



CHORUS FORUM

Real World Impact of Faculty Publications

Arthur Ellis, Senior Advisor, Elsevier
A.Ellis@Elsevier.com

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Evaluation Framework



Academic performance evaluation

Input

Teaching

Research and education

Outcomes and Impact

Resources

Education

Research & Education
Processes (Throughput)

Knowledge created (Output)

Outcomes and Impact

People, Funding, Equipment

Teaching and Learning Indicators

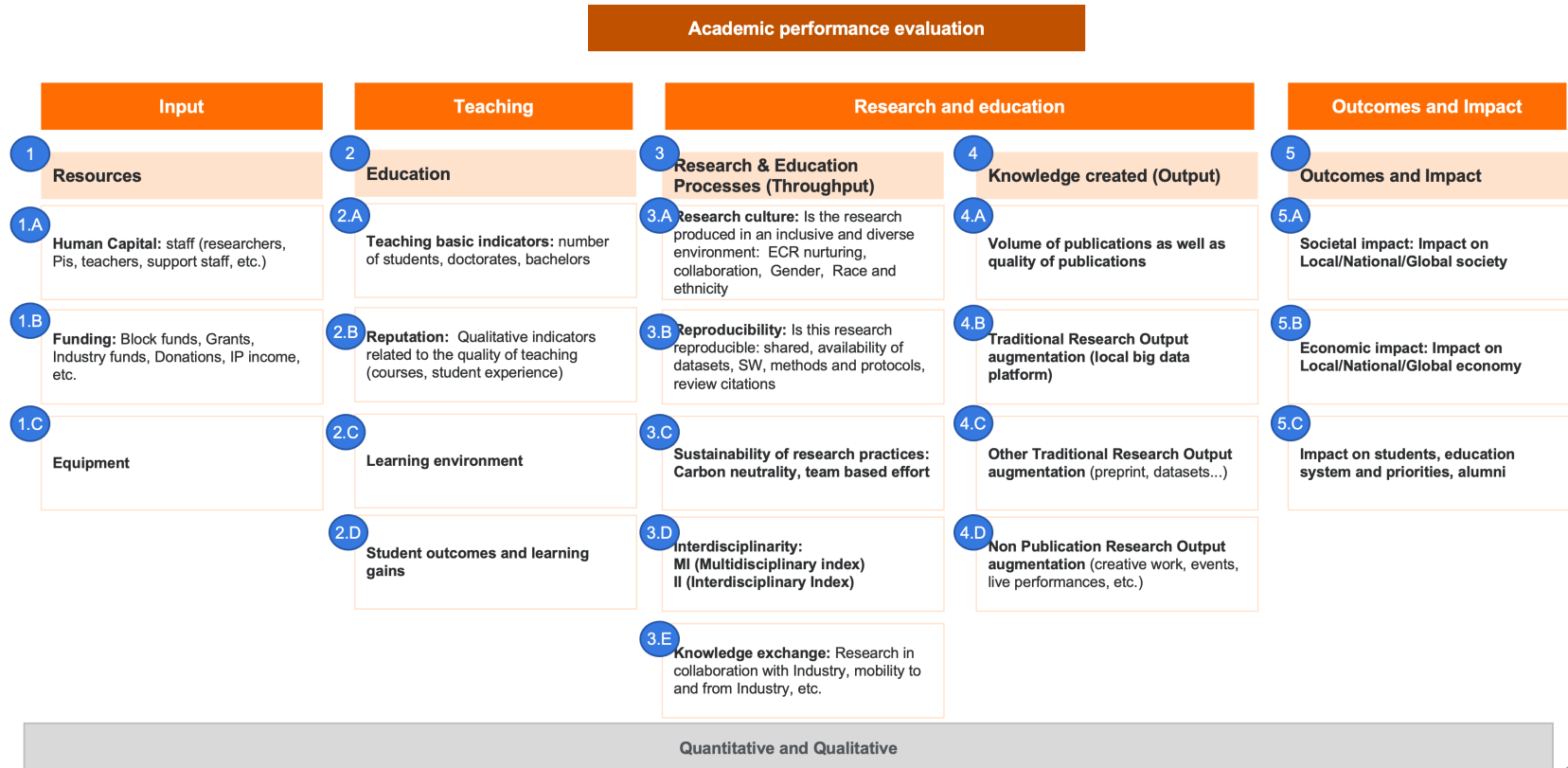
Culture, Collaborations

Quantity and Quality Indicators

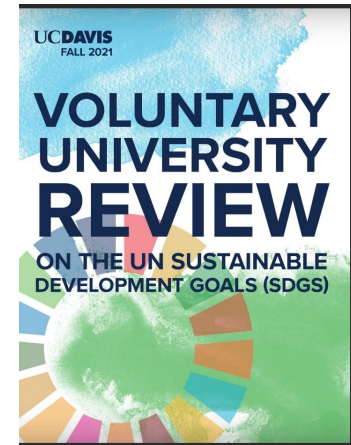
Societal and Economic Impact

Quantitative and Qualitative

Evaluation Framework



A Global Platform for Societal Impact: United Nations Sustainable Development Goals (SDGs)



<https://nap.nationalacademies.org/catalog/26654/operationalizing-sustainable-development-to-benefit-people-and-the-planet>

<https://globalaffairs.ucdavis.edu/vur-sdgs>

HBCU Research Overview, 2013-2022

Overall research performance

48,767 ▲

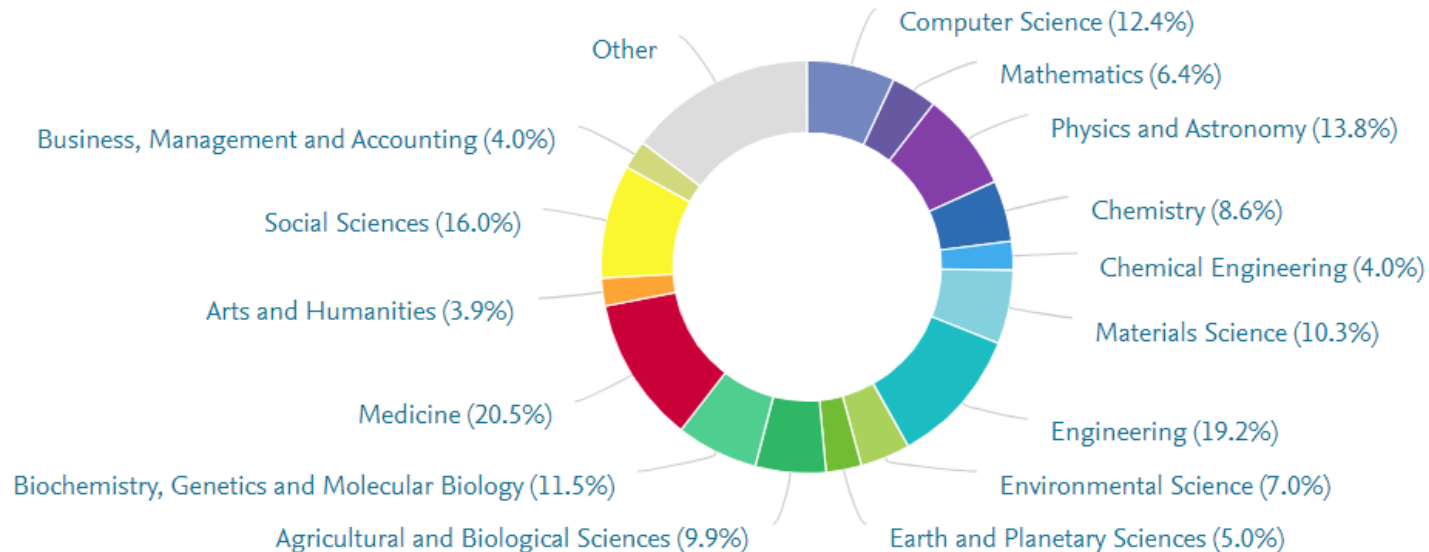
Scholarly Output ⓘ

26,008 ▲

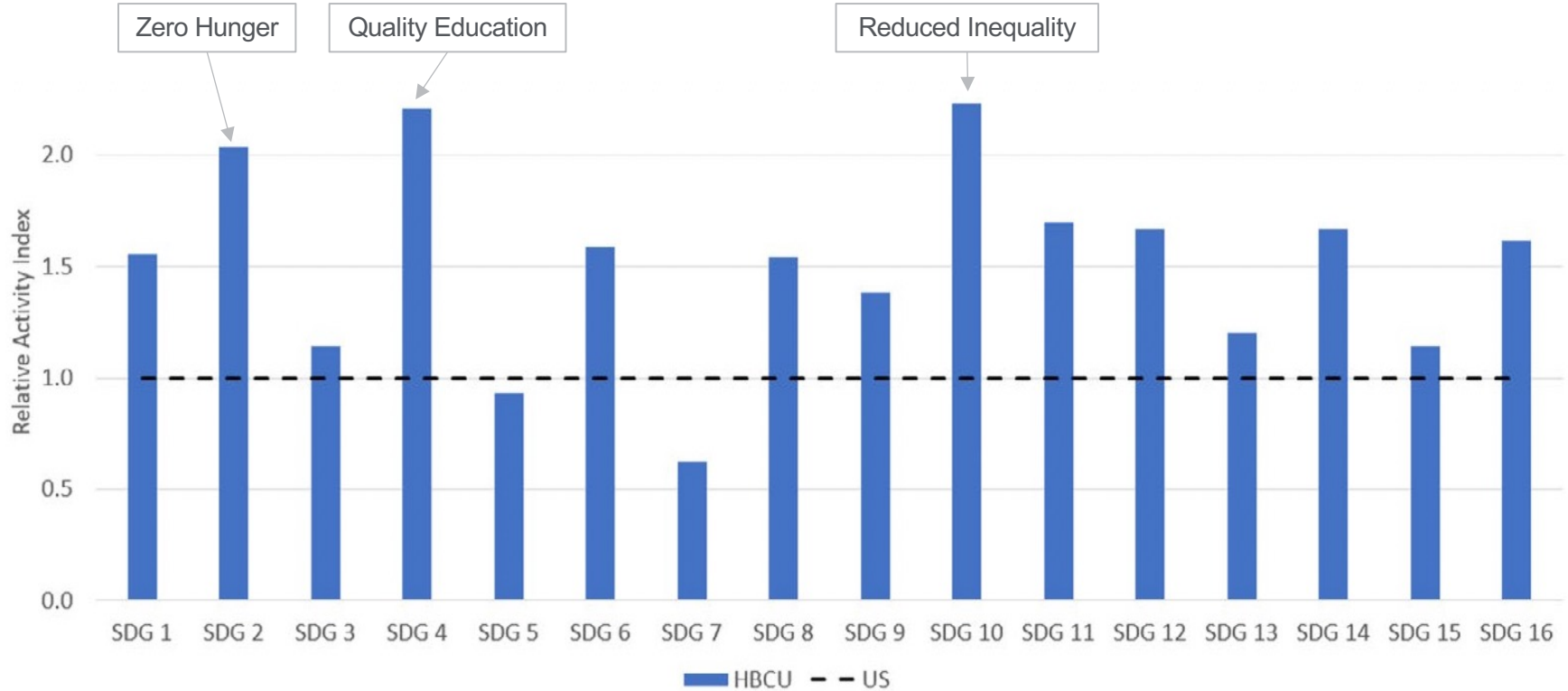
Authors

1.35

Field-Weighted Citation Impact ⓘ



Relative Activity Index of HBCU SDG Contributions



CUNY Linkage of Patents to UN SDGs



Sectors: UN Sustainable Development Goals - Goals Sector Size: Portfolio Size

Examples of Policy Bodies Citing University of Glasgow Research



Policy Bodies	Policies
Guidelines in PubMed Central	1231
World Health Organization	833
Publications Office of the European Union	429
The UK Government	385
NICE	338
UK Parliament Select Committee Publications	253
Analysis & Policy Observatory	214
OECD	186
IZA Institute of Labor Economics	179
Ifo Institute	166

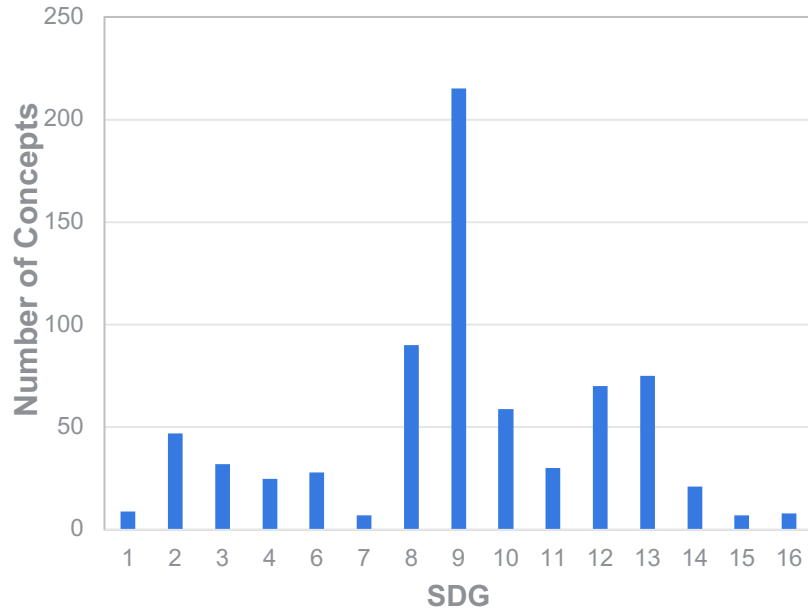
CHIPS and Science Act of 2022: 10 Key Technology Areas

- Artificial Intelligence
- High Performance Computing
- Quantum Technology
- Advanced Manufacturing
- Disaster Preventions
- Advanced Communications
- Cybersecurity
- Biotech
- Advanced Energy Efficiency
- Material Science

<https://www.congress.gov/bill/117th-congress/house-bill/4346/text>

NSF: Technology, Innovation and Partnerships (TIP) Directorate

TIP's New Signature Program: Regional Innovation Engines ("Engines") to advance translational and use-inspired research



"ENGINES" - SUBMITTED PROJECT CONCEPTS MAPPED TO SDGs

Titles, keywords, and brief

Concept Outlines of publicly submitted

project ideas were used to

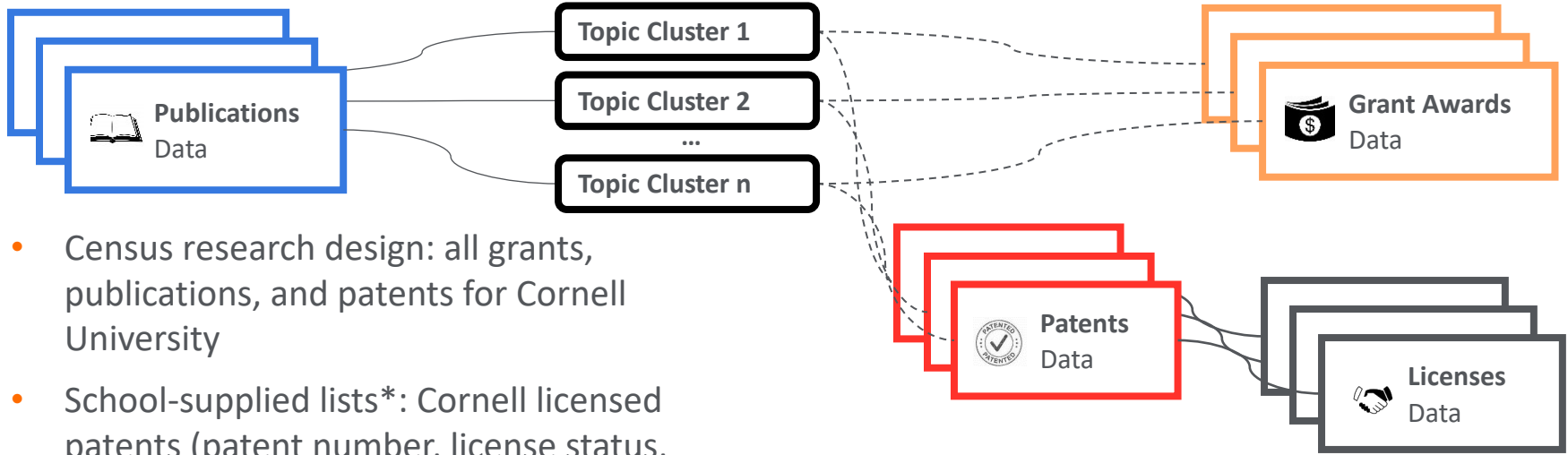
link 442 of 679 projects (about 2/3)

to one or more SDGs.



Commercialization Pipelines of Cornell R&D

For Cornell University, what are the paths for research areas to commercialization success?



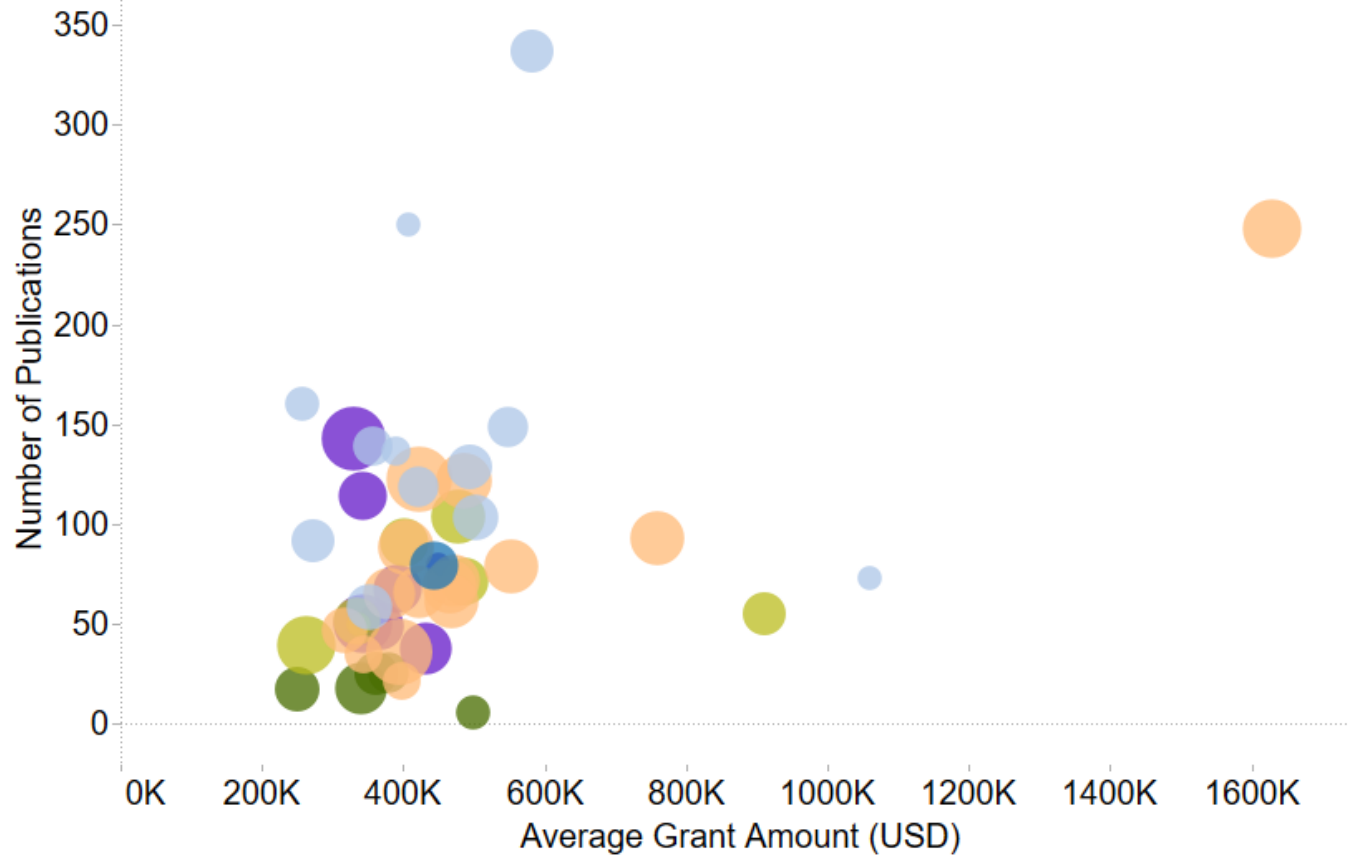
METHODS

- Census research design: all grants, publications, and patents for Cornell University
- School-supplied lists*: Cornell licensed patents (patent number, license status, licensee small business status, licensee startup status)
- Research topic proxy: STM model for topic-modelling
- Data covers 11,812 grants, 62,674 publications, 1,693 patent families, and 1,185 licenses

* Ethics approval was obtained from the Cornell Institutional Review Board before proceeding with data collection

Methodological Value for Ex-ante Analysis

RESULTS



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Questions and Additional Information

Arthur Ellis

A.Ellis@Elsevier.com