

APLU/USU Webinar
July 25, 2023

Demystifying Evidence-Based Student Success Research

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AT GEORGIA STATE UNIVERSITY



What are the components of a good study?

1. The intervention tries to solve a well-defined, important problem
2. There is evidence that the intervention works
3. The data needed to further assess the intervention is available or attainable
4. The evaluation approach is sound and appropriate
5. The intervention is scalable



Improving an
existing intervention:
Advising

5,760

Students Who Dropped Out
Of Georgia State in 2011



Georgia State: GPS Advising



Predictive Analytics Project with EAB

10 YEARS
OF DATA

2.5 MILLION
GRADES

144,000
STUDENT RECORDS

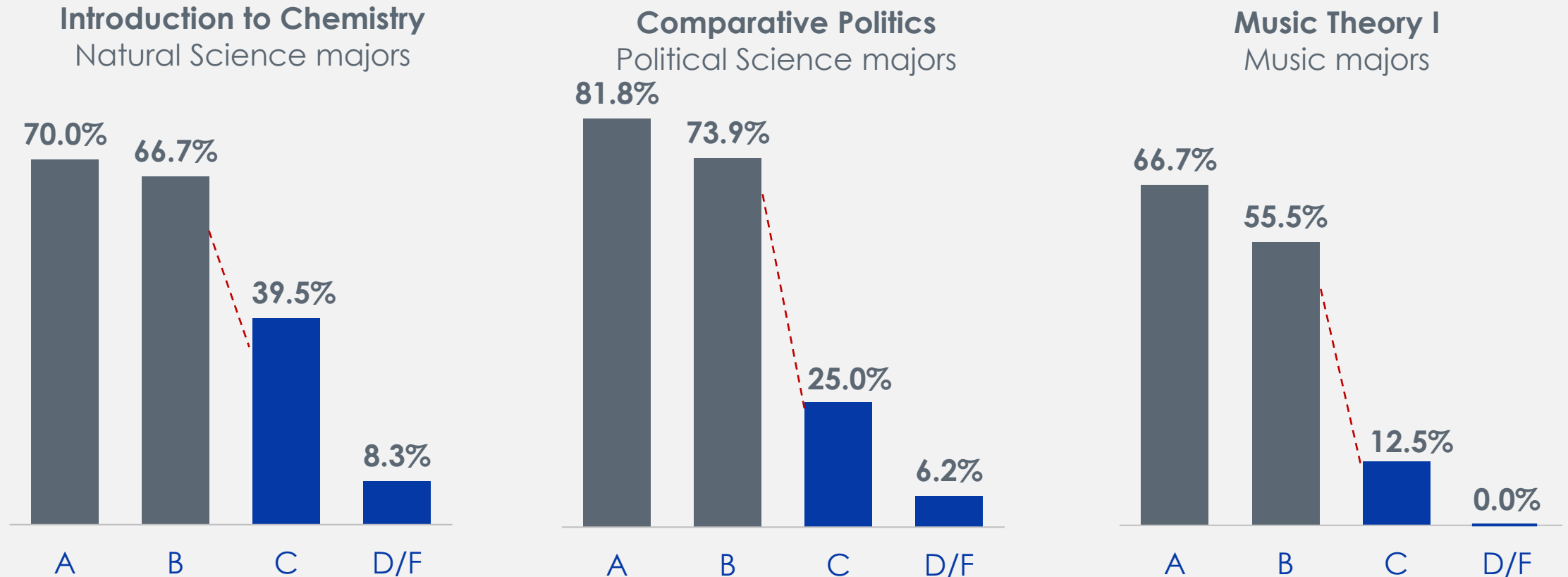
800+
ANALYTICS-BASED
ALERTS

30,000 STUDENTS
TRACKED **DAILY**

Performance in 'Marker' Courses



Graduation Rate in Major by Introductory Course Grade



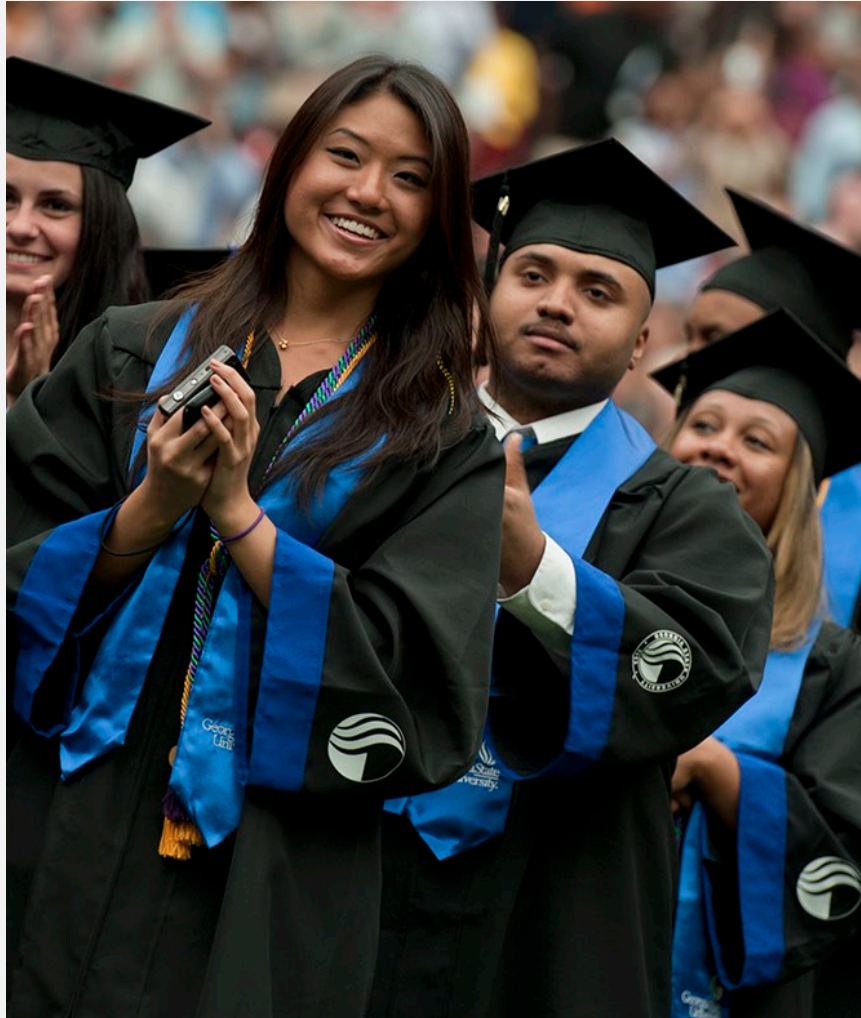
Registration Tracking and Academic Maps



B.S. in Chemistry

SEMESTER 1	SEMESTER 2
<ul style="list-style-type: none">Complete 1 of ENGL 1101, ENGL 1102 or ENGL 1103 (C or Better)Complete MATH 1113 or Higher (B- or Better)Complete CHEM 1211K (B- or Better)	<ul style="list-style-type: none">Complete ENGL 1102 or 1103 (C or Better)Complete MATH 2211 or Higher (B- or Better)Complete CHEM 1212K (B- or Better)Maintain a cumulative GPA of 2.25 or Better
SEMESTER 3	SEMESTER 4
<ul style="list-style-type: none">Complete CHEM 2400 (B- or Better)Complete MATH 2212 (C or better)Complete PHY 2211k (C or better)	<ul style="list-style-type: none">Complete CHEM 3410 (C or better)PHY 2212k (B- or Better) (C or better)Maintain a cumulative GPA of 2.25 or Better
SEMESTER 5	SEMESTER 6
<ul style="list-style-type: none">Complete CHEM 4000 with a C or BetterComplete CHEM 4110 with a C or Better	<ul style="list-style-type: none">Complete CHEM 4010 with a C or BetterComplete CHEM 4120 with a C or Better
SEMESTER 7	SEMESTER 8
<ul style="list-style-type: none">Complete CHEM 4160 with a B- or better	<ul style="list-style-type: none">Complete CHEM 4190 with a C or Better

Outcomes since launch of new advising model



4-Year Graduation Rate
Since 2011: **+13 Points**

2010-11:	2019-20:
4,222	7,758

INCREASE:
3,536 (+84%)

Bachelor's Degrees Awarded by Group



	2009-10	2019-2020	Change	% Change
African American	1,001	2,213	+1,212	+121%
Pell	1,298	3,626	+2,328	+179%
Hispanic	196	654	+458	+234%



How do we show causation?

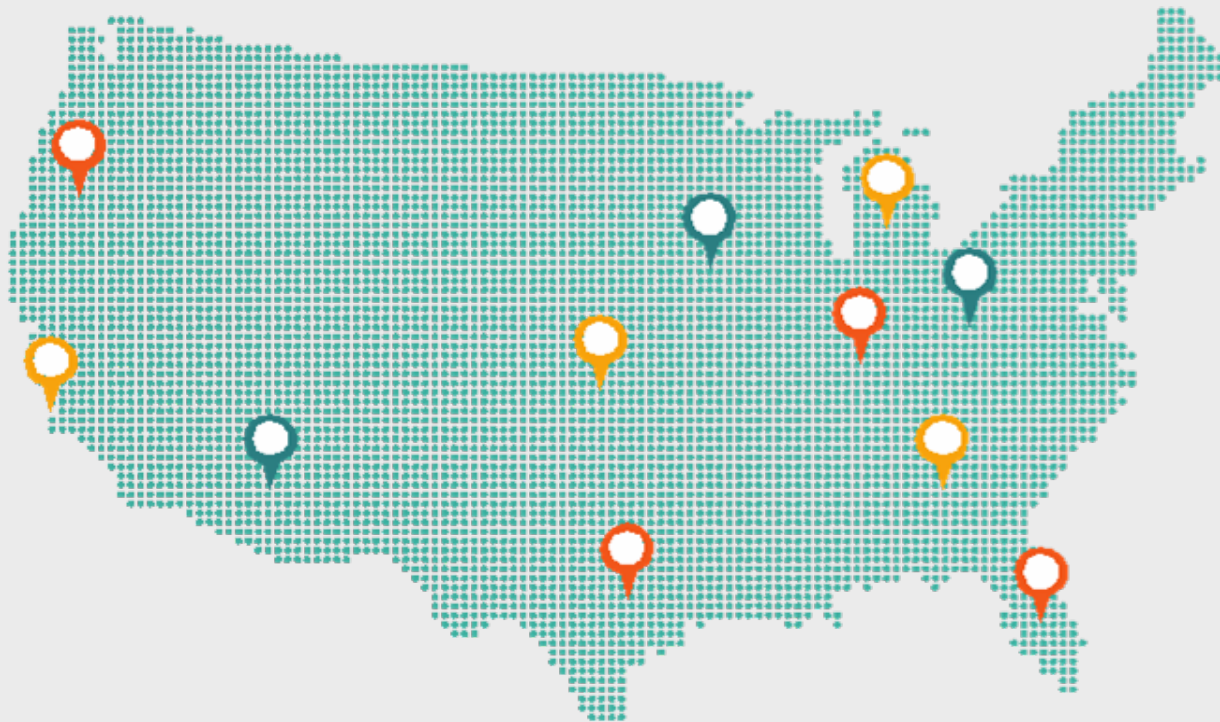




MAAPS

- \$8.9 Million “First in the World” Grant
- 10,000+ Low Income and First Generation Students Tracked
- **Random Control Trial and Implementation Study** Using Independent Evaluator

UNIVERSITY INNOVATION ALLIANCE



- Arizona State University
- Georgia State University
- Iowa State University
- Michigan State University
- The Ohio State University
- Oregon State University
- Purdue University
- University of California-Riverside
- University of Central Florida
- University of Kansas
- University of Texas at Austin

MAAPS Advising Components

- Regular Monitoring of Students for Analytics-Based Risk Factors
- Personalized Academic Degree Planners (Maps)
- Proactive Advising Interventions
- Control Group received “business as usual” advising



MAAPS Data Collection

Uniform Tracking of the Advising Interventions And Student Outcomes



1

Y-M-D
YYYY-MM-DD

Registration or Program Review
 Advising System Alert
 Regularly Scheduled Advising
 Early Alert or Instructor Initiated
 Student Initiated

What prompted contact with the student? [reset](#)

In Person
 Email
 Telephone
 Group
 Online
 Text
 Other (Describe in comments) [reset](#)

Advised to seek academic support
 Advised to correct schedule
 Advised to declare or change major
 Advised about progression issues
 Advised to adjust course balance
 Advised to see instructor
 Advised to seek academic coaching
 Advised to seek departmental or faculty guidance
 Advised to address financial issues
 Advised to address non-financial collegiate requirements
 Advised to seek career counseling and service
 Advised to seek engagement opportunities on campus
 Advised to see professional counselor
 Advised to seek disability services on campus
 Advised to see medical professional
 Advised to schedule an appointment
 Advised about recommended schedule
 Other (Describe in comments)

Check all that apply.



The Impacts of Proactive Advising: MAAAPS

MAAPS RCT Impacts at Georgia State

After Six Academic Years

Graduation Rate of Treatment Group: **+7 percentage points**

Graduation Rate of Black Students in Treatment Group:
+15 percentage points

Source: Ithaka S+R, 2023



Scaling a new technology: Chatbots



19%

Percent of Confirmed Freshmen Who Did Not
Enroll Summer 2015

Fall 2015

Confirmed GSU Freshman Who
Never Attended Any College: **278**

Non-white **76%**

First Generation **45%**

Low Income **71%**

Avg. High School GPA **3.34**



A.I.-enhanced Chatbot: 24/7 Help



Which parent do I use on the FAFSA?
Jan 19 2017 6:38:13 PM

For info on which parent's information to use on the FAFSA, reply with the option that best describes your parents' marital status: Never Married Unmarried and both parents living together Married Remarried Divorced/Separated Widowed If none of these options are applicable, check out 1.usa.gov/1OgfTcg

Approved by AdmitHub AI

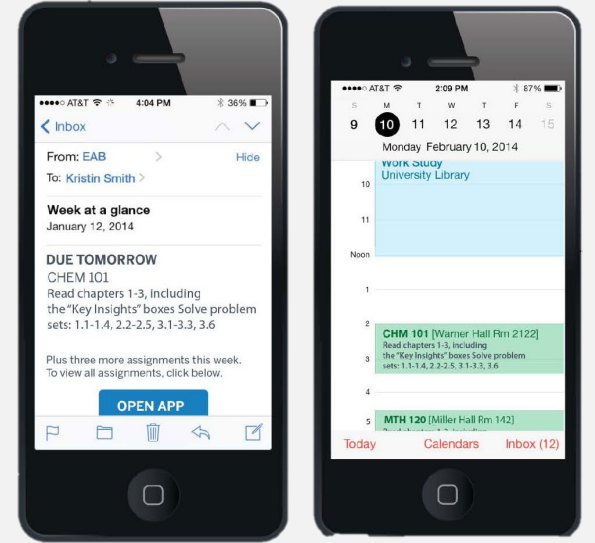
Divorced
Jan 19 2017 6:38:40 PM

If your parents are divorced, the custodial parent (or the one you lived with the most in the past 12 months) is usually responsible for filling out the FAFSA. Check out this website to learn more: 1.usa.gov/1OgfTcg

Approved by AdmitHub AI

OK and when is it due?
Jan 19 2017 6:39:07 PM

The FAFSA is available starting Oct. 1. Fill it out ASAP! (Use last year's tax info.) Some aid is first-come, first-served, so don't delay! fafsa.gov



185,000



One-Year Drop in
Summer Melt (RCT):

-21%

Gains mostly from
underrepresented
groups

Continuing Students

Randomized Control Trial results

Students who started the semester with a balance: **-49%**

Students with Account Balance

Who Opened a ticket with Financial Aid:
+33%

Students meeting with Advisor within one week of being contacted: **+28.5%**



Chatbot in Academic Courses

Fall 2021 RCT in American Government

Grade of “B” or higher: **+16%**

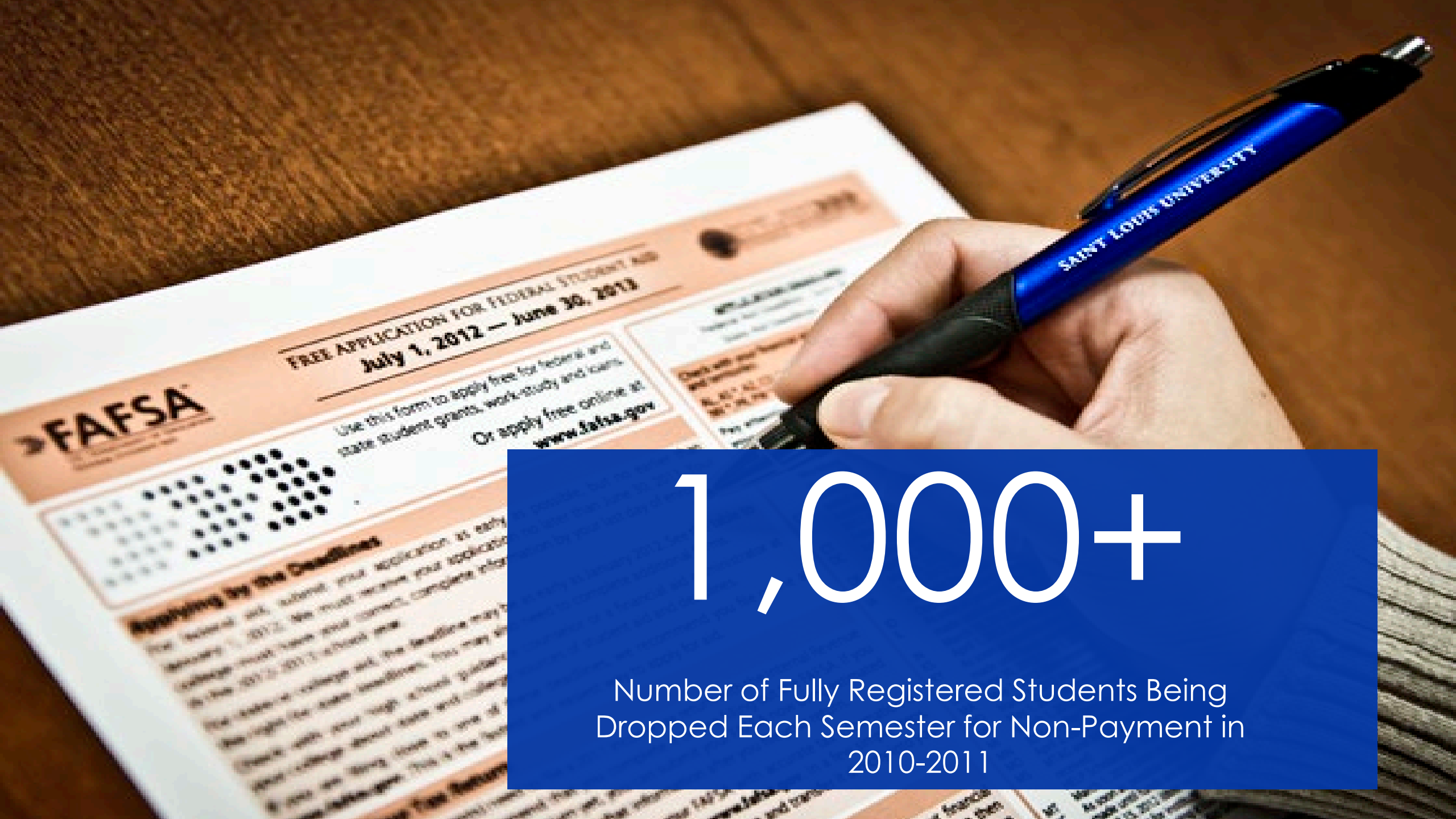
Final grades: **+7 points**

Final grades for first-generation students: **+11 points**

Overall Fall GPA: **+ 0.28 points**



Assessing a financial intervention: Completion Grants



FREE APPLICATION FOR FEDERAL STUDENT AID
July 1, 2012 — June 30, 2013

FAFSA

Use this form to apply free for federal and state student grants, work-study and loans.
Or apply free online at www.fafsa.gov

1,000+

Number of Fully Registered Students Being Dropped Each Semester for Non-Payment in 2010-2011

Financial Stop Outs



30% eventually graduate

Many with small balances, **\$300 or less**

Seniors at greatest risk

Panther Retention Grants



- Students close to graduating
- Making good progress
- Exhausted aid
- **No application needed**

**AVERAGE
GRANT**

\$900

Grants Awarded since
2011: **19,000**

80+% graduated



Graduation Rates by Financial Stop-Out Status, 2013-2021

<i>Term</i>	<i>Dropped Status</i>	<i># Students</i>	<i>1yr Graduated</i>	<i>2yr Graduated</i>	<i>3yr Graduated</i>	<i>4yr Graduated</i>	<i>5yr Graduated</i>	<i>6yr Graduated</i>
<i>Fall 2013</i>	Financial Drop	276	6%	12%	18%	21%	24%	25%
	No Drop	24583	23%	40%	53%	63%	67%	71%
<i>Fall 2014</i>	Financial Drop	324	3%	8%	11%	15%	16%	18%
	No Drop	24950	23%	40%	54%	64%	67%	71%
<i>Fall 2015</i>	Financial Drop	334	5%	10%	17%	22%	25%	28%
	No Drop	24638	24%	41%	55%	65%	68%	71%

Graduation Rates by Stop Outs for Seniors, 2013-2021

<i>Term</i>	<i>Dropped Status</i>	<i># Students</i>	<i>1yr Graduated</i>	<i>2yr Graduated</i>	<i>3yr Graduated</i>	<i>4yr Graduated</i>	<i>5yr Graduated</i>	<i>6yr Graduated</i>
<i>Fall 2013</i>	Fin Drop	110	12%	23%	27%	30%	31%	31%
	PRG Recipient	80	59%	68%	71%	74%	75%	76%
	Not Dropped	9024	56%	72%	77%	79%	79%	80%
<i>Fall 2014</i>	Fun Drop	107	8%	17%	22%	25%	27%	31%
	PRG Recipient	277	73%	80%	84%	85%	86%	87%
	Not Dropped	8591	58%	72%	77%	79%	80%	80%
<i>Fall 2015</i>	Fin Drop	109	14%	21%	29%	33%	35%	35%
	PRG Recipient	382	79%	85%	86%	88%	89%	88%
	Not Dropped	8338	59%	73%	78%	79%	80%	81%



Regression Discontinuity Analysis

Quasi-experimental analysis that seeks to determine the causal effects of an intervention by assigning a cutoff above or below which an intervention is assigned.

- Typically requires large data sets
- Provides less confident findings than an RCT
- Can be ethically preferable/necessary



Panther Retention Grants



85%

Senior grant recipients
graduating

-\$3,700

Average Debt at Graduation of
Panther Retention Recipients
Compared to Non-Recipients in the
Comparison Group

Source: Ithaka S+R, 2023

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2. There is evidence that the intervention works
3. The data needed to further assess the intervention is available or attainable
4. The evaluation approach is sound and appropriate
5. The solution is scalable

6. You partner with the right independent evaluator



An independent evaluator is a third party specializing in research methods that

- Helps design the research methodology for the proposal
- Helps implement the assessment portions of the study
- Helps determine conclusions and write progress reports and the final study



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<https://niss.gsu.edu>