



MATHEMATICAL STAIRCASE, INC.

Mathematical Staircase, Inc. 2023 Annual Summary Report

In 2023, the Mathematical Staircase Inc. Board met four times electronically (over Google Meet) and took three actions by written consent. We celebrated the 10th anniversary of Mathematical Staircase, Inc., incorporation, changed our corporate address within Massachusetts, and moved our financial operations from a bank to a credit union. We renewed Mathematical Association of America departmental membership, and ran a third fall-term online class for Mathematical Staircase, Inc. program alumni.

Mathematical Staircase Inc. was awarded \$5,000 for MathILy financial aid and \$3,600 for MathILy-Er financial aid from the American Mathematical Society Epsilon Fund in March 2023.

We were offered continued financial support for 2024 {MathILy, MathILy-Er} financial aid and mathematical visitors from Jane Street Capital. This support is currently pending.

NSF grant DMS-2149647 is active through MathILy-EST 2024.

The MathILy and MathILy-Er Directors each submitted a grant proposal to the American Mathematical Society Epsilon Fund for the 2023–24 granting cycle.

Summer Mathematics Programs Consortium and 2023 Conference: The Summer Mathematics Programs Consortium is a new organization whose members are summer mathematics programs; it also has affiliates that are allied programs or individuals. {MathILy, MathILy-Er} are founding members and sarah-marie is on the Consortium's Steering Committee. Madison and sarah-marie attended the first Consortium conference in October 2023, for which sarah-marie was on the organizing committee.

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 46 students in 2023, with substantial infection-control precautions because of the ongoing global pandemic. A 5-page report on MathILy 2023 is available on the Mathematical Staircase, Inc. website. ([link](#)) In Fall 2023 we ran a FaBraC (Fall Branch Class) with 12 participants who were 11 MathILy alumns from 2016, 2018, 2022, and 2023 and one MathILy-Er alumn from 2018. It was again successful and fun-filled.
- (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 Eastern University with 31 students in 2023, with substantial infection-control precautions because of the ongoing global pandemic. A 5-page report on MathILy-Er 2023 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 2023, with substantial infection-control precautions because of the ongoing global pandemic. A 5-page report on MathILy-EST 2023 is available on the Mathematical Staircase, Inc. website. ([link](#))

Financial Summary for 2023

Income:

Donations \$13,551.19
 Restricted donations \$25,500
 Grants–Restricted \$148,221.79
 MathILy student fees \$213,036.70
 MathILy-Er student fees \$131,691.38
 FaBraC student fees \$10,619.69
 Interest income \$3,094.13
 Zoom class action lawsuit settlement \$263.67

Expenses:

Administrative Expenses \$1,947.62
 Insurance (includes {MathILy, MathILy-Er, MathILy-EST}) \$6,138.73
 MathILy (non-wage) Expenses \$132,418
 MathILy-Er (non-wage) Expenses \$108,182
 MathILy-EST (non-wage) Expenses \$53,454.7
 FaBraC (non-wage) Expenses \$47.97
 Wage-related Expenses (staff wages, student stipends, and payroll expenses) \$247,135

Note: The above figures were computed on a cash basis, not an accrual basis.

Income – Expenses = \$545,978.55 – \$549,324.02 = -\$3,345.47

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