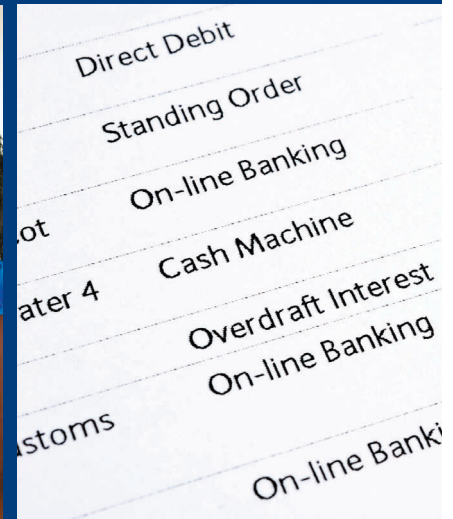


TAKE CHARGE AMERICA INSTITUTE FOR CONSUMER FINANCIAL EDUCATION AND RESEARCH

Family Economics & Financial Education Program Evaluation



An impact evaluation study on high school students'
financial knowledge, attitudes, and behaviors

Study conducted by the
Financial Literacy Group
Washington, D.C.
December 2012



MICHAEL STATEN

WELCOME

Since 2006, the Take Charge America Institute at the University of Arizona has developed and distributed a unique online financial education curriculum for secondary schools. The Institute's Family Economics and Financial Education project (FEFE) provides nearly 30,000 educators nationwide an extensive activity-based curriculum for classrooms in grades 7–12, distributed online and free of charge. FEFE is unique in its pairing of “by teachers, for teachers” design of materials with in-house support of an educator community. Coupled with online professional development materials and in-person FEFE educator conferences offered each year, we believe the program makes it easier for schools and teachers to say “yes” to the adoption and inclusion of personal finance topics in the classroom.

How does one measure the quality and success of financial education programs? Certainly one measure is widespread acceptance by thousands of teachers in our network who choose to download FEFE materials for their classrooms each year. Another indicator is the selection of several FEFE lessons by the U.S. Treasury Department for inclusion in its teacher toolkit to support its 2011 National Financial Capability Challenge. But, as a direct result of our commitment to research-based outreach, we commissioned an external study of the FEFE program's impact on two key outcomes: 1) student financial knowledge, attitudes, and behaviors, and 2) teacher confidence in presenting personal finance topics in their classrooms.

During 2010-2011, the Financial Literacy Group (FLG) worked with teachers at 15 high schools in eleven states to administer a series of online, pre- and post-FEFE course surveys to students, using a treatment vs. control group study design. Separately, FLG also surveyed teachers who attended one of the FEFE professional development workshops during 2010. The following pages provide some highlights of the results, with commentary prepared by Dr. Joyce Serido, Ph.D, in the Norton School of Family and Consumer Sciences at the University of Arizona. Two key results are apparent. First, the FEFE course materials increase student financial knowledge and improve attitudes and behaviors. Second, FEFE professional development materials significantly boost teacher confidence in their ability to raise student knowledge and awareness of personal finance topics.

Michael Staten, Ph.D.

Take Charge America Endowed Chair

Director, Take Charge America Institute

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ABOUT THE EVALUATOR

Financial Literacy Group (FLG) assists agencies and organizations in promoting financial literacy of youth and adults. FLG was founded in 2009 by Dan Iannicola, Jr., a national leader in the financial literacy movement and former lead official on financial literacy matters for the federal government in his capacity as Deputy Assistant Secretary for Financial Education at the U.S. Department of the Treasury.



EXECUTIVE SUMMARY

This report summarizes the findings of an evaluation study on the impact of the Family Economics and Financial Education (FEFE) curriculum on student outcomes and teachers' confidence in presenting financial topics.

The goals of the study were three-fold:

- to assess the impact on students' financial knowledge, attitudes, and behaviors;
- to gauge teachers' perceived value of participation in a FEFE professional development training;
- to elicit teachers' feedback on the FEFE program quality.

Teachers administered pre- and post-test surveys to high school students in their financial literacy courses (198 treatment students). Teachers, or their colleagues, also administered the surveys to high school students not currently receiving instruction in financial literacy (181 control students). A subsample of the students (36 treatment students; 43 control students) also completed a 6-month delayed post-test.

STUDENT EVALUATION HIGHLIGHTS

On average, students in the treatment group outperformed students in the control group, with higher gains in objective financial knowledge, as well as improvements in self-reports of financial attitudes and financial behaviors.

Improvement in financial knowledge was 3x higher for treatment students.

Financial Knowledge. Between pre- and post-test, objective financial knowledge among treatment students improved 9% on average, compared to 3% among control students. An additional 1% increase among treatment students was noted at the 6-month delayed post-test, compared to a 3% decline among control students.

Attitudes and beliefs improved for treatment students, but declined among control students.

Financial Attitudes and Beliefs. At post-test, the average attitude and beliefs improved 3% among treatment students, but declined by 1% for students in the control group. After 6-months, treatment students showed a further 2% improvement, whereas the average among control students declined an additional 3%.

There is evidence of a "sleeper effect" in financial behavior change.

Financial Behaviors. Although financial behaviors were unchanged pre- to post-test for both groups, a significant difference emerged at the 6-months delayed post-test. Treatment students reported a 4% improvement on average compared to an average 4% decline among control students.

TEACHER EVALUATION HIGHLIGHTS

Highest Quality Classroom Materials

- 99% of the teachers rated the FEFE program materials as either "more valuable" or "much more valuable" compared to other program materials.

Effective Professional Development

- Prior to the training, only 17% of the teachers felt either "well-prepared" or "very well-prepared" to teach.
- After the training, 96% felt "well prepared" or "very well prepared" to teach.



STUDENT EVALUATION



JOYCE SERIDO
ASSISTANT RESEARCH
PROFESSOR

In early 2011, 15 high school teachers across the United States participated in the study as prior or current users of the FEFE materials. Ten of the teachers previously participated in a FEFE-sponsored teacher workshop/training (Trained); 5 of the teachers had no training in the FEFE curriculum (Untrained).

Teachers administered a pre-test survey in winter, 2011 to 449 high school students enrolled in their financial literacy class (treatment group); teachers, or their colleagues, also administered the pre-test survey

to 414 students not currently receiving instruction in financial literacy (control group).

379 (44%) students completed a post-test survey at the end of the school year. A subsample of 79 (9%) students also completed a delayed post-test survey, in late fall 2011.*

*Moderate pre- to post-test attrition is consistent with school-based program evaluation (e.g., Tolar et al., 2011); pre- to delayed post-test attrition is in the higher range (Harris, 1998.)

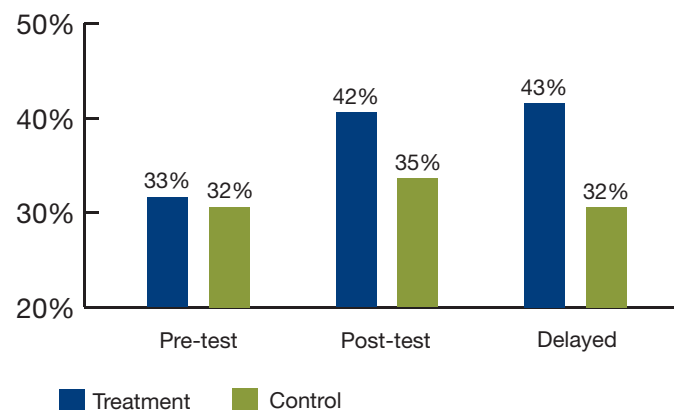
FINANCIAL KNOWLEDGE

National and international studies of youth and adults demonstrate that consumers benefit from higher levels of financial knowledge (e.g., Hilgert, Hogarth, & Beverly, 2003; Peng, Bartholomae, Fox & Cravener, 2007; Van Rooij, Lusardi, & Alessie, 2011). The FEFE curriculum aims to improve

financial knowledge by engaging students in learning through interactive activities.

To assess the impact of the FEFE curriculum on students' financial knowledge, students' completed a 35-item survey derived from the 2008 US Treasury National Financial Capability Challenge Exam. The items assessed students' knowledge in seven different financial literacy concept areas, including: (1) Saving and investing; (2) Financial responsibility and decision making; (3) Planning and money management; (4) Credit and debt; (5) Risk management and insurance; (6) Economics; and (7) Income and careers.

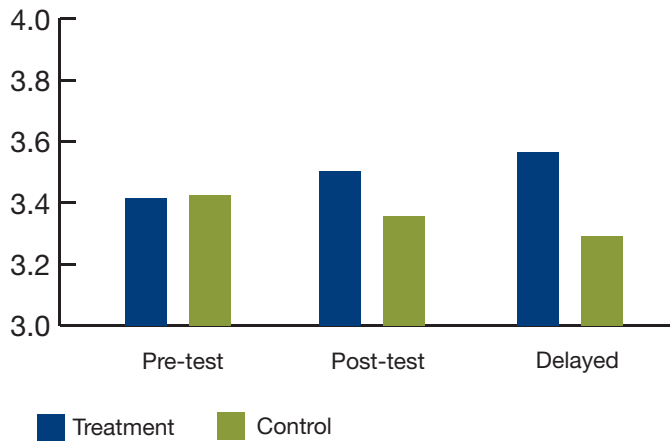
Figure 1. Change in Overall Knowledge



FINANCIAL ATTITUDES AND BELIEFS

Financial attitudes and self-beliefs emerge from an understanding of how financial concepts relate to the demands of day-to-day life (Shim & Serido, 2011). The FEFE lesson plans are designed to help students see the short and long-term relevance of the topics taught in class. In this study, 40 items were used to evaluate students' attitudes towards a series of financial literacy-related concepts as well as their beliefs about financial institutions, money management, and financial education in general.

Figure 2. Change in Attitude



SAMPLE QUESTIONS FOR ATTITUDES:

“With today’s unemployment rate, it really doesn’t pay to get more education after high school.”

“Unless you are a bad driver, buying car insurance is a waste of money.”

Responses based on a 5-point scale (1 = strongly disagree to 5 = strongly agree). Higher scores reflect more positive attitudes and beliefs.

EVALUATORS’ SUMMARY AND CONCLUSION

“The results of this study provide empirical evidence of the positive impact that financial literacy instruction using the FEFE Program Materials can have on high school students’ financial literacy attitudes, beliefs, knowledge, and behaviors. In fact, results of this study reveal that high school students who do not participate in financial literacy education may actually adopt more negative financial literacy attitudes and beliefs over time, as well as exhibit a decrease in financial literacy knowledge.”

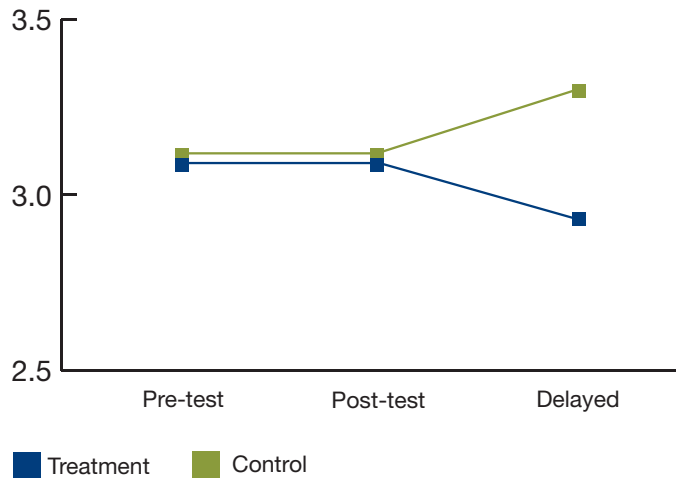
REFERENCES

- Bernheim, B. D., Garrett, D. M., & Maki, D. M. (2001). Education and saving: The long-term effects of high school financial curriculum mandates. *Journal of Public Economics*, 80 (June), 436–466.
- Harris, P. M. (1998). Attrition revisited. *American Journal of Evaluation*, 19(3), 293-305.
- Hilgert, M. A., Hogarth, J. M., & Beverly, S. G. (2003). Household financial management: The connection between knowledge and behavior. *Federal Reserve Bulletin July*: 309-322.
- Peng, T., Martina, C., Bartholomae, S., Fox, J., & Cravener, G. (2007). The Impact of personal finance education delivered in high school and college courses. *Journal of Family and Economic Issues*, 28(2), 265–84.

BEHAVIOR

The goal of the FEFE curriculum is to help young people develop more responsible financial behaviors. This study examined changes in 15 different financial behaviors to see if the impact of the FEFE curriculum went beyond learning core content to changing students’ behaviors. Our findings suggest that it may take time for students to put newly acquired financial knowledge into practice (Bernheim, Garrett, & Maki, 2001).

Figure 3. Change in Behavior



SAMPLE QUESTIONS FOR BEHAVIORS:

“I spend money on things I don’t really need, such as eating out.”

“I am saving up for something I plan to buy in a year or two.” (reversed)

Responses based on a 4-point scale, (1 = always to 4 = never); Higher scores reflect more responsible behaviors.

STUDY LIMITATION

Since random assignment of students to the various student groups is not feasible when conducting school-based research of this nature, we cannot conclude that the FEFE curriculum is the sole and complete “cause” of any observed changes. The use of a comparable group of control students in this study, however, appropriately permits inferences to be made regarding the relative impact of exposure to and engagement with the FEFE curriculum in contributing to the observed changes.

- Shim, S. & Serido, J. (2011) Arizona Pathways to Life Success for University Students (APLUS) Wave 2: Young adults financial capability. Tucson, AZ: University of Arizona.
- Tolar, T. D., Barth, A. E., Francis, D. J., Fletcher, J. M., Stuebing, K. K., & Vaughn, S. (2011). Psychometric properties of maze tasks in middle school students. *Assessment for Effective Intervention*, 37(3) 131– 146.
- Van Rooij, M., Lusardi, A. & Alessi, R. (2011). Financial literacy and stock market participation. *Journal of Financial Economics*, 101(2), 449-472.



TEACHER EVALUATION

Eighty-eight educators attended a multi-day FEFE Teacher Training Workshop between April and August, 2010. Attendees completed a web-based survey both prior to and following the workshop. The survey included both open- and closed-ended questions. Teachers provided feedback on the quality and impact of the workshop and the FEFE materials on their ability to effectively deliver financial education to their students.

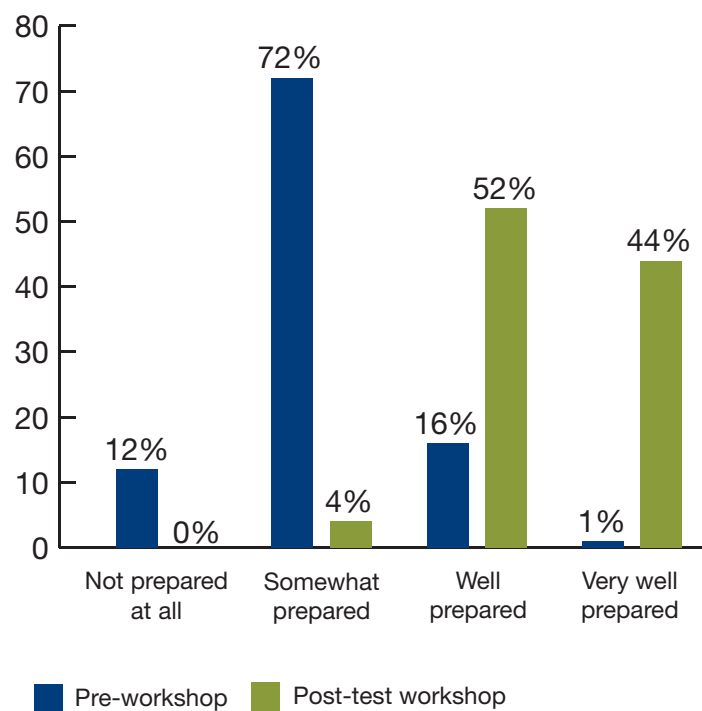
TOP REASONS TO ATTEND TRAINING

- The opportunity to learn specific techniques for teaching financial literacy to students (average rating of 4.59).¹
- The opportunity to increase teachers' confidence in using the FEFE materials (average rating of 4.55).
- The opportunity to improve their own personal finances and financial literacy (average rating of 3.99).

Prior to the training, only 17% of the teachers felt either "well-prepared" or "very well-prepared" to teach financial literacy. After the FEFE workshop, 96% felt "well prepared" or "very well prepared".

¹Items were rated on a 5-point scale (1 – 5) with higher ratings reflecting more positive perceptions.

Figure 4. How prepared are you to teach financial literacy?



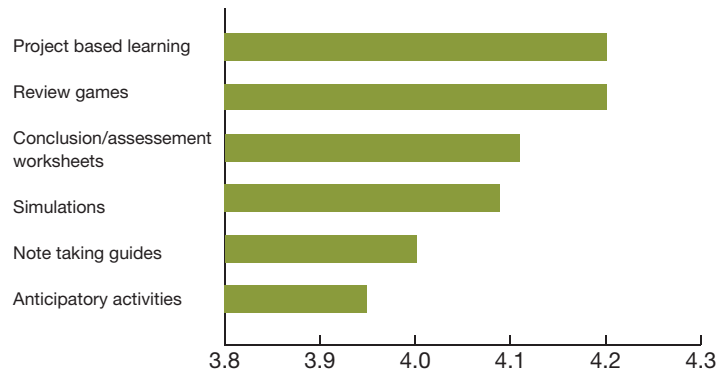
KEY BENEFITS FOR USING THE FEFE PROGRAM

- No cost curriculum materials (average rating of 4.84).
- Detailed lesson plans (average rating of 4.61).
- Instructions/examples for how to facilitate lessons (average rating of 4.54).
- Activity based lesson plans (average rating of 4.54).

VALUE OF THE FEFE MATERIALS

When asked to compare the value of the FEFE program materials to other program materials they are currently using or have used in the past, 99% of the teachers rated the FEFE program materials as either “more valuable” or “much more valuable”.

Figure 5. Effectiveness of FEFE lesson components



Items were rated on a 5-point scale (1 – 5) with higher ratings reflecting more positive perceptions

Teachers’ open-ended responses for the high ratings emphasized their ability to engage and maintain students’ interest when using the materials:

[The FEFE curriculum] is so well organized and presented—and the students really get into it and enjoy it—it is very hard to get them excited about anything that looks like math, but they just eat this program up. It makes them feel very grown up and informed.

Most of my free resources are just information based. FEFE curriculum has engaging activities for the students.

[The FEFE curriculum] has ways to deliver info to students that is more factual and interesting.

Since I have been using the FEFE program, my registration numbers have doubled for my personal finance class.

97% of the teachers who attended the training and responded to the survey would recommend the FEFE Program Teacher Workshop to another teacher!





NICOLE WANAGO
FEFE PROJECT
DIRECTOR

FAMILY ECONOMICS & FINANCIAL EDUCATION – BY EDUCATORS...FOR EDUCATORS

“The mission of FEFE is to support educators in developing financial capability and well-being of young adults by providing ready-to-teach, activity-based lesson plans and ongoing professional development.”

Since 2001, the award-winning FEFE program has provided more than 30,000 educators nationwide with educator-tested curriculum and professional development opportunities that enable them to incorporate lessons related to money management into their 7th through 12th grade classrooms. To provide educators with high quality programming, FEFE was designed around three main principles:

1. Deliver an online research-based curriculum created by educators, for educators that improves financial knowledge and confidence of young adults.

- Over 100 activity-based lessons designed in a ready-to-teach format are available for download free of charge. Their modular format allows them to be used independently or as part of complete courses.

2. Offer ongoing multi-dimensional professional development opportunities to help educators develop the skills and confidence to teach financial education.

- A variety of online and in-person professional development offerings are available to best meet the needs of educators. Online offerings include topical webinars, a video library of advice and strategies from industry experts, and the interactive FEFE Forum. In addition, educators may attend in-person trainings to connect with industry professionals and participate in interactive workshops led by current classroom educators.

3. Provide a full-time staff of professionals who are available to answer questions and provide support.

- The FEFE staff works to reduce instructional barriers by providing a customizable package that includes an up-to-date university-based curriculum of proven effectiveness and a companion professional development program.

To learn more about the FEFE program or access free resources, visit us at www.fefe.arizona.edu or call us at 520.626.4209.



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