Student Pathways Impact on Course Demand and Momentum Year

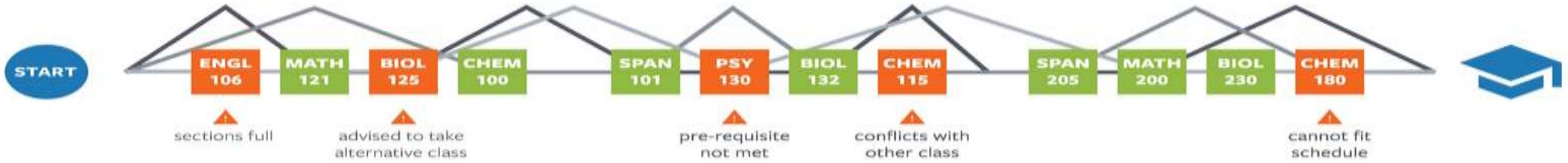
Pathways

- A highly structured approach to student success
- A set of clear course-taking patterns that promotes better enrollment decisions and prepares students for future success.
- Serves as framework to apply academic history for planner analysis
- Represent the idealized way for students to complete a program of study.

Pathway Progress

Example: On Path Student

Example: Off Path Student



Pathways Maturity Model

Defining Pathways
Laying the groundwork

- Create model/sample pathways templates for desired programs
- Refine course sequences using data analytics
- Identify key milestone courses

Analyzing Pathways
Initial Scale Implementation

- Ensure pathways are digitized or imported
- Analyze pathways for alignment to scheduling practices
- Recommend key changes that may be necessary to support scale implementation of pathways

Scheduling for Pathways
Improved Scale Implementation

- Use pathways/planner demand to align pathways with scheduling
- Add simulated students for planning
- Evaluate initial scale implementation for improvement

Pathways Ecosystem
Ongoing Improvement

- Integrate advising, scheduling, and registration
- Ensure continuous improvement through data analysis (first year momentum, productive credits)

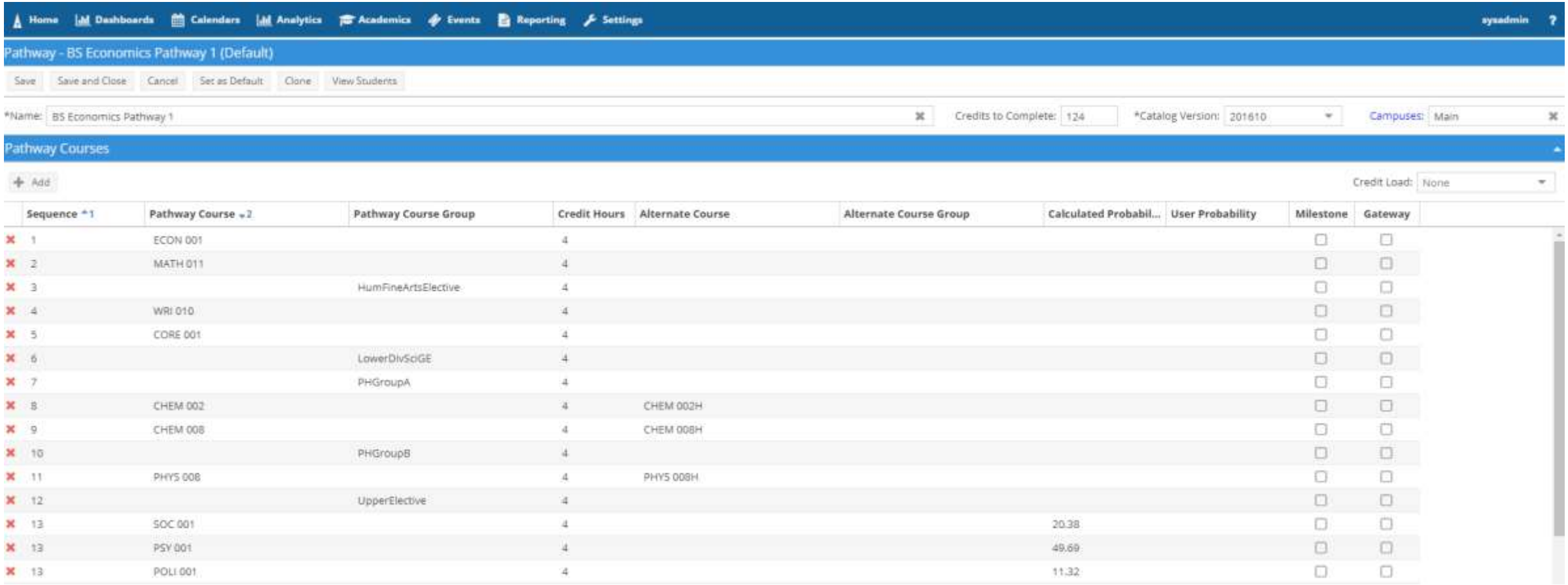
What are Student Planners?

- Student and/or advisor facing systems
- Wide range of functionality
  - Can build degree templates/pathways and assign to students as a starting point
  - Auto-update a student's progress each semester
- Data footprint of planned courses/pathways and are much less complicated than degree audit
- Data gaps
  - New students
  - # of students who participate in planning
  - # of students who complete plan

Plans/Pathway Data Integration Approach

Student Planner Data Integration Institution has a Student Planner System	Pathways Data Integration Institution does NOT have a Student Planner
• Student and/or advisor plans courses for terms in a system	• Institution has sequences for programs of study but does not have student plan data
• Import student planned AND pathways data	• Import pathways data
• Apply student planned data in student progress analysis	• Apply academic history to pathways in student progress analysis
• Supplement student planned data using pathways and academic history (as necessary)	
• Student plan is completed (for analysis term and future terms)	• Student plan is completed (for analysis term and future terms)

Sample Pathway



	Sequence	Pathway Course	Pathway Course Group	Credit Hours	Alternate Course	Alternate Course Group	Calculated Probabil...	User Probability	Milestone	Gateway
✖	1	ECON 001		4					☐	☐
✖	2	MATH 011		4					☐	☐
✖	3		HumFineArtsElective	4					☐	☐
✖	4	WRI 010		4					☐	☐
✖	5	CORE 001		4					☐	☐
✖	6		LowerDivSciGE	4					☐	☐
✖	7		PHGroupA	4					☐	☐
✖	8	CHEM 002		4	CHEM 002H				☐	☐
✖	9	CHEM 008		4	CHEM 008H				☐	☐
✖	10		PHGroupB	4					☐	☐
✖	11	PHYS 008		4	PHYS 008H				☐	☐
✖	12		UpperElective	4					☐	☐
✖	13	SOC 001		4			20.38		☐	☐
✖	13	PSY 001		4			49.69		☐	☐
✖	13	POLI 001		4			11.32		☐	☐

Velocity Metrics and Terms

- **Degree Velocity** – This is the average 'productive' hours completed divided by the goal annually. Measured as a percentage. Example: Student completes 24 hours. 21 apply to the degree. The goal is 30 hours per year. Degree velocity = 21/30 or 70%

- **Time to Degree –** For active students, this is the estimated time to completion of the degree based on remaining hours and assuming the student(s) stay on the same pace and in the same pathway. Estimated Time to Degree = 2.8 years. For graduated students, this is the actual time to completion. Time to Degree = 2.5 years.

- **Total Velocity** – This is the hours completed divided by the goal annually. Measured as a percentage. Student completes 24 hours versus the goal of 30 hours. Overall velocity = 24/30 or 80%

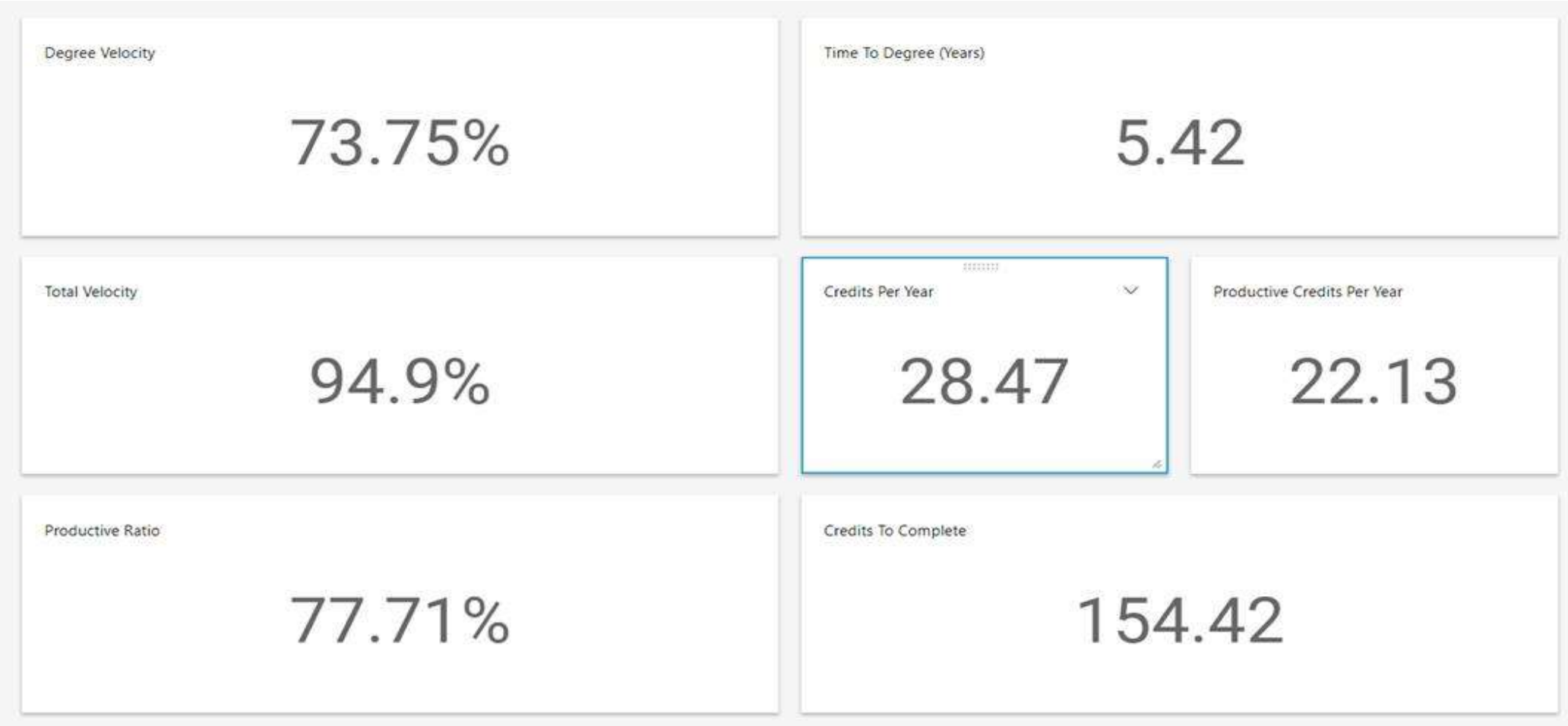
Velocity Metrics and Terms

- **Productive Ratio** – This is the productive hours completed divided by the overall hours completed. Measured as a percentage. Student completes 21 hours that apply to the degree and 24 hours overall. Productive ratio = 21/24 or 87.5%

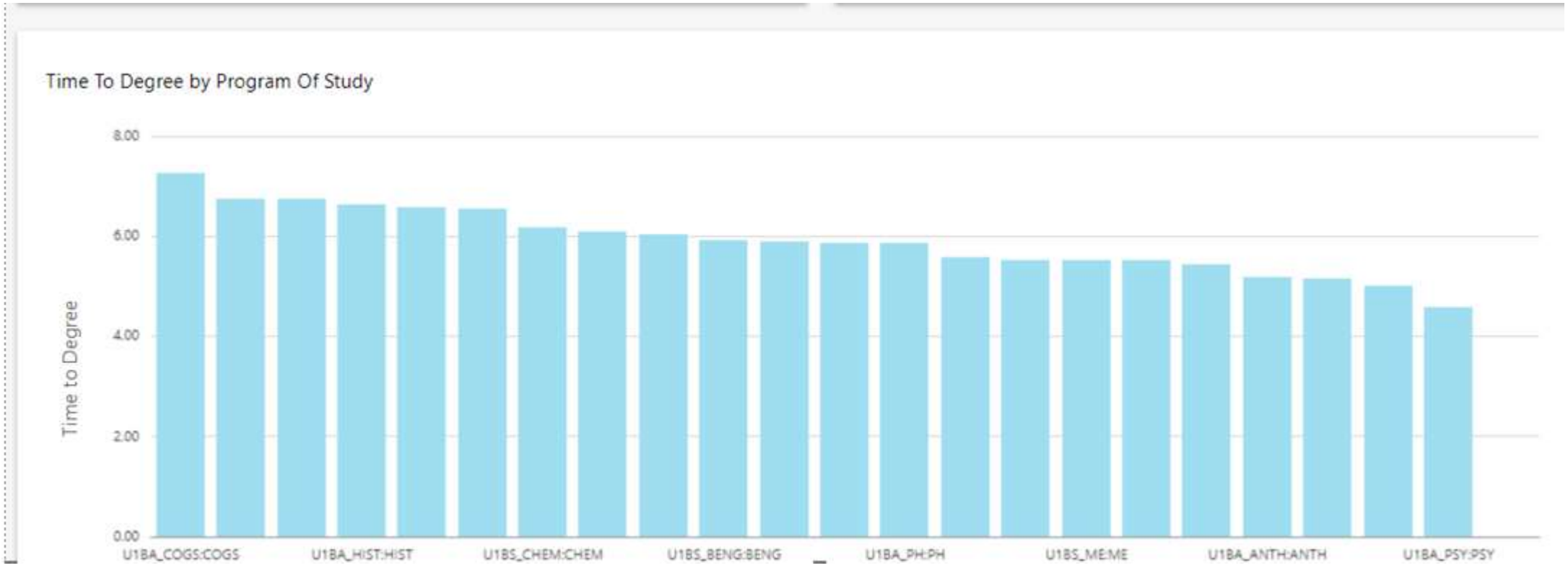
- **Credits Per Year** – This is the average credit hours a student completes in a year.

- **Credits to Complete –** This is the average total completed credits per student for their degree program. Most undergraduate degrees require 120 hours. If a student only completes 75% productive credits each year, then they will end up taking 125% of the credits required for a degree.

Degree Velocity Metrics



Velocity and Completion by Program



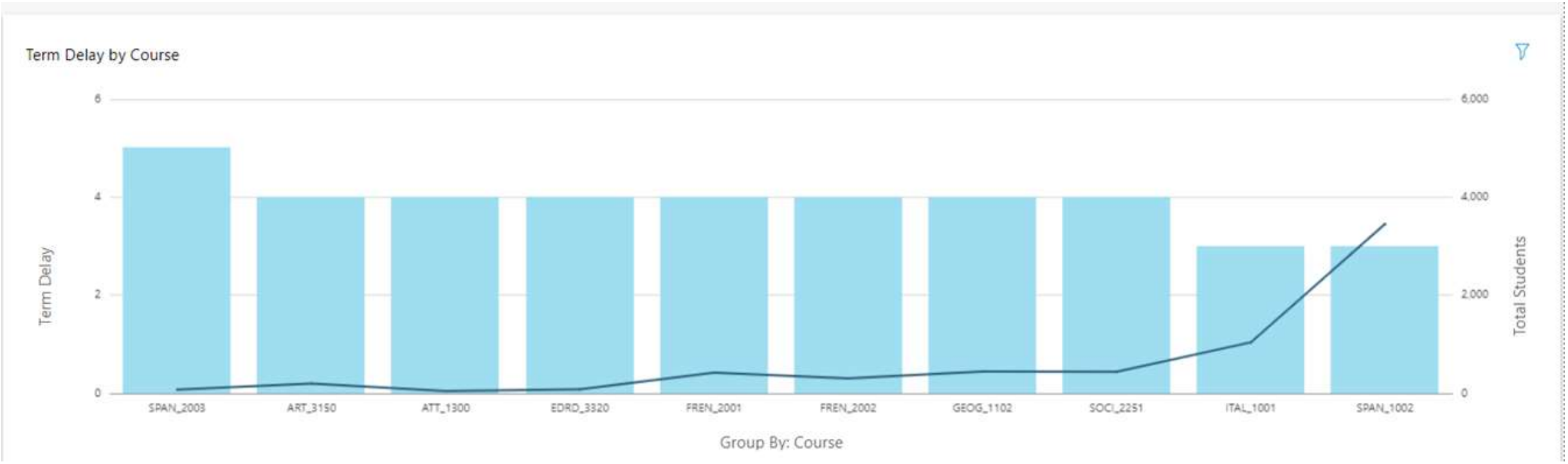
Bottlenecked Courses from Pathways

- How are Pathway course bottlenecks different from those generated from Platinum Analytics in the past?
    - Pathways provide guidance on when the institution prefers for the students to take a course
    - Reviewing actual course completions provide insight into the variance
    - Example – CHEM 001 should be taken in term 1; but most students take the course in term 3
    - Scope of students impacted is also important
    - Causality – Course availability? Advising? Student behavior?
- Establishes direct link between course access issues and degree velocity

Identifying Impact of Course Bottlenecks

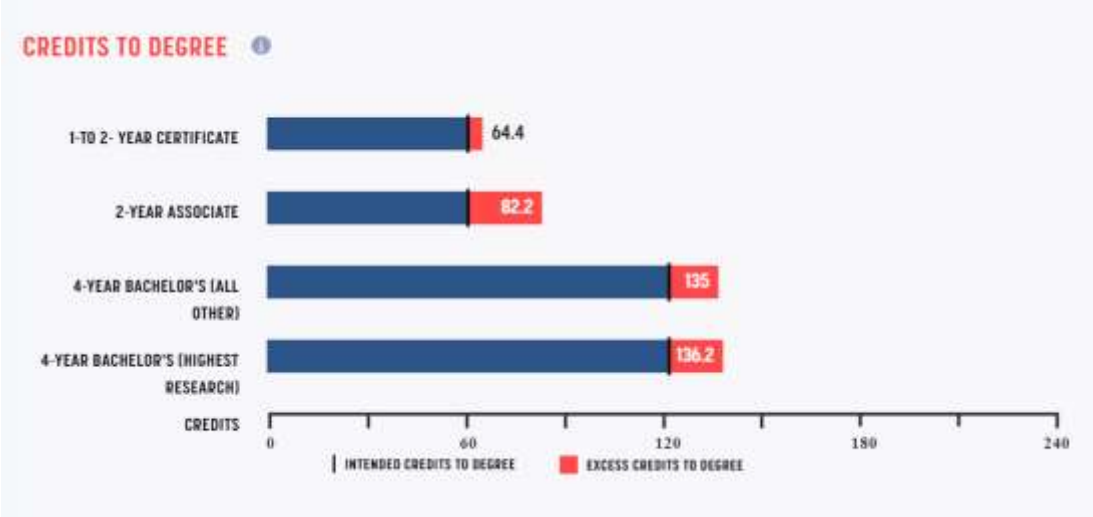
Course Bottlenecks (Term Delay)

Examining Pathway Effectiveness

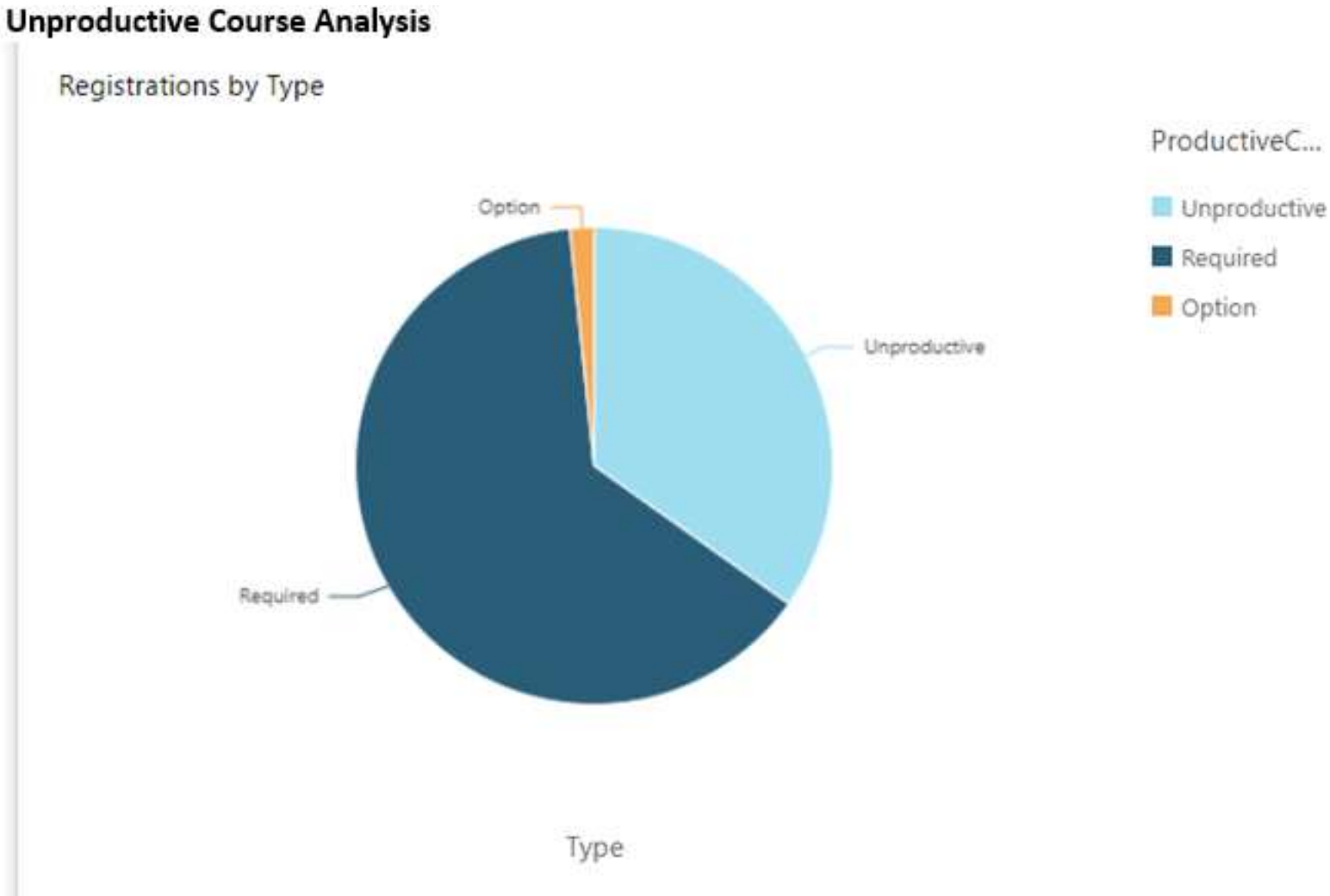


Excess Credits

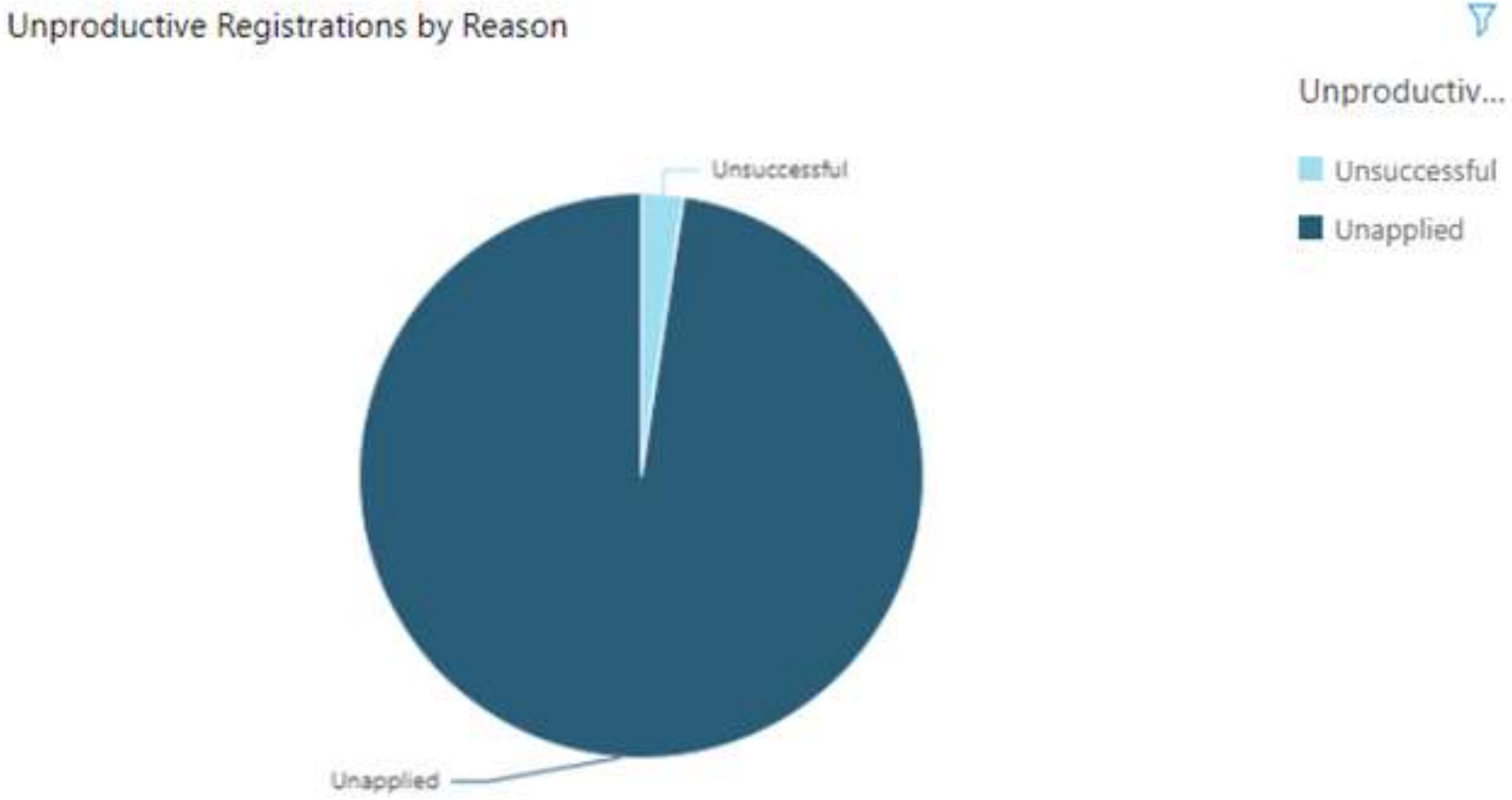
- Courses that are taken but do not apply to degree completion
  - Unsuccessful – credits attempted but not earned
  - Not applied – credits earned but do not apply to the degree
    - Change of major
    - Advising
    - Student behavior



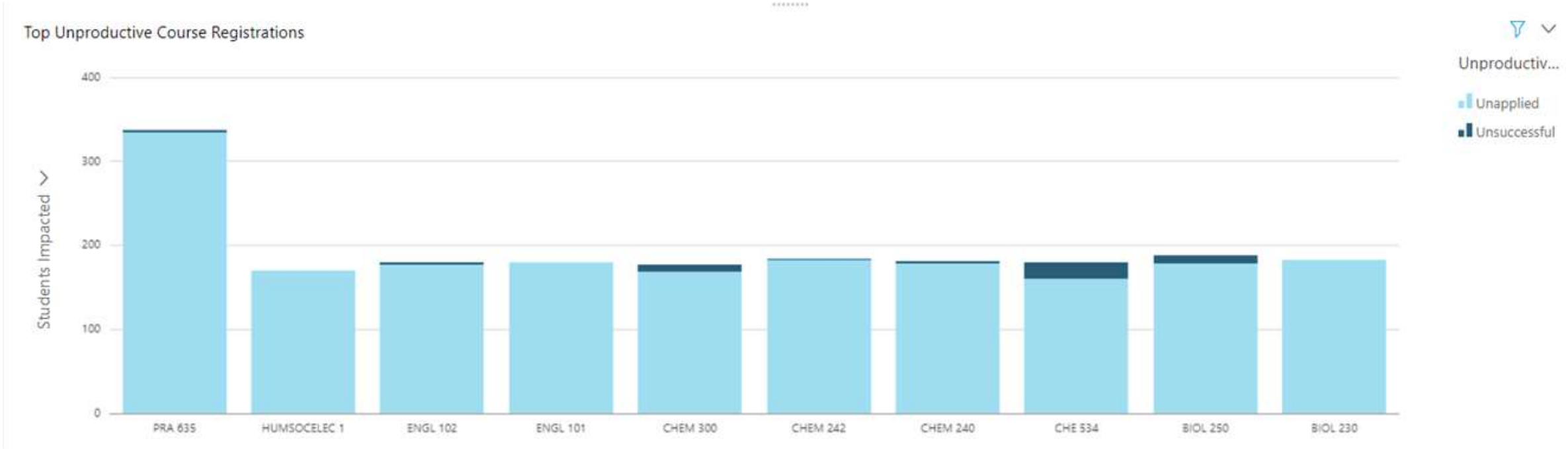
Excess Credit Analysis



Excess Credit Analysis



Excess Credit Analysis



Momentum to Completion

Questions?

What is Momentum Year?

Momentum Year Metrics include completion of:

- Core English
- Core Math
- Nine credits in the student's academic focus area
- 30 credits in their first year

Why is it important?

"Data show that *time*, not tuition, is the enemy of college completion."

– Stan Jones, President of Complete College America, 2012

https://www.washingtonpost.com/opinions/obamas-tuition-plan-fallsshort/2012/02/02/gIQANouznQ_story.html?noredirect=on&utm_term=.378cd3bb4339

Momentum Impact on Graduation

Figure 4: Impact of Finishing 30 Credit Hours the First Year on Graduation Rates of Student Cohorts at Kentucky's Public Universities

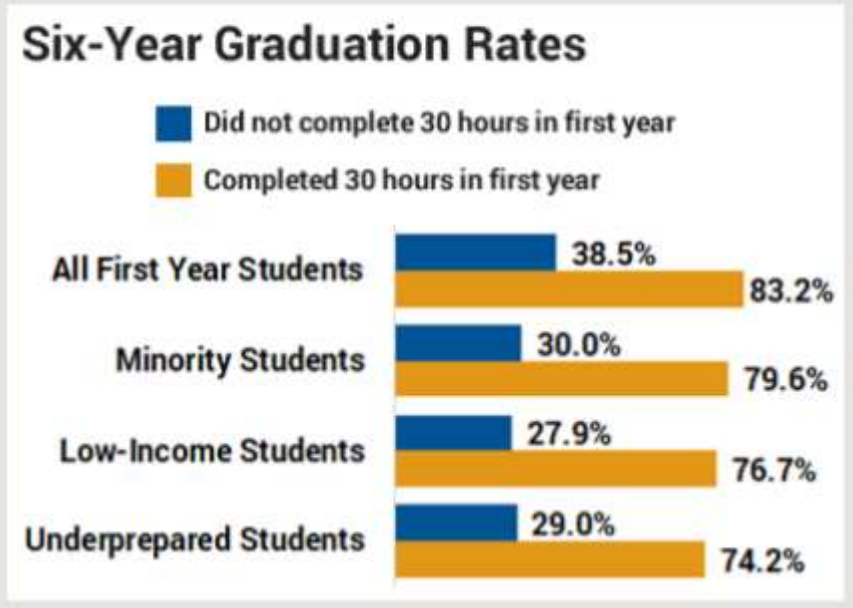
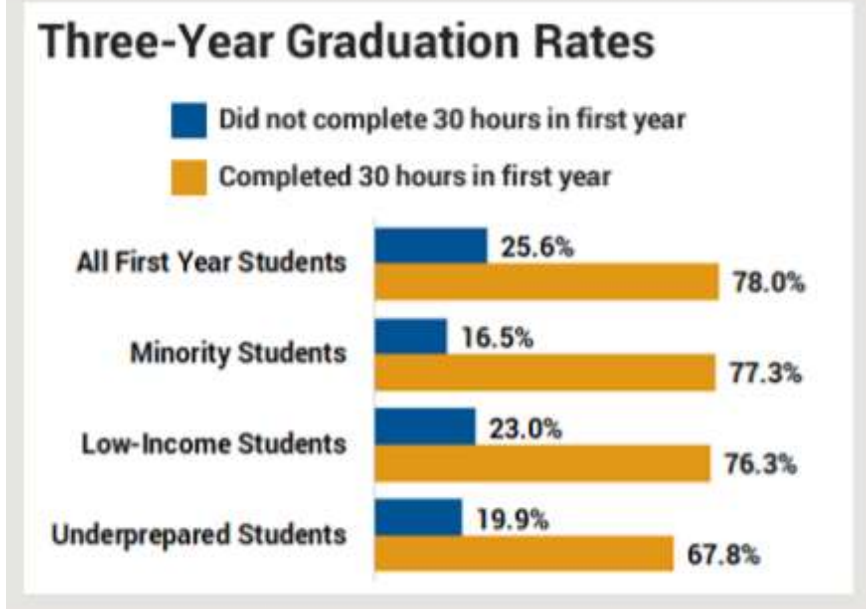
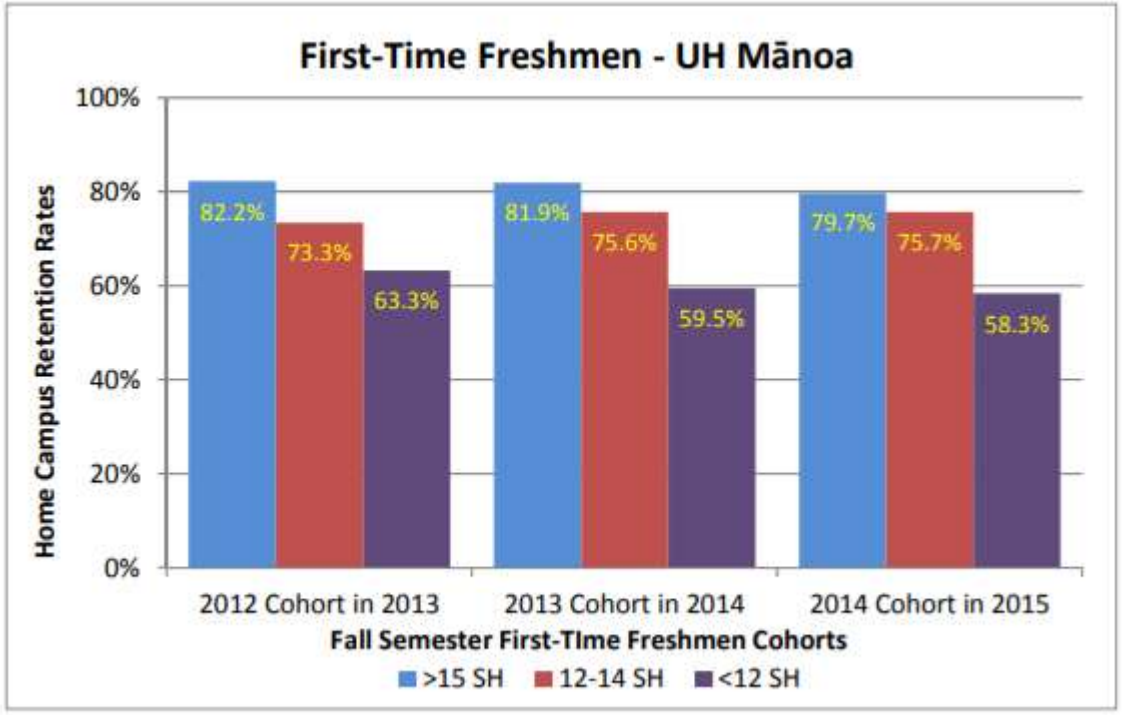


Figure 5: Impact of Finishing 30 Credit Hours the First Year on Graduation Rates of Student Cohorts at KCTCS



http://cpe.ky.gov/data/reports/academicmomentumreport.pdf

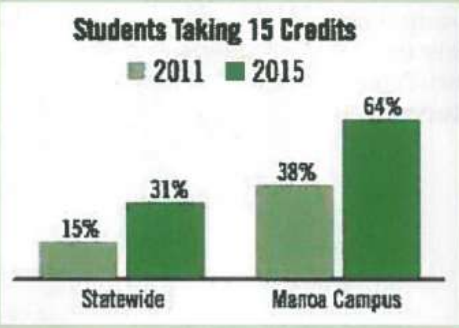
Momentum Impact on Retention



Want to graduate more students on time?

The **University of Hawai'i**, where 15 to Finish originated, launched an aggressive marketing campaign to inform students of the importance of taking 15 credits per semester or 30 credits per year. In just one year, the state saw double-digit increases in the percentage of students taking 15 credits.

At the Manoa campus, the percentage of students taking 15 credits jumped from 38% to 64%.



COMPLETE COLLEGE AMERICA

http://15tofinish.com/wp-content/uploads/2016/08/15toFinish_Summary_Fall-2015_v3.pdf

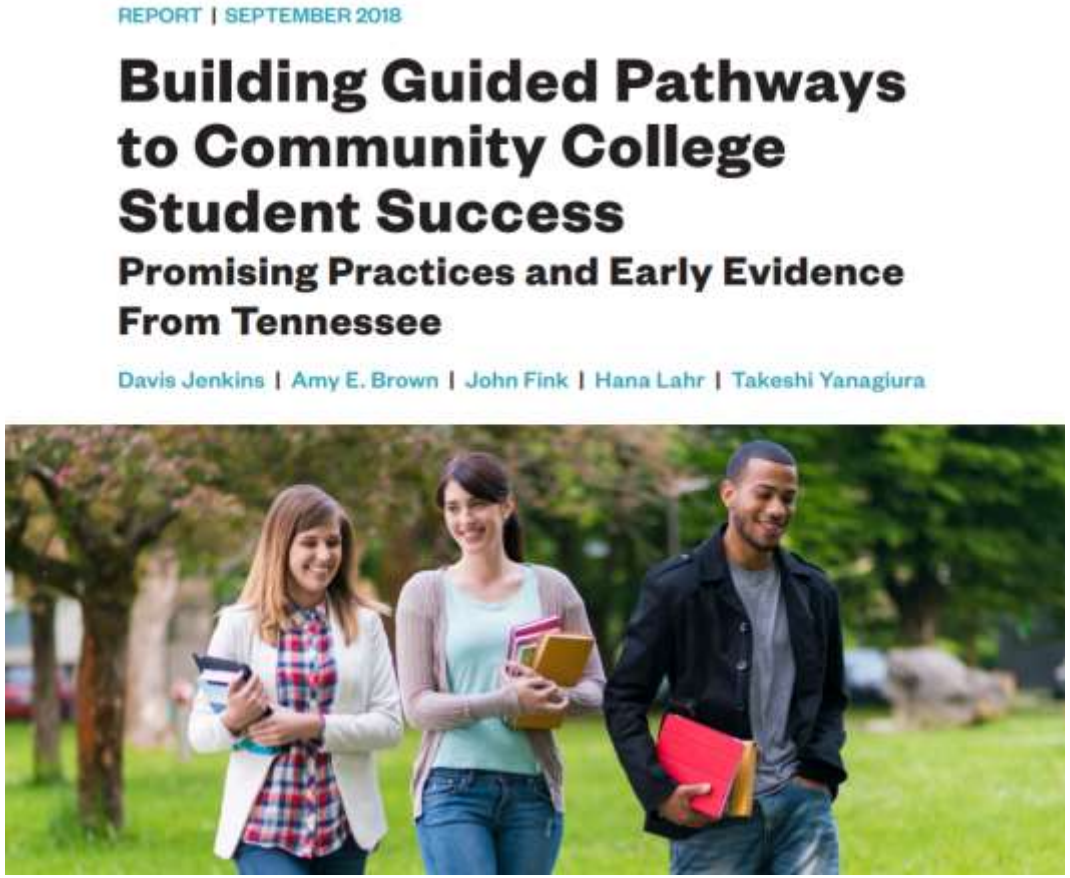
Financial Impact of Momentum Year

Effects* of Taking at least 30 Credits in 1st Year on Six-Year Outcomes

Tennessee Board of Regents Institutions, FTEIC Fall 2008 Cohort

	Community College Students	University Students
Additional credits earned	22	27
Probability of degree attainment	18pp (25% vs. 43%)	19pp (38% vs. 57%)
Tuition and fees per degree	-20%	-20%
Expenditures per degree	-14%	-23%
Tuition and fees avg.	+$1,740	+$4,890

*Adjusted results, controlling for student characteristics; Source: Belfield, Jenkins, Lahr, 2016.



https://ccrc.tc.columbia.edu/media/k2/attachments/building-guided-pathways-community-college-student-success.pdf

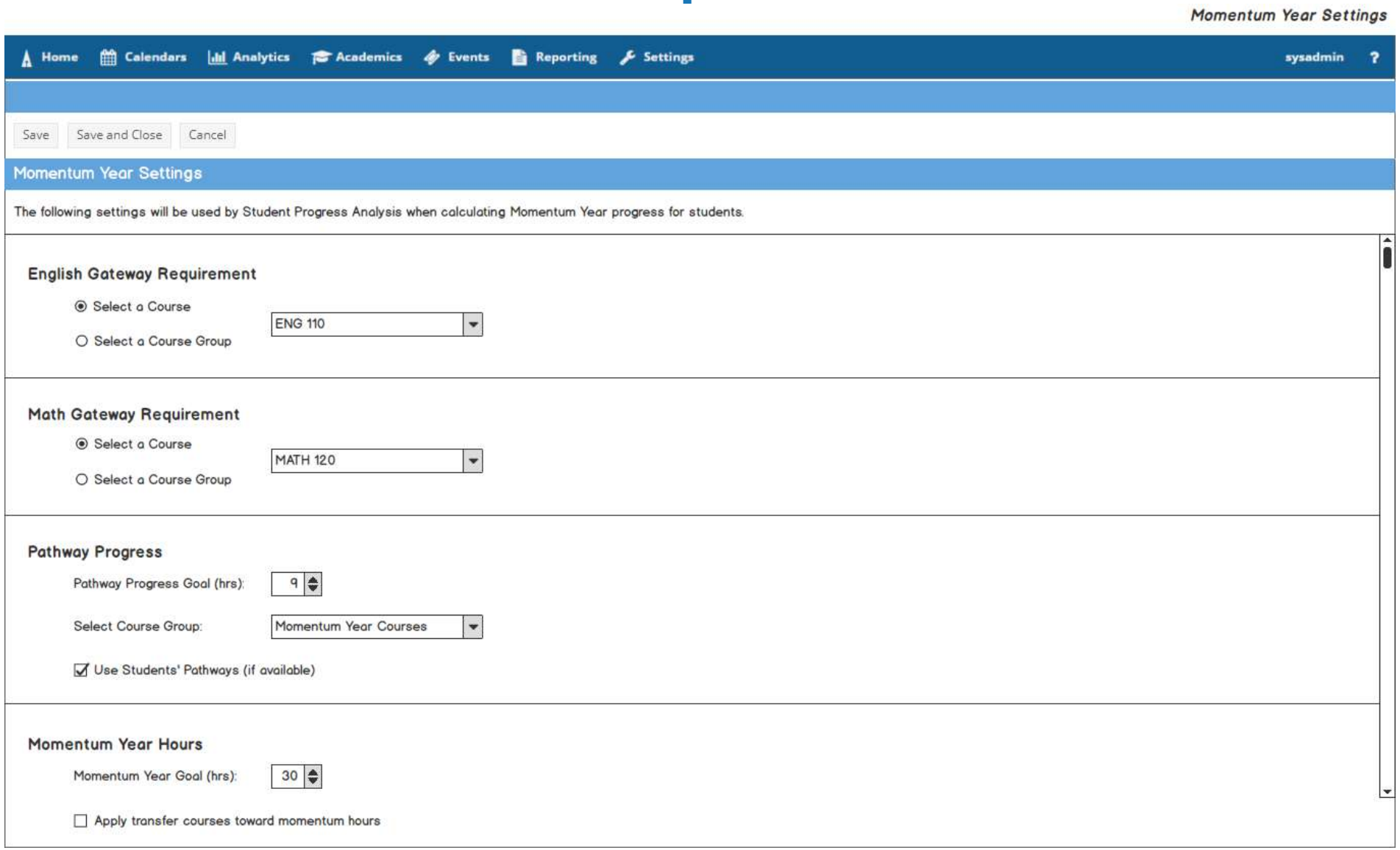
Momentum Year – Additional Links

- https://completecollege.org/strategy/momentum-year/
- https://ccrc.tc.columbia.edu/media/k2/attachments/early-momentum-metrics-college-improvement.pdf
- http://www.wvhepc.edu/national-higher-education-experts-join-state-leaders-to-launch-college-completion-campaign/

Momentum Year Goals

- Momentum Year intervention strategies
  - Provide waypoints (spring term registration and summer term registration) that allow an institution to intervene and get students on track
  - Provide student specific data on at-risk students to tailor communications
- Benchmark Momentum Year metrics
  - Compare metrics within a single institution
  - Compare metrics across institutions

Momentum Year Setup

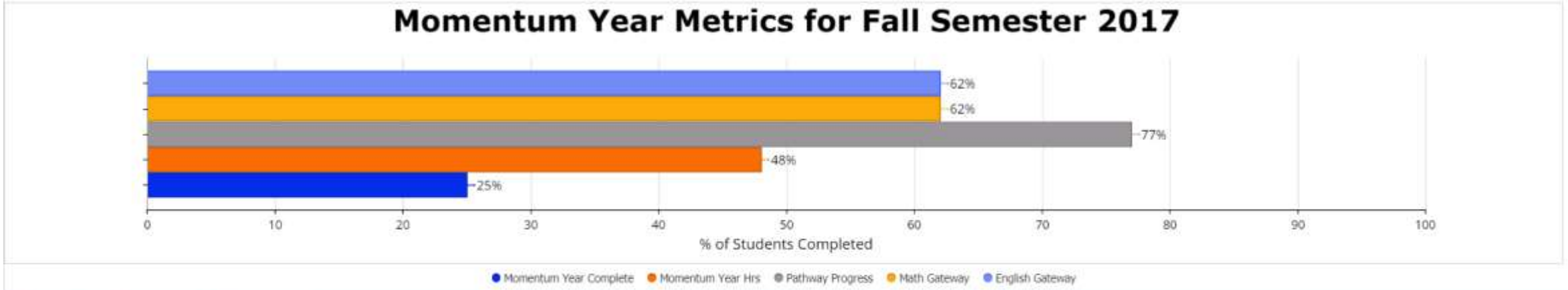


Momentum Year Results

Home | Dashboards | Calendars | Analytics | Academics | Events | Reporting | Settings | sysadmin | ?

Momentum Year Report

Select Start Term: 201708 | Total Students: 5484



Students At Risk (Momentum Year Complete)

Last Name ^1	First Name	ID	Program	Major	Pathway	English Gateway	Math Gateway	Pathway Progr...	Momentum Year Hours	Hours Completed
Aanenson	Geralyn	5517905	BUBBA_MK	MK		Yes	Yes	Yes	No	25
Abair	Stuart	5522362	BUPHD_FI	FI		No	No	No	Yes	75
Abarquez	Elizabet	5556350	EHEDS_SCO	SCO		No	No	No	No	24
Abbo	Edward	5557291	BUBBA_PMK	PMK		No	No	Yes	No	9
Abdelrahim	Marielle	5549742	BUEDB	EDB		No	No	No	No	18
Abesamis	Rosalind	5544354	ASAB_AN	AN		Yes	Yes	Yes	No	28
Abfall	Rubin	4575266	ASMS_BGY	BGY		Yes	Yes	Yes	No	26

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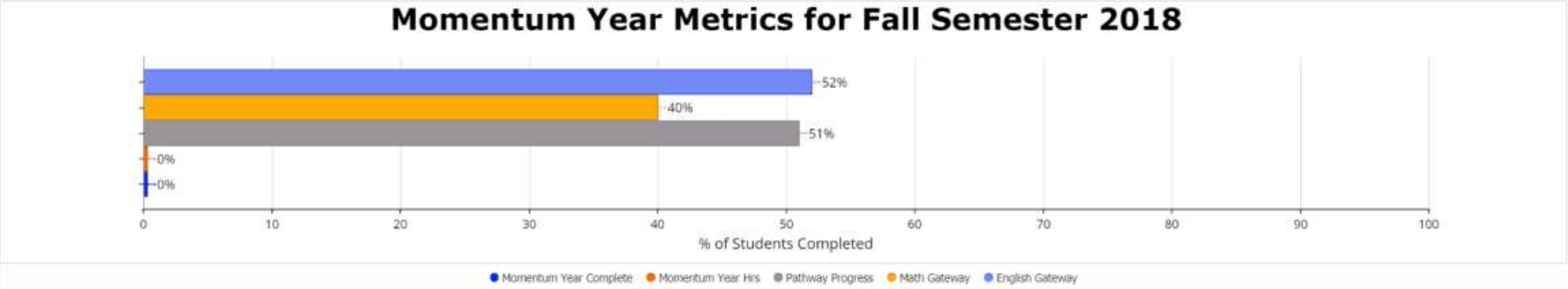
Momentum Year Results

Home | Dashboards | Calendars | Analytics | Academics | Events | Reporting | Settings | sysadmin | ?

Momentum Year Report

Select Start Term: 201808 | Total Students: 8098



Students At Risk (Momentum Year Complete)

Last Name	First Name	ID	Program	Major	Pathway	English Gateway	Math Gateway	Pathway Progr...	Momentum Year Hours	Hours Completed
Aaberg	Ara	5604236	BUMSIS	CIS		No	No	No	No	25
Aadland	Randal	5600478	BUBBA_P00	P00		Yes	No	Yes	No	12
Aalfs	Daryl	5509463	NS00_0001_2	0001		Yes	Yes	Yes	No	9
Aalfs	Tresa	5599937	ASBS_PCSC	PCSC		No	Yes	Yes	No	13
Aarhus	Raymon	5623149	ARAB_PFMM	PFMM		Yes	Yes	No	No	15
Ab	Issac	5629144	ARAB_ART	ART		Yes	Yes	Yes	No	12
Abadilla	Mitch	5602482	EH00_0001_6	0001		No	No	Yes	No	15

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