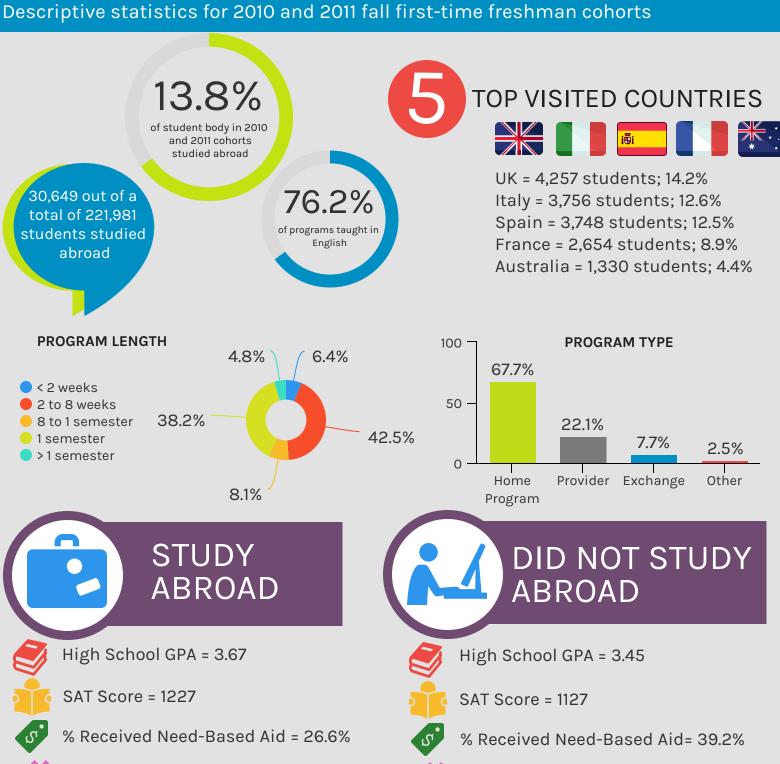
#### Study Abroad at all CASSIE participating institutions Descriptive statistics for 2010 and 2011 fall first-time freshman of



Underrepresented minorities are defined here as American Indian/Alaskan Native, Black or African American, Hispanic, and Native Hawaiian/Pacific Islander.

% Underrepresented minority = 23.2%

% Female = 52.1%

% Female = 67.1%

% Underrepresented minority = 14.0%

### Study Abroad at all CASSIE participating institutions Descriptive statistics for 2010 and 2011 fall first-time freshman cohorts





Degree in 6 years = 95.1% \*(95.9%)



Degree in 4 years = 72.3% \*(73.0%)



Semesters to Degree = 11.7



GPA at Degree = 3.42



Credit Hours Earned at Degree = 153.0





Degree in 6 years = 62.7% \*(82.4%)



Degree in 4 years = 38.2% \*(51.5%)



Semesters to Degree = 12.3



GPA at Degree = 3.23



Credit Hours Earned at Degree = 147.9

These descriptive statistics suggest that students who Study Abroad have higher 6- and 4- year graduation rates, and higher GPA at graduation compared to non Study Abroad students.

But because these students also differ in academic preparation, demographic, and socioeconomic characteristics, these descriptive statistics do not reveal the impact of **only** Study Abroad, but **also** the influence of other factors that contribute to student success.

Matching analysis: What does this statistical analysis mean?

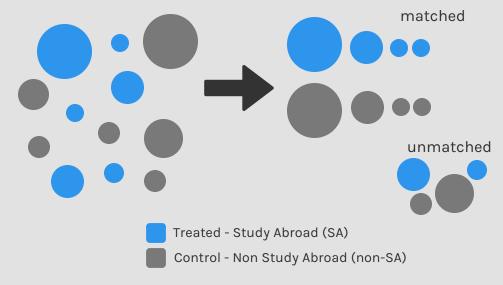
## What does a Matching Analysis do?

Matching takes the existing sample of data where there are preexisting differences in students who study abroad and those who don't study abroad (e.g. High School GPA), and creates matches between students with similar characteristics.

# What do we match on (i.e. control variables)?

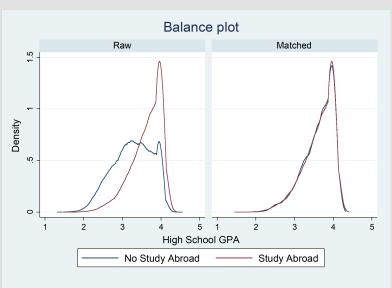
- 1. High School GPA,
- 2. SAT/ACT Score,
- 3. Need-Based Aid Receipt,
- 4. Race/Ethnicity,
- 5. Gender,
- 6. Age at matriculation,
- 7. Major,
- 8. Full time (or part-time)
- 9. Number of terms enrolled

Matching analysis improves the comparability of treatment and control groups.



Without matching, the outcomes of students who SA are compared against those who don't SA. This ignores other differences that can exist across SA and non-SA students.

With matching, students are first matched to each other on the control variables. Then, the outcomes of only matched SA and non-SA students are calculated.



Example: Unmatched data shows a **notable difference** in HS GPA for SA vs. non-SA students.

Example: Once matches are constructed, the HS GPA for SA and non-SA are much more similar.

### Outcomes: What is the effect of Study Abroad for all CASSIE participating institutions?



DEGREE IN
6 YEARS
3.8pp

SA students are 3.8 percentage points more likely to graduate in 6 years compared with non-SA students.



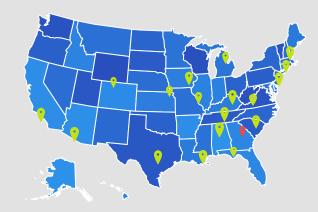
DEGREE IN 4 YEARS 6.2pp

SA students are 6.2 percentage points more likely to graduate in 4 years compared with non-SA students.



#### SEMESTERS TO DEGREE -0.16

SA students finish their degree 0.16 semesters, or approximately 2 weeks, faster than non-SA students.





#### **GPA AT DEGREE**

0.12

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



## CREDIT HOURS EARNED 2.19

SA students earn 2.19 more credit hours upon graduation compared with non-SA students.