

Mary Silvergate

<https://marysilvergate.com>

SUMMARY

Experienced college mathematics educator with a passion for fostering student learning and success. I have been an instructor of record in higher education for six years, four of which have been as a full time faculty member. Prior to higher education, I was a math teacher in low income public middle and high schools for four years. I understand both the mathematical concepts and pedagogical strategies needed to connect students' K-12 experiences with college readiness.

EDUCATION

Doctor of Education, Interdisciplinary Education Expected December 2027
Lindenwood University, St. Charles, MO
GPA: 4.0/4.0

Master of Arts, Mathematics May 2023
Saint Louis University, St. Louis, MO
GPA: 3.92/4.0

Master of Science, Education August 2019
Johns Hopkins University, Baltimore, MD
GPA: 3.88/4.0

Bachelor of Arts, Statistics and Economics June 2017
The University of Chicago, Chicago, IL
GPA: 3.53/4.0

TEACHING EXPERIENCE

Mathematics Instructor Fall 2023- Present
Mathematics Department, Lindenwood University, St. Charles, MO

- Full time Instructor of Record for:
 - MTH 11000: Intermediate Algebra Fa26
 - MTH 15100: College Algebra Fa23, Sp24, Fa24, Sp25, Su25, Fa25
 - MTH 15110: College Algebra with Support Fa24, Fa25, Fa26
 - MTH 15200: Pre-Calculus- Elementary Functions Sp25, Fa25, Sp26
 - MTH 39500: Preparation for Industrial Careers in Mathematics Sp26
- Teaches 15 credit hours per academic year
- College and intermediate algebra course coordinator, being the point of contract for approximately 6 adjunct faculty members per year
- Developed curriculum for new course, MTH 15110- College Algebra with Support, a co-requisite college algebra course
- Redesigned college algebra curriculum to include more co-requisite support and alignment with Core42 state standards
- Created partnerships in the community for Preparation for Industrial Careers in Mathematics course, effectively supervising four undergraduate research projects connected to local non-profit and government organizations
- Advise students in mathematics education, data science, information technology, and cybersecurity majors

- Director of math tutoring center, supervising approximately 8 tutors per academic year

Adjunct Faculty Instructor

Summer 2023

Prison Education Program, Washington University, St. Louis, MO

- Instructor of Record for:
 - Precalculus II: Trigonometry
- Taught incarcerated students in Washington University's Prison Education Program

Mathematics Specialist and SAT Mathematics Tutor

Spring 2023

Bridges to Readiness, Remote, USA

- Designed differentiated SAT mathematics curriculum both for struggling and high achieving high school students
- Created tutor training videos on gradual release mathematics tutoring
- Created and executed individualized plans for tutoring SAT mathematics to low income high school juniors

Graduate Teaching Assistant

Fall 2021- Spring 2023

Mathematics Department, Saint Louis University, St. Louis, MO

- Instructor of Record for:
 - STAT 1100: Introduction to Statistics Fall 2021, Spring 2022
 - MATH 1200: College Algebra Summer 2022
 - MATH 1320: Survey of Calculus (Business Calculus) Fall 2022
- Earned approximately 20% above average student evaluations
- During Spring 2022, worked in mathematics tutoring center, tutoring students in courses ranging from Intermediate Algebra to Calculus III during the first half of the semester. During the end of the semester, took over for a professor's paternity leave and guest taught 13 introductory statistics lectures.

Adjunct Faculty Instructor

Summer 2022

Mathematics Department, Saint Louis Community College, St. Louis, MO

- Instructor of Record for:
 - MTH 180: Intermediate Algebra
- Conducted synchronous, online class for largely nontraditional students

Adjunct Faculty Instructor

Spring 2021

Mathematics Department, Saint Louis University, St. Louis, MO

- Instructor of Record for:
 - STAT 1300: Elementary Statistics with Computers
- Taught dual enrollment class for high school students earning college credit

High School Mathematics Teacher

Fall 2019- Spring 2021

Mathematics Department, Lift for Life Academy, St. Louis, MO

- Taught approximately 100 students of all grade levels each year in Title I school
- Implemented mastery based learning curriculum for Algebra 1A, Algebra 1B, Algebra 2, and Geometry
- Redesigned College Statistics course using culturally relevant examples

Middle School Mathematics Teacher Fall 2017- Spring 2019
Mathematics Department, Kelly Miller Middle School, Washington, DC

- Taught approximately 100 6th-8th grade students each year in Title I District of Columbia Public School
- Designed 6th, 7th, and 8th grade math intervention curriculum

Undergraduate Teaching Assistant Spring 2017
Economics Department, The University of Chicago, Chicago, IL

- Graded and held office hours for 76 students in ECON 19800: Introduction to Microeconomics

ACT Mathematics Instructor Spring 2014- Spring 2017
WIT (student organization providing free ACT prep for Chicago Public School Students), The University of Chicago, Chicago, IL

- Created mathematics curriculum for 10 week ACT mathematics preparation classes
- Students grew on average by one standard deviation on ACT exam

Mathematics Teaching Assistant Spring 2014- Spring 2015
Neighborhood Schools Program , The University of Chicago, Chicago, IL

- Provided push-in mathematics support in Chicago Public School middle and high school mathematics classrooms

ACADEMIC SERVICE

Board and Academic Performance Committee Member Summer 2026- Present
Momentum Academy, St. Louis, Mo

- Provide governance to three campus K-8 public charter school

College Algebra Coordinator Fall 2024- Present
Mathematics Department, Lindenwood University, St. Charles, MO

- Serve as main faculty contact for a team of 4 adjunct College Algebra professors
- Design and update college algebra curriculum

Intermediate Algebra Coordinator Fall 2024- Present
Mathematics Department, Lindenwood University, St. Charles, MO

- Serve as main faculty contact for a team of 3 adjunct Intermediate Algebra professors
- Design and update intermediate algebra curriculum

Math Placement Exam Coordinator Spring 2024- Present
Mathematics Department, Lindenwood University, St. Charles, MO

- Coordinate math placement process across the university
- Redesigned math placement process during Summer 2026 to make it more uniform across the university
- Facilitate students taking math placement test

Director of the Mathematics Success Center Fall 2023- Present
Mathematics Department, Lindenwood University, St. Charles, MO

- Supervisor of eight undergraduate peer tutors

- Grew tutoring program from approximately 383 math tutoring appointments for the full school year of 2022-2023 to nearly 2,000 math tutoring appointments in the 2023-2024 school year
- Developed IIPTC-certified tutor training curriculum
- Secured partnership with the University of Chicago to have remote interns support our online population

AP Statistics Exam Reader

Summer 2022- Present

Educational Testing Services, Remote, USA

- Grade AP exams according to standardized rubric
- Collaborate with mathematics teachers and professors to determine best grading practices

Proposal Reviewer

Spring 2026

College Reading and Learning Association

- Reviewed proposals for speakers for the College Reading and Learning 2026 Annual Conference

Curriculum and Instruction Program Council (CIPC)

Fall 2024- Fall 2025

Mathematics Department, Lindenwood University, St. Charles, MO

- Advise education department about mathematical needs of math education majors
- Inform math department about any changes to the education program curriculum that affect our math education majors

Graduate Student Association Representative

Fall 2022- Spring 2023

Mathematics Department, Saint Louis University, St. Louis, MO

- Represented mathematics department interests at monthly Graduate Student Association meetings

President of the Association for Women in Mathematics

Fall 2021- Spring 2023

Mathematics Department, Saint Louis University, St. Louis, MO

- Founded student chapter of the Association for Women in Mathematics at Saint Louis University
- Recruited diverse undergraduate and graduate student members to grow from no members to approximately 20 regular members
- Organized weekly events encouraging participation in mathematics and knowledge of women's contributions to mathematics, with events averaging approximately 30 participants each time

Contributor

Spring 2021

Skew the Script (Free AP Statistics Curriculum), Remote, USA

- Created Desmos slides for three Skew the Script lessons, a free, culturally relevant AP Statistics curriculum

Teach for America Corps Member

Fall 2017- Spring 2019

District of Columbia Public Schools, Washington, DC

- Taught at an under-resourced public middle school in Washington, DC through the Americorps Teach for America program

Mathematics Tutor Winter 2016- Spring 2017
Strive Tutoring, Chicago, IL

- Tutored Chicago Public School students in mathematics twice a week for free at the neighborhood nonprofit Strive Tutoring

Statistics Director Spring 2016- Spring 2017
WIT (student organization providing free ACT prep for Chicago Public School Students), The University of Chicago, Chicago, IL

- Compiled descriptive statistics to secure funding
- One of twelve semifinalists in Booth School of Business's College New Venture Challenge

Treasurer Fall 2016- Spring 2017
Education Cohort Leader Fall 2015- Spring 2016
Oeconomica (Undergraduate Economic Research Club) , The University of Chicago, Chicago, IL

- Mentored younger undergraduate students considering economics research careers
- Led economics of education reading group that met once a week, where undergraduate students read and interpreted economics of education academic papers

PUBLICATIONS

1. Rittby K, **Silverglate M**, Alvey C, Lamprecht E, Ryan K, Bubnick H, Kuehne L, Szanislo Z, Franco M, & Fraboni M. Empowering mathematics educators in the age of AI: Reflections from the OPEN Math Workshop. MAA Focus. 2026. Available from: MAA Focus article
2. Naidu A, Silverglate B, **Silverglate M**, Grossberg GT. Safety concerns associated with BACE1 inhibitors - past, present, and future. Expert Opin Drug Saf. 2025 Feb 23;1-6. doi: 10.1080/14740338.2025.2467811. Available from: Expert Opinion on Drug Safety Article. PMID: 39948713.

SUPERVISED STUDENT RESEARCH PROJECTS

1. "Exploratory Analysis of a Regional Nonprofit and Family Services Organization" by Allison Schruppf, Eleri Tye, and Hailey Veninga. 2026. *First Place for Lindenwood Showcase Civic Engagement Project Award*.
2. "Evaluation of RIT Scores at a Midwestern Urban Charter K-8 School" by Melissa Baker, Jamie Karase, Mattie Ohlsen, and Catherine Philipps. 2026.
3. "A statistical evaluation of dispatch data from a suburban police department" by Seth Baur, Callie Demarest, Andrew Rain, and Desirae Snyder. 2026.
4. "An Evaluation of Data from a Regional Transportation Office" by Maxwell Cook, Kendall Klewer, and Joselyn Wood. 2026.

OTHER RESEARCH EXPERIENCE

Corequisite College Algebra Effectiveness Summer 2025- Present
Lindenwood University, St. Charles, MO

- Designed mixed methods study to analyze the effectiveness of our "College Algebra with Support" course

Math Course and Tutoring Program Evaluation Specialist Spring 2024- Present
Lindenwood University, St. Charles, MO

- Analyze course data for gateway math courses (Intermediate Algebra, College Algebra, and Basic Statistics) for trends in which students need more support

- Analyze the successes and areas for growth of the Math Success Center
- Make recommendations to stakeholders based on analysis

Graph Inference and Relational Analysis for Frameworks and Feature Execution
 (“GIRAFFE”) *Faculty Experiences for Undergraduate Research Workshop*
 Winston-Salem State University, Winston-Salem, NC Summer 2026

- Participated in faculty experiences for undergraduate research workshop on machine learning alongside team of undergraduate students

Program Evaluation Specialist Spring 2023- Spring 2024
 Bridges to Readiness, Remote, USA

- Used regression analysis to evaluate the effectiveness of tutoring program for low income high school students
- Implemented difference-in-difference techniques to identify high-impact tutors

Master’s Thesis Fall 2022- Spring 2023
 Mathematics Department, Saint Louis University, St. Louis, MO

- “Cheeger’s Inequality: Theory and Applications”
- Wrote survey paper on the theory and applications of Cheeger’s inequality

Undergraduate Honors Thesis Fall 2016- Spring 2017
 Economics Department, The University of Chicago, Chicago, IL

- “The Effects of Mandatory and Free College Admission Testing on College Enrollment and Completion”
- Implemented difference-in-difference techniques to evaluate effectiveness of mandatory and free ACT and SAT testing for high school students

Research Assistant Winter 2015 - Spring 2017
 Sociology Department, The University of Chicago, Chicago, IL

- Analyzed international, regional statistical data in Stata and SPSS for several interdisciplinary projects studying the impact of the arts on economic development and political movements

Data and Policy Analyst Intern Summer 2016
 Acumen, LLC, Burlingame, CA

- Investigated the change in the enrollment of different types of insurance over time, comparing the statistical accuracy of a variety of government surveys estimating health insurance enrollment

Office of the Chief Economist Intern Summer 2015
 US Department of Commerce, Washington, DC

- Wrote reports regarding economic policy to communicate Office of the Chief Economist research to the public
- Analyzed data in Stata for report on women-owned government contractors

Research Assistant Spring 2014 - Winter 2014
 Harris School of Public Policy, The University of Chicago, Chicago, IL

- Wrote literature reviews for both economics of education and environmental economics research
- Analyzed data in Stata and ArcGIS

**INVITED
TALKS**

“Engaging Your Students with Project-Based Learning” Spring 2026
Section NeXT Meeting, Mathematical Association of Missouri, Columbia, MO

“Designing Math Tutor Training” Spring 2025
Saint Louis University, St. Louis, MO

“Math Tutoring Done Right” Spring 2025
Mathematical Association of America Missouri, St. Louis, MO

“Lessons from the Math Success Center” Spring 2025
Teach for America, St. Louis, MO

“The Marriage Problem: An Exploration of the Algorithm” Winter 2025
Association for Women in Mathematics, Saint Louis University, St. Louis, MO

“Why Johnny Still Can’t Add: How America’s K-12 Math Curriculum Affects Student Readiness in the College Math Classroom ” Fall 2023
Saint Louis University, St. Louis, MO

“Cheeger’s Inequality: Theory and Applications” Spring 2023
Mathematical Association of America Missouri, Springfield, MO

“Policy Impacts of Bohemia and Arts on Walking, Bicycle, and Public Transit Use in US Cities” Spring 2017
Midwest Political Science Association Conference, Chicago, IL

**INVITED
PANELS**

“Community Leadership Panel” Spring 2026
Teach for America Missouri, St. Louis, MO

“SoTL Institute Panel Discussion” Spring 2026
Lindenwood University, St. Charles, MO

“Sharpen, Don’t Replace: Teaching with AI Across the Disciplines” Spring 2026
Lindenwood University, St. Charles, MO

“RISE Mindsets: Motivation” Spring 2026
Lindenwood University, St. Charles, MO

AWARDS

Continuous Improvement Driver Award Spring 2026
Lindenwood University, St. Charles, MO

Scholarship of Teaching and Learning Fellow Summer 2025
Lindenwood University, St. Charles, MO

Project NExT Fellow Spring 2025
Mathematical Association of America, Missouri Chapter

Andrews Award for Outstanding Scholarship and Service Spring 2023
Mathematics Department, Saint Louis University, St. Louis, MO

Alpha Sigma Nu Spring 2023
Saint Louis University, St. Louis, MO

<i>Pi Mu Epsilon</i> Mathematics Department, Saint Louis University, St. Louis, MO	Spring 2022
<i>Segal Education Award</i> Americorps, Washington, DC	Spring 2019
<i>David S Hu Award for Outstanding Undergraduate Thesis</i> Economics Department, The University of Chicago, Chicago, IL	Spring 2017
<i>Jeff Metcalf Summer Stipend Award</i> The Institute of Politics, The University of Chicago, Chicago, IL	Spring 2015

SKILLS

Statistical Programming Languages:

- R
- Stata
- SPSS

Teaching Certifications:

- 7-12 Mathematics Teaching (District of Columbia)
- Online Course Design (Quality Matters)
- Online Teaching (Saint Louis Community College and Saint Louis University)

Learning Management Systems:

- Canvas
- Google Classroom

Online Mathematics Tools:

- Desmos
- ALEKS
- Pearson MyMathLab
- WeBWorK
- MyOpenMath
- i-Ready
- Khan Academy
- Deltamath

Other Skills:

- LaTeX
- Microsoft Suite
- Google Suite
- Project Management
- Leadership
- Communication