

First-Term Coursetaking

Hana Lahr
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Inspire Courses: Four Issues



Course content



Pedagogy



Scheduling



Advising

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The courses students take during their first terms matters because they can:

- Define the college experience
- Facilitate exploration of interests
- Provide hands-on learning experience relevant to career goals
- Provide opportunities to connect with other students and faculty
- Demonstrate the value of investing in higher education

Many students do not take inspiring first-term courses

- Students self-advise
- Advisors recommend “safe” general education courses
- Students are unable to access program level courses because of developmental education

**What courses
are Associate of
Arts students
taking in
their first term
of enrollment?**



What courses are students in our programs taking in their first term?

#1 Enrolled Program

Liberal Arts and Sciences – Associate in Arts (N = 1300 students)

Rank	Course Title	Course ID	# of program students who took the course	% of program students who took the course
1	INTRODUCTION TO PSYCHOLOGY	2012	254	19%
2	FRESHMAN ENGLISH I	1101	250	19%
3	HUMAN ANATOMY/PHYSIOLOGY I	1085C	248	19%
4	FIRST-YEAR EXPERIENCE SEMINAR	1106	241	18%
5	INTRO TO MICROCOMP/WINDOWS	1100C	180	14%
6	FUND OF SPEECH COMMUNICATION	2608	164	13%
7	INTERMEDIATE ALGEBRA	1033	146	11%
8	AMERICAN GOVERNMENT	1041	128	10%
9	COLLEGE ALGEBRA	1105	126	10%
10	GENERAL SOCIOLOGY	2000	90	7%
>10	2 other different courses attempted by at least 1 student from this program			

What courses
are **General
Studies**
students taking
in their first
terms that
“light the fire”
for learning?

General Studies (7606) (N = 316 students)

Rank	Course Title	Course ID	# of program students who took the course	% of program students who took the course
1	English Composition I	ENGL 101	141	44.6%
2	Effective Speaking	COMM 101	83	26.3%
3	General Psychology	PSYC 101	55	17.4%
4	College Algebra	MATH 103	38	12.0%
5	Intro to Software for Business	CIS 105	37	11.7%
6	Critical Connections: Rdg/Wrtg	ENGL 057	36	11.4%
7	College Success	FS 100	34	10.8%
8	Intro to College Experience	FS 102	31	9.8%
9	Healthful Living	HLTH 101	26	8.2%
10	Introduction to Business	BUSI 101	23	7.3%
>10	136 other different courses attempted by at least 1 student from this program			

What courses are **biology** students taking in their first terms that “light the fire” for learning?

#3 Program

Biology AS (N = 200 students)

Rank	Course Title	Course ID	# of program students who took the course	% of program students who took the course
1	INTRODUCTION TO COMPOSITION	ENG101	150	75%
2	STUDENT SUCCESS	COL101	143	72%
3	INTRODUCTION TO PSYCHOLOGY	PSY101	124	62%
4	MATH FOR LIBERAL ARTS	MAT101	103	52%
5	INTRODUCTION TO SOCIOLOGY	SOC101	89	45%
6	STATISTICS	MAT120	86	43%
7	ETHICAL REASONING	PHL102	70	35%
8	CONTEMPORARY LITERATURE	ENG110	41	21%
9	INTRODUCTION TO CRIMINAL JUSTICE	SOC130	40	20%
10	BIOLOGY 1	BIO101	36	18%
>10	21 other different courses attempted by at least 1 student from this program			

What courses are dual enrollment students taking in their first term?

Dual Enrollment/Dual Credit |

(N = 2019 students)

Rank	Course Title	Course ID	# of program students who took the course	% of program students who took the course
1	English Composition I	ENGL 101	1038	51.41%
2	United States History to 1865	HIST 103	196	9.71%
3	College Algebra	MATH 103	176	8.72%
4	General Psychology	PSYC 101	169	8.37%
5	Healthful Living	HLTH 101	79	3.91%
6	Effective Speaking	COMM 101	74	3.67%
7	Intro to American Government	PSPL 101	68	3.37%
8	Introduction to Business	BUSI 101	60	2.97%
9	US History: 1865 to Present	HIST 104	55	2.72%
10	Medical Terminology for HC	AH 105	52	2.58%
>10	118 other different courses attempted by at least 1 student from this program			

**What do you think are
the most commonly
first-term taken
courses at your
college?**

Program Momentum



Program Momentum Matters

- Programs speak to a student's "why" for enrolling
- Program momentum predicts program completion
- Program data is close to practice and actionable
- Efficient and successful transfer requires alignment to baccalaureate fields and programs

Metrics for Improvement: Momentum as a Leading Indicator

Early Academic Momentum

Gateway Course Momentum

Completed college math/English in year 1

Persistence and Course Completion

- Fall-Spring Persistence
- Course completion rate in year 1

Credit Momentum

Completed 24+ college credits in year 1


Concentration into program areas

Accumulating credits in a subject area

Early Program Momentum



Longer-Term Outcomes

 You Are Here

Working Paper & Research Brief: Toward a Practical Set of STEM Transfer Program Momentum Metrics

1. Can a simple set of STEM momentum metrics predict students' long-term outcomes at a similar or superior level to widely-used general early momentum metrics?
2. Are these STEM momentum metrics reliable across a wide variety of institutional contexts and student groups, particularly those who are historically underrepresented in STEM?
3. To what extent do these metrics reflect students' intent to study STEM, student success within STEM, and institution-specific efforts to support STEM pathways?

Key Findings

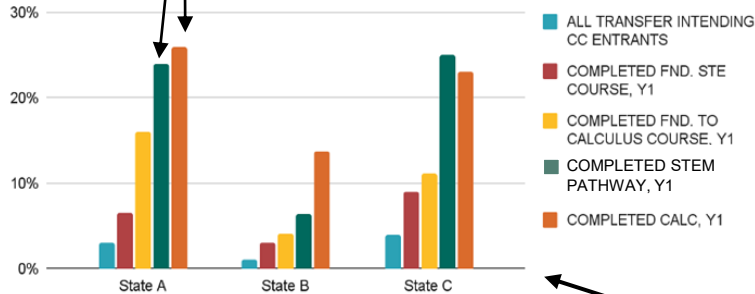
- ***Building STEM momentum benefits students;*** Correlation with longer-term STEM outcomes are reliable across states and student subgroups.
- ***Findings provide validation of faculty-recommended courses on state transfer pathways;*** STEM indicators appear to capture momentum beyond signaling STEM intent
- ***Few students gain STEM Momentum;*** Gender & racial/ethnic gaps present in access to/completion of STEM Momentum courses in year 1 across and within colleges

STEM vs. General Academic Momentum Metrics

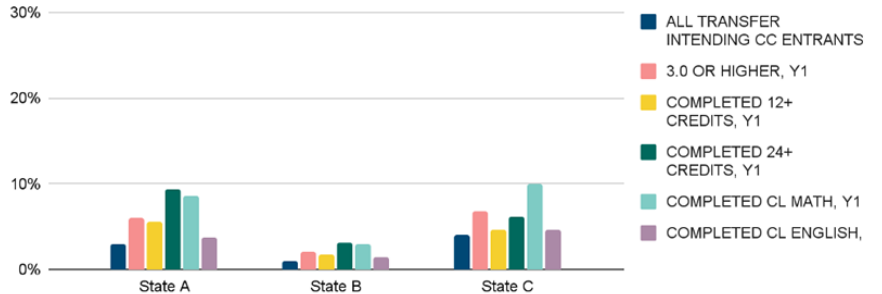
STE Pathway & Calculus most correlated with STEM bachelor's completion across states

Percent of Students Completing a STEM BA in 6 Yrs

Conditional on STEMentum Progress



Conditional on Early Momentum Progress

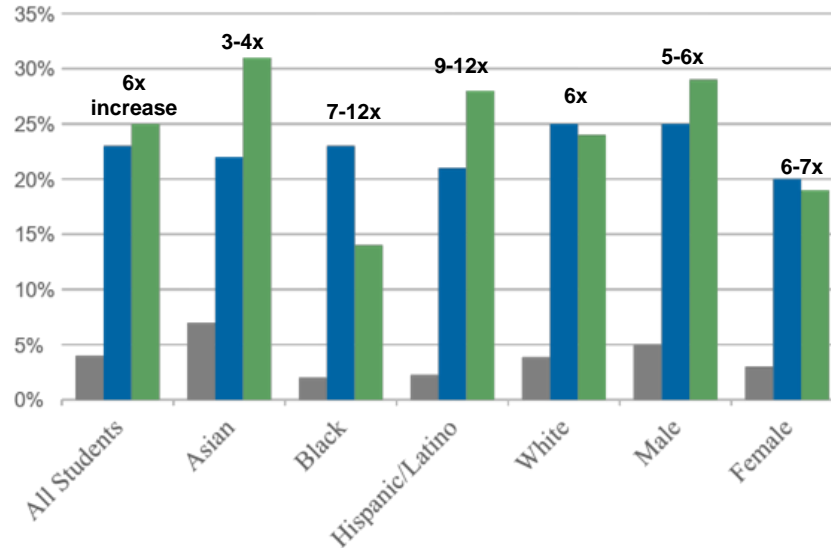


Early STEM Momentum Metrics stronger correlates of STEM bachelor's completion than general momentum metrics

Benefits of Early STEM Momentum Reliable across Student Groups

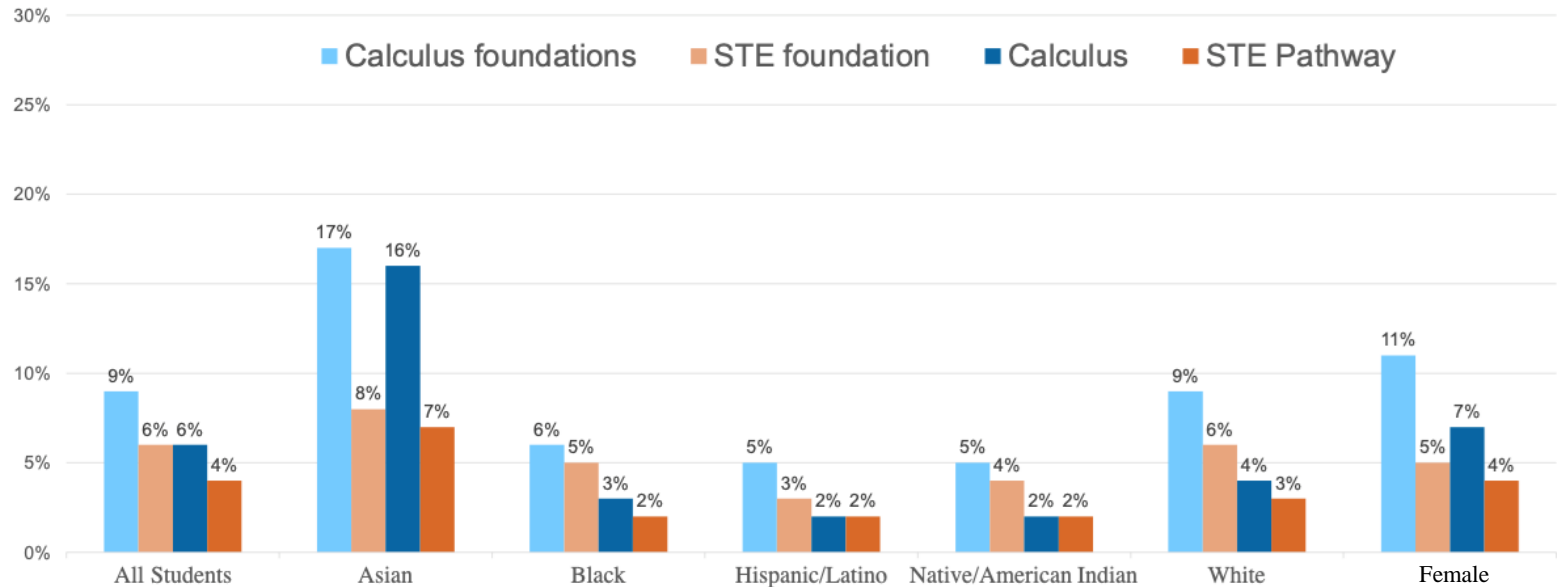
STEM Bachelor's Completion Rates in 6 years (State C)

- (Baseline) All transfer-intending CC entrants
- Students who completed calculus in year 1
- Students who completed STE pathway in year 1



Few Students Gain STEM Momentum, Equity Gaps Present Early

Disaggregated Completion of STEM Coursework in Year 1 at Community College (State C)



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Next steps

1. List the top-enrolled programs of study (top 10 or so)
2. For each program, list the top courses taken by students in those programs.
 1. How many students took those courses?
3. Bring these data to your program areas for discussion
 1. How do they align with the program requirements/maps?
4. What are the barriers to helping more students take program courses in their first term?

Thanks!