



MATHEMATICAL STAIRCASE, INC.

Mathematical Staircase, Inc. 2021 Annual Summary Report

In 2021, the Mathematical Staircase Inc. Board met four times electronically (over Google Hangouts and Zoom) and took one action by written consent. We did an internal audit of hours and pay for independent contractors, updated our Records Retention and Destruction Policy, decided to pilot a fall-term online class for Mathematical Staircase, Inc. program alumns, and approved four April-Fool's-related resolutions while rejecting two.

The NSF continued support for MathILy-EST in April 2021 and released a final amount of \$58,710 for NSF DMS-1851842. A no-cost extension will be filed for 2022 to continue MathILy-EST using the amount not spent because of the pandemic.

Mathematical Staircase Inc. was awarded \$2,520 for MathILy financial aid and \$2,520 for MathILy-Er financial aid from the American Mathematical Society Epsilon Fund in March 2021.

We submitted an NSF proposal to renew support for and expand MathILy-EST.

The MathILy and MathILy-Er Directors each submitted a grant proposal to the American Mathematical Society Epsilon Fund in December 2021.

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.

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.

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. Because of the global pandemic, MathILy ran successfully online with 43 students in 2021, and we do not yet know whether MathILy will

- meet online or in person in 2022. A 5-page report on MathILy 2021 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. Because of the global pandemic, MathILy-Er ran successfully online with 29 students in 2021, and we do not yet know whether MathILy-Er will meet online or in person in 2022. A 5-page report on MathILy-Er 2021 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. Because of the global pandemic, MathILy-EST ran successfully online with 6 students in 2021, and we do not yet know whether MathILy-EST will meet online or in person in 2022. A 5-page report on MathILy-EST 2021 is available on the Mathematical Staircase, Inc. website. ([link](#))

Financial Summary for 2021

Income:

Donations \$26,518.52
Grants–Restricted \$39,478.55
MathILy student fees \$93,986.38
MathILy-Er student fees \$57,462.56
FaBraC student fees \$5,370.41

Expenses:

Administrative Expenses \$1,585.18
Insurance (includes {MathILy, MathILy-Er, MathILy-EST}) \$2,247
MathILy (non-wage) Expenses \$4,916.09
MathILy-Er (non-wage) Expenses \$2,226.03
MathILy-EST (non-wage) Expenses \$3,617.57
FaBraC (non-wage) Expenses \$79.96
Wage-related Expenses (staff wages, student stipends, and payroll expenses) \$137,578.37

Income – Expenses = \$222,816.42 – \$152,250.20 = \$70,566.22

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