



2024
Annual Conference

Leading
International
Education
at a Crossroads

Curating Data to Inform
Strategic Global Engagement:
Overcoming Challenges, Leveraging Opportunities

Tim Barnes

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University of Kentucky

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Data and International Agreements Manager, University of Kentucky



international student recruitment
education abroad enrollment/demographics
international research collaborations
international student enrollment
international alumni
international licensing/technology transfer
international faculty/staff visiting scholars
faculty/staff travel
international co-authorships
global healthcare/clinical activities
global rankings/reputation
international purchasing
global investment portfolio
international online education

AWASH IN A SEA OF DATA

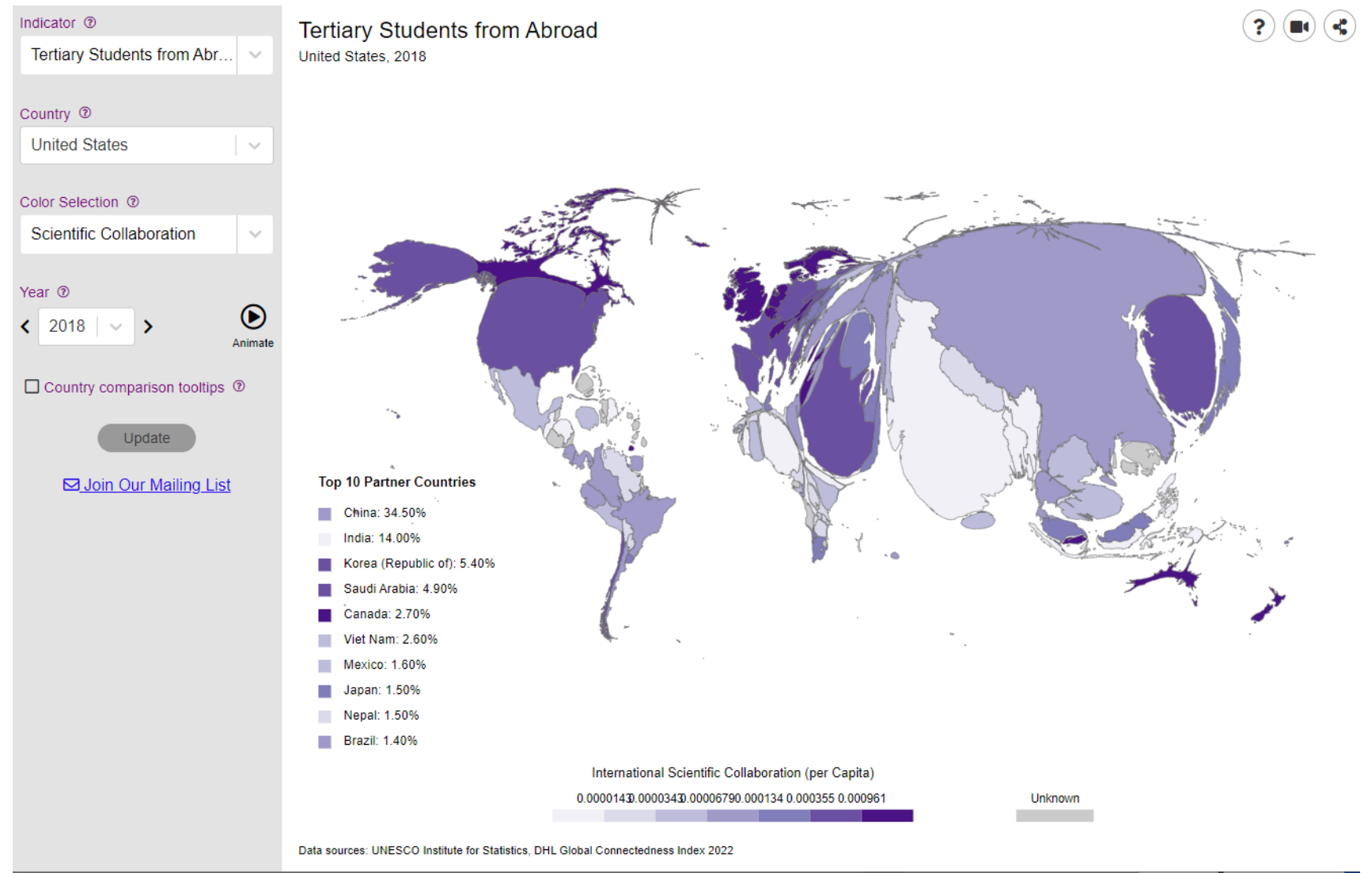
... but how to use it?



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Increasingly sophisticated tools can curate and visualize vast amounts of data in ways that lead to new insights, and inform new strategies



<https://globalization.stern.nyu.edu/maps?country=USA&indicator=stu&year=2018&color=choropleth&colorby=dcol>



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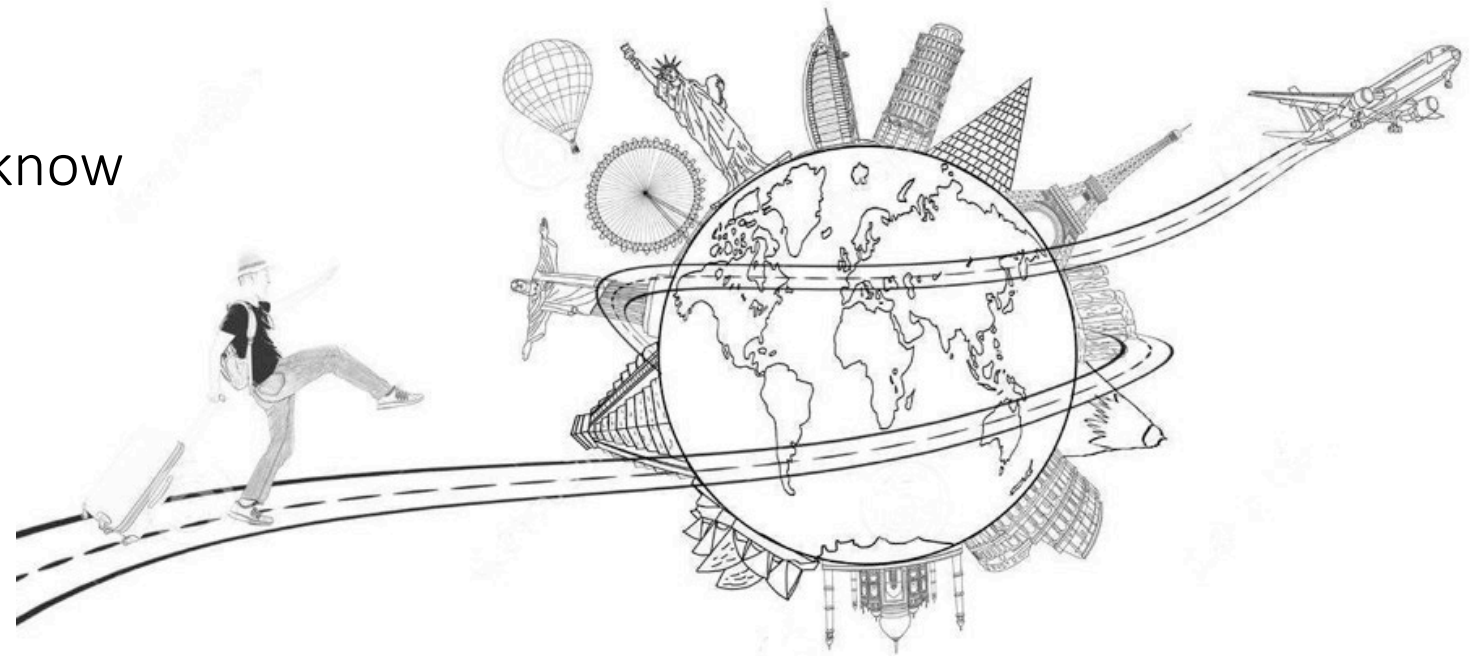
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Incidental Campus Internationalization

VS

Intentional Campus Internationalization

You can't plan your route unless you know
where you are now,
and
where you want to end up.

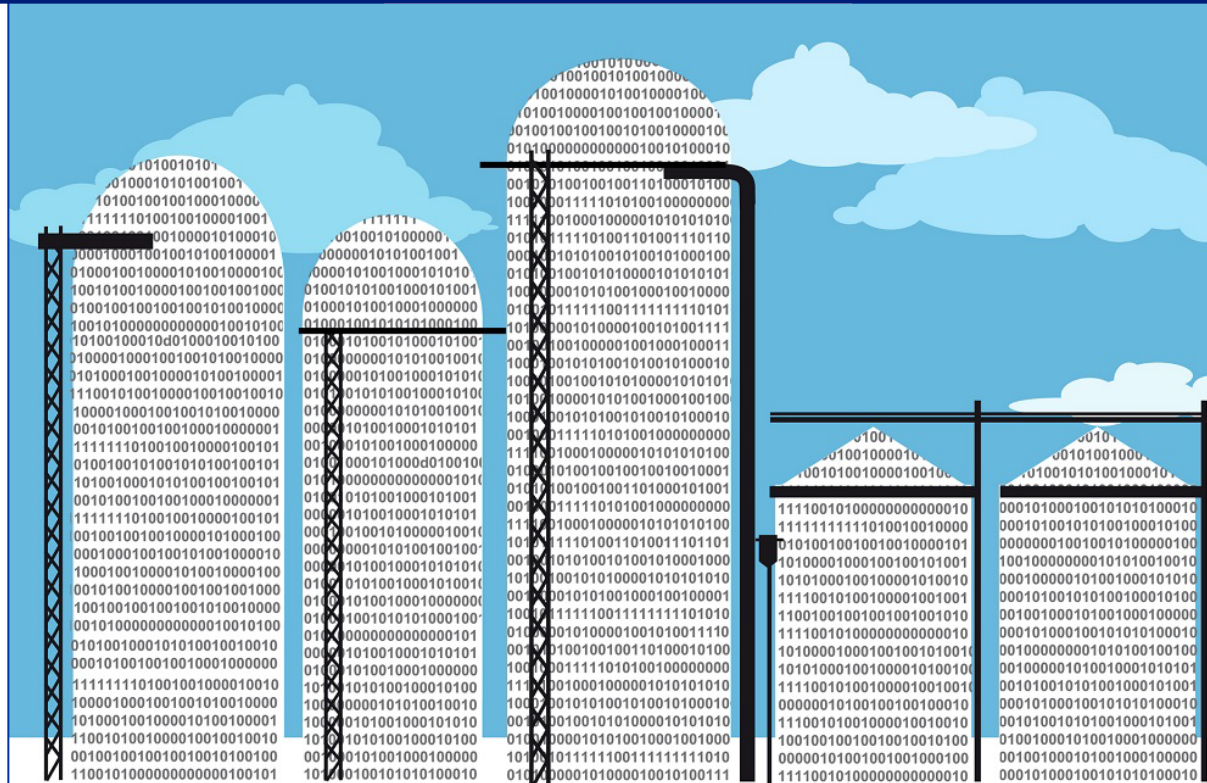


Access to good, timely, well-organized and presented data is critical to this institutional self-awareness

Data Silos

VS

Data Integration



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Third-Party Solutions

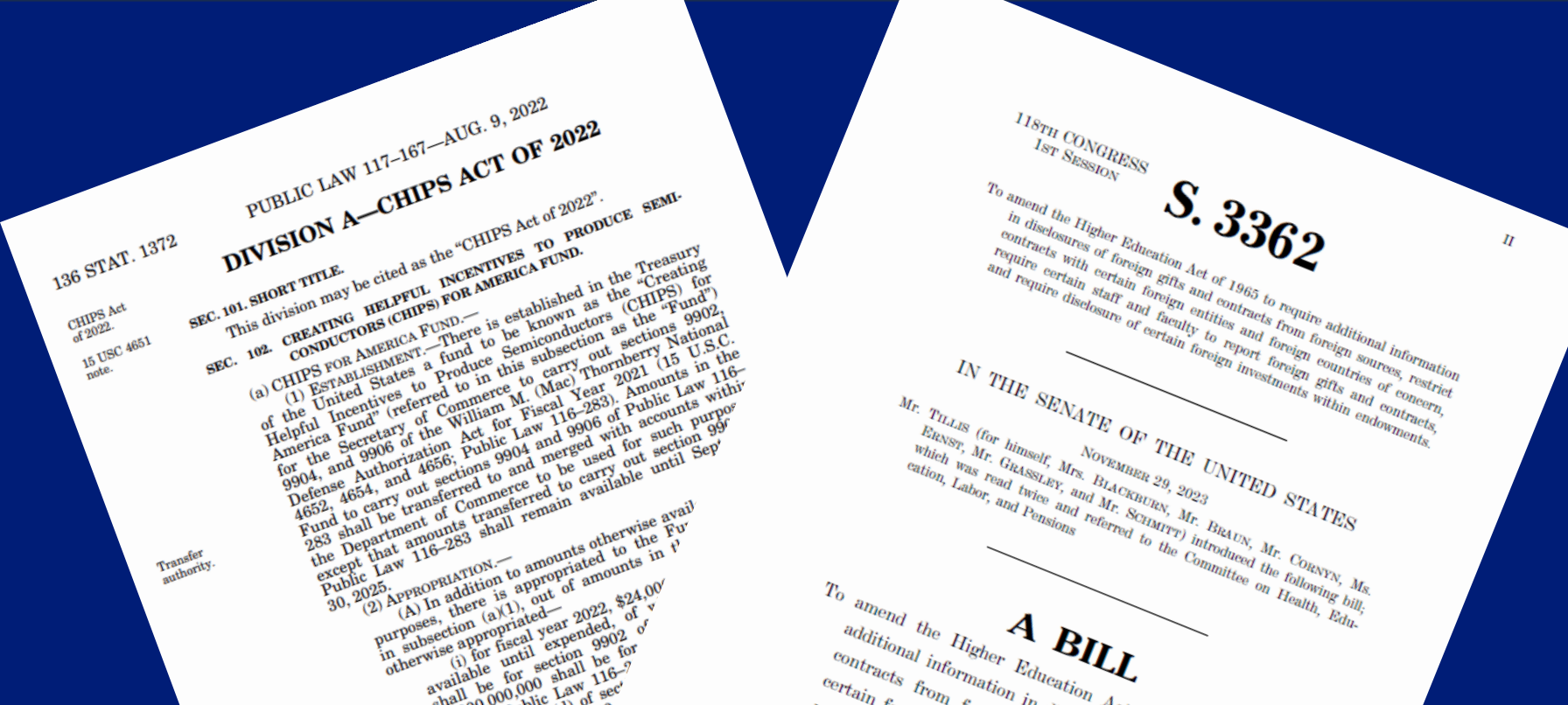
VS

In-House Development

- ✓ Plug-and-play
- ✓ Well-designed user experience/interface
- ✓ Well-designed dashboards/visualizations
- ✓ API integration
- X Initial and annual costs
- X Customization costs/limits
- X Interoperability issues with other campus data systems



- ✓ Fully customizable and expandable
- ✓ Develops in-house technical and data expertise
- ✓ Integrates with overall campus data management
- ✓ Full control of data, design, etc.
- X Steep learning curve
- X Probably more FTEs




Increasingly, having access to good data is no longer a luxury, but a mandate for reporting and compliance

CHIPS and Science Act 2022 | DETERRENT Act (pending, 2024)



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A world map with several regions highlighted in shades of blue. The highlighted regions include North America, South America, Europe, Africa, India, China, and Australia. The rest of the world is shown in a light beige color.

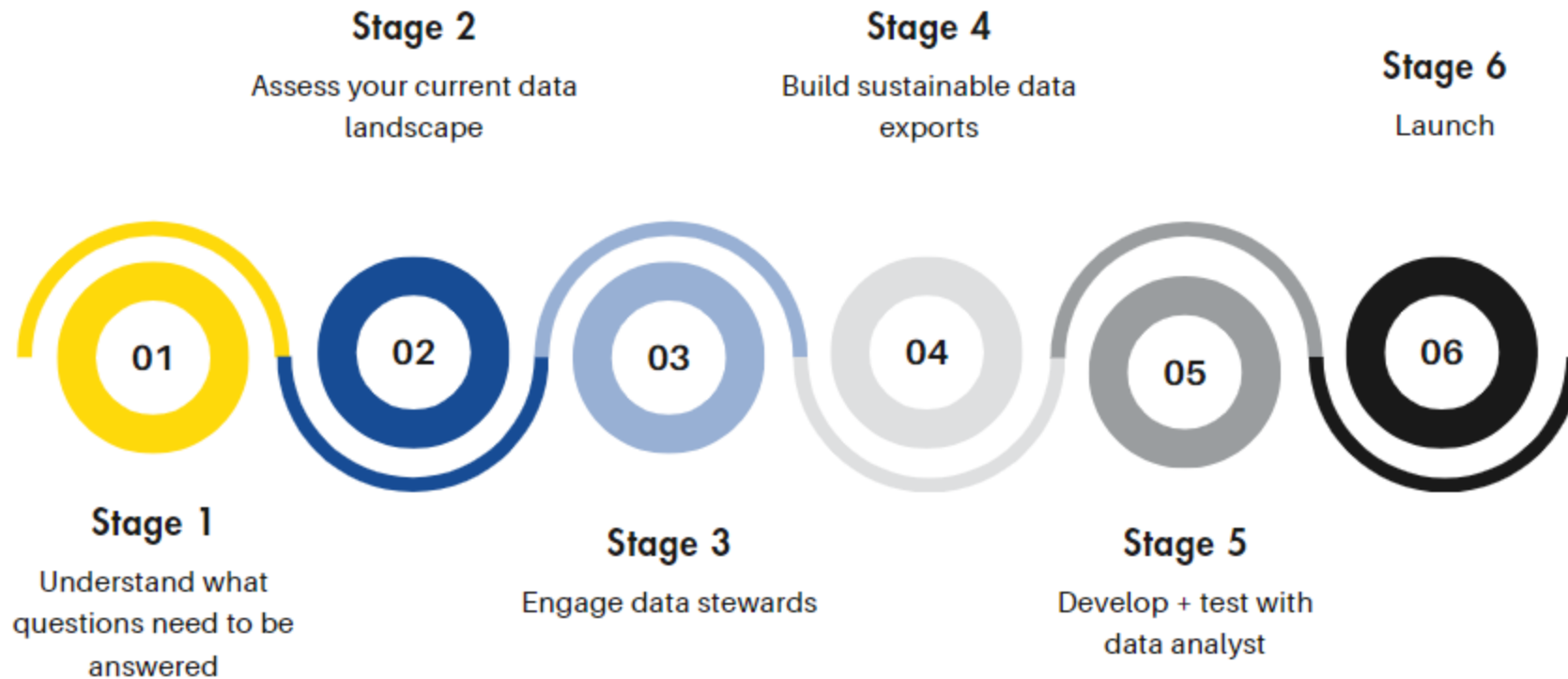
Building a road map for data-driven decision making at the
University of Rochester



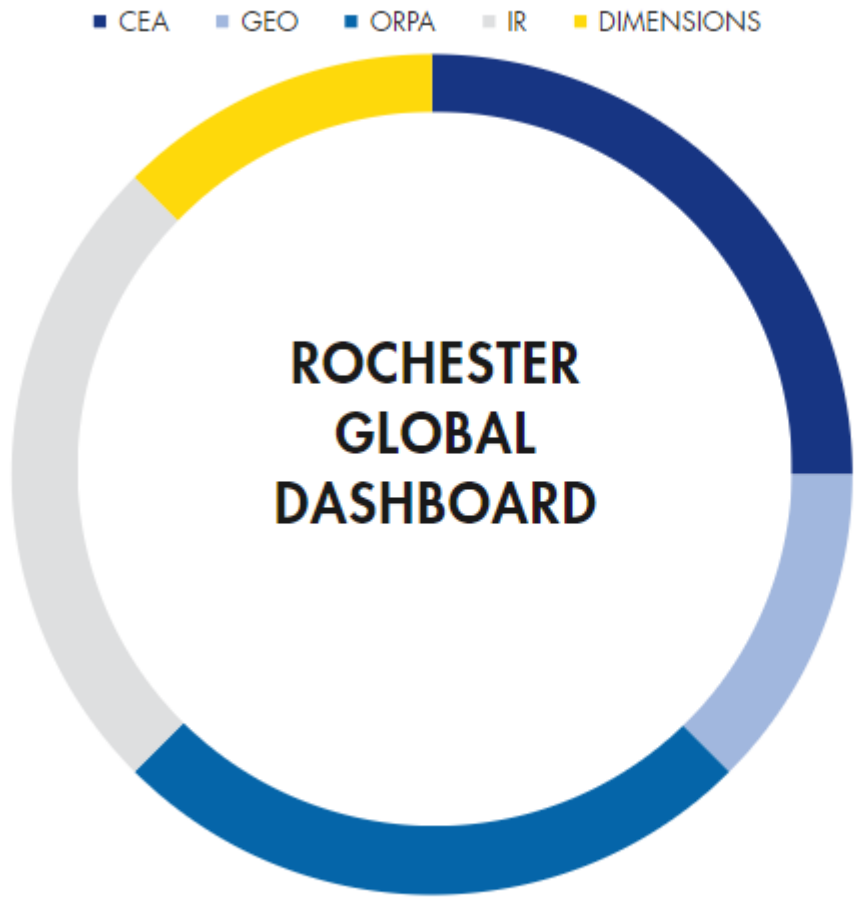
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Data Collection and Dashboard Planning



- FACULTY TRAVEL
- EDUCATION ABROAD
- FORMAL COLLABORATIONS
- FUNDING COLLABORATIONS
- RESEARCH AGREEMENTS
- GRADUATE FEEDER INSTITUTIONS
- DOCTORAL ALUMNI
- RESEARCH MEASURES



8 DATASETS 6 DATA SOURCES 5 UNITS 1 DASHBOARD



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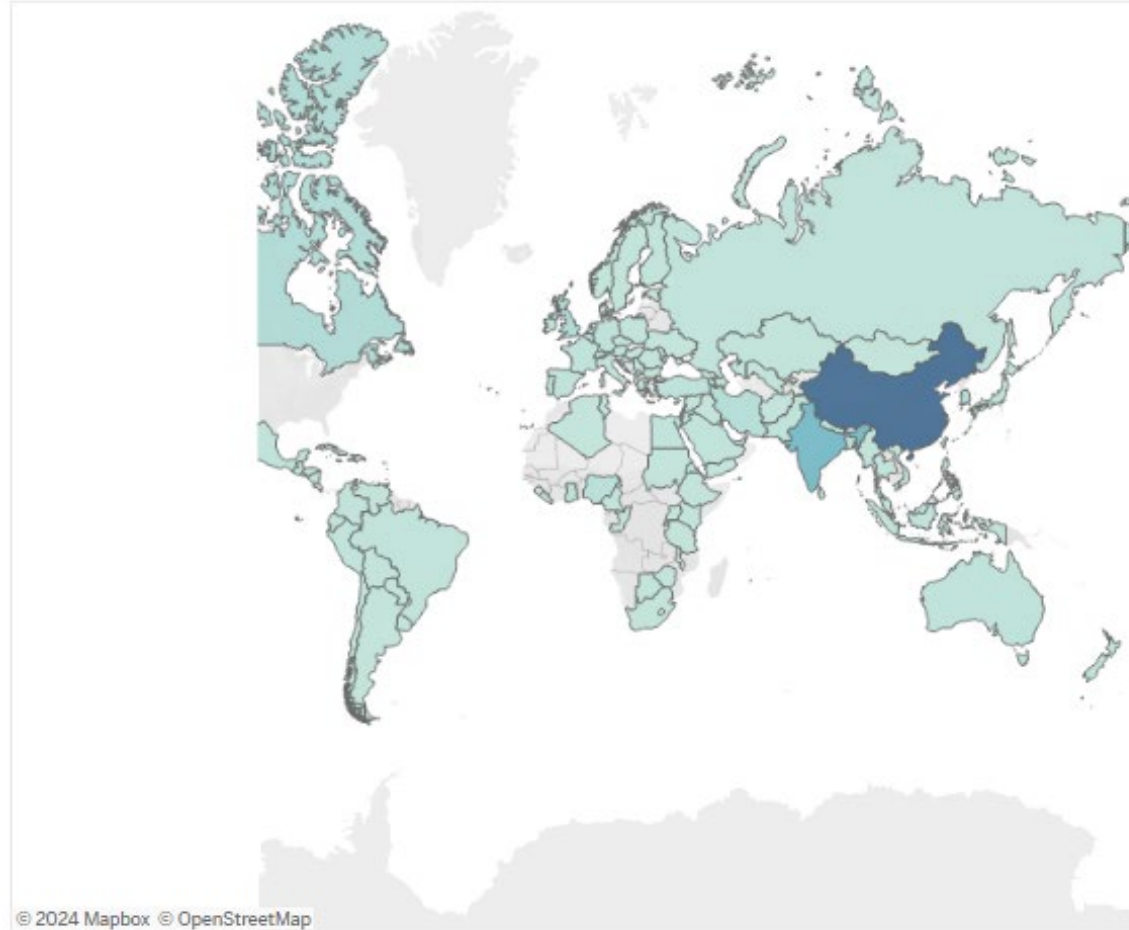
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Terminology and Governance

Graduate Feeder Institutions

Applicant Count: **5,582**

Application Count: **7,264**



Applications by Funnel Status

	Enrolled	Admit	Accept	Applicants	Total
2013	Save	22	81	40	383
2014	230	21	99	91	441
2015	253	31	108	88	480
2016	259	29	112	81	481
2017	265	44	106	90	505
2018	271	24	115	107	517
2019	231	49	109	94	483
2020	170	26	265	115	576
2021	560	87	374	122	1,143
2022	626	37	322	132	1,117
2023	672	20	360	86	1,138
Total	3,777	390	2,051	1,046	7,264

The data in this dashboard is sourced from the graduate application management system, SLATE. The data displays admissions information and should **not** be used for enrollment reporting. Enrolled applicants in this dashboard accepted an offer of admission but *may or may not* have enrolled in a course. This data should be used when referencing admissions information and trend analysis only.

To view enrollment reporting, please view the International Enrollment at Census Dashboard provided by Institutional Research, that data is sourced from UR Student and has accurate enrollment reporting for students enrolled in courses.



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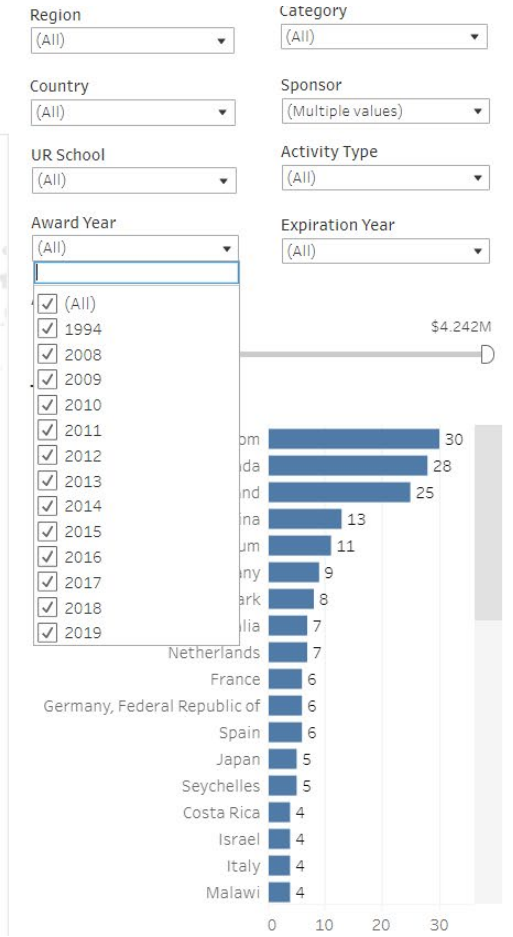
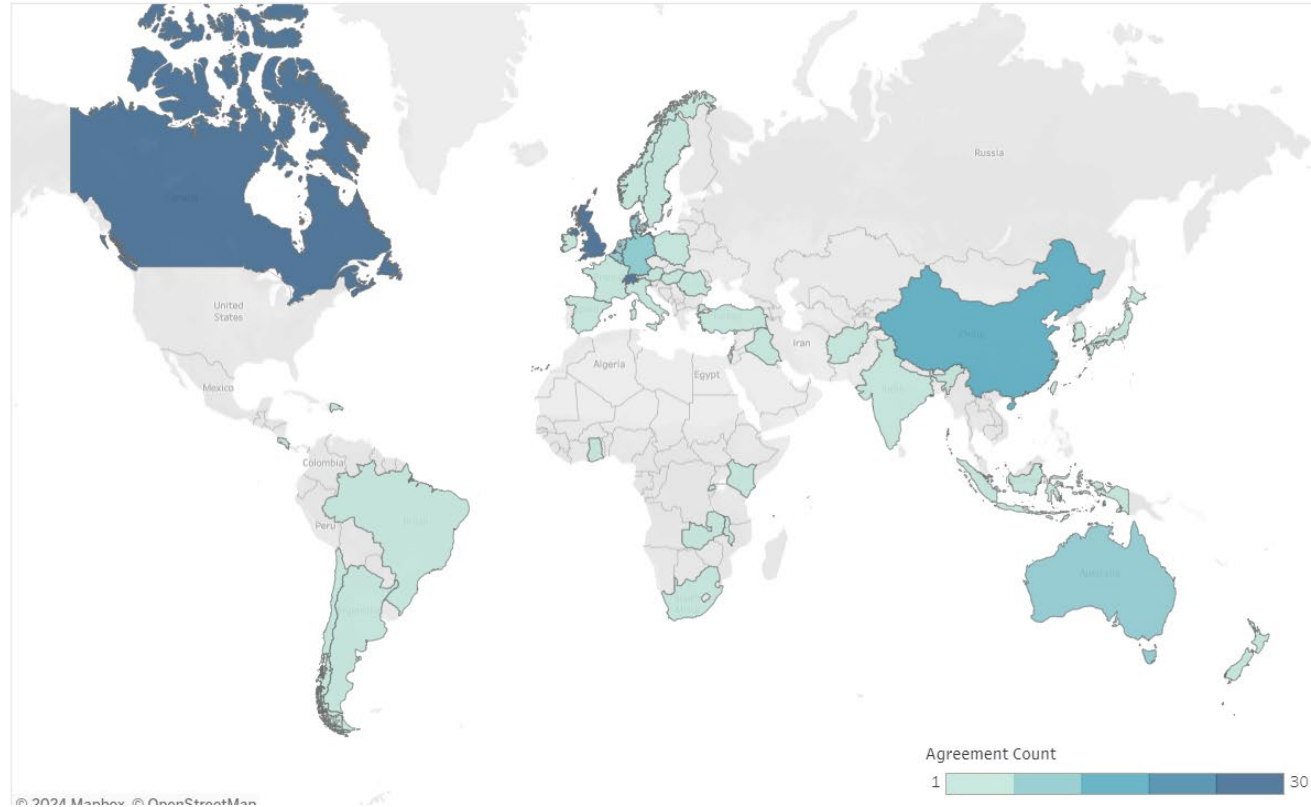
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Data Limitations

- Expectations vs. reality
- Limitations vs. opportunities

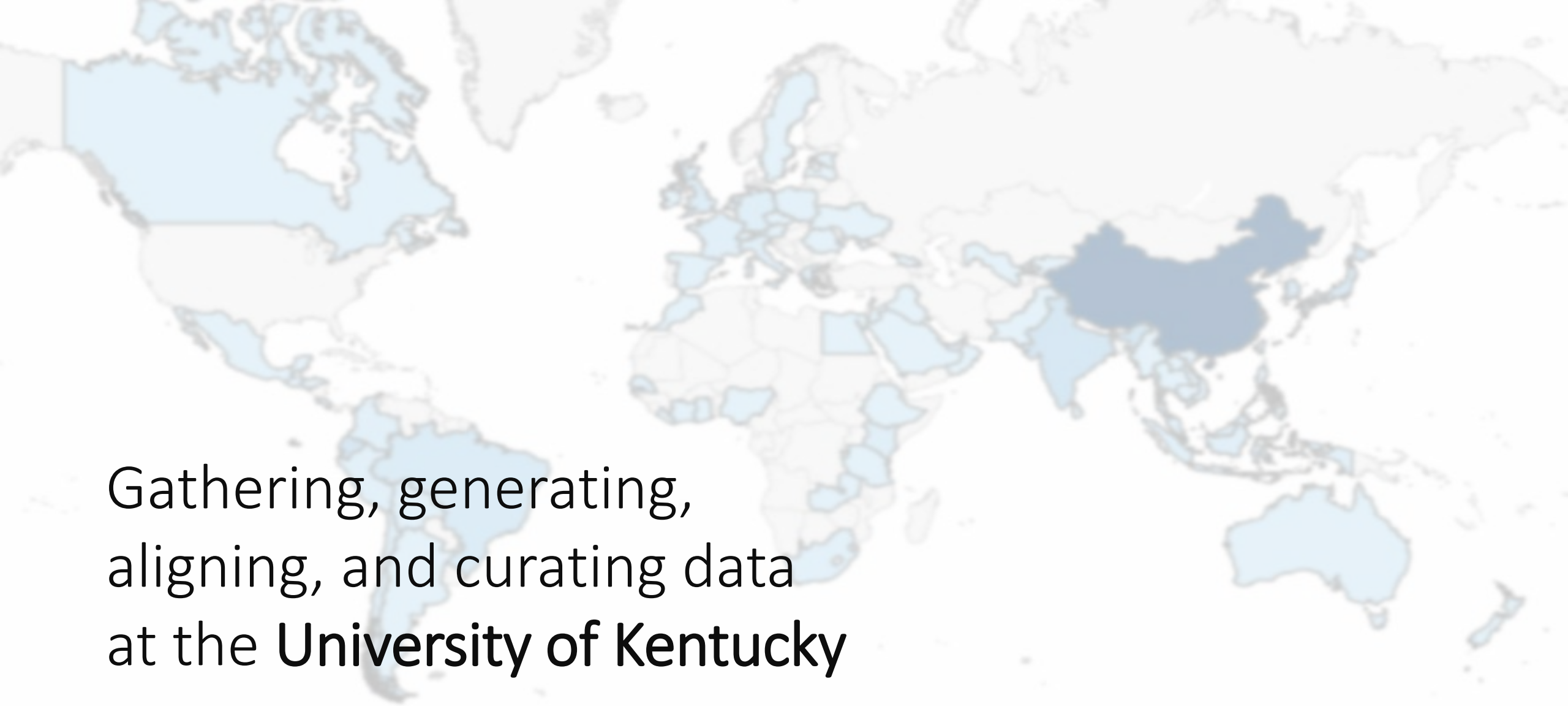
Funding Collaborations

Funded Research Count: **224** Total Amount Received: **\$47.349M**



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A world map with a light blue background. The map shows the outlines of continents and countries. China is highlighted in a darker shade of blue, while other countries are in a lighter shade. The text is overlaid on the left side of the map.

Gathering, generating,
aligning, and curating data
at the **University of Kentucky**

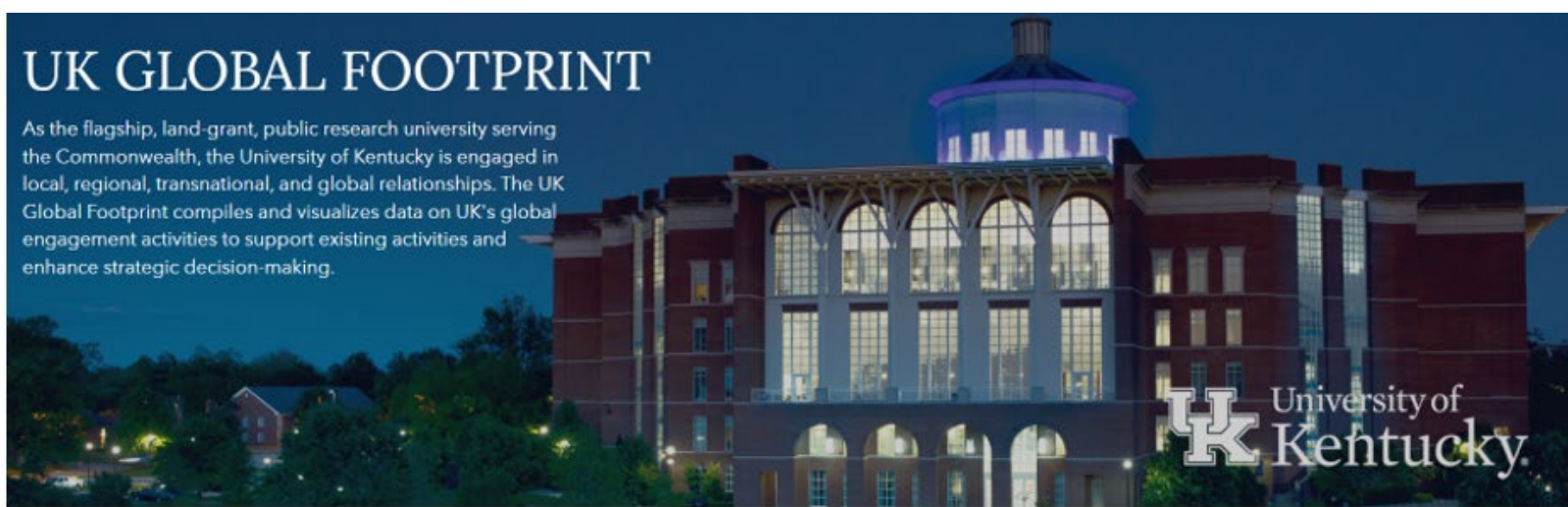


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UK GLOBAL FOOTPRINT

As the flagship, land-grant, public research university serving the Commonwealth, the University of Kentucky is engaged in local, regional, transnational, and global relationships. The UK Global Footprint compiles and visualizes data on UK's global engagement activities to support existing activities and enhance strategic decision-making.



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Global Mobility

Education Abroad Enrollment



Global Mobility

International Alumni



Global Mobility

International Faculty, Staff & Visiting Scholars



Global Engagement

Visiting Fulbright Awardees



Global Learning

Global Resources



Global Learning

Globally-Focused Majors, Minors, Certificates & Programs



Global Mobility

International Student Enrollment



Global Mobility

International Travel



Global Engagement

Active Partnerships



Global Learning

UK Core Global Dynamics Courses



Global Research

International Coauthorship Bibliometrics



Global Research

UK Faculty & Staff Research & Expertise



Global Engagement

National & Global Rankings



Global Engagement

Other Scholarships



Global Engagement

UKY Fulbright Awardees



International Center

Global Footprint

<https://international.uky.edu/global-footprint>



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GLOBAL ENGAGEMENT REPORT



STANLEY AND KAREN PIGMAN COLLEGE OF ENGINEERING FALL, 2022

This report summarizes metrics that illustrate the global engagement profile of the Stanley and Karen Pigman College of Engineering and includes data on international student enrollment, education abroad participation, international travel, and international partnerships. The College of Engineering enrolled 3,518 students in Fall of the 2022-2023 academic year, or approximately 10.8% of total enrollment at the University of Kentucky.

PREPARED BY

UNIVERSITY OF KENTUCKY INTERNATIONAL CENTER
OFFICE OF INTERNATIONAL PARTNERSHIPS AND RESEARCH
MARCH 2023

1. International Student Enrollment	
1.1 International Student Enrollment | University-Wide | 2016-2022	.....
1.2 International Student Enrollment | ENGINEERING | 2016-2022	.....
1.3 International Student Enrollment by UK College Enrollment | Fall 2022	.....
1.4 Top Colleges by % International Enrollment | Fall 2022	.....
1.5 Countries of Origin | International Students | ENGINEERING | 2016-2022	.....
1.6 Top Countries of Origin | International Students | ENGINEERING | 2016-2022	.....
1.7 International Undergraduate Student Enrollment | ENGINEERING | Fall 2022	.....
1.8 International Graduate Enrollment | ENGINEERING | Fall 2022	.....
1.9 International Post-Doctoral Enrollment | ENGINEERING | Fall 2022	.....
2. Education Abroad Participation	
2.1 EA Participation | University-Wide and ENGINEERING | 2018-2022	.....
2.2 EA Participation by College | AY 2021-2022	.....
2.3 EA Participation Totals by Major/Program | ENGINEERING | AY 2021-2022	.....
2.4 EA Participation Rates by Major/Program | ENGINEERING | AY 2021-2022	.....
2.5 EA Destinations | ENGINEERING | AY 2021-2022	.....
2.6 EA Participant Demographics | ENGINEERING | AY 2021-2022	.....
3. Faculty, Staff, and Student International Mobility	
3.1 Faculty, Staff, and Student International Mobility | Travel Destinations | ENGINEERING | CY 2022	.....
3.2 Faculty, Staff, and Student International Mobility | Travel Purpose | ENGINEERING | CY 2022	.....
4. International Faculty, Staff, and Visiting Scholars	
4.1 H-1B and Visiting Scholars by College | AY 2021-2022	.....
4.2 H-1B and Visiting Scholars | ENGINEERING | CY 2018-2023	.....
5. International Partnerships	
5.1 International Partnership Agreements by College	.....
5.2 International Partnership Agreements by Region and Type | ENGINEERING	.....
5.3 Undergraduate Transfer Agreements | ENGINEERING	.....
5.4 Graduate Pathway Agreements | ENGINEERING	.....
5.5 Visiting Student Agreements | ENGINEERING	.....
5.6 Other International Agreements | ENGINEERING	.....
6. UK Faculty and Staff Global Engagement & Expertise Survey Results	
6.1 Research Expertise | ENGINEERING	.....
6.2 Faculty and Staff Respondents to Survey | ENGINEERING	.....
6.3 Research Areas | ENGINEERING	.....
6.4 Faculty Survey Response Rate	.....
7. International Awards and Scholarships	
7.1 Fulbright Awardees by College | 2018-2022	.....
7.2 Fulbright Awardee Destinations | ENGINEERING | 2012-2022	.....
7.3 Fulbright Visiting Awardee Countries of Origin | ENGINEERING | 2012-2022	.....
7.4 Fulbright Awardees | ENGINEERING | 2018 - Present	.....
7.5 Other International Student Awards | ENGINEERING | 2018 - Present	.....
8. Global Engagement Academy Participation | ENGINEERING	.....
9. Global Dynamics Courses	
9.1 Enrollment in Global Dynamics Courses Offered by Indicated College | AY 2021-2022	.....
9.2 Global Dynamics Course Enrollment | ENGINEERING | AY 2021-2022	.....
9.3 Courses that Satisfy the Global Dynamics Requirement | ENGINEERING	.....
10. Global Impact Awardees | ENGINEERING | AYs 2020-2022	.....
Appendix A: Faculty, Staff, and Student International Travel Regional Maps CY 2022
Appendix B: Future Global Footprint Data Points



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GLOBAL ENGAGEMENT REPORT



STANLEY AND KAREN PIGMAN COLLEGE OF ENGINEERING FALL, 2022

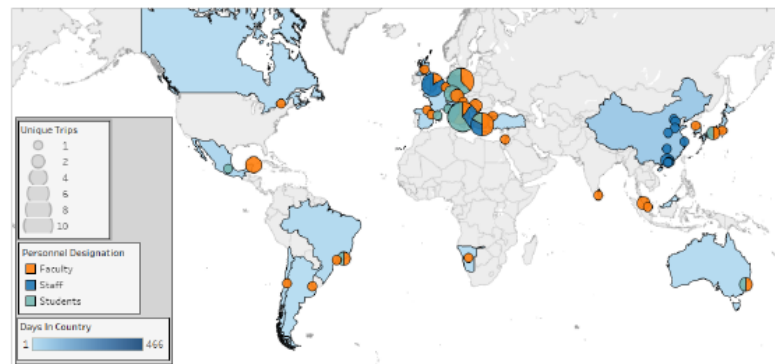
This report summarizes metrics that illustrate the global engagement profile of the Stanley and Karen Pigman College of Engineering and includes data on international student enrollment, education abroad participation, international travel, and international partnerships. The College of Engineering enrolled 3,518 students in Fall of the 2022-2023 academic year, or approximately 10.8% of total enrollment at the University of Kentucky.

PREPARED BY

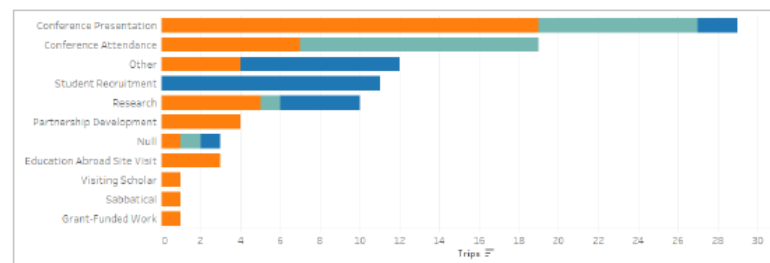
UNIVERSITY OF KENTUCKY INTERNATIONAL CENTER
OFFICE OF INTERNATIONAL PARTNERSHIPS AND RESEARCH
MARCH 2023

3. Faculty, Staff, and Student International Mobility⁶

3.1 Faculty, Staff, and Student International Mobility | Travel Destinations | ENGINEERING | CY 2022



3.2 Faculty, Staff, and Student International Mobility | Travel Purpose | ENGINEERING | CY 2022



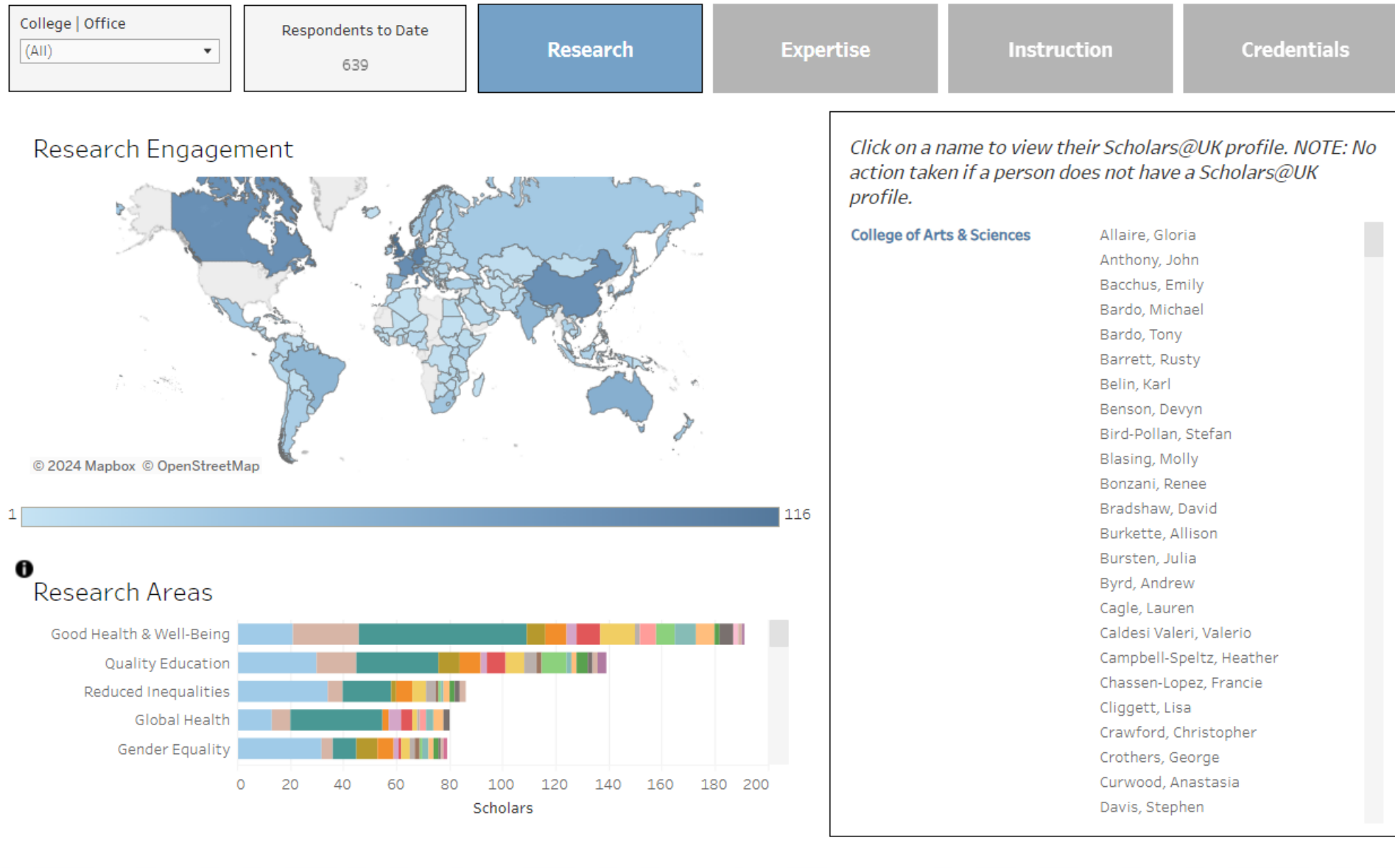
⁶ Data includes non-credit bearing travel for students (e.g., research, conference, service). It does not include travel through the Office of Education Abroad or Exchanges (see section 2).



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Faculty and Staff Research and Expertise



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College | Office
 (All) Respondents to Date
639

Research
Expertise
Instruction
Credentials

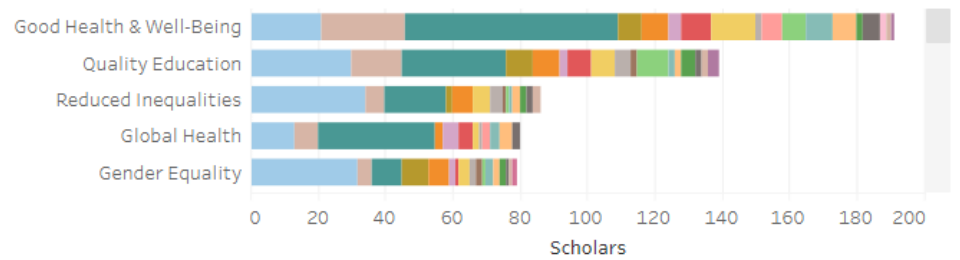
Research Engagement



© 2024 Mapbox © OpenStreetMap



1 Research Areas



Click on a name to view their Scholars@UK profile. NOTE: No action taken if a person does not have a Scholars@UK profile.

- College of Arts & Sciences**
- Allaire, Gloria
 - Anthony, John
 - Bacchus, Emily
 - Bardo, Michael
 - Bardo, Tony
 - Barrett, Rusty
 - Belin, Karl
 - Benson, Devyn
 - Bird-Pollan, Stefan
 - Blasing, Molly
 - Bonzani, Renee
 - Bradshaw, David
 - Burkette, Allison
 - Bursten, Julia
 - Byrd, Andrew
 - Cagle, Lauren
 - Caldesi Valeri, Valerio
 - Campbell-Speltz, Heather
 - Chassen-Lopez, Francie
 - Cliggett, Lisa
 - Crawford, Christopher
 - Crothers, George
 - Curwood, Anastasia
 - Davis, Stephen



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Aligning new and emerging data to existing structures

Standards and
authoritative sources

College of Agriculture, Food, and Environment

College of Agriculture, Food, & Environment

College of Agriculture, Food & Environment

Agriculture, Food and Environment, College of

CAFE

Martin Gattton College of Agriculture, Food and Environment



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Leading International Education at a Crossroads

Aligning new and emerging data to existing structures

Standards and
authoritative sources

Consistency and
effectiveness

College of Agriculture, Food, and Environment

College of Agriculture, Food, & Environment

College of Agriculture, Food & Environment

Agriculture, Food and Environment, College of

CAFE

Martin Gattton College of Agriculture, Food and Environment



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Leading International Education at a Crossroads

International Student Enrollment

College
 (All) ▼

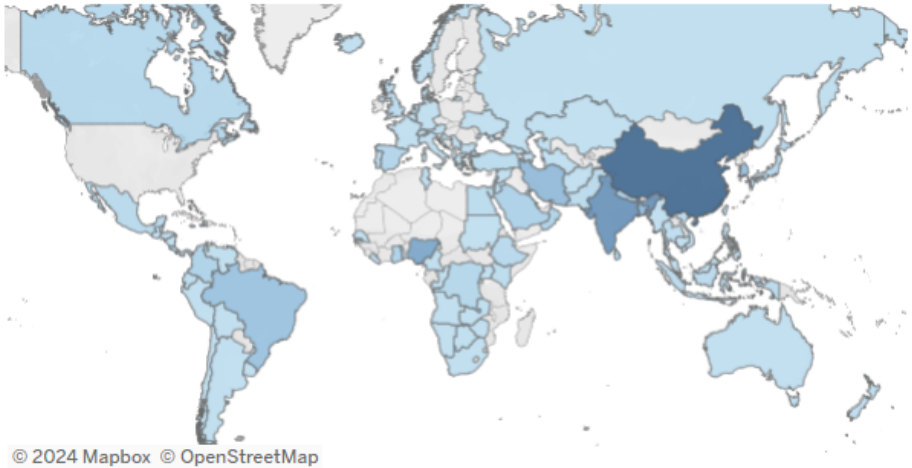
Academic Term
 Fall 2023 ▼

Degree Level

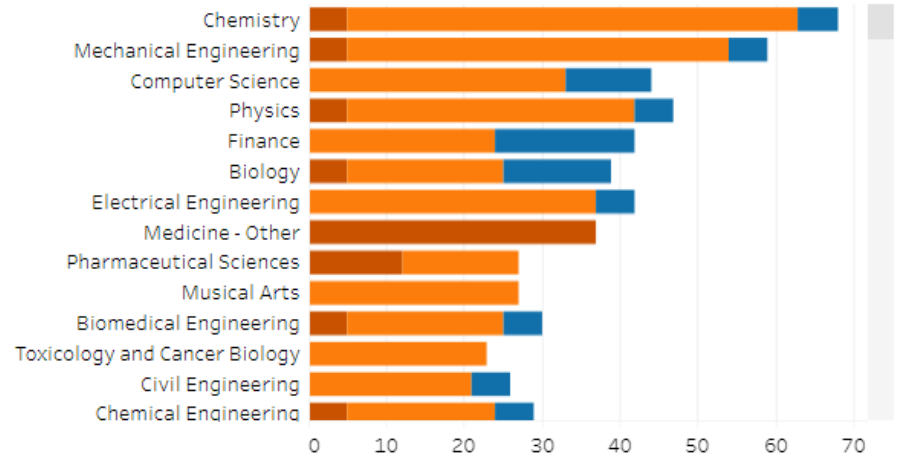
- Undergraduate
- Graduate
- Post-Doctoral
- House Staff

[Click for More Data \(LinkBlue Login\)](#)

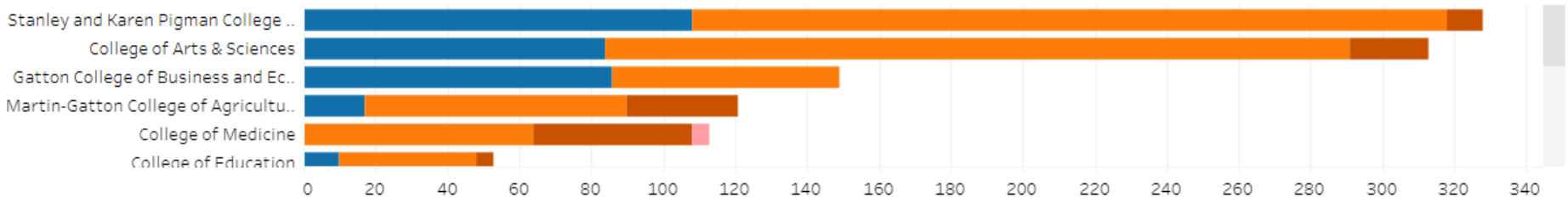
International Student Enrollment by Country of Origin



International Student Enrollment by Major



International Student Enrollment by College



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Mountains of Data

Wide data
Long data



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College	DEGREE_Q..	Ethnicity	First Gener..	Full Part Ti..	Full/Part Ti..	Gender	GENDER_C..	GENDER_IP..	GENDER_O..	Is First Gen..	Is Graduate..	Is Grs Cohort	Is Nonresid..	Is Undergra..	Is Undergra..	
Agriculture, Food and Environment	Null	Null	N	Full Time	Full Time	Female	Female	Female	Null	N	N	Null	Null	Y	Y	
			Black or African American	N	Full Time	Full Time	Male	Male	Male	Null	N	Null	Y	N	Null	Null
												N	Null	N	Y	Y
													N	N	Y	Y
			Other	N												
			Unknown	N	Full Time	Full Time	Male	Male	Male	Null	N	N	Null	N	Y	Y
												N	N	Y	Y	
		White or Caucasian	Y	Full Time	Full Time	Female	Null	Null	Null	Y	Y	N	Y	N	N	
						Female	Female	Female	Null	Y	Null	N	N	Null	Null	
						Male	Male	Male	Null	Y	Null	N	N	Null	Null	
												Y	N	Null	Null	
											N	Null	N	Y	Y	
												N	N	Y	Y	
					Part Time	Part Time	Female	Female	Female	Null	Y	N	Null	N	Y	Y
							Male	Male	Male	Null	Y	N	Null	N	Y	Y
			N	Full Time	Full Time	Female	Female	Female	Null	N	Null	N	N	Null	Null	
											N	Null	N	Y	Y	
												N	N	Y	Y	
						Male	Male	Male	Null	N	Null	N	N	Null	Null	
												Y	N	Null	Null	
											N	Null	N	Y	Y	
												N	N	Y	Y	
					Part Time	Part Time	Female	Female	Female	Null	N	Null	N	Y	Y	
							Male	Male	Male	Null	N	Null	N	Null	Null	
											N	Null	N	Y	Y	
												N	N	Y	Y	
												N	N	Y	Y	
Bachelor's Degree	Null	Y		Full Time	Full Time	Female	Female	Female	Null	Y	Null	Null	Null	Null	Null	
												N	Null	Null	Null	
												Y	Null	Null	Null	
											N	Null	Null	Y	Y	

2.4 million rows x 70 columns



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Mountains of Data

Wide data

Long data

*Counting and institutional
knowledge*



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Global Mobility

Education Abroad Enrollment



Global Mobility

International Alumni



Global Mobility

International Faculty, Staff & Visiting Scholars



Global Engagement

Visiting Fulbright Awardees



Global Learning

Global Resources



Global Learning

Globally-Focused Majors, Minors, Certificates & Programs



Global Mobility

International Student Enrollment



Global Mobility

International Travel



Global Engagement

Active Partnerships



Global Learning

UK Core Global Dynamics Courses



Global Research

International Coauthorship Bibliometrics



Global Research

UK Faculty & Staff Research & Expertise



Global Engagement

National & Global Rankings



Global Engagement

Other Scholarships



Global Engagement

UKY Fulbright Awardees



International Center

Global Footprint

<https://international.uky.edu/global-footprint>



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Data Ownership

Requests and miscommunication

- Scholars@UK
- The pandemic/virtual and in-person meetings

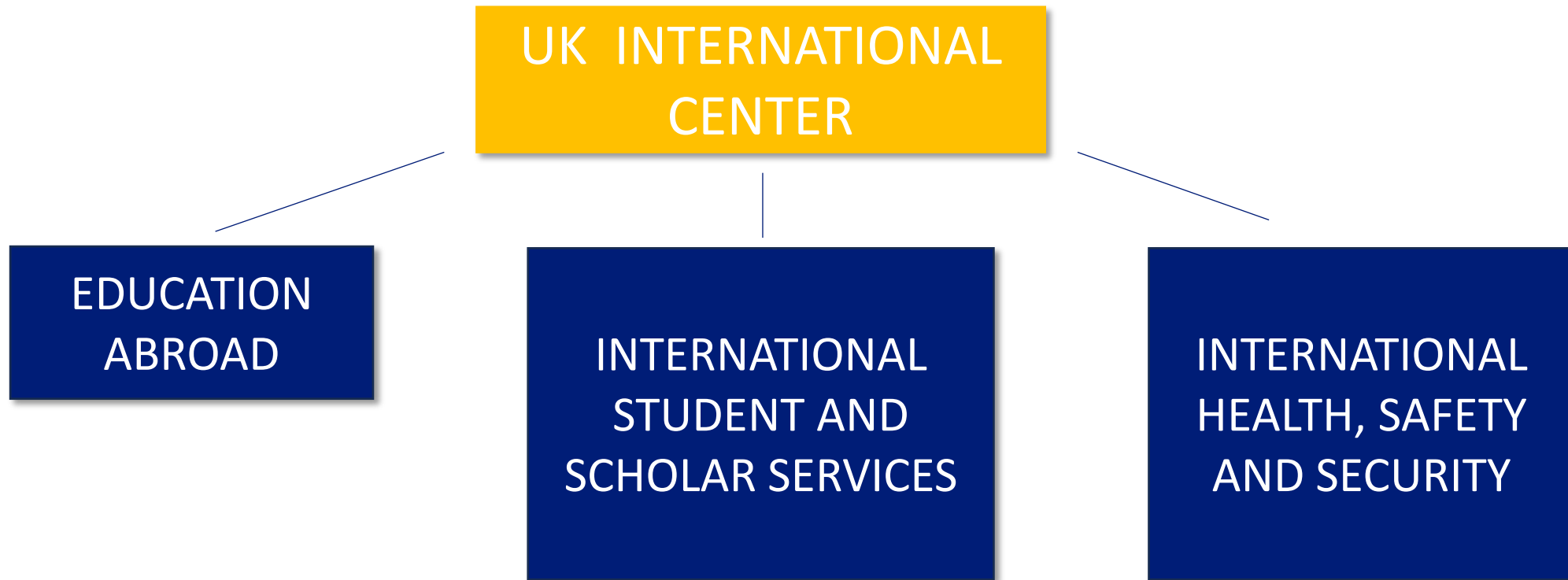
Management, best practices, and future data collaborations



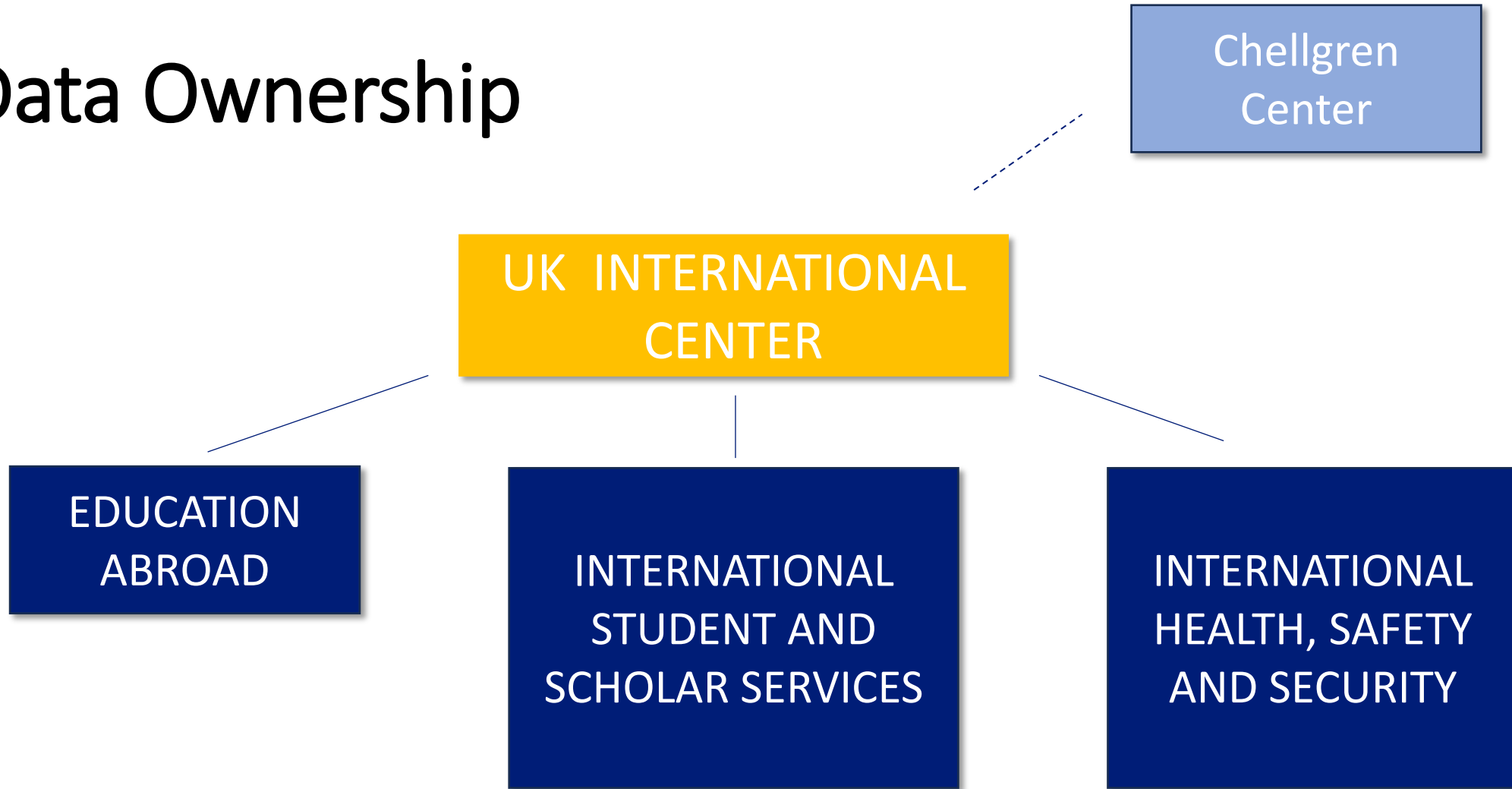
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Data Ownership

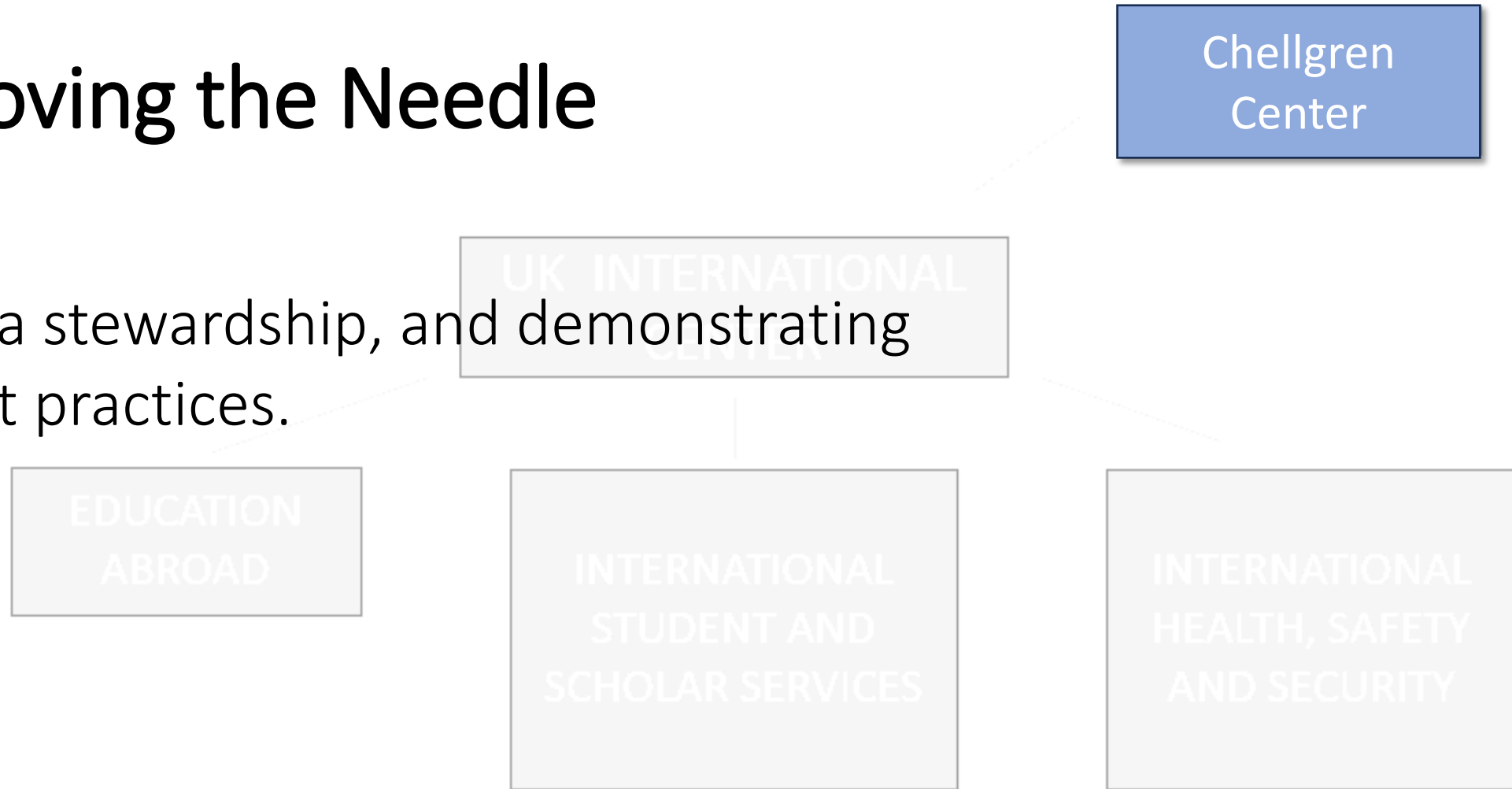


Data Ownership



Moving the Needle

Data stewardship, and demonstrating best practices.



Outputs

VS

Outcomes

- School/College-based reporting
- Clear data definitions
- Trend analysis across sectors
- Relationship development
- Operational, requested, and generated data sets

- Insight into overlooked opportunities
- Impact of data collection practices
- Global data “champions”
- Data alignment and appreciation
- Intentional campus internationalization

Where do we go from here?

- Where can your data take your institution? (planning, resource allocation, assessment)
- How will shifting regulatory frameworks/compliance shape your data collection/curation/visualization efforts?
- How might increased/enhanced global engagement data use influence rankings and reputation
- What are your biggest obstacles around global engagement data?

