Final Report: Update on Implementation of Developmental Education Models in Public Community Colleges and Universities in Illinois

Illinois Board of Higher Education

Illinois Community College Board

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Table of Contents

Executive Summary

Public universities and colleges continue to address student placement into, and student completion of developmental education. In addition, Illinois' public higher education institutions, whether two-year or four-year, have been engaged in a continuous and ongoing effort to produce more equitable outcomes in developmental education for historically underserved populations including Latinx and African American students. The Illinois Board of Higher Education (IBHE) and the Illinois Community College Board (ICCB) will continue to collect and evaluate both information on how Illinois colleges and universities are leading change at their institutions and highlight national, evidence-based models that can enhance student performance and outcomes, especially where equity gaps persist. Meeting the needs of students is of paramount importance to the state's education agencies, Illinois' community colleges and universities, and policymakers across the state. The work of the Senate Joint Resolution 41 Advisory Committee and the reports related to that work, including this report, are a part of the effort to address developmental education rates and disparities.

This report provides an update on developmental education reform described in earlier reports (listed below) developed in response to Illinois Senate Joint Resolution (SJR) 41. Per SJR 41, this update report must be transmitted to the Illinois Governor and Legislature by January 1, 2021. Copies of the report must also be made available to the IBHE and the ICCB.

- March 31, 2020 SJR 41 report titled *Inventory of Developmental Education in Public Community Colleges and Universities in Illinois*, and

- June 30, 2020 SJR 41 report titled *Scaling Developmental Education Reform in Illinois: A Report of the Senate Joint Resolution 41 Advisory Council*.

The report is required to include "an update on the implementation of co-requisite remediation and alternative evidence-based developmental education models at every college and university, and include data on enrollment and throughput, defined as the percent of students initially enrolled who have progressed through gateway-level courses, by institution and disaggregated by race, ethnicity, gender, and Pell status…(SJR 41)"

Thus, this report provides the most recent information on the implementation of co-requisite and other alternative evidence-based developmental education models, as well as student outcomes within the models.

This report describes results of an inventory and implementation 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.

Finally, this report provides current implementation and student success within developmental education models and builds on the critical work and baseline information collected via the SJR 41 Advisory Council. This evidence-based approach builds on past and current Illinois and higher

education efforts and studies conducted on effective and equitable outcomes within developmental education models.

In analyzing the data and developing the report, several notable inferences emerge. These include:

- **Public institutions across Illinois are continuously engaged in reviewing, modifying, and making more effective their delivery of developmental education.** All public universities and community colleges are responding to a rapidly changing environment. In this context, Illinois public universities and community colleges have made significant progress on the implementation of new, evidence-based model of developmental education instructional delivery. As the data indicates, public institutions have made significant changes in how they offer developmental education. System data indicates that it is having an impact on how students place and complete gateway courses and the need for enrollment in developmental education course. While there is a lag in how data is reported, even within this data set, there are clear indications that reform efforts are having an impact. Graduation rates for students in community colleges are higher for those who are enrolled in models other than the "traditional" model. In addition, completion and progression rates at public universities continue to increase for students enrolled in developmental education.

- **Non-traditional models of developmental education are helping students progress into gateway courses.** Non-traditional models of developmental education seem to increase access to gateway/credit-bearing course in a shorter time frame. In community colleges, longitudinal data show that developmental models outside the Traditional model may accelerate students into gateway/credit-bearing courses. However, current evidence suggests that there is not a significant difference between the non-traditional models and their impact on graduation rates. This is an area for further research and inquiry to determine the validity of this inference.

- **Student support and wrap-around services are critical to producing student success in the developmental course as well as progression toward graduation.** Colleges reported that where students are provided services such as strong academic advising, focused tutoring, financial literacy, bridge programming, and just-in-time assistance, they perform better. Using strategies such as summer bridge programs, focused diagnostic testing as part of placement testing, and review and assistance with placement testing/retesting further allows students to improve placement results and reduce the need for developmental education classes. Developmental education models and courses do not stand on their own. There are a number of other supports that are necessary in order for students to be successful. It is imperative that the education community consider how to enhance these supports. It is critical that the state consider ways to support institutions as they work to build upon these support mechanisms, further enhancing the student support options across the higher education system.

- **Public universities and community colleges have shifted how they place students.** Thirty-one community colleges have fully adopted the Statewide Placement Recommendations that were formerly adopted by the Council of Community College Presidents on June 1, 2018. Some public universities use some form of multiple measure

placement. In addition, data suggests a need for more capacity around Math Pathways and differentiated strategies based on selection of major or degree program. Community colleges have begun implementing this strategy, and all public universities have multiple math pathways based on major. These impressions suggest that these are promising areas of investment for the state. More research is necessary to identify effective pathways, courses and outcomes.

- **Completion of courses within each model vary by race/ethnicity and equity gaps persist**. In the community college data set, Latinx and African American students perform better in the co-requisite model while White and Asian students appear to perform better in traditional, emporium, and compressed development models. Interestingly, the same results are seen for Pell-eligible students: they perform better in the co-requisite model while those who are non-Pell eligible perform better in traditional, emporium, and compressed development models. In the data set for public universities, African American and Latinx students appeared to perform better in traditional courses for English Language Arts where white students tended to perform better in co-requisite courses. Further study, beyond the timeframes represented in this report, is needed to analyze the impact of non-traditional models on student outcomes. Racial/ethnic gaps in achievement continue to persist with graduation rate regardless of developmental model. Among other things, this highlights the importance of student and academic supports beyond entry and completion of a gateway course.

Introduction

This report responds to Senate Joint Resolution (SJR) 41 of the state of Illinois and provides an update and the most recent information on several aspects of developmental education model reform included in the March 31, 2020 SJR 41 report titled *Inventory of Developmental Education in Public Community Colleges and Universities in Illinois and* June 30, 2020 SJR 41 report titled June 30, 2020 report titled *Scaling Developmental Education Reform in Illinois: A Report of the Senate Joint Resolution 41 Advisory Council*. This report begins by summarizing SJR 41 and the expectations for the report. The data collection methods utilized by IBHE and ICCB in capturing updates from each public higher education are described followed by an update on the implementation and student outcomes of co-requisite and other alternative evidence-based developmental education models. The SJR 41 Resolution is provided in Appendix A.

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 Board of Higher Education (IBHE) and Illinois Community College Board (ICCB) to establish the SJR 41 Advisory Council. This advisory council was charged with:

- Compiling and submitting a developmental education model benchmarking (inventory) report to the General Assembly on or before April 1, 2020
    - The report titled *Inventory of Developmental Education in Public Community Colleges and Universities in Illinois* was filed on March 31, 2020

- Compiling and submitting a developmental education model scaling and implementation reform report to the General Assembly on or before July 1, 2020.

    - The report titled *Scaling Developmental Education Reform in Illinois: A Report of the Senate Joint Resolution 41 Advisory Council* was filed on June 30, 2020

On January 1, 2021, the SJR 41 requires a report on progress made since the required reports on April 1, 2020 and July 1, 2020 as it relates to developmental education model implementation and student outcomes.

Information and Data Collection Methods

Data were gathered using a survey instrument and standardized summary-level data collection template distributed to all public community colleges and universities in Illinois in November and continued through mid-December 2020. The data collection templates were modeled after templates 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 in January 2020.

In this report, the implementation of co-requisite and other alternative evidence-based developmental education models represent the fall 2020 term and provide an update from the

information provided in the March 31, 2020 report (based on early-spring 2020 term). The summary-level student outcome data for the developmental education models represent a longitudinal cohort analysis (fall 2017 cohort for Illinois community colleges and fall 2018 cohort for Illinois public universities. The student outcome analysis also provides an update to the March 31, 2020 report but includes another academic year of longitudinal analysis as well as student subgroup data (race/ethnicity, gender, age, Pell status). The inclusion and analysis of student subgroup data are critical in this report as Illinois examines efforts to reduce racial/ethnic gaps and reducing inequities for students across higher education.

Inventory and Implementation Results

This section summarizes inventory findings on the implementation of developmental (instructional) models at the end of fall term 2020 for all public community colleges and universities in Illinois, as required by SJR 41. The findings and discussion begin 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 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. 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), 2020].

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.

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 a 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).

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.

Community Colleges Inventory and Implementation of Developmental Education Models

As illustrated in Table 1 below, community colleges employ a variety of models to deliver developmental education. As colleges continue to analyze the effectiveness of these models, it is anticipated that additional changes will occur over time.

Table 1: Developmental Education Models Used in Community Colleges

Traditional	41
Co-requisite	38
Modularized	5
Emporium	12
Contextualized	13
Studio	3
Compressed	11
Other	10

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, and gateway course completion for two cohorts: a) Academic Year 2017-2018 (AY17-18) for community colleges and b) Academic Year 2018-2019 (AY18-19) for public universities. For community colleges, graduate rate is also provided for each developmental model. 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 in spring and fall 2020. Table 2 also shows the number and percentage of all public community colleges on level of implementation using a "not implemented", "implemented" or "not reported". Implemented results may include those that are in development or pilot phase, while those in the not-implemented phase may include those that are not being used or being phased out.

In fall 2020, there was little change in the Traditional and Co-Requisite models. However more than 90 percent of colleges reported having a Co-requisite model for English and approximately 16 percent of colleges reporting that they had phased out a traditional model or did not use it currently. There was a slight uptick in compressed, Modularized and Emporium models. There was significant increase in the number of colleges who implemented some "Other" model of developmental English course. These models may have included things like the Stretch model, a different national model or a hybrid developed and deployed by the college.

Table 2: Summary of Developmental Model Implementation in English/Language Arts by All Public Illinois Community Colleges

Term		Spring 2020			Fall 2020	
English/ Language Arts Model	Implementation Status	Number Colleges (n=48)	Percentage of Colleges	Implementation Status	Number Colleges (n=48)	Percentage of Colleges
Traditional	Not Implemented	9	18.75	Not Implemented	8	16.97
	Implemented	39	81.25	Implemented	39	81.25
	Not Reported		0.00	Not Reported	1	2.08
Co-Requisite	Not Implemented	3	6.25	Not Implemented	3	6.25
	Implemented	45	93.75	Implemented	44	91.67
	Not Reported		0.00	Not Reported	1	2.08
Compressed	Not Implemented	39	81.25	Not Implemented	36	75.00
	Implemented	9	18.75	Implemented	11	22.92
	Not Reported		0.00	Not Reported	1	2.08
Modularized	Not Implemented	48	100.00	Not Implemented	46	95.83
	Implemented	0	0.00%	Implemented	1	2.08
	Not Reported		0.00	Not Reported	1	2.08
Emporium	Not Implemented	47	97.71	Not Implemented	43	89.58
	Implemented	1	2.08	Implemented	4	8.33
	Not Reported	0	0.00	Not Reported	1	2.08
Contextualized	Not Implemented	47	97.71	Not Implemented	43	89.58
	Implemented	1	2.08%	Implemented	4	8.33
	Not Reported	0	0.00	Not Reported	1	2.08
Studio	Not Implemented	46	95.83	Not Implemented	45	93.75
	Implemented	2	4.16	Implemented	2	4.16
	Not Reported	0	0.00	Not Reported	1	2.08
Other	Not Implemented	46	95.83	Not Implemented	39	81.25
	Implemented	2	4.16	Implemented	8	16.67
	Not Reported	0	0.00	Not Reported	1	2.08%

Overall enrollment and completion results for English/Language Arts are shown for the fall 2017 first-time, full-time entering cohort in Table 3. Detailed enrollment and outcomes by student subgroups (Race/Ethnicity, Pell Recipient, Age, and Gender) for each developmental education model appear in Appendix D respectively. Cell suppression in Appendix D tables are applied as applicable to prevent student identification for achievement outcomes. Any outcomes differing from the March 31, 2020 SJR 41 report titled *Inventory of Developmental Education in Public Community Colleges and Universities in Illinois* are due to more recent data being available at a particular community college.

Table 2 provides fall 2017 first-time, full-time entering outcomes at different momentum points and eventual attainment of a community college credential. The cohort is tracked over three academic years (2017-18 through 2019-20). Students are followed longitudinally over three years to measure developmental model completion and entry into a related gateway course. Credential completion is measured within 150% of catalog time (e.g. 3 years for an associate degree) at the same institution.

Table 3: Illinois Community College Fall 2017 First-Time, Full-Time Entering Student Outcomes by English/Language Arts Developmental Model

	Cohort Enrollment	Students Complete Model and Enroll in Related Gateway Course within Three Years*				Students Enrolling in the Model that Earned a Credential within 150% Catalog Time	
	Number of FT/FT Fall 2017 Enrollment of students in any part model	Number of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Percent of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Number of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Percent of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Number of students that earned a credential within 150% Catalog Time	Percent of students that earned a credential within 150% Catalog Time
Traditional	4,796	2,615	54.5%	2,057	78.7%	711	14.8%
Co-requisite	948	831	87.7%	715	86.0%	265	28.0%
Compressed	108	68	63.0%	49	72.1%	13	12.0%
Contextualized	154	92	59.7%	64	69.6%	24	15.6%
Other	101	71	70.3%	58	81.7%	14	13.9%

Fall 2017 ELA Cohort Enrollment

Overall – The traditional developmental model has the highest enrollment count at 4,796 students, followed by co-requisite (n = 948), contextualized (n = 154), compressed (n = 108), and other (n = 101) developmental models.

Race/Ethnicity – Within three of the five developmental models, White has the highest enrollment among the race/ethnicity categories. For the other developmental model, White comprises the highest proportion at 45.5% (n = 46), followed by co-requisite at 42.1% (n = 399), and contextualized at 40.3% (n = 62). For co-requisite, the race/ethnicity with the next highest proportion of enrollment is Latinx at 33.3% (n = 316) while for other the next highest proportion of enrollment after White is African American at 33.7% (n = 34). It is similar for contextualized at 35.7% (n = 55).

For the traditional developmental model, the race/ethnicity category with the largest proportion of students is Latinx at 37.6% (n = 1,801), followed by White at 30.8% (n = 1,478) and African American at 23.4% (n = 1,120). Within the compressed developmental model, African American students represent the race/ethnicity with the highest proportion of students at 45.4% (n = 49), followed by White at 25.0% (n = 27) and Latinx at 25.0% (n = 27).

Pell Recipient –Pell recipients make up a larger proportion of students as compared to Non-Pell recipients in each of the five developmental models. The compressed model has the largest proportion of Pell recipient of students at 74.1% (n = 80), followed by traditional at 59.9% (n =

2,871), co-requisite at 56.9% (n = 539), contextualized at 55.8% (n = 86), and other at 55.4% (n = 56).

Age – Students less than 25 years of age account for the largest proportion by a large margin and are very similar in distribution across all developmental models. The other developmental model has the highest proportion of students less than 25 years of age at 97.0% (n = 98), followed by co-requisite at 96.5% (n = 915), contextualized at 96.1% (n = 148), compressed at 95.4% (n = 103), and traditional at 94.0% (n = 4,506).

Gender – Females comprise a larger proportion in all developmental models albeit by a very small margin in many. The compressed developmental model has the highest proportion of Female students at 61.1% (n = 66), followed by other at 52.5% (n = 53), contextualized at 50.6% (n = 78), traditional at 50.5% (n = 2,423), and co-requisite at 50.1% (n = 475).

Fall 2017 ELA Cohort Completing Model and Gateway Course Enrollment and Completion

Overall – The co-requisite developmental model has the highest percent of students completing the model and enrolling in a gateway course within three years at 87.7% (n = 831), followed by other at 70.3% (n = 71), compressed at 63.0% (n = 68), contextualized at 59.7% (n = 92), and traditional at 54.5% (n = 2,615).

The percent of students completing a gateway course with "C" or higher within three years is highest with the co-requisite developmental model at 86.0% (n = 715), followed by other at 81.7% (n = 58), traditional at 78.7% (n = 2,057), compressed at 72.1% (n = 49), and contextualized at 69.6% (n = 64).

Race/Ethnicity – Within the traditional developmental model, the race/ethnicity with the highest rate of students completing a model and enrolling in a gateway course within three years is Asian at 63.4% (n = 106), White at 59.6% (n = 880), Latinx at 57.0% (n = 1,026), and African American at 43.5% (n = 487). In the co-requisite model, the race/ethnicity with highest percent of students completing the model and enrolling in a gateway course is Latinx at 94.6% (n = 299), followed by Asian at 87.1% (n = 27), African American at 85.5% (n = 142), and White at 83.0% (n = 331).

In the co-requisite developmental model, the rate of students successfully completing a gateway course with a "C" or higher is greatest among White at 92.4% (n = 306), followed by Asian at 85.2% (n = 23), Latinx at 84.6% (n = 253), and African American at 74.6% (n = 106). For the traditional developmental model, the race/ethnicity with the highest rate of success completing a gateway course with a "C" or higher is White at 84.2% (n = 741), followed by Latinx at 80.4% (n = 825), Asian at 79.8% (n = 85), and African American at 66.5% (n = 324). The remaining models have data suppression in one or more categories.

Pell Recipient – For both the traditional, co-requisite, and other developmental models there is not much of a performance gap between Pell Recipients and Non-Pell Recipients in rate of students completing a model and enrolling in a gateway course. In the traditional developmental model Pell Recipients complete a model and enroll in a gateway course at a rate of 54.4% (n = 1,562) compared to 54.7% (n = 1,053) for Non-Pell Recipients. For co-requisite, the Pell recipient

rate of success is 86.5% (n = 466) compared to Non-Pell Recipients at 89.2% (n = 365). In the other developmental model Pell Recipients have a success rate of 69.6% (n = 39) as compared to Non-Pell Recipients at 71.1% (n = 32).

For the compressed and contextualized developmental models, the performance gap is starker among Pell Recipients and Non-Pell Recipients in rate of students completing a model and enrolling in a gateway course. In the compressed developmental model Pell Recipients have a success rate of 70.0% (n = 56) compared to Non-Pell Recipients at 42.9% (n = 12). In contrast, within the contextualized developmental model, Non-Pell Recipients at 72.1% (n = 49) have a higher success rate than Pell Recipients at 50.0% (n = 43).

There is not much of a performance gap in rate of students successfully completing a gateway course with a "C" or higher is greater with Pell Recipients and Non-Pell Recipients students among traditional, co-requisite, or compressed developmental models. Among those three models, co-requisite has the highest rate of Pell Recipient students successfully completing a gateway course with a "C" or higher at 84.1% (n = 392), followed by traditional at 78.6% (n = 1,227) and compressed at 71.4% (n = 40).

There is a larger gap between Pell Recipients and Non-Pell Recipients students in successfully completing a gateway course with a "C" or higher in the contextualized and other developmental models. In the contextualized developmental model, Non-Pell Recipients have a higher success rate than Pell Recipients at 77.6% (n = 38) compared to 60.5% (n = 26) and in the other developmental model at 87.5% (n = 28) compared to 76.9% (n = 30).

Age – For the co-requisite developmental model, there is not much of an achievement gap between the less than 25 age category as compared to age 25 and over students in rate of completing a model and enrolling in a gateway course. Students in the less than 25 age category complete a model and enroll in a gateway course at a rate of 87.5% (n = 801) compared to the 25 or over category at 90.9% (n = 30).

Within the traditional model, there is a larger performance gap between the less than 25 age category as compared to age 25 and over students in rate of completing a model and enrolling in a gateway course. Students in the less than 25 age category complete a model and enroll in a gateway course at a rate of 55.0% (n = 2,479) compared to the 25 and over category at 47.1% (n = 136).

The rate of students successfully completing a gateway course with a "C" or higher is fairly similar across the traditional and co-requisite developmental models. The co-requisite model has a higher success rate across both age categories with 86.1% (n = 690) among the less than 25 age category as compared to 83.3% (n = 25) for 25 and older students. For the traditional model, in the less than 25 age category the rate of success is 78.6% (n = 1,948) as compared to the 25 and over students at 80.1% (n = 109).

The remaining models have data suppression in one or more categories.

Gender – The rate of students completing a model and enrolling in a related gateway course is higher among the Female category as compared to Male in four of the five developmental models. The co-requisite model has the highest rate of completion among Female students at 88.0% (n = 418), followed by the other developmental model at 75.5% (n = 40), contextualized at 61.5% (n = 48), and traditional at 56.8% (n = 1,376). Within the compressed developmental model, Male students at 73.8% (n = 31) have a higher rate of completing a model and enrolling in a related gateway course.

The rate of students successfully completing a gateway course with a "C" or higher is slightly more for Female students as compared to Male students in four of the five developmental models. The other developmental model has the highest success rate among Females at 82.5% (n = 33), followed by traditional at 80.1% (n = 1,102), contextualized at 79.2% (n = 38), and compressed at 73.0% (n = 27).

Fall 2017 ELA Cohort Graduating within 150% Catalog Time

Overall – Graduation rate provides the percentage of first-time, full-time students that graduate within 150% of catalog time (e.g. 3 years for an associate degree) at the same institution. The rate of graduation is highest within the co-requisite developmental model at 28.0% (n = 265), followed by contextualized at 15.6% (n = 24), traditional at 14.8% (n = 711), other at 13.9% (n = 14), and compressed at 12.0% (n = 13).

Race/Ethnicity – Within both the co-requisite and traditional developmental models, White and Asian students have the highest graduation rate as compared to Latinx and African American students. For the co-requisite developmental model, White students have the highest graduation rate at 36.1% (n = 144), followed by Asian at 35.5% (n = 11), Latinx at 22.8% (n = 72), and African American students at 18.7% (n = 31). In the traditional developmental model, the Asian category has the highest graduation rate at 20.2% (n = 34), followed by White at 19.1% (n = 282), Latinx at 14.6% (n = 263), and African American at 8.8% (n = 98). The remaining models have data suppression in one or more categories.

Pell Recipient – In the co-requisite and traditional developmental models, Non-Pell Recipients have a slightly higher graduation rate than Pell Recipients. In the co-requisite developmental model, the Non-Pell Recipients have a graduation rate of 30.3% (n = 124) compared to Pell Recipients at 26.2% (n = 141). The traditional developmental model has a graduation rate of 15.8% (n = 305) among Non-Pell Recipient students as compared to 14.1% (n = 406) for Pell Recipients. The remaining models have data suppression in one or more categories.

Age – For the co-requisite developmental model, students in the less than 25 age category have a slightly higher graduation rate at 28.0% (n = 256) compared to students 25 and over at 27.3% (n = 9). Within the traditional developmental model, students in the 25 and over category have a higher graduation rate at 18.7% (n = 54) compared to students less than 25 years of age at 14.6% (n = 657). Within the other developmental model, the graduation rate is at 14.3% (n = 14) for students in the less than 25 age category.

Gender – In the co-requisite and traditional developmental models, Female students have a higher graduation rate than Male students. For the co-requisite developmental model, the Female students have a graduate rate of 30.9% (n = 147) compared to Male students at 24.9% (n = 117). The traditional developmental model has a graduation rate of 16.4% (n = 398) among Female students as compared to 13.2% (n = 313) for Male students.

In the contextualized and other developmental models, Male students have a higher graduation rate than Female students. For the contextualized developmental model, the Male students have a graduate rate of 19.7% (n = 15) compared to Female students at 11.5% (n = 9). The other developmental model has a graduation rate of 16.7% (n = 8) among Male students as compared to 11.3% (n = 6) for Female students.

Mathematics

In spring 2020 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. The results in Table 4 also suggests the traditional model remains very prevalent in mathematics in the community colleges. However, by fall 2020, four other colleges had moved away from the traditional model in favor or one of the other design models.

In spring 2020, the level of implementation in the Co-requisite model was similar to that seen in the English/Language Arts area. In fall 2020, the same proportion of colleges continued to actively implement or pilot Co-requisite model The model is currently implemented or being piloted at two-thirds of all community colleges in the state.

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 in spring 2020. However, there is some variation in the compressed model as of fall 2020. Many colleges that employ this model noted that they offer it as an option, but also have a number of other models that they employ. It is noted that many colleges offer the compressed model for a certain set or level of course, but not necessarily all that are included in the developmental sequence. There was a small increase in the number of schools who use the Emporium model.

By fall 2020, there was a small number of the community colleges reported implementing the studio model. However, there was a significant jump in the number of colleges who reported using "Other" as a model. This may have included models like the Stretch model, a different national model or a hybrid developed and deployed by the college. This model grew to encompass one-fifth of all colleges.

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

Term	Spring 2020			Fall 2020		
Mathematics Model	Implementation Status	Number Colleges (n=48)	Percent of Colleges	Implementation Status	Number Colleges (n=48)	Percent of Colleges
Traditional	Not Implemented	3	6.25	Not Implemented	7	14.58
	Implemented	45	93.75	Implemented	40	83.33
	Not Reported		0.00	Not Reported	1	2.08
Co-Requisite	Not Implemented	16	33.33	Not Implemented	15	31.25
	Implemented	32	66.67	Implemented	32	66.67
	Not Reported		0.00	Not Reported	1	2.08
Compressed	Not Implemented	32	66.67	Not Implemented	36	75.00
	Implemented	16	33.33	Implemented	11	22.92
	Not Reported		0.00	Not Reported	1	2.08
Modularized	Not Implemented	44	91.67	Not Implemented	43	89.58
	Implemented	4	8.33	Implemented	4	8.33
	Not Reported		0.00	Not Reported	1	2.08
Emporium	Not Implemented	38	79.16	Not Implemented	35	72.92
	Implemented	10	20.83	Implemented	12	25.00
	Not Reported		0.00	Not Reported	1	2.08
Contextualized	Not Implemented	44	91.67	Not Implemented	35	72.92
	Implemented	4	8.33	Implemented	12	25.00
	Not Reported	0	0.00	Not Reported	1	2.08
Studio	Not Implemented	46	95.83	Not Implemented	45	93.75
	Implemented	2	4.16	Implemented	2	4.16
	Not Reported	0	0.00%	Not Reported	1	2.08
Other	Not Implemented	46	95.83	Not Implemented	37	77.08
	Implemented	2	4.16	Implemented	10	20.83
	Not Reported		0.00	Not Reported	1	2.08

Overall enrollment and completion results for Mathematics are shown for the fall 2017 first-time, full-time entering cohort in Table 5. Detailed enrollment and outcomes by student subgroups (Race/Ethnicity, Pell Recipient, Age, and Gender) for each developmental education model appear in Appendix E, respectively. Cell suppression in Appendix E tables are applied as applicable to prevent student identification for achievement outcomes. Any outcomes differing from the March 31, 2020 SJR 41 report titled *Inventory of Developmental Education in Public Community Colleges and Universities in Illinois* are due to more recent data being available at a particular community college.

Table 5 provides fall 2017 first-time, full-time entering outcomes at different momentum points and eventual attainment of a community college credential. The cohort is tracked over three academic years (2017-18 through 2019-20). Students are followed longitudinally over three years to measure developmental model completion and entry into a related gateway course. Credential completion is measured within 150% of catalog time (e.g. 3 years for an associate degree) at the same institution.

Table 5. Illinois Community College Fall 2017 First-Time, Full-Time Entering Student Outcomes by Mathematics Developmental Model

	Cohort Enroll-ment	Students Complete Model and Enroll in Related Gateway Course within Three Years*				Students Enrolling in the Model that Earned a Credential within 150% Catalog Time	
	Number of FT/FT Fall 2017 Enrollment of students in any part model	Number of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Percent of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Number of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Percent of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Number of students that earned a credential within 150% Catalog Time	Percent of students that earned a credential within 150% Catalog Time
Traditional	8,549	3,516	41.1%	2,396	68.1%	1,561	18.3%
Co-requisite	582	520	89.3%	423	81.3%	162	27.8%
Emporium	873	434	49.7%	297	68.4%	213	24.4%
Compressed	275	153	55.6%	100	65.4%	57	20.7%
Modularized	109	46	42.2%	37	80.4%	27	24.8%
Other	28	19	67.9%	11	57.9%	8	28.6%

Fall 2017 Math Cohort Enrollment

Overall – The traditional developmental model has the highest enrollment count at 8,549 students followed by the emporium (n = 873), co-requisite (n = 582), compressed (n = 275), modularized (n = 109), and other (n = 28) developmental models.

Race/Ethnicity – Within the traditional developmental model, the three race/ethnicity categories that represent the largest population are White at 45.1% (n = 3,856), Latinx at 30.4% (n = 2,596), and African American at 17.0% (n = 1,452). Similarly, the emporium developmental model three highest enrollment race/ethnic categories are White at 64.4% (n = 562), Latinx at 13.7% (n = 120), and African American at 9.0% (n = 79), as well as compressed developmental model with White at 41.1% (n = 113), Latinx at 27.6% (n = 76), and African American at 26.2% (n = 72).

Within the co-requisite, modularized, and other developmental models, Latinx has the highest enrollment among the race/ethnicity categories. For the co-requisite developmental model, Latinx comprises 38.7% of the population (n = 225), followed by White at 34.9% (n = 203), and African American at 17.2% (n = 100). The Latinx student population makes up 50.5% (n = 55) of the modularized developmental education model followed by White at 37.6% (n = 41) and African American at 9.2% (n = 10). Finally, within the other developmental models, Latinx comprises 53.6% of the population (n = 15), followed by White at 39.3% (n = 11) and African American at 7.1% (n = 2).

Pell Recipient – Across the developmental models, Pell recipients make up a larger proportion of students than Non-Pell recipients in four of the six models. The modularized development model have the largest proportion of Pell recipient students at 68.8% (n = 75), followed by co-requisite at 59.6% (n = 347), compressed at 53.5% (n = 147), and traditional at 52.4% (n = 4,481).

Non-Pell recipients comprise a larger proportion of students compared to Pell recipients for both the emporium developmental model at 54.9% (n = 479) and other developmental model at 60.7% (n = 17).

Age – By a large margin, students less than 25 years old account for the largest proportion across the models. The other developmental model had the highest proportion of students less than 25 at 100% (n = 28), followed by emporium at 97.6% (n = 852), compressed at 97.1% (n = 267), co-requisite at 96.4% (n = 561), traditional at 94.8% (n = 8,101), and modularized at 83.5% (n = 91).

Gender – Females comprise a larger proportion of the student population in five of the six developmental models with the highest proportion being in other at 64.3% (n = 18), followed by compressed at 59.6% (n = 164), co-requisite at 54.3% (n = 316), traditional at 53.7% (n = 4,589), and emporium at 50.7% (n = 443). Males account for a larger proportion in the modularized developmental model at 53.2% (n = 58).

Fall 2017 Math Cohort Completing Model and Gateway Course Enrollment and Completion

Overall – Among the models with an enrollment of more than 100 students, the co-requisite developmental model had the highest percentage of students completing a model and enrolling in a gateway course within three years at 89.3% (n = 520), followed by compressed at 55.6% (n = 153), emporium at 49.7% (n = 434), modularized at 42.2% (n = 46), and traditional at 41.1% (n = 3,516).

The percentage of students completing a gateway course with "C" or higher within three years is highest for co-requisite at 81.3% (n = 423) and modularized at 80.4% (n = 37), followed by similar results in emporium at 68.4% (n = 297), traditional at 68.1% (n = 2,396), and compressed at 65.4% (n = 100).

Race/Ethnicity – Across the traditional, emporium, and compressed development models, the White and Asian student populations account for a higher rate of students completing a model and enrolling in a related gateway course within three years compared to Latinx and African American students. Interestingly, in co-requisite a higher proportion of Latinx and African American students complete the model and enroll in a related gateway course than both the White and Asian populations. Within the modularized model, Latinx students had the highest proportion of students completing the model and enrolling in a related gateway course.

In the traditional developmental model, the rate of students successfully completing a gateway course with a "C' or higher is very similar across the race/ethnicity categories with Asian at 71.6% (n = 78), White at 69.7% (n = 1,239), Latinx at 66.5% (n = 715), and African American at 65.3% (n = 262). Within the co-requisite model, there is a higher rate of success in completing a gateway course with a "C" or higher but a larger gap among the White and Asian students as compared to

the Latinx and African American populations. White had the highest rate at 91.7% (n = 154), followed by Asian at 89.3% (n = 25), Latinx at 74.4% (n = 157), and African American at 73.4% (n = 69).

In the emporium developmental model, the Asian student population has the highest rate of success in completing a gateway course with a "C" or higher at 76.9% (n = 40), followed by White at 68.9% (n = 199), Latinx at 66.7% (n = 36), and African American at 34.8% (n = 8). The remaining models have data suppression in one or more categories.

Pell Recipient – In the traditional developmental model, Non-Pell Recipient students account for a higher rate of students completing a model and enrolling in a related gateway course at 44.8% (n = 1,821) as compared to Pell Recipient students at 37.8% (n = 1,695). Similarly, students in the emporium developmental model have a higher rate of success among Non-Pell Recipient students at 53.9% (n = 258) compared to Pell Recipient students at 44.7% (n = 176). Interestingly, within the co-requisite developmental model, the Pell Recipient students have a higher rate of success among students completing a model and enrolling in a related gateway course at 90.8% (n = 315) compared to Non-Pell Recipient students at 87.2% (n = 205). The compressed and modularized developmental models, like the traditional and emporium, have a higher rate of Non-Pell Recipient students completing a model and enrolling in a related gateway course as compared to the Pell Recipient students.

The rate of students successfully completing a gateway course with a "C" or higher is greater for Non-Pell Recipients within traditional at 70.8% (n = 1,289), co-requisite at 82.4% (n = 169), and emporium at 68.6% (n = 177) as compared to Pell Recipient students. The rate of success is higher among Pell Recipient students as compared to Non-Pell Recipient students for both compressed and modularized models.

Age – The rate of students completing a model and enrolling in a related gateway course is higher in the less than 25 age category as compared to age 25 and over in each of the developmental models. Co-requisite has the highest rate of completion among less than 25 years old students at 89.5% (n = 502), followed by emporium at 50.1% (n = 427), modularized at 42.9% (n = 39), and traditional at 41.8% (n = 3,388). The remaining models have data suppression in one or more categories.

Interestingly, the rate of students successfully completing a gateway course with a "C' or higher is greater for students in the age 25 and over category as compared to younger students. The developmental model with the highest rate of age 25 and over among students successfully completing a gateway course with a "C' or higher is greater in both co-requisite at 100% (n = 18) and modularized at 100% (n = 7), followed by emporium at 85.7% (n = 6) and traditional at 72.7% (n = 93).

Gender - The rate of students completing a model and enrolling in a related gateway course is higher among Female as compared to Male in five of the six developmental models. Co-requisite has the highest rate of completion amongst Female students at 91.5% (n = 289) followed by emporium at 56.2% (n = 249), modularized at 54.9% (n = 28), and traditional at 43.2% (n = 1,983). Within the compressed developmental model, the rate of Male students completing a

model and enrolling in a related gateway course is higher at 57.7% (n = 64) compared to Female students.

Fall 2017 Math Cohort Graduating within 150% Catalog Time

Overall –Graduation rate provides the percentage of first-time, full-time students that graduate within 150% of catalog time (e.g. 3 years for an associate degree) at the same institution. The rate of graduation is highest within the other developmental model at 28.6% (n = 8), followed by co-requisite at 27.8% (n = 162), modularized at 24.8% (n = 27), emporium at 24.4% (n = 213), compressed at 20.7% (n = 57) and traditional at 18.3% (n = 1,561).

Race/Ethnicity – Within the co-requisite and emporium developmental models, White and Asian students have a higher graduation compared to Latinx and African American students. For co-requisite, White students have a graduation rate of 35.5% (n = 72) as compared to 23.0% for African American and 22.2% for Latinx students. Within the emporium model, Asian students have a graduation rate of 27.5% (n = 19) with White students at 26.5% (n = 149) compared to Latinx at 21.7% (n = 26) and African American at 11.4% (n = 9).

For the traditional developmental model, the graduation rate is highest among White students at 23.2% (n = 896), followed by Latinx at 15.8% (n = 411), Asian at 13.9% (n = 32), and African American at 10.2% (n = 148). The remaining models have data suppression in one or more categories.

Pell Recipient – Across all the developmental models, Non-Pell Recipients have a higher graduation rate than Pell Recipients. The modularized developmental model has the highest graduation rate amongst Non-Pell Recipients at 29.4% (n = 10) followed by emporium at 28.8% (n = 138), co-requisite at 28.5% (n = 67), compressed at 25.0% (n = 25.0%), and traditional at 20.4% (n = 828). The other model has data suppression which impacts complete analysis.

The co-requisite developmental model has the smallest gap between graduation rate for Non-Pell Recipients and Pell Recipients at +1.1% followed by traditional at + 4.0%.

Age – For both the traditional and co-requisite developmental models, students of age 25 and over has a higher graduation rate than students less than 25. Students age 25 and over within traditional have a graduation rate of 19.2% (n = 85) while student less than 25 are at 18.2% (n = 18.2%). Within co-requisite, student age 25 and over have a graduation rate of 33.3% (n = 7) while students less than 25 are at 27.6% (n = 155).

Age – By a large margin, students less than 25 account for the largest proportion across the models. The other developmental model had the highest proportion of students less than 25 at 100% (n = 28) followed by emporium at 97.6% (n = 852), compressed at 97.1% (n = 267), co-requisite at 96.4% (n = 561), traditional at 94.8% (n = 8,101), and modularized at 83.8% (n = 91). The remaining models have data suppression which impacts complete analysis

Gender – In nearly all the developmental models, Female students have a higher graduation rate compared to Male students. For Female students, the modularized model has the highest

graduation rate at 41.2% (n = 21) followed by co-requisite at 31.3% (n = 99), emporium at 30.7% (n = 136), compressed at 22.0% (n = 36), and traditional (n = 956).

The smallest gaps between Female and Male graduation rates exists within the compressed developmental model at +3.1% and traditional at +5.5%.

Public Universities Inventory and Implementation of Developmental Education Models

Developmental Education in English Language Arts at Illinois Public Universities

Key Takeaways Regarding English Language Arts (ELA) Developmental Education at Illinois Public Universities:

- Developmental education is multi-faceted and evolving at the 12 Illinois public universities.
- The same English gateway course is generally required of most students within a given Illinois public university to meet core curriculum requirements. This differs from gateway courses in Mathematics which vary based on major.
- Eight Illinois public universities have at least one developmental education (Dev. Ed.) model in English/Language Arts (ELA), while four do not.
- Even the public universities that do not have models that meet all the definitional aspects of Dev. Ed. may have course sequencing or student supports that largely resemble traditional or co-requisite Dev. Ed. models.
- Most of the Illinois public universities with Dev. Ed. in ELA, employ a model with co-requisite qualities including direct placement into a degree-applicable gateway course along with additional student supports.
- Six out of the eight Illinois public universities with developmental education in ELA have offered a co-requisite model, currently offer it, or will do so in the near-term future. An additional public university that has not had Dev. Ed. in ELA plans to pilot a co-requisite model next academic year (2021-22).
- Only two of the Illinois public universities with developmental education in ELA do not offer a co-requisite model and did not report immediate plans for implementation.
- Some of the Illinois public universities with Dev. Ed. in ELA provide summer bridge programs and/or other programming for the purpose of improving students' knowledge, skill, and ELA placement.
- Regardless of model and placement, all freshmen at Illinois public universities requiring Dev. Ed. in ELA can move into the required degree-applicable gateway course by the start of their second semester and most are able to do so their first semester.

Four of the Illinois public universities do not have developmental education in English/Language Arts (GSU, ISU, UIUC, and WIU) and a fifth (SIUC) has both traditional English Dev. Ed. and co-requisite in their course catalog but has not offered either for a few years. Since 2017, all students have been immediately placed in credit-bearing and degree-applicable English courses at SIUC. It should be noted that GSU has plans to pilot a co-requisite model in their beginning writing

course next academic year. Among the remaining seven public universities, CSU only offers a co-requisite option, and NIU will be adopting the same approach in academic year 2021-22, as they transition to eliminate the first semester in the year-long stretch model in which only the second semester is co-requisite and degree-applicable. NEIU, SIUE, and UIC have both traditional and co-requisite offerings in English Language Arts, based upon placement criteria. EIU and UIS only offer traditional developmental education in English/Language Arts. An additional public university, WIU, has a credit-bearing elective writing course that involves self-placement and takes on some developmental education qualities, and WIU is in the process of adapting a co-requisite approach to their gateway English course for students who wish to bypass the elective course.

It should be noted that some of the other developmental education models outside of traditional and co-requisite, have aspects that make them very similar to co-requisite modeling. For example, the studio model employed at SIUE has many characteristics of the co-requisite model, as students are directly enrolled in credit-bearing/degree-applicable courses and are provided with additional academic supports. The stretch model that will soon be phased out at NIU, when broken down into its component parts, encompasses two separate models: 1) traditional; and 2) co-requisite. When students bypass the first semester non-degree applicable course through their placement, which many do, the 'stretch' model is more akin to a co-requisite model.

There are course sequences in English Language Arts at Illinois public universities outside of developmental education that take on some of its characteristics and prevent immediate enrollment in gateway courses. The course sequence reported by WIU prevents immediate enrollment in the gateway course that would fulfill the graduation requirements and instead is treated as an elective. So, although the course provides elective credit and counts towards degree requirements, it does not fulfill the general education English requirement. However, WIU is also in the process of adding co-requisite aspects to that gateway course, so that students can opt to directly enroll in it and bypass the elective course.

Some public universities (NEIU, UIC, and UIS) reported offering summer bridge programs or workshops that provide students with instruction and the opportunity to improve their English/Language Arts placements or place out of ELA Dev. Ed. altogether.

Of the Illinois public universities that have a developmental education model in English/ Language Arts, all but two (EIU and UIS) currently offer an option for students requiring Dev. Ed. (as based on placement criteria) to initially enroll in a credit-bearing/degree-applicable course. At some public universities, direct placement into credit-bearing/ degree-applicable coursework in English through a co-requisite, or similar model is only available for students meeting the predefined placement criteria. These public universities include NEIU, SIUE, UIC, and for the time-being NIU. CSU currently offers direct entry into credit-bearing English courses for all students through a co-requisite model and a similar approach will be adopted by NIU starting next academic year. As previously noted, SIUC has not used a traditional Dev. Ed. model, nor a co-requisite model in English Language Arts since 2017, and all students are immediately placed in the English gateway course.

For those offering traditional Dev. Ed. models in English Language Arts, assuming lower placement, the following Illinois public universities would require, at most, a single semester of Dev. Ed. coursework until such students are able to enroll in the related gateway courses: EIU, NEIU (assuming they continue with their shortened traditional English sequence), SIUE, UIC, UIS, and currently NIU. As previously noted, although the WIU writing course results in degree-applicable elective credit, opting to take that course would require one semester until such students are able to enroll in the gateway English course.

Table 6: Illinois Public Universities and Developmental Education in English Language Arts

CSU	Traditional	Phased Out	
CSU	Co-Requisite	Full Implementation	Started in AY2017-18
EIU	Traditional	Full Implementation	
GSU	Co-Requisite	Planned Implementation	Begins AY2021-22
ISU	N/A		
NEIU	Traditional	Full Implementation	NEIU has recently shortened their Dev. Ed. course sequence.
NEIU	Co-Requisite	Full Implementation	
NIU	Traditional	Planned Phase Out	Currently, part of a two-semester stretch model, in which the first semester is more like traditional Dev. Ed. This part of the model will be phased out by AY2021-22
NIU	Co-Requisite	Pilot/Early Implementation	Currently, part of a two-semester stretch model in which the second semester is co-requisite. The first part of the stretch model is being phased out (see above).
SIUC	Traditional	Phased Out	
SIUC	Co-Requisite	Phased Out	SIUC would like to re-implement the ELA co-requisite model it piloted in the past.
SIUE	Traditional	Full Implementation	
SIUE	Co-Requisite	Full Implementation	Described as a co-requisite studio model.
UIC	Traditional	Full Implementation	
UIC	Co-Requisite	Full Implementation	
UIS	Traditional	Full Implementation	
UIUC	N/A		
WIU	N/A		WIU offers a credit-bearing/ elective writing course before its gateway ELA course. WIU is also in the process of adapting co-requisite aspects to the ELA gateway course for those who wish to bypass the elective.

Outcomes for English Language Arts Developmental Education

In this section, information on Dev. Ed. model completion, subsequent enrollment in the related Gateway course, and the completion of the gateways course with a C or better is presented. The following tables only include information for the public universities that had offered the specific model in AY2018-19, so the results do not reflect all the recent reform efforts in ELA Dev. Ed. that have occurred in the interim described in the next section. As based on the current analysis, to thoroughly examine the throughput of freshmen initially placed into ELA developmental education, a time horizon of at least one year is required. However, this differs from Dev. Ed. in mathematics, which may require a time-horizon of up to two years depending upon the public university and their Dev. Ed course sequences. To have parallel measures between ELA and Math, a time-horizon for two years was used for both. The freshmen initially enrolled in the Dev. Ed. model in the fall of AY2018-19 were tracked until the end of AY2019-20.

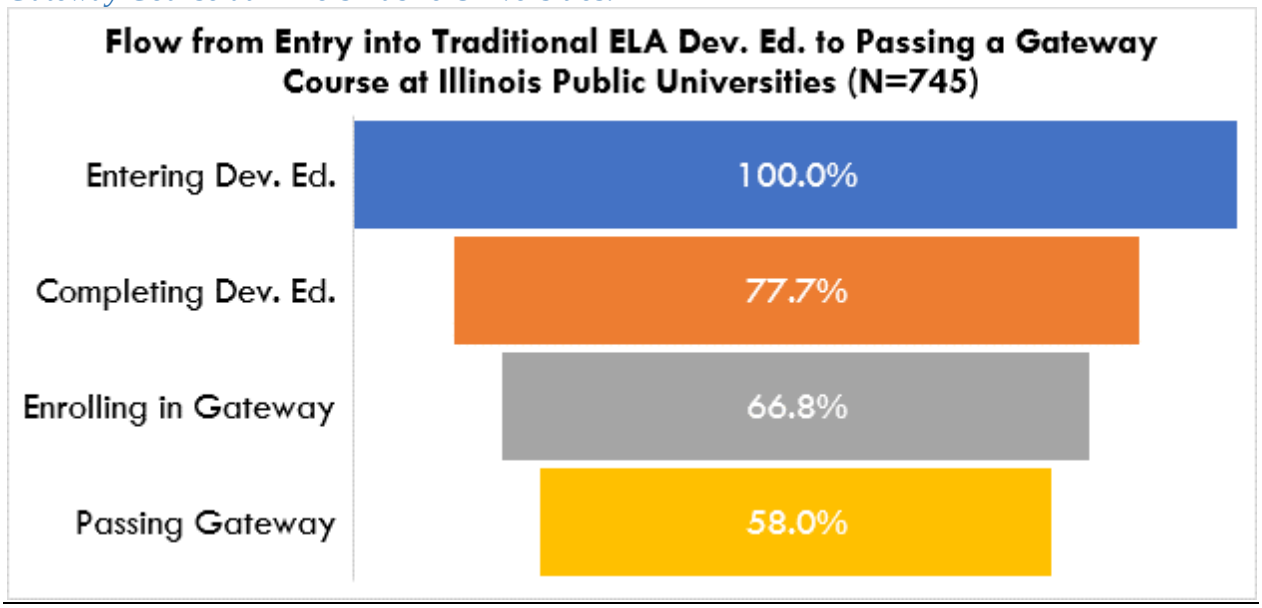
The outcomes are based on information provided by five different Illinois public universities: EIU, NEIU, NIU, UIC, and UIS. The information is presented sequentially and flows from initial enrollment in the model, to completion of the model, to enrollment in the related gateway course (e.g., English Composition 101), and finally to the successful completion of the gateway course defined as earning a C or higher. The measures are all based on the original group that had initially enrolled in the traditional Dev. Ed. model in the fall semester of AY 2018-19, so they are not conditional.

Nearly all the freshmen enrolled in ELA Dev. Ed. at Illinois public universities that were included in the analysis were traditionally aged; therefore, the age disaggregation as requested by the SJR 41 task force cannot be presented.

Traditional ELA Models

Overall, more than three out of every four individuals enrolling within the traditional model successfully completed it (77.6%) before the end of their second academic year. Two-thirds had enrolled in the related gateway course, suggesting some had delayed their entry into the gateway course beyond their second year. In the end, slightly fewer than six out of every ten of the original group entering the traditional model had successfully completed the gateway course before the end of the second year.

Figure 1: Flow from Entry into Traditional ELA Developmental Education to Passing a Gateway Course at Illinois Public Universities.

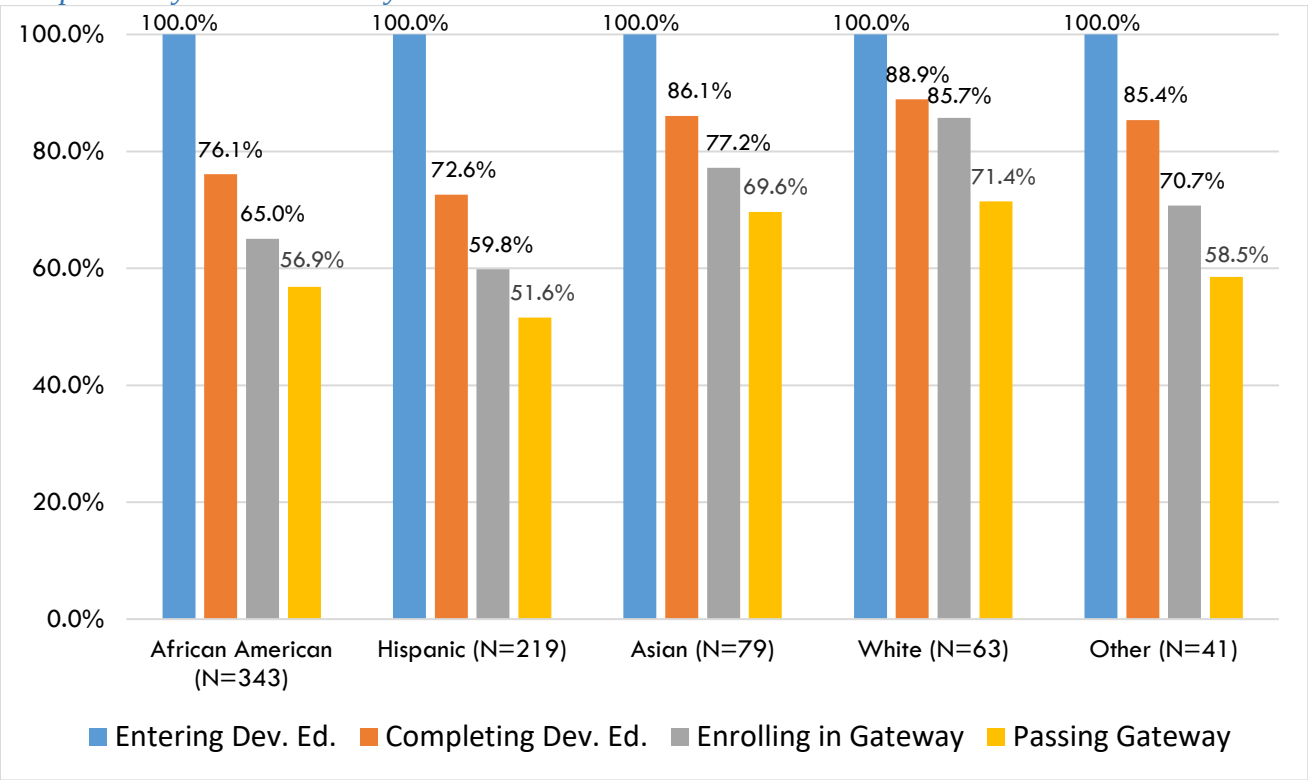


When successful completion of the gateway course is viewed conditional on enrollment in the gateway course, 86.7% of the individuals who had initially enrolled in the traditional ELA model and advanced to the gateway course had passed the course with a C or better. Once individuals in the original Dev. Ed. group enroll in the gateway course, they have a high likelihood of success,

but one-third of such students do not make it to the gateway course either because they do not complete the model or the do not transition from the model to the gateway course within two years.

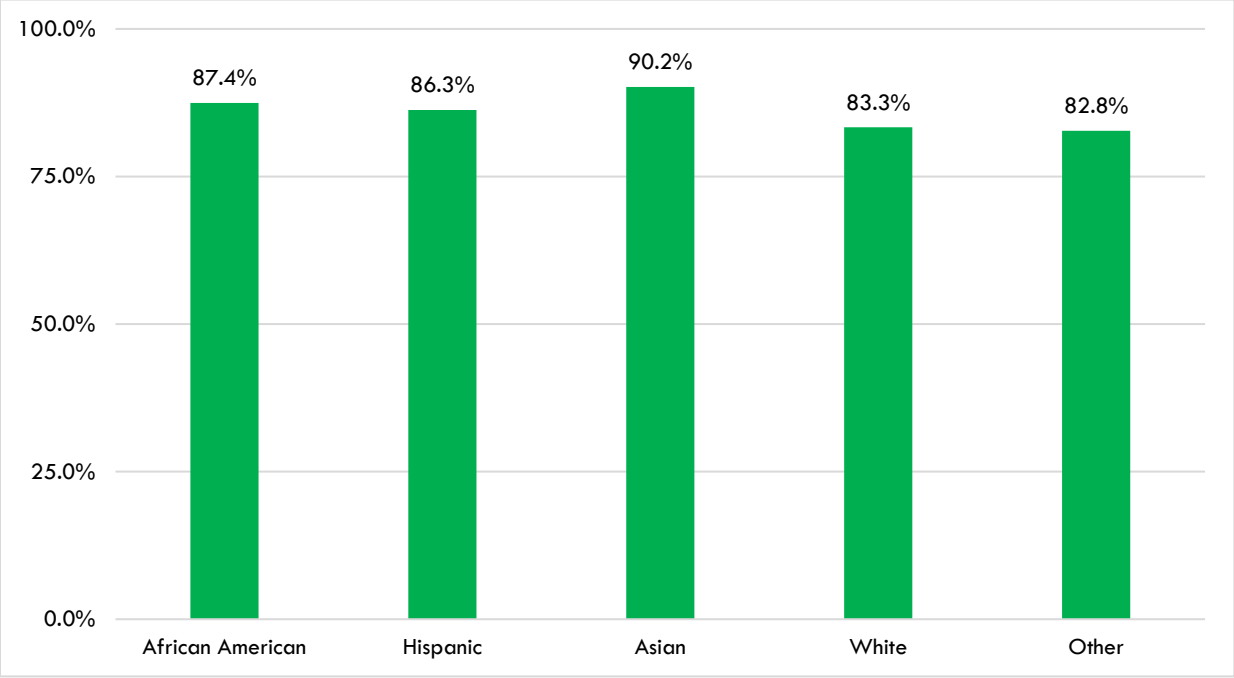
Race/Ethnicity There were race/ethnicity gaps across all the measures between White ELA traditional Dev. Ed. participants and their African American and Hispanic counterparts. White ELA Dev. Ed. students had higher rates of model completion, higher proportions enrolling in gateway courses, and higher proportions successfully completing gateway courses when compared to their African American and Hispanic peers from within the same model.

Figure 2: Flow from Traditional English Developmental Education to Gateway Course Completion by Race / Ethnicity.



However, when successful completion of a gateway course is measured conditional upon entry into the related gateway course, there is less variation by race/ethnicity and high percentages of all groups complete with a C or better. African American (87.4%) and Hispanic (86.3%) traditional ELA Dev. Ed. model completers had marginally higher pass rates when compared to their white (83.3%) peers.

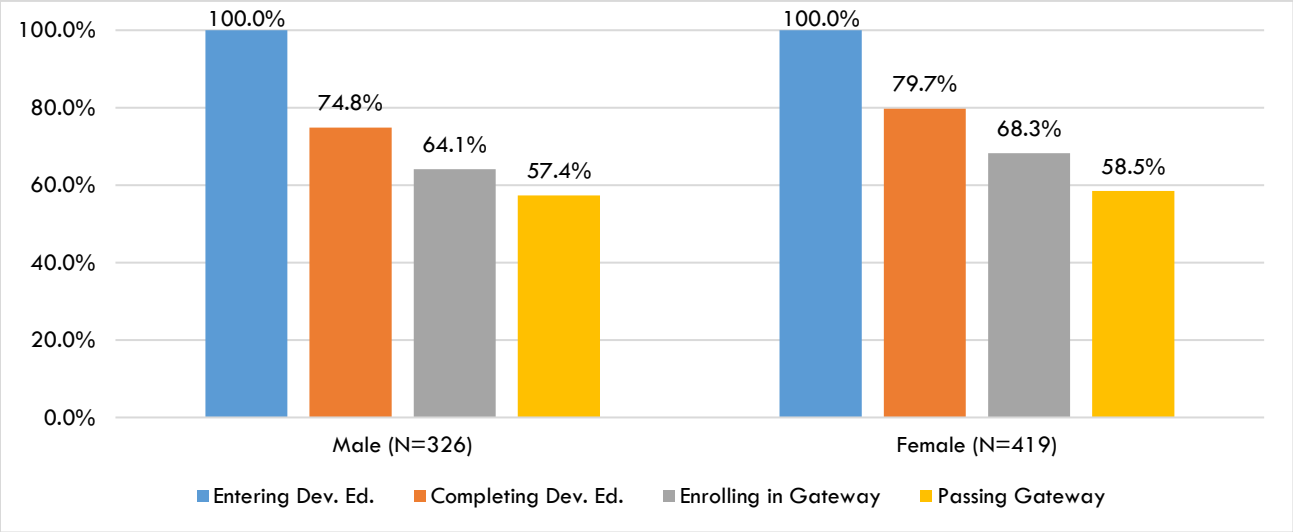
Figure 3: Gateway Course Pass Rates by Race / Ethnicity for Students Starting in Traditional ELA Developmental Education.



*Conditional upon enrollment in the gateway course.

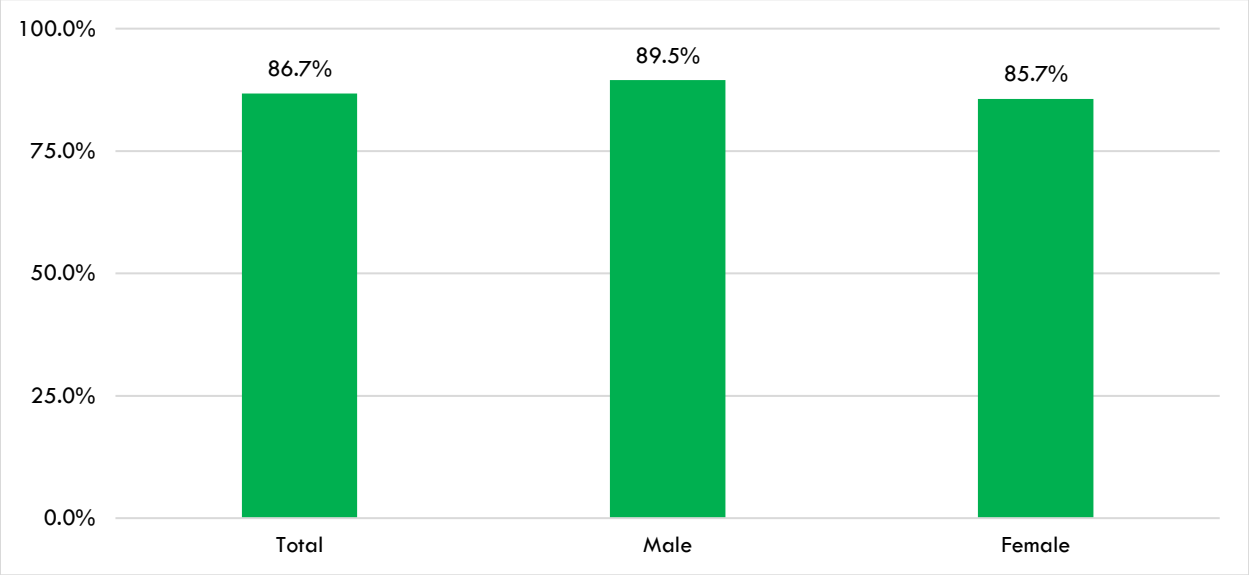
Gender There were some moderately sized gender gaps (between four- and five-percentage points) regarding model completion and gateway course entry favoring females who had entered the traditional ELA model. However, specific to the flow from initial entry to the last measure, roughly the same proportions of male (57.4%) and females (58.5%) completed their gateway courses with a C before the end of their second academic year.

Figure 4: Flow from Traditional English Developmental Education to Gateway Course Completion by Gender



When gateway course completion was viewed conditional upon enrolling in a gateway course, males maintained a marginal advantage relative to their female counterparts (89.5% to 85.7%).

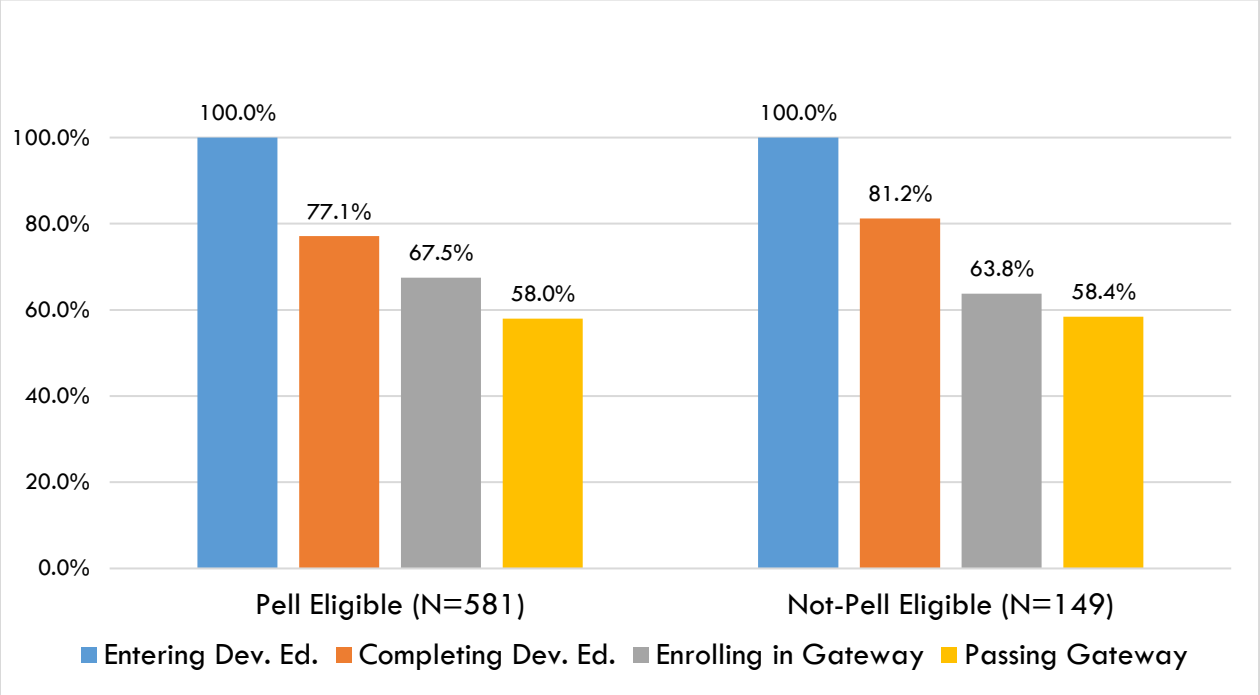
Figure 5: Gateway Course Pass Rates by Gender for Students Starting in Traditional ELA Developmental Education



*Conditional upon enrollment in the gateway course.

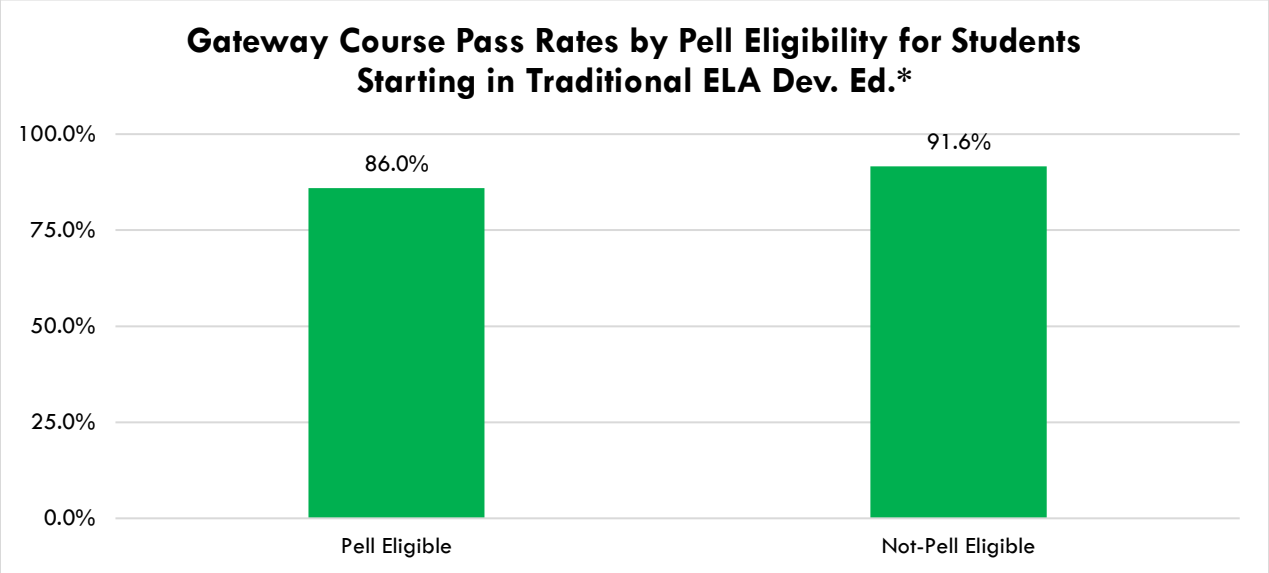
Pell Eligibility There was a marginal difference in completing the traditional Dev. Ed. model favoring the students not eligible for Pell (81.2% to 77.1%); however, despite having a slightly lower rate of traditional Dev. Ed. model completion, marginally more of the Pell-eligible students had enrolled in the gateway course and roughly the same proportions passed with a C or better (around 58%).

Figure 6: Flow from Traditional English Developmental Education to Gateway Course Completion by Pell Eligibility



When gateway course completion was measured conditional upon enrolling in a gateway course, Non-Pell students had pass rates more than five percentage points higher than their Pell eligible counterparts.

Figure 7: Gateway Course Pass Rates by Pell Eligibility for Students Starting in Traditional ELA Developmental Education.



*Conditional upon enrollment in the gateway course.

Co-Requisite and Related English Language Arts Models at Illinois Public Universities

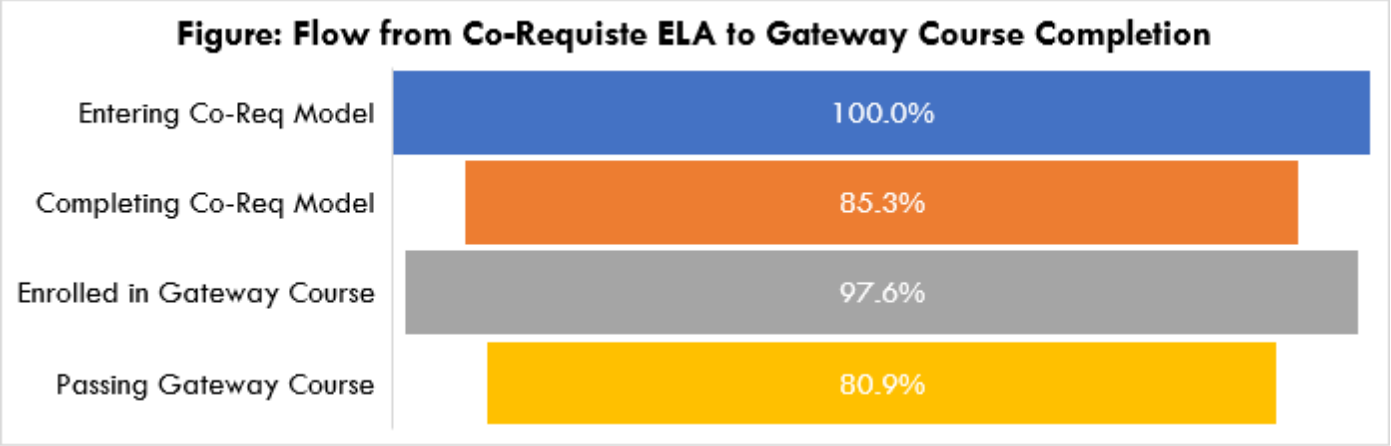
The co-requisite outcomes are based on information from the following three Illinois Public Universities: UIC, NIU, and SIUE. NEIU did not have their co-requisite model fully implemented at the time. Although it was offered in previous years, SIUC did not have a co-requisite ELA course in fall of 2018-19—at the time, all freshmen were directly enrolled in credit-bearing English. CSU did not submit the required information specific to the outcomes of their co-requisite ELA model.

It should be noted, in instances in which both traditional Dev. Ed. and co-requisite models are available at the same institution, the information included in the following figures would reflect the outcomes of individuals who had higher ELA placements and were therefore more college-ready in that specific subject area. So, direct comparisons between the outcomes for students in co-requisite and traditional developmental education models should be avoided.

The flow from model entry to the completion of a gateway course is condensed for those initially entering the co-requisite model, as in nearly all instances, the model involves immediate enrollment in the gateway course. There is also the possibility that some students may not complete the co-requisite part of the model but are nonetheless successful in the related gateway course.

Slightly more than 85% of those initially enrolling in a co-requisite ELA model completed the model and four out of every five completed with a C or better. The waterfall pattern does not exist in the same way it did with traditional ELA Dev. Ed., as nearly all the students (around 98%) initially enrolled in the co-requisite model had enrolled in the related gateway course. The difference between completion of the model and completion of the gateway course is mostly due to some schools considering the completion to include those earning a D, even though such students would likely have to re-take the gateway aspect of the model for it to be degree applicable (i.e., re-take English 101).

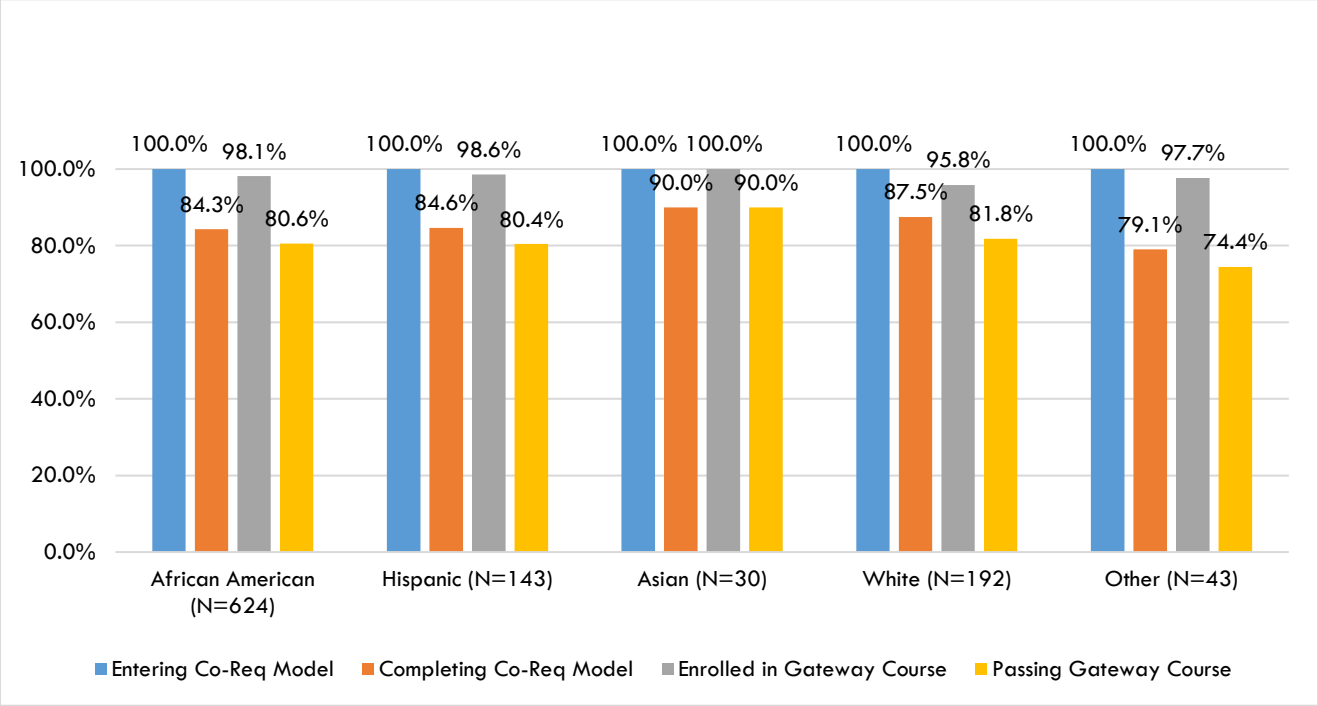
Figure 8: Flow from Co-Requisite ELA to Gateway Course Completion



Race/Ethnicity Race/ethnicity gaps were evident with co-requisite ELA, as the white students enrolled in the model had somewhat higher rates of model completion when compared to their African American and Hispanic peers. However, slightly higher proportions of African American

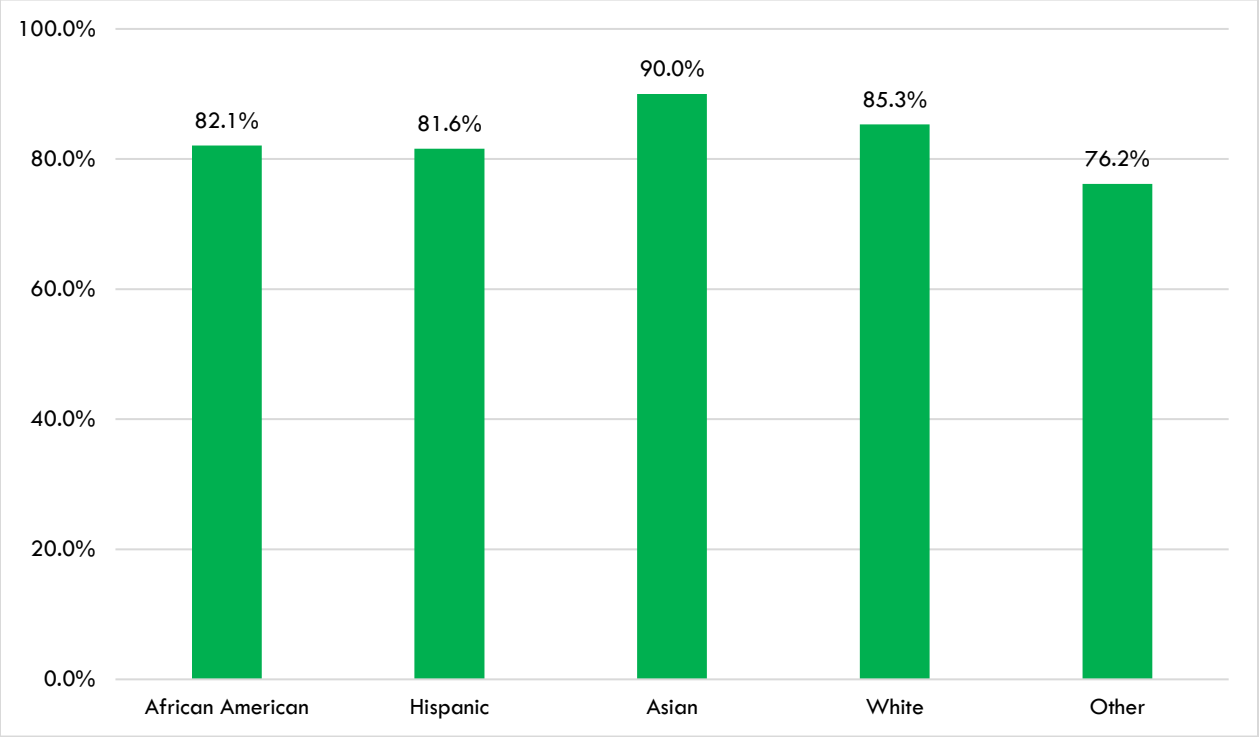
and Hispanic students had enrolled in the related gateway course when compared to whites. It should be noted that there were only minimal differences between the African American, Hispanic, and White co-requisite students when it comes to gateway course pass rates.

Figure 9: Flow from Co-Requisite ELA to Gateway Course Completion by Race/Ethnicity



The pass rates in ELA gateway courses among those enrolling in their respective gateway course were similar among African American (82.1%) and Hispanic (81.6%) students initially entering the co-requisite model and marginally lower than the rate of their white peers (85.3%).

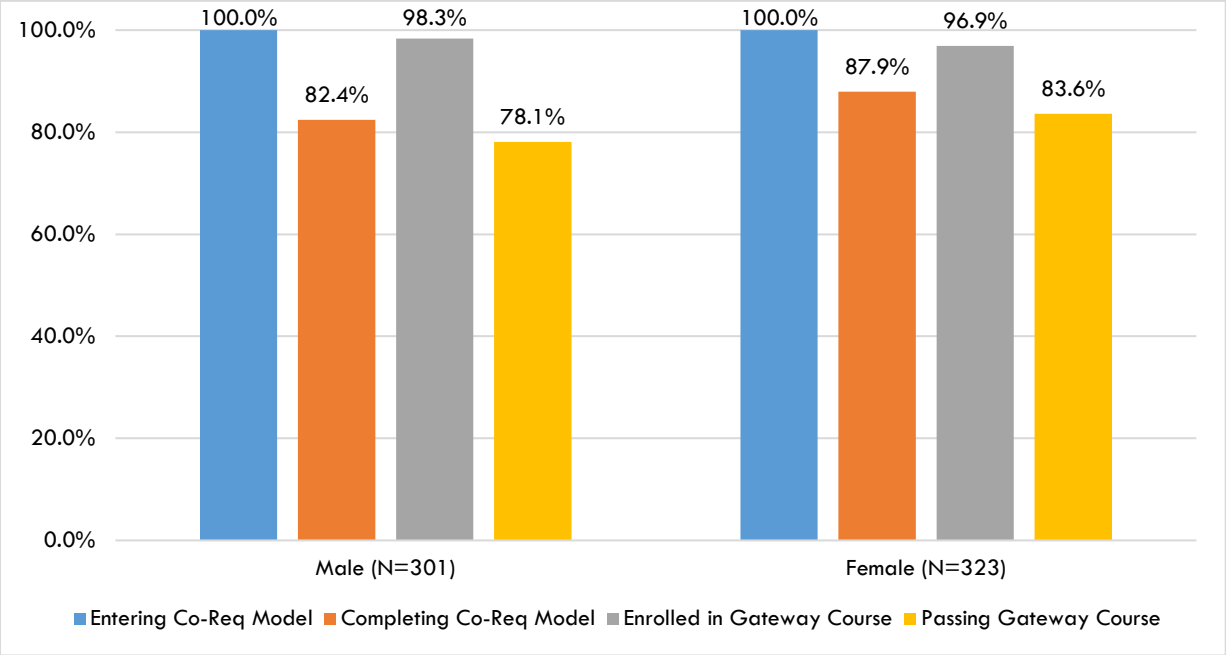
Figure 10: Gateway Course Pass Rates by Race/Ethnicity for Students Starting in Co-Requisite ELA Developmental Education



*Conditional upon enrolling in the related gateway course.

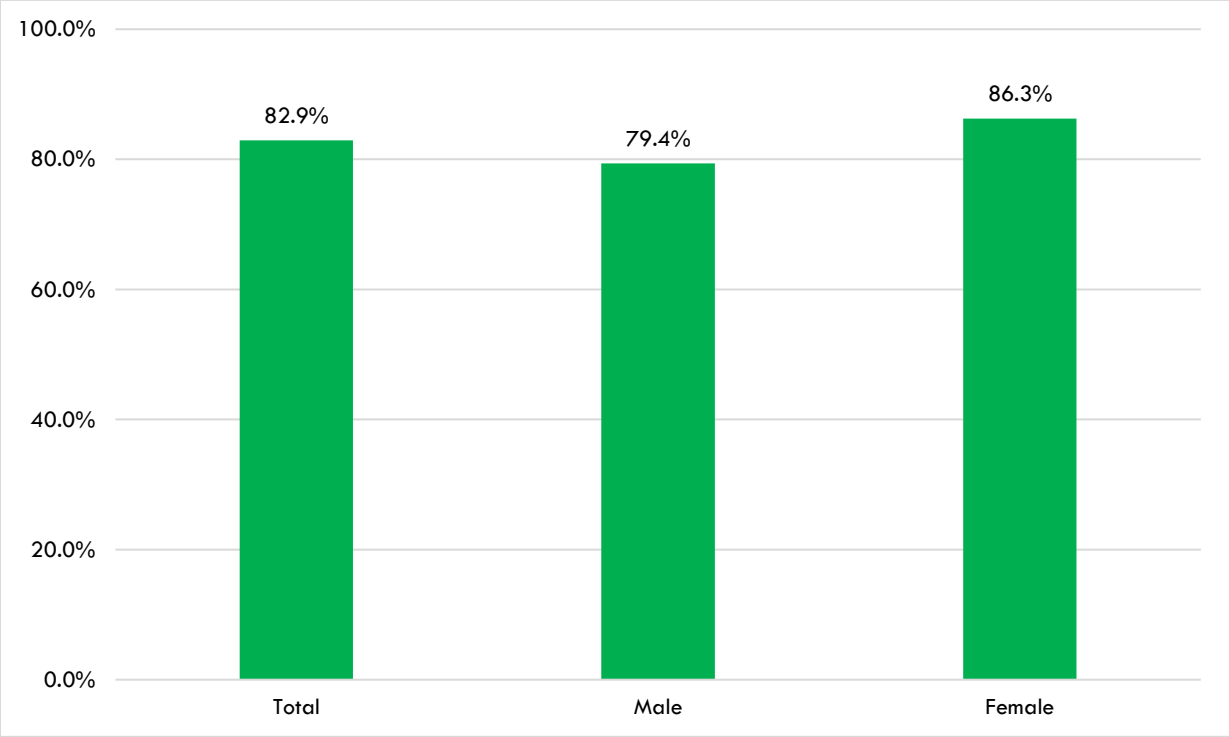
Gender There was a gender gap favoring female students in the proportion completing the co-requisite ELA model (87.9% to 82.4%) and in the proportion passing the gateway course with a C or better (83.6% to 78.1%).

Figure 11: Flow from Co-Requisite ELA to Gateway Course Completion by Gender



A nearly seven-percentage point gender gap favoring females was evident when gateway course pass rates were calculated conditional upon enrolling in a gateway course.

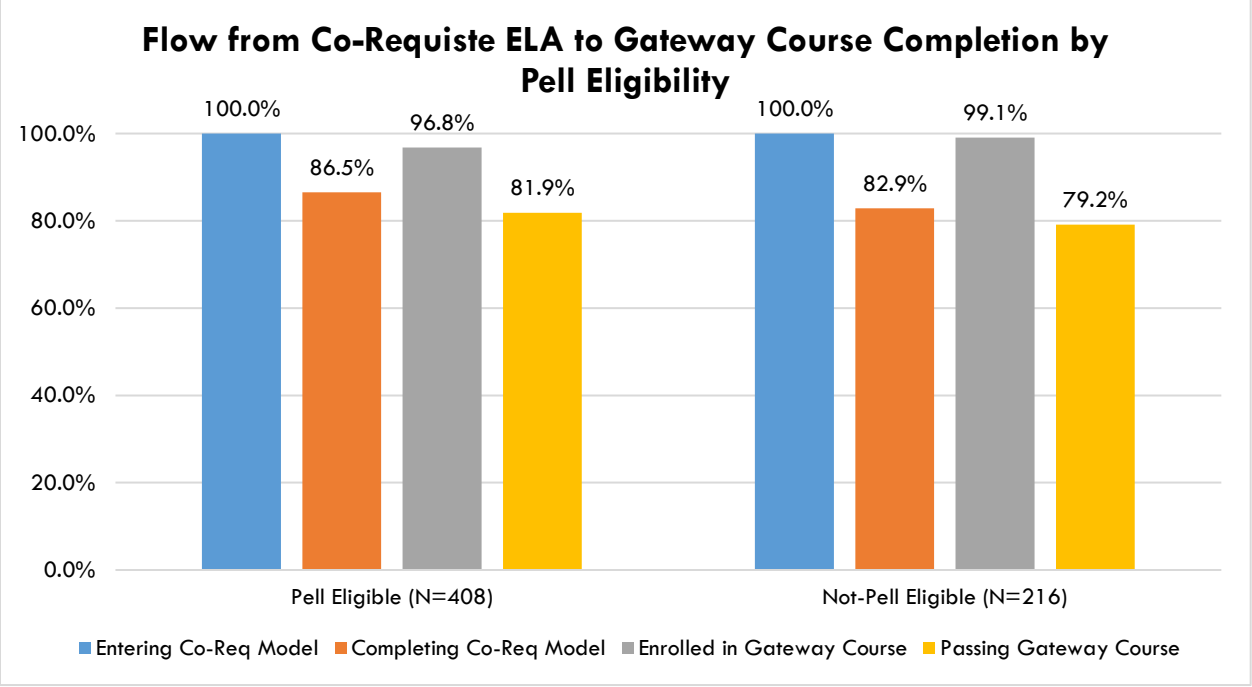
Figure 12: Gateway Course Pass Rates by Gender for Students Starting in Co-Requisite ELA Developmental Education



*Conditional upon enrolling in the related gateway course.

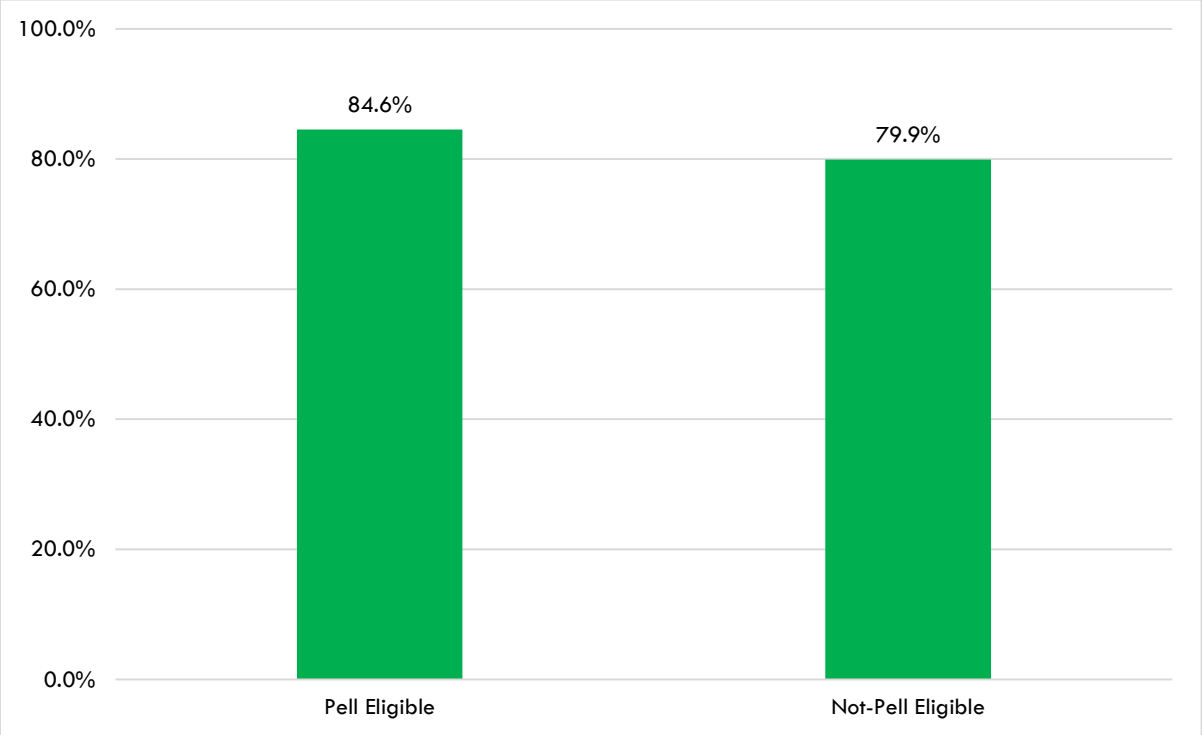
Pell Eligibility In the co-requisite ELA model, higher proportions of the Pell eligible students completed the model, slightly fewer enrolled in the gateway course, and marginally more earned a C or better in the related gateway course. Therefore, no income-based gap was evident with the co-requisite model.

Figure 13: Flow from Co-Requisite ELA to Gateway Course Completion by Pell Eligibility



When viewed conditionally upon enrollment in a gateway course, there was nearly a five-percentage point difference favoring the Pell eligible group in pass rates in gateway courses.

Figure 14: Gateway Course Pass Rates by Pell Eligibility for Students Starting in Co-Requisite ELA Developmental Education



*Conditional upon enrolling in the related gateway course.

Mathematics Developmental Education

Key Takeaways Regarding Mathematics Developmental Education at Illinois public universities:

- Ten of the 12 Illinois public universities current offer some form of developmental education in Mathematics, including both traditional and/or co-requisite models.
- Eight of the ten Illinois public universities currently offer some form or variation of co-requisite modeling.
- Most of the Illinois public universities have differentiated Mathematics pathways based on major, which in turn are related to potential placement into developmental education and the required Dev. Ed. course sequence.
- Dev. Ed. placement is typically based on one's major and the criteria for placement at the given Illinois public university.
- In most instances, the need for College Algebra as a gateway course among specific majors and/or as a prerequisite for more advanced coursework (e.g., Calculus) is related to Dev. Ed. placement.
- At many Illinois public universities, students enrolled in non-quantitative majors, for which College Algebra is not the gateway course, are immediately placed into other credit-bearing Mathematics courses, such as quantitative literacy, statistics, or data science.

- Generally, students with lower Mathematics placements within majors that are quantitative in nature (e.g., STEM, Health Science, and Business) would take longer to progress through the related Mathematics gateway course, relative to their counterparts in non-quantitative majors.
- The longest potential delays before entering a Mathematics gateway course for quantitative majors with the lowest math placements are as follows: no delay at three of the Illinois public universities (five if you include the two without Dev. Ed in Mathematics); a delay of a single semester at three public universities; a delay of two semesters at two public universities; and a delay of three semesters at two public universities.
- Many of the Illinois public universities have reported offering summer bridge programs or similar processes that provide developmental instruction along with the opportunity to improve Dev. Ed. placements, or ideally place out of non-credit bearing/ non-degree applicable developmental education all together.

As shown in Table 7, ten of the Illinois public universities reported offering some form of developmental education in Mathematics (all except GSU and UIUC). This includes both traditional and co-requisite models in which students immediately enroll in credit-bearing/degree-applicable coursework. It should be noted that GSU is in the process of adopting a co-requisite approach for its Statistics course in the Spring of 2021. UIUC also offers non-developmental, co-requisite instruction with technology mediated support for students who are not ready for Pre-calculus, or Calculus. The support is offered to all students enrolled in MATH 101 (Mathematical Thinking) and MATH 112 (College Algebra). Therefore, nine of the public universities (ten if UIUC's non-developmental co-requisite approach is included) currently offer or have near-term plans to offer co-requisite modeling in Mathematics depending on one's math placement and/or major. UIS and WIU are the only two Illinois public universities that offer some form of developmental education in Mathematics but do not have a co-requisite model planned nor currently in place.

In terms of scale, the co-requisite models in place at ISU and EIU are for specific majors. Students with low scores who require *Mathematics for Elementary Teachers (MAT 1420)* at EIU take *Diagnostic Mathematics (MAT 1020)* as a co-requisite. At ISU, *Math 113 (Elements of Mathematical Reasoning)* is available with a co-requisite option. Math 113 is the general education math requirement for fine arts, English, History, Politics & Governments, Nursing, Social Work, Public Relations, Journalism, Communication Studies, Mass Media, Sociology/Anthropology, Health Promotion & Education, Music, Theater, and Dance majors.

Several Illinois public universities have implemented reform efforts, or have near-term plans, to reduce the number of students placed in non-credit bearing/ non-degree applicable developmental education coursework through co-requisite modeling. Some of these efforts are more recent (CSU, NEIU, NIU, SIUC, and UIC), while others were implemented several years ago (SIUE). These efforts are oftentimes related to approaches to reduce the amount to time it takes to enter a gateway course. NIU plans to move entirely towards co-requisite modeling in AY2021-2022, eliminating its traditional Dev. Ed. sequence in Mathematics.

Most of the Illinois public universities have differentiated Mathematics pathways based on degree, program, or major, which in turn are related to potential placement into developmental education.

In many cases, the need for College Algebra as a gateway course and/or a prerequisite would be related to potential Dev. Ed. placement. In some instances, those in non-quantitative programs/majors, for which College Algebra is not a gateway course, there are opportunities for direct placement into other degree-applicable Mathematics courses, such as quantitative literacy, statistics, or data science. For example, at CSU, non-STEM majors are directly placed into credit-bearing courses in data science or quantitative literacy, while majors requiring College Algebra as the gateway course are placed into College Algebra or its co-requisite version. So, while traditional Dev. Ed. and/or co-requisite models may be in place at some Illinois Public Universities, not every student is required to use those models. Generally, students with lower Mathematics placement scores in programs that are more quantitative in nature (e.g., STEM, Health Science, Business) would take longer to progress through the related Mathematics gateway course, relative to their counterparts in non-quantitative majors. At some Illinois public universities, those choosing non-quantitative majors/programs are not required to engage in the Mathematics placement process.

Therefore, at many of the Illinois public universities, the number of semesters someone with a low Mathematics placement would need before enrolling in a gateway course is dependent on one's major. At the Illinois public universities that have adapted co-requisite models along with differentiated math pathways (CSU, SIUC, and NIU in AY2021-22) there would be no such delay and all students would be directly placed in credit-bearing and degree-applicable Mathematics coursework their first semester. At EIU, the delay would be a semester for majors requiring College Algebra and education majors, assuming low math placements. At SIUE, the delay for those placed in their traditional Dev. Ed. Mathematics course would be one semester for majors requiring College Algebra as the gateway. At UIC, the longest sequence includes two developmental education courses that, depending upon placement and major, can be taken at the same time therefore, any student regardless of placement and major would only be delayed by a single semester. At ISU and currently at NIU, for certain students in certain majors, the delay could be until the third semester, as they have up to a two-semester long course sequence in traditional Dev. Ed. NEIU had a three-semester long course sequence in traditional developmental education leading to College Algebra (for quantitative majors), but recently implemented a co-requisite approach for the last course in that sequence, so the delay would now be two semesters. UIS has up to a three-semester long traditional Dev. Ed sequence for all majors, so students from any major with the lowest placements may not enter their respective gateway course until their fourth semester. WIU has a single developmental education course, along with *Core Competency in Mathematics (Math 100)*, before students enroll in what WIU describes as a Level 3 mathematics course. Although, there is a process to bypass Math 100, based on performance in the Dev. Ed. course, it may be until the third semester until someone enters the gateway course specific to their major.

Some of the Illinois public universities (NEIU, UIC, and UIS) reported offering summer bridge programs or similar processes (SIUC) that provide developmental instruction along with the opportunity to improve their Dev. Ed. placements, or ideally place out of non-credit bearing developmental education all together.

Table 7: Illinois Public Universities and Developmental Education in Mathematics

	Model Type	Phase	Notes
CSU	Traditional	Phased Out	
CSU	Co-Requisite	Full Implementation	Started in AY2019-20.
EIU	Traditional	Full Implementation	
EIU	Co-Requisite	Full Implementation	For Elementary Education Majors Only.
GSU	Co-Requisite	Planned Implementation	Begins Spring of AY2020-21 for GSU's Statistics gateway course.
ISU	Traditional	Full Implementation	
ISU	Co-Requisite	Full Implementation	For majors requiring Elements of Mathematical Reasoning.
NEIU	Traditional	Full Implementation	NEIU has recently shortened their traditional Dev. Ed. course sequence.
NEIU	Co-Requisite	Full Implementation	Started in AY2018-19 for majors requiring College Algebra.
NEIU	Co-Requisite Stretch	Full Implementation	Started in AY2018-19 for: elementary and middle school education; sociology; psychology majors; and other majors requiring general quantitative reasoning.
NIU	Traditional	Planned Phase Out	To be eliminated in fall of AY2021-22
NIU	Co-Requisite	Pilot/Early Implementation	Piloted in fall of AY2019-20 and planned expansion/scaling in fall of AY2021-22 as the traditional model is eliminated.
SIUC	Traditional	Phased Out	Has not been offered for several years.
SIUC	Co-Requisite	Full Implementation	
SIUE	Traditional	Full Implementation	SIUE reduced the number of non-credit bearing math courses to one (AD 070).
SIUE	Co-Requisite	Full Implementation	Started in spring of AY2012-13. Described as a co-requisite studio model.
UIC	Traditional	Full Implementation	
UIC	Co-Requisite	Full Implementation	Started in fall of AY2019-20.
UIS	Traditional	Full Implementation	
UIUC	N/A		No Dev. Ed. in Mathematics but has a robust placement process.
WIU	Traditional	Full Implementation	

Outcomes

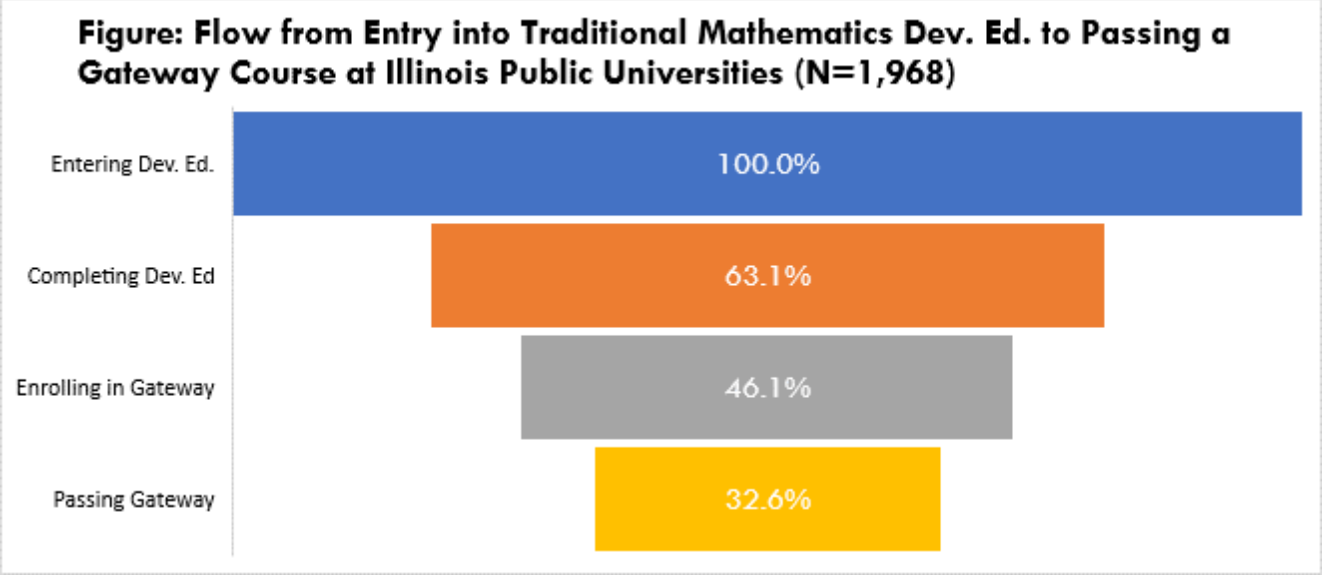
Traditional Developmental Education in Mathematics

The outcomes are based on the following Illinois public universities: CSU, EIU, ISU, NEIU, NIU, SIUE, UIC, UIS, and WIU. The information is based on individuals who were first-time/full-time freshmen and initially placed in the given model at the start of AY 2018-19. It is important to note that the outcomes reflect models that were in place during AY2018-19 and would not reflect all

the reforms that have been implemented in the interim period. For example, CSU no longer offers its traditional Dev. Ed. model in Mathematics, but because that model was in place in 2018-19 the information is included in the following analysis.

Less than two-thirds of the students entering a traditional developmental education model in Mathematics complete it before the end of their second academic year. Fewer than half of the students initially enrolling in the model advance to the related gateway course in Mathematics (e.g., College Algebra), and slightly less than one-third completed their gateway course with a C or better.

Figure 15: Flow from Entry into Traditional Mathematics Developmental Education to Passing a Gateway Course at Illinois Public Universities

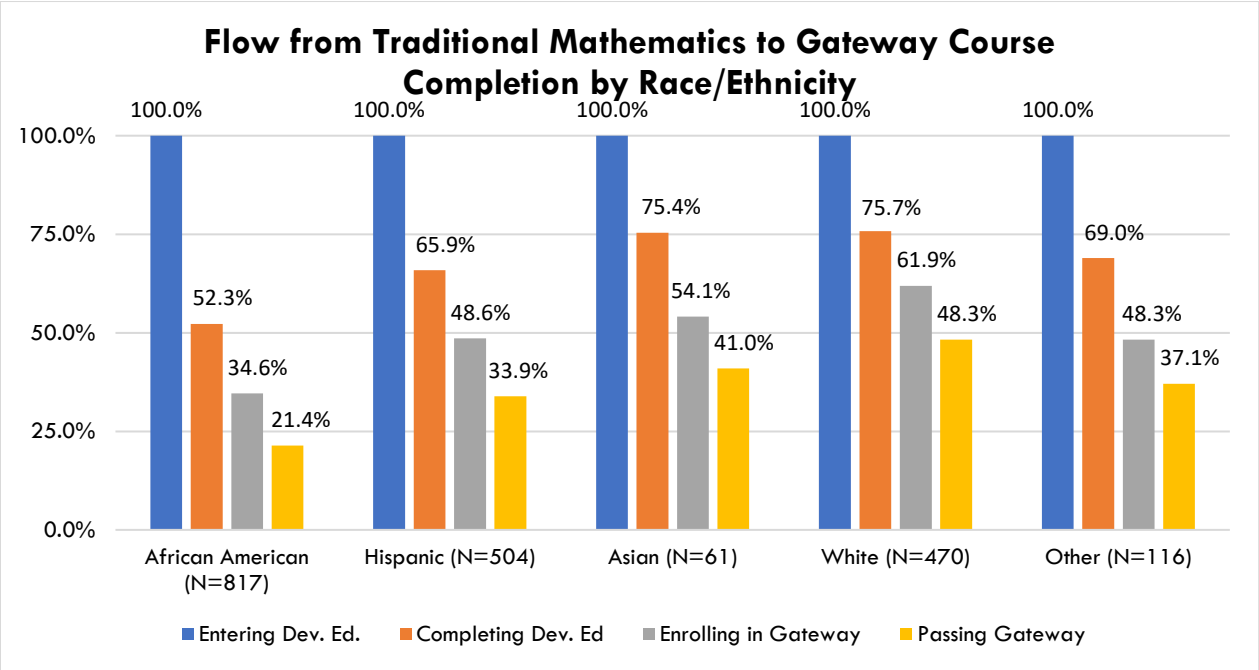


Although the pass rate in gateway courses conditional upon enrolling in the gateway course is slightly more than 70%, less than half of the students initially entering the traditional developmental education model in Mathematics advance to the gateway course. Also, there is a gap of 17 percentage points between model completion and enrolling in the gateway course (63.1% to 46.1%). Therefore, even when some students can take the gateway course upon successful completion of the traditional developmental education model, many students delay such enrollment.

Race/Ethnicity Race/ethnicity gaps were evident when comparing African American and Hispanic Developmental education students to their white peers. Following the waterfall pattern for African American students initially enrolled in traditional developmental education in Mathematics, half complete the model, a third enrolled in the gateway Mathematics course, and one-fifth of the initial group passed it. Outcomes were somewhat better for Hispanic developmental education students in Mathematics, as two-thirds completed the model, half enrolled in the gateway course, and one-third passed it with a C or better. Among White developmental education students in Mathematics, three-quarters had completed the model, over 60% had entered a gateway course, and nearly half had earned a C or better. What is interesting across all groups is the large difference between the proportion completing the traditional developmental education model and the proportion enrolling

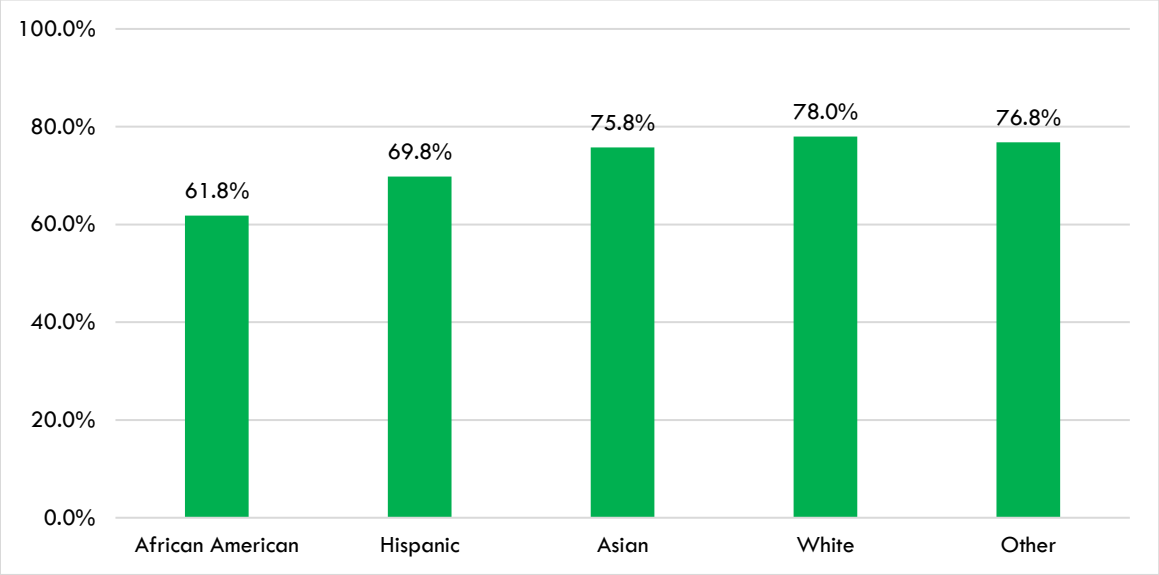
in the related gateway course before the end of two academic years of initial enrollment. Even when students successful complete the developmental education model, many fail to enroll in the related gateway course within a two-year timeframe of initial enrollment.

Figure 16: Flow from Traditional Mathematics to Gateway Course Completion by Race/Ethnicity



When pass rates in Mathematics gateway courses are viewed conditionally upon enrolling in a gateway course, race/ethnicity gaps favoring White developmental education students relative their African American and Hispanic peers are still evident.

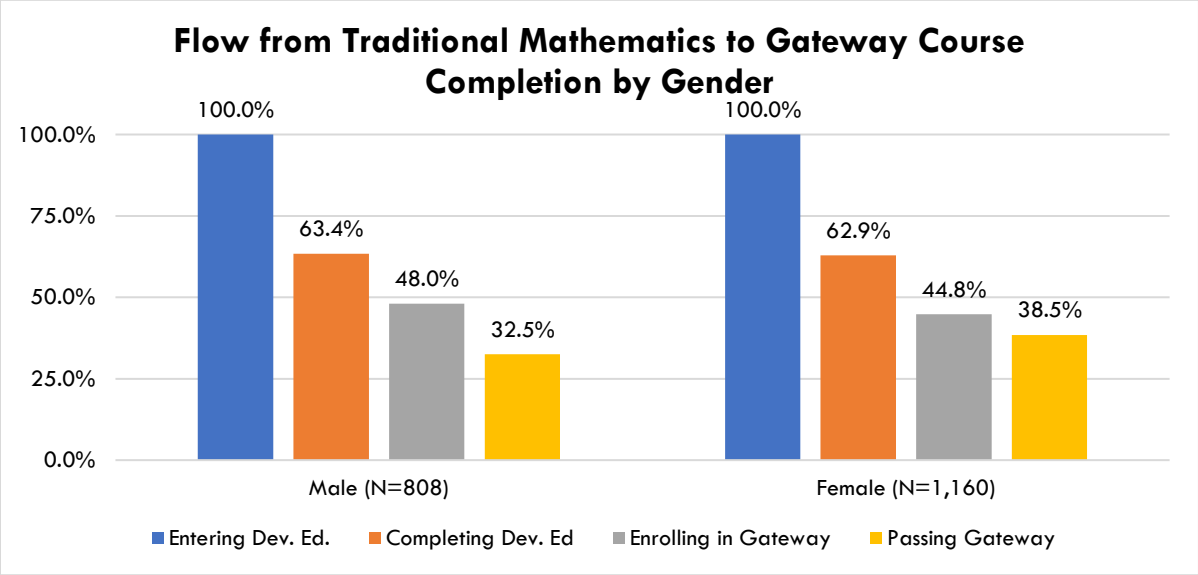
Figure 17: Gateway Course Pass Rates by Race/Ethnicity for Students Starting in Traditional Mathematics Developmental Education



*Conditional upon enrollment in the gateway course.

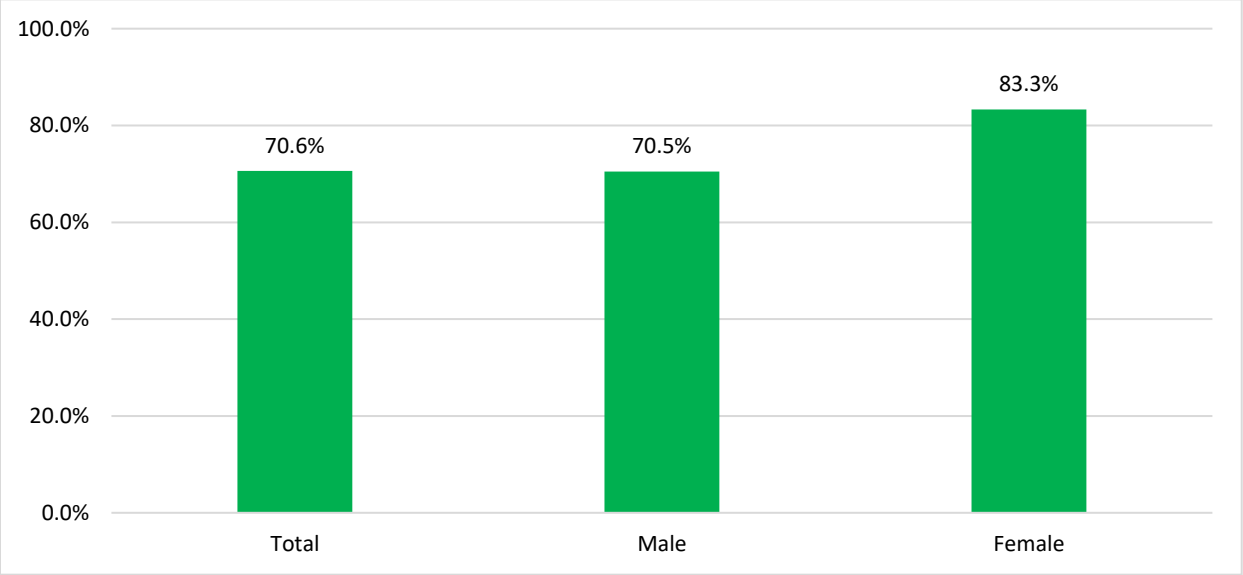
Gender Males and females had roughly the same rates of model completion; however, slightly more males entered the related gateway course. Even with that advantage, a higher proportion of females passed the gateway course with a C or better. Once again, large gaps existed between the completion of the model and entering a gateway course for all subgroups, but the gaps were somewhat larger for females.

Figure 18: Flow from Traditional Mathematics to Gateway Courses by Gender



This previously mentioned gender gap is also reflected in the large difference in the pass rates among those enrolling in the related gateway course (83.3% of females and 70.5% of males).

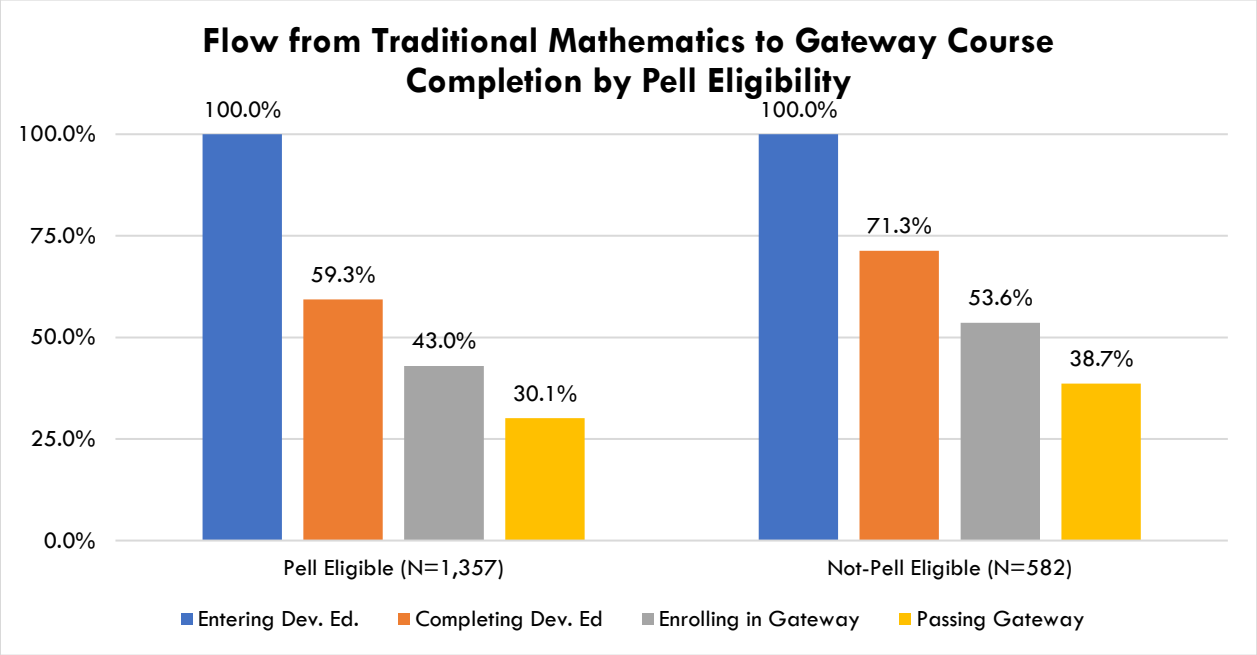
Figure 19: Gateway Course Pass Rates by Gender for Students Starting in Traditional Mathematics Developmental Education



*Conditional upon enrollment in the gateway course.

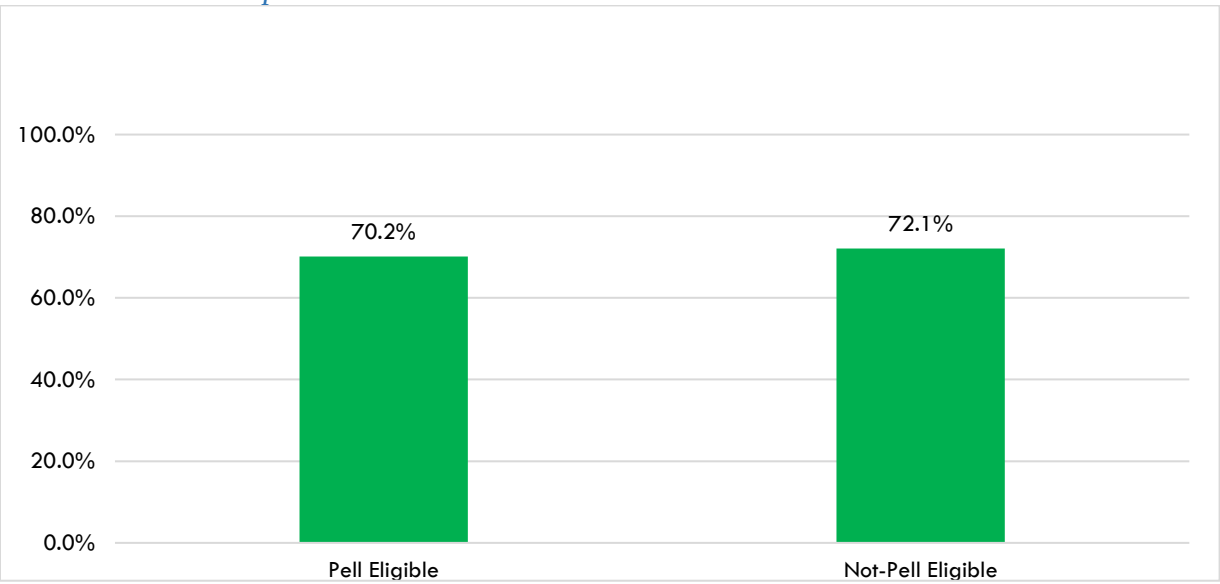
Pell Eligibility The individuals in traditional Mathematics developmental education that were not eligible for Pell had better outcomes rates than their low-income peers. Substantially more had completed the developmental education model, more had enrolled in the related gateway course, and more had successfully completed the course with at least a C.

Figure 20: Flow from Traditional Mathematics to Gateway Course Completion by Pell Eligibility



When examined conditional upon enrolling in a Mathematics gateway course, the differences in pass rates between Pell eligible students and their peers who were not were more muted. Only two percentage points separated low-income developmental education students from the peers who were not eligible for Pell.

Figure 21: Gateway Course Pass Rates by Pell Eligibility for Students Starting in Traditional Mathematics Developmental Education

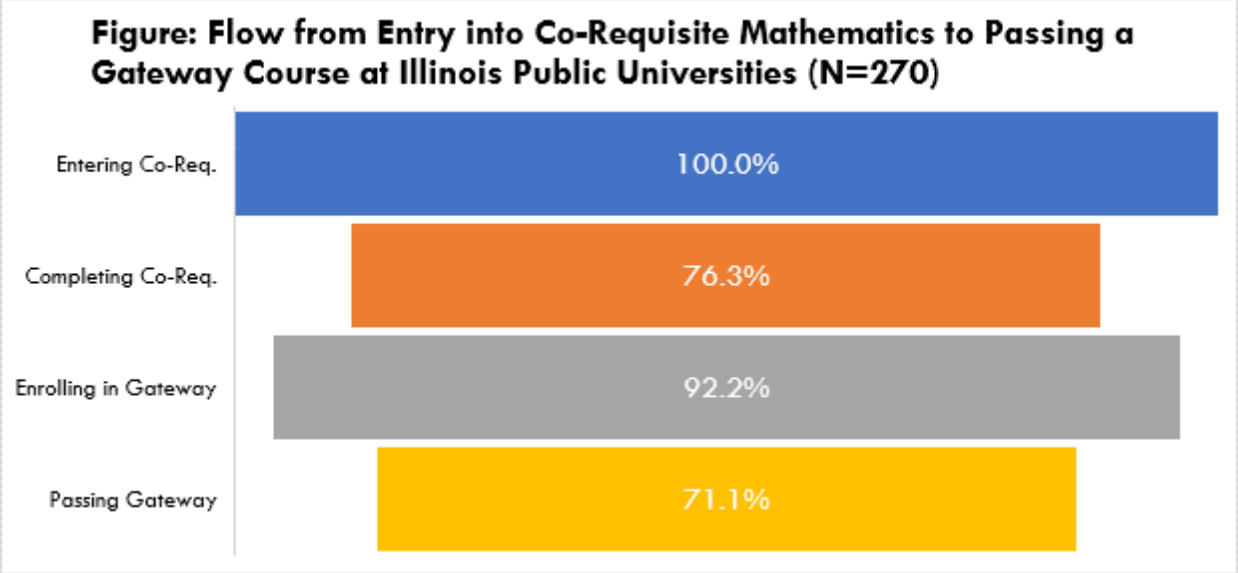


*Conditional upon enrollment in the gateway course.

Co-Requisite and Related Models in Mathematics

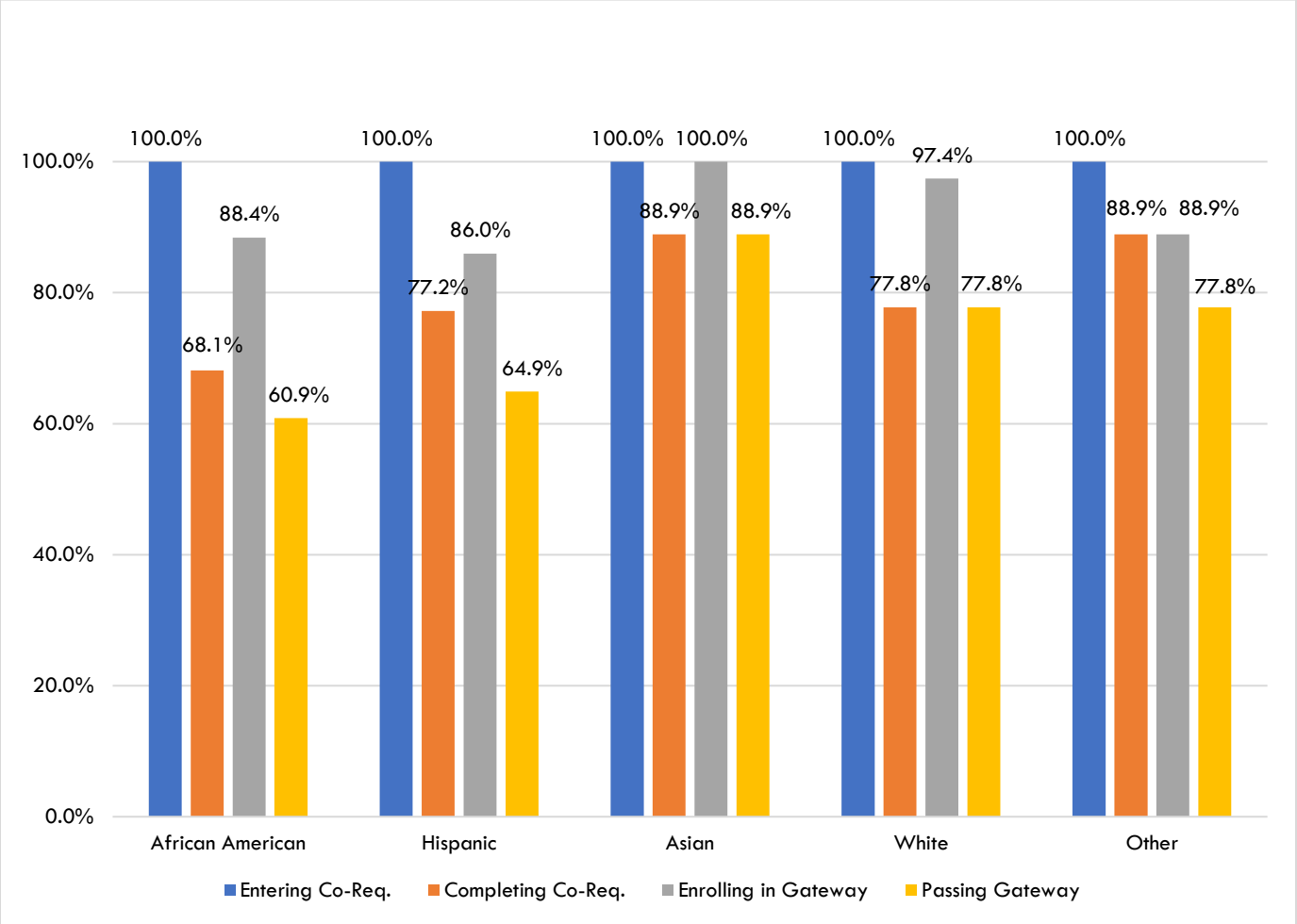
The waterfall pattern that existed with traditional Mathematics developmental education was not evident with co-requisite Mathematics. This is because of the huge degree of overlap between co-requisite model entry and the enrollment in Mathematics gateway courses. In over 90% of all cases, it is one and the same. Once again, the difference between completing the co-requisite model and completing the gateway course with a C or better is that some students may complete the co-requisite aspect with a D or stay enrolled in the co-requisite part of the model while withdrawing from the gateway course. Slightly more than three out of every four students initially enrolling in the co-requisite model had completed it within two academic years and roughly 70% had earned a C or better in the related Mathematics gateway course.

Figure 21: Flow from Entry into Co-Requisite Mathematics to Passing a Gateway Course at Illinois Public Universities



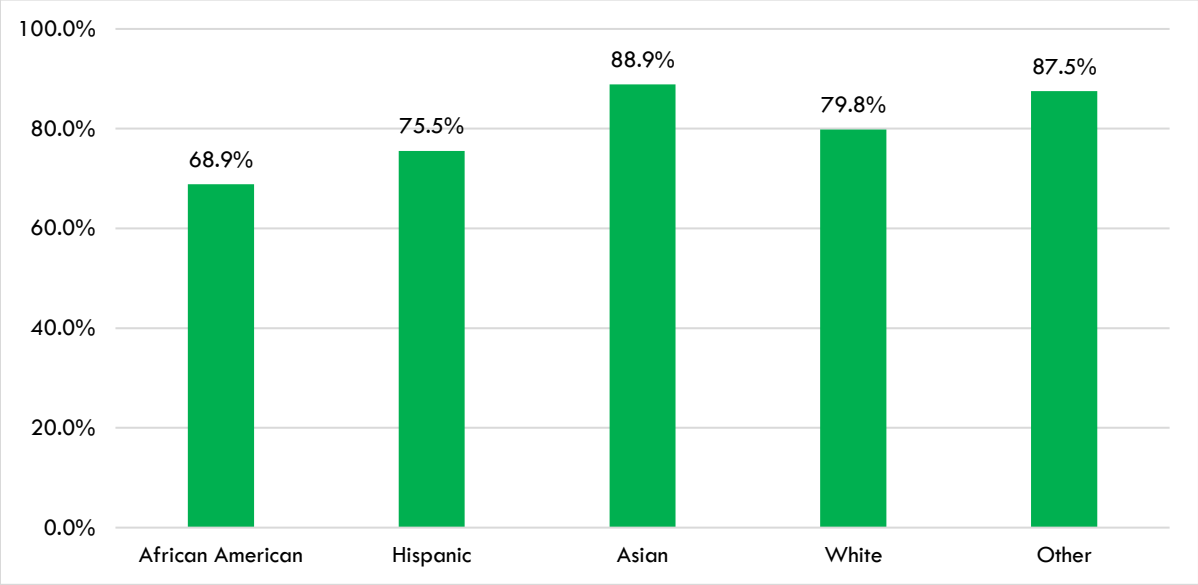
Race/Ethnicity White students participating in a Mathematics co-requisite model experienced higher rates of model completion and the successful completion of the gateway Mathematics courses relative to their African American counterparts. While White and Hispanic students had roughly the same rates of model completion, substantially more White students had passed the related gateway course with a C or better (77.8% to 64.9%). The same percentage of White students who completed the co-requiste model in Mathematics, had successfully passed the gateway course (77.8%).

Figure 22: Flow from Co-Requisite Mathematics to Gateway Course Completion by Race/Ethnicity



When examined as a function of maintaining enrollment in the related gateway course, the race/ethnicity gaps specific to successful gateway course completion are narrowed but still favored White students particularly when compared to their African American peers.

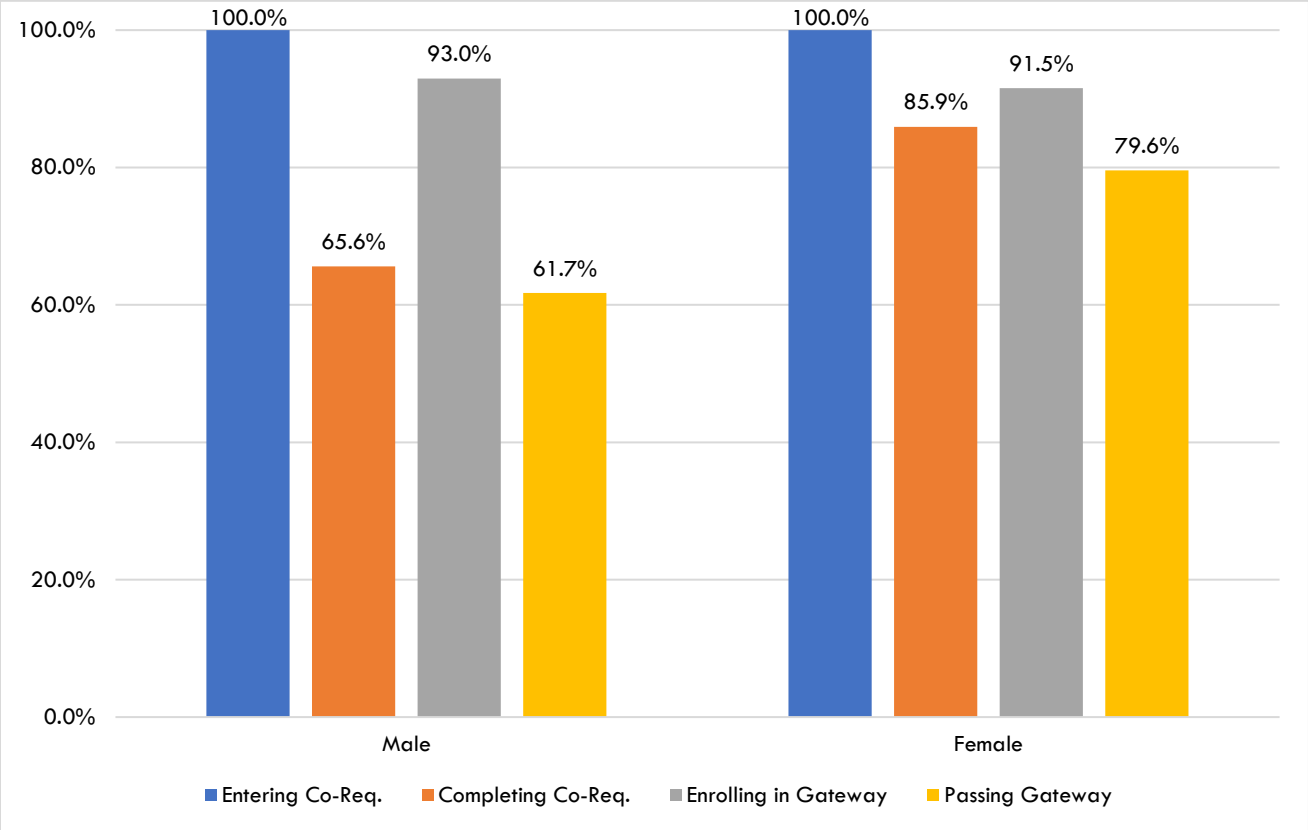
Figure 23: Gateway Course Pass Rates by Race/Ethnicity for Students Starting in Co-Requisite Mathematics



*Conditional upon enrollment in the gateway course.

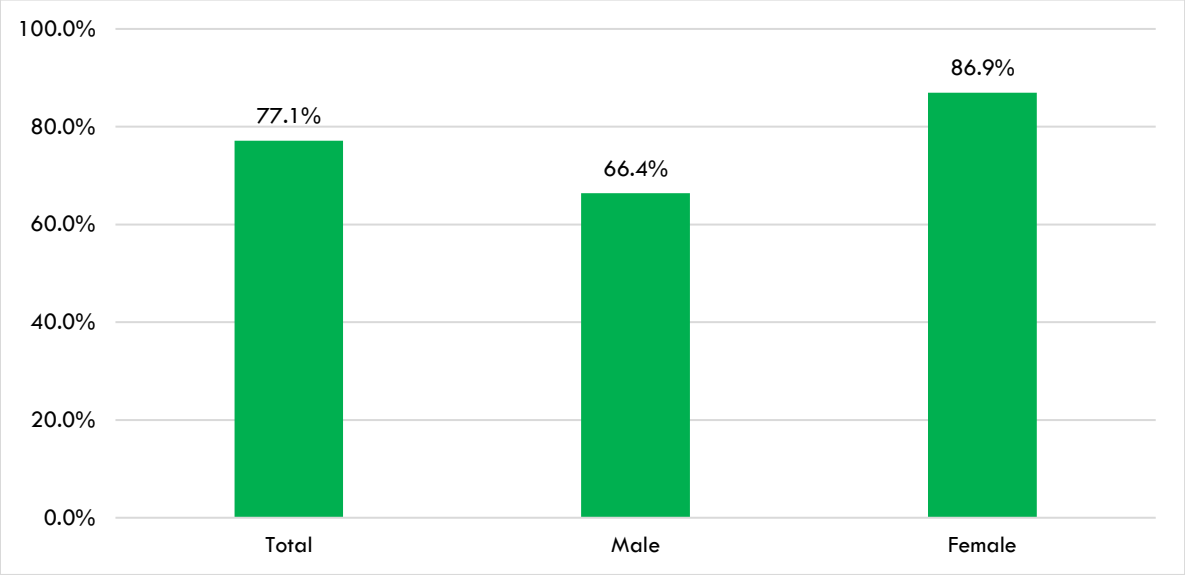
Gender Large gender gaps favoring female students were evident among those entering a co-requisite model in Mathematics. Females maintained a 20-percentage point advantage specific to model completion and an 18-percentage point advantage in terms of earning a C or better in the related gateway course.

Figure 24: Flow from Co-Requisite Mathematics to Gateway Course Completion by Gender



A similar gender-gap was evident when pass rates in gateway courses were viewed conditional upon enrollment in the related gateway course. While 87% of the female students who entered the gateway course earned a C or better, on two-thirds of their male counterparts met that same distinction.

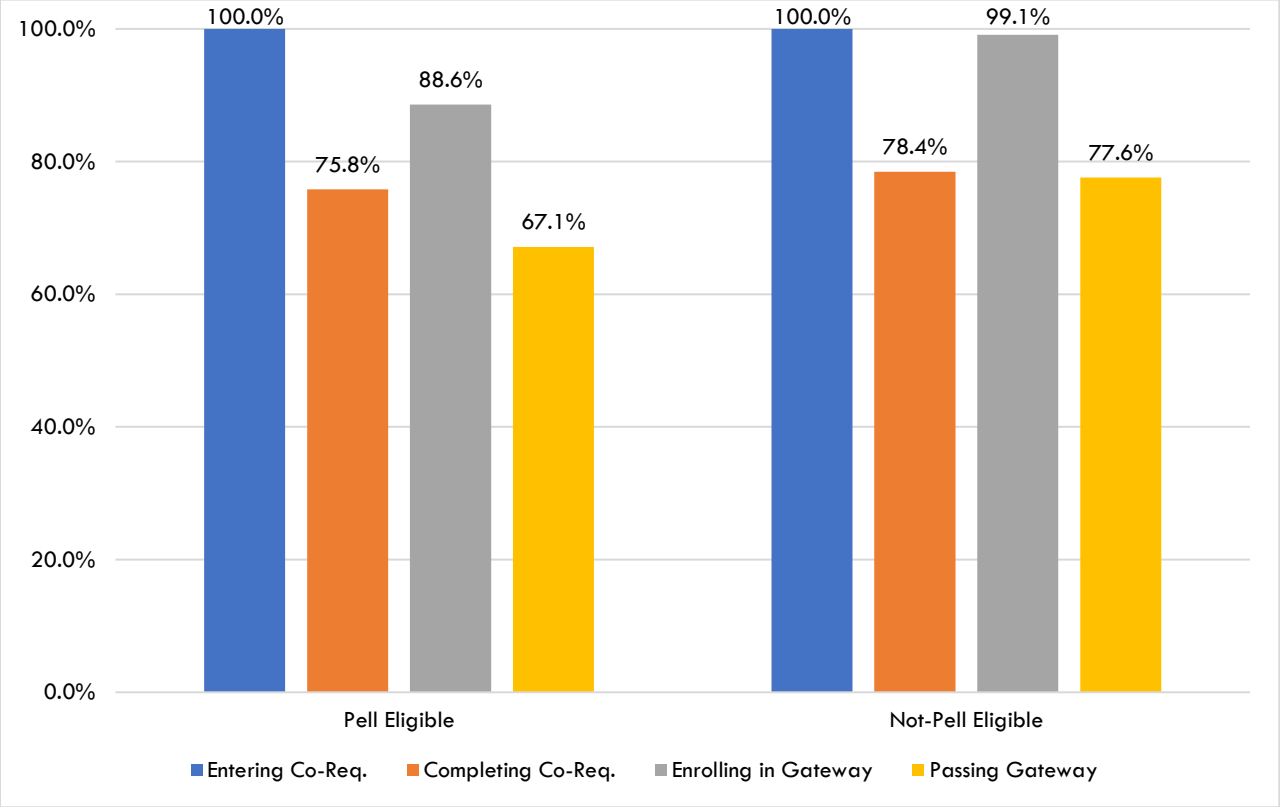
Figure 25: Gateway Course Pass Rates by Gender for Students Starting in Co-Requisite Mathematics



*Conditional upon enrollment in the gateway course.

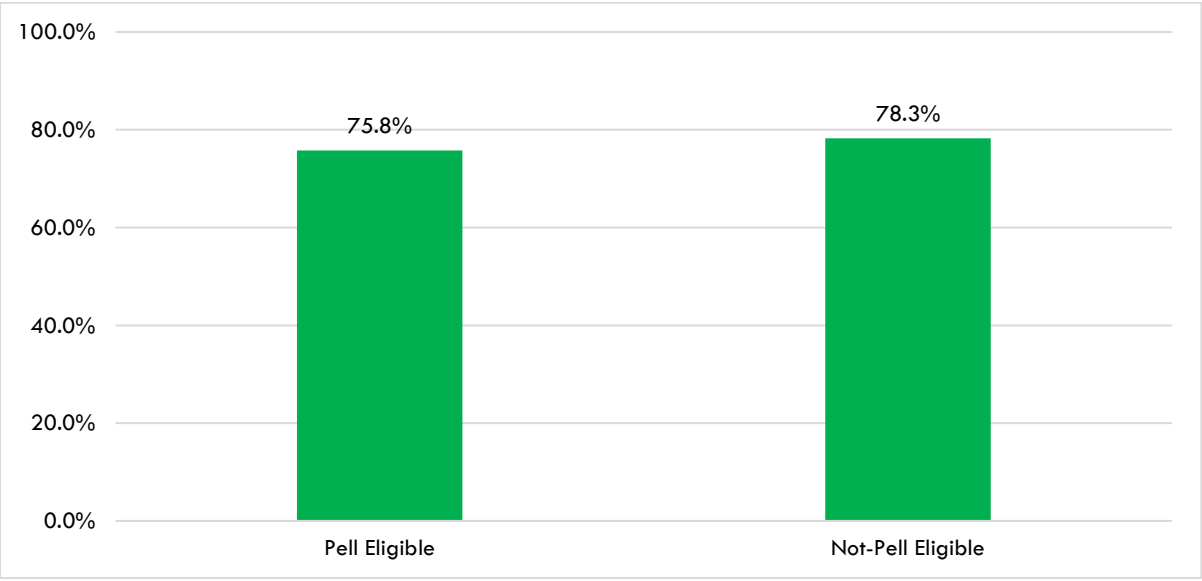
Pell Eligibility Nearly all the individuals who were not eligible for Pell had maintained enrollment in the related gateway course and roughly the same proportions had completed the model and earned a C or better (slightly more than three-quarters for both measures). Their low-income peers had only slightly lower rates of model completion but much lower pass rates in gateway courses (67.1% to 77.6%), on top of comparatively fewer maintaining enrollment in the gateway course (88.6% to 99.1%).

Figure 26: Flow from Co-Requisite Mathematics to Gateway Course Completion by Pell Eligibility



Due to the large differences in entry in the related gateway courses, the differences in pass rates were somewhat muted (3.5 percentage points) when viewed conditional upon such enrollment.

Figure 27: Gateway Course Pass Rates by Pell Eligibility for Students Starting in Co-Requisite Mathematics



*Conditional upon enrollment in the gateway course.

Final Conclusions

Public universities and colleges continue to move work forward to address gaps in the placement and completion of developmental education students. In addition, clearly there is significant work to be done to produce more equitable outcomes for students of color. One significant way that ICCB and IBHE will continue to do this is through the current Strategic Planning Process for Higher Education in Illinois, a process that is in progress at the date of the submission of this report.

All public universities and community colleges are responding to a rapidly changing environment. In this context, Illinois public universities and community colleges have made significant progress on the implementation of new, evidence-based model of developmental education instructional delivery. As the data indicates, public institutions have made significant changes in how they offer developmental education. System data indicates that it is having an impact on how students place and complete gateway courses and the need for enrollment in developmental education courses. While there is a lag in how data is reported, there are clear indications that reform efforts are having an impact. Graduation rates for students in community colleges are higher for those who are enrolled in models other than the "traditional" model. In addition, completion and progression rates at public universities continue to increase for students enrolled in developmental education.

Non-traditional models of developmental education show increase access to gateway/credit-bearing course in a shorter time frame. In community colleges, longitudinal data show that developmental models outside the Traditional model may accelerate students into gateway/credit-bearing courses. However, current evidence suggests that there is not a significant difference between the non-traditional models and their impact on graduation rates. This is an area for further research and inquiry to determine the validity of this inference.

Colleges reported that where students are provided services such as strong academic advising, focused tutoring, financial literacy, bridge programming, and just-in-time assistance, they perform better. Using strategies such as summer bridge programs, focused diagnostic testing as part of placement testing, and review and assistance with placement testing/retesting further allows students to improve placement results and reduce the need for developmental education classes. Developmental education models and courses do not stand on their own. There are a number of other supports that are necessary in order for students to be successful. It is imperative that the education community consider how to enhance these supports. It is critical that the state consider ways to support institutions as they work to build upon these support mechanisms, further enhancing the student support options across the higher education system.

Thirty-one community colleges have fully adopted the Statewide Placement Recommendations that were formerly adopted by the Council of Community College Presidents on June 1, 2018. Some public universities use some form of multiple measure placement. In addition, data suggests a need for more capacity around Math Pathways and differentiated strategies based on selection of major or degree program. Community colleges have begun implementing this strategy and all public universities have multiple math pathways based on major. These impressions suggest that these are promising areas of investment for the state. More research is necessary to identify effective pathways, courses and outcomes.

In the community college sector data set, Latinx and African American students perform better in the Co-requisite model while White and Asian students appear to perform better in traditional, emporium, and compressed development models. Interestingly, the same results are seen for Pell-eligible students: they perform better in the Co-requisite model while those who are non-Pell eligible perform better in traditional, emporium, and compressed development models. In the data set for public universities, African American and Latinx students appeared to perform better in traditional courses for English Language Arts where white students tended to perform better in co-requisite courses. Further study, beyond the timeframes represented in this report, is needed to analyze the impact of non-traditional models on student outcomes. Racial/ethnic gaps in achievement continue to persist with graduation rate regardless of developmental model. Among other things, this highlights the importance of student and academic supports beyond entry and completion of a gateway course.

Funding considerations cannot be left out of the conversation. Both the community college sector and the public university sector are significantly underfunded. In the community college space alone, full funding of the community college system would entail an allocation of $74.64 per credit hour reimbursement rate for developmental education. The pro-rated payment for developmental education currently is $16.45 per credit hour. This is but one example of the funding shortfall.

Finally, it is important to recall that there is no "one best model" of developmental education. Institutions, with faculty leadership, will need to make the choices about what models best advance the learning and credential attainment of students. These choices should be based on thoughtful consideration of the research and the evidence. These choices also require financial support as well as institution support to maintain these change efforts. In addition, university and college administrative with support from the state agencies (ICCB, IBHE) can leverage the momentum that has been built to sustain change, innovation and student success.

Acknowledgements

Thank you to the Senate Joint Resolution 41 Advisory Council members listed below for their thoughtful participation. Thank you to ICCB and IBHE staff for their work on the report and throughout the meeting, particularly, Mackenzie Montgomery, ICCB Director for Student Services, for coordinating the meetings throughout the last year.

A special thank you goes to Senator Pat McGuire for sponsoring this resolution and his tireless participation and leadership throughout the six meetings of the Council.

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Appendix A: SENATE JOINT RESOLUTION NO. 41, 101st General Assembly

WHEREAS, The State has a vested interest in maximizing the number of students who complete credit-bearing certificate programs and two-year or four-year degree programs and enter into high-skill, high-wage occupations; and

WHEREAS, 46% of Illinois high school graduates who enroll in community college are placed into developmental coursework in at least one subject; and

WHEREAS, Inconsistent and inadequate approaches to placement have resulted in too many students being placed into developmental education who could succeed in college-level coursework; and

WHEREAS, The traditional developmental education model costs students time, money, and financial aid; and

WHEREAS, Developmental education does not count as college credit and can be a barrier to retention, persistence, transfer, and certificate or degree completion, particularly for Black, Latino, first generation, and low-income students; and

WHEREAS, There are instructional models of developmental education that have demonstrated improvement in college-level course completion compared to traditional models, including but not limited to corequisite remediation, accelerated coursework, emporium models, and Preparatory Mathematics for General Education (PMGE); and

WHEREAS, Colleges and universities have invested significant time, resources, and money into these different developmental education models; and

WHEREAS, The legislature has made significant investments to improve college preparedness; and

WHEREAS, The Illinois Council of Community College Presidents, the Illinois Chief Academic Officers, the Illinois Chief Student Services Officers, and the Illinois Math Association of Community Colleges have already agreed upon a common, multiple measures framework for placement that is currently being implemented; and

WHEREAS, To ensure all models of developmental education are maximizing students' likelihood of success, the State must inventory and evaluate all developmental education instructional models offered in the State; and

WHEREAS, The Illinois Community College Board and Illinois Board of Higher Education are well positioned to improve placement practices and fully scale developmental education reforms across all State public institutions; therefore, be it

RESOLVED, BY THE SENATE OF THE ONE HUNDRED FIRST GENERAL ASSEMBLY OF THE STATE OF ILLINOIS, THE HOUSE OF REPRESENTATIVES CONCURRING HEREIN, that the Illinois Community College Board and the Illinois Board of Higher Education shall establish a joint advisory council to provide a benchmarking report to the General Assembly on or before April 1, 2020, that shall include:

(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; and be it further

RESOLVED, That on or before July 1, 2020, the advisory council must deliver to the Illinois Community College Board, the Illinois Board of Higher Education, and the General Assembly, a detailed plan for scaling developmental education reforms, such that institutions improve developmental education placement measures and such that, within a timeframe to be set by the advisory council, all students who are placed in developmental education are enrolled in a developmental education model that is proven to maximize their likelihood of completing a college-level course within their first two academic semesters; and be it further

RESOLVED, That for the purposes of this resolution, "improved placement measures" is defined as measures that give greater opportunities to enroll directly into college-level classes, reducing the overall percent of students placed into developmental education, preferably through decreased reliance on high-stakes tests and increased use of high school GPA as a determining measure; and be it further

RESOLVED, The implementation plan should include specific benchmarks and an estimate of funding required to meet established benchmarks that institutions must meet to stay

on track to full-scale implementation on the timeframe set by the advisory council; and be it further

RESOLVED, That the advisory council should include similar representation from two-year and four-year institutions and, at a minimum, include the following:

(1) The Executive Director of the Illinois Community College Board or his or her designee, who shall act as co-chair;

(2) The Executive Director of the Illinois Board of Higher Education or his or her designee, who shall act as co-chair;

(3) One member appointed by the Governor, who shall act as co-chair;

(4) One member from the Illinois Senate appointed by the President of the Senate, who shall act as co-chair;

(5) One member from the Illinois House of Representatives appointed by the Speaker of the House, who shall act as co-chair;

(6) One member from the Illinois Senate appointed by the Senate Minority Leader;

(7) One member from the Illinois House of Representatives appointed by the House Minority Leader;

(8) Two public university employees appointed by the Illinois Board of Higher Education Academic Leadership group;

(9) One member who represents an organization that advocates on behalf of public university employees appointed by the Executive Director of the Illinois Board of Higher Education;

(10) One member who represents an organization that advocates on behalf of community college employees at City Colleges of Chicago appointed by the Executive Director of the Illinois Community College Board;

(11) One member who represents an organization that advocates on behalf of community college employees at a suburban Chicago community college appointed by the Illinois Community College Board;

(12) One member who represents an organization that advocates on behalf of community college employees in downstate community colleges appointed by the Illinois Community College Board;

(13) One member representing a higher education advocacy organization focused on closing equity gaps in college completion from low-income and first generation college students and students of color appointed by the President of the Senate;

(14) One member representing a statewide advocacy organization focused on improving educational and employment opportunities for women and adults appointed by the Speaker of the House;

(15) One member who represents a statewide organization that advocates on behalf of Community College Presidents appointed by the Illinois Community College Board;

(16) One member who represents public university presidents appointed by the Illinois Board of Higher Education;

(17) One member who represents a statewide organization that advocates on behalf of Community College Chief Academic Officers appointed by the Illinois Community College Board;

(18) One member who represents a statewide organization that advocates on behalf of Illinois
Community College Student Services Officers appointed by the Illinois Community College Board;

(19) One member who represents public university student services administrators appointed by the Illinois Board of Higher Education;

(20) One member who represents Illinois public university provosts appointed by the Illinois Board of Higher Education;

(21) One member who represents a statewide organization that advocates on behalf of Community College Trustees appointed by the Illinois Community College Board; and

(22) One member who represents public university trustees appointed by the Illinois Board of Higher Education; and be it further

RESOLVED, That, of the appointed community college and university employees, at least one must be an English faculty member participating in the Illinois Articulation Initiative and one must be a member of the Illinois Mathematics Association of Community Colleges (IMACC); and be it further

RESOLVED, That the chairs of the advisory council shall be responsible for scheduling meetings, setting meeting agendas, ensuring the development and delivery of the final report and implementation plan, and other administrative tasks, in consultation with advisory council members; and be it further

RESOLVED, The Council shall produce a final report by January 1, 2021 and upon the filing of this report is dissolved; the report should include, at a minimum, an update on the implementation of corequisite remediation and alternative evidence-based developmental education models at every college and university, and include data on enrollment and throughput, defined as the percent of students initially enrolled who have progressed through gateway-level courses, by institution and disaggregated by race, ethnicity, gender, and Pell status; and be it further

RESOLVED, That suitable copies of this resolution be delivered to the Illinois Community College Board and the Illinois Board of Higher Education.

Appendix B: Senate Joint Resolution 41 Advisory Council Membership

Name	Title	College/Agency
Aaron M. Ortiz	State Representative	101st General Assembly
Alison Reddy	Director of Mathematics Placement	University of Illinois at Urbana-Champaign
Bambi C. Jones	Math Instructor	Lake Land College
Bob Navarro	Trustee	Illinois State University
Bradley Peters	Professor and Coordinator of Writing Across the Curriculum	Northern Illinois University
Brian Durham	Executive Director	ICCB
Deanne Mazzochi	House Republican	101st General Assembly
Emily Goldman	Policy Manager	Partners for College Completion
Emmanuel Awuah	Vice President of Academic Affairs	Illinois Central College
Gloria Gibson	President	Northeastern Illinois University
Jackie McGrath	Professor	College of DuPage
Lisa Helm	Undergraduate Academic Advising Center	Governors State University
Meera Komarraju	Provost and Vice Chancellor for Academic Affairs	Southern Illinois University Carbondale
Michael Boyd	President	Kankakee Community College
Normah Salleh-Barone	Vice President of Student Development	Moraine Valley Community College
Pat McGuire	State Senator	101st General Assembly
Sarah Labadie	Director of Policy	Women Employed
Stephanie Bernoteit	Executive Deputy Director for Academic Affairs	IBHE
Steve McClure	Senate Republican	101st General Assembly
Susan Grace	Associate Professor	Wilbur Wright College
Timothy Taylor	Director of Composition and Associate Professor of English	Eastern Illinois University
Wendy Yanow	Trustee	Oakton Community College

Name	Title	College/Agency
Diana Koenig	Math Faculty, IMACC President	Rock Valley College
Molly Foust	Governor's office	

Appendix C: Senate Joint Resolution 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) • 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: • 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 *Draft SJR 41 Inventory Repor*t, noting major findings and implications for SJR 41 final report
April 1, 2020	Deadline for *SJR 41 Inventory Report* 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 – *not an exhaustive list*)
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	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: • 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	Final report due • 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: Illinois Community College Fall 2017 First-Time, Full-Time Entering Student Outcomes by English/Language Arts Developmental Model

Traditional (English/Language Arts)							
	Cohort Enrollment	Students Complete Model and Enroll in Related Gateway Course within Three Years*				Students Enrolling in the Model that Earned a Credential within 150% Catalog Time	
	Number of FT/FT Fall 2017 Enrollment of students in any part model	Number of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Percent of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Number of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Percent of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Number of students that earned a credential within 150% Catalog Time	Percent of students that earned a credential within 150% Catalog Time
TOTAL (All Students)	4,796	2,615	54.5%	2,057	78.7%	711	14.8%
Student Subgroups							
African American	1,120	487	43.5%	324	66.5%	98	8.8%
Latinx	1,801	1,026	57.0%	825	80.4%	263	14.6%
Asian	168	106	63.4%	85	79.8%	34	20.2%
White	1,478	880	59.6%	741	84.2%	282	19.1%
Other	229	115	50.3%	82	71.3%	34	14.8%
Race Total	4,796	2,615	54.5%	2,057	78.7%	711	14.8%
Pell Recipient	2,871	1,562	54.4%	1,227	78.6%	406	14.1%
Not-Pell Recipient	1,925	1,053	54.7%	830	78.8%	305	15.8%
Pell Total	4,796	2,615	54.5%	2,057	78.7%	711	14.8%
<25	4,506	2,479	55.0%	1,948	78.6%	657	14.6%
25 or Older	289	136	47.1%	109	80.1%	54	18.7%
Unknown	1	0	0.0%	0	-----	0	0.0%
Age Group Total	4,796	2,615	54.5%	2,057	78.7%	711	14.8%
Male	2,370	1,239	52.3%	955	77.1%	313	13.2%
Female	2,423	1,376	56.8%	1,102	80.1%	398	16.4%

Unknown	3	0	0.0%	0	-----	0	0.0%
Gender Total	4,796	2,615	54.5%	2,057	78.7%	711	14.8%

DS--Data suppressed, five or fewer students.

Co-requisite (English/Language Arts)							
	Cohort Enrollment	Students Complete Model and Enroll in Related Gateway Course within Three Years*				Students Enrolling in the Model that Earned a Credential within 150% Catalog Time	
	Number of FT/FT Fall 2017 Enrollment of students in any part model	Number of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Percent of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Number of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Percent of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Number of students that earned a credential within 150% Catalog Time	Percent of students that earned a credential within 150% Catalog Time
TOTAL (All Students)	948	831	87.7%	715	86.0%	265	28.0%
Student Subgroups							
African American	166	142	85.5%	106	74.6%	31	18.7%
Latinx	316	299	94.6%	253	84.6%	72	22.8%
Asian	31	27	87.1%	23	85.2%	11	35.5%
White	399	331	83.0%	306	92.4%	144	36.1%
Other	36	32	88.9%	27	84.4%	7	19.4%
Race Total	948	831	87.7%	715	86.0%	265	28.0%
Pell Recipient	539	466	86.5%	392	84.1%	141	26.2%
Not-Pell Recipient	409	365	89.2%	323	88.5%	124	30.3%
Pell Total	948	831	87.7%	715	86.0%	265	28.0%
<25	915	801	87.5%	690	86.1%	256	28.0%
25 or Older	33	30	90.9%	25	83.3%	9	27.3%
Unknown	0	0	-----	0	-----	0	-----
Age Group Total	948	831	87.7%	715	86.0%	265	28.0%
Male	469	409	87.2%	358	87.5%	117	24.9%
Female	475	418	88.0%	353	84.4%	147	30.9%
Unknown	4	DS	DS	DS	DS	DS	DS
Gender Total	948	831	87.7%	715	86.0%	265	28.0%

DS--Data suppressed, five or fewer students.

Compressed (English/Language Arts)							
	Cohort Enrollment	Students Complete Model and Enroll in Related Gateway Course within Three Years*				Students Enrolling in the Model that Earned a Credential within 150% Catalog Time	
	Number of FT/FT Fall 2017 Enrollment of students in any part model	Number of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Percent of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Number of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Percent of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Number of students that earned a credential within 150% Catalog Time	Percent of students that earned a credential within 150% Catalog Time
TOTAL (All Students)	108	68	63.0%	49	72.1%	13	12.0%
Student Subgroups							
African American	49	33	67.3%	22	66.7%	DS	DS
Latinx	27	18	66.7%	14	77.8%	6	22.2%
Asian	0	0	-----	0	-----	0	-----
White	27	DS	DS	DS	DS	DS	DS
Other	5	DS	DS	DS	DS	0	0.0%
Race Total	108	68	63.0%	49	72.1%	13	12.0%
Pell Recipient	80	56	70.0%	40	71.4%	DS	DS
Not-Pell Recipient	28	12	42.9%	9	75.0%	DS	DS
Pell Total	108	68	63.0%	49	72.1%	13	12.0%
<25	103	DS	DS	DS	DS	DS	DS
25 or Older	5	DS	DS	DS	DS	DS	DS
Unknown	0	0	-----	0	-----	0	-----
Age Group Total	108	68	63.0%	49	72.1%	13	12.0%
Male	42	31	73.8%	22	71.0%	DS	DS
Female	66	37	56.1%	27	73.0%	DS	DS
Unknown	0	0	-----	0	-----	0	-----
Gender Total	108	68	63.0%	49	72.1%	13	12.0%

DS--Data suppressed, five or fewer students.

Contextualized (English/Language Arts)							
	Cohort Enrollment	Students Complete Model and Enroll in Related Gateway Course within Three Years*				Students Enrolling in the Model that Earned a Credential within 150% Catalog Time	
	Number of FT/FT Fall 2017 Enrollment of students in any part model	Number of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Percent of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Number of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Percent of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Number of students that earned a credential within 150% Catalog Time	Percent of students that earned a credential within 150% Catalog Time
TOTAL (All Students)	154	92	59.7%	64	69.6%	24	15.6%
Student Subgroups							
African American	55	24	43.6%	13	54.2%	DS	DS
Latinx	24	13	54.2%	9	69.2%	DS	DS
Asian	1	DS	DS	DS	DS	0	0.0%
White	62	46	74.2%	34	73.9%	16	25.8%
Other	12	DS	DS	DS	DS	DS	DS
Race Total	154	92	59.7%	64	69.6%	24	15.6%
Pell Recipient	86	43	50.0%	26	60.5%	DS	DS
Not-Pell Recipient	68	49	72.1%	38	77.6%	DS	DS
Pell Total	154	92	59.7%	64	69.6%	24	15.6%
<25	148	DS	DS	DS	DS	24	16.2%
25 or Older	6	DS	DS	DS	DS	0	0.0%
Unknown	0	0	-----	0	-----	0	-----
Age Group Total	154	92	59.7%	64	69.6%	24	15.6%
Male	76	44	57.9%	26	59.1%	15	19.7%
Female	78	48	61.5%	38	79.2%	9	11.5%
Unknown	0	0	-----	0	-----	0	-----

Gender Total	154	92	59.7%	64	69.6%	24	15.6%

DS--Data suppressed, five or fewer students.

Other (English/Language Arts)							
	Cohort Enrollment	Students Complete Model and Enroll in Related Gateway Course within Three Years*				Students Enrolling in the Model that Earned a Credential within 150% Catalog Time	
	Number of FT/FT Fall 2017 Enrollment of students in any part model	Number of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Percent of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Number of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Percent of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Number of students that earned a credential within 150% Catalog Time	Percent of students that earned a credential within 150% Catalog Time
TOTAL (All Students)	101	71	70.3%	58	81.7%	14	13.9%
Student Subgroups							
African American	34	19	55.9%	11	57.9%	DS	DS
Latinx	9	7	77.8%	7	100.0%	0	0.0%
Asian	2	DS	DS	DS	DS	DS	DS
White	46	36	78.3%	31	86.1%	7	15.2%
Other	10	DS	DS	DS	DS	DS	DS
Race Total	101	71	70.3%	58	81.7%	14	13.9%
Pell Recipient	56	39	69.6%	30	76.9%	DS	DS
Not-Pell Recipient	45	32	71.1%	28	87.5%	DS	DS
Pell Total	101	71	70.3%	58	81.7%	14	13.9%
<25	98	71	72.4%	58	81.7%	14	14.3%
25 or Older	3	0	0.0%	0	-----	0	0.0%
Unknown	0	0	-----	0	-----	0	-----
Age Group Total	101	71	70.3%	58	81.7%	14	13.9%
Male	48	31	64.6%	25	80.6%	8	16.7%
Female	53	40	75.5%	33	82.5%	6	11.3%

Unknown	0	0	-----	0	-----	0	-----
Gender Total	101	71	70.3%	58	81.7%	14	13.9%

DS--Data suppressed, five or fewer students.

Appendix E: Illinois Community College Fall 2017 First-Time, Full-Time Entering Student Outcomes by Mathematics Developmental Model

Traditional (Math)							
	Cohort Enrollment	Students Complete Model and Enroll in Related Gateway Course within Three Years				Students Enrolling in the Model that Earned a Credential within 150% Catalog Time	
	Number of FT/FT Fall 2017 Enrollment of students in any part model	Number of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Percent of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Number of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Percent of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Number of students that earned a credential within 150% Catalog Time	Percent of students that earned a credential within 150% Catalog Time
TOTAL (All Students)	8,549	3,516	41.1%	2,396	68.1%	1,561	18.3%
Student Subgroups							
African American	1,452	401	27.6%	262	65.3%	148	10.2%
Latinx	2,596	1,075	41.4%	715	66.5%	411	15.8%
Asian	230	109	47.4%	78	71.6%	32	13.9%
White	3,856	1,777	46.1%	1,239	69.7%	896	23.2%
Other	415	154	37.1%	102	66.2%	74	17.8%
Race Total	8,549	3,516	41.1%	2,396	68.1%	1,561	18.3%
Pell Recipient	4,481	1,695	37.8%	1,107	65.3%	733	16.4%
Not-Pell Recipient	4,068	1,821	44.8%	1,289	70.8%	828	20.4%
Pell Total	8,549	3,516	41.1%	2,396	68.1%	1,561	18.3%
<25	8,101	3,388	41.8%	2,303	68.0%	1,476	18.2%
25 or Older	443	128	28.9%	93	72.7%	85	19.2%
Unknown	5	0	0.0%	0	-----	0	0.0%
Age Group Total	8,549	3,516	41.1%	2,396	68.1%	1,561	18.3%
Male	3,953	2,319	38.8%	989	64.7%	604	15.3%

Female	4,589	1,983	43.2%	1,406	70.8%	956	20.8%
Unknown	7	DS	DS	DS	DS	DS	DS
Gender Total	8,549	3,516	41.1%	2,396	68.1%	1,561	18.3%

DS--Data suppressed, five or fewer students.

Co-requisite (Math)							
	Cohort Enrollment	Students Complete Model and Enroll in Related Gateway Course within Three Years				Students Enrolling in the Model that Earned a Credential within 150% Catalog Time	
	Number of FT/FT Fall 2017 Enrollment of students in any part model	Number of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Percent of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Number of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Percent of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Number of students that earned a credential within 150% Catalog Time	Percent of students that earned a credential within 150% Catalog Time
TOTAL (All Students)	582	520	89.3%	423	81.3%	162	27.8%
Student Subgroups							
African American	100	94	94.0%	69	73.4%	23	23.0%
Latinx	225	211	93.8%	157	74.4%	50	22.2%
Asian	32	28	87.5%	25	89.3%	DS	37.5%
White	203	168	82.8%	154	91.7%	72	35.5%
Other	22	19	86.4%	18	94.7%	DS	22.7%
Race Total	582	520	89.3%	423	81.3%	162	27.8%
Pell Recipient	347	315	90.8%	254	80.6%	95	27.4%
Not-Pell Recipient	235	205	87.2%	169	82.4%	67	28.5%
Pell Total	582	520	89.3%	423	81.3%	162	27.8%
<25	561	502	89.5%	405	80.7%	155	27.6%
25 or Older	21	18	85.7%	18	100.0%	7	33.3%
Unknown	0	0	-----	0	-----	0	-----

Age Group Total	582	520	89.3%	423	81.3%	162	27.8%
Male	266	231	86.8%	193	83.5%	63	23.7%
Female	316	289	91.5%	230	79.6%	99	31.3%
Unknown	0	0	-----	0	-----	0	-----
Gender Total	582	520	89.3%	423	81.3%	162	27.8%

DS--Data suppressed, five or fewer students.

Emporium (Math)							
	Cohort Enrollment	Students Complete Model and Enroll in Related Gateway Course within Three Years				Students Enrolling in the Model that Earned a Credential within 150% Catalog Time	
	Number of FT/FT Fall 2017 Enrollment of students in any part model	Number of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Percent of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Number of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Percent of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Number of students that earned a credential within 150% Catalog Time	Percent of students that earned a credential within 150% Catalog Time
TOTAL (All Students)	873	434	49.7%	297	68.4%	213	24.4%
Student Subgroups							
African American	79	23	29.1%	8	34.8%	9	11.4%
Latinx	120	54	45.0%	36	66.7%	26	21.7%
Asian	69	52	75.4%	40	76.9%	19	27.5%
White	562	289	51.4%	199	68.9%	149	26.5%
Other	43	16	37.2%	14	87.5%	10	23.3%
Race Total	873	434	49.7%	297	68.4%	213	24.4%
Pell Recipient	394	176	44.7%	120	68.2%	75	19.0%
Not-Pell Recipient	479	258	53.9%	177	68.6%	138	28.8%
Pell Total	873	434	49.7%	297	68.4%	213	24.4%
<25	852	427	50.1%	291	68.1%	DS	24.4%
25 or Older	21	7	33.3%	6	85.7%	DS	23.8%
Unknown	0	0	-----	0	-----	0	-----

Age Group Total	873	434	49.7%	297	68.4%	213	24.4%
Male	423	DS	43.3%	123	67.2%	77	18.2%
Female	443	249	56.2%	174	69.9%	136	30.7%
Unknown	7	DS	28.6%	0	0.0%	0	0.0%
Gender Total	873	434	49.7%	297	68.4%	213	24.4%

DS--Data suppressed, five or fewer students.

Compressed (Math)							
	Cohort Enrollment	Students Complete Model and Enroll in Related Gateway Course within Three Years				Students Enrolling in the Model that Earned a Credential within 150% Catalog Time	
	Number of FT/FT Fall 2017 Enrollment of students in any part model	Number of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Percent of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Number of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Percent of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Number of students that earned a credential within 150% Catalog Time	Percent of students that earned a credential within 150% Catalog Time
TOTAL (All Students)	275	153	55.6%	100	65.4%	57	20.7%
Student Subgroups							
African American	72	21	29.2%	10	47.6%	DS	DS
Latinx	76	46	60.5%	29	63.0%	18	23.7%
Asian	5	DS	DS	DS	DS	DS	DS
White	113	77	68.1%	52	67.5%	30	26.5%
Other	9	DS	DS	DS	DS	DS	DS
Race Total	275	153	55.6%	100	65.4%	57	20.7%
Pell Recipient	147	63	42.9%	42	66.7%	25	17.0%
Not-Pell Recipient	128	90	70.3%	58	64.4%	32	25.0%
Pell Total	275	153	55.6%	100	65.4%	57	20.7%
<25	267	DS	DS	DS	DS	DS	DS
25 or Older	8	DS	DS	DS	DS	DS	DS
Unknown	0	0	-----	0	-----	0	-----

Age Group Total	275	153	55.6%	100	65.4%	57	20.7%
Male	111	64	57.7%	46	71.9%	21	18.9%
Female	164	89	54.3%	54	60.7%	36	22.0%
Unknown	0	0	-----	0	-----	0	-----
Gender Total	275	153	55.6%	100	65.4%	57	20.7%

DS--Data suppressed, five or fewer students.

Modularized (Math)							
	Cohort Enrollment	Students Complete Model and Enroll in Related Gateway Course within Three Years				Students Enrolling in the Model that Earned a Credential within 150% Catalog Time	
	Number of FT/FT Fall 2017 Enrollment of students in any part model	Number of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Percent of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Number of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Percent of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Number of students that earned a credential within 150% Catalog Time	Percent of students that earned a credential within 150% Catalog Time
TOTAL (All Students)	109	46	42.2%	37	80.4%	27	24.8%
Student Subgroups							
African American	10	DS	DS	DS	DS	DS	DS
Latinx	55	27	49.1%	22	81.5%	DS	DS
Asian	0	0	-----	0	-----	0	-----
White	41	16	39.0%	DS	DS	17	41.5%
Other	3	DS	DS	0	0.0%	0	0.0%
Race Total	109	46	42.2%	37	80.4%	27	24.8%
Pell Recipient	75	28	37.3%	24	85.7%	17	22.7%
Not-Pell Recipient	34	18	52.9%	13	72.2%	10	29.4%
Pell Total	109	46	42.2%	37	80.4%	27	24.8%
<25	91	39	42.9%	30	76.9%	19	20.9%
25 or Older	18	7	38.9%	7	100.0%	8	44.4%
Unknown	0	0	-----	0	-----	0	-----

Age Group Total	109	46	42.2%	37	80.4%	27	24.8%
Male	58	18	31.0%	13	72.2%	6	10.3%
Female	51	28	54.9%	24	85.7%	21	41.2%
Unknown	0	0	-----	0	-----	0	-----
Gender Total	109	46	42.2%	37	80.4%	27	24.8%

DS--Data suppressed, five or fewer students.

Other (Math)							
	Cohort Enrollment	Students Complete Model and Enroll in Related Gateway Course within Three Years				Students Enrolling in the Model that Earned a Credential within 150% Catalog Time	
	Number of FT/FT Fall 2017 Enrollment of students in any part model	Number of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Percent of students completing model that enrolled in related gateway course in AY17-18 thru AY19-20	Number of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Percent of students completing gateway course with "C" or higher in AY17-18 thru AY19-20	Number of students that earned a credential within 150% Catalog Time	Percent of students that earned a credential within 150% Catalog Time
TOTAL (All Students)	28	19	67.9%	11	57.9%	8	28.6%
Student Subgroups							
African American	2	DS	DS	DS	DS	0	0.0%
Latinx	15	10	66.7%	DS	DS	DS	DS
Asian	0	0	-----	0	-----	0	-----
White	11	DS	DS	DS	DS	DS	DS
Other	0	0	-----	0	-----	0	-----
Race Total	28	19	67.9%	11	57.9%	8	28.6%
Pell Recipient	11	DS	DS	DS	DS	DS	DS
Not-Pell Recipient	17	DS	DS	DS	DS	DS	DS
Pell Total	28	19	67.9%	11	57.9%	8	28.6%
<25	28	19	67.9%	11	57.9%	8	28.6%
25 or Older	0	0	-----	0	-----	0	-----
Unknown	0	0	-----	0	-----	0	-----

Age Group Total	28	19	67.9%	11	57.9%	8	28.6%
Male	10	6	60.0%	DS	DS	DS	DS
Female	18	13	72.2%	DS	DS	DS	DS
Unknown	0	0	-----	0	-----	0	-----
Gender Total	28	19	67.9%	11	57.9%	8	28.6%

DS--Data suppressed, five or fewer students.

Appendix F: Illinois Public Universities – English Language Arts

The following section highlights some of what each Illinois Public University is doing specific to developmental education, and related activities, in English Language Arts.

Chicago State University

Current Approaches: All developmental education English courses at Chicago State University have been co-requisite since 2017 and are therefore credit-bearing and degree applicable. Regarding placement, students who score 5 or higher on the Accuplacer English Composition placement exam are placed *in ENG 1270 English Composition I*, the gateway course. Students who score below 5 are placed *in ENG 1230 Writer's Workshop I*, which is the co-requisite course with additional supports. Successful completion of ENG 1230 satisfies the English Composition I requirement.

Reform Efforts: As a further enhancement to this model, recently, CSU began piloting embedded tutors in the English co-requisite courses during the Summer 2019 and have expanded it in Fall 2020 with changes in their first-year experience programming. The English faculty have also added Learning Assistants which are students trained in pedagogy who serve as in-class assistants. CSU has also started to use embedded tutors and Learning Assistants in the co-requisite English course ENG 1230. This places a student tutor or student trained as a learning assistant in the class and lab with the student. CSU piloted it in 2019-20 in one course; it is being used in multiple English courses in 2020-21.

Eastern Illinois University

Current Approaches: EIU currently has a traditional development model in English by sake of offering a single traditional developmental education English course--*Fundamentals of College Composition (ENG 1000).* The model/course is offered to help students improve their college writing skills upon entry to EIU. The sequence leads to the credit-bearing/degree applicable course-- *College Composition l: Critical Reading & Source-Based Writing (ENG 1001G).* Students are placed in ENG 1000 if they have an ACT English score below 18, an SAT Writing score of 420 or below, or a minimum high school GPA of 3.0. Students may write an essay to show skills beyond this test score. This local essay process (e.g., "Challenge Essay") is assessed by the Composition Committee, an appointed group of faculty members from the English Department. These policies are in the undergraduate catalog.

Student Supports: In terms of additional supports, EIU offers a Writing Center with the availability of both peer and/or graduate student assistance.

Governors State University

Current Approaches: Governors State University does not offer developmental education coursework in English/Language Arts. However, they do provide a program called English Smart Start that is required of all conditionally admitted freshmen and is available to all admitted freshmen. The program offers students the personal attention of faculty and peer mentors prior to the start of classes, and recommendations such as a reduced course registration and utilization of academic support services.

Reform Efforts: GSU plans to pilot co-requisite support for the beginning writing class in Fall of AY2021-22.

Illinois State University

Current Approaches: Illinois State University does not offer developmental education in English/Language Arts. All admitted freshmen are placed directly into credit-bearing English/Language Arts courses.

Student Supports: The ISU campus tutoring center, provides writing assistance for any undergraduate student, at any stage of the writing process, for any course. Peer tutors have been screened and are CRLA certified. Tutors do not proofread or edit; rather, they help students learn the process of writing, so they can do it themselves. The Center provides scheduled appointments as well as drop-in assistance.

Northeastern Illinois University

Current Approaches: NEIU employs both traditional and co-requisite English developmental education models depending upon student placement. NEIU has implemented a multiple measures approach that includes high school GPA (3.2 for direct placement into English 101), a self-assessment survey for reading and writing, and a writing sample. Recently, NEIU has shortened their traditional developmental education course sequence and now has only a single developmental education course that is not credit bearing. Currently, they have ELP 096, which is their traditional development education course, along with a co-requisite course (ELP 098) that is taken concurrently with ENG 101. ENG 101 is the credit-bearing/ degree applicable gateway course. In the past, NEIU had also offered ELP 095; however, it was not offered in the fall of 2020.

Student Supports: NEIU also has a few sub-programs under their Summer Bridge umbrella, including EMERGE and the Summer Transition Program. Each of those includes writing workshops, not for credit, free of charge, for incoming freshmen. Students take pre- and post-placement exams, with the majority moving up in their placement, and with some moving out of ELA developmental courses altogether.

Reform Efforts: NEIU piloted two sections of co-requisite English in the spring of 2019, which resulted in an 80% rate of success. Students in these sections also received additional academic supports through peer mentors and weekly tutoring appointments at the Learning Success Center.

Northern Illinois University

Current Approaches As noted earlier, NIU offers what they describe as a stretch model in English comprised of two courses: ENG 102 and ENG 103P. Multiple measures are used in their placement policies including high school records, ACT/SAT scores, and a locally developed writing composition assessment. However, because an individual could bypass the first semester, that model takes on aspects of both a traditional and co-requisite developmental education. ENG 102 is the first part of the stretch model and while it is credit-bearing, it is not applicable towards a degree. English 103P is a college-level composition course in which the students are provided with

extra support such as writing workshops and tutoring. Student can be directly placed into English 103P, which would be more related to the co-requisite model definition.

Reform Efforts NIU plans to eliminate English 102 in fall of academic year 2021-22 and only the co-requisite part of the original stretch model (English 103P) will remain. This will result in all students being immediately enrolled in a credit-bearing and degree-applicable English course.

Southern Illinois University Carbondale

Current Approaches: Although SIUC has a traditional developmental education model in English listed in its catalog that includes a single course (ENG 100), the course has not been taught since 2017. Also, in prior years, SIUC offered a co-requisite English model (ENG 101+) that SIUC would like to implement once again in the future. More recently, SIUC has been working closely with students in ENGL 101 who need extra help by utilizing tutoring offered at their writing center. One could argue that relative to how systematic the student supports are, this has some characteristics of a co-requisite model. Also, if an ENG 101 student is struggling, instructors are encouraged to use a pass/retake (PR) grade assuming the student has made a good faith effort but needs to repeat it to pass it.

Student Supports: The English Department at SIUC has a diverse staff of undergraduate peer tutors and graduate student tutors available in the Writing Center. The undergraduate tutors receive training in *English 489: One-to-One Teaching*, a class the focuses on peer tutoring. Graduate students receive training in the Pre-Semester Workshop that is held every August, the week before the start of the Fall semester, and in *English 502: Teaching College Writing.*

Reform Efforts: SIUC has expressed a desire to re-implement the co-requisite sections that were piloted through the English Department several years ago. However, as noted earlier, no developmental education in English Language Arts (traditional or co-requisite) has been offered by SIUC in recent years--all students are placed in English 101.

Southern Illinois University Edwardsville

Current Approaches: SIUE has both a reading (ADA 082) and writing component (ADA 090) to its developmental education offerings within English Language Arts. Depending upon student placement, which involves the Accuplacer, or related ACT/SAT sub-test scores, the models are either traditional or co-requisite. Specific to writing, students may be enrolled in *ADA 090 Basic Writing* and if successful, they move to *ENG 101 English Composition*, which is the credit-bearing/ degree applicable gateway course.

SIUE also has a direct pathway into ENG 101 for some students who in the past would have been placed in the traditional development education model--ADA 090 and/or ADA 082. The course is labeled as ENG 101-E (enhanced) and is described by SIUE as a studio model but has many characteristics of a co-requisite model.

Recent Reforms: Over the last few years, SIUE has been engaged in course transformation and co-requisite designs to move them closer to eliminating additional ADA courses in writing such as AD 095 and AD 092. In the last three years, ENG 101-E has been offered as special sections

(20 sections with 16 students each) of the credit-bearing composition course with smaller class size, taught by instructors with additional training in teaching basic writing and providing additional lab hours for practice.

Through the adoption of this new model, SIUE was able to reduce the number of students typically enrolled in ADA 090 from 230 to 88. The newly designed course, ENG 101-E, requires increased classroom contact hours per week and engages those who previously did not meet the minimum requirements for enrollment in SIUE's traditional ENG 101: Composition I course.

Student Supports: Additional student supports are provided through SIUE's Learning Support Services (https://www.siue.edu/lss/index.shtml) and on-going writing and reading assistance is provided through its Writing Center (https://www.siue.edu/lss/writing/index.shtml).

University of Illinois at Chicago

Current Approaches: UIC has both traditional and co-requisite developmental education models in English Language Arts. In terms of placement, all incoming first-year students who arrive not having earned the equivalent of *ENGL 160 (Academic Writing I)* credit by ACT, SAT, AP, or IB scores are required to take a placement test, consisting of a holistic assessment of an essay written in response to a prompt. Students are required to take the course into which they place: ENGL 160 (which is the credit-bearing/ degree applicable gateway course), ENGL 160 with the co-requisite ENGL 159 workshop, or the developmental courses ENGL 070 or ENGL 071. The co-requisite model includes ENGL 159 (Academic Writing Workshop) course, which is 1 credit hour, meeting one extra day per week.

UIC also offers a preparatory/ developmental ed. course for non-native English speakers, ENGL 070. It is similar in content to ENGL 160 (the gateway course) and can lead to a waiver of ENGL 160 and placement in ENGL 161. There is a similar waiver process for students enrolled in ENGL 071—depending upon student academic performance, they may bypass ENGL 160 and enroll directly in ENGL 161.

Student Supports: UIC also offers a summer bridge course, the Summer Enrichment Writing Workshop, a compressed 6-week version of the full-semester ENGL 071, which gives students placed into the traditional development model (ENGL 071) the chance to earn revised placement into ENGL 160.

Writing Center tutors are on hand to work specially with students placed in ENGL 071.

An English 071 Engagement Coordinator was appointed to serve as advisor and academic liaison for the students in this course, and he organized informational meetings for these students with various campus offices and services such as Financial Aid, the Academic Center for Excellence, and the Wellness Center since these students who might not readily seek help. The closer collaboration with the Writing Center also ensures that these students have ready access to this service in and beyond the course.

Reform Efforts: The ENGL 071 Curriculum Working Group has been meeting twice a semester for the past several years to conduct these reviews of curriculum and student support. The Office

of the Vice Provost of Undergraduate Affairs provided application-based funding for the English 071 Engagement Coordinator, and the Writing Center works with these students concertedly.

The co-requisite ENGL 159 model is now in its fifth year, and to date, the students have performed almost exactly on par with their peers (grade wise) who were placed directly into ENGL 160.

University of Illinois at Springfield

Current Approaches: UIS has a traditional developmental education model in English Language Art consisting of a single course and the course sequence is English 091 to English 101, which is the credit-bearing/degree applicable gateway course. Placement at UIS is determined by related ACT/SAT subject test scores and scores on the Accuplacer; however, academic performance in dual credit and AP scores may be considered in developmental education placement.

Student Supports: The UIS Summer Bridge Program offers intensive instruction in English over a two-week period with the intention of helping students score higher on placement exams and, when possible, place out of ENG 091. An expanded and enhanced virtual summer Bridge is planned, and being developed, for summer 2021.

University of Illinois at Urbana-Champaign

Current Approaches: UIUC does not offer developmental education in English Language Arts. All admitted freshmen are placed directly into credit-bearing English/Language Arts courses.

Successfully completing 'Composition I' is a General Education requirement at UIUC. Students who are not ready for the standard one-semester course, called RHET 105, have several other choices. UIUC offers a two-semester sequence, RHET 101-102, which requires that the student also engage simultaneously in a weekly tutorial, RHET 100. Both RHET 101 and RHET 102 are worth 4 credit hours. These courses are not developmental; they serve to fulfill the university's Composition I requirement.

Western Illinois University

Current Approaches: WIU does not offer development education in English Language Arts. All admitted freshmen are placed directly into credit-bearing English/Language Arts courses.

WIU has a credit-bearing course (English 100) which counts as an elective that students can opt to take prior to enrolling in the required ENG 180 (gateway) to ENG 280 writing sequence. The course has suggested self-placement criteria that uses a multiple measures approach: ACT/SAT English sub-test scores; grades in HS English; writing requirements at one's graduating HS.

Student Supports: The Writing Program and Writing Center directors at WIU are jointly developing a writing fellows program that would provide additional support for students. The Writing Center at WIU offers remote tutoring for all students and has consultants trained specifically to assist students who struggle with writing.

Reform Efforts: WIU is in the process of adapting a co-requisite approach for students who would like additional writing support but do not want to enroll in ENG 100.

In Spring of 2020-21, WIU moved away for only relying on assessment scores, and implemented a directed self-placement method involving multiple measures. The multiple measures approach was developed with an equity lens. Student engagement is thus also enhanced as students are much more engaged when they have chosen to take a class rather than when they are forced to take a class.

WIU's Writing Committee, chaired by the directors of the Writing Program and the Writing Center, work directly with the Associate Provost for Undergraduate & Graduate Studies and with the Executive Director of Retention Initiatives on issues related to writing instruction.

Appendix G: Illinois Public Universities - Mathematics

The following section highlights what each Illinois public university is doing specific to developmental education, and related activities, in Mathematics.

Chicago State University

Current Approaches: CSU has not required traditional developmental education mathematics courses for newly admitted students since Fall 2019-20, after the CSU math faculty undertook major redesign efforts. All entering students are now placed directly into credit-bearing/ degree-applicable math courses. Students entering CSU who transfer a college-level Mathematics course have met the general education requirement in Mathematics and do not need to take the Mathematics Assessment. Students who need to take a General Education mathematics course are assessed for their content knowledge in Mathematics using the Next Generation Accuplacer. Based on the assessment, some students who require College Algebra are required to take a College Algebra course with a built-in interactive added support laboratory component (a co-requisite model).

Pathways: CSU has differentiated mathematics sequences for STEM and non-STEM majors. Students in the humanities, arts, and social sciences (non-STEM) are placed in Math 1040 Math for Data Sciences I or Math 1080 Quantitative literacy. Students in the STEM fields, including health sciences, take College Algebra and based on a lower placement would take a co-requisite lab Math 1195.

Reform Efforts: The courses/models are currently being assessed to determine the effectiveness of the change that went into place in Fall 2019. The assessment will be finalized in January of 2021. CSU believes the new model supports all students despite their secondary educational experience and should improve persistence, completion rates, and reduce time-to completion.

Both the math and English faculty are active participants in the student Success Task Force that is coordinating the University's student success strategies under Cougar Commitment. Also, faculty from both departments are actively involved in the first-year experience Rise Academy in which these classes are foundational components.

Eastern Illinois University

Current Approaches: Students placed below College Algebra (MAT 1271) may be required to take Intermediate Algebra (MAT 1270), and students with the lowest scores will also take Diagnostic Mathematics (MAT 1070) at the same time, neither of which are credit-bearing/degree applicable. So, although EIU students needing College Algebra for their majors may be required to take two developmental education math courses (MAT 1070 and MAT 1270), their successful completion would only require a semester, as students with lower placement scores take MAT 1070 and MAT 1270 at the same time.

If a student has completed a course that transfers in as MAT 1020, MAT 1070, or MAT 1270, they would then be placed into the next math course that they would need for their program of study.

Although the instructional models used have been described internally at EIU as traditional developmental instruction, the Math sequence for Elementary Education majors has co-requisite qualities.

Math Pathways: EIU offers a traditional developmental education model in mathematics for those enrolling in majors requiring College Algebra, in additional to what could be described as a co-requisite model for those in Elementary Education. In terms of placement at EIU, ACT/SAT score requirements are dependent on the level of math required for the student's program of study. Only students seeking certain majors (STEM and Business) are required to take College Algebra (MAT 1271). Students with low scores who require Mathematics for Elementary Teachers (MAT 1420) for their major will take Diagnostic Mathematics (MAT 1020) as a co-requisite, allowing for immediate enrollment in the gateway course.

Student Supports: EIU offers free math tutoring provided by either peer and/or graduate student assistance.

Governors State University

Current Approaches: Although GSU does not offer remediation/non-credit bearing courses in math, as all students are placed in credit-bearing courses during their first year, they do require a support experience called Smart Start for conditionally admitted freshmen. Math Smart Start is a highly individualized program that begins prior to the start of class and includes faculty and peer mentors prior and recommendations such utilization of academic support services. This program is offered free of charge and required of all conditionally admitted freshman, however it is open to all admitted freshmen.

Math Pathways: In terms of developmental education and equity, the first way it is being addressed is in the selection of the required general education Mathematics course. GSU reported recognizing that not all students will be moving into programs that require College Algebra and developed a differentiated pathway. Therefore, the foundational mathematics course offered to most students is now Statistics, a content area which can be applied to a variety of content areas.

Recent Reforms: In Spring of 2020-21, GSU will begin piloting co-requisite supports for students in *Elementary Statistics (Math 2100).* This 2-hour weekly math laboratory will blend an emporium model of individualized, self-guided algebra review (supported by the instructor) with activity-based instruction to help students apply algebraic and statistical skills to solve "real world" problems, and discussions to help students develop self-efficacy, good study habits, and positive habits of the mind. Student performance data will guide future decisions regarding full implementation of the co-requisite model.

Secondly, a way in which engagement of students will be addressed is in the assignment of faculty for the previously mentioned co-requisite Statistics course. The instructor for the co-requisite lab will be different than the primary instructor of Math 2100. This will help to separate the credit-bearing content course from the co-requisite support and prevent the laboratory time from becoming a recitation for Elementary Statistics, thus provide a different level of engagement with the students. The students in each lab section do not need to be in the same section of Elementary

Statistics, nor do all students in a section of Elementary Statistics need to be taking the co-requisite lab. To meet the needs of the learners in the laboratory session the enrollment will be capped at 15 students.

Another way this proposed change will address equity issues, is in providing the co-requisite beyond the Elementary Statistics course. GSU wants to be able to provide co-requisite support for all sections of Elementary Statistics (not just those targeting first-year freshmen), possibly including an online version of the laboratory. GSU also wishes to change the focus of the emporium component to align with the statistics content more strongly on the parent class (such as the co-requisite Support for Introduction to Statistics available from ALEKS or co-requisite Course Solutions embedded in MyStatLab). Additionally, this co-requisite math laboratory may be adapted for students in College Algebra.

Another consideration comes from GSU's desire to have their students complete their degree in a timely manner. To this end GSU has always encouraged 15 credit hours each semester to finish on time. GSU has found that for some students this requirement does not lead to a successful semester. By enrolling in the one credit hour mastering college course, and the 1 credit hour co-requisites for math and/or English, the students would still be enrolled in 15 hours, yet only in 4 different content areas. These three one-credit hour courses contribute to elective hours for degree completion and provide the additional supports to succeed in college.

Through the action of the Lower Division Steering Committee and through actions taken in the General Education Council at GSU, a decision was made to pilot the use of co-requisite courses. The decision was based on years of assessment of data collected on our Smart Start experience and student success in their initial mathematics and writing courses.

Illinois State University

Current Approaches: ISU offers both a traditional developmental education model in Mathematics along with a co-requisite model for majors requiring MAT 113 (Elements of Mathematical Reasoning), and placement is determined by the ALEKS math placement assessment. Depending on the placement and a student's major/pathway, a student at ISU may be required to take two developmental education courses (MAT 102 and MAT 104) before enrolling in a credit-bearing gateway course in Mathematics. This holds true for entering students with low math placements enrolled in majors requiring College Algebra (which is a prerequisite gateway) or Elements of Mathematical Reasoning as the related gateway course.

Math Pathways: ISU's two-course developmental education sequence (MAT 102 and MAT 104) leads to either *MAT 119 (College Algebra)* or *MAT 113 (Elements of Mathematical Reasoning)* depending upon major. Another sequence is for Early Childhood, Elementary, and Special Education Majors and involves MAT 102A01 is specifically designed to prepare students for Math 130 which is the gateway course for such majors. There is also a co-requisite option for majors requiring MAT 113, which is available to students who would otherwise be placed into MAT 104.

Reform Efforts: ISU found that their traditional 102 and 104 (Algebra) developmental courses did not prepare students for Math 130 as well as could be done, so Math 102A01 for Early Childhood, Elementary and Special Education Majors was developed. The focus of the course is a deeper understanding of the numerical principles and reasoning of mathematics rather than simply solving

the problems. Students examine different ways of approaching mathematical thought and use numerous strategies to solve problems.

Northeastern Illinois University

Current Approaches: NEIU is utilizing traditional, co-requisite, and co-requisite stretch developmental education models in mathematics. NEIU has a traditional Developmental education sequence in Mathematics that includes up to three non-credit bearing/ non-degree applicable courses: MATH 090; MATH 091; and MATH 092. This sequence is required of majors that need *College Algebra (MATH 173).* There is a co-requisite model available to students once they are placed into or are ready for MATH 092, which allows them to take MATH 173 at the same time. So, depending on one's placement and major, it may take up to three semesters to complete the related gateway course in mathematics for those requiring College Algebra. NEIU also utilizes stretch co-requisite models for those in other majors: 1) for elementary and middle school education majors; 2) sociology majors; 3) psychology majors, and 4) for other majors requiring general quantitative reasoning.

Math Pathways: NEIU has a directive to have options for students to fulfill their quantitative reasoning at NEIU in two semesters, regardless of initial developmental education placement for most majors. However, for STEM and Business majors this directive creates tension with the more useful goal of having pathways that allows students to complete their first math requirement for their major within two semesters. There are plans to update this pathway to allow for students to satisfy the first math requirement for their STEM major (Calculus I) in two (or three) semesters.

Reform Efforts: NEIU has recently deployed several strategies to minimize placement into non-credit-bearing courses and to reduce the amount of time required to complete all mathematics general education requirements, as well as limit the number of non-degree applicable credits earned in developmental education. First, NEIU offers workshops prior to the placement test. These free two-hour workshops review the basic concepts that will appear on the placement test. Second, NEIU offers two free summer bridge programs that include math support over a period of three and six weeks, respectively. The three-week program, EMERGE, is intensive and focuses exclusively on math skills. The second, The Summer Transition Program, also includes college readiness skills, a credit-bearing course, and engagement activities (i.e., field trips, service activities). Both programs allow students to re-take the math placement test at the end and each have success rates of over 70% of students placing at a higher level of math. Last, NEIU implemented both co-requisite and stretch co-requisite math courses in 2018-2019. The co-requisite courses allow students to take a credit-bearing, college-level math course along with the math developmental prerequisite. There are two stretch co-requisite course sequences: one allows education majors to fulfill their first math requirement for their major (and their quantitative reasoning requirement) within two semesters regardless of math placement; the second is a general statistics course that allows students to fulfill their quantitative reasoning requirements in two semesters regardless of math placement.

Overall, the proportion of developmental credits taken at NEIU has dropped from 16.7% of the Student Credit Hours generated at the lower division level in Fall 2010 to 5.6% of the Student Credit Hours generated at the lower division level in Fall 2020.

Student Supports: NEIU is also utilizing peer mentoring and tutoring in mathematics to increase the likelihood of student success in developmental education coursework.

Northern Illinois University

Current Approaches: NIU currently uses both traditional and co-requisite developmental education models in Mathematics. The traditional Developmental education sequence in Math at NIU, depending on placement and major, is Math 108 to Math 109 (both developmental), leading to the gateway course *Math 110, College Algebra.* Therefore, it took up to three semesters for someone initially placed in Math 108 to complete the related gateway math course, College Algebra. For students whose placement indicates developmental math, NIU utilizes another option and allows students to take a developmental course at the local community college before enrolling in College Algebra at NIU. Math 108 and Math 109 are used for pre-requisites only and do not count toward hours for graduation or for major/minor requirements.

Math Pathways: Not all majors are required to complete College Algebra. B.S. students require math courses based on College Algebra as the gateway prerequisite, while B.A. and B.F.A. students usually do not (there is a small number of exceptions). Therefore, math placement is relevant only for College Algebra and majors/disciplines that require it. For math placement at NIU, generally a local assessment is used and about 13% take the Accuplacer instead.

Reform Efforts: NIU plans to eliminate the traditional model before the start of Academic Year 2021-22. During fall 2019-20, NIU ran a small-scale pilot (20 students) on a co-requisite model in math. The students in this pilot completed Math 110, College Algebra, as well as the prerequisite material as needed. Because the results of this pilot were very good, the program will be scaled up for AY 2021-22. The pilot employed for the first time an Inquiry-based Learning pedagogy. In addition to 3 hours of class time, the students were also required to attend 2 hours per week of an emporium style lab. Finally, 2 hours per week of Supplemental Instruction (SI) sessions were available.

Southern Illinois University at Carbondale

Current Approaches: SIUC does not offer traditional Dev. Education in mathematics and has no courses below College Algebra. SIUC offers two College Algebra courses—*College Algebra Enhanced 106*, which is a co-requisite model and meets five days a week, and their traditional *College Algebra 108*, which meets four days a week. SIUC also has differentiated math requirements based on a student's major. Any students who need College Algebra, but do not place into College Algebra, are required to work through a series of free online modules prior to enrolling in the co-requisite College Algebra course, Math 106. In Math 106, the students meet one extra day per week and the lectures are 30 minutes instead of 50 minutes. During the last 20 minutes, students work on worksheets or projects over the material they learned in the 30-minute lecture. Assistants are there to help and group work is encouraged.

As part of SIUC's university core curriculum requirements, a student must successfully complete at least one college-level Math course. SIU Carbondale's Math Placement System utilizes a combination of criteria to determine the best math course for the student's program of study. All students who need to complete math are required to take a placement exam unless the prerequisite is transferred in with a C or better from the within the two previous years.

Math Pathways: SIUC utilizes a series of three online assessments for Mathematics placement. If a student scores high enough on the first placement test, the student can move on to take the second and the same from the second to the third. *Contemporary Math (Math 101)* requires only Test 1 and the course fulfills the core curriculum requirement for nearly all non-STEM majors. Math 106, 108 and *Math 125 – Technical Math with Applications* require Test 2. Math 125 is the gateway course required for aviation and a handful of other majors. Direct placement into Math 109, 111 139, 140, 150, which are the math courses beyond the gateway courses, require all three tests.

Student Supports: SIUC offers drop-in tutoring Monday through Thursday from 4-9 p.m. and now offers it through Zoom. SIUC uses My Math Lab which provides help options while the students are doing their homework. SIUC has also posted videos recorded by senior lecturers that are always available. Next semester, SIUC plans to offer one-on-one tutoring by appointment for those that might want to meet earlier in the day.

SIUC has new students who are not prepared for the gateway course, Math 106, complete a free online "prep for Math 106" course. SIUC assigns quality instructors to Math 106, who are encouraged to communicate with students as much as possible.

Recent Reforms: SIUC has determined the pass rate of their co-requisite College Algebra course, Math 106, to be very close to the pass rate of Math 108 (differed by 1% in the semester analyzed).

SIUC has also adopted a co-requisite approach in higher-level Mathematics courses as well, such as Calculus, to increase student success.

Southern Illinois University at Edwardsville

Current Approaches: SIUE has both traditional and co-requisite Developmental education models in Mathematics for students who are pursuing a major requiring math coursework beyond their quantitative reasoning course.

SIUE's *AD 070: Beginning Algebra* and *MATH 120E: Enhanced College Algebra* courses have been designed to resemble studio models; however, AD 070 takes on many qualities of traditional developmental education, while MATH 120E, is more like a co-requisite model. Specifically, students are required to meet not only in traditional classroom settings but also lab-like settings. Classroom and lab environments are provided by faculty, instructors, and/or graduate assistants.

Math Pathways: Students interested in any of the following majors may need to take the ALEKS math placement assessment, in order to be placed in the initial math course required by their program of study: Biological Sciences; Business Administration; Chemistry; Computer Science;

Construction Management; Economics; Elementary Education; Engineering; Environmental Sciences; Exercise Science; Geography; Mathematical Studies; Pharmacy; or Physics. Students outside these majors are not required to complete a math placement assessment. It should also be noted that SIUE's course transformation efforts to incorporate best practices in *QR 101: Quantitative Reasoning* has resulted in reducing the need for students outside of STEM-related majors to take developmental math courses.

Reform Efforts: Starting in Spring 2013, SIUE's Department of Mathematics and Statistics piloted co-requisite remediation in some sections of *MATH 120: College Algebra* to accommodate students who initially tested into the developmental course, *AD 095: Intermediate Algebra*. The pilot study allowed the department to refine instructional methods that helped students succeed. In Spring 2018, the University completely eliminated AD 095. A new course *MATH 120E: Enhanced College Algebra*, which includes extra lab hours and instructional opportunities for students, was developed. The implementation of MATH 120E impacted a significant number of students. Before the pilot study started, roughly 570 students registered in AD 095 over three terms (fall, spring summer). Note that MATH 120E and MATH 120 have the same learning outcomes so students who successfully complete the course are eligible to proceed to the next course in the sequence *MATH 125: Precalculus*.

The implementation of *QR 101: Quantitative Reasoning* also reduced the number of students needing AD 070 from roughly 580 students in 2010-2011 (fall, spring, summer) to 97 in 2018-2019.

SIUE continues to review their current offerings in mathematics courses through evaluating co-requisite models and course transformations, reflecting best practices in math education. By continuingly evaluating and improving instructional models in their credit bearing courses such as QR 101, MATH 120 and MATH 125, they have managed to reduce the need to offer developmental math education to students and increase the probability of student success in college credit-bearing courses. Currently, SIUE offers only one course in this format (AD 070) and they are continuing to review models that can lead to transforming current credit-bearing courses to provide mathematics preparing for the students who might need additional remedial work.

Student Supports: SIUE's Learning Support Services (https://www.siue.edu/lss/index.shtml) provides ongoing math support via its Tutoring Resource Center (https://www.siue.edu/lss/tutoring/index.shtml) and Supplemental Instruction resources (https://www.siue.edu/lss/si/index.shtml).

University of Illinois at Chicago

Current Approaches: UIC has traditional and co-requisite Developmental education models in mathematics. The longest sequence includes two developmental education courses that, depending upon placement and major, can be taken at the same time (MATH 088 and MATH 090).

Also, if a student places into Developmental Math (based on ALEKS placement) they can take UIC's free Summer Enrichment Math Workshop (3 weeks), and potentially place into a credit

bearing course at the end of the program, or place into Math 090, without needing the 088 co-requisite course, or even begin in Precalculus or Calculus for Business Majors.

UIC uses ALEKS online placement testing, and all incoming first-year students without transfer credit for Precalculus or Calculus must complete an online math assessment using ALEKS prior to attending Summer Orientation and Registration. Optional retakes of the online assessment are available in ALEKS through 5 pm on Friday of the first week of each term. Students are eligible for a maximum of five retakes within six months of creating an ALEKS account before taking a math course at UIC. Any student with a score of 59% or less is encouraged to attend the Summer College Mathematics Workshops free of charge or take advantage of the learning modules and retakes offered.

UIC uses active learning in their Developmental Math courses. All of UIC's non-credit bearing Developmental Math courses are small classes with a maximum of 28 students. Instructors use group work and group discussion in class (active learning techniques). There is a combination of online homework, small in class projects, quizzes, and exams. Mastery learning is used in the co-requisite courses, which helps to encourage students to go to UIC's Learning Center.

Math Pathways: UIC uses several Math pathways leading up to the gateway courses including co-requisite options. Assuming a student initially places into Developmental Math, the options are as follows:

- Non-quantitative majors, non-STEM: Math 077 and Math 118 (Quantitative Reasoning and its co-requisite) in one semester;
- STEM Pathway majors: Math 090 (Intermediate Algebra), or Math 088 and Math 090; second semester: Math 110 (College Algebra);
- Business majors: Math 090 (Intermediate Algebra), or Math 088 and Math 090; second semester: Math 110 (College Algebra)
- Life Science Majors: Math 090 (Intermediate Algebra), or Math 088 and Math 090; second semester: Math 110 (College Algebra)
- Other quantitative majors – STATS pathway: first semester: Math 090 (Intermediate Algebra), or Math 088 and Math 090; second semester: Stat 101 (Introduction to Statistics).
- Education Majors: Math 090 (Intermediate Algebra), or Math 088 and Math 090; second semester: Math 140 (Arithmetic and Algebraic Structures).

Math 090 is a traditional Developmental Math course, but UIC also offers co-requisite courses, which can allow a student to begin in a credit bearing course, even if they placed into a Developmental Math level. Specifically, Math 109 + 110 allows those traditionally place into Math 090 to begin in College Algebra, as long as they take Math 109, the co-requisite. Also, Math 077 + 118 allows students who traditionally place in Math 077, UIC's Quantitative Reasoning

course. UIC also has Math 088 + 090, which allows students with low placement scores to be immediately placed in Intermediate Algebra, but 090 is not credit-bearing.

Student Supports: Drop-in mathematics tutoring is available for all UIC Math courses through their Math & Science Learning Center. While this is staffed largely through graduate student TAs, specific undergraduate tutors for developmental math are hired as needed as well. In UIC's gateway course, College Algebra (Math 110), they have also incorporated undergraduate Learning Assistants in all sections. These are peer mentors who spend time both in the classroom, as well as holding designated tutoring and review sessions in the Math & Science Learning Center. UIC has also developed and made available hundreds of short videos covering the core topics in intermediate algebra (Math 090) and College Algebra (Math 110) in order to assist students.

Recent Reforms: UIC implemented a co-requisite model for some students for in their gateway course Math 110 in the fall semester of 2019. This allowed students placing into the upper threshold of intermediate algebra (Math 090) to take College Algebra (Math 110) instead, provided they take the co-requisite course Math 109. Around the same time, UIC also modified intermediate algebra (Math 090) so that it is now taught in small sections of approximately 25 students.

The Math Statistics and Computer Science department has revised its introductory mathematics course sequence to reduce the number of students that place into UIC's non-crediting bearing preparatory mathematics course. Students can place into *College Algebra MATH 110* with a credit bearing supplemental instruction support course which has reduced placements into *MATH 090 Intermediate Algebra* (non-credit bearing).

There are no additional pending efforts to re-design *Intermediate Algebra (Math 090)* or *College Algebra (Math 110)* at UIC. However, UIC plans to continue to refine these courses and support for them to increase student access, equity, and engagement. Within the Department of Mathematics, Statistics, & Computer Science, UIC's Director of Advising, Outreach, and Math Placement helps to connect students with various forms of support across campus. In addition, this coming spring, UIC will pilot a workshop in partnership with a local high school taught by a UIC math instructor to help them prepare for their placement tests for UIC.

UIC's developmental and gateway mathematics courses are overseen within the Mathematics, Statistics, and Computer Science Department by the Precalculus Committee, which is chaired by the Director of Precalculus. The Director of Precalculus also works closely with the Director of Advising, Outreach, and Math Placement to organize and run UIC's Summer Enrichment Workshops. There is also a working group consisting of all the coordinators of the summer enrichment workshops that meets on a regular basis and is focused on the enhancement of those programs and their relationship to developmental education.

University of Illinois at Springfield

Current Approaches: UIS has up to a three course-long traditional Developmental education sequence in Math (all three courses are non-credit bearing). Placement is determined by ACT/SAT subtest scores in Mathematics, and/or Accuplacer scores. All three courses (MAT 092 Arithmetic

Review, MAT 094 Beginning Algebra, and MAT 096 Intermediate Algebra) are three hours and non-credit bearing/non-degree applicable.

Math Pathways: UIS currently uses two pathways: 1) for business and pre-med majors which involves *MAT 102 College Algebra*, which is the gateway course and then *MAT 113 (Business Calculus)* or *MAT 115 Calculus I*; 2) for other majors *MAT 111 (Quantitative Reasoning* to *MAT 121 Applied Statistics*). Both pathways are required to have completed MAT 096 or the equivalent or to have been placed out of math developmental education.

Student Supports: The UIS Summer Bridge Program offers intensive instruction over a two-week period with the intention of helping students score higher on placement exams and, when possible, place out of Developmental education coursework.

Reform Efforts: An expanded and enhanced virtual summer Bridge Program is planned, and being developed, for summer 2021.

University of Illinois at Urbana-Champaign

Current Approaches: UIUC does not offer developmental education in Math. All admitted freshmen are placed directly into credit-bearing math courses. Nonetheless, UIUC has a robust math placement process.

The University of Illinois at Urbana-Champaign has more than a decade's worth of data from over 130,000 assessments that support the effectiveness of their ALEKS PPL program to place students accurately into an appropriate math class. For students who are not ready for Pre-calculus or Calculus, UIUC has several other options. UIUC offers co-requisite instruction with technology-mediated support in an Accelerated Learning Program co-requisite course model.

Math Pathways: MATH 101, "Mathematical Thinking," is for students who do not need mathematics coursework beyond Precalculus or Business Calculus. It uses an Accelerated Learning Program without technology-mediated support. A recommended ALEKS PPL minimum score is provided for advising purposes, but MATH 101 does not have a minimum required placement score.

Four other courses also do not have minimum required placement scores: *MATH 103 "Theory of Arithmetic"* (4 hours), *MATH 117 "Elementary Mathematics"* (4 hours), *MATH 124, "Finite Mathematics"* (3 hours), and *MATH 181 "A Mathematical World"* (3 hours).

Student Supports: For every student enrolled in *MATH 101 "Mathematical Thinking"* and *MATH 112 "College Algebra,"* UIUC offers technology-mediated support regardless of whether or not the student is officially in the co-requisite program due to having an ALEKS PPL placement score lower than 40.

Western Illinois University

Current Approaches: Western Illinois University offers one non-credit-bearing remedial course – *Math 099N (Intermediate Algebra)* and utilizes a multiple measures approach for placement. For placement, WIU uses a combination of 1) the highest level of high school math course completed

with a grade of 'C' or higher [unless otherwise noted], and 2) Math ACT or Math SAT score, although Math placement procedures are under review for Fall 2020 matriculants. In borderline cases, approved students are also able to try to improve their Math placement by participating in ALEKS, which is a learning system that includes a placement exam, access to three placement exam retakes, and six months of personalized learning and remediation to help students succeed in placing into a credit-bearing Math course.

This traditional developmental education math model at WIU, leads to *Math 100: Core Competency in Mathematics*, which in turn leads to one of several pathway-specific gateway courses. These are described by WIU as Level 3 courses. Students who are placed and perform very well in Math 099 are given the opportunity to by-pass (skip) Math 100 and take the next Math course at Level 3.

Math Pathways:

Table: Level 3 Mathematics Courses at Western Illinois University

Course	Description	Meets General Ed. Requirement
Math 101	Concepts in Math	Yes
Math 102	Creative Perspectives in Math	Yes
Math 123	Modeling with Math Functions	Yes
Stat 171	General Elementary Statistics	Yes
Math 103	Technical Mathematics	No
Math 128	Pre-calculus Algebra	No

Reform Efforts: The Math Department at WIU is considering a revision of the Mathematics 100, the course succeeding the traditional Developmental education course in Mathematics, Math 099. The Department Charis and Faculty are working closely with the Associate Provost of Undergraduate Studies to plan possible changes.

List of Tables

List of Figures