

# Teacher Workshops Chip Away at Economic Illiteracy



By William Bosshardt, Paul Grimes and Mary Suiter

**La Royce Gaines**, a teacher at Sumner High School in St. Louis, participated in an economic education workshop for teachers at the Federal Reserve Bank of St. Louis.

Numerous studies reveal that most Americans do not have a strong understanding of basic economic concepts and financial principles. The results of a 2010 survey indicate that fewer than 44 percent of adults can identify the Federal Reserve System as the institution responsible for the nation's monetary policy.<sup>1</sup>

The potential costs of economic illiteracy in a market economy are great. For example, the recent financial crisis and ensuing recession are replete with stories of household and business decision-makers who did not fully understand how changing market forces would impact the agreements and contracts that they signed. A poor understanding of the marketplace results in poor choices, which, in turn, lead to poor outcomes not only for individuals but for society in general.

Members of the Federal Reserve's Board of Governors recognize the importance of an economic and financially literate citizenry, and each of the 12 regional Federal Reserve banks provides public outreach programs in economics and personal finance. The president of the Federal Reserve Bank of St. Louis, James Bullard, has pointed out, "Many people think economics is too complicated. But everyone lives with the consequences of supply and demand every day. We live in a market system, and people need to understand how the system works."<sup>2</sup>

Although each regional Federal Reserve bank offers economic education programming, the programs are different. The Federal Reserve banks of St. Louis and Atlanta have a similar focus, one in which teacher workshops are an important strategy. The two banks found that the resources they invest in these workshops yield results many times over.

Teachers who participate in professional development workshops reach students not only during the year in which the teachers attend a workshop, but they continue to reach additional students each subsequent year of their teaching career. The benefits, obviously, roll down to the students. Many research studies provide evidence that professional development for K-12 teachers increases

(all but Rhode Island) and the District of Columbia include economics as part of their public schools' curriculum but that only 40 states require local school districts to implement specific standards.<sup>5</sup> In the Eighth District, Missouri and Illinois have a high school personal finance requirement, but no economics requirement. Tennessee has both a high school personal finance requirement

FIGURE 1

**Eighth District States' Economics and Personal Finance Requirements**

	High School Economics Requirement	High School Personal Finance Requirement	K-8 Economics Standards in Social Studies	Social Studies Testing
Arkansas	Yes, Combined with Personal Finance	No	Yes	No
Illinois	No	Yes	Yes	No
Indiana	Yes	No	Yes	No
Kentucky	No	No	Yes	No
Mississippi	Yes	No	No	No
Missouri	No	Yes	Yes	No
Tennessee	Yes	Yes	Yes	No

student knowledge of economics and personal finance.<sup>3</sup> For example, results from a 2006 study show that high school students whose teachers participated in economic education training programs and workshops scored better on required state assessments in economics.<sup>4</sup>

Because of the emphasis on these workshops by the St. Louis and Atlanta Feds, it made sense for the two banks to partner in an assessment of their programs.

## Standards and Instruments

In a 2009 survey, the Council for Economic Education reported that 49 states

and an economics requirement. Mississippi and Indiana have a high school requirement for economics but not personal finance. Arkansas recently instituted a high school requirement for a semester of economics and personal finance combined. Kentucky does not have an economics or a personal finance requirement. Although these seven states have standards for infusion of economics content in the lower grades, this effort is part of social studies, and social studies is no longer tested by the states. Furthermore, most states, including those in the Eighth District, lack strong teacher training requirements for economics and personal finance. A typical



**Mary Suiter**, manager of economic education at the Federal Reserve Bank of St. Louis, leads a discussion on the Great Depression at a workshop for history teachers held at the Bank in 2009.

**FIGURE 2**

**Mean Pre- and Post-Test Scores for Teachers Attending Federal Reserve Workshops**

	Prescore	Postscore	Percent Who Taught Economics	Number of Observations
Teachers with No Prior Workshops	9.24 (3.53)	11.94 (3.55)	46	85
Teachers with Prior Non-Federal Reserve Workshop	10.40 (3.62)	13.23 (3.16)	72	47
Teachers with Prior Federal Reserve Workshop	12.43 (4.45)	14.01 (3.86)	80	84

NOTE: Prior workshops refer to workshops in economics or personal finance in the past three years. ( ) - standard deviation

SOURCE: Authors' calculations.

high school teacher in the St. Louis and Atlanta districts completed only two courses in economics while in college. Thus, there is a need for teacher training and professional development that is not being fully met.

Given the importance of teacher workshops, the St. Louis and Atlanta banks recently undertook a comprehensive assessment of these outreach programs. This project examined 65 workshops across the two districts. Participating teachers completed a pre-workshop survey, a post-workshop evaluation form and a web-based follow-up survey, which was sent several weeks after their training. For some workshops, teachers were pre- and post-tested, using assessment instruments specifically developed for this project.

First, the two banks identified the content that was considered essential for meeting the Board of Governors' charge of delivering

Reserve System and personal finance. (These standards can be viewed at [www.frbatlanta.org/edresources/assessment/](http://www.frbatlanta.org/edresources/assessment/)) For general economics, the decision was made to use the *National Voluntary Standards in Economics*, as published by the Council for Economic Education. Two assessment instruments were then developed based on these standards: the Federal Reserve Education Test (FRET) and the Personal Finance Test (PFT). These were used to test teacher knowledge gains as a result of participation in the Fed workshops.

The pre-workshop survey included questions about the teachers' professional experiences and prior interactions with the Fed. The post-workshop survey contained a variety of evaluation items about the teachers' workshop experience; it also collected information about current teaching schedules and plans to use the information presented during the workshop. Finally, the follow-up survey, sent approximately four to six weeks after the workshop, was used to determine if teachers used the knowledge and materials received at the workshop in their classrooms.

### Results

Participants from eight one-day teacher workshops on the Federal Reserve System were pre- and post-tested using the 20-question FRET. Each of these workshops was taught by Federal Reserve education outreach specialists and followed roughly the same outline. Figure 2 reports the results for the 216 teachers who took both the pre-test and post-test and provided background information on their prior workshop

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educational outreach programs in economics and personal finance. A work group composed of research economists, economic educators, other Fed staff and a consulting team that was hired to oversee the assessment project identified three basic areas into which most of the banks' workshops could be categorized: 1) the Federal Reserve System, 2) personal finance and 3) general economics. Content standards were developed in two of these areas—the Federal

experience. The teachers were asked if they had participated in workshops on economics or personal finance during the previous three years. In addition, they were asked about prior attendance at workshops, on any topic, produced by the Fed.

The table clearly reveals that all teacher groups increased their knowledge of the Fed as a result of workshop participation. For teachers with no prior workshop experience, the increase was 2.70 points, which was close to the increase of 2.83 points for teachers who had not participated in a previous Federal Reserve workshop but who had been to other professional development workshops. For those teachers who had attended a previous Federal Reserve workshop, the increase was 1.58 points or nearly 13 percent over their pre-test mean. All of these gains are statistically significant.


Figure 2 also indicates that teachers benefit from attending multiple workshops over time. Teachers with no prior workshop experience scored 9.24 points on the pre-test and left their first workshop with a post-score of 11.94 points. A teacher returning after a prior workshop given by the Federal Reserve comes in with a pre-score of 12.43, which increases further to 14.01. Since a score of 15 points on the FRET is considered to be the level required for mastery of the material, two workshops seem to go a long way toward meeting that goal.

Of course, the data inherently reflect a self-selection process. Economics teachers, who possess relatively more knowledge about the Fed, are more likely to attend a Fed workshop. Teachers who voluntarily choose to attend a workshop are also more likely to make that choice again. It should be noted that while teachers with no prior workshop experience of any kind were generally not economics teachers, the two subgroups (prior non-Fed workshop versus a prior Fed workshop) of the teachers who had been to a prior workshop contained approximately the same (high) proportion of economics teachers. When comparing teachers with previous Fed workshop experience to those who had been to prior non-Fed workshops, the experienced group scored significantly higher on the FRET. Taken together, the results imply that the Fed workshops increase teacher learning about the Fed and that this learning

compounds over time through participation in additional workshops.

Although the testing revealed that teachers learn as a result of workshop participation, the extent to which they actually use that learning—and the curriculum material received at the workshops—in their classes is another question. The evaluation conducted after all Fed workshops asked teachers if they thought they would use their learning in the classroom. Overall, 83 percent indicated a specific course in which they planned to use the information learned. On average, teachers reported reaching about 80 students in the courses in which they planned to use the materials. With an average teacher attendance of about 25, each Fed workshop had an immediate impact on roughly 2,000 students. The follow-up survey sent to teachers asked them if they had indeed used their new knowledge in their classes. Overall, 73 percent of the respondents to the follow-up said they had.

### Beyond Workshops

Teacher workshops are only one part of the Fed's educational outreach portfolio of activities. The St. Louis and Atlanta Feds also produce and distribute lesson plans and curriculum materials for K-12 teachers, conduct presentations and seminars at professional education conferences, publish newsletters for educators and produce various programs for specially targeted groups, such as college professors. The St. Louis Fed has recently expanded its educational outreach through online lessons that can be directly accessed by high school students, as well as the general public. (See [www.stlouisfed.org/education\\_resources/online\\_learning.cfm](http://www.stlouisfed.org/education_resources/online_learning.cfm)) 

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### ENDNOTES

- <sup>1</sup> See Grimes et al.
- <sup>2</sup> See Bullard.
- <sup>3</sup> See Allgood and Walstad; Buckles, et al.; and Sosin et al.
- <sup>4</sup> See Swinton et al.
- <sup>5</sup> See Council for Economic Education, 2009.

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