course delivery is more intense, and courses are offered in a variety of shortened timeframes to allow students to progress quickly. For example, a course that was originally scheduled to meet once a week for 16 weeks could meet twice a week for 8 weeks.
- 4) **Modularized** developmental instruction is customized and targeted to address specific skills gaps through courses that are technology-based and self-paced. Course material is divided into sub-unit parts and allows students to master targeted skill area deficiencies. For example, one three-credit course could be converted into three one-credit courses, each targeting a different set of concepts to master.
- 5) **Emporium** developmental instruction eliminates all lectures and replaces them with a learning resource center model featuring interactive software and on-demand personalized assistance, including interactive tutorials, practice exercises, solutions to frequently asked questions, and online quizzes and tests. Students choose what types of learning materials to use depending on their needs, and how quickly to work through the materials. This model is typically applied to mathematics [National Center for Academic Transformation (NCAT), https://www.thencat.org/PlanRes/R2R_Model_Emp.htm].
- 6) **Contextualized** developmental instruction is content related to a student’s program of study or meta-majors. For example, if a student were studying business or education, their writing prompts and or math would be related to those areas.
- 7) **Stretch** developmental instruction is where students complete the college-credit-bearing course over two semesters instead of one because of the educational assumption that some students need more time and guidance based on their previous academic backgrounds and experiences. It is typically used in writing.
- 8) **Studio** developmental instruction involves students who would have normally been placed in the traditional developmental education course taking a credit-bearing gateway course. The sub-set of students in the credit-bearing course requiring developmental education is provided with additional supports in a lab-like setting. The supports usually come in the form of ad hoc interventions from the same instructor, a different instructor, or an academic support professional. It is typically used in writing.

Two additional definitions used in the inventory instrument are:

- **Other** developmental instruction may vary by institution and approach. If your institution is not using one of the models specified above, please provide an explanation and context for how developmental instruction is being deployed at your institution through this specific model.
- **Gateway Course** is defined as a first-year, college-level math or English course that applies to course requirements for a certificate or degree.

Another model that was not included in the inventory that emerged in the qualitative data that were gathered from all institutions is **Direct Self-Placement**. This model enables students to place themselves into the developmental course – in association with placement in writing, for example – based on battery of questions related to their academic background and experience, and sometimes in conjunction with advising done in person or online (National Council of Teachers of English, 2016).

Developmental Models in Public Community Colleges

This section presents descriptive results on the developmental models implemented on some level in English/Language Arts and mathematics in the public community colleges. In addition to reporting on implementation of developmental models, the inventory requested enrollment, developmental course completion in one or two years, and gateway course completion for two cohorts: a) Academic Year 2017-2018 (AY17-18) and b) Academic Year 2018-2019 (AY18-19). These aggregate results provide a snapshot of two recent student cohorts on enrollment and completion at a time when developmental models are evolving in higher education institutions across the state of Illinois, as the quantitative results will show.

English/Language Arts. Beginning with English/Language Arts instruction, this section describes results reported by all public community colleges (n=48) on implementation of the developmental models. Table 1 summarizes the number and percentage of colleges implementing each model in conjunction with English/Language Arts instruction. Table 1 also shows the number and percentage of all public community colleges on level of implementation using a scale ranging from “not implemented”, to “in development”, to “piloting”, to “implemented” and finally to “phasing out”.

Results reported by Illinois’ public community colleges on developmental models show two models being dominant in English/Language Arts instruction. The traditional developmental model is implemented by 38 (79.17%) of all 48 community colleges, with six community colleges reporting not implementing this model and three others reporting phasing it model out. Only one community college reported that the traditional model was in development at the institution (see Table 1).

In addition to the traditional model, the co-requisite model in English/Language arts was reported by 35 (72.92%) community colleges, with five more colleges developing the model and another five colleges piloting this model. Two community colleges reported not implementing the co-requisite model and another indicated it was phasing the co-requisite model out in English/Language Arts (see Table 1).

The compressed model was the only other model included in the inventory to be reported by community colleges, and no community colleges reported implementing the stretch model in English/Language Arts. Two community colleges indicated they implement “other” models (no details available), with one additional community college phasing out an “other” model in English/Language Arts.

Table 1. Summary of Developmental Model Implementation in English/Language Arts by All Public Community Colleges

Developmental English/ Language Arts Model	Implementation Status	Number Colleges (n=48)	Percentage of Colleges
Traditional	Not Implemented	6	12.50%
	In Development	1	2.08%
	Piloting	0	0.00%
	Implemented	38	79.17%
	Phasing Out	3	6.25%
Co-Requisite	Not Implemented	2	4.17%
	In Development	5	10.42%
	Piloting	5	10.42%
	Implemented	35	72.92%
	Phasing Out	1	2.08%
Compressed	Not Implemented	38	79.17%
	In Development	1	2.08%
	Piloting	0	0.00%
	Implemented	8	16.67%
	Phasing Out	1	2.08%
Modularized	Not Implemented	47	97.91%
	In Development	0	0.00%
	Piloting	0	0.00%
	Implemented	0	0.00%
	Phasing Out	1	2.08%
Emporium	Not Implemented	47	97.71%
	In Development	0	0.00%
	Piloting	0	0.00%
	Implemented	1	2.08%
	Phasing Out	0	0.00%
Contextualized	Not Implemented	47	97.71%
	In Development	0	0.00%
	Piloting	0	0.00%
	Implemented	1	2.08%
	Phasing Out	0	0.00%
Studio	Not Implemented	46	95.83%
	In Development	0	0.00%
	Piloting	1	2.08%
	Implemented	1	2.08%
	Phasing Out	0	0.00%
Other	Not Implemented	45	93.75%
	In Development	0	0.00%
	Piloting	0	0.00%
	Implemented	2	4.67%
	Phasing Out	1	2.08%

Notes:

- 1) Models with no college reporting any level of implementation other than none are omitted from this table.
- 2) The percentage of colleges reporting by implementation levels on each model may not add to exactly 100% due to rounding.

Enrollment and completion results for English/Language Arts are shown for the 2017 and 2018 cohorts in Tables 2 and 3, respectively. In both tables, the largest student enrollment is in courses using the traditional developmental model, with approximately 2,700 students in the 2017 cohort and 2,200 in the 2018 cohort. The co-requisite model enrolls 678 students in the 2017 cohort and increases to 805 students in the 2018 cohort. For both cohorts, the co-requisite course completion rate is higher than the other models, at approximately 80% in the developmental course the related gateway course although it is important to recognize that co-requisite integrates related gateway courses into the model. This promising finding of the higher rate of completion of related gateway courses, of over 90% for both the 2017 and 2018 cohorts within one or two years of completion of developmental education, is similar to results reported in the empirical literature that show immediate positive outcomes for students in the co-requisite model. Course completion outcomes were tracked in this inventory for one or two years, limiting our ability to understand longer term college retention and completion outcomes.

Interestingly, results for the “other” model reporting in the inventory are higher than the traditional, contextualized and compressed models, but relatively close to the co-requisite model for the 2017 cohort. However, without more detail it is not possible to know what this model is or how it works.

Table 2. 2017 Cohort Enrollment and Completion of Developmental Model-English/Language Arts Course and Related Gateway Course in All Public Community Colleges

Developmental Model: English/ Language Arts	Cohort Enrollment Number of FT/FT Fall 2017 Enrollment of students in any part model	Student Completion of Model in One or Two Years		Student Completion of Model and Enrollment in Related Gateway Course in Two Years			
		Number of students completing model in AY17-18 or AY18-19	Percent of students completing model in AY17-18 or AY18-19	Number of students completing model enrolled in gateway course in AY17-18 or AY18-19	Percent of students completing model enrolled in gateway course in AY17-18 or AY18-19	Number of students completing gateway course with "C" or higher in AY17-18 or AY18-19	Percent of students completing gateway course with "C" or higher in AY17-18 or AY18-19
Traditional	2,728	1,972	72.3%	1,517	55.4%	1,147	75.6%
Co-requisite	678	544	80.2%	544	80.2%	508	93.4%
Compressed	61	50	82.0%	15	24.6%	9	60.0%
Modularized	NA						
Emporium	NA						
Contextualized	154	108	70.1%	90	58.4%	61	67.8%
Studio	NA						
Other	101	81	80.2%	72	71.3%	56	77.8%

Note:

- 1) NA refers to Not Available and indicating too few students to include in this table.

Results reported on the 2018 cohort over one academic year replicate the positive results for the co-requisite model that we saw for the 2017 cohort. This promising result is logical given the combined developmental course and related gateway course enrollment of the model. Results for the other models take a similar pattern as the 2017 cohort; however, the positive outcome for related gateway course

completion is much less evident for the 2018 cohort. Again, without additional detail on what constitutes the “other” model, it is not possible to know why this result has emerged.

Table 3. 2018 Cohort Enrollment and Completion of Developmental Model-English/Language Arts Course and Related Gateway Course in All Public Community Colleges

Developmental Model: English/ Language Arts	Cohort Enrollment	Students Complete Model in Year One		Students Complete Model and Enroll in Related Gateway Course in Year One			
	Number of FT/FT Fall 2018 students enrolled in any part of model	Number of students completing model in AY18-19	Percent of students completing model in AY18-19	Number of students completing model that enrolled in related gateway course in AY18-19	Percent of students completing model that enrolled in related gateway course in AY18-19	Number of students completing related gateway course with a "C" or higher AY18-19	Percent of students completing related gateway course with a "C" or higher in AY18-19
Traditional	2,295	1,537	67.0%	1,009	44.0%	777	77.0%
Co-requisite	805	635	78.9%	634	78.8%	584	92.1%
Compressed	66	43	65.2%	27	40.9%	16	59.3%
Modularized	NA						
Emporium	NA						
Contextualized	123	82	66.7%	65	52.8%	42	64.6%
Studio	NA						
Other	124	100	80.6%	70	56.5%	38	54.3%

Note:

- 1) NA refers to Not Available and indicating too few students to include in this table.

Mathematics. Results on implementation of developmental model in mathematics show the vast majority of public community colleges (93.75%) are implementing the traditional model for mathematics. Only two community colleges reported not implementing the traditional model, and only one community college is phasing the traditional model out. These results suggest the traditional model remains very prevalent in mathematics in the community colleges; however, other developmental models are evident in the survey data as well.

Though not to the same level of implementation as in English/Language Arts, the co-requisite model is reported as implemented on some level in two-thirds of public community colleges in Illinois. Nineteen colleges (nearly 40%) report they are implementing co-requisite in mathematics, with three more piloting and ten developing the model. These results suggest evolution of co-requisite in the majority of community colleges in the state, which is important to understand.

The inventory also shows the emporium model and the compressed model are being implemented on some level by approximately one-quarter of the community colleges. The modularized, contextualized, and other models were reported less frequently. Finally, none of the community colleges reported implementing the stretch or studio models in mathematics though this result is not surprising since these models tend to be associated with English/Language Arts instruction.

Table 4. Summary of Developmental Model Implementation in Mathematics by All Public Illinois Community Colleges

Developmental Mathematics Model	Implementation Status	Number Colleges (n=48)	Percentage of Colleges
Traditional	Not Implemented	2	4.17%
	In Development	0	0.00%
	Piloting	0	0.00%
	Implemented	45	93.75%
	Phasing Out	1	2.08%
Co-Requisite	Not Implemented	16	33.33%
	In Development	10	20.83%
	Piloting	3	6.25%
	Implemented	19	38.58%
	Phasing Out	0	0.00%
Compressed	Not Implemented	36	75.00%
	In Development	0	0.00%
	Piloting	0	0.00%
	Implemented	12	25.00%
	Phasing Out	0	0.00%
Modularized	Not Implemented	41	85.42%
	In Development	0	0.00%
	Piloting	1	2.08%
	Implemented	3	6.25%
	Phasing Out	3	6.25%
Emporium	Not Implemented	37	77.08%
	In Development	1	2.08%
	Piloting	0	0.00%
	Implemented	9	18.75%
	Phasing Out	1	2.08%
Contextualized	Not Implemented	44	91.67%
	In Development	0	0.00%
	Piloting	0	0.00%
	Implemented	4	8.33%
	Phasing Out	0	0.00%
Other	Not Implemented	46	95.83%
	In Development	0	0.00%
	Piloting	0	0.00%
	Implemented	2	4.67%
	Phasing Out	0	0.00%

Notes:

- 1) Models with no college reporting any level of implementation other than none are omitted from this table.
- 2) The percentage of colleges reporting by implementation levels on each model may not add to exactly 100% due to rounding.

Results for mathematics enrollment and completion are reported by developmental model in Tables 5 and 6. Before discussing outcomes, it is important to note the numbers of students enrolled in the mathematics models is much higher than English/Language arts, and a relatively smaller enrollment is reported in the co-requisite model in mathematics compared to English/Language Arts. In mathematics, two models that

show substantial enrollment are the compressed and emporium models. In both the 2017 and 2018 cohorts, both models show a far lower level of enrollment than the traditional model but a larger enrollment in the co-requisite model.

In terms of results for mathematics, the students enrolled in a developmental mathematics course do not demonstrate as completion rate ranging from 44% to 93% depending on the model. The co-requisite, modularized and “other” models show higher completion rates than for the traditional, compressed, and emporium models.

Table 5. 2017 Cohort Enrolled in Developmental Model in Mathematics Course and Related Gateway Course in All Public Community Colleges

Developmental Model: Mathematics	Cohort Enrollment	Complete Model in One or Two Years		Complete Model and Enroll in Related Gateway Course Combined Two Years			
	Number of FT/FT Fall 2017 students enrolled in any part of model	Number of students completing model in AY17-18 or AY18-19	Percent of students completing model in AY17-18 or AY18-19	Number of students completing model that enrolled in related gateway course in AY17-18 or AY18-19	Percent of students completing model that enrolled in related gateway course in AY17-18 or AY18-19	Number of students completing related gateway course with "C" or higher in AY17-18 or AY18-19	Percent of students completing related gateway course with "C" or higher in AY17-18 or AY18-19
Traditional	6,739	4,110	61.0%	2,565	38.1%	1,659	64.7%
Co-requisite	240	176	73.3%	172	71.7%	155	90.1%
Compressed	449	196	43.7%	170	37.9%	114	67.1%
Modularized	63	46	73.0%	34	54.0%	20	58.8%
Emporium	985	533	54.1%	350	36.5%	232	66.3%
Contextualized	NA						
Other	28	26	92.9%	18	64.3%	10	55.6%

Note:

- 1) NA refers to Not Available and indicating too few students to include in this table.

Table 6. 2018 Cohort Enrolled in Developmental Model in Mathematics Course and Related Gateway Course in All Public Community Colleges

Developmental Model: Mathematics	Cohort Enrollment	Complete the Model in Year One		Complete the Model and Enroll in Related Gateway Course in Year One			
	Number of FT/FT Fall 2018 students enrolled in any part of model	Number of students completing model in AY18-19	Percent of students completing model in AY18-19	Number of students completing model that enrolled in related gateway course in AY18-19	Percent of students completing model that enrolled in related gateway course in AY18-19	Number of students completing related gateway course with a "C" or higher in AY18-19	Percent of students completing related gateway course with a "C" or higher in AY18-19
Traditional	6,203	3,417	55.1%	1,525	24.6%	1,000	65.6%
Co-requisite	286	206	72.0%	199	69.6%	186	93.5%
Compressed	391	155	39.6%	54	13.8%	36	66.7%
Modularized	198	76	38.4%	31	15.7%	21	67.7%
Emporium	878	379	43.2%	151	17.2%	106	70.2%
Contextualized	NA						
Other	56	51	91.1%	24	42.9%	14	58.3%

Notes:

- 1) Models with no college reporting any level of implementation other than none are omitted from this table.
- 2) The percentage of colleges reporting by implementation levels on each model may not add to exactly 100% due to rounding.

Developmental Models in Public Universities

This section presents results for developmental models in public universities, beginning with English/Language Arts followed by mathematics.

English/Language Arts. Beginning with English/Language Arts instruction, this section describes results reported by all public universities (n=12) on implementation of the developmental models. Table 7 summarizes the number and percentage of all 12 public universities implementing three models: traditional, co-requisite and stretch. Of the 12, six universities implement developmental English/Language Arts with the traditional model offered most frequently, with 33.3% of the 12 universities reporting offering the traditional model. One university reported implementing the co-requisite model, and one other reported the stretch model.

Table 7. Summary of Developmental Models in English/Language Arts by All Public Universities

Developmental English/ Language Arts Model	Implementation	Number Universities (n=12)	Percentage of Universities
Traditional	Full Implementation	4	33.33%
Co-requisite	Full Implementation	1	8.33%
Stretch	Full Implementation	1	8.33%

Note:

- 1) Six universities (50.0%) do not report implementing any developmental model in English/Language Arts.

The enrollment and outcomes results for the developmental models in English/Language Arts show more favorable results for completion the “other” models than the traditional model for both the 2017 and 2018 cohorts (Table 8). With nearly one-third of the student enrollments in the “other” model meaning co-requisite and stretch, these models appear to offer promising results for a sizeable number of students attending public universities who enroll in English/Language Arts.

Table 8. 2017 Cohort Enrolled in Developmental Model in English/Language Arts Course and Related Gateway Course in All Public Universities

Developmental Model: English/ Language Arts	Cohort Enrollment	Complete Model in One or Two Years		Complete Model and Enroll in Related Gateway Course Combined Two Years			
		Number of students completing model in AY17-18 or AY18-19	Percent of students completing model in AY17-18 or AY18-19	Number of students completing model who enrolled in related gateway AY17-18 or AY18-19	Percent of students enrolled in model who enrolled in related gateway course in AY17-18 or AY18-19	Number of students completing the related gateway course with a "C" or higher in AY17-18 or AY18-19	Percent of students who enrolled in model who completed related gateway course with a "C" or higher in AY17-18 or AY18-19
Traditional	1,014	765	75.4%	657	64.8%	562	55.4%
All Other Models	308	278	90.3%	242	78.6%	226	73.4%

Note:

- 1) All other models include one co-requisite model and stretch model.

Table 9 shows comparable results to English/Language Arts for the 2017 cohort to the 2018 cohort in that the completion of developmental course and related gateway course are comparable for slightly higher for the “other” model than the traditional model. It is also noteworthy that enrollment in the traditional and “other” models shifted from about three-fourths of students enrolled in traditional model to about two-thirds enrolled in the traditional model.

Table 9. 2018 Cohort Enrolled in Developmental Model in English/Language Arts Course and Related Gateway Course in All Public Universities

Developmental Model: English/ Language Arts	Cohort Enrollment	Complete Model in Year One		Complete Model and Enroll in Related Gateway Course in Year One			
	Number of FT/FT Fall 2018 students enrolled in any part of model	Number of students completing model in AY18-19	Percent of students completing model in AY18-19	Number of students completing model who enrolled in the related gateway course in AY18-19	Percent of students enrolled in model who enrolled in the related gateway course in AY18-19	Number of students completing related gateway course with "C" or higher in AY18-19	Percent of students in model completing the related gateway course with "C" or higher in AY18-19
Traditional	701	542	77.3%	522	74.5%	440	62.8%
All Other Models	432	362	83.8%	312	72.2%	293	67.8%

Note:

- 1) All other models include the stretch model.

Mathematics. Ten universities report implementing developmental mathematics on some level, with five universities (41.67%) reporting implementing more than one developmental model. All five of these universities implement the traditional and co-requisite models and one of these also implements the stretch model. Table 10 shows the traditional model is reported most frequently but the public universities with six universities implementing it, and two others phasing it out (Table 10). The co-requisite model is being piloted or entering an early phase of implementation for six universities, and the stretch and studio models are reported to be fully implemented in mathematics by one university.

Table 10. Summary of Developmental Models in Mathematics by All Public Universities

Developmental Mathematics	Implementation	Number Universities (n=12)	Percentage of Universities
Traditional	Full Implementation	6	50.00%
	Phasing Out	2	16.67%
Co-Requisite	Pilot/Early Implementation	4	33.33%
	Full Implementation	2	16.67%
Stretch	Full Implementation	1	8.33%
Studio	Full Implementation	1	8.33%

Note:

- 1) Two universities (50%) do not report implementing any developmental model in mathematics.

Results for enrollment and outcomes for the 2017 cohort in mathematics vary sharply by model, with developmental course and gateway course completion showing very modest results in the traditional model in mathematics (Table 11). Results for the co-requisite and other models (stretch and studio) are much more favorable than traditional model, showing the preponderance of 2017 cohort students are enrolled in course(s) associated with the traditional model and course completion rates near or above 60% and a related gateway course completion rate over 60%.

Table 11. 2017 Cohort Enrolled in Developmental Model in Mathematics Course and Related Gateway Course in All Public Universities

Developmental Model - Mathematics	Cohort Enrollment	Complete Model in Year One or Two		Complete the Dev Ed Model and Enroll in Related Gateway Course Combined Two Years			
		Number of students completing the model in AY17-18 or AY18-19	Percent of students completing the model in AY17-18 or AY18-19	Number of students enrolled in the model who enrolled in related gateway course in AY17-18 or AY18-19	Percent of students enrolled in the model who enrolled in related gateway course in AY17-18 or AY18-19	Number of students completing the related gateway course with a "C" or higher in AY17-18 or AY18-19	Percent of students completing related gateway course with a "C" or higher in AY17-18 or AY18-19
Traditional	2,043	1,103	54.0%	578	28.3%	401	19.6%
Co-requisite	203	176	86.7%	199	98.0%	136	67.0%
All Other Models	271	159	58.7%	218	80.4%	168	62.0%

Note:

- 1) All other models include the stretch model and the studio model.

Results for developmental models in mathematics show favorable results for the co-requisite model, and less positive results for the “other” models (stretch and studio), and the traditional model (Table 12). Given that the preponderance of the 2018 cohort is enrolled in the traditional model, accounting for nearly 1,700 of the 2018 cohort, the completion rate of 13% in the traditional developmental course and related gateway course is concerning. It is possible that tracking students for a second year would increase the completion rate for the traditional model; however, the difference in the completion rate for this model compared the other two models, especially the co-requisite model, is substantial and unlikely to be raised to a comparable level even with another year of tracking.

Table 12. 2018 Cohort Enrolled in Developmental Model in Mathematics Course and Related Gateway Course in All Public Universities

Developmental Model - Mathematics	Cohort Enrollment	Complete Model in Year One		Complete Model and Enroll in Related Gateway Course in Year One			
		Number of students completing the model in AY18-19	Percent of students completing the model in AY 18-19	Number of students enrolled in model who enrolled in the related gateway course in AY18-19	Percent of students enrolled in model who enrolled in the related gateway course in AY18-19	Number of students completing the related gateway course with a "C" or higher in AY18-19	Percent of students completing the related gateway course with a "C" or higher in AY18-19

Developmental Model - Mathematics	Cohort Enrollment	Complete Model in Year One		Complete Model and Enroll in Related Gateway Course in Year One			
Traditional	1,690	999	59.1%	322	19.1%	218	12.9%
Co-requisite	212	182	85.8%	201	94.8%	145	68.4%
All Other Models	153	66	43.1%	110	71.9%	66	43.1%

Note:

- 1) All other models include one stretch model and one studio model.

Placement Policies

This section of the report presents inventory results on placement policies implemented by the public community colleges and universities, beginning with the community colleges and followed by the universities.

Public Community Colleges

In 2019, the ICCB determined that work needed to be done to advance new placement policy and practices for developmental education in community colleges statewide. This step was taken because of recognition of inconsistencies in placement policies and practices across the state that may lead to issues of fairness and inequity. The effort to address these concerns involved an aggressive approach to involve all public community college groups that have a stake in how developmental education placement is conducted. These groups included the Illinois community college presidents, the chief academic officers, the chief student services officers, and the Illinois Mathematics Association of Community Colleges. Leaders and members of these groups were invited to contribute to develop the placement policy, and once developed, to review and endorse it (Brown & Montgomery, 2020).

Integral to the new placement policy is the recommendation that Illinois community colleges use multiple methods for placement. The policy provides a list of courses for Mathematics and English/Language Arts and placement scores across multiple placement methods. The policy specifies that the college may elect to use a lower score on one placement method when used in combination with other methods or with supports (e.g., co-requisite). Additional activities shall not infringe on a student's ability to enroll in college-level courses. Expiration of a student's scores, GPA or other method shall be no less than three years in English/Language Arts and 18 months in mathematics. The policy also recommends that students enroll in English/Language Arts and mathematics during their first semester of enrollment. Other methods that award college credit may be used to place students (e.g., AP, CLEP, IB, dual credit, etc.).

Table 13 summarizes important parts of the multiple measures placement policy adopted by the Illinois community colleges. The policy includes recommended cut-off scores for the PARCC, ACT, SAT and GED. In addition, the policy recommends a high school GPA of 3.0 on an unweighted 4.0 scale in English/Language Arts and similarly, GPA of 3.0 is recommended in mathematics. Transition math is also recommended as a component of multiple measures that a community college implements. The colleges also have the option of continuing to use placement test scores that they consider appropriate for placing students at the highest level that may be able to demonstrate their ability to succeed, meaning at college level or as close to college-level as possible.

Table 13. Recommended Test Scores and High School Grade Point Average (GPA) for Placement into College-level Course

Multiple Measures		
ACT	Mathematics	22
	English/ Language Arts	19
SAT	Mathematics	530
	English/ Language Arts	480
High School GPA	Mathematics	3.0 with successful completion of 4 th year of math
	English/ Language Arts	3.0 (on an unweighted 4.0 scale)
GED	165	
Transition Math		
Placement test with appropriate scores		

Given that the above mentioned measures are options for the public community colleges to adopt, the inventory results show 17 colleges have fully implemented by fall 2019, and another 12 colleges having partially implemented with plans to fully implement by fall 2021. Seven community colleges responded to the inventory by saying they will be fully implementing the multiple measures placement policy by fall 2021, and three colleges did not respond to this requested information.

Table 14. All Public Community College District Report on Implementation of Placement Policies

Community College Districts (n=39)	Fully Implemented by Fall 2019	Partially Implemented by Fall 2019 with Full Implementation by Fall 2020	Begin Implementation Fall 2020	No Response to Survey or Clear Response on Implementation
Black Hawk College		Yes		
Carl Sandburg College	Yes			
City Colleges of Chicago		Yes		
College of DuPage		Yes		
College of Lake County	Yes			
Danville Area CC		Yes		
Elgin Community College	Yes			
Harper College	Yes			
Heartland Community College	Yes			
Highland Community College		Yes		
Illinois Central College				Yes
Illinois Eastern CC (IECC)		Yes		
Illinois Valley CC		Yes		
John A Logan College			Yes	
John Wood CC	Yes			

Community College Districts (n=39)	Fully Implemented by Fall 2019	Partially Implemented by Fall 2019 with Full Implementation by Fall 2020	Begin Implementation Fall 2020	No Response to Survey or Clear Response on Implementation
Joliet Junior College	Yes			
Kankakee Community College	Yes			
Kaskaskia College	Yes			
Kishwaukee College			Yes	
Lake Land College	Yes			
Lewis & Clark CC	Yes			
Lincoln Land CC	Yes			
McHenry County College			Yes	
Moraine Valley CC			Yes	
Morton College				Yes
Oakton College		Yes		
Parkland College			Yes	
Prairie State College			Yes	
Rend Lake College	Yes			
Richland Community College	Yes			
Rock Valley College		Yes		
Sauk Valley CC			Yes	
Shawnee Community College				Yes
South Suburban College		Yes		
Southeastern Illinois College		Yes		
Southwestern Illinois College	Yes			
Spoon River College	Yes			
Triton College	Yes			
Waubonsee CC		Yes		
Grand Total	17	12	7	3

Results shown in Table 15 reveal the vast majority of public community colleges are following the recommended standard in terms of cut-off scores in their implementation of multiple measures policy (see again the recommended cut-off scores in Table 13 above). Similar to results shown in Table 14 above, there does appear to be a sub-set of colleges that are not responding or providing clear information about their implementation of multiple measures that needs to be addressed.

Table 15. Public Community College Implementation Level by Placement Method

Method	Number Colleges Use Recommended Standard	Number Colleges have Higher Requirement	Number Colleges Have At Least 1 Course Different from Rec Standard	Number Colleges Unknown or Unclear Approach
ACT Mathematics	36	2	5	5
ACT English/ Language Arts	33	4	5	6
SAT Mathematics	32	4	5	7
SAT English/ Language Arts	41	1	0	6

Other data gathered from the community colleges pertaining to the multiple measures recommendations include that the majority of colleges are using Accuplacer as the placement exam for English/Language Arts, and the colleges are about evenly split in using Accuplacer and ALEKS for mathematics.

Also, the community colleges report having to work through myriad of issues to be able to use high school GPA for placement purposes, including complications in computing non-weighted vs. weighted high school GPAs, doing consistent and fair computations when GPA scales differ among high schools, and getting access to high school transcripts in a timely way. Securing transitional math courses that are approved for portability has also been a challenge, as has securing GED scores. Finally and probably most importantly, the community colleges observe that they are uncertain how to use multiple measures for holistic assessment. The colleges have limited experience using multiple methods, and they have few models and guidance on how to combine the methods in ways that help them to meet student needs in meaningful and positively impactful ways. Additional research on how multiple measures impact student outcomes is needed, as is additional research to estimate the associated cost.

Public Universities

Inventory results for five universities provide more in-depth picture of developmental instruction in English/Language Arts. Table 16 summarizes the model, course sequences and placement policy of each of the five universities. As noted earlier in this report, the most common model is the traditional model, with 1 or 2 course sequence required to take credit-bearing gateway English/Language Arts course. Four universities appear to use multiple measures to place students into English/Language Arts at the developmental or college level, and it is possible the fifth university does as well as the details provided by institutions may not provide sufficient detail to make this determination in a definitive way. When ACT or SAT scores are specified, they tend to be fairly consistent with the levels included in the community college placement, though again, sufficient detail is not always present in the information provided by institutions to make a full assessment.

Table 16. Developmental Model, Course Sequence and Placement Policy for English/Language Arts offered by Public Universities

English/Language Arts Developmental Models, Course Sequences, and Placement Policy		
Eastern Illinois University	Traditional	ENG 1000, Fundamentals of College Composition to ENG1001G (college-credit bearing)
	Placement Policy	Multiple Measures: CT English score below 18/SAT Writing of 420 or below, or HS GPA below 3.0. Or, students may write essay to demonstrate writing skills in lieu of test score; essay is assessed by English Department (see EIU UG catalog).
Northern Illinois University	Stretch	English 102 (Composition Skills) to English 103P (Rhetoric & Composition I) to English 203 (Rhetoric & Composition II)
	Traditional - Accelerated	English 103P (Rhetoric & Composition I) to English 203 (Rhetoric & Composition II)
	Placement Policy	Multiple measures: HS GPA (record), ACT/SAT scores, and Writing Composition Foundational Studies Competency Exam (See appendix for specific cut scores).
Southern Illinois University - Edwardsville	Traditional	AD 090: Basic Writing I (non-credit bearing) to ENG 101: English Composition I (credit bearing) AD 082: College Reading II (non-credit bearing) to ENG 101: English Composition I (credit bearing)
	Co-Requisite	ENG 101-E (credit bearing) direct placement with additional supports and taught by instructors with additional training in basic writing and providing additional lab hours for practice.
	Placement Policy	Reading Placement: ACT Reading, SAT Reading, ACCUPLACER Reading. AD 090: Basic Writing I requires ACT English score <19 or SAT Writing & Language Test score <26. Writing Placement: ACT English, SAT Writing & Language, ACCUPLACER Writing: AD 082: College Reading II requires ACT Reading score <21 or SAT Reading Test score <28.
University of Illinois Chicago	Traditional	ENGL 071 (Intro to Academic Writing) to ENGL 160 (Academic Writing I, the gateway course) ENGL 070 (Intro to Academic Writing for Non-Native Speakers of English) to ENGL 160 (Academic Writing I) ENGL 060 (English as a Second Language) to ENGL 070 (Intro to Academic Writing for Non-Native Speakers of English) to ENGL 160 (Academic Writing I)
	Co-requisite	ENGL 159 (Academic Writing Workshop) & ENGL 160 (Academic Writing I) at the same time
	Placement Policy	Multiple Measures: All incoming first-year students who don't arrive having earned ENGL 160 (Academic Writing I) credit by ACT, SAT, AP, or IB scores are required to take a placement test, consisting of a single typed essay written in response to a prompt. Students are required to take the course into which they place: ENGL 160, ENGL 160 with the co-requisite ENGL 159 workshop, or the developmental courses ENGL 071, ENGL 070, or ENGL 060.
University of Illinois	Traditional	English 091 (Critical Reading) to English 101 (credit bearing/gateway course)

English/Language Arts Developmental Models, Course Sequences, and Placement Policy		
Springfield	Placement Policy	New entering students who have not already completed the equivalent of English Composition may be required to take a Reading/Writing placement exam based on ACT/SAT scores.

Note:

- 1) Northeastern Illinois University reported offering the traditional model in English/Language Arts but details of the course sequences and placement policy were not accessible for this report.

Table 17 presents results on the developmental model, course sequence and placement policy for mathematics in the public universities. Ten of the 12 public universities offer developmental mathematics that align to pathways that align with college majors. The differentiated pathway approach predominates mathematics in the public universities, with some universities offering more extensive pathway options than others (depending on size, curriculum, and possibly other factors). Also, the traditional and co-requisite models dominate developmental education in mathematics, with most universities offering two or three 2-courses in sequence or concurrently (i.e., co-requisite). Also, multiple methods of assessment are used by most universities, including HS GPA, ACT and SAT scores, Accuplacer, and ALEKS being the primary vehicles. Some universities also mention options to re-test and also to use other forms of assessment that administered on the campus, under the authority of mathematics departments.

Table 17. Developmental Model, Course Sequence and Placement Policy for Mathematics offered by Public Universities

Mathematics Developmental Models, Course Sequences, and Placement Policy		
Chicago State University	Traditional	If math isn't needed for major: Placement in MATH 1040 Mathematics for Data Science I
	Co-requisite	If math is needed for major: Co-requisite-MATH 1195 & MATH 1200 (College Algebra) taken at the same time
	Placement Policy	Differentiated pathways based on major; Cut scores used (detail not provided) <ul style="list-style-type: none"> • If students' program does not require college-level Algebra, they are placed in MATH 1040 Mathematics for Data Science I • Students who require College Algebra for their programs are concurrently placed in the co-requisite course, MATH 1195 College Algebra Laboratory, if the score on the Next Generation Accuplacer: Advanced Algebra & Functions is below 240.
Eastern Illinois University	Policy - Math	Only STEM and Business take College Algebra (MAT 1271); Non-STEM and Business take one gen ed math class
	Traditional Math Sequence for STEM/Business	2 Sequences: Concurrent taking of MAT 1070 and MAT 1270 – lead to MAT1271 – College Algebra (gateway course)
	Placement in traditional MAT if:	Differentiated Pathways based on major; ACT Mat 16 or lower on ACT, 430 or lower on the SAT, or Accuplacer level 2 score of 250 or Below

Mathematics Developmental Models, Course Sequences, and Placement Policy		
Illinois State University	Traditional	Math 102 (Basic Algebra) to Math 104 (Intermediate Algebra) to Math 119 (College Algebra—gateway course) Math 104 to Math 113 (Elements of Mathematical Reasoning—gateway course) Math 102A01 to Math 130 (Dimensions of Numerical Reasoning—gateway course)
	Co-requisite	IDS 114 concurrently with Math 113A01 (Elements of Mathematical Reasoning: with Math Principles) Math 102A01 is specifically designed to prepare students for Math 130 (gateway course for Early Childhood, Elementary and Special Education Majors)
	Placement Policy	Differentiated pathways; Students scoring lower than 30 on ALEKS place into Math 102 and those scoring between 30 and 45 place into Math 104. Education majors place into Math 102A01 to Math 130 (dimensions of numerical reasoning) if they score lower than 45 on ALEKS. Education majors scoring 40-45 on ALEKS take IDS 114 concurrently with Math 113A01 (co-requisite model)
Northern Illinois University	Traditional with some emporium aspects	For students needing College Algebra and programs requiring College Algebra as prerequisite. Traditional with some emporium aspects: MATH 108 to MATH 109 to MATH 110 (College Algebra/ gateway course).
	Co-requisite	Direct placement in Math 110 (College Algebra) with additional review and supports provided to students During fall 2019, NIU ran a small pilot; 20 students completed Math 110, College Algebra, as well as review material as needed. Very good results leading to expansion next year.
	Placement Policy	Primarily, a local assessment. About 13% take the Accuplacer for which NIU uses the recommended cut scores from the developer; Score below 250 leads to a developmental placement. For the local assessment, a score below 38% leads to a developmental placement. Students may appeal for reconsideration of placements. A successful appeal requires evidence of mathematical proficiency external to HS record: primarily, an external exam such as the ACT or SAT. Case-by-case retest, interview or college enrollment may occur based on recommendation of Assistant Chair of the Department of Mathematical Sciences.
Northeastern Illinois University	Traditional	Differentiated math pathways; MATH 090 to MATH 091 to MATH 092 to Level I College Math (multiple entry points)
	Stretch	MATH-011A & MATH-111A semester 1 to MATH-011B & MATH-111B (semester 2). Student completing all components satisfy the MATH-112 requirements (4 college level credits).
	Stretch for elementary teachers	MATH-048A & MATH-148A (semester 1) to MATH-048B & MATH-148B (semester 2). Students completing all components satisfy the MATH-149 requirements (4 college level credits).
	Placement Policy	Accuplacer test scores on six sub-tests, three below college level placement: 200-236 places into Math 090, Elem Algebra, 237-249 places into Math 091, Intermediate Algebra I, and 200-236, Math

Mathematics Developmental Models, Course Sequences, and Placement Policy		
		092, Intermediate Algebra II. Scores above 237 place students into courses appropriate to their major.
Southern Illinois University – Carbondale	Co-requisite	No courses offered below College Algebra; Math 106 – College Algebra Enhanced meets five days a week
	Placement Policy	Multiple measures - combination of criteria to determine the best math course for the student’s program of study. All students required to take a placement exam (3 tests given) unless the prerequisite is transferred in with a C or better from the within 2 previous years. Math placement based on math placement score, math requirements for the major, and in some cases, any prior math courses in college.
Southern Illinois University – Edwardsville	Traditional	AD 090: Basic Writing I (non-credit bearing) to ENG 101: English Composition I (credit bearing) AD 082: College Reading II (non-credit bearing) to ENG 101: English Composition I (credit bearing)
	Co-requisite	ENG 101-E (credit bearing) direct placement with additional supports; taught by instructors with training in basic writing and providing additional lab hours
	Placement Policy	Differentiated pathways: Students who pursue a major requiring math coursework beyond QR 101: Quantitative Reasoning must complete ALEKS PPL math placement assessment. Students who do not place into a credit bearing mathematics course must complete the university’s developmental math course, AD 070: Beginning Algebra. AD 070: Beginning Algebra requires an ALEKS PPL score of 29 or below. Students with score of 30 or greater may enroll in credit-bearing coursework: ALEKS PPL score 30-45: MATH 120E – Enhanced College Algebra ALEKS PPL score 46-60: MATH 120 – College Algebra ALEKS PPL score 61-75: MATH 125 – Precalculus ALEKS PPL score >75: MATH 145 – Calculus for Life Sciences or MATH 150 – Calculus I
University of Illinois Chicago	Traditional & Co-requisite	Differentiated pathways align to specific majors in STEM, non-STEM, Business, Education, Life Sciences, etc. Math 090 is a traditional Developmental Math course, but we also offer co-requisite courses, which can allow a student to begin in a credit-bearing course, even if placed into a Developmental Math level.
	Placement Policy	Math 109 taken together with Math 110 allows those who scored 40 - 45 on ALEKS (Dev. Math is 45 or below) to begin in College Algebra, as long as they take Math 109, the co-requisite. Math 077 taken concurrently with 118 allows students who place from 0 - 29 on ALEKS to begin in Math 118, Quantitative Reasoning. Math 088 taken in conjunction with Math 090 (non-credit) allows students who placed from 0 - 29 on ALEKS to begin in Intermediate Algebra.

Mathematics Developmental Models, Course Sequences, and Placement Policy		
University of Illinois Springfield	Traditional	MAT 092 (Arithmetic Review) to MAT 094 (Beginning Algebra) to MAT 096 (Intermediate Algebra) to either MAT 102 (College Algebra) or MAT 111 (Quantitative Reasoning). Pathway 1: MAT 102 College Algebra (gateway course), then MAT 113 - Business Calculus 4 Hours or MAT 115 Calculus. Pathway 2: MAT 111. Quantitative Reasoning and MAT 121. Applied Stats
	Placement Policy	Accuplacer Scores – cut scores posted on website
Western Illinois University	Traditional	Two-course sequence: MATH 099 to MATH 100, which leads to six different credit-bearing level three courses, some of which meet general education requirements (see below). Math 101: Concepts in Math (General Education), Math 102: Creative Perspectives in Math (General Education), Math 123: Modeling with Math Functions (General Education) Stat 171: General Elementary Statistics (General Education) Math 103: Technical Mathematics (not Gen. Ed.) Math 128: Pre-calculus Algebra (not Gen. Ed.)
	Placement Policy	Multiple measures: ACT Math 0-19 or SAT Math 0-510 and no Pre-calculus (or higher math) taken in senior year ACT Math 20-22 or SAT Math 520-540 and Advance Algebra junior year or earlier, with no math taken in senior year

Implications for the SJR 41 Implementation Plan

The inventory of developmental education in public community colleges and universities in Illinois has provided a more complete picture of the developmental models that are implemented currently and also evolving across the state. Results suggest the traditional and co-requisite models are implemented in the majority of community colleges in English/Language Arts. In mathematics, the traditional model appears to continue to predominate developmental mathematics in community colleges but the inventory results suggest the co-requisite model is being implemented or developed and tested for future implementation in mathematics in the majority these institutions. The compressed and emporium models are also evident in mathematics in several community colleges, with fairly substantial enrollments in these courses. Other developmental models do not appear to be gaining much traction in terms of community colleges and universities reporting that they are being planned, developed, tested, or implemented.

Akin to the community colleges, the public universities tend to implement the traditional model most often in developmental English/Language Arts and mathematics, offering one or two course sequences to prepare students for majors that require College Algebra or mathematics courses that require College Algebra. Also in mathematics, the public universities are implementing differentiated pathways that align to students' majors and also align these developmental mathematics requirements to match the college major. There is evidence of a modest level of implementation of the studio and stretch models in English/Language Arts and mathematics at the university level, whereas these models appear in only a few community colleges.

Enrollments are most prevalent in the traditional models in English/Language Arts and mathematics at both the community college and university levels. Whereas the inventory does not provide information at

the individual student-level and therefore is unable to speak to the characteristics of students who enroll in the different models, it is important to understand this point when reviewing results on student cohort completion of developmental courses and related-gateway courses. Given this important caveat, it is also important to learn that, with only a few exceptions, the co-requisite model had the highest developmental course completion and related-gateway course completion rates. In some cases student completion of developmental courses and related-gateway course completion were not substantially different from other models, but the consistency of outcomes for the co-requisite model is important to understand in these data.

Placement policies are closely linked to developmental education course-taking and therefore important to understand. This inventory documents that placement policies are evolving in the community colleges and universities, with variation in implementation of placement policies and practices at both levels. Seventeen public community colleges report fully implementing the multiple measures placement policy adopted by the Illinois Community College Board and Illinois Council of Community College Presidents, with twelve community colleges currently implementing and expecting to be a full-scale by Fall 2020. Another seven community colleges report being ready to implement the new placement policy by fall 2020, and three colleges did not provide information on placement policy implementation for this inventory.

The public universities implement placement policies independently and without a common approach, such as the multiple measures policy adopted by the public community colleges. Even so, placement policies reported by the universities suggest a wide range of measures are being used for placement in English/Language Arts and mathematics, ranging from using standardized tests, high school grade point average (GPA), and institution-specific assessments solely and in conjunction with one another.

The inventory also revealed numerous examples of newly implemented developmental education reforms and innovations, as well as long-standing programs and practices that are valued on college and university campuses. These promising programs and practices are included in inventory data and available to the Advisory Council members to use in developing the implementation plan required by SRJ 41.

Moving forward, the SJR 41 Advisory Council will mine the inventory results to continue to understand how various developmental models and placement methods are implemented. These results also provide a needed baseline for additional research to document the evolution of development education across the state, and they provide the potential to help the state set reasonable goals and expectations to continuously improve developmental education as a critical component of higher education. Additional research, including impact evaluation, is needed at the state and institutional levels; colleges and universities that are doing this important research and evaluation work need to be encouraged and supported in these endeavors as they provide needed evidence to scale change. Lastly, the inventory is useful to identifying community colleges and universities that can model and support other institutions in implementing promising policies and practices across the state. Carried out under the authority of SJR 41, this inventory provides baseline information that will help the state to continue to evolve developmental education in ways that meet the needs of college students throughout Illinois.

References

- Barnett, A. E., Bergman, P., Kopko, E., Reddy, V., Belfield, C. R., & Roy, S., with Cullinan, D. (2018). *Multiple measures placement using data analytics: An implementation and early impacts report*. New York City, NY: CAPR, Columbia University. <https://postsecondaryreadiness.org/multiple-measures-placement-using-data-analytics/>
- Bragg, D. (2012). Two-year college mathematics and student progression in STEM programs of study. In proceedings for the *Realizing the Potential of Community Colleges as Pathways to STEM Education and Careers: A Summit* on December 15, 2011 at the Carnegie Institution for Sciences, Washington DC. Washington DC: National Academy of Sciences. <https://www.nap.edu/read/13399/chapter/12#98>
- Brown, M., & Montgomery, M. (2020). *Illinois placement recommendations*. (Powerpoint Slide Deck for SJR 41 Advisory Council Meeting on January 10, 2020). Springfield, IL: Illinois Community College Board.
- Casazza, M. E., & Silverman, S. L. (1996). *Learning assistance and developmental education: A guide for effective practice*. San Francisco, CA: Jossey-Bass.
- Goldman, E., & Abrahamson, M. (2019). *Policy brief, Remediation reform*. Chicago, IL: Partnership for College Completion. https://partnershipfcc.org/images/Policy/Final_Remediation_Brief.pdf
- Goudas, A. M., & Boylan, H. (2012). Addressing the flawed research in developmental education. *Journal of Developmental Education*, 36(1), 2-13.
- Illinois Council of Community College Presidents. (2018). *Illinois placement recommendations*. https://www.iccb.org/iccb/wp-content/pdfs/academic_affairs/Final_Placement_Recommendations_Approved_6-1-18.pdf
- Lichtenberger, E. & Wilson, N. (2019a). *Remediation data in Illinois' higher education system*. Powerpoint presentation for SJR 41 on September 9, 2019 at Harold Washington College.
- Lichtenberger, E., & Wilson, N. (2019b). *Developmental education data in Illinois' higher education system: Focus on equity*. Powerpoint presentation for SJR 41 on November 1, 2019 at Governors State University.
- Martinez, M., & the Partnership for College Completion. (2017). *Unequal opportunity in Illinois: A look at who graduates college and why it matters – A meta-analysis*. Chicago, IL: The Partnership for College Completion. https://partnershipfcc.org/images/Unequal_Opportunity_in_IL.pdf
- National Center for Academic Transformation (NCAT). (n.d.). *The emporium model*. Orlando, FL: Center for Distributed Learning. https://www.thencat.org/PlanRes/R2R_Model_Emp.htm
- National Center for Fair and Open Testing. (n.d.). *The ACT: Biased, inaccurate, and misused*. <https://fairtest.org/act-biased-inaccurate-and-misused>
- National Council of Teachers of English. (2016). TYCA white paper on placement reform. *Teaching English in the Two-Year College*, 44(2), 135-157.

- Rutschow, E. Z., Sepanik, S., Deitch, V., Raufman, J., Dukes, D., & Moussa, A. (2019). *Findings from the Dana Center mathematics pathways impact study*. New York City, NY: CAPR, Columbia University and MDRC. <https://postsecondaryreadiness.org/wp-content/uploads/2019/11/gaining-ground-executive-summary.pdf>
- Schak, O., Metzger, I., Bass, J., McCann, C., & English, J. (2017). *Developmental education: Challenges and strategies for reform*. Washington, D.C.: United States Department of Education. <https://www2.ed.gov/about/offices/list/opepd/education-strategies.pdf>
- Scott-Clayton, J., Crosta, P. M., & Belfield, C. R. (2012). Improving the targeting of treatment: Evidence from college remediation (NBER Working Paper No. 18457). Cambridge, MA: National Bureau of Economic Research. Retrieved from <http://www.nber.org/papers/w18457.pdf>
- Scott-Clayton, J., Crosta, P. M., & Belfield, C. R. (2014). Improving the targeting of treatment: Evidence from college remediation. *Educational Evaluation and Policy Analysis*, 36(3), 371–393. <https://doi.org/10.3102/0162373713517935>
- Scott-Clayton, J., & Stacey, G. W. (2015). *Improving the accuracy of remedial placement*. New York, NY: Columbia University, Teachers College, Community College Research Center. Retrieved from <http://ccrc.tc.columbia.edu/media/k2/attachments/improving-accuracy-remedial-placement.pdf>

Appendix A

Definitions of Developmental Models Included in Inventory of Public Higher Education Institutions in Illinois

Traditional	Developmental instruction places a student into a course level, and the student completes the course sequence that leads to the course required for their respective degree. Traditional developmental courses are typically a semester long each.
Co-requisite	Developmental instruction or tutoring supplements credit instruction while a student is concurrently enrolled in a credit-bearing course. For example, a student would be enrolled in a credit-bearing course and take a related lab/course to supplement their learning.
Compressed	Developmental instruction accelerates student progression from developmental instruction to college-level coursework by reducing the length of the course. Course delivery is more intense, and courses are offered in a variety of shortened timeframes to allow students to progress quickly. For example, a course that was originally scheduled to meet once a week for 16 weeks could meet twice a week for 8 weeks.
Modularized	Developmental instruction is customized and targeted to address specific skills gaps through courses that are technology-based and self-paced. Course material is divided into sub-unit parts and allows students to master targeted skill area deficiencies. For example, one three-credit course could be converted into three one-credit courses, each targeting a different set of concepts to master.
Emporium	Developmental instruction eliminates all lectures and replaces them with a learning resource center model featuring interactive software and on-demand personalized assistance, including interactive tutorials, practice exercises, solutions to frequently asked questions, and online quizzes and tests. Students choose what types of learning materials to use depending on their needs, and how quickly to work through the materials. This model is typically applied to mathematics [National Center for Academic Transformation (NCAT), https://www.thencat.org/PlanRes/R2R_Model_Emp.htm].
Contextualized	Developmental instruction is content related to a student’s program of study or meta-majors. For example, if a student were studying business or education, their writing prompts and or math would be related to those areas.
Stretch	Developmental instruction is where students complete the college-credit-bearing course over two semesters instead of one because of the educational assumption that some students need more time and guidance based on their previous academic backgrounds and experiences. It is typically used in writing.
Studio	Developmental instruction involves students who would have normally been placed in the traditional developmental education course taking a credit-bearing gateway course. The sub-set of students in the credit-bearing course requiring developmental education is provided with additional supports in a lab-like setting. The supports usually come in the form of ad hoc interventions from the same instructor, a different instructor, or an academic support professional. It is typically used in writing.
Other	Developmental instruction may vary by institution and approach so institutions that are using another approach can name another model, explanation how the developmental instruction is being deployed in the institution through this specific model.

Appendix B
SJR 41 Membership

Name	Title	College/Agency	Email
Aaron M. Ortiz	State Representative	101st General Assembly	aaron@repaaronortiz.com
Alison Reddy	Director of Mathematics Placement	University of Illinois at Urbana-Champaign	ared@illinois.edu
Bambi C. Jones	Math Instructor	Lake Land College	bjones@lakelandcollege.edu
Bob Navarro	Trustee	Illinois State University	bnavarr@ilstu.edu
Bradley Peters	Professor and Coord of Writing Across the Curriculum	Northern Illinois University	Bpeters@niu.edu
Brian Durham	Executive Director	ICCB	brian.durham@illinois.gov
Deanne Mazzochi	House Republican	101st General Assembly	mazzochi@ilhousegop.org
Emily Goldman	Policy Manager	Partners for College Completion	egoldman@partnershipfcc.org
Emmanuel Awuah	Vice President of Academic Affairs	Illinois Central College	emmanuel.awuah@icc.edu
Gloria Gibson	President	Northeastern Illinois University	g-gibson@neiu.edu
Jackie McGrath	Professor	College of DuPage	jlmce2jlm@gmail.com
Lisa Helm	Undergraduate Academic Advising Center	Governors State University	lhendrickson@govst.edu
Meera Komarraju	Provost and Vice Chancellor for Academic Affairs	Southern Illinois University Carbondale	provost@siu.edu
Michael Boyd	President	Kankakee Community College	mboyd@kcc.edu
Normah Salleh-Barone	Vice President of Student Development	Moraine Valley Community College	salleh-barone@morainevalley.edu
Pat McGuire	State Senator	101st General Assembly	pxmcguire@gmail.com
Sarah Labadie	Director of Policy	Women Employed	slabadie@womenemployed.org
Stephanie Bernoteit	Executive Deputy Director for Academic Affairs	IBHE	bernoteit@ibhe.org
Steve McClure	Senate Republican	101st General Assembly	senatormcclure@gmail.com
Susan Grace	Associate Professor	Wilbur Wright College	sgrace@ccc.edu

Name	Title	College/Agency	Email
Timothy Taylor	Director of Composition and Associate Professor of English	Eastern Illinois University	tmtaylor@eiu.edu
Wendy Yanow	Trustee	Oakton Community College	wyanow@oakton.edu
Diana Koenig	Math Faculty, IMACC President	Rock Valley College	D.Koenig@RockValleyCollege.edu
Molly Foust	Governor's office		

Appendix C
SJR 41 Timeline

Date	SJR 41 Activity
September 9, 2019	First SJR 41 Task Force meeting –Harold Washington College
November 1, 2019	SJR 41 Task Force meeting – Governor’s State University
January 10, 2020	SJR 41 Task Force meeting – Illinois Community College Board (ICCB) <ul style="list-style-type: none"> • Share results of inventory material being processed by ICCB; gather input for similar assignment for IBHE on course sequences and placement practices and policies • Review plan and drafts for models/practices inventory; secure SJR 41 task force member feedback • SJR 41 task force members develop individual and collective plans to secure constituent feedback
January 10-17, 2020	Comment period for SJR 41 task force members and constituents on inventory process and instruments
February 1, 2020	Inventory instruments released to CAOs (census of all public community colleges and universities on: <ul style="list-style-type: none"> • Instructional models inventory • Course sequences • Placement practices and policies
February 22, 2020	Deadline for campuses to submit inventory results
March 6, 2020	SJR 41 task force meeting – Champaign, UIUC; review initial results; discuss and share major findings; develop initial set of implications for SJR 41
March 6-22, 2020	Inventory data analysis and report writing – ICCB and IBHE with consultant
March 23-27, 2020	Comment period on <i>Draft SJR 41 Inventory Report</i> , noting major findings and implications for SJR 41 final report
April 1, 2020	Deadline for <i>SJR 41 Inventory Report</i> submission to the state legislature
April 8-15, 2020	Feedback period including webinar(s) for the SJR 41 task force members, other constituent groups, and public (including P20 Council, college readiness committee, public CAOs, ILEA members, and others – <i>not an exhaustive list</i>)
May 1, 2020	SJR 41 Task Force meeting – Heartland College – share initial draft of major inventory results and recommendations.
May 1-20, 2020	Feedback period -- post recommendations on websites for public comment through May 20, 2020; draft report for review by SJR 41 task force members on June 50, 2020
June 4, 2020	Last SJR 41 Task Force meeting – Joliet Junior College - Refine report content and recommendations in final draft for constituent comment
June 4-19, 2020	Feedback period for constituents (through the networks of SJR 41 task force members)

June 26, 2020	Deadline to complete the report for final agency and SJR 41 task force leadership review
July 1, 2020	<p>Deliver report with implementation plan to the state legislation – Include timeline to get all students enrolled in a developmental education reform model and placement policy; evidenced-based models need to increase likelihood of student completion of gateway courses within first two semesters. Include:</p> <ul style="list-style-type: none"> • State and institutional policies and practices that need to change to increase student success and address equity gaps • Specific benchmarks • Estimate of funding
November 1, 2021	Sharing of draft final report with the SJR 41 task force (option)
January 1, 2021	<p>Final report due</p> <ul style="list-style-type: none"> • Update on implementation of co-requisite remediation and alternative evidence-based developmental education • Data on enrollment and throughput – tied to # and % - keep in mind these are related to demographics)

Appendix D Inventory Instrument (IBHE version)

As noted in Dr. Stephanie Bernoteit's email message to Academic Leadership dated December 20, 2019, the Illinois Board of Higher Education (IBHE) is obligated to create an inventory of developmental education placement practices and policies at public universities, as required under Senate Joint Resolution 41 (SJR41). Please respond to this request for information on or before February 15, 2020. If you have any questions or need clarification, please contact [Stephanie Bernoteit](#) or [Eric Lichtenberger](#) at IBHE.

To better align the collection with the reporting requirements identified in the resolution, the items are categorized into three sections: 1) developmental education placement policies; 2) developmental education course sequences and models; and 3) strategies outside of developmental education. Each section has two parts: a) English/Language Arts; and b) mathematics. Please only respond to the subject areas in which you provide developmental education to your undergraduate students. Producing this information will likely require a high degree of interaction with administrators and faculty on your campus who have direct responsibility for your developmental education programs. We recommend that you consult with them prior to responding to this request for information.

Also, accompanying the three-part survey is an MS Excel file that was created to capture baseline information regarding the academic performance of development education students in gateway courses (see definitions section) by developmental education model. This information is another one of the mandated reporting requirements under SJR 41. Producing this information will likely require some interaction with your office of institutional research. Keep in mind, performance information in gateway courses is required for each model in English/language arts and mathematics you identify in Section 2.

[Definitions](#) of several developmental education models and a couple of other key terms are provided at the end of the survey for your reference. Please use the definitions to respond to question 3 and question 8 within section 2 of this survey and in filling out the previously mentioned MS Excel file.

Section 1: Developmental Education Placement Policies

Placement in English/Language Arts Developmental Education

If you do not offer developmental education in English/Language Arts, please skip to the next set of questions.

1) Please describe your developmental education placement practices and policies at your institution as they pertain to English/Language Arts. If you wish, feel free to provide a link to your policies or send an attachment when you respond to the survey.

2) Within your stated standard practices, which assessment(s) are used for potential placement in English/Language Arts developmental education (e.g., ACT English, SAT, Accuplacer, local assessment)?

3) If assessments are used for potential placement into English/Language Arts developmental education, what are the required cut scores, and/or ranges for each assessment?

4) Are any other factors considered in addition to, or in lieu of the assessment(s) you identified in #2 (e.g., high school GPA, high school grades in English courses)? If so, please describe the other factors that are considered when determining potential placement into English/Language Arts developmental education courses?
5) Within your stated standard practices, is there a process for challenging or requesting a reevaluation of placement into English/Language Arts developmental education? If so, please describe the process.
6) Who at your institution makes final decisions about potential placement into English/Language Arts developmental education (e.g., English faculty, admissions officers, etc.)?

Placement in Mathematics Developmental Education

If you do not offer developmental education in mathematics, please skip to the next set of questions. We acknowledge that similar information may have already been provided to IBHE in a separate request for information regarding the Postsecondary and Workforce Readiness Act and Senate Joint Resolution 22. If that was the case, we have preloaded your institution’s response under the appropriate question. We ask that you review the preloaded responses and update the information as necessary. See footnote for the prompt and question in the earlier survey/request for information.¹

1) Please describe your developmental education placement practices and policies at your institution as they pertain to mathematics. If you wish, feel free to provide a link to your policies or send an attachment when you respond to the survey.
2) Within your standard practices, which assessment(s) are used for potential placement in mathematics developmental education (e.g., ACT Math, SAT, Accuplacer, local assessment, etc.)?
3) If assessments are used for potential placement into mathematics developmental education, what are the required cut scores, or ranges, for each assessment?

¹ The Postsecondary and Workforce Readiness Act (PWR ACT) ([PA 099-0674](#)) states that “each public university must adopt and publicize transparent criteria adopted by the university for student placement into college-level mathematics courses. IBHE must publicly report on the adoption of such criteria and the extent to which public universities are utilizing strategies to minimize placements into non-credit-bearing remedial mathematics course sequences.”

Please respond with a link to your publicized criteria for math placement. Also, briefly describe any strategies, including co-requisite remediation and use of multiple measures of competency for placement, your university is using to minimize placement into non-credit-bearing courses.

4) Are any other factors considered in addition to, or in lieu of the assessment(s) you identified in #8 (e.g., high school GPA, highest math course completed in high school, grades in high school mathematics, etc.)? If so, please describe the other factors that are considered when determining potential placement into mathematics developmental education courses?
5) Within your stated standard practices, is there a process for challenging or requesting a reevaluation of placement into mathematics developmental education? If so, please describe the process.
6) Who at your institution makes final decisions about potential placement into mathematics developmental education (e.g., math faculty, admissions officers, etc.)?

Section 2: Developmental Education Course Sequences and Models

English/Language Arts

1) If you offer coursework in developmental education in English/Language Arts, please list all the course sequences, including the credit-bearing gateway courses in this subject area. For example, Developmental Education English 085 to English 101 (the gateway course).
2) Do you have any differentiated English/Language Arts sequences or pathways based on major or general area of study? For example, do you have a different English course sequence for STEM, or quantitative majors, relative to non-STEM or non-quantitative majors? If so, please describe the differentiated sequence.
3) Please provide a detailed list of all instructional models that are used in English/Language Arts developmental education (please see Definitions).
4) If you have any internal analyses or evaluations of your institution’s instructional models in English/Language Arts developmental education that you’d like to share, please provide a link or send an attachment when you email your final response.
5) Please describe any unique or innovative programs or strategies at your institution within the English/language arts developmental education space that you would like us to know about.

Mathematics

6) If you offer coursework in mathematics developmental education, please list all the course sequences, including the credit-bearing gateway course(s). For example, Developmental Mathematics 099 to College Algebra 110 (the gateway course).

7) Do you have any differentiated mathematics sequences or pathways based on major or general area of study (quantitative vs. non-quantitative majors, or STEM vs. non-STEM majors)? If so, please describe the differentiated sequence(s).
8) Please provide a detailed list of all instructional models that are used in mathematics developmental education (see Definitions Section).
9) If you have any internal analyses or evaluations of your institution’s instructional models in mathematics developmental education that you’d like to share, please provide a link or an send an attachment when you submit your final response.
10) Please describe any unique or innovative programs or strategies at your institution within the mathematics developmental education space that you would like us to know about.

Section 3: Strategies Outside of Developmental Education

1) If you do not offer English/language arts developmental education courses at your public university, could you describe the strategies you have for serving students who might struggle with gateway English courses, or not be college-ready in English?
2) If you do not offer mathematics developmental education courses at your public university, please describe the strategies you use for serving students who might struggle with gateway mathematics courses, or not be college-ready in math?

Pre-Submission Checklist

	We have responded to all of the items pertaining to my public university in sections 1 and 2.
	We have responded to section 3 because my public university does not offer developmental education in English/Language Arts or mathematics.
	We filled out the accompanying MS Excel workbook and provided the requested outcome information for each model we currently use for both English/Language Arts and mathematics developmental education.