

# 2025 Sustainability Expertise Case Competition

Carter Staubus, Vincent Wirawan, Angelina Liao, Raymond Wong

## Pillar 3

Enhancing the Sustainability Research  
Dashboard at the University of Illinois

Improving clarity, user experiences,  
and analytical purpose

Redesigning the landing page, visuals,  
and user journeys

# Landing Page: Current State Analysis

## What's Working Well:

- Clean, professional layout with strong visuals
- Clear navigation structure
- Strong data foundation and SDG visuals

## What Needs Attention:

- Lacks context on what/why/who
- Metrics lack meaning for new users
- Missing 'so what?' factor
- Limited real-world impact communication

# Proposed Improvements: Hero Section

- Add a purpose-oriented hero section:
  - - Clear headline explaining dashboard purpose
  - - Value proposition explaining why it matters
  - - Audience callout specifying who it serves

# Proposed Improvements: Impact Narrative

- Add an Impact Spotlight section:
  - Highlight 2–3 real research outcomes
  - Provide context: research area → outcome → significance

# Proposed Improvements: Contextual Data

- Improve interpretation of metrics:
- Progressive disclosure for statistics
- Annotations explaining meaning
- Significance indicators (benchmarks, trends)

Link to updated landing page design:

<https://vnw3.github.io/gies-sustainability-dashboard/#overview>

# Updates to Current Graphs – Goal Distribution

## Detailed Sustainability Goal Distribution

Article counts by primary (top 1), secondary (top 2), and tertiary (top 3) goals



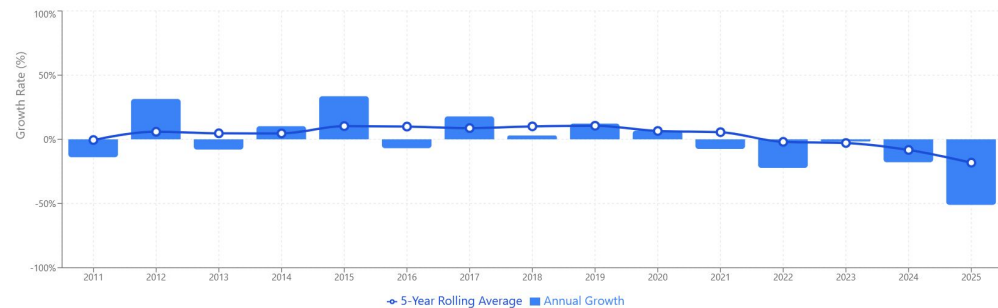
The legend at the bottom of this graph is incorrect

Goal 14 is missing

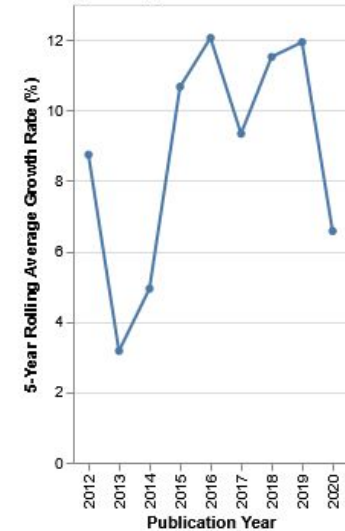
# Updates to Current Graphs – Article Growth Rate

**Total Articles Growth Rate**

Annual and 5-year rolling average growth rates for total articles



**5-Year Rolling Average Growth Rate of Overall Articles**



Current graph is not very insightful due to the scale of the graph

Updating this to include only one of the averages makes content clearer

# Updates to Current Graphs – Goal Growth Rates



Certain goals are listed multiple times with different rates, leading to user confusion

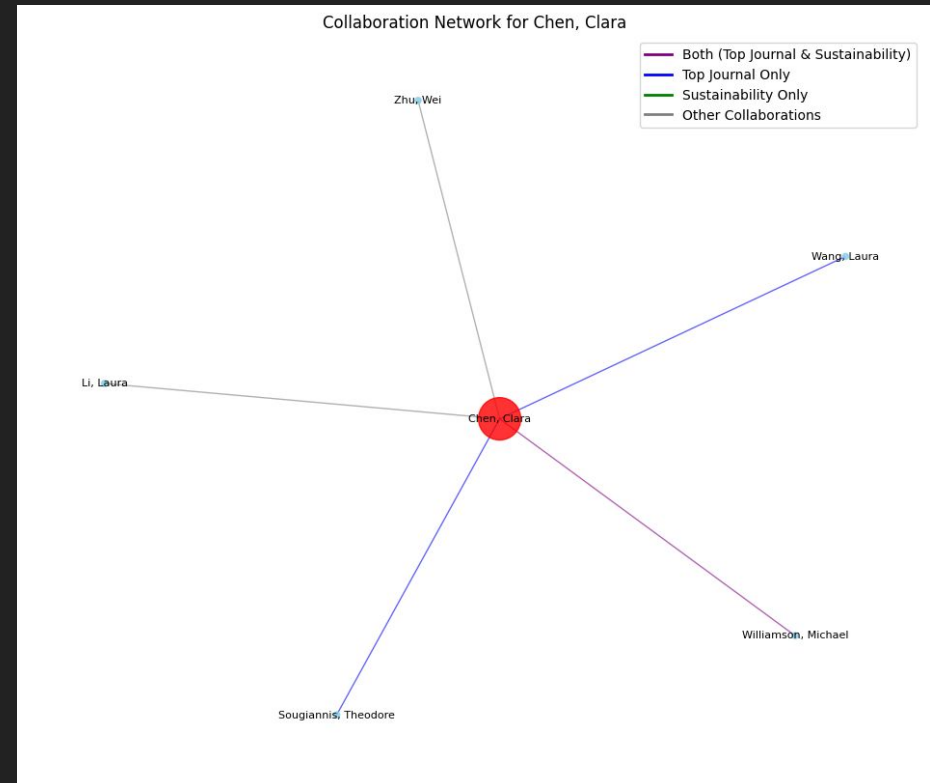
Yearly growth rates are likely not a good measure due to their volatility

# Advanced Visualizations: Network Graph

Allows users to visualize collaborations for a specific researcher/group

A network graph with all collaborations would likely be too cluttered

Color of connections represent whether the collaboration was in a top journal and/or sustainability focused

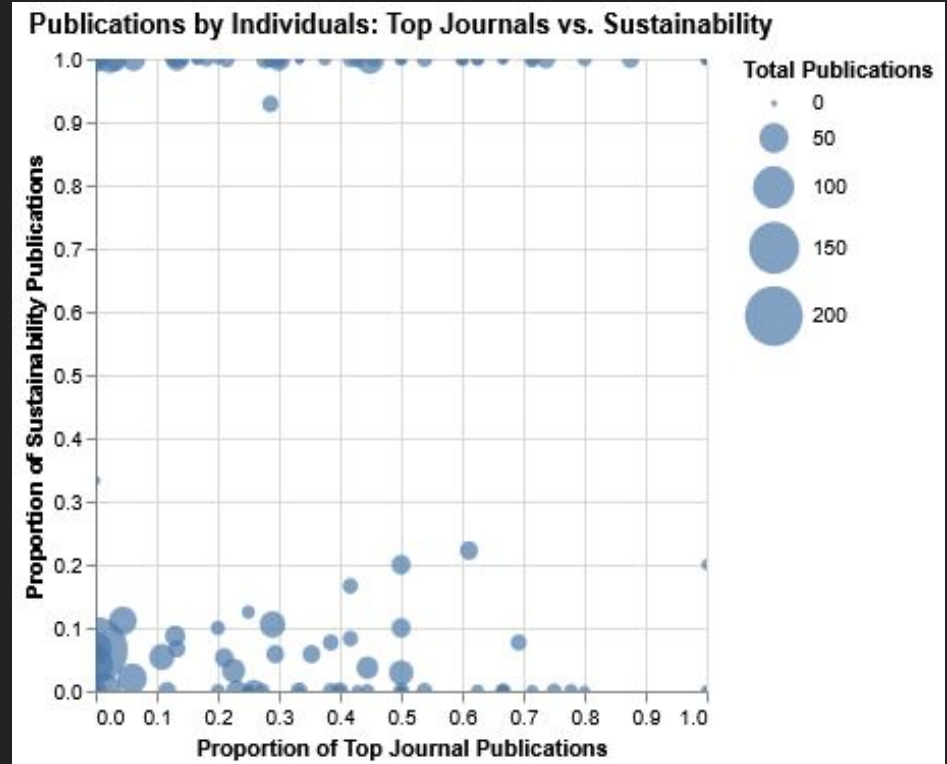


# Advanced Visualizations: Bubble Chart

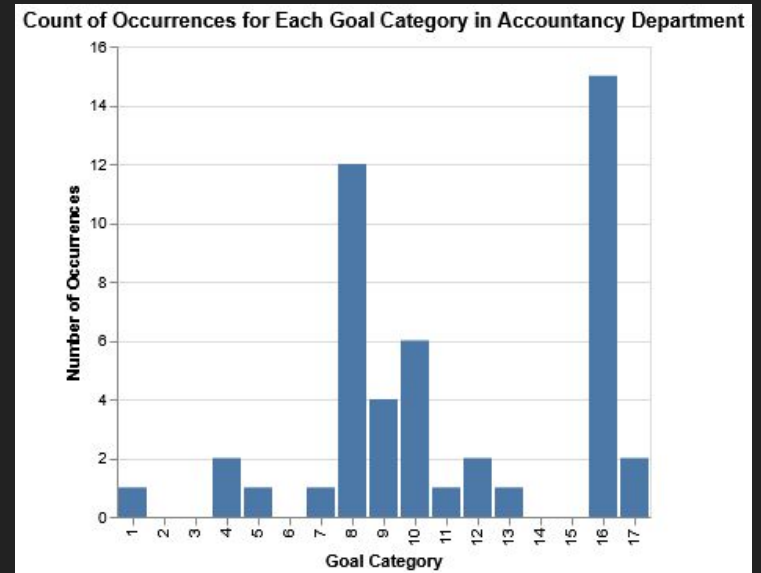
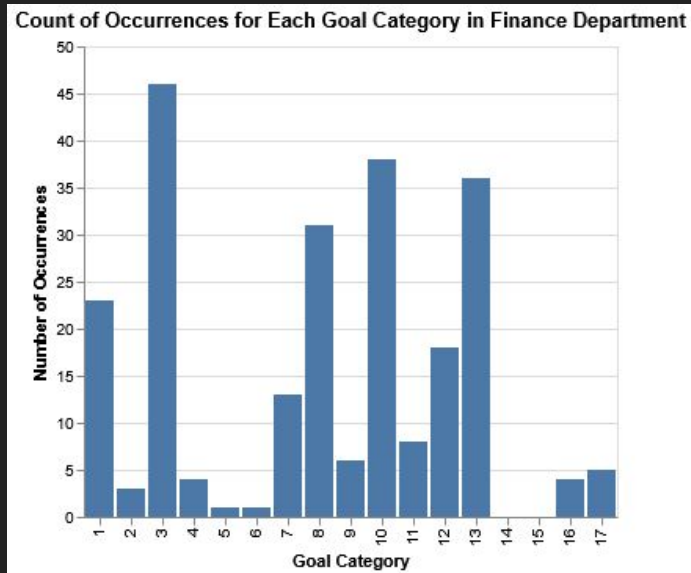
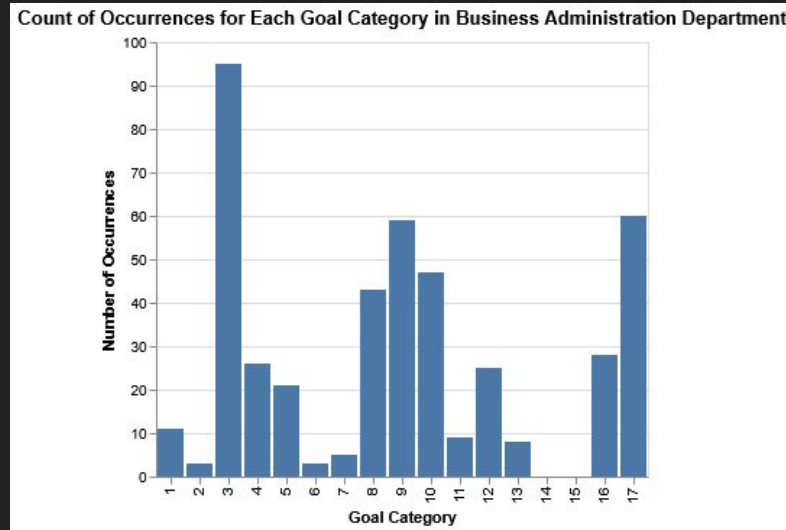
Each bubble represents a researcher, with the size corresponding to the number of total publications

Users can hover over and click on bubbles to get more information

Overall graph reveals trends in sustainability research, with two prominent groups

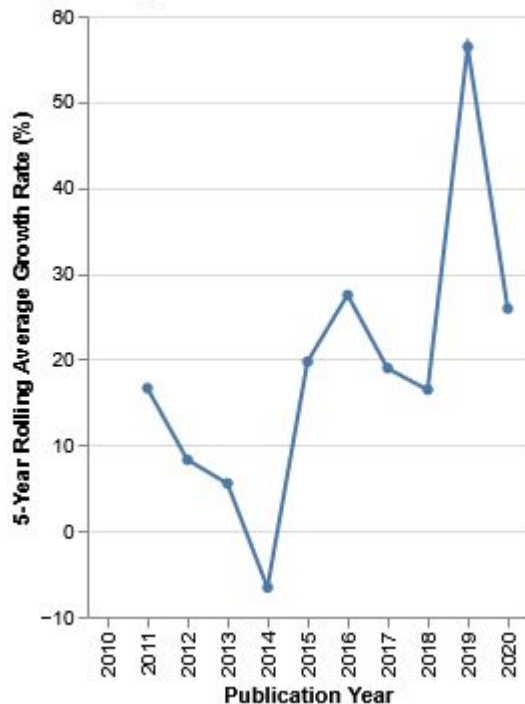


# Advanced Visualizations: Goal Distribution Across Departments

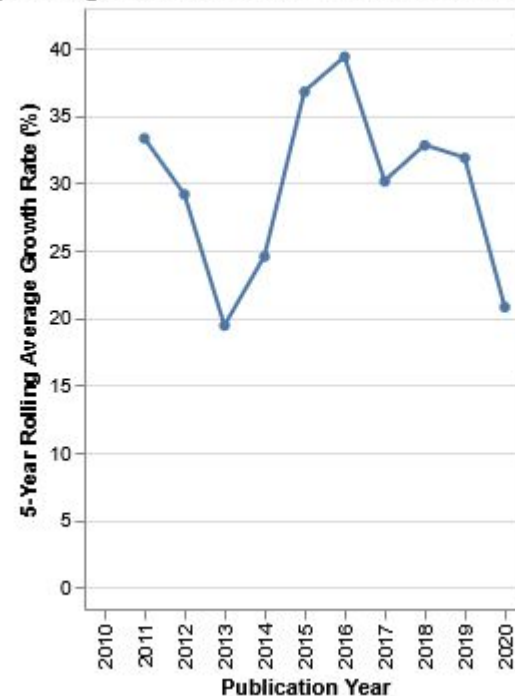


# Advanced Visualizations: Category Growth Rates

5-Year Rolling Average Growth Rate of 'Reduced Inequality' Articles



5-Year Rolling Average Growth Rate of 'Good Health and Well-being' Articles



Rather than growth rates for the main 3 categories, graphs could show growth rates for categories within sustainability

These can reveal insights about which sustainability topics are emerging in relevance

# User Personas & Journeys: Overview

Target Audience	Motivations	Pain Points	Opportunities	Design Alignment
<ul style="list-style-type: none"><li>• University Students</li><li>• Donors &amp; Sponsors</li></ul>	<ul style="list-style-type: none"><li>• Students: Seek mentorship, research experience, and discover opportunities</li><li>• Donors: Seek trust, measurable impact, discover prospective opportunities</li></ul>	<ul style="list-style-type: none"><li>• Old dashboard lacked clear paths for different users</li><li>• Difficult to interpret meaning or purpose of specific information</li></ul>	<ul style="list-style-type: none"><li>• Clear sections and simplified navigation methods improving ease of finding relevant information</li><li>• Cleaner and more thought out layout reducing noise making the information shown easier to interpret</li></ul>	<ul style="list-style-type: none"><li>• New home page making interpretability of the purpose and navigation of the site easier</li><li>• Homepage now supports purpose driven navigation rather than just a data display</li></ul>

# Persona 1: Prospective Student (Finance)

## Journey Stages

Awareness	Exploration	Evaluation	Engagement	Outcome
<ul style="list-style-type: none"><li>• Sees headline: “Tracking the Real-World Impact of Gies Business Research.”</li><li>• Understands immediately that the dashboard shows real impact and research output</li></ul>	<ul style="list-style-type: none"><li>• Notices the Real World Impact section and reads card showing: 1200+ Homes Powered, 500+ Jobs Created, \$12M Funding Secured</li><li>• Instantly sees energy and supply chain related outcomes that they value</li></ul>	<ul style="list-style-type: none"><li>• Notices different statistics: timeline, research output, faculty, SDG alignment. This instantly tells her the scale and credibility of sustainability research at Gies</li><li>• Sees the Real World Impact cards and thinks “Who does finance focused sustainability research?”</li></ul>	<ul style="list-style-type: none"><li>• Clicks into faculty profiles or SDG categories that match sustainable finance</li><li>• Skims research outputs and selects 1-2 faculty members whose work aligns with their interests</li></ul>	<ul style="list-style-type: none"><li>• Identifies a faculty mentor aligned with her interest in sustainable finance</li><li>• Uses links or department pages to follow up via email, office hours, or coffee chat</li></ul>

# Persona 2: Donor (Renewable Energy)

## Journey Stages

Awareness	Exploration	Evaluation	Engagement	Outcome
<ul style="list-style-type: none"><li>• Immediately sees the mission statement: “Discover how academic research translates into tangible societal benefits”</li><li>• Registers credibility from high level stats: nearly 60 years of research, 1689 publications, 135 faculty</li></ul>	<ul style="list-style-type: none"><li>• Notices the Real World Impact section and reads card showing: 1200+ Homes Powered, 500+ Jobs Created, \$12M Funding Secured</li><li>• Instantly sees energy and supply chain related outcomes that they value</li></ul>	<ul style="list-style-type: none"><li>• Clicks “View All Outcomes” to explore deeper impact stories</li><li>• Looks at which research areas are generating measurable results</li><li>• Compares which SDG categories have the strongest ties to renewable energy</li></ul>	<ul style="list-style-type: none"><li>• Selects promising energy focused faculty or research clusters</li><li>• Confirms which projects have demonstrable outcomes and growth potential</li></ul>	<ul style="list-style-type: none"><li>• Identifies a renewable energy research area worth funding</li><li>• Reaches out via faculty pages, department contacts, or emails</li></ul>

# Conclusion

Transforming the dashboard into a storytelling tool:

- – Clearer narrative
- – Improved usability
- – Stronger impact communication

Questions?