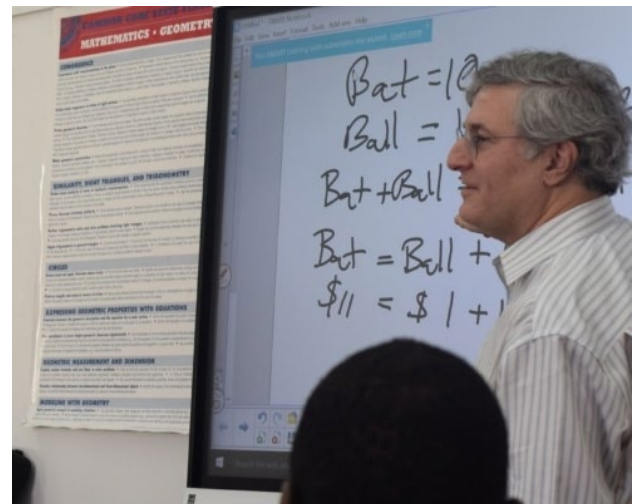


Dear Friends,

As many of you know, several years ago after returning from my year off traveling around the world, I established the Financial Life Cycle Education Corporation (*aka* FiCycle) as a not-for-profit organization. At Ficycle and at Andrew Davidson & Co., Inc. (AD&Co) we are committed to diversity, equity and inclusion practices; our aim with Ficycle is to improve financial education and for every student to understand how financial decisions and actions affected them throughout their lives. Working in finance, we see that many people struggle to understand the role of money in their lives and that many lack the analytical framework to make effective financial decisions.

To help address these problems, we created a high school math course that helps students understand the role of financial instruments in transferring wealth across time and managing financial uncertainty. In addition, the course gives students the mathematical tools they need to evaluate financial opportunities: Tools such as exponents, series, sequences, probability, and expected value. In doing so, we link traditional high school math topics with financial decision making. When I tell people about the course we have developed and how we have linked math and personal finance, the most common reaction is: "I wish I learned this in High School."



On the other hand, in the typical High School Math class, the teacher is often confronted with the challenge: "When am I going to use this?" In the FiCycle class, we never hear this. Instead, students recognize that the math they are learning is useful for the life they are living. Our course fills the gap between students' frustration with high school math and adults' recognition that they did not learn enough about finance in school.

In many school districts, there has been a movement to add financial literacy to the curriculum. We welcome this trend. However, our research shows that while financial literacy without mathematics will lead to more financial actions, it does not necessarily lead to better outcomes. As many of you in financial services know, there is often a thin line between a good financial product and a product that has excessive risk and inadequate returns. Mathematics is required to separate the wheat from the chaff.

Why am I telling you all of this? Because we need your help. While it certainly takes a lot of money to develop and support a new High School math course, that is not the help we are



seeking. We would like you to introduce us to educators in your community.

While our course has been used by dozens of schools across the country, there are over 13,000 school districts in the United States, and many of them only have one High School. As a small not-for-profit without a large sales team, it is difficult for us to reach all of these schools to let them know about FiCycle. We would like your help to reach out to your local high school. The ideal contact is a math teacher, the head of a math department, a curriculum supervisor, a principal, a superintendent or even a school board member.

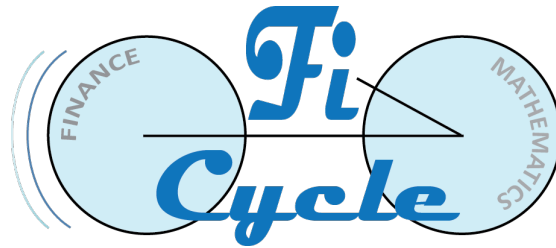
You can give that person my e-mail: [andy@ficycle.org](mailto:andy@ficycle.org) or send them to our website at [www.ficycle.org](http://www.ficycle.org). I have also included a brief write up on the FiCycle course that you can forward to them. We don't expect every introduction to lead to an adoption of the course, but spreading the word will certainly open up doors.

Thank you for your help.

Andy

PS. Contributions and introduction to your firm's corporate philanthropy group are certainly welcome, as well.

# Financial Life Cycle Mathematics



Financial Life Cycle Mathematics (FiCycle) provides a theoretically grounded introduction to Finance for High School Students.

- It navigates the financial calculations and decisions a person must make over the course of a lifetime (the financial lifecycle of an individual).
- It presents the mathematical concepts underlying these principles in a systematic manner.
- It teaches students the math underlying financial instruments putting them in a better position to make good financial decisions in the future.
- It shows how algebra, probability and statistics can be used to evaluate financial problems, which raises students' engagement with mathematics.

FiCycle is entering its fifth year in the classroom; it will be used at schools in primarily in New York, but also in California, Connecticut, Massachusetts, New Jersey, Oklahoma, and Pennsylvania.

- We have received A-G certification from the University of California as a "C" math course.

## Using FiCycle

FiCycle provides a third or fourth year math class, generally for juniors or seniors

- Students who have completed Algebra or other math courses but still have to take further math requirements are often disengaged.
- FiCycle provides an authentic application of mathematics as well as improving college readiness.
- FiCycle can also be used in conjunction with the traditional math sequence to deepen students' knowledge.
- Peer reviewed research confirms that FiCycle is effective.

This table displays how the course can fit into a high school mathematics sequence:

	Freshman	Sophomore	Junior	Senior
<b>Sequence 1</b>	Algebra 1	Geometry	Algebra 2/ Trig	<b>FiCycle</b>
<b>Sequence 2</b>	Algebra 1	Geometry	<b>FiCycle</b>	Trig/Statistics
<b>Sequence 3</b>	Algebra 1	Algebra 1	Geometry	<b>FiCycle</b>
<b>Sequence 4</b>	Geometry	Algebra 2/Trig	Pre-Calculus	Calculus
				<b>FiCycle</b>

## Course Content:

The course is aligned with both the Common Core State Standards and the Jump Start Standard for personal finance as articulated in the tables below. Throughout the course, students engage in mathematical modeling while also addressing many of the standards typically covered in Algebra II, Pre-calculus, or Statistics. Students learn to:

- Transfer wealth across time using the mathematics of exponents, exponentials and series.
- Measure and manage uncertainty using the mathematics of probability, statistics, and binomial distributions.

Alignment with Common Core S.S.			Alignment with Jump Start Standards	
Algebra	Functions	Statistics & Probability	Spending & Saving*	1, 2, 3, 4
A-APR.1; A-CED.1; A-CED.2; A-CED.4; A-REI.1; A-REI.10; A-SSE.1; A-SSE.2; A-SSE.4	F-IF.1; F-IF.2; F-BF.1; F-BF.2; F-LE.2; F-LE.5;	S-CP.1; S-CP.2; S-CP.3; S-CP.4; S-CP.5; S-CP.6; S-CP.7; S-CP.8; S-CP.9; S-MD.1; S-MD.2; S-MD.3; S-MD.4; S-MD.5; S-MD.6; S-MD.7; S-IC.1; S-IC.2; S-IC.3; S-IC.4; S-IC.5; S-IC.6; S-IC.7; S-IC.8; S-IC.9	Credit & Debt* Employment & Income* Investing* Risk Management & Insurance* Financial Decision Making	1, 2, 3 1, 2, 3 1, 2, 3 1, 2, 3 1, 2, 4, 5, 8
			<i>*Please Note: FiCycle covers all standards in this strand.</i>	

## What We Offer

Our Materials Include:

- Unit Plans; Student Workbooks; Quizzes; Spreadsheet Worksheet; and Unit Projects.

We offer Teachers:

- Two days of professional development prior to the start of the school year and ongoing support throughout the year.

Our Collaborations:

- MoMath, Math for America, Council for Economic Education, National Council of Teachers of Mathematics, Metropolitan College of NY.

If you are interested in hearing more about FiCycle, email us or visit our website:

- [info@ficycle.org](mailto:info@ficycle.org)
- [www.ficycle.org](http://www.ficycle.org)