EVALUATION REPORT

Foundation for Teaching Economics 2017 Programs in Economics Education

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Overview

This independent evaluation of the Foundation for Teaching Economics' 2017 programs for teachers and students includes the following programs conducted from fall 2016 through summer 2017:

- Economics for Leaders (14)
- Economic History for Leaders (1)
- Fundamentals of Environmental Economics (7)
- Issues of International Trade (1)
- Economic Forces in American History (1)
- Economic Demise of the Soviet Union (1)
- Teacher Economics: Rejuvenating the Economics Classroom (3)
- World of Economics (5)
- Economic Issues for Teachers (1)
- Online courses (9): 4 Economics Online for Teachers, 1 Economics History Online for Teachers, 2
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 Economics of Disasters Online

The evaluation is based on feedback from more than 1300 individuals (more than 526 high school students and nearly 800 teachers) served by FTE programs this past year. Participants in all programs completed questionnaires after each program, rating and providing written comments about the instructors, the content, materials, program format and efficacy, and accommodations, among other things.

The evaluation methodology 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 efficacy and impact of the program on learning and comprehension. Follow-up surveys with participants in prior-year programs were conducted this year and are included in the final table.

A notable change that continued in the evaluation this year was the online surveys as assessments to gather data from program participants. The change to online data collection has many benefits which include better data quality and reduced errors from transmitting data from paper surveys to online forms; reduced staff resources dedicated to copying and mailing tests and forms; and a higher completion rate for surveys and evaluation which provides more robust data. Most sites were able implement the online data survey collection methodology this year, those that filled out paper surveys retain some small inconsistencies from the online data collection but this should be eliminated next year.

Results from participants' feedback and comprehension tests clearly show the positive impact of FTE programs on participants' learning and on their ability to bring the economic way of thinking into the classroom. Participants time after time praised the passion and quality of the instruction and the materials to provide a new framework for classroom instruction.

Overwhelmingly and consistently, across the programs executed this year, participants praised:

- FTE instructors for their passion, responsiveness and knowledge;
- FTE content for its clarity and ability to be used in the classroom;

FTE programs for enhancing the participants understanding of the economic way of thinking

Across FTE programs, participants gave outstanding reviews of the course content and especially the course instructors. Students in the *Economics for Leaders* program gave exceptional rating for the economics and leadership sessions, instructors and teaching quality, activities and for the program staff. Teachers were also impressed with the *Economics for Leaders* program—98% said that the content would assist their teaching in the classroom and 96% said they would recommend the program to their colleagues. Teachers overwhelmingly benefited from the program and indicated that they learned concretely how to better convey the economic way of thinking in their classrooms.

Additionally, there were significant knowledge gains because of FTE courses, with students and teachers demonstrating higher performance from pre-tests to post-tests based on course content. Students scored an average of 79%, a gain of 8% over the average pre-test score. In some cases, the gain was as large at 13%.

FTE's one-day programs and on-line courses were successful and received high praise for both important and relevant content and effective and interesting delivery.

With an impressive set of programs addressing salient economic issues and a framework for analyzing economic problems, a superb team of instructors and leadership staff, FTE continues to make a profound impact on the teaching the economic way of thinking in the classroom.

In each section below, the results from surveys completed by program participants are summarized. When applicable, test results are also described.

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.¹ Economics content experts selected, from among released NAEP 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 to gauge comprehension and learning gains.

The average percent correct on the end-of-course test across all programs using the test based on NAEP in 2012 was 79, an eight percentage-point increase from the pre-test (table 1). Performance on the end-of-course test ranged from 73 percent correct in the Oberlin program to 83 percent in three programs (Berkeley, New Haven, and Ithaca). The overall percent correct on the post-test was 26 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 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

¹¹ See https://nces.ed.gov/nationsreportcard/economics/ for more information about the NAEP economics assessment.

high school students suggesting some selection bias. Nevertheless, the NAEP national data provide a point of comparison against which we can assess the performance of students exposed to FTE's *Economics for Leaders* curriculum.

Students' Evaluations

At the end of the weeklong program, 526 students competed 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 3. Table 4 presents results of evaluations of the staff, residence halls, food and recreational activities.

Students' ratings of the program content, materials, responsiveness of instructors, and overall program were overwhelmingly positive (table 3). Overall, 86 to 91 percent of students agreed or strongly agreed that the morning economics sessions stimulated their interest, the content was clear, and the instructors were responsive. In five of the sites—Houston, New Haven, Los Angeles, Providence and Oberlin, 100 percent of the students rated the instructors as responsive to questions and feedback, an impressive result. Additionally, in three of the sites—Ithaca, Providence and Oberlin, 100 percent of the students rated the content as clear.

Overall, 87 percent of students were positive regarding the challenging content; most respondents suggested that the instructors effectively made difficult material easy to digest and understand. Students in the Boulder program provided the more neutral (i.e. less favorable) ratings for the economics session than other sites.

Boulder students reported slightly lower responses to the afternoon leadership session with 84 to 90 percent reporting that the sessions stimulated their interest, the content was clear, and the instructors were responsive. Boulder stands out as the program where students liked the afternoon leadership sessions more than they did the economic sessions. There were no consistent comments that would indicate why and overall the comments regarding the teaching and instructions were quite positive.

Overall, 90 percent of students said they would recommend *Economics for Leaders* to their friends. Eighty-six percent indicated that their understanding of economics had improved because of the program.

When asked about their favorite sessions, students' comments indicated across the board that they enjoyed the activities that required them to implement the concepts and ideas learned in the lectures including the buyer and sellers game, ultimatum game, and the swap game. Students comments indicate that these activities help to solidify the economic concepts which they will carry with them into the future.

Students' ratings of and comments about the economics and leadership staff were positive (table 3). Seventy-nine percent of the students rated the economics teams (the composition of which varied by program; some included professors and mentor teachers and some just the latter) exceptional or superb and 88 percent rated the leadership team (student administrators) exceptional or superb. Program coordinators were rated exceptional or superb by 85 percent of students overall. The leadership teams in the Houston and Boulder programs were rated at exceptional or superb by 100 percent of students.

It is not unusual for the residence halls and food to have markedly lower ratings that the substantive parts of the *Economics for Leaders* program, and this year was no different. Only half rated the residence halls exceptional or superb and 39 percent rated the food as excellent or superb. The residence halls in Berkeley and New Haven received particularly low ratings relative to the other programs. In the Berkeley comments indicated that one of the showers was broken forcing many people to share one shower and that in some cases the bathrooms didn't work properly.

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. Feedback from 93 teachers across seven sites is presented in tables 4 and 5.

Teachers were quite pleased with the *Economics for Leaders* sessions and gave high scores across sessions. Overall 96 percent or more strongly agreed or agreed that the morning and afternoon sessions stimulated their interest, the content was clear and challenging, the materials were helpful, and the instructors were responsive. Nearly all teachers (96 percent) said they would recommend the program to colleagues and the program would improve their ability to teach and implement the economic way of thinking into their classrooms. In many programs, 100 percent of teachers gave high ratings for all aspects of the program (Houston, St. Louis, and Oberlin).

The instructional staff received very high scores and ratings as well (table 6). Ninety-seven percent of the teachers rated the professors and mentor teachers exceptional or superb. Teachers applicated the instructional staff for their knowledge and expert ability to communicate that knowledge effectively to teachers and students.

When surveyed about the Economics for Leaders curriculum, 96 percent of the teachers rated the lectures and 95 percent rated activities exceptional or superb. Teachers comments indicate that they enjoy the hands-on approach that can be carried into their classrooms they also appreciate the online resources provided by FTE. Some comments indicated that the program could be longer for greater opportunities for learning. Comments were near unanimous in their praise of the program for providing new insights into teaching and a wealth of resources for the classroom.

Overall only 45 percent of teachers gave the residence halls and exceptional or superb rating and 52 percent rated the food as exceptional or superb. Most of the comments centered around lack of cleanliness of bathrooms, thin sheets and uncomfortable mattresses. There were no other major issues with the food or housing.

When asked about whether the program had changed their understanding of economics and their ability to import that understanding into the classroom, 67 percent report that their understanding had changed quite a bit.

Economic History for Leaders

Economic History for Leaders combines the history and economic 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 Medford, MA (Tufts University).

Test of Economic Understanding

To gauge the impact of the *Economic History for Leaders* 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 average percent correct on the pre-test was a 48 and the post-test average was a 64, a 16 percent gain. Several students gained an impressive 35 percent score from pre- to post-test.

Students' Evaluations

Students were very enthusiastic about this program, see table 6 for detailed results. They enjoyed the both the morning and afternoon sessions and 90 percent of students in both sessions indicated that the instructors were engaging and responsive to questions. Students' comments indicate that the professors effectively and passionately communicated the ideas and made the sessions challenging and effective.

Seventy-seven percent of students said the morning sessions stimulated their interest and 84 percent said the content was clear. Seventy-four percent said the afternoon sessions were stimulating and 90 percent reported that the afternoon sessions provided clear content. Overall, 71 percent of the students in the program would recommend it to a friend and 84 percent report that their understanding was improved.

Teachers' Evaluations

One hundred percent of teachers reported that the content was stimulating and that the instructors were responsive to questions and would recommend the program to a colleague. Ninety-six percent said that the morning content was clear and 96 percent reported that the afternoon content was challenging. Ninety-two to 96 percent of teachers said that the professors and mentor instructors were exceptional or superb and 92 percent rated the overall program as exceptional or superb. Teachers were not enthusiastic about the accommodations with only 21 percent rating the residence halls as exceptional or superb. Overall 58 percent of the teachers suggested that the program changed their understanding quite a bit.

One-Day Programs

Twenty, one-day programs were offered this year. Fifteen one-day teacher programs were offered this year— Fundamentals of Environmental Economics (table 8), Issues of International Trade (table 9), Economic Forces in American History (table 10), Rejuvenating the Economics Classroom (table 15), Economics of Disasters (table 16), and five one-day student programs were offered, World of Economics (table 17).

Fundamentals of Environmental Economics

The Fundamental of Environmental Economics program was offered at five sites this year and it was enthusiastically received across the board. Across all categories, this program received very high marks and tapped into a desire that teachers have to be able to effectively bring these issues into their classrooms.

Ninety-six percent of teachers said the content was stimulating and 98 percent reported that the content was clear and would be valuable to their teaching. Ninety-four percent reported that they would recommend the program to a colleague and 93 percent said this program will improve their teaching. The comments were universally positive about the relevant and powerful content that these programs provided and praised the instructors for their passion, clarity and depth of knowledge.

Issues of International Trade

One hundred percent of teachers who participated in the *Issues of International Trade* program said the program was well-organized and 93 to 96 percent reported that they will be able to import the content into their classrooms and that the binder materials were useful. Ninety-three percent reported that they would recommend the program to a colleague and 89 percent said that they would attend another FTE workshop. Comments praised that instructors offered a balanced approach to how trade affects different stakeholders and for providing relevant and creative examples for classroom use.

The instructors for the *Issues of International Trade* program were rated highly in terms of the content and delivery of the workshop, with 78 percent of the teachers rating the instructor as excellent in terms of content and 81 percent excellence rating for presentation.

Economic Forces in American History

Teachers gave high praise for *Economics Forces in American History*. One hundred percent agreed or strongly agreed that the content was stimulating and would recommend the program to a colleague. Ninety-four percent strongly agreed or agreed that the content was challenging, the handouts were helpful and that the instructors were responsive to questions and discussion. Overall 100 percent agreed that the instructors, overall program and the program site were exceptional or superb making this quite a successful and well-received program.

Teachers were praised in the comments for their passion, ability to communicate complex ideas in an understandable way, and overall delivery. Comments indicated consistently that the instructors and professors had passion, humor and effective teaching methods that will be taken into the future.

<u>Teacher Economics: Rejuvenating the Economics Classroom</u>

There were five one-day programs for Rejuvenating the Economics Classroom and one online program. One hundred percent of teachers across all six of these programs indicated that the instructors were responsive to feedback and questions. Eighty-three percent agreed that the content was stimulating and 93 percent reported that the content was clear and valuable for their classrooms.

Overall, 72 percent of teachers agreed that the instructors were exceptional or superb and 74 percent would recommend the program to a fellow teacher. A few of the teacher comments indicated that they would prefer a greater amount of time spent on teaching how to manage personal finance. Overall the comments were positive and suggested the workshop was helpful and gave them new ideas.

World of Economics

There were five World of Economics one-day programs held for 315 students this year. Overall, 80 percent reported that the content was stimulating and 92 percent said the content was clear. Where this program lacked in rankings relative to other programs was the challenging nature of the content with only 52 percent reporting agreeing that the content challenged them and 56 percent reporting that

the program improved their understanding. Student comments indicated that the content could go deeper in analysis of the topics and move beyond the basics of economic fundamentals.

The instructors received warm praise for the style and delivery with 83 percent rating the instructors as exceptional or superb and this was supported in the comments from the students as well. They enjoyed the teachers' delivery and style but would have preferred more depth. Forty-seven percent rated the meeting space as exceptional or superb and 41 percent rated the food as exceptional or superb.

Online Programs

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

- Economic Demise of the Soviet Union (table 11)
- Economics Online for Teachers, part 1 (table 12)
- Economics Online for Teachers, part 2 (table 12)
- Economic History Online for Teachers (table 13)
- Teacher Economics: The Federal Reserve System (table 14)
- Economics of Disasters Online (table 16)

Participants completed evaluations at the end of the course on various aspects of the course including lectures, materials, discussion boards, texts, and instructors. Tests aligned with course content were given to participants in *Economics Online for Teachers* and *Economics of Disasters Online*, before and after each course to measure the impact of the course on learning comprehension and outcomes.

Economic Demise of the Soviet Union

Economic Demise of the Soviet Union was delivered once in an online capacity this year. The content was well-received and praised the teacher participants. One hundred percent agreed that the content was stimulating, clear, challenging and would recommend it to their colleagues, making this quite a popular and successful program. Ninety-five percent agreed that the assignments were returned in a timely manner and 85 percent agreed that the instructors were responsive. Overall, 89 percent agreed that the instructors were exceptional or superb and 79 percent agreed that the materials were helpful for their learning and classrooms. Only 53 percent reported that the discussion boards were exceptional or superb and 74 percent reported that the materials were useful.

Economics Online for Teachers

Economics Online for Teachers was delivered twice in the fall, twice in the spring and once in winter. Teachers rated both in part 1 and part 2 extremely positively. In part 1, 94 to 100 percent said the course stimulated their interest and that the content was clear. Remarkably, in all five programs, the content was reported to be challenging.

Instructors received high praise for their lectures, activities and relevant assignments. Most teachers said the materials and discussion boards were useful. The discussion board had more variability in their scores with between 53 percent and 93 percent of teachers reporting that they were helpful.

Economic History Online for Teachers

Economics History Online for Teachers was delivered once this year in the winter of 2017. One hundred percent of teachers reported that the content was challenging, the instructors were responsive and that the materials were returned in a timely manner. 86 percent reported that the program was stimulating but only 57 percent reported that the content was clear. Sixty-four percent said they would recommend the course to a colleague. Overall the teacher appreciated the instructors with a 93 percent approval rating. Eighty six percent said the materials were useful and 64 percent found the activities to be either exceptional or superb.

Teacher Economics: The Federal Reserve System

Teacher Economics: The Federal Reserve was delivered twice this year, in the fall of 2016 and the spring of 2017. The course included lectures, activities and videos, assignments, materials and discussion boards. The content and instruction in this course was appreciated and applicated by the teachers. Across both programs, 100 percent said the content was challenging and that the instructors overall were exceptional or superb.

Several comments suggested that the material was so challenging that they would have preferred and introductory course on the Fed to help with comprehension as the material is quite advanced for someone new to economics and that the reading load was too heavy.

Economics of Disasters Online

There were three *Economics of Disasters* programs held this year. Two were one-day programs and one was delivered online. Across all the programs the teachers enjoyed the program and praised the program for stimulating interest and responsive instructors. Between 91 and 96 percent rated the professors' presentation skills as excellent and 85 percent rated the content as excellent.

Across all programs 95 to 100 percent reported that the information gathered at the workshop would be useful for the classroom. Between 96 and 100 percent reported that the binder of materials was useful for future teaching. Teachers comments indicated that the program was informative, useful and could be adopted into classroom content.

FTE 2016 Program Follow-Up Teacher Questionnaire

This year a follow-up questionnaire was sent to 484 teachers who participated in FTE programs in 2016. Fifty-nine responded the results of which are detailed in table 19. The results of these surveys are promising and reinforce that the teachers have taken what they learned in FTE programs and incorporated them into the classroom. The programs have also created renewed energy and enthusiasm among teacher participants. Seventy-three percent said the program increased their enthusiasm for teaching very much and 64 percent said the confidence in teaching economics increased very much.

An overwhelming 90 percent have already used FTE materials in their classroom and of those who will teach economics in the future, 100 percent plan to use FTE materials. Eighty-three percent have already recommended an FTE program or the materials to other teachers and 55 percent report that their students have a better understanding of the economic way of thinking because of the FTE programs. FTE is clearly filling a void in effective teaching methodology for economics in the classroom.