Florida Mathematics Re-Design

Articulation Coordinating Committee, February 27, 2019

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The Florida College System

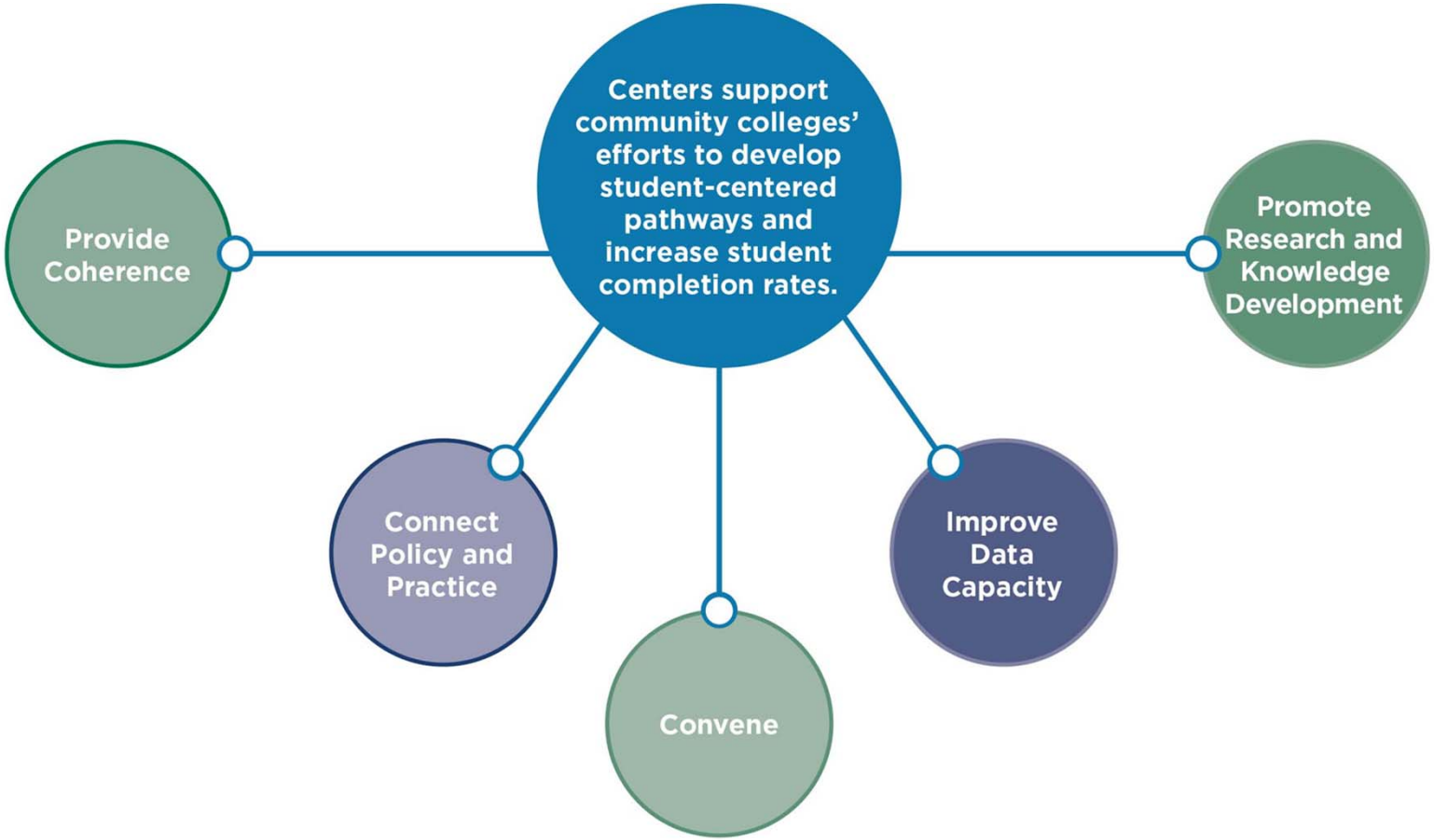
Student Success Center — An initiative of the Florida College System

State University System of Florida — Board of Governors

Florida Student Success Center's Role and Vision

- The role of the Florida Student Success Center is to support institutional initiatives that improve college completion rates and promote student success.
- The vision of the Florida Student Success Center is to *serve as a resource of evidence-based, innovative practices and timely information for colleges*.

Pillars of Statewide Student Success Centers



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Mathematics Workgroups

Why Focus on Mathematics?

- Nationally, hundreds of thousands of students **fail** higher education math courses each year.
- Math is the most **significant academic barrier** to postsecondary attainment—particularly for **students of color.**
- To ensure that all students achieve momentum to earn a college degree, we must **work together** to redesign pathways and courses, modernize content and instruction and eliminate barriers.
- To that end, Florida high school, college and university faculty are collaborating on a statewide initiative to **close achievement gaps** and improve **student success in mathematics**.

Source: Dana Center Mathematics Pathways

Mathematics Workgroups

High School to Postsecondary Alignment

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

Milestones

Defining the Challenges	Prioritizing the Challenges	Gathering Information	Linking Challenges & Solutions	Prioritizing Solutions	Policy Recommendations & Evidence-Based Practices
Milestone 1 *Complete*	**Milestone 2** *Complete*	**Milestone 3** *Complete*	**Milestone 4** *Complete*	**Milestone 5** *In progress*	**Milestone 6** *April 2019*
Administer survey to on key challenges & synthesize findings	Prioritize the challenges and assign members to huddles—smaller working groups	Identify factors contributing to challenges, evidence & drivers or root causes	Brainstorm & evaluate potential solutions to the challenges previously identified	Propose and prioritize formal recommendations	Identify policy recommendations and evidence-based practices

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Defining the Challenges

High School & Postsecondary Alignment – Challenges

- Communication channels between K-12 and postsecondary
- Traditional assessments
- Differences between the K-12 and postsecondary environments
- Certification, training and employment of math teachers/counselors in secondary education

FCS Mathematics Sequences – Challenges

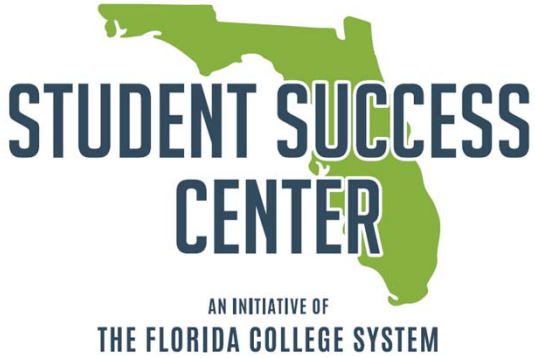
- Requirements at the state level are too broad
- Differentiation at local levels
  - Many developmental education courses offered
  - Statewide course numbering too vague
  - Differences in course prerequisites
- Placement of students into the correct courses
- Student program changes

College to University Alignment – Challenges

- Differences in course prerequisites and course content
- Differences in learning outcomes based on meta-majors/programs of study
- Inconsistent course offerings between institutions
- Varying course modalities and instructional methods
- Student program changes

Next Steps

- Prioritizing solutions and presenting recommendations at June institute
  - Policy Recommendations
  - Evidence-Based Practices
- Participation in Conference Board of the Mathematical Sciences in May - High School to College Mathematics Pathways State Task Force
  - Responding to the changing role of mathematics in the economy
  - Ensuring college readiness today and tomorrow
  - Articulating the mathematical pathways that will serve all students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THANK YOU!