STUDENT SUCCESS CENTER

AN INITIATIVE OF THE FLORIDA COLLEGE SYSTEM

Welcome

Florida Mathematics Re-Design Institute

June 27, 2019 ▶▶ Gainesville, FL

#FLStudentSuccess

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Opening Session

Student Success Stories

Thank you!


Helios
Education Foundation


KNEWTON | alta
A Wiley Brand


Mc
Graw
Hill


ALEKS® PPL
PLACEMENT, PREPARATION AND LEARNING


Pearson


UF
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SF
SANTA FE
COLLEGE

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Morning Plenary Session

Recommendations from Florida's Mathematics Re-Design Efforts

Workgroups

High School to Postsecondary

Explore how high school curriculum in mathematics aligns with postsecondary expectations

- Clarify college entrance-requirements alignment with high school assessments and courses
- Examine longitudinal student data on mathematics sequencing and student success rates
- Engage high school and college mathematics faculty in dialogue about postsecondary expectations
- Identify strategies that promote greater alignment

FCS Mathematics Sequences

Examine multiple pathways for students to enter based on programs of study as well as the re-design of course structures to maximize support for students

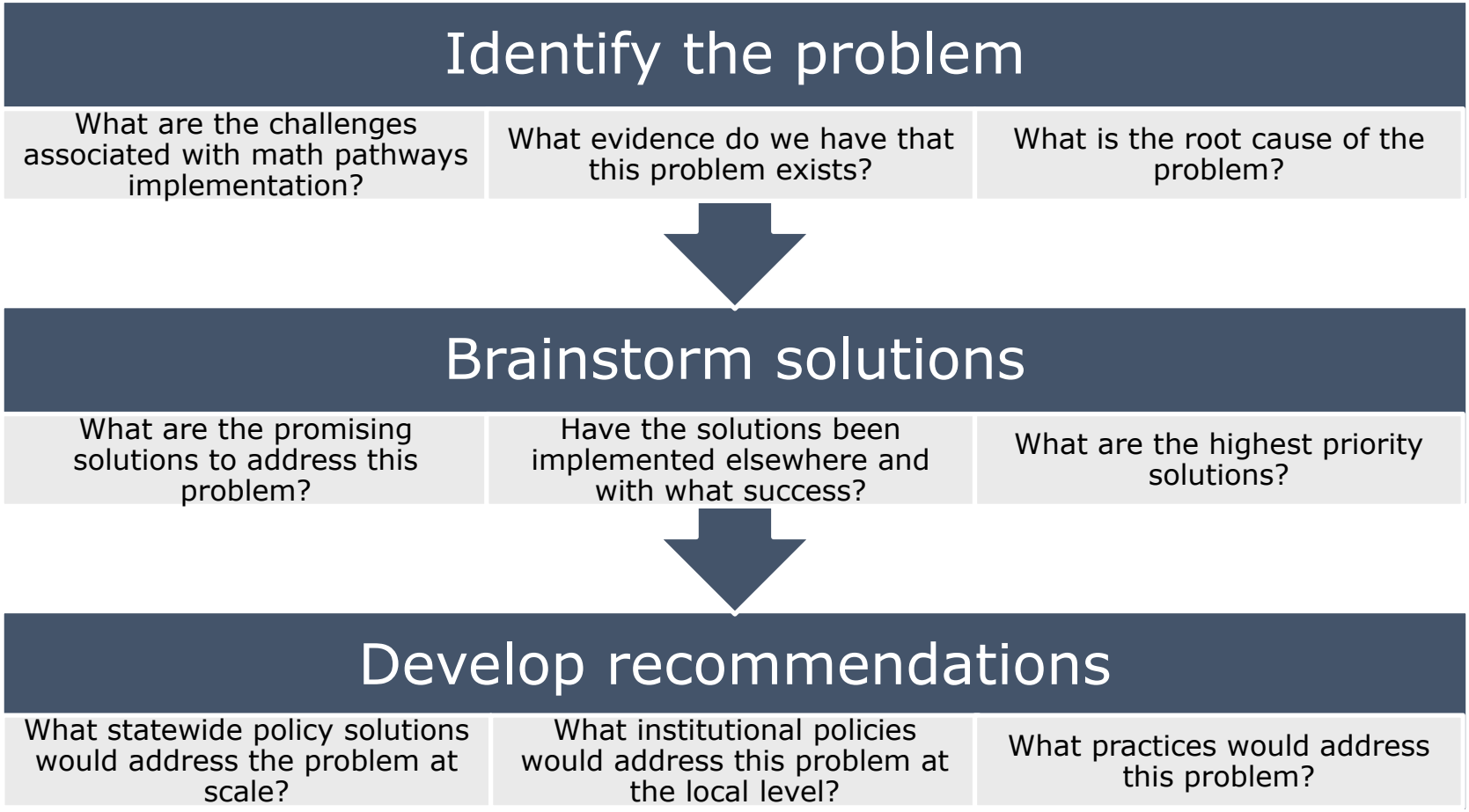
- Identify course and institutional structures that promote and deter success
- Encourage the modernization of mathematics content
- Review data on student success across algebra and non-algebra pathways
- Identify a sequence of courses in the context of a student's intended transfer major/meta-major

FCS to University Alignment

Examine how FCS curriculum in mathematics aligns with university expectations, particularly for students in transfer programs

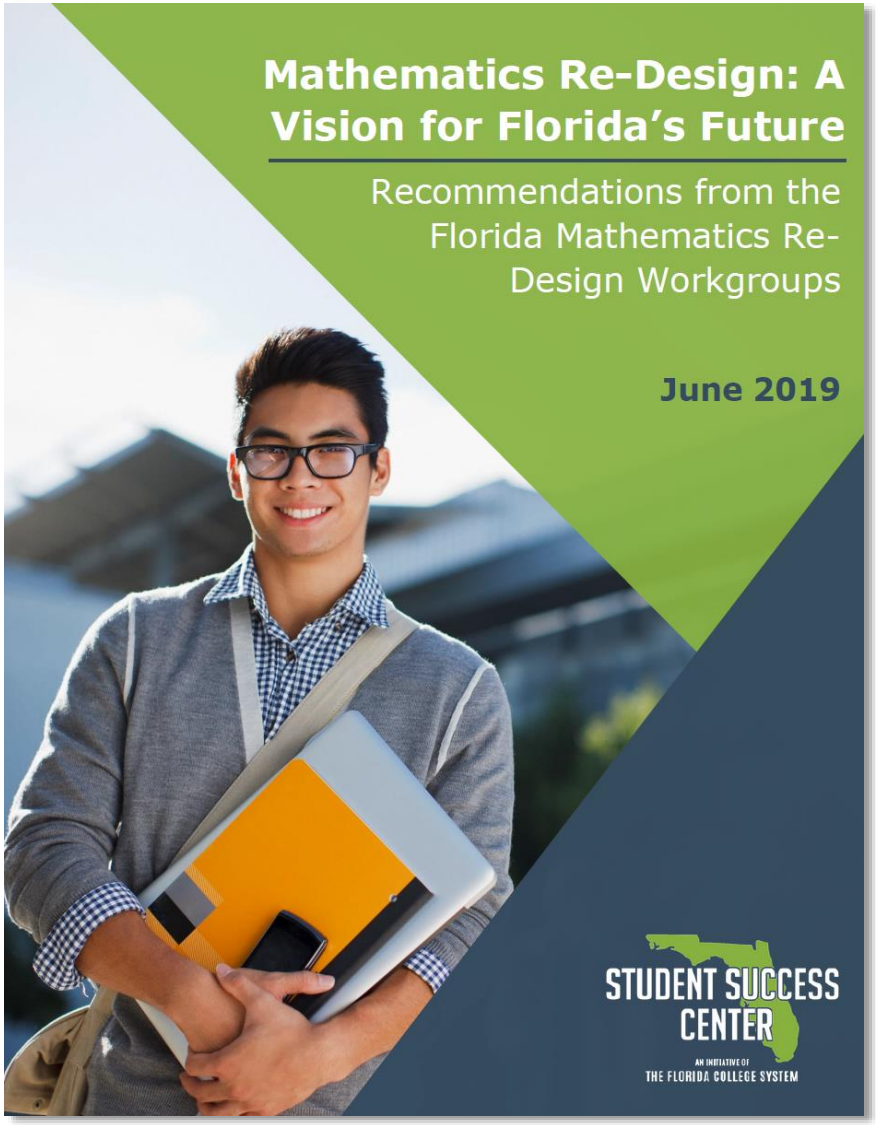
- Clarify university mathematics requirements
- Examine the longitudinal student data on mathematics sequencing and student success rates
- Engage FCS and SUS mathematics faculty in dialogue about postsecondary expectations
- Identify strategies that promote greater alignment

Arriving at Recommendations



Recommendations

- **Statewide Policy.** Far reaching results at scale, across educational delivery systems.
- **Institutional Policy.** Larger changes within an institution (intra) and between institutions (inter).
- **Practice.** Instruction, actions or activities that produce results (institutional or individual).



Key Themes

- **Pathways**
  - Creating mathematics pathways by aligning mathematics courses to educational/career pathways and identifying appropriate course sequencing/curriculum mapping for those pathways
- **Re-Design**
  - Implementing re-design of mathematics curriculum, courses or instructional methods
- **Advising and Placement**
  - Advising or counseling students into math sequences that are aligned to the academic/career pathway

Key Themes Continued

- **Learning**
  - Examining institutional SLOs for alignment with statewide SLOs, determining prerequisite skills/courses required and implementing innovative pedagogical practices to support students
- **Professional Development**
  - Providing opportunities to support instructors and advisors in areas such as active learning, critical thinking, problem solving, pathways and placement into appropriate math courses/pathways
- **Communication and Engagement**
  - Engaging and communicating with stakeholders both within and external to the institution, about mathematics curriculum, content alignment and/or student preparedness

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Break

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Mathematics Pathways Self Reflection

Where are we now?

Self-Reflection Exercise

- Independently or with colleagues from your institution, complete the self assessment and engage in a discussion at your table about your main areas of interest
- Each breakout in the concurrent sessions will be tagged with one or more of these themes to help you identify which sessions you may wish to attend

Schedule

11:00 – 11:50 a.m.	**Concurrent Session 1** *Breakout rooms*
12:00 – 1:00 p.m.	**Lunch** *Main ballroom*
1:00 – 1:50 p.m.	**Concurrent Session 2** *Breakout rooms*
2:00 – 2:50 p.m.	**Concurrent Session 3** *Breakout rooms*
3:00 – 4:00 p.m.	**Afternoon Plenary & Closing** *Main ballroom*

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Networking lunch

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Afternoon Plenary Session

Evidence from Other States

Ohio Mathematics Initiative (OMI)

- ODHE Chancellor: Develop expectations and processes to offer math pathways in Ohio's 36 public colleges and universities
  - Increased success in mathematics
  - Higher rates of degree completion
  - Effective transferability
- Steering Committee created in 2013; Chairs/Leads Network formed
- Steering Committee's five "essential components" → OMI Subgroups
  - New and Alternative Pathways
  - Redesign of the Ohio Transfer Module (OTM) Criteria
  - Communication, Outreach, and Engagement
  - Data Collection, Analysis, and Sharing
  - Alignment Between Secondary and Postsecondary Content and Instruction

Quantitative Reasoning

- Carnegie Math Pathways/Quantway (2010 – present)
  - Faculty Mentor
  - Alpha Labs research
  - Networked Improvement Community
- Changes to the OTM guidelines (Feb. 2015)
  - Role of Intermediate Algebra
  - Broaden, deepen, extend high school standards
- Quantitative Reasoning Content Experts (2015-2017)
  - Develop college-level QR learning outcomes
    - Approved by Ohio Articulation and Transfer Network (Dec. 2015)
  - Design and deliver professional development workshops
- Ongoing collaboration with the Dana Center

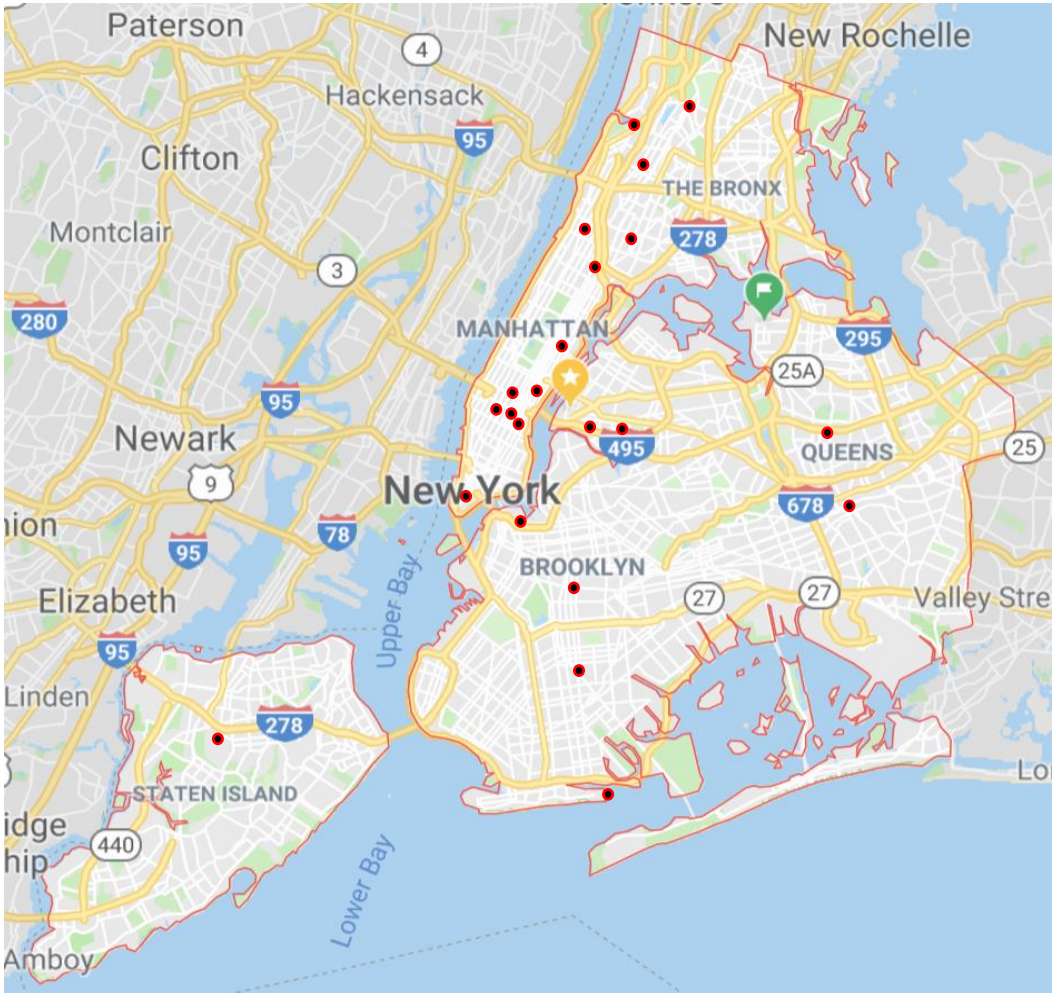
High School Transition Course

- Ohio Learning Standards Revision Advisory Committee (2016)
- Transition Course with Higher Ed Collaborators
  - 2018-2019: Pre-pilot (3 schools)
  - 2019-2020: Pilot (22 schools)
  - Professional Development Learning Communities
- CBMS Forum (May 2019)
- Reconstitution and growth of OMI Subgroup 5
  - Collaboration and balance among ODE, ODHE, and faculty stakeholders
  - Placing value on time for discussion

CUNY THE GREATEST URBAN UNIVERSITY IN THE WORLD

Colleges	Enrollment
7 Community	95,073
4 Comprehensive	52,548
7 Senior	127,285
Total	274,906

In the next years, all Community and Comprehensive CUNY Colleges are expected to offer alternatives to remediation.



LaGuardia Community College

Milena Cuellar Ph.D.
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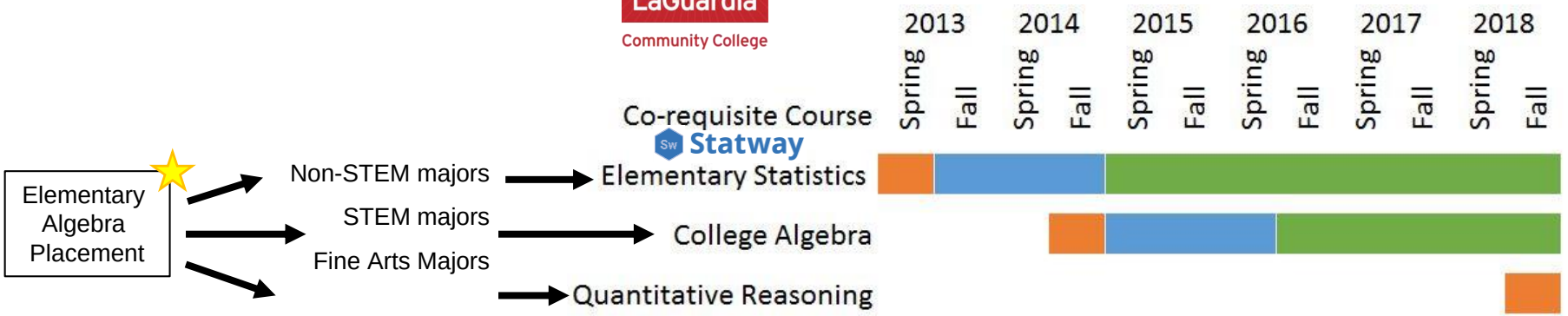
Guided Math Pathways

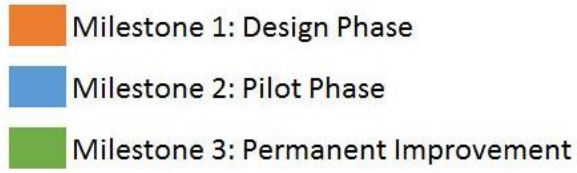
LaGuardia Community College



Single-Enrollment
Just-in-Time Remediation
6 h -7 h Instruction
One Faculty Only
Equivalent to College Level Course

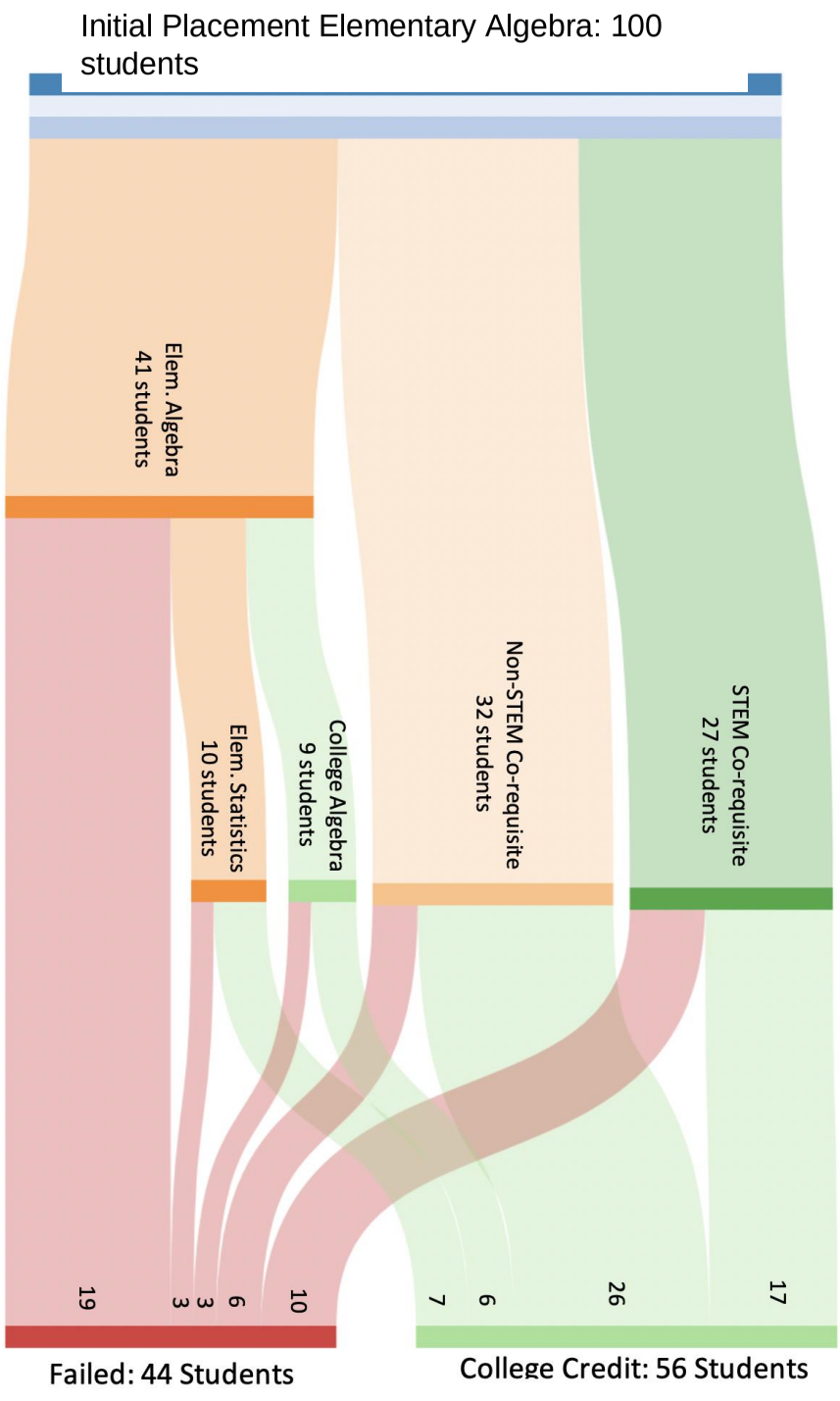
\+

Faculty Professional Development Program



Placement Dependent

Outcomes


Initial Placement Elementary Algebra: 100 students
Elem. Algebra 41 students
Non-STEM Co-requisite 32 students
STEM Co-requisite 27 students
Elem. Statistics 10 students
College Algebra 9 students
19
3
3
6
10
7
6
26
17
Failed: 44 Students
College Credit: 56 Students

Remediation: Various Models and Implementation

STRONG START TO FINISH

Goal SSTF

Accelerate the expansion of corequisite courses

- $2.1 million over three years (2018-2021)
- Release time for faculty teams or Residents on each campus
- Compensate other faculty to participate in PD sessions

LaGuardia Community College
New York City College of Technology CUNY
Hostos Community College
BMCC
Kingsborough Community College
Queensborough Community College
Bronx Community College
Stella and Charles Guttman Community College
John Jay College of Criminal Justice
Medgar Evers College
College of Staten Island

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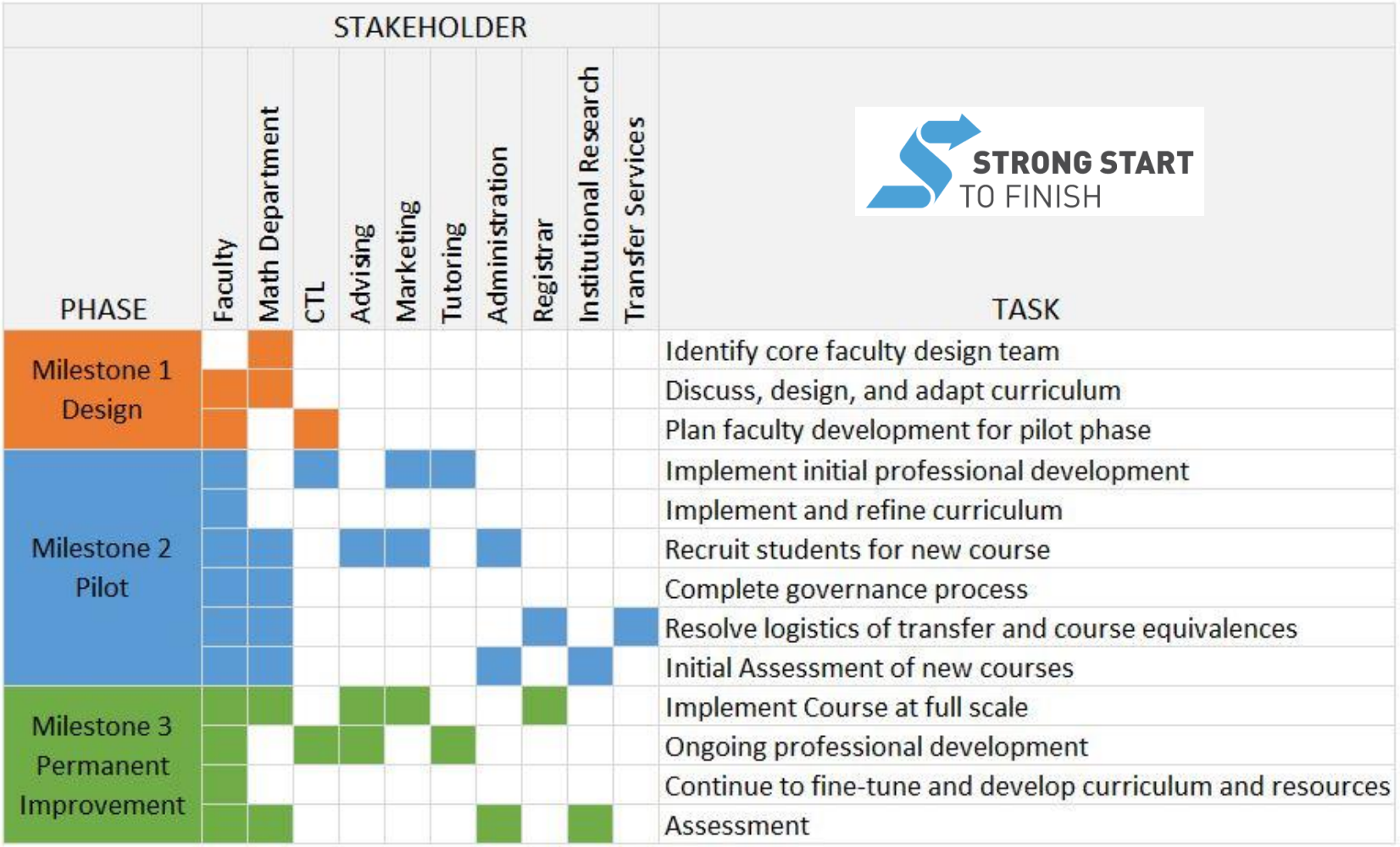

STRONG START TO FINISH

LaGuardia Community College

CUNY

THE PAST

In 2012, we began the process of reimagining our pathway from developmental to college level math.

Implemented the Carnegie Math Pathways Quantway program in Fall 2013

THE PRESENT

Since 2013, enrollment in QW has increased over 60% and success rates have increased from 55% to 72%

Faculty continue to be highly involved with Carnegie Math Pathways NIC through curriculum and assessment development as well as faculty mentorship

THE FUTURE

In 2018, math faculty from Minnesota State formed the DESR committee to develop student learning outcomes for a course that will lead to a college level Quantitative Reasoning or Statistics course

Much of this work is being guided by the outcomes that Ridgewater College has developed in conjunction with Quantway

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Next Steps

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