# **EVALUATION REPORT**

# Foundation for Teaching Economics 2015 Programs in Economics Education

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# **Contents**

Contents	i#
Tables	ii#
Overview	1#
Economics for Leaders	2#
Economic History for Leaders	5#
Economic Forces in American History	6#
Environment and the Economy	6#
Right Start in Teaching Economics	7#
Teaching Economic Issues	7#
One-Day Programs	8#
Online Programs	8#

#### **Tables**

- Table 1. Economics for Leaders: Student Performance on Achievement Test
- Table 2. Economics for Leaders: Pre-Test Results
- Table 3. Economics for Leaders: Student Performance on Achievement Test Individual Items
- Table 4. Economics for Leaders: Student Evaluations of Content, Materials, Instructors, and Overall Program
- Table 5. Economics for Leaders: Student Evaluations of Staff Members and Accommodations
- Table 6. Economics for Leaders: Teacher Evaluations of Content, Materials, Instructors, and Overall Program
- Table 7: Economics for Leaders: Teacher Evaluations of Staff Members, Economics Curriculum, and Accommodations
- Table 8. Economics for Leaders: Follow-up Teacher Questionnaire for 2014 Programs
- Table 9. Economic History for Leaders: Student Evaluations
- Table 10. Economic History for Leaders: Teacher Evaluations
- Table 11. Economic Forces in American History: Follow-up Teacher Questionnaire for 2014 Programs
- Table 12. Environment and the Economy: Teacher Evaluations
- Table 13. Environment and the Economy: Follow-up Teacher Questionnaire for 2014 Programs
- Table 14. Right Start in Teaching Economics: Teacher Evaluations
- Table 15. Right Start in Teaching Economics: Follow-up Teacher Questionnaire for 2014 Program
- Table 16. Teaching Economic Issues: Teacher Evaluations
- Table 17. Teaching Economic Issues: Follow-up Teacher Questionnaire for 2014 Programs
- Table 18. Issues of International Trade: Teacher Evaluations
- Table 19. Economics of Disasters: Teacher Evaluations
- Table 20. Economics of Water Use and the Environment: Teacher Evaluations
- Table 21. One-Day Programs: Follow-up Teacher Questionnaire for 2014 Programs
- Table 22. Economics Online for Teachers: Teacher Evaluations
- Table 23. Economics of Disasters Online: Teacher Evaluations
- Table 24. Economic Demise of the Soviet Union Online: Teacher Evaluations
- Table 25: Teacher Economics: The Federal Reserve System: Teacher Evaluations
- Table 26. Online Courses: Follow-up Teacher Questionnaire for 2014 Programs

#### Overview

The 2015 independent evaluation of the Foundation for Teaching Economics' programs for teachers and students<sup>1</sup> included the following programs:

- Economics for Leaders (11 altogether; 5 student-and-teacher sessions and 6 student-only sessions)
- Economic History for Leaders (1)
- Environment and the Economy (1)
- Right Start in Teaching Economics (1)
- Teaching Economic Issues (1)
- Issues of International Trade (1)
- Economics of Disasters (2)
- Online courses (5): 2 Economics Online for Teachers, 1 Economics of Disasters, 1 Economic Demise of the Soviet Union, and 1 Teacher Economics: The Federal Reserve System

This evaluation report is based on feedback from nearly 800 individuals (more than 430 high school students and more than 350 teachers) served by FTE programs this past year. Participants in all programs completed questionnaires at the conclusion of the program, rating and providing written comments about the instructors, content, materials, program format, and accommodations, among other things. The evaluation instruments for the Economics for Leaders program, Economic History for Leaders, and some online courses also included pre-tests and end-of-course tests aligned with course content to provide information about the impact of the program on learning. In addition, teachers who participated in FTE programs in 2014 responded to follow-up surveys regarding their use of FTE materials in the classroom and the impact of the program on their teaching. Follow-up data from more than 100 teachers are included in this report.

Results from participants' feedback and tests of understanding demonstrate the impact of FTE programs on participants' learning and on teaching and economics education.

Impact on student learning: Students in the Economics for Leaders program answered correctly at least 80 percent of the questions on a test of economics understanding given at the end of the week-long program, a 10 percentage point increase from the pre-test. The Economics for Leaders program is also having a significant impact on students' leadership skills: from 83 to 94 percent of students, on average, said that their leadership skills have improved as a result of the program.

Impact on teacher learning: Teachers who took FTE online courses demonstrated learning gains ranging from 10 to 21 percentage points from pre- to post-test. More than 90 percent of teachers in FTE programs in 2015, who were asked about their understanding of the government's role in economics, said it changed somewhat or quite a bit as a result of the program. In follow-up surveys, teachers in FTE's 2014

<sup>&</sup>lt;sup>1</sup> Evaluation incudes programs conducted from September 2014 through mid-August 2015; evaluation data for fall 2014 online courses are not included.

programs overwhelmingly reported increased confidence in and enthusiasm for teaching economics.

Impact on teaching: FTE programs for teachers are based on content and materials that are, in turn, used by teachers in their classrooms. Teachers in the 2015 programs repeatedly said that they are excited to return to their classrooms to use the simulations and materials with their students. In follow-up surveys, teachers in FTE's 2014 programs reported overwhelmingly that they have used FTE course content with their students.

In addition to evidence of program impact, student and teacher participants repeatedly and enthusiastically praised FTE instructors and staff for their deep knowledge of and enthusiasm for the subject matter.

As in years past, in 2015 the FTE implemented a set of consistently high-quality economics education programs, which have positively and directly affected hundreds of students and teachers.

#### **Economics for Leaders**

#### **Test of Students' Economic Understanding**

Students' understanding of the Economics for Leaders economics curriculum was measured by a test given to all students at the end of the weeklong sessions. This test comprises 30 multiple-choice questions from the U.S. Department of Education's National Assessment of Educational Progress (NAEP)—*The Nation's Report Card*—economics assessment.<sup>2</sup> Economics content experts selected, from among released NAEP items (questions), 30 that are aligned with the tools of economic reasoning and the five economic reasoning principles at the heart of the Economics for Leaders course curriculum to serve as the test of economic understanding. A short pre-test based on these questions was given to students at the beginning of the week in order to gauge learning gains. For most of the 2015 Economics for Leaders programs, the test used is based on NAEP items from the 2006 administration of the NAEP economics assessment. In three of the 2015 Economics for Leaders programs, a new test based on economics items from the 2012 administration of NAEP was introduced. This new test will be used in all Economics for Leaders sites in future years.

The average percent correct on the end-of-course test across all programs using the test based on NAEP 2006 was 80, a 10 percentage-point increase from the pre-test (tables 1 and 2). Performance on the end-of-course test ranged from 72 percent correct in the Boulder program to 86 percent correct in the New Haven program. The overall average percent correct on the post-test was 27 percentage points higher than that for the national sample of grade 12 students (53 percent correct) who answered these questions on the NAEP assessment in 2006. The overall percent correct for the three programs that used the new test based on NAEP 2012 was 82, a 15 percentage

 $<sup>^2</sup>$  See <u>http://nces.ed.gov/nationsreportcard/economics</u> for more information about the NAEP economics assessment.

point increase over the pre-test (tables 1 and 2) and 29 percentage points higher than that for the national sample of grade 12 students (53 percent correct) in 2012.

Students who choose to attend the Economics for Leaders program are likely to be, on average, more academically oriented and perhaps have had more relevant coursework prior to attending than many high school students. Nevertheless, the NAEP national data provide a point of comparison against which to view the performance of students exposed to FTE's Economics for Leaders curriculum.

Table 3 presents the percent correct for each item, by program site and overall. FTE staff and instructors may find this detailed information informative for reflecting on specific strengths and weaknesses of the curriculum and instruction.

#### Students' Evaluations

At the end of the weeklong program, 431 students completed evaluations of the economics and leadership sessions, staff, overall program, and aspects of the accommodations. Results overall and by site for the program content, materials, instructors, and overall program are shown in table 4. Table 5 presents results of evaluations of the staff, residence halls, food, and recreational activities. Overall results are reported separately for the student-and-teacher and for the student-only programs.

Students' ratings of the program content, materials, responsiveness of instructors, and overall program were overwhelmingly positive (table 4). Overall, in both the teacher-and-student and students-only sites, about fourth-fifths of students agreed or strongly agreed that the morning economics sessions stimulated their interest and 93 percent said the content was clear. Eighty-three percent or more said the content of these sessions was challenging and the instructors were responsive. Students were even more positive about the afternoon leadership sessions, particularly in the student-and-teacher programs, in which 93 to 95 percent said the afternoon sessions stimulated their interest, the content was clear, and the instructors were responsive. Students in the student-only programs were also very positive about the afternoon leadership sessions.

Remarkably, across both types of programs, 91 percent or more of students said they would recommend the program to their friends. Eighty-five percent or more said their understanding of economics had improved. In the student-and-teacher sessions 94 percent of students said they felt their leadership skills had improved; 83 percent said so in the student-only sessions.

Favorite sessions mentioned were primarily leadership sessions, including Power Walk, Jump Rope and Trust Walk. Although some students mentioned the "web game" as a favorite, there were a number of suggestions to eliminate it. Some students suggested shortening the debrief sessions.

Students' ratings of and comments about the economics and leadership staff were extremely positive (table 5). In the student-and-teacher sessions, nearly three-quarters (74 percent) of students rated the professors exceptional or superb and 86 percent rated the mentor teachers exceptional or superb. Eighty-two percent of students in the student-only programs rated the instructors exceptional or superb. The leadership

staff received even more positive ratings – in the student-and-teacher sessions 94 percent or more of students rated the student administrators and program coordinators exceptional or superb. In the student-only sessions, the comparable percentages were 87 and 93, also very impressive. Students repeatedly praise the professors for making economic content accessible and the mentor teachers for their enthusiasm and energy.

It is not unusual for the residence halls and food to have markedly lower ratings than the substantive parts of the Economics for Leaders program, and this year was no different. From 15 to 20 percent of student rated the residence halls fair or poor. The food was viewed even more dismally. The food in Austin and Durham must have been particularly bad – 71 and 84 percent of students, respectively, rated the food fair or poor in these sites. In some sites, students suggested giving students an opportunity to explore the wider area outside of campus.

Results do vary by individual site and it would be useful for FTE to examine results for individual programs together with additional context provided by staff. For example, the results for the Los Angeles program were somewhat lower than those for other programs. Comments from students don't indicate any specific problems but on-site staff may be able to provide some insights.

#### Teachers' Evaluations

Teachers participating in the Economics for Leaders program were asked to evaluate different aspects of the sessions, program faculty, the program overall, and the accommodations. Results based on 108 teachers across five sites are presented in tables 6 and 7.

Ninety-one percent or more of teachers said the morning and afternoon sessions were stimulating and the content was clear. Ninety-two percent said the instructors were responsive. Nearly all teachers said they would recommend the program to colleagues (96 percent) and the program would improve their teaching (95 percent). Teachers in the St. Louis program were particularly pleased with the program. Teachers in the Boulder program were less enthusiastic about the morning economic sessions than teachers in other sites (with one teacher even suggesting eliminating the morning sessions); perhaps the usual approach of modeling instruction with students was not applied, or something else was going on to make those sessions less appealing for teachers.

Overall, 78 percent of teachers rated the professors and 93 percent rated the mentor teachers exceptional or superb (table 7). Ratings of staff were particularly high in Austin, St. Louis, and Chicago.

When asked about the Economics for Leaders curriculum, nearly three-quarters (74 percent) of the teachers rated the lectures and 85 percent rated the simulations exceptional or superb (table 7). Repeatedly, teachers said in their comments that the simulations were the best part of the program; they can take these back to their classroom and use them with students. There were a number of comments suggesting a more balanced approach to presenting the issues, to represent a range of perspectives.

Seventy-eight percent of teachers rated the program organization exceptional or superb. A number of teachers (in the Seattle program) suggested providing the slide presentations before the lectures so teachers can take notes. There were also suggestions to improve and increase the use of technology.

Teachers were even less positive about the residence halls than were students; only 33 percent rated them exceptional or superb and 30 percent rated them fair or poor. The Seattle site drew the most ire; comments indicate that teachers did not at all like sharing facilities with students.

In order to gauge the impact of the Economics for Leaders economics curriculum on teachers' understanding, teachers were asked whether or not their understanding of the role of the government in the history of the U.S. economy changed as a result of the program. Nearly all (93 percent) of teachers said that their understanding changed somewhat (47 percent) or quite a bit (46 percent).

Follow-up surveys were completed by 30 teachers that participated in Economics for Leaders in 2014 (table 8). Eighty-seven percent of respondents have taught an economic class since participating in Economics for Leaders and most (92 percent) have used course material with their students. All respondents report at least somewhat increased enthusiasm for and confidence in teaching economics as a result of the program, and 83 percent report that their students' understanding of economics is much better or better. Eighty-six percent of respondents have recommended the program to colleagues.

# **Economic History for Leaders**

New this year, Economic History for Leaders combines the history and economics content of FTE's Economic Forces in American History with the student-teacher format of the Economics for Leaders program. It was offered at one site this year.

#### **Test of Economic Understanding**

To gauge the impact of the program on student learning, a test based on the program curriculum was given to students at the end of the session; a pre-test based on the post-test was given at the beginning of the session. The percent correct on the post-test was 65, a remarkable 23 percentage-point gain from the pre-test.

#### Students' Evaluations

Students were very enthusiastic about the program (table 9). Eighty-one percent said the morning sessions were stimulating and 89 percent said the content was clear. Nearly all students (97 percent) said the afternoon sessions were stimulating and 96 percent said they would recommend the program to a friend. Student remarked that the leadership portion was helpful for developing communication and social skills and for getting students "out of their comfort zones." The x and y game was a favorite of a number of students.

The staff also received high marks from the students; 93 percent or more of students said instructors were responsive and the professor in the session was rated exceptional

or superb by 100 percent of students. The mentor teacher and student administrator were rated exceptional or superb by nearly three-quarters or more of students.

#### **Teachers' Evaluations**

Teachers were even more enthusiastic about this program than students (table 10). One hundred percent said the sessions were stimulating, the materials were helpful and the instructors were responsive. The professor and mentor teacher were rated exceptional or superb by 96 percent of teachers.

Teachers were asked to rate various aspects of the program curriculum – lectures, simulations, materials, Q&A, readings discussions and Empire of Wealth reading. All were well received and rated exceptional or superb by at least 70 percent of the teachers; the materials were rated exceptional or superb by 96 percent of teachers. The program organization was rated exceptional or superb by 92 percent. Teachers love the activities and simulations but many suggested changing up the sessions with students to include more discussion and interactions among and with students. They felt there was too much lecture.

In order to gauge the impact of the program on teachers' understanding, teachers were asked whether or not their understanding of the role of the government in the history of the U.S. economy changed as a result of the program. All teachers said that their understanding changed at least somewhat (70 percent somewhat and 30 percent quite a bit). Numerous teachers commented that they now have more knowledge of American history and intend to incorporate history content into their economics lessons.

## **Economic Forces in American History**

Follow-up surveys were completed by 17 teachers who participated in Economic Forces in American History in 2014 (table 11). Eighty-two respondents have taught an economics class since participating in Economic Forces in American History and all have used program material with their students. All respondents report increased enthusiasm for and confidence in teaching economics as a result of the program and all reported that their students' understanding of economics is much better or better than before. Ninety-four percent of respondents have recommended the program to colleagues.

#### **Environment and the Economy**

The Environment and the Economy program was offered at one location this year and was extremely well received, as has historically been the case for this program. All of the teachers reported that the sessions were stimulating, the content was clear, and the instructors were responsive. Moreover, 100 percent also said that the program improved their teaching and that they would recommend the program to colleagues, and rated the instructors and program format exceptional or superb. It really doesn't get any better than this.

Teachers' comments also reveal the impact of the program. One teacher noted that he will be using the course material with 300 students in the coming school year alone.

Another noted that as a result of her experience in the program she will revise her history curriculum to include opportunity cost analysis of key decision makers.

Follow-up surveys were completed by 33 teachers who participated in Environment and the Economy in 2014 (table 12). Seventy-nine percent of respondents have taught an economics class since participating in Environment and the Economy and 85 percent have used program material with their students. Most respondents (93 to 97 percent) report increased enthusiasm for and increased confidence in teaching economics as a result of the program, and 75 percent report that their students' understanding of economics is much better or better. Eighty-eight percent of respondents have recommended the program to colleagues.

# **Right Start in Teaching Economics**

The teachers in the Right Start in Teaching Economics program, offered at one site this year, loved it, as they have in years past. Nearly all (96 percent) participants said the sessions were stimulating and the content was clear. All participants said the handouts were helpful and that they felt the program will improve their teaching.

Teachers give high marks to the instructors. Ninety-five percent rated the instructors exceptional or superb and 100 percent said the instructors were responsive. Teachers said the instructors were engaging and extremely knowledgeable.

Ninety-two percent of teachers rated the overall program exceptional or superb and 80 percent rated the format exceptional or superb. The fact nearly all (96 percent) also thought the site was exceptional or superb is icing on the cake.

Several teachers commented that they would have liked to have more simulations and activities and less lecture – this could be because many teachers in the program appeared to not be "new" to economics or FTE.

Follow-up surveys were completed by 17 teachers who participated in the Right Start program in 2014 (table 15). Nearly all (94 percent) respondents have taught an economics class since participating in the Right Start in Teaching Economics and all have used program material with their students. All respondents report increased enthusiasm for and increased confidence in teaching economics as a result of the program, and 100 percent report that their students' understanding of economics is much better or better (71 percent said much better). Nearly all (94 percent) respondents have recommended the program to colleagues.

# **Teaching Economic Issues**

Teachers also love Teaching Economic Issues, a "one stop shop" for teachers, which was offered at one site this year (table 16). Remarkably, 100 percent of the teachers said the sessions were stimulating, the content was clear, the instructors were responsive, that they would recommend the program to colleagues, and that they felt that the program would improve their teaching. Also, 100 percent rated the instructors overall exceptional or superb. Ninety-five percent rated the materials and the program overall exceptional or superb. Teachers like the four-in-one format, citing that it is a valuable use of time.

Follow-up surveys were completed by 9 teachers who participated in Teaching Economic Issues in 2014 (table 17). All respondents have taught an economics class since participating in Economic Issues for Teachers, and 89 percent of them have used course material with their students. All respondents reported increased enthusiasm for and confidence in teaching economics as a result of the program. Eighty-nine percent of respondents report that their students' understanding of economics is much better or better.

# **One-Day Programs**

Three one-day programs were offered in 2015—Issues of International Trade (table 18), Economics of Disasters (table 19), and Economics of Water Use and the Environment (table 20). All three programs were well received by teachers. Across all three programs, 100 percent of teacher said the sessions were stimulating and the content was clear. Ninety-five to 100 percent of teachers said they would recommend the program to colleagues and that they felt their teaching would improve as a result of the program. Instructors were also highly rated – 96 to 100 percent of teachers said the instructors were responsive and 97 to 100 percent rated them exceptional or superb.

Teachers' reports indicate a marked shift in understanding as a result of the Economics of Disasters program. Overall, 72 percent said they disagreed with the statement "Disasters are good for the economy" after having taken the course. In contrast, only 23 percent said that they would have disagreed with this statement before taking the course.

Follow-up survey results for one-day programs held in 2014 are shown in table 21. These include 21 respondents who participated in Economics of Water and the Environment, Issues of International Trade, Is Capitalism Good for the Poor, and Economics of Disasters. Eighty-one percent of respondents have taught a course containing economic content since participating in an FTE one-day course and 100 percent have used materials from the course. All respondents report increased enthusiasm for and confidence in teaching economics, and 81 percent report that their students' understanding of economics has improved. Ninety percent of respondents have recommended the program in which they participated to colleagues.

## **Online Programs**

FTE online courses delivered this year and included in this evaluation are the following:

- Economics Online for Teachers, part 1
- Economics Online for Teachers, part 2
- Economics of Disasters
- Economic Demise of the Soviet Union
- Teacher Economics: The Federal Reserve System

End-of-course surveys were completed by participants in all courses. Tests aligned with course content were given to participants before and after each course to measure the impact of the course on learning outcomes; test results are available for Economics Online for Teachers, Economics of Disasters, and Economic Demise of the Soviet Union.

There were learning gains in all courses in which pre- and post-test data are available. Learning gains observed in the EOFT-1 course and Economics of Disasters were both on average 21 percentage points. There was a 10 percentage-point increase in the EOFT-2 course. Teachers in the Economic Demise of the Soviet Union course also had a 10 percentage-point gain, on average, from pre- to post-test.

There was both consistency and variation across teachers' evaluations of the online courses. All or nearly all (88 to 100 percent) of participants in the online courses found the content stimulating, clear and challenging (see tables 22 through 25). There was a more mixed view of particular aspects of the courses, including the lectures, activities, assignments, materials, discussion boards, and instructors. For example, while 100 percent of teachers in EOFT-1 rated the activities exceptional or superb (table 22), 64 percent of teachers in the Federal Reserve System did (table 25). In general, the use of discussion boards had probably the most variation and overall the least satisfaction. Twenty-five percent of teachers in EOFT-1 (table 22) rated the discussion boards exceptional or superb (13 percent said poor). Fifty-nine to 70 percent of teachers in the other courses rated them exceptional or superb (tables 22 to 25). There is some level of interaction among these elements and with the nature of the students taking each course, and with the instructor's approach to the course, so while there may be legitimate areas of the courses to tweak, it's possible that personalities have a lot to do with how participants' respond to various aspects, particularly for something like discussion boards.

In all courses but EOFT-2, 90 to 100 percent of teachers strongly agreed or agreed that the instructor was responsive and returned assignments in a timely fashion, and rated the instructor exceptional or excellent (tables 22 to 25).

Overall, from 85 to 100 percent of teachers in the online courses feel that their teaching will improve as a result of the course they took, and 75 to 100 percent will recommend the course to colleagues.

Fifteen participants in FTE online courses in 2014 completed follow-up surveys (table 26). Ninety-three percent of these teachers have taught economics since taking the online course and all have used material from the course in their classroom. Ninety-three percent or more of respondents report increased enthusiasm for and increased confidence in teaching economics as a result of taking the online course. The vast majority (80 percent) felt their students' understanding of economics has improved and 100 percent have recommended the course they took to colleagues.