The Competition Challenge:

Networks & Impact of Texas A&M's Research

Bruce Herbert, Director Office of Scholarly Communications

2022 Data Science Competition

Research at Texas A&M University



Land-Grant, Sea-Grant, & Space-Grant Institution

128

300

Undergraduate Degree Programs Graduate Degree Programs

- Member of the Association of American Universities (AAU)
- Colleges and Schools: 19
- Master's degree programs: 200
- Doctoral degree programs: 100
- First professional degree programs: 5
- Study Abroad: 5,330 students to 105 countries each year
- Total Faculty: 3,750
- National Academies Faculty: 19
- Nobel Prize: 3
- Wolf Prize: 3
- Research expenditures*: \$905 million+ in FY2017

* #16 nationally, National Science Foundation, 2015



The Intelligent Organization & Research Intelligence

An intelligent organization is a learning organization that is skilled at creating, acquiring and transferring knowledge, and at modifying its behavior to reflect the new knowledge and insights (Garvin 1993).

http://choo.fis.utoronto.ca/fis/imio/IMIO1.html



Narratives & Public Universities



Land grant universities conduct research for the public good:

- Economic impact and innovation
- Public health
- Education
- Social justice
- Environmental sustainability

Association of Public and Land-grant Universities (APLU)



Vice President of Research: Interdisciplinary Research at TAMU

WATER What is being studied?

Co-occurrence (Keywords) Map of TAMU Water-Related Research: 2013-2020



Water Publications Linked to Fields of Research

Bibliometric Database: Dimensions Information: Publications Years: 2013-2020 Organizations: TAMU & TAM-HSC Filter: "Water" in Title or Abstract number of publications in each research category. (Criteria: see below)



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Co-authorship Map of Water-Related Research: 2013-2020

Bibliometric Database: Dimensions Information: Publications Years: 2013-2020 Organizations: TAMU & TAM-HSC Filter: "Water" in Title or Abstract





niu, genhua

Co-authorship Map by zagazig university Organization of Water-Related Research: 2013-2020 sam houston state university

Bibliometric Database: Dimensions Information: Publications Years: 2013-2020 **Organizations: TAMU & TAM-HSC** Filter: "Water" in Title or Abstract



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2022 Student Data Science Competition

The 2022 Data Science competition challenges participants to conduct a data-driven study that describes and visualizes Texas A&M research in ways that illuminate the patterns of collaboration across disciplines and can help Texas A&M to communicate about the significance and impact of our research.

Participants should consider how they would describe Texas A&M's research to university leaders, state representatives, or funding agencies, or the public, to answer:

- How have patterns of research involving multiple disciplines evolved at Texas A&M?
- What have been the successes for Texas A&M research in solving complex problems, and which new collaborations across disciplines could strengthen Texas A&M's response to emerging societal challenges?
- Where has Texas A&M research been represented in public discourse that sets priorities for progress, and where can this representation be increased?