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THE EDUCATIONAL VALUE OF THE COLLEGE FED CHALLENGE

Ву

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The Educational Value of the College Fed Challenge

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Abstract

The College Fed Challenge, a competition between undergraduate students from different

colleges and universities, is designed to enhance the development of research, critical thinking,

and presentation skills. This paper analyzes the value of the competition as an instrument for

improving undergraduate economics education. We present results from surveys of (a) students

who participated in one district in November 2010 and (b) graduates from the University of

Delaware who participated in past years. The results reflect the impressive effect on student

learning outcomes. We conclude that the visibility of the College Fed Challenge can be an

important factor in determining its impact and that the competition could conceivably have a

significant and positive impact on economics education in the United States.

undergraduate economics, education environment, Key words: economic education,

experienced based education

The Educational Value of the College Fed Challenge Competition

I was left with a stronger sense of the overall issue of an educational culture (to use a term from Brad Bateman's response) at any school can be. Understandably, the culture at a school that prides itself first and foremost on the quality of its undergraduate liberal education will often be different from the culture at a school that ranks itself based on doctoral or master's program research. (Michael Watts 2009, xxiv)

The College Fed Challenge is an annual competition at the district and national level between undergraduate students from different four-year colleges and universities. Over a hundred tertiary institutions across the nation participate in the competition in five Federal Reserve Bank districts: Boston, Chicago, Philadelphia, Richmond and New York. The conference organization differs in each Federal Reserve district. For instance, the competitions in Philadelphia and New York are endorsed by the respective Federal Reserve Banks but are organized by the Eastern Economic Association; the Federal Reserve Bank of Richmond sponsors and organizes the competition in its district. By advancing through successive rounds of competition, successful teams win recognition and the first place team in each district continues to Washington D.C. to compete at the Board of Governors.

The aim of the College Fed Challenge is to encourage students to learn more about the economy, the Federal Reserve System and the implementation of monetary policy and financial stability in a cooperative learning environment. In front of a panel consisting of academics and professional economists, each team makes a 20-minute presentation about the current performance of the economy and provides a forecast for the near term. In addition, the team explains the issues and risks that the Federal Open Market Committee needs to consider in formulating policy at its next meeting, and makes a team recommendation for monetary policy

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¹ In addition, two-year community colleges participate in a similar competition in a separate division.

that encompasses both traditional tools and newer ones. After the formal presentation, students respond to wide-ranging questions from the adjudicating panel for about 15 minutes. Typical questions cover the arguments made or data addressed in the team's presentation, how policymakers might respond to hypothetical economic scenarios and how the Fed makes and implements monetary policy. During this interaction, judges also ask probing questions to determine the team's depth of knowledge of economic data, theory, or conditions.²

Colleges and universities use different approaches in preparing for the annual competition. At some schools preparation is part of a formal class; in other cases, preparation for the competition is an extra-curricular activity. While the approach of different institutions in preparing for the College Fed Challenge is the focus of separate research, we draw upon our own experience at the University of Delaware throughout the paper.

This paper analyzes the value of the competition as an instrument for improving undergraduate economics education. The College Fed Challenge is a carefully crafted learning experience and an excellent example of experience-based education.³ The central logic of this method is based on the transformation of experience into knowledge and understanding and the integrated development of cognitive skills. Undergraduate education involves more than just the passive accumulation of knowledge. To reach a deeper level of understanding, each student needs to construct meaning from a focused combination of experiences and academic materials. In our experience, many students acquire pieces of knowledge without establishing relationships among them or across disciplinary boundaries, without integrating new information with prior learning, or contending with controversial issues. Experienced-based education engages students

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² Presentations of the national competition held at the Board of Governors in December 2010 are available on You Tube. http://www.youtube.com/watch?v=PnUz7YvFBjU&feature=relmfu

³ The Eastern Economic Association provides a detailed list of students learning goals on their website http://www.ramapo.edu/eea/challenge/

in active learning that challenges their assumptions and deepens the way they understand concepts and issues within a broad context of content knowledge. In addition, active learning develops critical cognitive skills, which are an essential undergraduate learning outcome.

The College Fed Challenge experience incorporates many of the recommendations in *Educating Economists: The Teagle Discussion on Re-Evaluating the Undergraduate Economics Major* (2009). In the first section of the paper, we argue that preparation for the competition can contribute in many ways to the goals of undergraduate economics education supported by various contributors to the Teagle Report. In the second section we focus on the contribution of W. Lee Hansen, who has promoted a skills-based approach to the economics major for many years. We administered a survey to the students from the nine schools that participated in the first College Fed Challenge competition of the Third Federal Reserve District held at Lafayette College on November 1, 2010 to determine whether students perceived that their participation improved the skills described by Hansen (1986). We then administered a second survey with similar questions to graduates of the University of Delaware who had participated in the competition in previous years. In addition to the questions on the Hansen-based skills, we asked graduates to describe how their participation influenced their lives post-graduation.

According to the Eastern Economic Association (http://www.ramapo.edu/eea/challenge/):

In addition to the educational benefits and confidence arising through rigorous competition, students benefit from opportunities to apply their experience to acquire internships, discover potential career paths, and hone skills of public speaking, logical thinking, writing, and analysis which are essential to successful integration into the global economy. Instructors of undergraduate institutions benefit through the use of a venue to develop enthusiasm for the study of economics and to integrate their curriculum in macroeconomics and money and banking course with an active learning experience promoting both necessary skills for student acquisition as well as student awareness of current events and conditions in the economy and the financial system.

The results of our surveys are consistent with the above statement. The results show that students who participated in the College Fed Challenge perceive that the experience significantly

enhanced their skills. These findings are consistent across the nine schools surveyed and the post-graduate students. In particular, evidence from the post-graduate survey suggests that students who participated felt that they are now more intellectually excited and have a much better understanding of economic news than their peers both in the workplace and amongst their family and friends.

Not only are the skills of the students who are selected as team presenters in the competition enhanced, but also the skills of other students who directly participate in the College Fed Challenge. For each of the five team members, there are at least five students who support the cooperative effort as dedicated researchers. Moreover, the lives of other students are affected by their involvement with the team. For instance, students who are not directly involved with the College Fed Challenge provide occasional support for specific research tasks and critique the performance of the team at rehearsals. At the University of Delaware, the College Fed Challenge is a student-led, extracurricular activity. In the spring semester, senior students actively recruit and train lower-level students in five or six-member teams. The spring competition replicates the district competition and is used as the basis for selecting the team to represent the University of Delaware in the fall at the district level. Faculty who teach macroeconomics or monetary economics, but are not involved directly in coaching the team, act as judges in the internal competition. This approach involves other faculty in the preparation of the team for intercollegiate competition. The positive externality of the College Fed Challenge extends far beyond the team members at the numerous colleges and universities that participate in the competition.

In addition, we argue that establishing a College Fed Challenge team can also have an important impact on the atmosphere in economics departments. It creates a focus on undergraduate students. We have seen situations where successful teams have brought positive attention to the economics department and enhanced their reputation because the College Fed Challenge is a program with a strong national reputation. When a Harvard University team won the national competition for the second consecutive year in 2008, the faculty became excited about their team's performance. Not only did Greg Mankiw take the time to write a blog about

their victory, but the university disseminates information about the program and promotes it on their homepage.⁴

The success of a team is an indication of a successful economics program, because teams that perform well in the competition reflect the role of teaching in the department as a whole. In an important sense, preparation for the competition begins in the introductory courses and culminates in the final presentations. Without a solid background in economic literacy established in the classroom, students will not be able to perform well in the competition.

The following section discusses how the College Fed Challenge incorporates many of the recommendations of the Teagle Report. Our survey results show that the effect on student learning outcomes is impressive. More than likely, a carefully crafted capstone course could enable students to improve some of the skills incorporated in the College Fed Challenge. A future, and more ambitious, research endeavor would enable us to compare the College Fed Challenge experience to other capstone experiences. At this early stage, we show that the competition is a useful vehicle for advancing important skills. In addition, we highlight the educational value of the College Fed Challenge to show that students not only develop higher-order cognitive skills that they apply to economics but also develop interpersonal skills as well as oral and written communication skills that transfer to the workplace.

I. Goals for Undergraduate Economics Education: The Teagle Report.

The Teagle Report is an evaluation of undergraduate learning and the role it plays in a liberal education. The first essay by Colander and McGoldrick (2009) lays out general goals for the undergraduate economics major and argues that there are various weaknesses in the existing economics major at liberal arts colleges. Their essay forms the background for a discussion of these issues by other contributors to the volume. Some contributors support Colander and McGoldrick; others express sharp differences with their positions.

Colander and McGoldrick (2009: 4) argue "that colleges will succeed in providing a liberal arts education almost independently of what they teach if they instill a passion for

⁴ "Harvard College Fed Challenge promotes economics literacy both on campus and in our community by creating opportunities for students to participate in the College Fed Challenge, a national economics competition sponsored by the Federal Reserve Bank." http://www.hcs.harvard.edu/~fed/index.html

learning in their students." In their view, the clearest statement of the goals of the economics major is articulated in Seigfried *et. al* (1991: 14) who state that the goal is to produce students who 'think like an economist." Such thinking requires learning "deductive reasoning skills, decision-making techniques, understanding complex relationships, creativity and acquiring and using knowledge that cuts across disciplinary boundaries."

Those of us who watch students participate in the College Fed Challenge cannot help being impressed with the passion these students display in preparing for the competition. In our experience we have never seen students so excited about learning. Economists often argue that competition brings out real effort. The College Fed Challenge reinforces that observation. We also observe students who develop other skills associated with a successful liberal arts education. To perform well in the competition students must collect, collate, and organize data in order to present a compelling and effective argument. This process involves "understanding complex relationships" and "creativity."

These impressions are reinforced by the results from our survey of post-graduate students who have participated in the competition. Throughout the paper, comments from all 10 students are presented to reflect the positive outcomes all experienced. Here, three examples from the survey are highlighted:

The CFC expanded my intellectual curiosity greatly. Not only have I sought to learn more about various fields of economics, I have also sought to learn more about various other topics including investing, risk management, and psychology... [T]he CFC taught me the importance of keeping an open mind to different opinions and arguments in order to foster the most informed debate possible.

Another post-graduate wrote:

Most Americans rely on newscasters and public figures to interpret economic data and report to them its meaning in layman's terms. It is an extremely liberating feeling to be able to understand the impact of key economic indicators and demonstrate this to others and be a source of knowledge and information that most Americans do not have.

A third graduate wrote:

... it allowed me to really understand what was going on in current macroeconomic policy. It allowed me to separate the economics from the politics (and laugh in amazement). And I felt confident weighing in on all sorts of conversations ...

Colander and McGoldrick (2009: 15) are also concerned with the lack of instruction in oral and written communication skills. In the College Fed Challenge competition students not only

prepare a presentation but also answer questions from the judges. Faculty and other students can help with the formal presentations which are usually revised several times and can provide extensive feedback. In classroom situations, even when there are extensive writing assignments, it is rare to have an experience where students are asked to revise their work so many times. Learning to express yourself more clearly is an important part of the learning process. In our survey students state that improvement of oral and written skills are important aspects of their experience with the College Fed Challenge. Three examples from post-graduate students illustrate this point:

Presentation skills are important, and I needed all the help I could get. ... [The CFC] gave me more confidence in my ability to present arguments convincingly and in an organized fashion – especially the Q&A section. In addition, brevity in writing is important, and the experience of going through speeches, literally changing three syllable words into two syllable words, taught me how much can be trimmed from a document when necessary without changing the content.

A second comment by another post-graduate:

The CFC gave me experience presenting to a high level group of executives that I still harness to this day and use in my presentations to my senior level management.

A third post-graduate:

I have used these skills writing speeches for the CEO on issues ... that were heavily debated in City council. I am also the lead grant writer ...[R]esearch skills in forming the methodology and program deliverables definitely helps.

An important part of the competition is the question and answer session following the formal presentation. In many ways preparing for this part of the competition is more difficult. Here the students are more on their own. The only way to really impress the judges at this stage is to have read comprehensively, have synthesized the various explanations of the current performance of the economy, and formulated judgments about how monetary policy will affect its future course.

An important part of the preparation for the competition is the atmosphere that can develop. Unlike a formal classroom where the teacher grades the student, in the College Fed Challenge competition the students and faculty cooperate in an attempt to impress the judges.⁵ It

⁵ The final graduation grades in the honors program at Swarthmore College are determined by outside examiners who first give a written exam to graduating seniors and then follow through with an oral exam. Students take

is a team effort in every sense. It can also include students other than those who actually present at the competition. At the University of Delaware there are students who play a supporting role in conducting research and generally preparing the team for its presentation in the competition. Many students who were surveyed mentioned that the team aspect was an important part of the learning experience and prepared them to be an effective team member later in their careers.

II. Does Participation in the College Fed Challenge Competition Improve Skills?

The College Fed Challenge is a carefully crafted learning experience. It is an excellent example of active learning, discovery learning, or experience-based education. Active learning is a method whereby the learner directly engages in the learning process. The central logic of this method is based on the transformation of experience into knowledge and understanding and the integrated development of skills and cognition. Active learning engages one's higher brain functions and stimulates one's senses to the point where new information is integrated with existing information. Such learning encourages reflection, direct interaction with information and critical thinking.

Active learning is at the heart of the College Fed Challenge experience. It requires students to assess their own degree of understanding and skill at handling particular concepts or problems in a specific discipline. The aim is to make macroeconomic theory, in general, and monetary policy, in particular, relevant to current events. The College Fed Challenge focuses on problem solving and use of the media as a stimulus to the exposition of concepts and as an exploration of monetary policy. With this focus, it is possible to create a learning environment in which the student can acquire the analytical ability and breadth of understanding to become an informed individual. Students perform well in this learning environment and show that they are autonomous and independent learners who can take responsibility for their own education. More important, students apply their higher-order skills of analysis, interpretation, and synthesis to economic research.

exams in six areas. The final graduation grades (highest honors, high honors, honors, no honors) are determined in a meeting of the outside examiners after the oral exams are completed. What is most striking to outside examiners when coming out of this meeting is the crowd that greets them. It is not the students – but the faculty wanting to know how their students performed. Administrators and faculty at Swarthmore College believe that their honors program is an important reason for its fine reputation. In essence, their faculty is constantly being evaluated by outside reviewers. The College Fed Challenge creates a similar atmosphere where the faculty and students work in a cooperative environment to impress outside reviewers. The reputation of the school is on the line.

Robert Posatko (2005) assessed the value that the College Fed Challenge added to the undergraduate economics major. He concluded that the competition is a useful vehicle for advancing important skills, or proficiencies as proposed by Hansen (1986, 2001). In addition, Posatko provided a sample of comments from past student-competitors which reflected their perceptions of what they gained from participating in the competition. These comments were based on the experiences of students from one university.

We decided to broaden the sample to include all students from nine schools who participated in the first competition of the Third Federal Reserve District held at Lafayette College on November 1, 2010.⁶ The authors administered a survey to ascertain how participation in the College Fed Challenge experience may have contributed to the education of undergraduate students. Rather than asking students to reflect on specific knowledge they may have gained, the questions asked for impressions about skills students may have acquired while participating in the competition. The questionnaire was divided into two parts: the first part focused on specific cognitive skills; the second, on more general perceptions of the skills that may have been sharpened by participation in the College Fed Challenge.

The first part of the survey addressed specific skills listed by Hansen (2009: 111-112) in the Teagle Report, with slightly different wording in some cases. It is important to note that the list of skills is hierarchical. The list commences with the lower-order skills of retrieving, assembling and organizing information and progresses to the higher-order skills of analysis, synthesis and critical reflection. The permissible responses were categorical in nature ranging from expertise in the skill before participating in the College Fed Challenge to substantial improvement in the skill through participation in the competition.

Table 1 shows the distribution of the responses of the 47 students, who completed the survey in November, 2010. Generally, students felt that their skills had increased at least to some extent; some felt their skills had increased substantially. Approximately 47 percent of the respondents stated that their ability to retrieve, assemble and organize information on particular topics and issues in economics had been improved by being a participant in the College Fed Challenge. In addition, another 43 percent reported that their ability to prepare an organized

⁶ While the competition is sponsored by the Federal Reserve Bank of Philadelphia, it is organized by the Eastern Economic Association.

analysis of a current economic problem had improved. It is worth noting the particular impact the College Fed Challenge has upon students. Only about 10 percent of the respondents stated that the skills listed in the survey had not been improved. Approximately 89 percent of respondents reported seeing some improvement in the skills listed after participating.

In the post-graduate survey, 10 of 12 former College Fed Challenge participants from the University of Delaware responded to the same set of questions. Table 2 shows the distribution of these responses. Overall, these post-graduate students felt that their skills had increased at least to some extent; most felt their skills had increased substantially.

Given that the list of Hansen-based skills is hierarchical, we expected fewer responses indicating substantial improvement for the lower-order skills. In both surveys, the responses were contrary to our expectations. We recognize that our survey is an imperfect instrument to quantify participant impressions. Hence, we need to consider ways to restructure the questions posed and introduce additional ones to act as controls. More than likely, naming a specific publication, that is, *Economic Report of the President* may have confused some of the respondents as well.

Table 1
Survey of Current Participants at Nine Schools

Questions	I mastered this skill before participating in the CFC	I did not improve this skill by participating in the CFC	CFC helped to improve this skill a little	CFC helped to improve this skill to some extent	CFC helped to improve this skill substantially	N/A	Total
Retrieve, assemble and organize information on particular topics and issues in economics	5	1	6	22	13	0	47
Explain key economic theories and concepts and describe how they can be used	2	0	11	19	15	0	47
Explain and evaluate the economic principles used in analyses published in	1	0	10	17	19	0	47

the media							
Understand and interpret data found in published tables such as the <i>Economic Report of the President</i>	4	7	11	14	10	1	47
Prepare an organized analysis of a current economic problem	2	3	8	20	14	0	47
Identify and formulate questions about economic issues to facilitate an investigation	2	2	15	14	13	1	47
Understand an economic question to stimulate productive discussion of the issues and keep discussion centered on these issues	2	3	13	13	17	0	47

Table 2
Survey of University of Delaware Post-Graduates

Questions	I mastered this skill before participating in the CFC	I did not improve this skill by participating in the CFC	CFC helped to improve this skill a little	CFC helped to improve this skill to some extent	CFC helped to improve this skill substantially	Total
Retrieve, assemble and						
organize information			2	4	4	10
on particular topics and			2	4	4	10
issues in economics						
Explain key economic						
theories and concepts				2	8	10
and describe how they				2	0	10
can be used						
Explain and evaluate						
the economic principles				1	9	10
used in analyses				1	9	10
published in the media						
Understand and						
interpret data found in						
published tables such as			2	4	4	10
the Economic Report of						
the President						
Prepare an organized						
analysis of a current			2	3	5	10
economic problem						
Identify and formulate						
questions about						
economic issues to			2	2	6	10
facilitate an						
investigation						
Understand an						
economic question to						
stimulate productive				5	5	10
discussion of the issues))	10
and keep discussion						
centered on these issues						

As stated above, the College Fed Challenge is learning through experience: students perceive information; they reflect on how it will impact some aspect of their lives; they compare how it fits into their own experiences; and they reflect on how this information offers new ways for them to act. The second part of the survey asked students to respond to five questions pertaining to their College Fed Challenge experience. The first question asked students to compare the opportunity costs of the time spent on the College Fed Challenge with an average class in economics by checking the appropriate five-category box.

Table 3 shows the responses of the 47 students who completed the survey in November, 2010, in the top panel; and the responses of the 10 post-graduates in the bottom panel.

Table 3

Statement	Much less valuable than the average economics course	Somewhat less valuable than the average economics course	About the same value as the average economics course	Somewhat more valuable than the average economics course	Much more valuable than the average economics course	Total
Given the opportunity costs of the time spent on the College Fed Challenge it was:	1	0	7	11	28	47
Graduate student						
responses to the same question			1	2	7	10

Nearly 60 percent of the participants in the November survey found the College Fed Challenge to be more valuable than the average undergraduate class in economics. About 17 percent of respondents reported the value to be about the same or less as the average economics class.

While 20 percent of the post-graduate participants found the College Fed Challenge to be somewhat more valuable than the average undergraduate class in economics, 70 percent of them reported it to be much more valuable. Perhaps these results reflect the way the College Fed Challenge program is structured at the University of Delaware as a student-led, extracurricular activity where, in the spring semester, senior students are actively involved in recruiting and training lower-level students and contend with the diversity and complexity of the information without the guidance of a faculty coach. The research involved in preparing for the on-campus competition reflects students' capability in sharing a challenging task in a cooperative manner. Throughout the process of preparing for and competing in the spring competition, which is used as the basis for selecting the team for the fall at the district competition, students encourage each other to persevere with the rigors of this independent, student-led initiative.

In both surveys, one question was common: What is your impression of the College Fed Challenge experience as it relates to your college experience? In response, the majority reported

that it was helpful for a number of reasons varying from providing an academic extracurricular activity to assisting in the development of analytical skills. Many students felt that the College Fed Challenge enhanced the theory learned in a formal classroom setting and provided a real world demonstration, something that could not be replicated in a classroom environment. A sample of comments from the November nine school survey highlights student reactions:

"... more hands on and I was able to see what we were researching in the real world."

"It is the most important activity I participated in my teammates are my close friends."

"Only academic extracurricular I participated in. Was a practical outlet to discuss economic theory to better understand the economy."

"I feel this was extremely helpful, a lot of the ideas I learned were useful. In many of my classes I have used the topics I have learned in presentations."

"The CFC helped me to understand economic theory in a more practical sense."

"... greatly added to applying economic concepts to the real economy."

"Helps you apply and expand knowledge acquired in class."

A sample of comments from different University of Delaware post-graduate students reflects similar sentiments:

"It was an incredibly valuable supplement to the theory I learned in class."

"You learn what everything they teach in Econ classes actually means ..."

"The CFC competition ... shift(ed) more of the individual responsibility of education towards the student. It effectively aligned the goals of learning with something more than a ... letter grade at the end of the semester."

"It allowed students to interact with each other in an environment that was ... more dynamic ..."

"With few exceptions ... most economics courses are focused on covering a set syllabus with very little variation. CFC, by virtue of self-selection, has the advantage of having only curious, interested students who are able to drive the discussion in new and unexpected directions. As such, I would say that CFC was an important supplement to my undergraduate experience."

The other three questions posed in the second part of the November nine school survey were:

1. Do you think your College Fed Challenge experience will influence your choice of career? Please explain.

- 2. Do you think your College Fed Challenge experience will help with your career? Please explain.
- 3. Do you think your College Fed Challenge experience will help you in the non-career aspects of your life? Please explain.

In the November survey, approximately 40 percent of respondents reported that the College Fed Challenge helped to influence their career choice. Some respondents stated that they felt they would be more interested in pursuing fields in economic policy while one respondent specifically stated a career at the Federal Reserve. The 43 percent who responded with a negative response to this question stated that they already had their career goal in mind, but did find their participation in the College Fed Challenge helpful in giving them a competitive advantage when applying for jobs in the future.

With respect to their career goals, almost 77 percent of respondents stated that the experience would definitely help with their career goals. Many felt that their participation would look good on their resume, and allow for something interesting to discuss with future employers. A number of respondents reported they felt their public speaking skills had greatly improved from participation. Some reported that the collection and analysis of data would be beneficial in the future. Again, a sample of comments is useful to illustrate student reactions:

"I'm definitely considering a career in economic policy analysis."

"Yes, I want to do economic analysis and consulting because of CFC. I also want to get an MA in Econ because of it."

"No. I am still interested in pursuing a career in economics/economic field."

"Yes, after CFC I have decided to pursue a career at the Federal Reserve."

"Definitely, I am now more interested in the policy aspects of economics."

"I have a primary interest in finance. It did however influence my addition of economics minor, economics study abroad, and I gained a greater understanding of the interaction of economics and finance."

"I do like econ more than finance, may entice me to keep an economic focus."

On a non-career basis, many respondents stated that the College Fed Challenge would be beneficial as a conversation topic and noted, once again, their increased confidence in public speaking. A number of students felt that they learned valuable skills for working as a team to achieve a single goal. Nearly 60 percent of the participants felt that the College Fed Challenge was not only helpful inside the classroom and the working environment, but also in their day- to -day lives. The College Fed Challenge is learning through experience and some comments illustrate this outcome:

"The skills I developed are adaptable to any field."

"Yes, I have more skills than others and have something to talk about and impress with at job interviews."

"Yes, I think it gives a good example of utilizing teamwork in a group project to achieve a goal."

"Yes, I feel it has helped me with any career direction and helping to focus my economic goal."

"Yes, I can now better analyze economic issues in the news more efficiently."

"The interactions between financial markets and economics became much clearer and I think this understanding will give me a competitive advantage as a finance major in the industry."

"Being aware of how different indicators effect overall economic and business conditions will help me succeed."

The focus of the University of Delaware post-graduate survey was slightly different. While the first question was the same as the one in the nine school November survey, the other questions were modified:

- 1. What is your impression of the College Fed Challenge experience as it relates to your college experience?
- 2. Did your College Fed Challenge experience influence your immediate post-baccalaureate experience? Please explain.
- 3. Do you think your College Fed Challenge provided you with skills that have helped you in your immediate post–baccalaureate experience? Please explain.
- 4. Did your College Fed Challenge experience influence the way you think about your future career? Please explain.
- 5. Do you think your College Fed Challenge experience will help with your career? Please explain.
- 6. Do you think your College Fed Challenge experience will help you in the non-career aspects of your life? Please explain.

The post-graduate responses are not only very positive, but they also communicate that students have learned the ideals that would make an educator in any liberal arts college proud. The general reflections of all 10 students convey to us that learning outcomes based around more complex cognitive skills of reasoning, developing enhanced understanding, and the questioning of assumptions, knowledge and economic theories remains with students and is transferred to the world beyond university. Graduates remain engaged in policy issues even though some of them are not employed in areas related to economics or finance. In addition, they perceive that their enhanced interpersonal skills make them more effective in the workplace. The final word is from one graduate who has not been previously quoted:

"The skills that CFC and Fed Challenge at any level help to cultivate are applicable to a multitude of careers. You are able to develop critical thinking skills in how to approach problems. Many times during the course of a semester in CFC you arrive at road blocks which need to be approached and solved in a timely manner, which can be applied to many career paths."

We are convinced that, despite the limitations of the current form of the survey, students improved the Hansen-based skills recognized in the Teagle Report. In addition, students developed interpersonal skills. Moreover, these oral and written communication skills effectively transferred to the workplace. Such results affirm the educational value of the College Fed Challenge experience.

At the same time, we recognize that other carefully crafted, cooperative learning experiences could demonstrate a similar improvement in these skills. In the immediate future, we intend to extend our research in three ways. First, we plan to administer a survey to graduates of the University of Delaware who majored in economics and completed the Honors program. Second, we plan to administer a survey to graduates of Delaware who received awards in economics but were not involved in the College Fed Challenge. These students would act as control groups and provide a basis for comparison. Third, we intend to extend the number of graduates in our sample and have received positive support from two colleges who are willing to administer the survey to their large number of past participants. In this way, we can assess the longer-lasting effects of the College Fed Challenge.

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⁷ Both authors teach capstone courses at the University of Delaware in which student-centered, experienced-based learning is incorporated and where we integrate economic and financial theory with real-world issues and macroeconomic policy. Both are also involved in University of Delaware Study Abroad programs in economics which provide direct learning experiences. It is our impression that the College Fed Challenge provides a more valuable educational experience for our students.

In a more ambitious research agenda, we intend to administer a better-designed survey to the 46 schools that are organized through the Eastern Economic Association. We have already approached the Federal Reserve Bank of Richmond and are waiting for official approval to administer a survey to at least 30 colleges and universities that participate in that district.

Conclusion

In their essay Colander and McGoldrick (2009) are very concerned about the incentives for effective teaching. Bateman (2009) argues that it is not only incentives that are important, but it is also the 'culture' of a department that is essential. Where effective teaching is expected, students are more likely to have a better educational experience.

An important question is whether the College Fed Challenge can change the culture of a department. It is difficult to answer this question because cultural change is difficult to quantify and the effects may vary significantly across departments. We can report, however, on the positive developments that have occurred in the economics department at the University of Delaware since we introduced the program. As stated previously, the College Fed Challenge at the university is a student-led, extracurricular activity. Throughout the year, faculty who are not directly involved with the Fed Challenge are willing to field questions from student participants in an open-door policy. Students feel confident in approaching faculty who have not taught them and faculty are willing to process a context-rich problem with students they do not know. In the spring semester, faculty also volunteer their time to act as judges at the university level competition. All are engaged in a cooperative endeavor and feel proud of their achievements, particularly as different University of Delaware teams consistently place in the top three positions and especially when they placed first at a branch division competition.⁸

One outcome that is certain, however, is that schools that do well in the College Fed Challenge competition pride themselves on their accomplishments. The success of the team can be interpreted as an indication of a successful economics program, because teams that perform well in the competition reflect the role of teaching in the department as a whole. In an important

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⁸ In previous years, the University of Delaware competed in the district competition organized by the Federal Reserve Bank of Richmond, Baltimore Branch. In 2008, the team won the Baltimore branch competition and proceeded to the district competition at Richmond. The team did not proceed to the national competition in Washington D.C. to compete at the Board of Governors. Not only did the team feel proud of their achievement but also enthusiastically expressed their desire to perform better the following year.

sense, training for the competition begins in the introductory courses and culminates in the final presentation. Without a solid background established in the classroom, students will not be able to perform well in the competition. Hence, in some sense, the department is being assessed by outside evaluators. We believe that this outside evaluation is healthy for departments.

<u>If</u>, and we emphasize the word 'if', success in the competition were to be perceived by a department as an indicator of the quality of instruction in the economics program, this perception could affect the teaching culture of an economics department. 'Success' would be defined differently and, as a consequence, more importance would be placed on the teaching role of the faculty. As a consequence, the culture would change.

Has this happened so far? It is not possible to answer this question without a further investigation of the impact of the College Fed Challenge competition on individual departments. Our educated guess is that it varies tremendously across departments. In our department we have seen a growing interest in the competition, not only from the faculty who are directly involved, but also from faculty who take pride in what we have accomplished with our teams.

In the Teagle Report, there is only one mention of the College Fed Challenge competition. At that school the team is coached by an adjunct member of the faculty. This observation suggests that the competition is not viewed as a central part of the mission of the department. On the other hand, at Lafayette College, which has had great success in the competition, the trophies are on display so that all visitors can see them. When their team placed first in the national College Fed Challenge competition in 2009, the college invested in banners, announcing Lafayette as the national winner, and placed them on telegraph poles on the streets around the campus. In the Second Federal Reserve District, 36 colleges and universities participate in the College Fed Challenge competition. The team from Rutgers–Newark took first place in the New York regional competition in 2010, advancing to the national championship – banners are prominently displayed in support of the College Fed Challenge.

Most certainly, the impact of the College Fed Challenge on the teaching culture of departments will also depend on the perception that the competition does reflect some form of evaluation of the economics department. For example, if the results of the competition were

⁹ In previous years, Lafayette College and the University of Delaware competed in the district competition organized by the Federal Reserve Bank of Richmond, Baltimore Branch.

highlighted in brochures for prospective applicants, then administrators of universities would take notice.

The visibility of the competition can, therefore, be an important factor in determining its impact. Those of us who participate in the competition can see the impressive effect on students, but if the competition were truly national in scope, if the judges were carefully selected so that success in the competition were more meaningful, and if the American Economic Association were to provide stronger support, then the competition could conceivably have a significant and positive impact on economics education in the United States.

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¹ In addition, two-year community colleges participate in a similar competition in a separate division.