



iie SUMMIT 2019

THE FUTURE OF
INTERNATIONAL
EDUCATION

FEB 17-19
GRAND HYATT | NYC



Making Evidence-Based Decisions: Using Data to Advance International Education

Organizational Data Use

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Workshop Agenda

- CASSIE Project Overview
- Laying the Foundation for Organizational Data Use
 - Table Work
 - Report Out
- Down in the Data Weeds: Using Org Data Responsibly and Effectively
 - Table Work
 - Report Out
- Building Organizational Data Capacity through Longitudinal Collection

CASSIE Consortium for the Analysis of Student Success through International Education



Funded by a FY 2017 Title VI International Research and Studies grant from the US Department of Education, Office of International and Foreign Language Education. All opinions expressed are those of the panelists.

What is CASSIE?

National collaborative led by the University System of Georgia to:

- Conduct rigorous research assessing contribution of international education to student success
 - Education abroad, foreign language study, Title VI programs
- Provide participating campuses info about how outcomes for students in international education compare to similar institutions
- Foster collaboration between campus IR and International Education offices to promote use of information to advance mission of both
- Create a sustainable consortium to expand scope after grant completed

CASSIE website: <https://www.usg.edu/cassie/>

Email: cassie@usg.edu

CASSIE Research Design

Focal
Experiences

- Education Abroad--duration, location, provider-type
- World Language Learning--number of courses, major, minor
- Intensive International Ed--FLAS, Flagship, etc.

Special
Populations/
Controls

- Need-Based Aid--Pell, Other
- Academic Major--STEM, pre-professional programs
- First-In-Family status
- Matching variables: Race/ethnicity, gender, HS GPA, SAT, etc.

Outcomes

- Timely Graduation
- Terms and Credits to Degree
- Credit completion ratio and GPA

CASSIE Data Collection Template

	Unique Identifier	IPEDS Institutional ID	Foreign Language	Foreign Language 1	Foreign Language 2	Foreign Language 3	Foreign Language 4	Education Abroad	Education Abroad Location	Was education abroad taught in English
Allowable Responses			Yes No	Course Acronym and Number	Course Acronym and Number	Course Acronym and Number	Course Acronym and Number	Yes No	IIE Country Code (see next tab)	Yes No Mix
Character Type	Numeric	Numeric	Text	Alphanumeric	Alphanumeric	Alphanumeric	Alphanumeric	Text	Numeric	Text
Character Length		6 digit							4 digit	
Example	1	139940	Yes	SPAN 1101				Yes	3280	Yes

Research Universities

- Augusta University
- Georgia State University
- Georgia Inst. of Technology
- University of Georgia

State Universities

- Albany State University*
- Clayton State University
- Columbus State University
- Fort Valley State University*
- Georgia College & State Univ.
- Georgia Southwestern St. Univ.
- Middle Georgia State Univ.
- Savannah State University*
- University of North Georgia



Comprehensive Universities

- Georgia Southern University
- Kennesaw State University
- University of West Georgia
- Valdosta State University

State Colleges

- Abraham Baldwin Agricultural Coll.
- Atlanta Metropolitan State College
- College of Coastal Georgia
- Dalton State College*
- East Georgia State College
- Georgia Gwinnett College
- Georgia Highlands College
- Gordon State College
- South Georgia State College

- 
- Central Michigan University
 - California State University-Long Beach*
 - Florida State University*
 - Guilford College*
 - Howard University*
 - Middle Tennessee State University
 - New York University
 - Tulane University
 - University of Alabama*
 - University of Arizona
 - University of Delaware
 - University of Iowa
 - University of Kansas
 - University of Kentucky
 - University of Massachusetts Amherst
 - University of South Carolina
 - University of Texas at Austin
 - Virginia Tech
 - Webster University

Preliminary USG Findings: Studying Abroad vs. Campus-only



DEGREE IN 6 YEARS

8.7pp

SA students are more likely (8.7pp) to graduate in 6 years compared with non-SA students.



CREDIT HOURS EARNED

3.22

SA students earn 3.22 more credit hours upon graduation compared with non-SA students, showing that SA students do not earn considerably more, or less, credit hours than non-SA students.



DEGREE IN 4 YEARS

10.1pp

SA students are more likely (10.1pp) to graduate in 4 years compared with non-SA students.



SEMESTERS TO DEGREE

-0.17

SA students finish their degree about 3 weeks faster than non-SA students, showing that study abroad slightly accelerates but does not delay graduation.



GPA AT DEGREE

.12

SA students earn a 0.12 higher GPA than non-SA students.



HOURS EARNED/ HOURS ATTEMPTED

[NSS]

No difference between SA and non-SA students.

Contribution to Policy and Practice

- Big data approach allows establishment of “causal” impacts of international education on outcomes of most concern today to administrators and policy makers
- Ability to show how impacts vary for important subpopulations:
 - Income, race/ethnicity, specific majors
- Critical in evaluation of curricular, student affairs, and financial aid policy that affect international education
- Essential in advocacy for institutional and government funding
- Outcomes for different international ed program types can suggest changes in emphasis for administrators

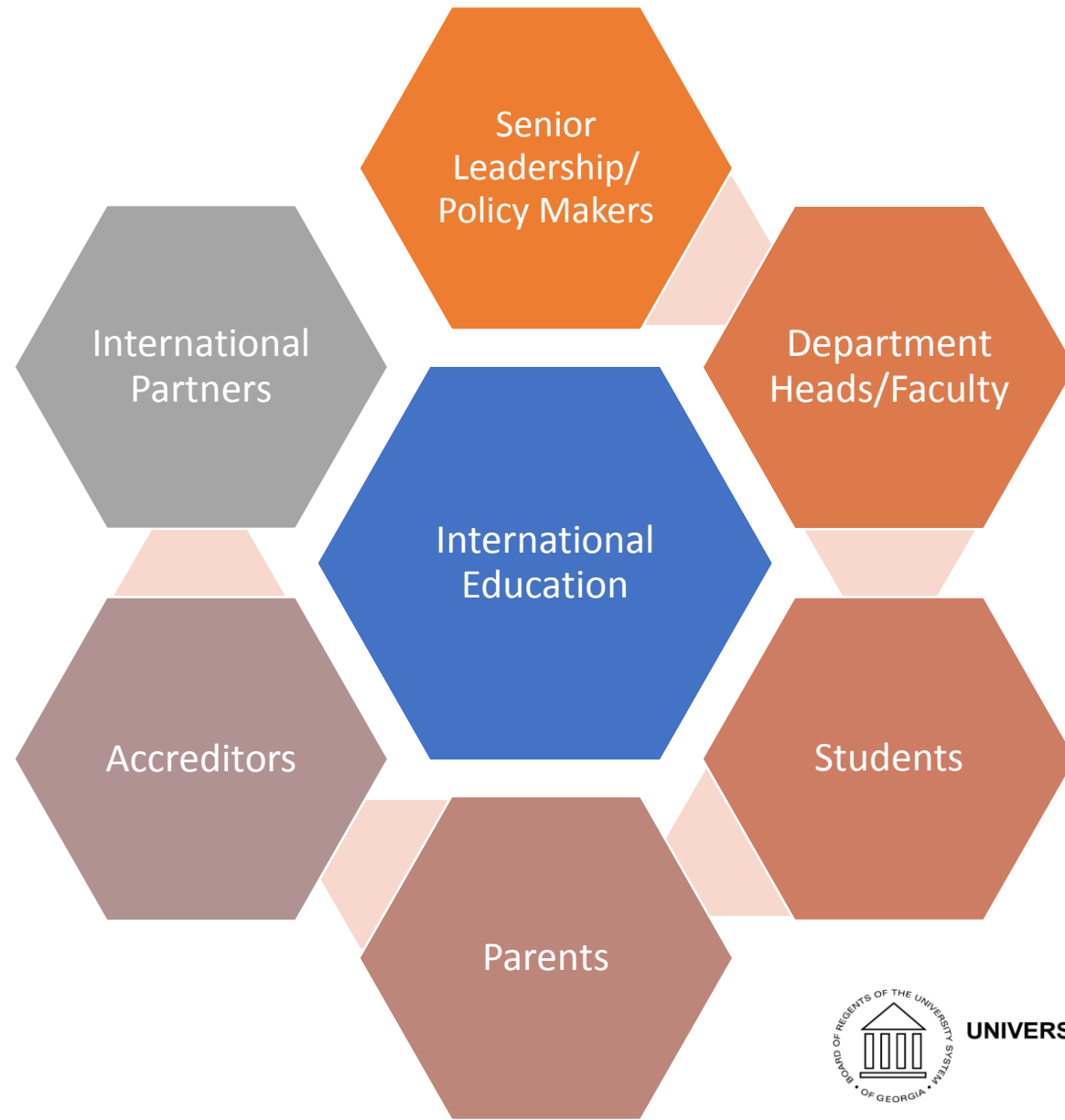
Laying the Foundation for Organizational Data Use

Stakeholder Analysis

- What are you trying to accomplish?
- Whom do you need to inform and what are their interests and concerns?
- What types of information will be most compelling to them?
 - At what level of aggregation? Whole organization? Units like colleges? Disaggregated by subpopulations?
 - In what format?
 - Are their available benchmarks for comparison?

Stakeholders and Concerns

- Skilled Graduates
- Academic Outcomes
- Quality Programs
- Equity
- Institutional Reputation
- Cost/Efficiency/ROI
- Administrative Impacts/Staffing



Framing Your Question

- Will it lead to action? Change in practice?
- Are their data available to answer it?
- Does it take into account the political realities on your campus?
- Can it be tied to institutional mission and strategic priorities?

Where do the data live to answer it?

- International Education Office
- Institutional Research/Institutional Effectiveness
 - Student records, surveys, personnel data, course reviews
- Registrar
 - Student records, course information
- Financial Aid Office
- Development Office/Alumni Relations
 - Alumni contacts, feedback, other donor concerns, targeted gifts
- Business/Finance Office
 - Revenue and expenditure data

What other
offices have
been helpful
to you?

Working with the “Data People”

- Don't be intimidated
- Go early
- Start with a phenomenon you are interested in, not a finite ask
 - Take advantage of their expertise
 - Learn about existing reports
 - Avoid only getting what you know about
- Have a face-to-face meeting to discuss issue comprehensively
 - Build rapport, learn, and create a better product
 - Avoid having to go back later for more data
 - If you are trying to emulate or match another report, bring it

Working with the “Data People”

- Can be iterative process from general idea to detailed specifications
- Create a mock up of the desired product to ensure on the same page
- Talk definitions (what all does “undergraduate” or “faculty” include?)
- How this helps the data provider (use of data more broadly, meet mission of office)

Collaborate for Better Product and Outcomes

- Consult people in the organization who know the most about the data you are using
 - Improve the framing of the question
 - Avoid knowledge gaps and incorrect inferences
 - Increase ownership and likelihood that the findings will be acted upon

Generating Questions...

What is the impact of SA on likelihood of graduation?

What is the benefit to departments that offer more general ed classes abroad?

What are the characteristics of colleges that retain more international students?

What are the characteristics of international students that boost enrollment in social sciences and humanities?

What is the impact of equitable salary and promotion practices on hiring and retaining international faculty?

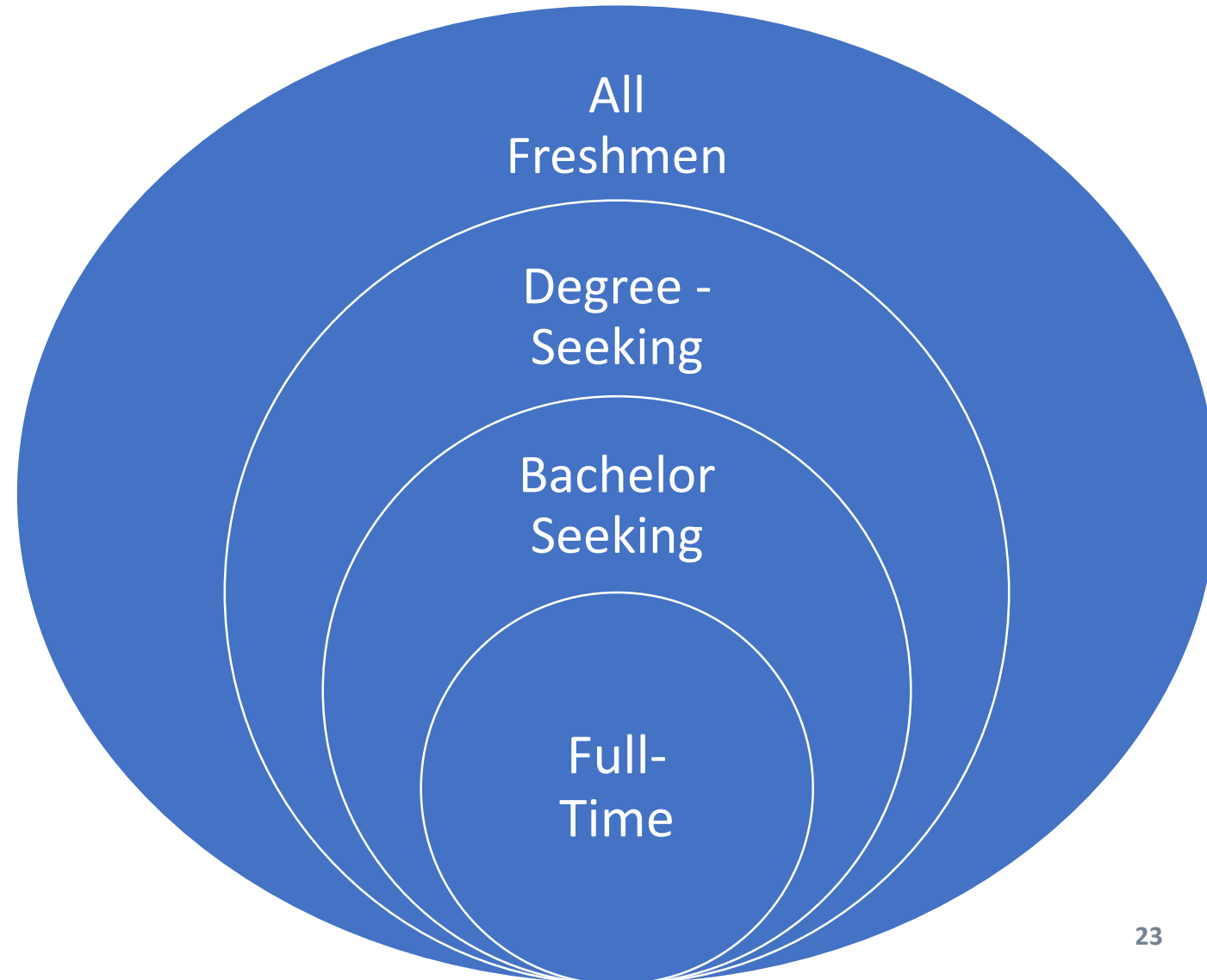
Table Exercise

- What are you trying to accomplish?
- Who are the relevant stakeholders and what matters to them?
- Frame a question or topic of inquiry that addresses those concerns.
- How does question align with organization mission and strategic direction?
- Where do the data reside?
- How will you pose the research topic to the data owner to best approach the topic comprehensively and learn from him/her?
- With which other division(s) should I collaborate?

Down in the Data Weeds: Using Organizational Data Responsibly and Effectively

Identify the appropriate population

- Must be those to whom the outcome applies in the same way
- Other populations important but require separate analyses
- Using the right “denominator”



Identifying the Right Population

- Who are international faculty or students?
 - All with foreign citizenship?
 - All whose country of origin is not US?
 - Only those with certain types of visas?
- Who are faculty?
 - Faculty status? What if doing administrative work? All who teach?
- What courses should be included in analysis of international component?
 - Perhaps not independent study, practica, field work, dissertation hours

Using the right indicator

- Number of graduates (contribution to educated citizenry) vs graduation rates (student success and efficiency)
- Time to graduation-semesters enrolled or time elapsed?
- Credit hours attempted vs. earned

What are outcomes
in your work that are
related and people
confuse?

Using Financial Aid Data

- Three laws govern use of financial aid data: FERPA, HEA, and Privacy Act
- There is not a blanket prohibition against using financial aid data; rather it depends on:
 - Who is using it
 - What it is being used for
 - Where it came from
 - The format
- See “Guidance on the Use of Financial Aid Information for Program Evaluation and Research” by USDOE Privacy Technical Assistance Center:

<https://studentprivacy.ed.gov/resources/guidance-use-financial-aid-information-program-evaluation-and-research>

Data Structure

Cross Sectional Data

Student	Time	Study Abroad?
Daniela	Fall 2018	Y
Sam	Fall 2018	N
Liang	Fall 2018	Y

Time Series Data

Student	Time	Study Abroad?
Daniela	Fall 2017	N
Daniela	Spring 2018	N
Daniela	Fall 2018	Y

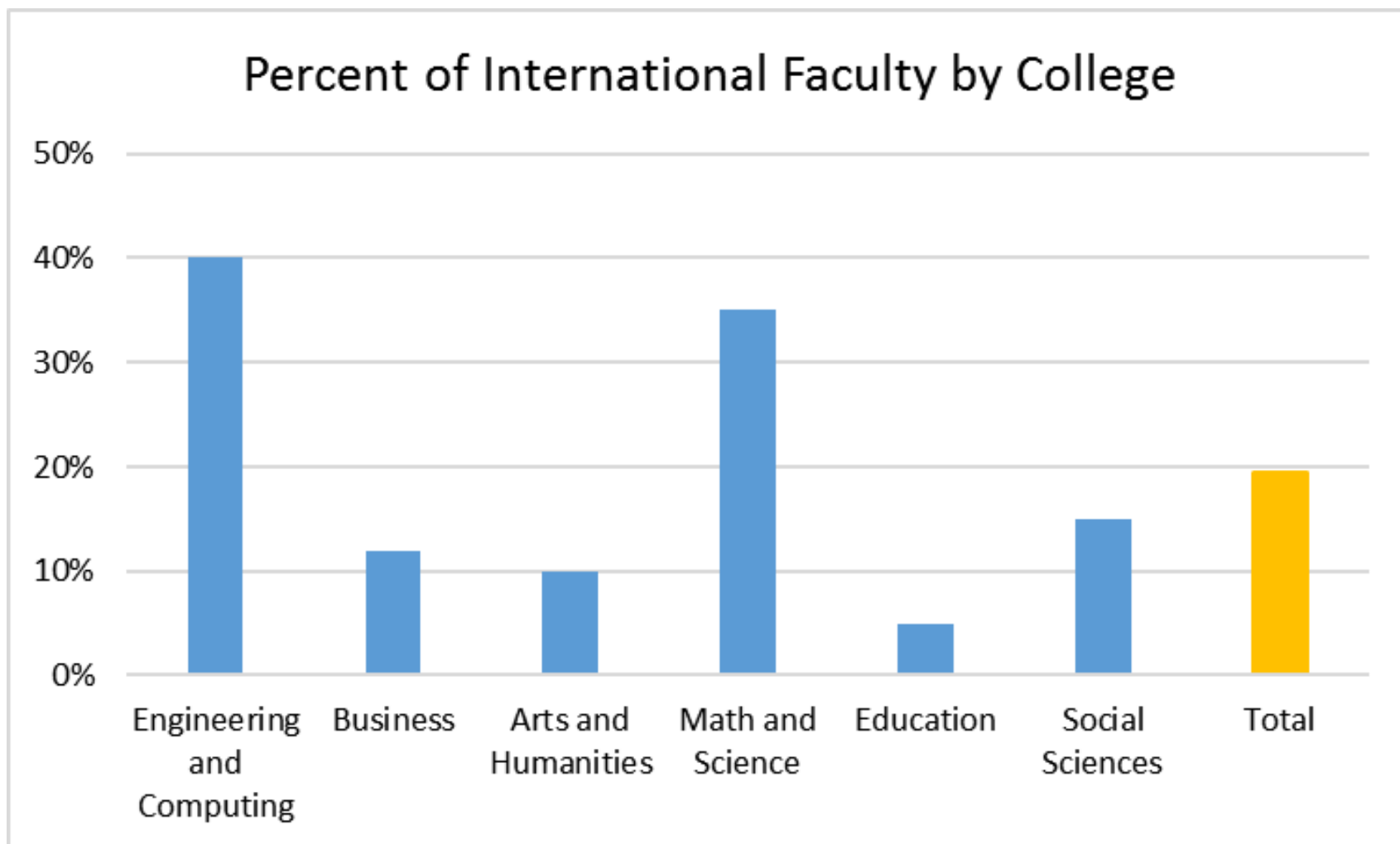
Panel/Longitudinal Data

Student	Time	Study Abroad?
Daniela	Fall 2017	N
Daniela	Spring 2018	N
Daniela	Fall 2018	Y
Sam	Fall 2017	N
Sam	Spring 2018	Y
Sam	Fall 2018	N
Liang	Fall 2017	Y
Liang	Spring 2018	N
Liang	Fall 2018	Y

- Concept of a cohort

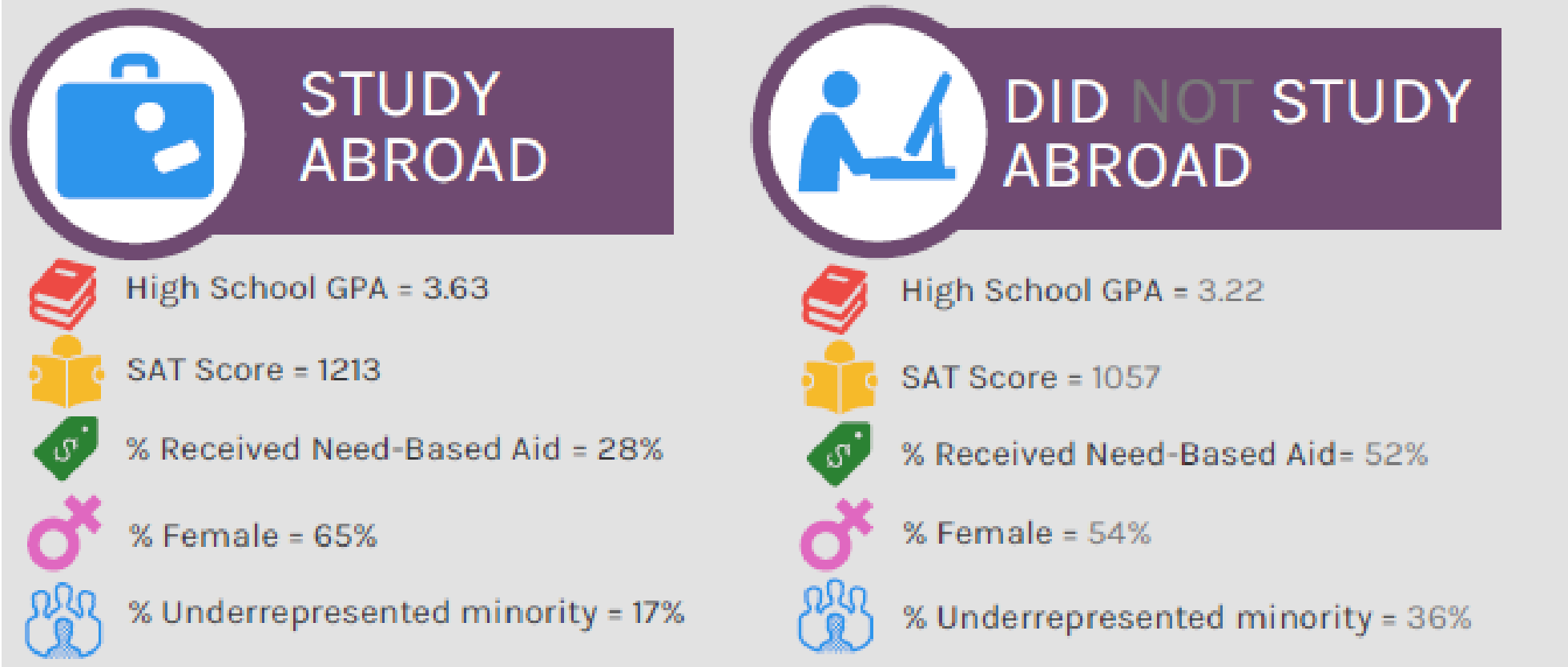
Disaggregate the data

- Mitigate risk that averages can mask differences and reflect no one



Avoid Selection Bias

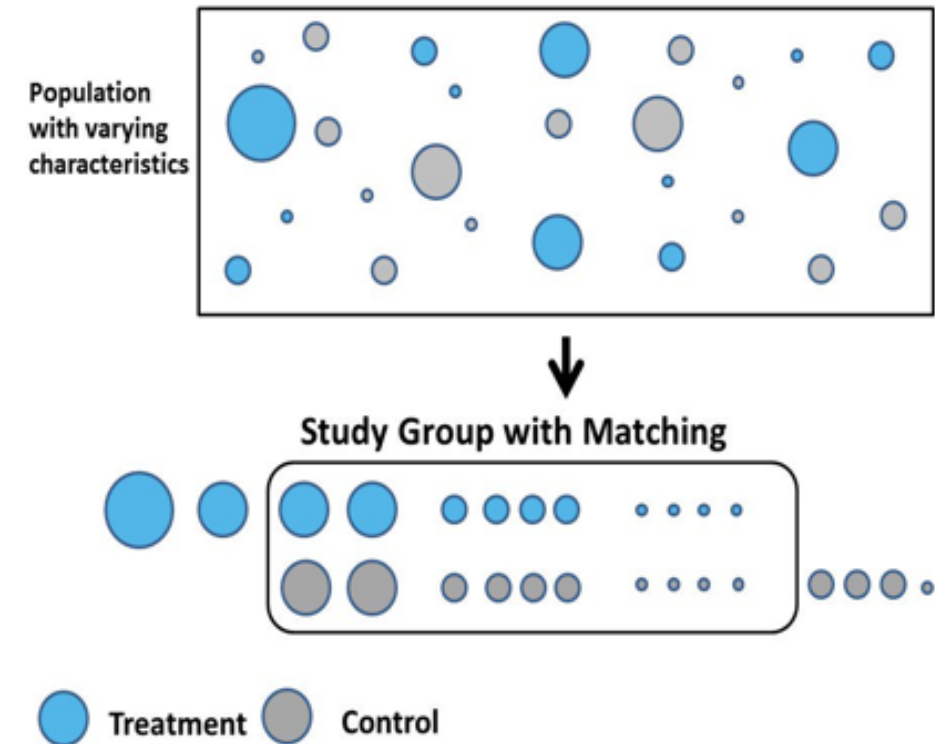
Students who select to participate in Study Abroad are different than those who don't.



CASSIE Research Design

- Participation in international education is self-selected
- Impact on student outcomes may not be due to the international education experience itself, but other unobserved factors the student possesses
- Simple comparison of treated and control can result in biased estimates

Exact and Propensity Score Matching



Understand the impact of unique institutional aspects

- Is there a limitation on the percent of students who are not in-state?
- Are there large cooperative programs that prevent students from graduating in four years?
- Do students in combo Bachelor's/Master's programs get awarded their Bachelor's only when the Master's is done?
- Is there a residency requirement for the final hours of one's degree that deters education abroad during senior year?

Presenting the Data

- Back to your stakeholder analysis-facilitate decision making by providing what they are interested in, in their preferred format
- Vet with those who know the most about the data area
- Context Matters- comparisons or change over time
- Definitions Matter-avoid spending time on how numbers were derived by providing up front
- Avoid causal claims where not appropriate

Table Exercise

- What is the right population to study for your research question?
- What are the indicators to observe about them?
- Is cross sectional, time series, or panel data the best approach?
- Does the data need to be disaggregated by student, faculty, course, or program categories?
- If I am evaluating an outcome, is selection bias at play?
- What are the unique characteristics about my school that affect my question?
- Given my stakeholder, what are some options for presentation?

Institutionalizing Education Abroad Learning Outcomes Assessment -- Systematic Multi-Year Data Collection

Learning Outcomes Assessment

- Beyond participation rates
- Beyond student satisfaction surveys
- The value-added proposition:

Does participation in study abroad foster learning outcomes beyond those typically achieved on-campus?

- **Collaboration** with Office of Institutional Effectiveness
- **Data** reported here collected 2011-2016*

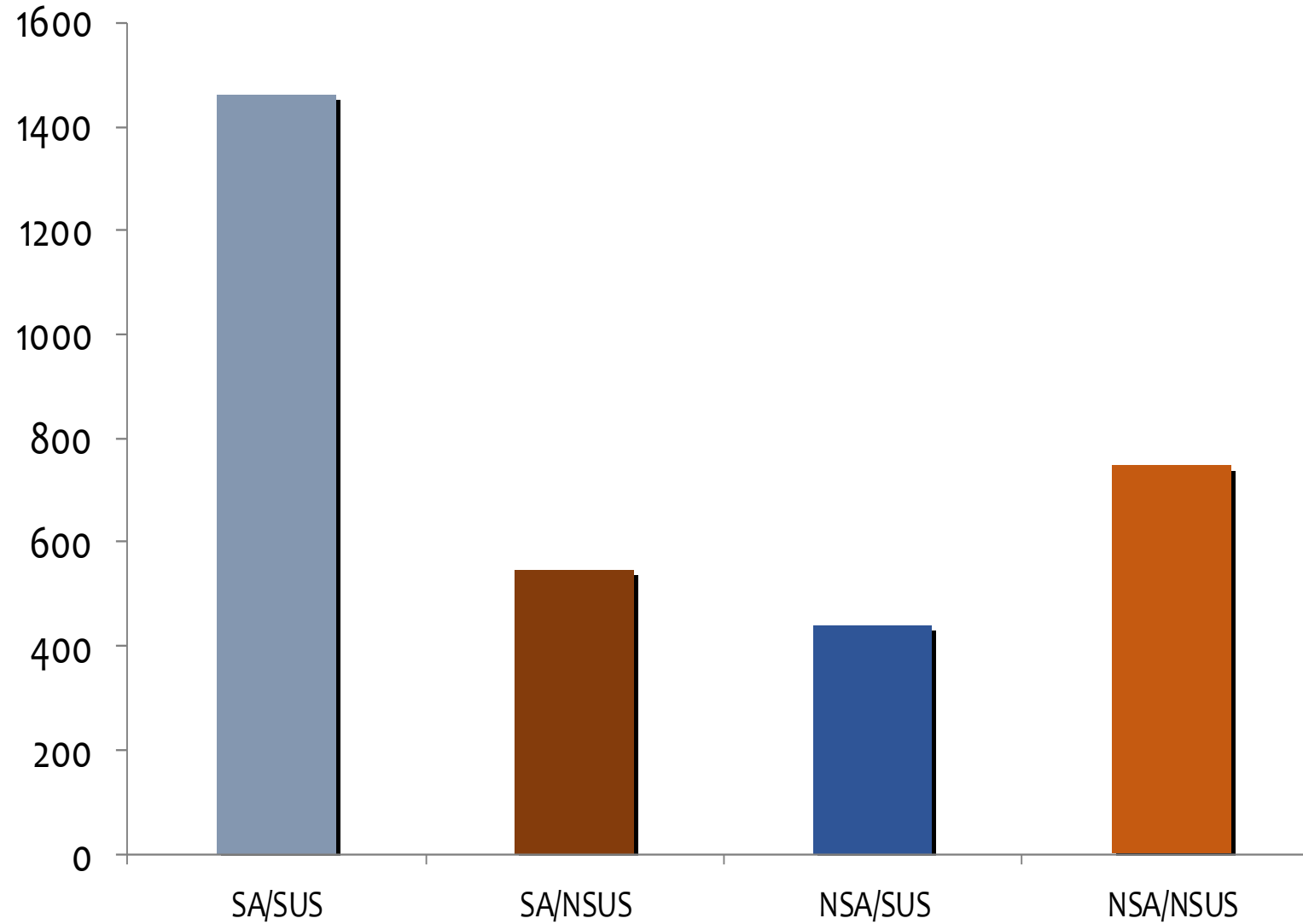
*Assessment program conceived and implemented by Michael Tarrant,
Professor & Director, UGA Discover Abroad

Voluntary campus-wide assessment program

(2011 – 2016)

- Quasi-experimental Pre-post/Comparison group design
 - Comparison group students attended on-campus classes during the same semester as EA students went abroad.
- Factors
 - Study abroad and campus based (Location)
 - Sustainability and non-sustainability classes (Topic)
 - Pre and post (Time)

Aggregate Sample Sizes (2011 – 2016)



Focal learning outcomes for this assessment project

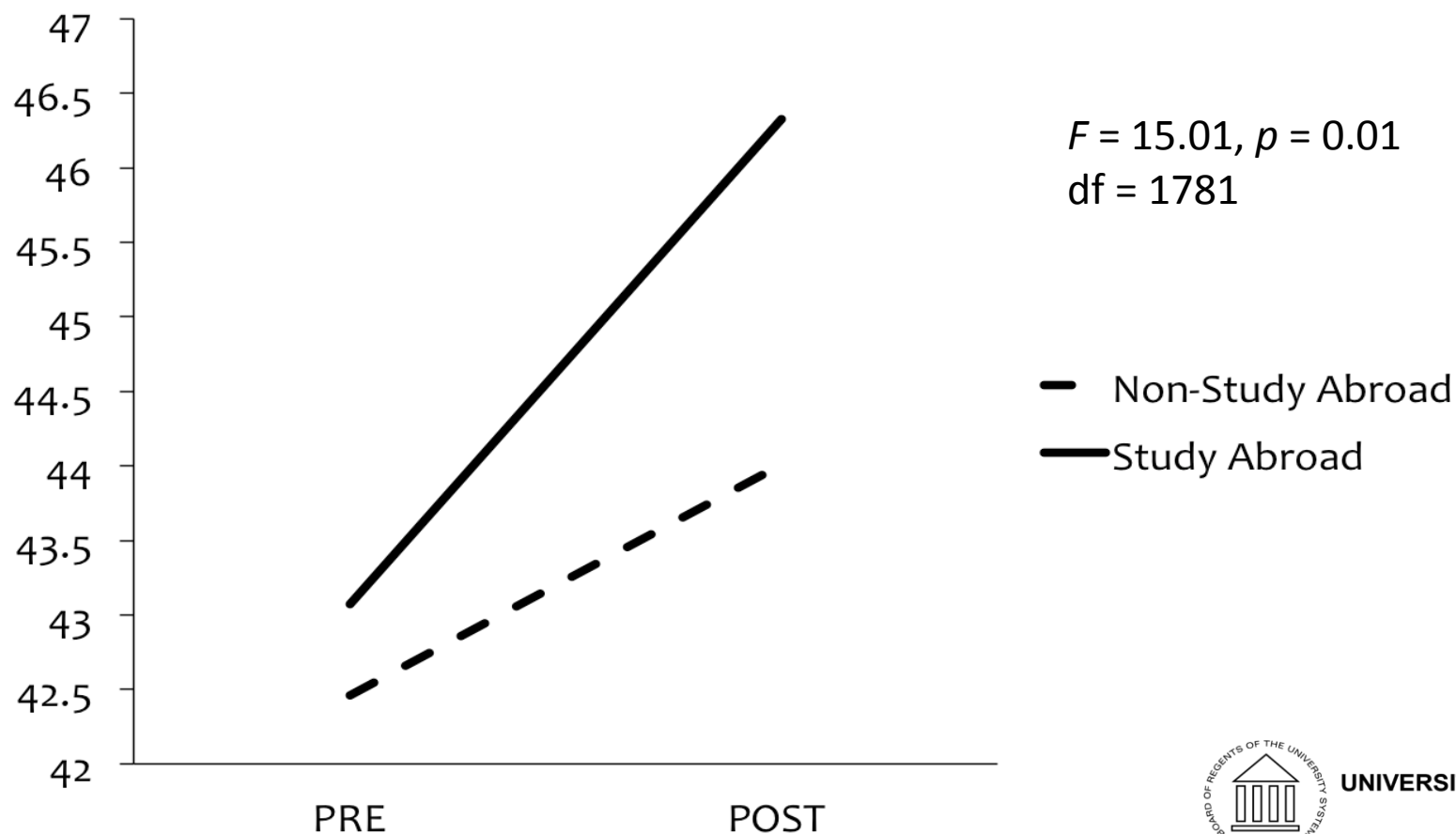
1. Environmental Citizenship
2. Global Perspectives Inventory (GPI)
3. Student Engagement/Deep Learning (NSSE)
4. Sustainability Literacy

- Integrative learning
 - Discussed ideas from your readings or classes with faculty outside of class
- Reflective learning
 - Tried to better understand someone else's views by imagining how an issue looks from their perspective.
- Higher order learning
 - Made judgments about the value of information, arguments, or methods...

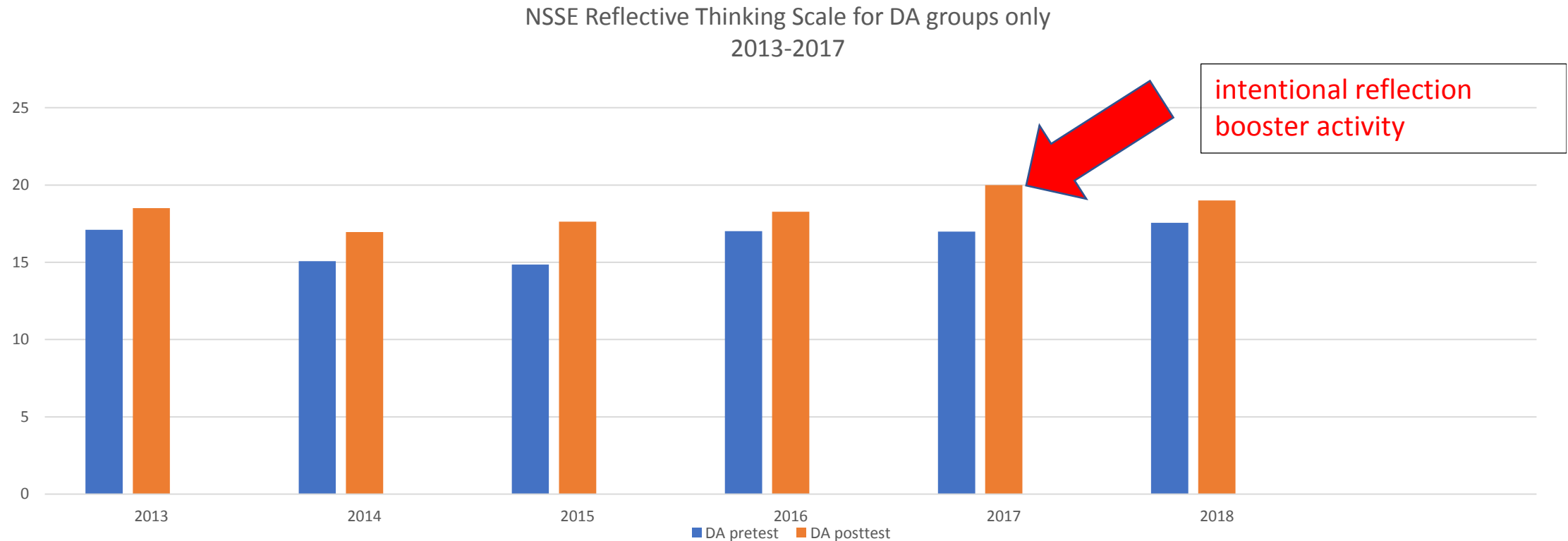
**NSSE
Deep
Learning
Scale**

NSSE Deep Learning (Time x Location)

1300 students
95 classes



Systematic Multi-Year Evaluation Program Assesses Curriculum Improvement Efforts

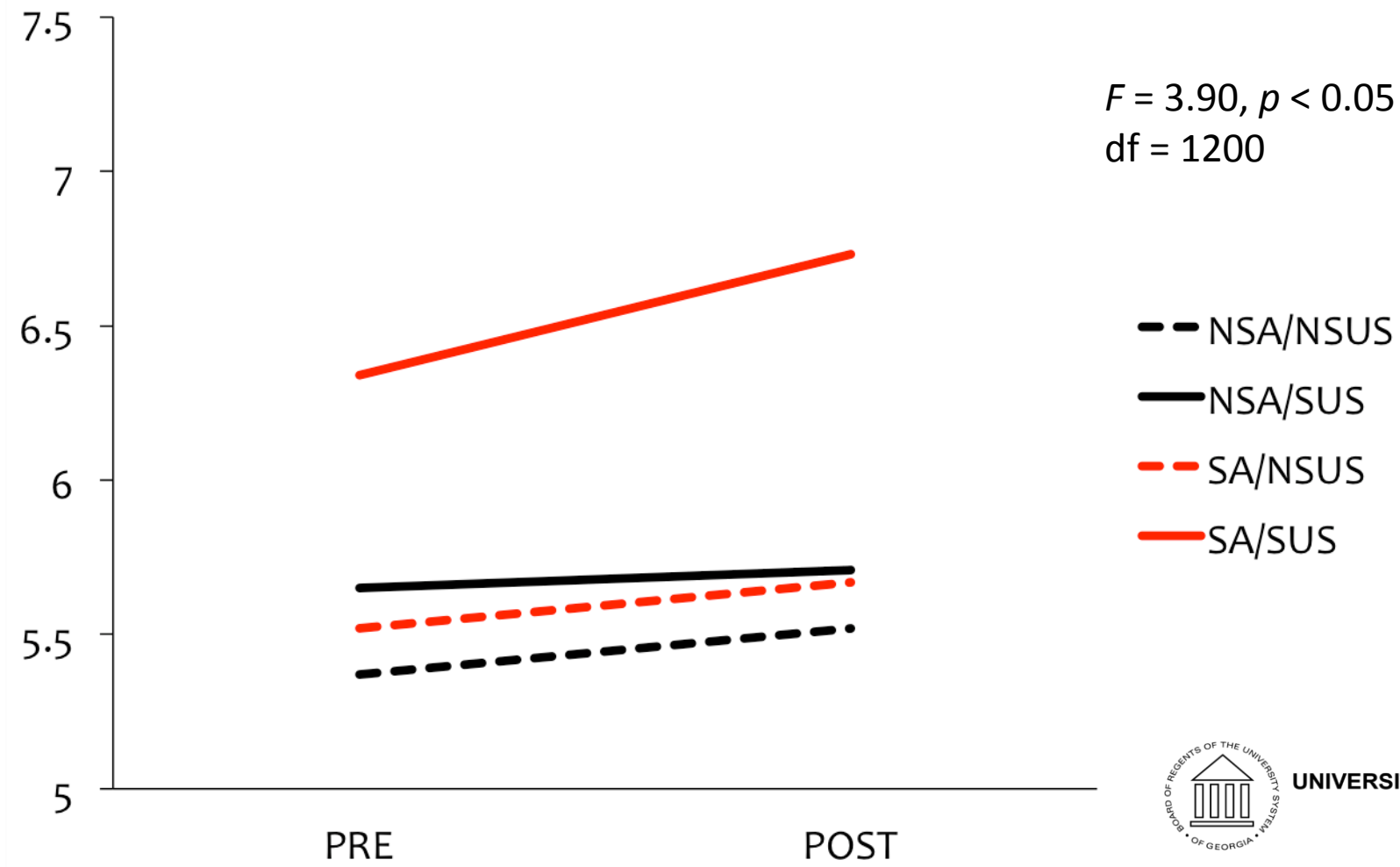


Discover Abroad Sustainability Literacy Scale (sample knowledge item)

What is included when corporations report their triple bottom line?

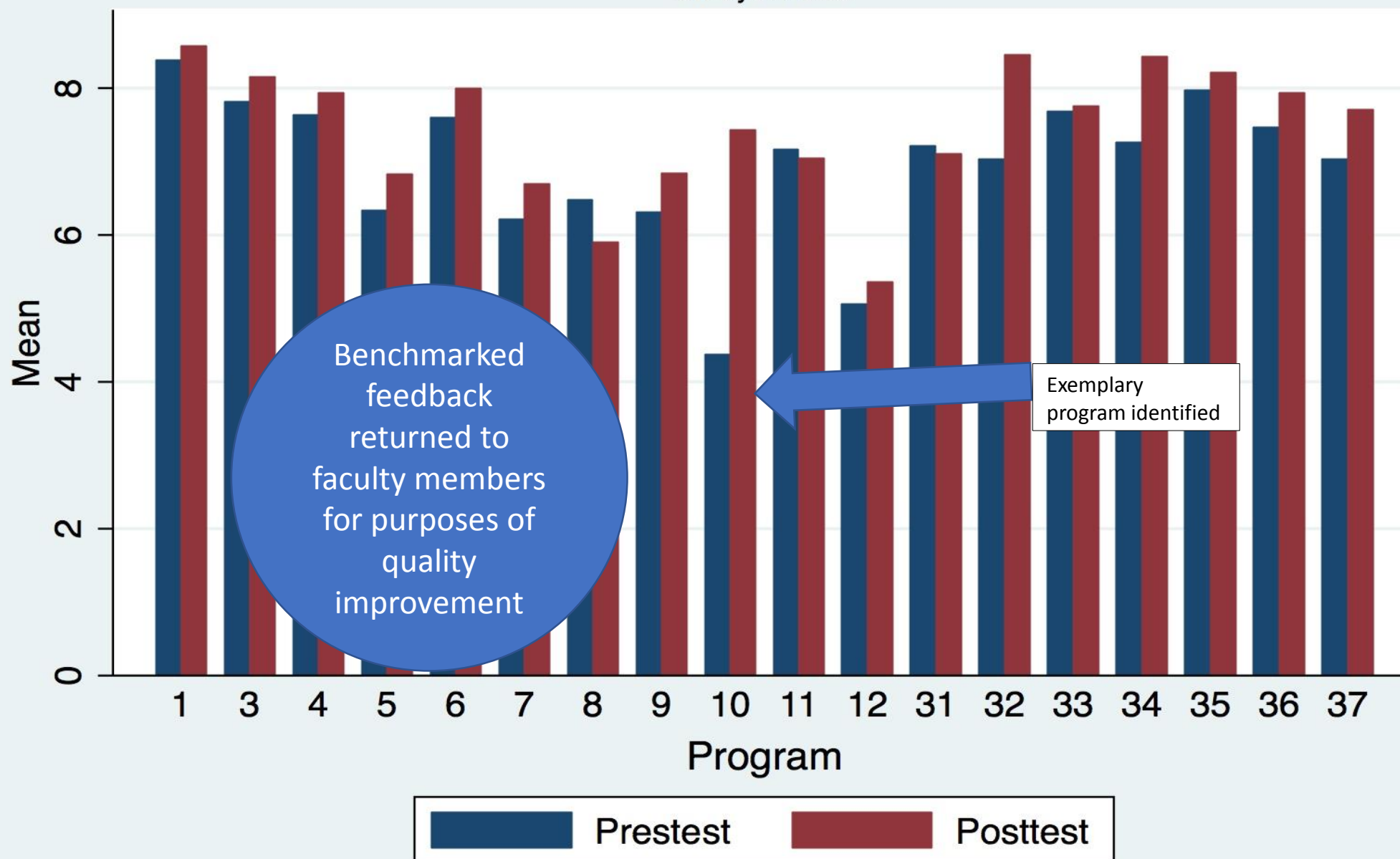
- a. Three forms of financial reporting
- b. Environmental, social, and financial performance**
- c. Offering health, dental, and vision care to employees
- d. Incorporating community, labor, and government representatives on the board of directors
- e. Don't know

Sustainability Literacy (Time x Topic x Location)



Mean Sustainability Literacy Scores at Pretest and Posttest

Study Abroad



How to Use These Data to Enhance Your Program

- Close the feedback loop
 - Goal of scholarship of teaching and learning is to use assessment data to guide course improvement
- Benchmarking—What is it saying to you?
- Course objectives
 - Which of the outcomes align most closely with your core program objectives?
- Move the needle
 - Consider concrete teaching experiments to implement in the next iteration of your program to “move the needle” on the outcomes that mean the most.
 - For example, if the NSSE Deep Learning outcome “Reflective Learning” is central to your objectives, consider implementing periodic student debates as in-class activities.

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