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:

For more information: www.usg.edu/cassie
Study Abroad: Using Regression Analysis to reveal the relative effect of different types of Study Abroad Programs on 4-year graduation rates.

**LANGUAGE OF INSTRUCTION Descriptive Statistics**

% of students who graduated in 4 years

<table>
<thead>
<tr>
<th>Instruction Type</th>
<th>% Graduated</th>
</tr>
</thead>
<tbody>
<tr>
<td>World Language</td>
<td>67%</td>
</tr>
<tr>
<td>English</td>
<td>72%</td>
</tr>
<tr>
<td>Mix</td>
<td>76%</td>
</tr>
</tbody>
</table>

**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.

**pp = percentage points**

*Bolded* text indicate the result is statistically significant at the 5% level or smaller. **NSS = Not statistically significant**
Study Abroad: Using *Regression Analysis* to reveal the relative effect of different types of Study Abroad Programs on 4-year graduation rates.

**DURATION OF STUDY Descriptive Statistics**

<table>
<thead>
<tr>
<th>Duration</th>
<th>% of Students who Graduated in 4 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt; 2 weeks</td>
<td>62%</td>
</tr>
<tr>
<td>2-8 weeks</td>
<td>73%</td>
</tr>
<tr>
<td>8 to 1 semester</td>
<td>62%</td>
</tr>
<tr>
<td>1 semester</td>
<td>76%</td>
</tr>
<tr>
<td>&gt; 1 semester</td>
<td>65%</td>
</tr>
</tbody>
</table>

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

**TYPE OF PROGRAM Descriptive Statistics**

<table>
<thead>
<tr>
<th>TYPE OF PROGRAM</th>
<th>% of students who graduated in 4 years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Program</td>
<td>72%</td>
</tr>
<tr>
<td>Provider</td>
<td>79%</td>
</tr>
<tr>
<td>Exchange</td>
<td>64%</td>
</tr>
<tr>
<td>Other</td>
<td>77%</td>
</tr>
</tbody>
</table>

Effect of TYPE OF PROGRAM

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

'Home Program' refers to College and University Programs and 'Provider' refers to Third Party Provider.
Study Abroad: Using *Regression Analysis* to reveal the relative effect of different types of Study Abroad Programs on 4-year graduation rates.
Study Abroad: **Need-Based Aid** vs **No Need-Based Aid**

**Descriptive Statistics**

**NEED-BASED AID**

- 9.5% of need-based aid students studied 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
- High School GPA = 3.69 vs. 3.49
- SAT Score = 1238 vs. 1149
- % Female = 66.0% vs. 49.3%
- % Underrep. minority = 8.4% vs. 13.3%
- Degree in 6 years = 95.5% vs. 66.5%
  *= 96.3% vs. 85.0%
- Degree in 4 years = 74.5% vs. 41.8%
  *= 75.2% vs. 54.9%
- Semesters to Degree = 11.6 vs. 12.2
- GPA at Degree = 3.44 vs. 3.25
- Credit Hours at Degree = 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.

For more information: [www.usg.edu/cassie](http://www.usg.edu/cassie)
Study Abroad: **Need-Based Aid** vs **No Need-Based Aid**

Matching Analysis

<table>
<thead>
<tr>
<th></th>
<th>Need-Based Aid</th>
<th>No Need-Based Aid</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Degree in 6 Years</strong></td>
<td>6.1pp</td>
<td>3.8pp</td>
</tr>
<tr>
<td><strong>Degree in 4 Years</strong></td>
<td>9.1pp</td>
<td>8.7pp</td>
</tr>
<tr>
<td><strong>Semesters to Degree</strong></td>
<td>-0.24</td>
<td>-0.23</td>
</tr>
<tr>
<td><strong>GPA at Degree</strong></td>
<td>0.10</td>
<td>0.10</td>
</tr>
<tr>
<td><strong>Credit Hours Earned</strong></td>
<td>4.08</td>
<td>1.84</td>
</tr>
</tbody>
</table>

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.

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.

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).

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.

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.
CASSIE: The Consortium for the Analysis of Student Success through International Education

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**
- High School GPA = 3.66 vs. 3.52
- SAT Score = 1231 vs. 1163
- % Female = 66.5% vs. 48.8%
- % Underrep. minority = 7.9% vs. 7.7%
- Degree in 6 years = 95.9% vs. 68.0%
  *= 96.5% vs. 86.7%
- Degree in 4 years = 75.7% vs. 45.3%
  *= 76.3% vs. 58.1%
- Semesters to Degree = 11.6 vs. 12.0
- GPA at Degree = 3.42 vs. 3.25
- Credit Hours at Degree = 169.5 vs. 164.2

* For students retained to 3rd year

**For more information:** [www.usg.edu/cassie](http://www.usg.edu/cassie)
### Study Abroad: First Generation Status vs Not First Generation Status

#### Matching Analysis

<table>
<thead>
<tr>
<th>Measure</th>
<th>First Generation Status</th>
<th>Not First Generation Status</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Degree in 6 years</strong></td>
<td>6.5pp</td>
<td>3.2pp</td>
</tr>
<tr>
<td><strong>Degree in 4 years</strong></td>
<td>11.4pp</td>
<td>9.2pp</td>
</tr>
<tr>
<td><strong>Semesters to Degree</strong></td>
<td>-0.29</td>
<td>-0.23</td>
</tr>
<tr>
<td><strong>GPA at Degree</strong></td>
<td>0.11</td>
<td>0.09</td>
</tr>
<tr>
<td><strong>Credit Hours Earned</strong></td>
<td>6.88</td>
<td>2.00</td>
</tr>
</tbody>
</table>

- **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.

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.

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.

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).

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

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.
Study Abroad: Underrepresented minority (URM) vs Not URM

Descriptive Statistics

**UNDERREPRESENTED MINORITY (URM)**

- 8.5% of underrepresented minority students studied abroad
- High School GPA = 3.53 vs. 3.21
- SAT Score = 1127 vs. 1010
- % Female = 71.5% vs. 57.0%
- Degree in 6 years = 93.0% vs. 50.6%
  * For students retained to 3rd year = 94.0% vs. 72.5%
- Degree in 4 years = 60.6% vs. 24.2%
  * For students retained to 3rd year = 61.1% vs. 35.7%
- Semesters to Degree = 12.1 vs. 12.8
- GPA at Degree = 3.27 vs. 3.05
- Credit Hours at Degree = 167.0 vs. 149.6

**NOT URM**

- 15.1% of not underrepresented minority students studied abroad
- High School GPA = 3.70 vs. 3.51
- SAT Score = 1243 vs. 1158
- % Female = 66.4% vs. 50.6%
- Degree in 6 years = 95.4% vs. 66.0%
  * = 96.2% vs. 84.9%
- Degree in 4 years = 74.3% vs. 42.0%
  * = 75.0% vs. 55.6%
- Semesters to Degree = 11.6 vs. 12.1
- GPA at Degree = 3.44 vs. 3.27
- Credit Hours at Degree = 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.

For more information: [www.usg.edu/cassie](http://www.usg.edu/cassie)
### Study Abroad: Underrepresented minority (URM) vs Not URM

#### Matching Analysis

<table>
<thead>
<tr>
<th>Measure</th>
<th>URM</th>
<th>Not URM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Degree in 6 Years</strong></td>
<td>7.8pp</td>
<td>3.9pp</td>
</tr>
<tr>
<td><strong>Degree in 4 Years</strong></td>
<td>11.6pp</td>
<td>8.4pp</td>
</tr>
<tr>
<td><strong>Semesters to Degree</strong></td>
<td>-0.26</td>
<td>-0.22</td>
</tr>
<tr>
<td><strong>GPA at Degree</strong></td>
<td>0.12</td>
<td>0.09</td>
</tr>
<tr>
<td><strong>Credit Hours Earned</strong></td>
<td>6.82</td>
<td>1.77</td>
</tr>
</tbody>
</table>

*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: **STEM** vs **Not STEM** Majors

**Descriptive Statistics**

### STEM MAJORS

- 10.9% of STEM majors studied 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

- **High School GPA** = 3.64 vs. 3.39
- **SAT Score** = 1218 vs. 1110
- **% Female** = 69.1% vs. 53.2%
- **% Underrep. minority** = 13.9% vs. 23.4%
- **Degree in 6 years** = 95.5% vs. 61.6%
  * = 96.3% vs. 82.5%
- **Degree in 4 years** = 76.3% vs. 38.5%
  * = 77.0% vs. 53.0%
- **Semesters to Degree** = 11.6 vs. 12.2
- **GPA at Degree** = 3.43 vs. 3.23
- **Credit Hours at Degree** = 150.8 vs. 144.3

* Refers to the graduation rate of students who remain enrolled until their 3rd year

Seminers 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.

For more information: [www.usg.edu/cassie](http://www.usg.edu/cassie)
Study Abroad: **STEM vs Not STEM Majors**

**Matching Analysis**

<table>
<thead>
<tr>
<th></th>
<th>STEM MAJORS</th>
<th>NOT STEM</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>DEGREE IN 6 YEARS</strong></td>
<td>4.1pp</td>
<td>4.4pp</td>
</tr>
<tr>
<td><strong>DEGREE IN 4 YEARS</strong></td>
<td>5.3pp</td>
<td>10.0pp</td>
</tr>
<tr>
<td><strong>SEMESTERS TO DEGREE</strong></td>
<td>-0.16</td>
<td>-0.25</td>
</tr>
<tr>
<td><strong>GPA AT DEGREE</strong></td>
<td>0.10</td>
<td>0.10</td>
</tr>
<tr>
<td><strong>CREDIT HOURS EARNED</strong></td>
<td>3.98</td>
<td>1.82</td>
</tr>
</tbody>
</table>

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.

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.

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).

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.

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.

*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.