2024 SIAG/DM

SIAM Conference on Discrete Mathematics

Discrete Mathematics Business Meeting

Tuesday, July 9th, 7:30pm
Room 100B
Spokane Convention Center
Spokane, WA

siam. Society for Industrial and Applied Mathematics

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*

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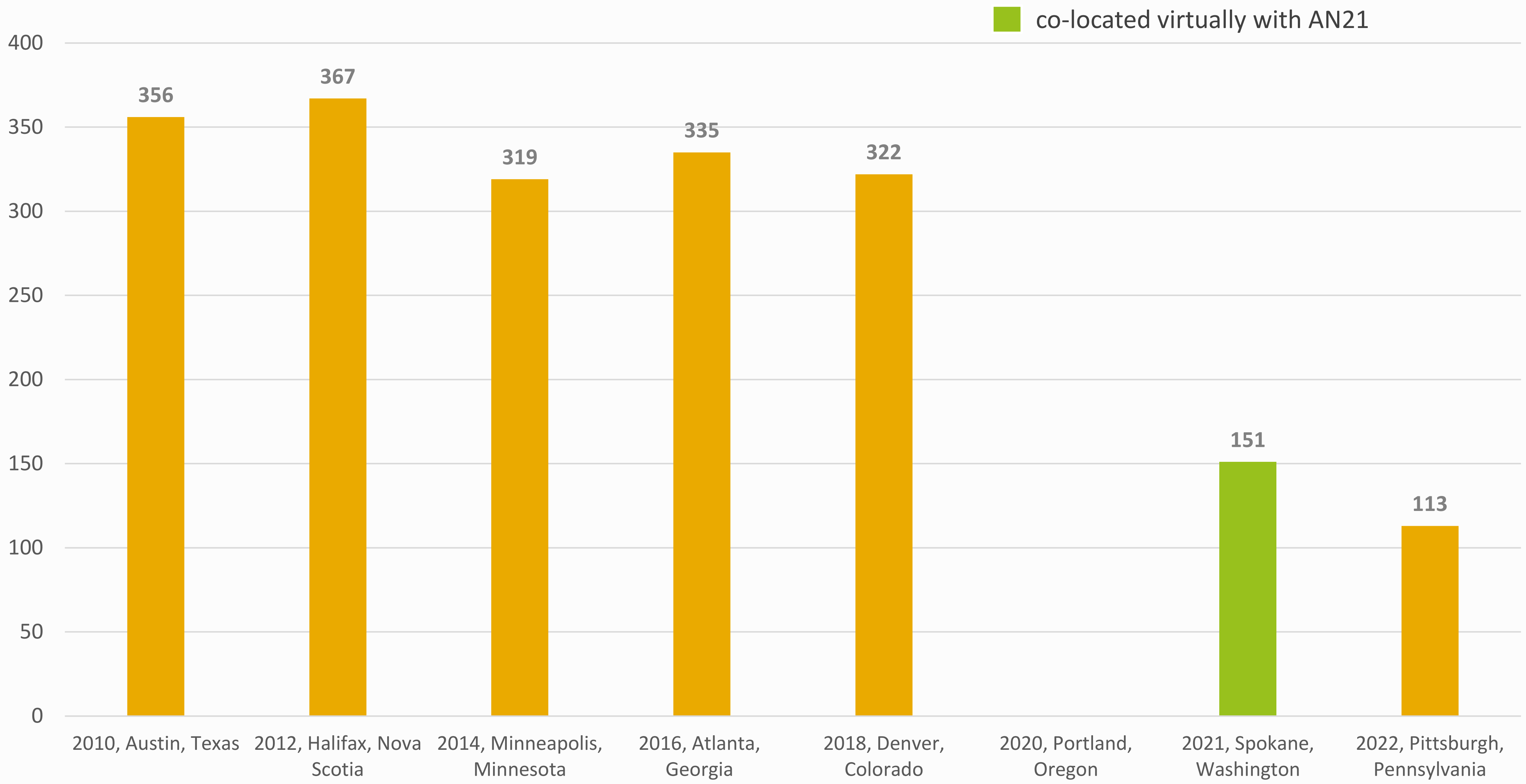
SIAG/DM Announcements

- SIAM Engage
- SIAG/DM websites:
  - https://www.siam.org/membership/activity-groups/detail/discrete-mathematics
- SIAM Blogs
- SIAM News: Story Ideas
- SIAG/DM Leadership Suggestion Form:
  - https://www.siam.org/forms/siam-activity-group-leadership-form

SIAG/DM Conference History



SIAG/DM Conference 2024

Organizing Committee Co-Chairs

Peter Keevash, University of Oxford, United Kingdom
Blair D. Sullivan, University of Utah, U.S

*

Organizing Committee

Noga Alon, Princeton University, U.S.
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Tandy Warnow, University of Illinois Urbana-Champaign, U.S.
Julia Wolf, University of Cambridge, United Kingdom

SIAG/DM Conference 2024

Dénes König Prize Lecture

When Are Structures Robust Under Randomness?

Monday, July 8th, 2:00 PM – 2:45 PM
Room: 100B

Given a collection of substructures of a large discrete system, when are they robust under random subsampling of the system? For instance, among the substructures in the collection, we may require at least one complete substructure to survive the subsampling; or alternatively, we may ask for “most" of a substructure, for appropriate notions of “most", to survive. This theme entails a number of important questions in probabilistic combinatorics; including in particular questions about thresholds in random graphs and hypergraphs. The Kahn-Kalai conjecture predicts that a natural necessary condition to guarantee a complete substructure to survive the random subsampling is also roughly sufficient. Interestingly, this condition on the collection of substructures — so-called “being not p-small" — also appears in other contexts, and relates to other notions of robustness.

I will discuss recent developments around robustness of structures under randomness, as well as new understanding on how to verify conditions for robustness in applications of interest.

Huy T. Pham
Stanford University, U.S.

Jinyoung Park
New York University, U.S.

SIAG/DM Conference 2024

SIAG/DM Travel Awards

US National Science Foundation
DMS 2244415

- 2 U.S. Students
- 2 Early Career
- $2,600

SIAM Student Travel Awards
SIAM Operating Funds & Donations from SIAM community.
Thank you to our donors!
https://siam.org/donate

- 7 Students
- 4 Non-U.S. Students
- $4,700

siam 2024 Annual Meeting

July 8th – July 12th, 2024
Spokane Convention Center
Spokane, Washington, U.S.

The Annual Meeting provides a broad view of the state of the art in applied mathematics, computational and data science, and their applications through invited presentations, prize lectures, minitutorials, minisymposia, contributed presentations, and posters.

The 2024 online component will take place July 18th-20th

Organizing Committee Co-Chairs

Michael P. Friedlander, University of British Columbia, Canada
Anna Mazzucato, Pennsylvania State University, U.S.

Gene Golub SIAM Summer School

Iterative and Randomized Methods for Large-Scale Inverse Problems

July 22nd - August 2nd 2024

Campus of the Escuela Politécnica Nacional, Ladrón de Guevara E11-253, Quito, Ecuador.

Our Summer School will enable students to learn state-of-the-art mathematical and statistical tools to discover information hidden within large-scale data sets and solve complex inverse problems. Through hands-on experience with techniques from Randomized Numerical Linear Algebra, data assimilation, iterative algorithms, and inverse problems we will offer students a two-week summer school to learn this valuable range of computational mathematics topics.

SIAM will be accepting proposals for the 2026 school in the fall, with a deadline of January 31, 2025.

For more information visit: https://www.siam.org/students-education/programs-initiatives/gene-golub-siam-summer-school

Future conferences?

LOCATION

TIMING

PROGRAM COMMITTEE

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- 95% Off e-Access to Journals
- Spouse may join as Associate Member
- *SIAM Unwrapped*

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- Qualifying Student Members can join 2 SIAGs for *free*!
- SIAG membership FREE for one year

SIAM Journals

SIAM's 18 journals are all available for download on SIAM's virtual library, epubs.siam.org. SIAM's virtual library is the definitive source for the final, peer-reviewed version of every published article, so be sure to utilize it!

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Discrete Mathematics
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Matrix Analysis and Applications
Numerical Analysis
Optimization
Scientific Computing
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Theory of Probability and Its Applications
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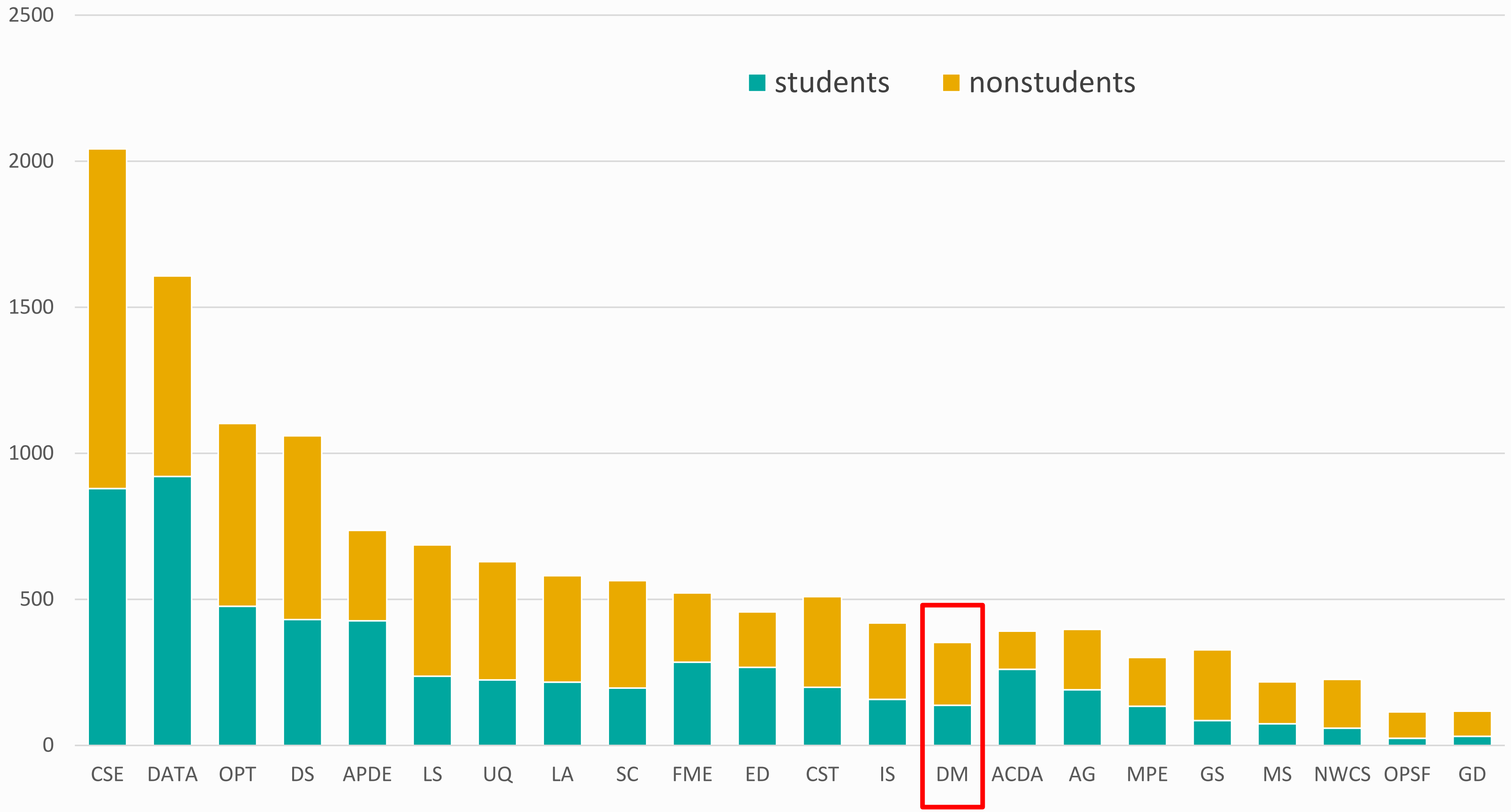
2024 SIAG/DM

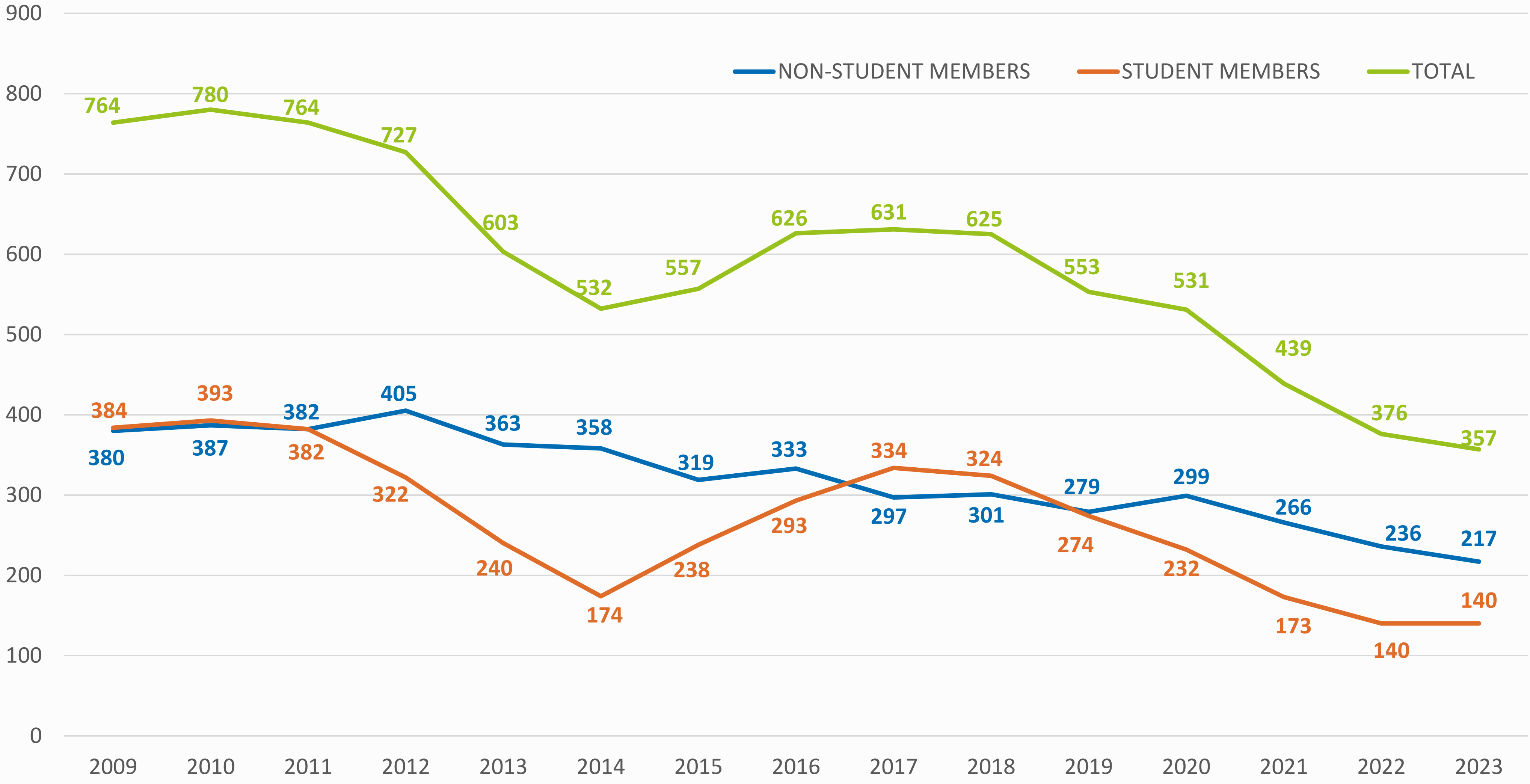
Membership Report

(data as of December 31, 2023)

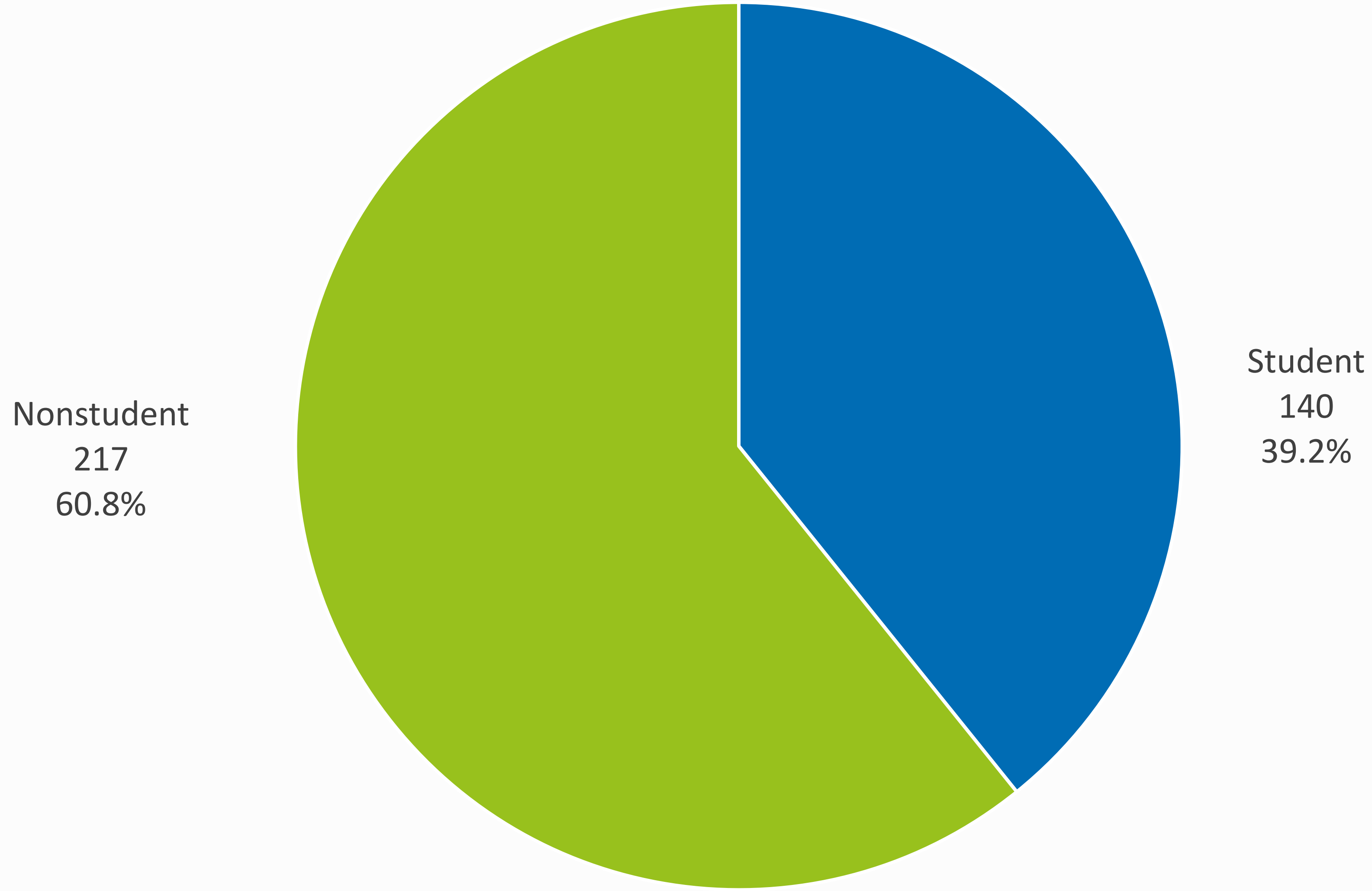
SIAG Overall Membership



SIAG/DM Membership Demographics



SIAG/DM Membership Demographics

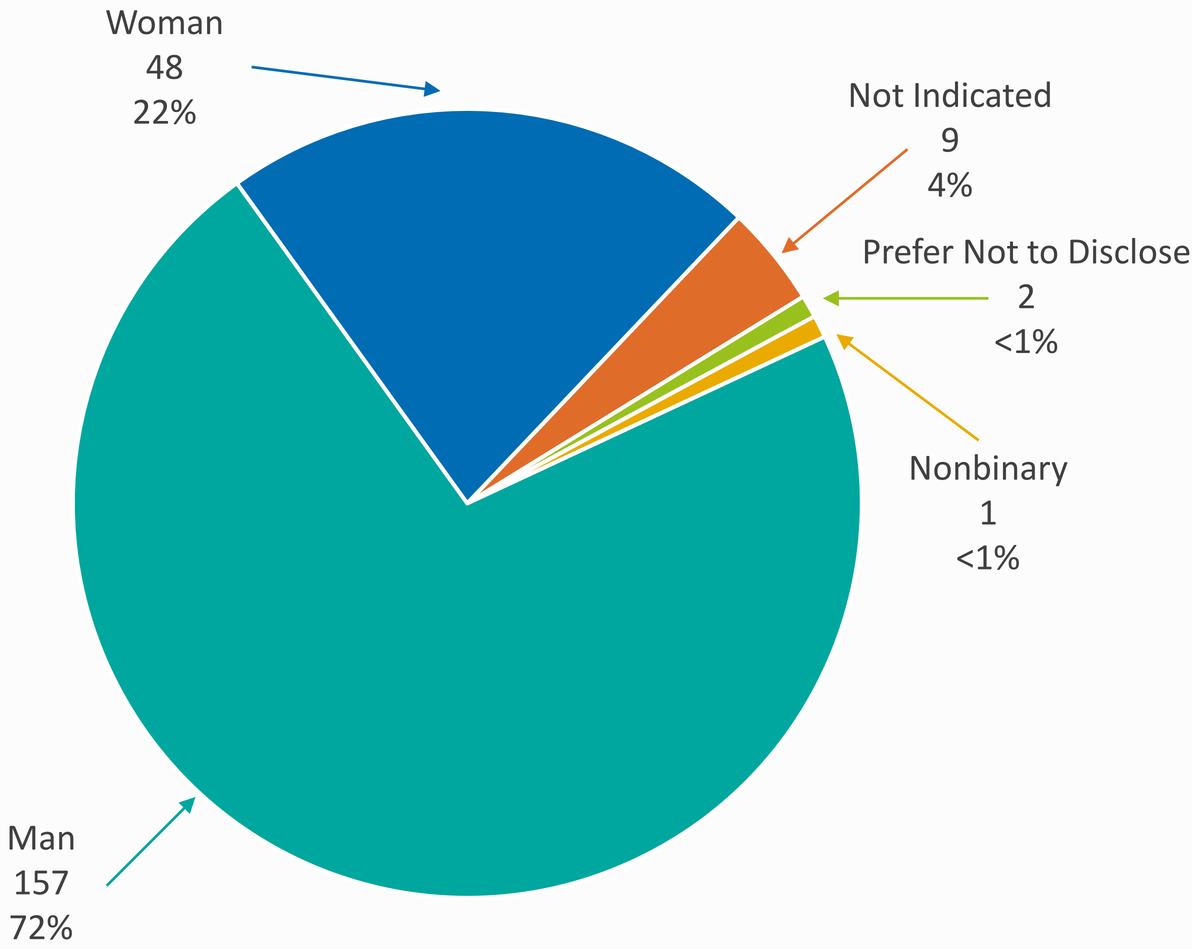


SIAG/DM Membership by Geography

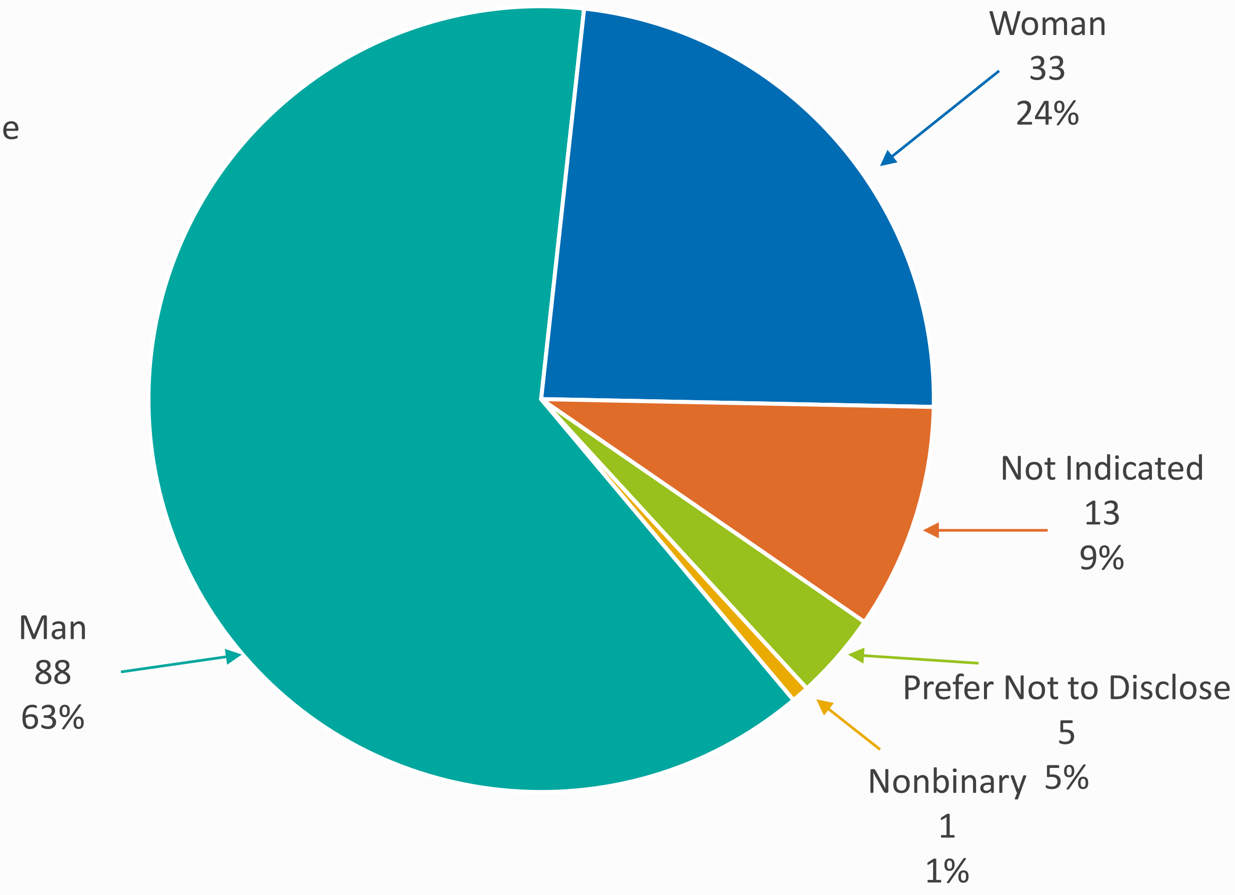
	US		Non-US		Total	
Nonstudent	144	41%	73	20%	217	61%
Student	78	22%	62	17%	140	39%
Total	222	63%	135	37%	357	

SIAG/DM Membership by Gender

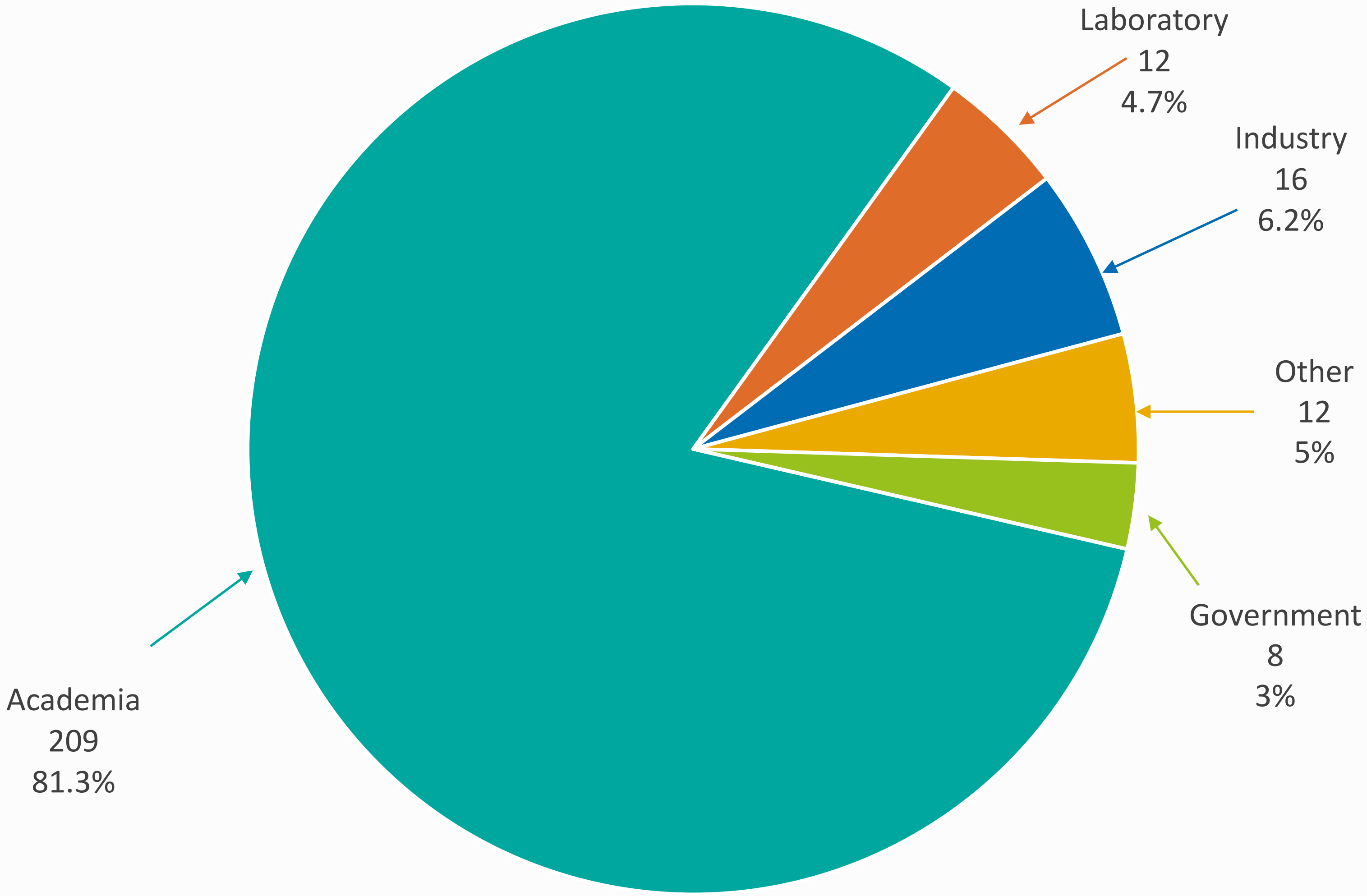
Nonstudents



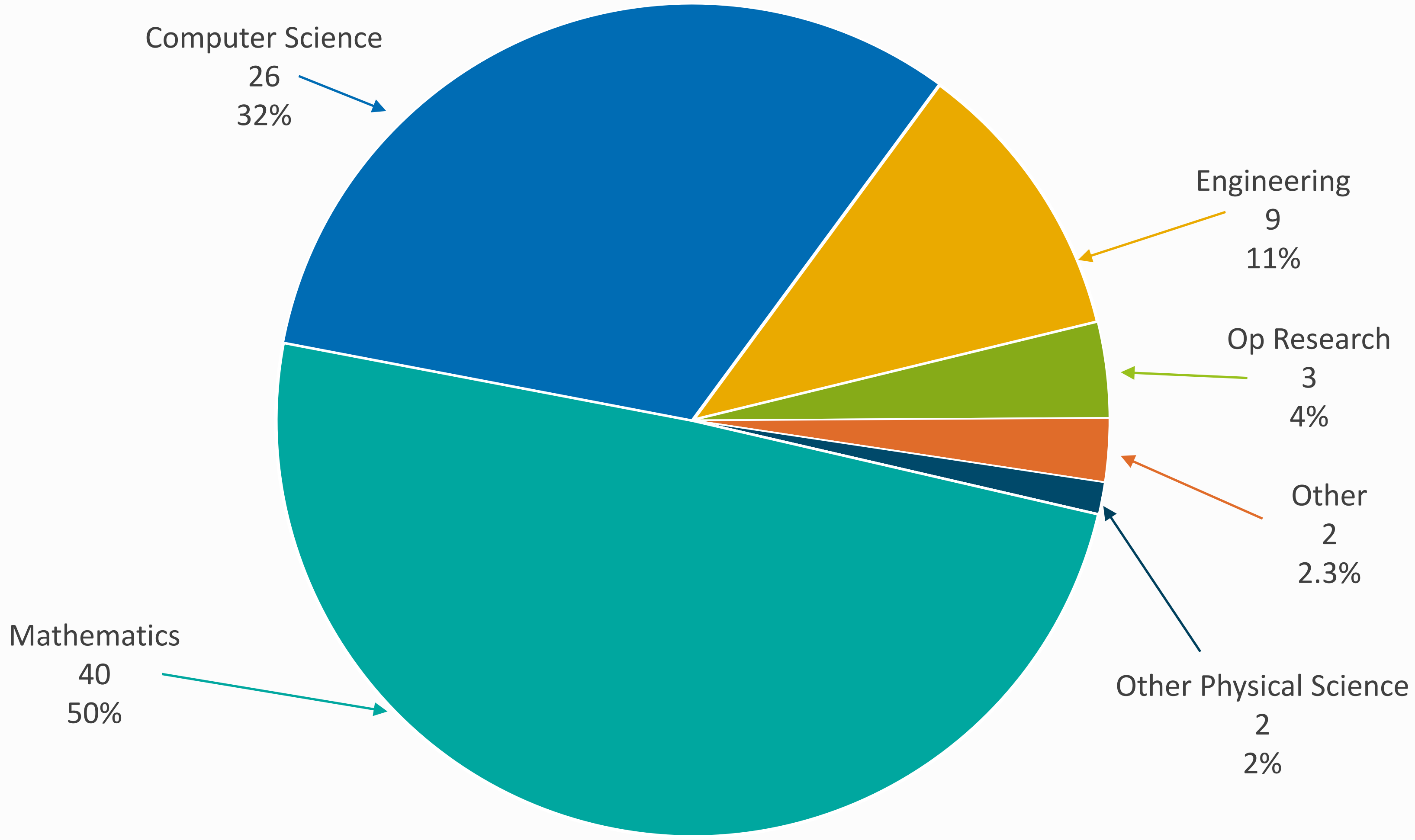
Students



SIAG/DM Membership by Employer Type



SIAG/DM Membership by Department Type



Other Business

Contacts

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Secretary	Sarah Cannon Sarah.Cannon@ClaremontMcKenna.edu