

Mathematical Staircase, Inc. 2024 Annual Summary Report

In 2024, the Mathematical Staircase Inc. Board met four times electronically (over Google Meet) and took one action by written consent. We revised our Employee/Contractor/Volunteer Handbook and Internal Controls documentation, changed our accounting system from cash to accrual, and implemented a pay equity adjustment policy. We renewed Mathematical Association of America departmental membership.

Mathematical Staircase Inc. was awarded \$10,000 for MathILy financial aid and \$15,000 for MathILy-Er financial aid from the American Mathematical Society Epsilon Fund in March 2024 and April 2024. The MathILy and MathILy-Er Directors plan to each submit a grant proposal to the American Mathematical Society Epsilon Fund for the 2025 granting cycle; the deadline has moved to January.

We were offered continued financial support for 2025 {MathILy, MathILy-Er} financial aid and mathematical visitors from Jane Street Capital, in the amount of \$26,200.

NSF grant DMS-2149647 is winding down, and an REU renewal proposal is under consideration at the NSF.

Carina+Polynera Funds gave \$15,000 to Mathematical Staircase, Inc. to increase our bandwidth for supporting growth of the summer programs ecosystem.

Summer Mathematics Programs Consortium and 2024 Conference: {MathILy, MathILy-Er} are founding members of the Summer Mathematics Programs Consortium and sarah-marie is on the Consortium's Steering Committee. Madison and sarah-marie attended the second Consortium conference in September 2024, following which Madison joined the Online Hub Committee/Working Group.

Mathematical Staircase, Inc. Board of Directors

dr. sarah-marie belcastro, President and Chair of the Board
Dr. Hannah Alpert, Clerk and Secretary of the Board
Joan M. Belcastro, Treasurer
Dr. Emily Peters
Dr. Joshua Greene
Biographies of directors are posted on the Mathematical Staircase, Inc. website.

Mathematical Staircase, Inc. Mission Statement

Our mission is to educate mathematically talented secondary and tertiary students, particularly those who lack sufficient educational, financial, or social resources in their homes or schools to realize their potential. We believe in training program participants in mathematical thinking and writing, in mentoring program participants in their ongoing educational and career paths, and in training program instructors in discovery- and inquiry-based pedagogy.

Status of Mathematical Staircase, Inc. Projects

Currently Mathematical Staircase, Inc. has three projects:

- (1) MathILy, short for "serious Mathematics Infused with Levity," is an intensive residential summer program for mathematically gifted high-school students. MathILy ran in person at Bryn Mawr College with 44 students in 2024, with continued infection-control precautions because of the ongoing global pandemic. A 5-page report on MathILy 2024 is available on the Mathematical Staircase, Inc. website. (link)
- (2) MathILy-Er, short for "MathILy, Earlier," is similar to MathILy, but is adapted for students who are slightly earlier in their chronology or mathematical development. MathILy-Er ran in person at Arcadia University with 30 students in 2024, with continued infection-control precautions because of the ongoing global pandemic. A 5-page report on MathILy-Er 2024 is available on the Mathematical Staircase, Inc. website. (link)
- (3) MathILy-EST, short for "MathILy Early Scholarly Training," is a Research Experience for Undergraduates focused on beginning college students. MathILy-EST ran in person at Bryn Mawr College with 9 students in 2024, with continued infection-control precautions because of the ongoing global pandemic. A 5-page report on MathILy-EST 2024 is available on the Mathematical Staircase, Inc. website. (link)

Financial Summary for 2024

Interest income \$10,331.50

Income:

Donations \$15,185.50 Restricted donations \$53,400 (includes support for 2024 and 2025) Grants-Restricted \$186,586.19 MathILy student fees \$210,980.82 MathILy-Er student fees \$132,952.76

Expenses:

Administrative Expenses \$2,877.05
Insurance (includes {MathILy, MathILy-Er, MathILy-EST}) \$3,746
MathILy (non-wage) Expenses \$158,261.82
MathILy-Er (non-wage) Expenses \$94,822.61
MathILy-EST (non-wage) Expenses \$51,998.11
Wage-related Expenses (staff wages, student stipends, and payroll expenses) \$213,336.10

Note: The above figures were computed on a cash basis, not an accrual basis. Income – Expenses = \$609,436.77 – \$525,041.69 = \$84,395.08

This summary report is prepared as per the Mathematical Staircase Inc. Reporting and Review Policy and posted on the Mathematical Staircase, Inc. website.