

Study Abroad: Using **Regression Analysis** to reveal the relative effect of different types of Study Abroad Programs on 4-year graduation rates



CASSIE data show - relative to students who never studied abroad - Study Abroad students:

- Are more likely to **earn degrees in a timely manner**
(3.8pp in 6 years; 6.2pp in 4 years)
- Finish **degrees slightly faster**
(-0.16 of a semester, or 2 weeks faster)
- Accumulate **only a few 'extra' credit hours**
(2.19 credit hours)
- Achieve **higher GPA**
(0.12)



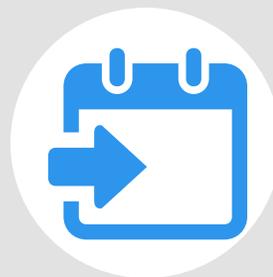
But, does the benefit (e.g. 4-year graduation rates) of study abroad vary by:



LANGUAGE OF INSTRUCTION



TYPE OF PROGRAM



DURATION OF STUDY



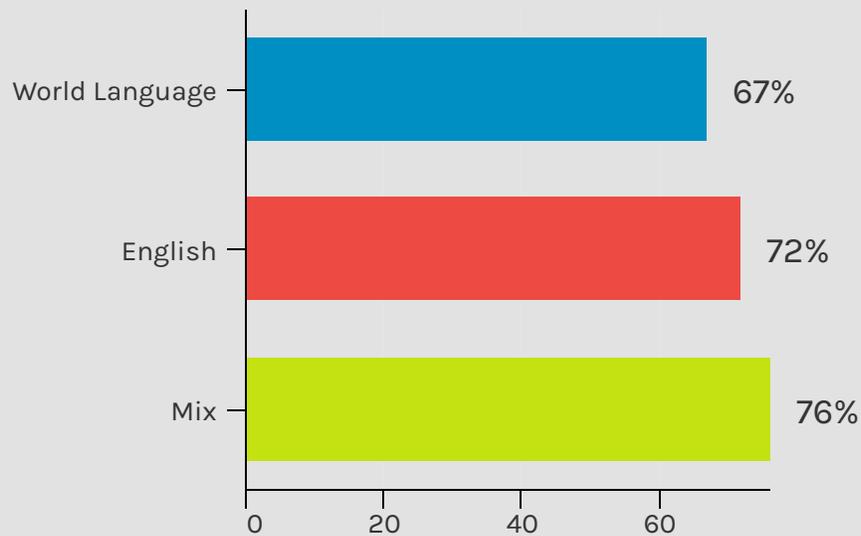
REGION OF STUDY

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LANGUAGE OF INSTRUCTION Descriptive Statistics

% of students who graduated in 4 years



Effect of LANGUAGE OF INSTRUCTION



World Language
(-1.87pp)



English
[baseline]



Mix
(-0.77pp)
[NSS]

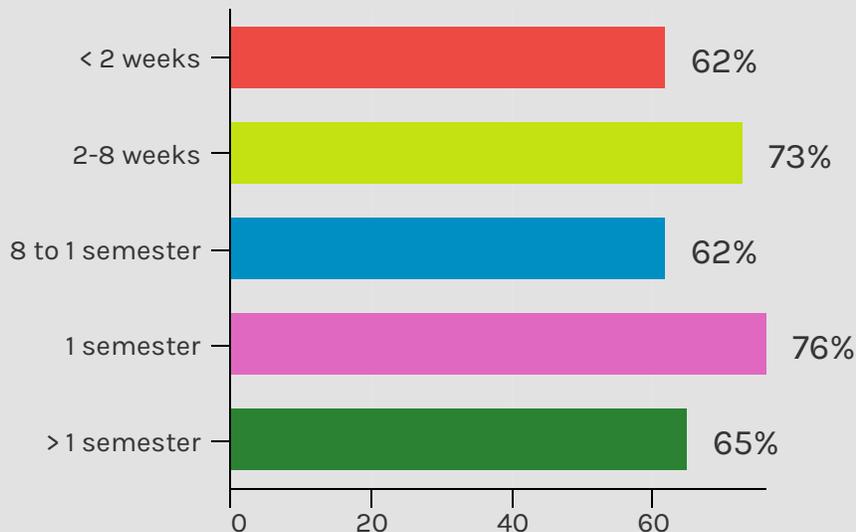


Programs taught in a World Language are associated with slightly lower 4-year graduation rates than those taught in English.

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DURATION OF STUDY Descriptive Statistics

% of students who graduated in 4 years



Effect of DURATION OF STUDY



< 2 weeks
(-3.6pp)



2-8 weeks
[baseline]



8 - 1 semester
(-1.6pp)
[NSS]



1 semester
(-9.0pp)



> 1 semester
(-18.0pp)

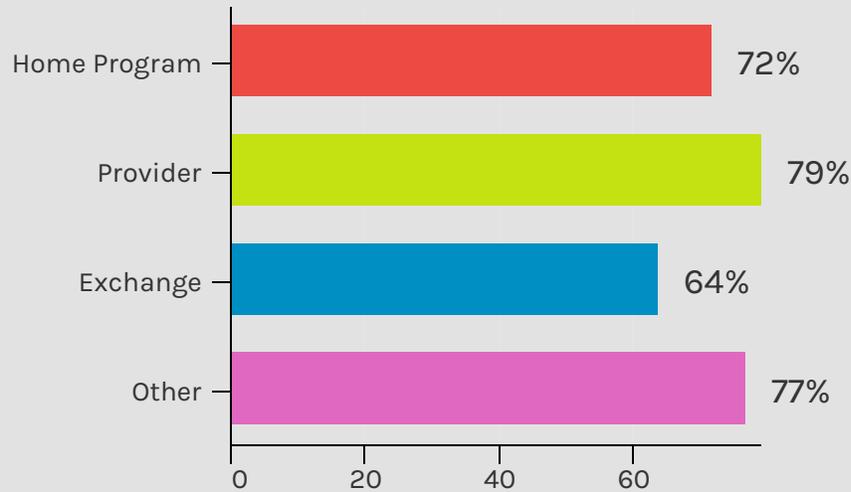
Programs that last less than 2 weeks, 1 semester or greater than 1 semester are associated with lower 4-year graduation rates than programs that last 2-8 weeks.

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TYPE OF PROGRAM Descriptive Statistics

% of students who graduated in 4 years



Effect of TYPE OF PROGRAM



Home Program
[baseline]



Provider
(3.5pp)



Exchange
(-2.8pp)



Other
(-0.2pp)
[NSS]



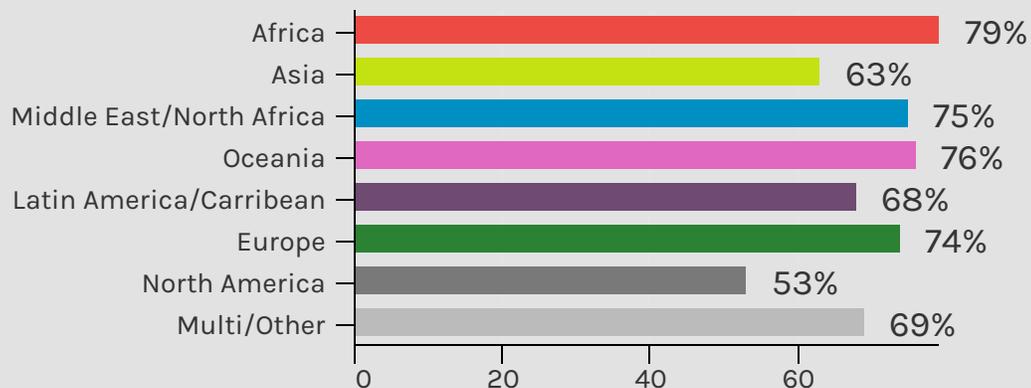
Provider (Exchange) programs are associated with slightly higher (lower) 4-year graduation rates than Home Programs.

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REGION OF STUDY Descriptive Statistics

% of students who graduated in 4 years



Effect of REGION OF STUDY



Africa
(3.7pp)



Europe
[baseline]



Latin Am.
(-1.7pp)



Asia
(-3.8pp)



Mid. East
(-4.1pp)
[NSS]



Oceania
(-0.6pp)
[NSS]



North America
(-0.3pp)
[NSS]



Multi/Other
(-1.8pp)
[NSS]



Programs in Africa (Latin America, Asia) are associated with higher (lower) 4-year graduation rates compared with programs in Europe.

Study Abroad: **Need-Based Aid** vs **No Need-Based Aid**
Descriptive Statistics

 **NEED-BASED AID**

 9.5% of need-based aid students studied abroad

 STUDY ABROAD vs.  NO STUDY ABROAD

 High School GPA = 3.62 vs. 3.36

 SAT Score = 1183 vs. 1070

 % Female = 70.1% vs. 56.4%

 % Underrep. minority = 25.9% vs. 39.6%

 Degree in 6 years = 93.3% vs. 54.2%
* For students retained to 3rd year = 94.4% vs. 76.7%

 Degree in 4 years = 68.6% vs. 30.0%
* For students retained to 3rd year = 69.5% vs. 43.7%

 Semesters to Degree = 11.8 vs. 12.5

 GPA at Degree = 3.37 vs. 3.17

 Credit Hours at Degree = 128.9 vs. 125.5

 **NO NEED-BASED AID**

 16% of no need-based aid students studied abroad

 STUDY ABROAD vs.  NO STUDY ABROAD

 = 3.69 vs. 3.49

 = 1238 vs. 1149

 = 66.0% vs. 49.3%

 = 8.4% vs. 13.3%

 = 95.5% vs. 66.5%
* = 96.3% vs. 85.0%

 = 74.5% vs. 41.8%
* = 75.2% vs. 54.9%

 = 11.6 vs. 12.2

 = 3.44 vs. 3.25

 = 131.6 vs. 129.7

* Refers to the graduation rate of students who remain enrolled until their 3rd year
'Semesters to Degree', 'Credit Hours Earned at Degree' and 'GPA at Degree' are all conditional on graduation.
Need-based aid students are defined here as receiving need-based aid in their first term.

Study Abroad: **Need-Based Aid vs No Need-Based Aid**
Matching Analysis



NEED-BASED AID



NO NEED-BASED AID



DEGREE IN 6 YEARS

6.1pp

Among students who receive need-based aid, those who SA are 6.1pp more likely to graduate in 6 years compared with non-SA students. For students who do not receive need-based aid, the differential is 3.8pp.

3.8pp



DEGREE IN 4 YEARS

9.1pp

Among students who receive need-based aid, those who SA are 9.1pp more likely to graduate in 4 years compared with non-SA students. For students who do not receive need-based aid, the differential is 8.7pp.

8.7pp



SEMESTERS TO DEGREE

-0.24

Among students who receive need-based aid, those who SA graduate 0.24 semesters, or approximately 4 weeks, faster compared with non-SA students. For students who do not receive need-based aid, the differential is 0.23 semesters (3.5 weeks).

-0.23



GPA AT DEGREE

0.10

Among students who receive need-based aid, those who SA earn a 0.10 higher GPA compared with non-SA students. For students who do not receive need-based aid, the differential is 0.10.

0.10



CREDIT HOURS EARNED

4.08

Among students who receive need-based aid, those who SA earn 4.08 more credit hours compared with non-SA students. For students who do not receive need-based aid, the differential is 1.84 credit hours.

1.84

pp = percentage points; NSS = Not statistically significant

Please note that these matching results do not restrict matches to occur within institutions, due to the often low frequency of observations at any single institution. As a consequence, the magnitude of these results are often larger than when this restriction is imposed. Results should be interpreted with this caveat in mind.

Study Abroad: **First Generation Status** vs **Not First Generation Status**
Descriptive Statistics

 **FIRST GENERATION**

 8.4% of first generation students studied abroad

 STUDY ABROAD vs.  NO STUDY ABROAD

 High School GPA = 3.63 vs. 3.48

 SAT Score = 1138 vs. 1082

 % Female = 69.9% vs. 55.9%

 % Underrep. minority = 27.4% vs. 25.8%

 Degree in 6 years = 93.6% vs. 58.4%
* For students retained to 3rd year = 94.3% vs. 80.5%

 Degree in 4 years = 65.0% vs. 33.9%
* For students retained to 3rd year = 65.7% vs. 47.1%

 Semesters to Degree = 12.0 vs. 12.4

 GPA at Degree = 3.28 vs. 3.14

 Credit Hours at Degree = 173.7 vs. 155.5

 **NOT FIRST GENERATION**

 15.5% of not first generation students studied abroad

 STUDY ABROAD vs.  NO STUDY ABROAD

 = 3.66 vs. 3.52

 = 1231 vs. 1163

 = 66.5% vs. 48.8%

 = 7.9% vs. 7.7%

 = 95.9% vs. 68.0%
* = 96.5% vs. 86.7%

 = 75.7% vs. 45.3%
* = 76.3% vs. 58.1%

 = 11.6 vs. 12.0

 = 3.42 vs. 3.25

 = 169.5 vs. 164.2

* Refers to the graduation rate of students who remain enrolled until their 3rd year
'Semesters to Degree', 'Credit Hours Earned at Degree' and 'GPA at Degree' are all conditional on graduation.

Study Abroad: **First Generation Status** vs **Not First Generation Status**
Matching Analysis



**FIRST
GENERATION**



**NOT FIRST
GENERATION**



DEGREE IN 6 YEARS

6.5

Among students who are first generation status, those who SA are 6.5pp more likely to graduate in 6 years compared with non-SA students. For students who are not first generation status, the differential is 3.2pp.

3.2pp



DEGREE IN 4 YEARS

11.4pp

Among students who are first generation status, those who SA are 11.4pp more likely to graduate in 4 years compared with non-SA students. For students who are not first generation status, the differential is 9.2pp.

9.2pp



**SEMESTERS TO
DEGREE**

-0.29

Among students who are first generation status, those who SA graduate 0.29 semesters, or approximately 5 weeks, faster compared with non-SA students. For students who are not first generation status, the differential is 0.23 semesters (4 weeks).

-0.23



GPA AT DEGREE

0.11

Among students who are first generation status, those who SA earn a 0.10 higher GPA compared with non-SA students. For students who are not first generation status, the differential is 0.09.

0.09



CREDIT HOURS EARNED

6.88

Among students who are first generation status, those who SA earn 6.88 more credit hours compared with non-SA students. For students who are not first generation status, the differential is 2.00 credit hours.

2.00

pp = percentage points; NSS = Not statistically significant

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Study Abroad: **Underrepresented minority (URM)** vs **Not URM**
Descriptive Statistics



UNDERREPRESENTED MINORITY (URM)



NOT URM

 8.5% of underrepresented minority students studied abroad

 15.1% of not underrep.minority students studied abroad

 STUDY ABROAD vs.  NO STUDY ABROAD

 STUDY ABROAD vs.  NO STUDY ABROAD

 High School GPA = 3.53 vs. 3.21

 = 3.70 vs. 3.51

 SAT Score = 1127 vs. 1010

 = 1243 vs. 1158

 % Female = 71.5% vs. 57.0%

 = 66.4% vs. 50.6%

 Degree in 6 years = 93.0% vs. 50.6%
* For students retained to 3rd year = 94.0% vs. 72.5%

 = 95.4% vs. 66.0%
* = 96.2% vs. 84.9%

 Degree in 4 years = 60.6% vs. 24.2%
* For students retained to 3rd year = 61.1% vs. 35.7%

 = 74.3% vs. 42.0%
* = 75.0% vs. 55.6%

 Semesters to Degree = 12.1 vs. 12.8

 = 11.6 vs. 12.1

 GPA at Degree = 3.27 vs. 3.05

 = 3.44 vs. 3.27

 Credit Hours at Degree = 167.0 vs. 149.6

 = 150.7 vs. 147.4

* Refers to the graduation rate of students who remain enrolled until their 3rd year
'Semesters to Degree', 'Credit Hours Earned at Degree' and 'GPA at Degree' are all conditional on graduation.
Underrepresented minorities are defined here as American Indian/Alaskan Native, Black or African American, Hispanic, and Native Hawaiian/Pacific Islander.

Study Abroad: **Underrepresented minority (URM)** vs **Not URM**
Matching Analysis



**UNDERREPRESENTED
MINORITY (URM)**



NOT URM



DEGREE IN 6 YEARS

7.8pp

Among URM students, those who SA are 7.8pp more likely to graduate in 6 years compared with non-SA students. For non-URM students, the differential is 3.9pp.

3.9pp



DEGREE IN 4 YEARS

11.6pp

Among URM students, those who SA are 11.6pp more likely to graduate in 4 years compared with non-SA students. For non-URM students the differential is 8.4pp.

8.4pp



**SEMESTERS TO
DEGREE**

-0.26

Among URM students, those who SA graduate 0.26 semesters, or approximately 4 weeks, faster compared with non-SA students. For non-URM students, the differential is 0.22 semesters (3.5 weeks).

-0.22



GPA AT DEGREE

0.12

Among URM students, those who SA earn a 0.12 higher GPA compared with non-SA students. For non-URM students, the differential is 0.09.

0.09



CREDIT HOURS EARNED

6.82

Among URM students, those who SA earn 6.82 more credit hours compared with non-SA students. For non-URM students, the differential is 1.77 credit hours.

1.77

pp = percentage points; NSS = Not statistically significant

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Study Abroad: **STEM** vs **Not STEM** Majors
Descriptive Statistics

 **STEM MAJORS**

 10.9% of STEM majors studied abroad

 STUDY ABROAD vs.  NO STUDY ABROAD

 High School GPA = 3.78 vs. 3.53

 SAT Score = 1252 vs. 1147

 % Female = 61.6% vs. 50.0%

 % Underrep. minority = 14.4% vs. 25.0%

 Degree in 6 years = 93.9% vs. 63.5%
* For students retained to 3rd year = 94.9% vs. 81.7%

 Degree in 4 years = 61.6% vs. 36.4%
* For students retained to 3rd year = 62.1% vs. 48.1%

 Semesters to Degree = 12.0 vs. 12.4

 GPA at Degree = 3.41 vs. 3.23

 Credit Hours at Degree = 158.9 vs. 154.2

 **NOT STEM**

 15.0% of not STEM majors studied abroad

 STUDY ABROAD vs.  NO STUDY ABROAD

 = 3.64 vs. 3.39

 = 1218 vs. 1110

 = 69.1% vs. 53.2%

 = 13.9% vs. 23.4%

 = 95.5% vs. 61.6%
* = 96.3% vs. 82.5%

 = 76.3% vs. 38.5%
* = 77.0% vs. 53.0%

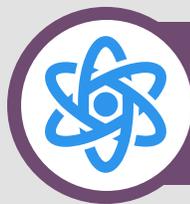
 = 11.6 vs. 12.2

 = 3.43 vs. 3.23

 = 150.8 vs. 144.3

* Refers to the graduation rate of students who remain enrolled until their 3rd year
Semesters to Degree', 'Credit Hours Earned at Degree' and 'GPA at Degree' are all conditional on graduation.
STEM majors are defined here as majoring in a STEM discipline in their first term.

Study Abroad: **STEM** vs **Not STEM** Majors
Matching Analysis



STEM MAJORS



NOT STEM



DEGREE IN 6 YEARS

4.1pp

Among STEM students, those who SA are 4.1pp more likely to graduate in 6 years compared with non-SA students. For non-STEM students, the differential is 4.4pp.

4.4pp



DEGREE IN 4 YEARS

5.3pp

Among STEM students, those who SA are 5.3pp more likely to graduate in 4 years compared with non-SA students. For non-STEM students the differential is 10.0pp.

10.0pp



SEMESTERS TO DEGREE

-0.16

Among STEM students, those who SA graduate 0.16 semesters, or approximately 3 weeks, faster compared with non-SA students. For non-STEM students, the differential is 0.25 semesters (4 weeks).

-0.25



GPA AT DEGREE

0.10

Among STEM students, those who SA earn a 0.10 higher GPA compared with non-SA students. For non-STEM students, the differential is also 0.10.

0.10



CREDIT HOURS EARNED

3.98

Among STEM students, those who SA earn 3.98 more credit hours compared with non-SA students. For non-STEM students, the differential is 1.82 credit hours.

1.82

pp = percentage points; NSS = Not statistically significant

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