THE UNIVERSITY OF CHICAGO
INCLUSIVE ECONOMY
Urban Labs

Enhancing Early Academic Momentum:

The Impact of High School Transitional Math Courses on Community College Students

Addressing College Readiness

Research shows that early academic momentum, including taking and passing key gateway courses in the first year of college, is linked to higher degree completion rates. However, **over two-thirds of community college students need at least one developmental education course** before enrolling in gateway math and English, with many failing to complete these courses. **Inadequate academic preparation** and **restrictive course placement policies** contribute to this issue, disproportionately affecting Black and Latino students and those from low-income households. To address these gaps, several states have implemented **high school transitional courses** to prepare students for college-level coursework, **enabling direct enrollment in credit-bearing gateway courses.**

Illinois Transitional Math Program

This study examines the impact of a transitional math (TM) program implemented in Chicago Public Schools (CPS) as part of the Illinois Postsecondary and Workforce Readiness Act of 2016. The **Illinois TM program is designed to support high school seniors who are intending to go to college but may not be eligible to take college-level coursework**. It seeks to enhance their college readiness and **ensure guaranteed placement into credit-bearing math courses** at all Illinois community colleges and accepting universities. The program emphasizes real-world applications using contextualized content to promote problem-solving skills, helping students achieve their college and career goals.

Key Findings

High School Credit Accumulation and GPA

While the study found **no evidence that TM participation improved general or math credit accumulation, overall GPA, or math GPA in high school**, it underscores the need for targeted interventions to bolster these areas.

On-Time High School Graduation

There was **no significant impact on the likelihood of on-time high school graduation**, suggesting the need for additional supports to help TM participants stay on track.

Program Take-Up

Despite eligibility, only **29.8 percent of eligible students enrolled** in TM during the study period. Of those who passed, only **57.7 percent have their TM completion verified** by CCC, indicating that **administrative barriers may hinder the program's efficacy**.

Course Success

The relatively small number of **students who successfully have their TM completion verified and enrolled in gateway math successfully passed the course 75.2 percent of the time**. This rate is similar to the traditional pass rates for these courses, highlighting the importance of a seamless TM completion verification process.

Gateway Math Courses

However, given the challenges many students faced in translating TM course taking into gateway math course enrollment, **the program overall did not significantly increase gateway math course pass rates**.

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To find out more information about this project, or to learn more about the work of the University of Chicago Inclusive Economy Lab, please contact Carmelo Barbaro at cbarbaro@uchicago.edu, or visit inclusiveeconomy.uchicago.edu.

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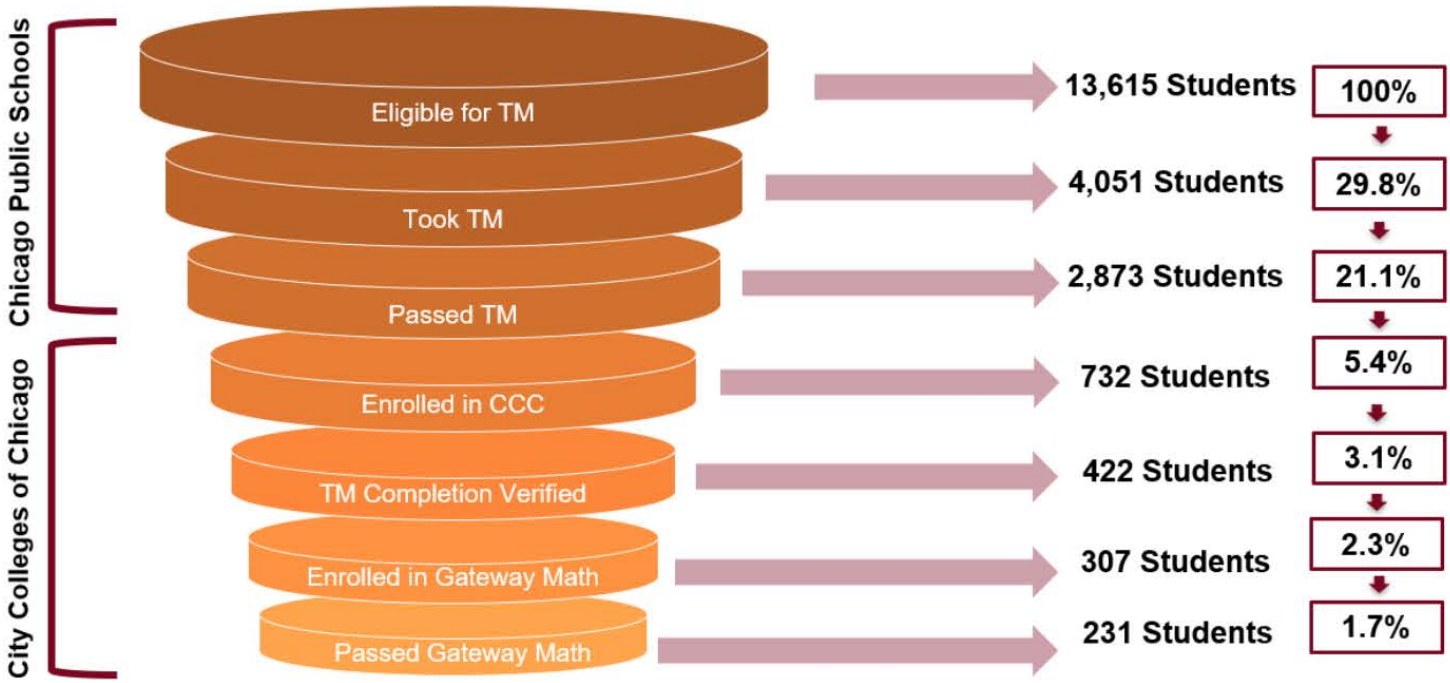
From Eligibility to Success

Traditional pass rates for gateway math courses at City Colleges of Chicago (CCC) are about 70 percent. As shown in Figure 1 below, TM students who enroll in CCC and successfully have their TM completion verified are equally or more likely to pass compared to those placed through other pathways.

Figure 1: Transitional Math Pipeline



Note: Students who took TM in these samples are those who took TM for two semesters in schools that follow regular schedule and those who took TM for one semester in schools that follow block schedule.

Recommendations

To address these challenges and improve the effectiveness of the TM program, **two key recommendations** are proposed:

Increasing awareness about the benefits of TM, such as **reduced college math requirements** and **improved readiness for college-level coursework**, could motivate more students to enroll and succeed, **expanding the program's reach and impact.**

Clear TM completion verification instructions throughout the application and enrollment processes are essential **to ensure TM completion are recognized by postsecondary institutions**, maximizing the program's benefits

These findings emphasize the promise of the TM program and the critical steps needed to enhance its impact on student success. By **increasing participation** and **improving the TM completion verified process,** the program could better support the academic momentum of community college students.

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