

Visualizing Foreign Gifts to American Universities

CPSC547
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Motivation

- Schools receive a lot of donations – how do we ensure that they don't come from unsavory sources?
- Section 117, Higher Education Act of 1965 [1]
- It is important to maintain transparency so that the public knows where the donations come from and for what purpose they are used for.

[1] <https://www2.ed.gov/policy/highered/leg/foreign-gifts.html>

Data

- <https://studentaid.gov/data-center/school/foreign-gifts>
- <https://www.kaggle.com/datasets/mylesoneill/world-university-rankings>

Foreign Gift and Contracts Report with Date Range 01/01/2014 to 06/30/2020
 Grouped by: OPEID, State, Foreign Gift Received Date
 Data Source: Postsecondary Education Participation System 10/19/2020

| ID | OPEID | Institution Name | City | State | Foreign Gift Received Date | Foreign Gift Amount | Gift Type | Country of Gifor | Giflor Name |
|-----|-------|---------------------------|--------------|-------|----------------------------|---------------------|---------------|------------------|-------------------------------------|
| 894 | 9892 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$749.00 | Contract | ENGLAND | Singer Instruments Co |
| 895 | 9893 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$10,186.00 | Contract | ENGLAND | Singer Instruments Company |
| 896 | 9894 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$50.00 | Monetary Gift | NEW ZEALAND | Cavanagh |
| 897 | 9895 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$159,483.00 | Contract | BRAZIL | Universidade Federal do Para |
| 898 | 9896 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$1,750.00 | Contract | CANADA | C D N Isotopes |
| 899 | 9897 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$65,293.00 | Contract | CANADA | Doric Lenses Inc |
| 900 | 9898 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$11,806.00 | Contract | CANADA | Dura Ramp Inc |
| 901 | 9899 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$11,000.00 | Contract | CANADA | Ecole De Technologie Superieure |
| 902 | 9900 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$48,000.00 | Contract | CANADA | Engineering.Com |
| 903 | 9901 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$21,170.00 | Contract | CANADA | ERectLife Software Inc |
| 904 | 9902 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$7,000.00 | Contract | CANADA | HITACHI HIGH TECH CANADA |
| 905 | 9903 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$786.00 | Contract | CANADA | Indigo Instruments |
| 906 | 9904 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$50,853.00 | Contract | CANADA | InnoSoft Canada Inc |
| 907 | 9905 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$17,570.00 | Contract | CANADA | Integrated Traceability Solutions |
| 908 | 9906 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$8,000.00 | Contract | CANADA | Kira Talent, Inc. |
| 909 | 9907 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$1,839.00 | Contract | GERMANY | Vera Fimm |
| 910 | 9908 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$120,000.00 | Contract | CHINA | East China Normal University |
| 911 | 9909 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$99,000.00 | Contract | INDIA | KC Overseas Education Private Limit |
| 912 | 9910 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$99,000.00 | Contract | INDIA | KRISHNA CONSULTANTS |
| 913 | 9911 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$99,000.00 | Contract | INDIA | MANVA GROUP |
| 914 | 9912 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$99,000.00 | Contract | INDIA | Raj Consultants Pvt Ltd |
| 915 | 9913 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$99,000.00 | Contract | INDIA | YATHAPU CONSULTING PRIVATE LIMITED |
| 916 | 9914 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$56,617.00 | Contract | ENGLAND | Emerald Publishing Limited |
| 917 | 9915 | Colorado State University | Fort Collins | CO | 12-31-2019 | \$26,000.00 | Contract | ENGLAND | FutureLearn, Inc. |

| # world_rank | ▲ institution | ▲ country | # national_rank | # quality_of_educati... | # alumni |
|----------------------------|---------------------------------------|---|---------------------------------------|-------------------------------|--------------------|
| world rank for university. | name of university | country of each university | rank of university within its country | rank for quality of education | rank for a employm |
| | 1024 unique values | USA 26% China 8% Other (1460) 66% | | | |
| 1 | Harvard University | USA | 1 | 7 | 9 |
| 2 | Massachusetts Institute of Technology | USA | 2 | 9 | 17 |
| 3 | Stanford University | USA | 3 | 17 | 11 |
| 4 | University of Cambridge | United Kingdom | 1 | 10 | 24 |
| 5 | California Institute of Technology | USA | 4 | 2 | 29 |

Possible Exploration Questions

- Identify trends in donors and recipients of the schools.
 - Idea: can also merge with school ranking data to understand how ranking influences donor trends.
- Understand the ties that schools might have to certain donor countries, and how this may have changed over time.
 - Idea: tying it to topical news events.

How?

- Data and Task Abstraction
 - What type of data and datasets do we have?
 - What kind of tasks might a user take? How can the data be transformed?
- Developing requirements
- Picking the idioms and representations for the data
- Developing the visualization (Python, d3.js, or R)
- Validating the design

• E.g.

