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The Economics Major as Part of a Liberal Education*

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In 1991, Siegfried et al describe results from a survey of faculty assessing the effectiveness of the economics major, suggesting that the major earned a grade of a B- (p. 20). Over fifteen years have passed since that report, suggesting once again that it is time to reassess the major and assign yet another grade. In our view, the economics major still earns a grade of B-. It is doing a good job, but it can, and should, be doing a better job. In the pages that follow we provide our reasoning for the lack of improved performance.

This report is the product of work associated with a grant from the Teagle Foundation to the Committee on Economic Education, in which we were charged with considering the relationship between the goals and objectives of the economics major and goals and objectives of a liberal education.[1] At the root of this initiative is the Teagle Foundation's belief that a liberal education should involve more breadth and less depth than it currently does and that "narrow preparation in a single area—whether that field is chemistry or information technology or history—is exactly the opposite of what graduates need from college." (AAC&U, 2007: 17) Thus, our report concentrates on how well the economics major is doing in providing that liberal education aspect of the major. Were our focus different, such as asking how well the economics major is doing preparing students for graduate school, our grade would be different. In fact, it would be much lower—close to failing—because the economics major is not designed to prepare students for graduate school. However, we believe that the current central focus of the undergraduate major is the correct focus for the economics major. It provides the large majority of students who do not continue on to graduate school a broad based introduction into what it means to think like an economist.

The purpose of our report is *not* to tell anyone how to teach economics, or even to list a unique set of best practices that all economics departments should follow. The reasons why this is not our purpose are twofold. First, academic institutions vary widely, and what is right for one set of schools or professors might not be appropriate for another. Second, reports in academia are generally ignored and reports in economics, no matter

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*This report is a summary of a larger discussion on the economics major that can be found in Colander and McGoldrick, (forthcoming, Edward Elgar). It, like the larger report, reflects only the view of the authors, and does not reflect the view of the American Economics Association or the AEA Committee on Economic Education, which do not take positions on policy matters.

[1] This report on the economics major is part of a larger set of reports on the majors as part of a Teagle Foundation Fresh Thinking Initiative with grants to a broad spectrum of disciplines: the classics, biology, modern languages, and history in addition to economics. http://www.teaglefoundation.org/grantmaking/grantees/disciplines.aspx.

how well reasoned, appear to be totally ignored.[2] Meaningful changes in a major do not come from a report; such changes must come from the bottom up. As a result, we framed this report to provoke thought, generate discussion, and provide some ideas that faculty and departments may want to consider. Toward that end we will state our arguments more strongly and less diplomatically than we otherwise might.

What's Right with the Economics Major?

It is important to be clear that we do not view a B- as a necessarily poor grade for economics in meeting liberal education goals; in our view, other disciplines, such as the natural sciences, would receive far lower grades. Undergraduate majors in natural sciences train students for graduate school, driving many students out of a science major. This does a disservice to those students who would like to be science majors, but do not intend to go on to graduate school or become scientists. Thus, in our view, the economics major is, relative to the natural sciences, a highly successful major.

The positive performance of undergraduate economics as a major is reflected in the praise voiced by economics majors. In a survey of 1700 economics majors at a wide variety of schools, 29% of the majors stated they were very satisfied, 48% were satisfied and only 3% were unsatisfied with the major (Jones et al forthcoming). These perceptions are balanced by the degree to which they perceived economics as difficult, with ratings that place economics in the middle range of the majors. For example, 38% of economics majors rated the economics major as hard, whereas only 2% of the economics majors rated sociology as hard, and about 80% rated the natural science majors as hard. Thus, even though graduate work in economics has developed into a highly technical abstract approach to economic science, the undergraduate economics major has not followed suit. From the standpoint of the majority of students, who want a general introduction into a discipline as opposed to highly specialized vocational training in preparation for graduate school, the economics major performs much better than the natural sciences.

Perhaps the most important element keeping the economics major more in line with a broad based liberal education focus is the current design of introductory courses. These courses cover a wide range of economic issues, introducing the tools by which economists critically think about problems and policies in a manner that remains accessible. Thus, it should not be surprising that such courses motivate many students to be economics majors. Jones et al (forthcoming) report that 52% of students surveyed felt that the introductory course was an important reason they became an economics major. These results bode well for the economics major as part of a liberal education.

However, the current structure of the economics major with respect to a liberal education is unlikely to be sustainable. There are strong pressures for the undergraduate economics major to change and become more natural science like. Were the economics major to do so, it would be become far more technical than it currently is. It would also

[2] For example, the COGEE Report (Krueger et al) provided numerous excellent recommendations for changes in graduate economic education. None were implemented, and its lead author, Anne Krueger was heard to say that a pin dropping would have made a louder noise than then report made.

become a much smaller undergraduate major with fewer direct links to liberal education goals.

The Problem of Modern Graduate Training

If the economics major is doing well in providing its part of a liberal education, despite the tensions noted above, why then do we assign it a grade of B-? Because we believe that it could do much better. The biggest reason why the economics major gets a B- involves the training future undergraduate economics teachers receive in graduate school. Most graduate programs in economics see their role as preparing scientific researchers who will produce economic research targeted primarily at other academic economists, not as preparing applied policy economists who will teach undergraduate students, or who will advise governments on what policy to follow.

Graduate training is designed to develop technical and analytical skills necessary to develop models, not skills appropriate to applying those models, including those associated with policy design, the moral philosophy aspect of policy, or understanding the real-world institutions in which the policy will be implemented. As an example, consider graduate training in macroeconomics. In their core macroeconomics course at top graduate schools, and at many other graduate schools as well, students receive training almost exclusively in learning variations of a highly abstract dynamic stochastic general equilibrium model. They receive little to no training in macroeconomic policy or in macroeconomic institutions; they receive no training in applied macroeconomic policy, and no training in the IS/LM model that is typically taught in undergraduate macroeconomics courses. The core courses in macroeconomics hardly mention monetary or fiscal policy. As one student stated, "Monetary and fiscal policy are not abstract enough to be a question that would be answered in a macro course." (Colander, 2007, p. 169) Such training may or may not be appropriate for macroeconomic researchers. It definitely is not the appropriate training for the large majority of graduate students taking macroeconomics who have no intention of becoming scientific macroeconomic researchers, but will instead find themselves teaching an introductory macroeconomics course, or explaining to laypeople why a recession has occurred, or what to do about inflation.

Similar, but perhaps less extreme, stories could be told about the other core graduate economics courses. Given what is currently taught in many graduate schools, a strong argument can be made that significant remedial education in the development of economic ideas, economic history, and institutional context would be necessary before an unbiased observer would feel comfortable situating a newly trained PhD economist in front of an undergraduate micro or macroeconomics class. The one field where this disconnect does not exist is statistics and econometrics, where graduate level technical training is aligned much more closely with the material that is taught at the undergraduate level. But even here, graduate students do not get training in the multiple dimensions of applied empirical economics (Swann, 2006) or the broader methodological issues that would usefully inform undergraduate students, such as limitations of statistical analysis resulting from data limitations or the use of broader empirical methodologies. Too many

students come away believing in what Deidre McCloskey terms the cult of significance (Ziliac and McCloskey, 2008).

The divide between graduate and undergraduate economics was not always so large. Through the 1960s both graduate and undergraduate economics training was focused on broad-based skills that integrated critical thinking, historical knowledge and statistical skills. However, since then graduate economics training has become more technical, more and more reliant on mathematics and statistics and less and less focused on ideas relevant to teaching undergraduate majors who are interested in a liberal education, rather than learning economic as a technical science.

The situation is not quite as dire as the above discussion might make it seem. Graduate students read economics beyond what is required in their graduate classes, and they learn about policy and institutions on their own. Many have majored in undergraduate economics and they can reach back to that earlier training when faced with the dilemma of insufficient preparation for undergraduate teaching. This self-training, however, is a poor substitute for formal training in material that an undergraduate teacher should know. From an undergraduate teaching perspective, the current situation in graduate economics is a travesty involving mismatched training between what graduate students learn and the content and skills they need to teach economics as part of a liberal education.

As long as graduate economics remains what it is, any grade for the undergraduate major better than B- is impossible to achieve. To do better would require major structural changes in graduate economics training, specifically designed to expose graduate students to current undergraduate content and to give them incentives to shift priorities towards teaching.

Thinking Like an Economist vs. Thinking Like a Liberally Educated Person Who Knows Economics

The transformation of economics graduate education has led to a shift in what is meant by getting undergraduate students to think like an economist. Whereas previously, thinking like an economist involved significant applied policy thinking, today, it is narrower, more technical, thinking. In light of this change, the economics major now fulfills a slightly different aspect of a liberal education than it previously did. In terms of the goals that Derik Bok (2005) sets out, the economics major now neglects the development of certain skills that it could, and once did, include. Specifically, moral reasoning, while it was a part of economics education in earlier times, is no longer a focus of economics today. The typical economics professor receives little training in guiding students through moral reasoning or civic engagement activities, and his or her interests are more directed at problems that are susceptible to formal modeling and statistical testing, and less so to questions of policy that involve complicated ethical or moral issues or what might be called tragic questions. (Martha Nussbaum, 2000)

The economics major can still play an important role within a broader liberal education, but as economics training narrows, its role changes from a general one where thinking like an economist is similar to what thinking like a liberally educated person

would be, to one in which economics plays a more limited role more like that the natural sciences and math currently play (fulfilling the quantitative literacy goal), leaving students to round out their skill development (in areas such as moral reasoning) through other components of their education.

The Economics Major's Dual Constituencies

Given the nature of graduate economics education today, it is surprising that the undergraduate economics major has not become more highly technical as has happened with the natural sciences and mathematics majors. These majors tend to be very small, and much of their training is focused on preparing students for graduate school. The reason why undergraduate economics has not followed that path, we suspect, is that, because of its connections to business, the undergraduate economics major has to satisfy two constituencies: a very small group who will go on in their formal study of economics (for which the economics professorate is being trained to teach), and a much larger (generalist) group who view the economics major either as a stepping-stone to business and public policy, or simply as a foundation for a strong liberal arts education. Integrating the needs of these two groups is a difficult problem for undergraduate economics faculty, and the decisions they make on how to meet the needs of these two groups will significantly influence the nature of the economics major in the future.

In terms of numbers, it seems clear that the second group—those seeing economics as a stepping stone for other jobs, not planning to go on for further study—is the largest component. Less than 2% of the students who take introductory economics become majors, and only about 2% of those who become economics majors go on to get a PhD in economics. However, the training economics professors receive is most relevant to those teaching this small group.

Economics programs deal with these two constituencies in different ways. Some undergraduate programs create two separate tracks in the major, an economic science track and an applied policy track.[3] Other programs leave the two constituencies integrated, and attempt to design a single approach to the major that caters to both groups. Regardless of the program format, however, economics departments are being populated with professors whose interest leans toward more technical approaches, as younger, more technically trained, economists replace older, more generalist trained, economists. This suggests that over the coming decades, the economics major will likely become less appropriate for those students interested in business and public policy, or for those interested in a combined humanistic/quantitative liberal arts foundation, and more appropriate to students going into graduate economics or interested in a quantitative liberal arts foundation.

[3] The sizes of these groups differ with different institutional settings. For examples, schools with undergraduate business programs have more students directly interested in economics than schools without such programs.

What Would an Appropriate Graduate Training for Undergraduate Professors Look Like?

Realigning the goals of the economics major with the goals of a liberal education suggests the need for a structural overhaul to graduate education, one whose core would focus training on teaching students more breadth and less depth. Such training would provide context for understanding the applicability of the technical models being learned, rather than technical training appropriate for developing those models. Depth would be provided in field courses taken in the second and third year. We do not expect that our suggestion for the core of graduate training in economics to provide more breadth will find favor with most economists, who have been taught to equate breadth with "superficial." Who is going to support superficial learning? We make the argument nonetheless because we believe that equating "breadth" with "superficial" is incorrect. Breadth to us involves understanding the context of the research and research method. It might involve a consideration of the nature of questions asked, or it might involve asking questions that likely have no answers—what might be called "big think" questions. Such a "big think" approach might question the very foundation of the disciplinary analysis, and it might transcend disciplines. Depth involves asking smaller questions that possibly can be answered—what might be called "little think" questions.

Most economics researchers often don't deal with "big think" questions, not because these questions are not important, but rather because, given current tools, there is small likelihood that additional research on these questions will add to society's understanding of them. Put simply, questions and areas of study have two dimensions—a research dimension and teaching dimension. Research questions are ones where there is a reasonable hope of adding to our understanding by studying the question. Teaching questions are questions for which there may be little likelihood of adding to our understanding, but which provide a base of understanding of past thinking. The disciplinary nature of graduate education, and of undergraduate college faculties, leads to an emphasis on "research questions," which tend to be narrow and in-depth, and a de-emphasis "teaching questions" which tend to involve more breadth. Were graduate training seen as a preparation for undergraduate teaching, it would focus on teaching questions much more than it currently does.

In his recent book *Education's End*, Andrew Kronman (2007) captures our interpretation of breadth when he argues that what has been lost in college education is the part that directed students toward addressing unanswerable questions. Kronman suggests, for example, that questions involving the meaning of life are unanswerable. The "meaning of life" is, in our view, a teaching question. As economists, questions that contemplate the meaning of life are far beyond our expertise, but economics has its own set of teaching questions. These include questions such as whether capitalism or socialism is preferred, what the appropriate structure of the economy is, whether the market alienates individuals from their true selves, whether society should emphasize consumer sovereignty, or whether statistical significance tests appropriately measure "significance." These "big think" questions are ones that are worthwhile teaching, but are generally no longer addressed in the economics major because they don't fit the disciplinary research focus of the profession.

In our view, what has been too-often removed from the economics major, and from much of modern college education, is the consideration of such "big think" or teaching questions. Teaching "little think" questions too often involves uncritical acceptance of assumptions upon which the research is built. Alternatively, "big think" questions help provoke a passion for learning in students, and hence can be a catalyst for the student to seek a deeper understanding thereby enhancing the provision of a liberal education. It is the loss of this catalyst aspect of breadth questions that, in our view, explains the employer's somewhat paradoxical support of liberal education with more breadth and less depth. Employers are looking for inquisitive students who have a passion for learning, not ones who have learned specific skills. They prefer general skills such as critical thinking, quantitative, and communication skills. In other words employers want a liberally educated student.

From our perspective, the central problem of getting the economics major (or any other disciplinary major) to focus on providing a liberal education is compounded by the replicator dynamics of the current departmental structure of colleges and universities. The above described graduate education training is reinforced through departmental incentives for advancement, further focusing faculty on 'little think' questions. *Without changing those replicator dynamics, there is little hope of significantly changing the current situation, and in fact, it is not clear whether one would want to do so.* While departments may recognize a need for breadth at one level of the student's education, faculty who see themselves primarily as belonging to a specific discipline or department will naturally give greater weight to the disciplinary depth component of education, in reflection of their own research focus, and emphasize arguments for depth as a necessary part of a liberal education.

Now all this does not mean that undergraduate programs are devoid of professors committed to liberal education ideals. Just as the college major is only a part of an undergraduate's education, so too is graduate training only a part of a graduate student's education. Individuals with broad interests make it into graduate school and some make it through; others develop those broad interests afterwards. But those with the most passion for undergraduate teaching are unlikely to make it into a top graduate program in economics. In part this is because the training that top graduate programs offer is not attractive to these potential graduate students, but it is also because that is not the type of student that graduate programs are looking for; training students to be good teachers is not what graduate programs in economics see as their goal.

In economics, if a student puts on his or her graduate school application to a top school that he or she wants to pursue teaching economics, he or she is unlikely to get accepted or receive adequate funding. At most top graduate schools, students who want to become teachers know that they should keep that desire quiet. (Colander, 2007) At lower ranked graduate schools, the focus on training researchers as opposed to training teachers is less pronounced, but it still exists, in part because these programs are staffed by graduates of the higher-ranked programs. A culture of research dominates and there is little differentiation across programs. (Krueger et al., 1991)

Changes to Consider

As should be clear from the above discussion, our view is that the changes necessary to make the economics major significantly more liberal education friendly go far beyond the structure and content of the undergraduate major. If one is truly serious about providing a liberal education to undergraduates, one must address both the institutional structure of graduate schools and the disciplinary structure of undergraduate institutions. The chances of such sweeping changes being made are similar to the chances of pigs flying. Nonetheless, we present the following proposals in the hope that they might stimulate conversation and in turn generate other, more feasible, proposals.

We want to make it clear that we are not arguing that these or any changes need to be made for the economics major to be a successful program. We believe that the current structure of the economics major is providing important skills to its graduates and any changes imposed from the top down are likely to make the economics major worse, not better. Change in the major, if it is to occur in a positive manner, must occur from the *bottom up,* and it must reflect faculty and student characteristics of the particular institution, with individual departments choosing the direction they want to go. For example, a liberal arts program without a business program may well want to offer a quite differently structured major than what a liberal arts program with a business program offers. Similarly, a program heavily endowed with historians of economic thought might want to offer a rather different program than one with primarily game theorists or econometricians. There is room for much positive variation within the economics major; there is no one size fits all.

Before we list some suggested changes, let us add one final caveat. Any restructuring of the professorate in line with liberal education goals needs to be institution and discipline specific. Each specific institution and discipline has different challenges, issues, and goals they need to balance. But there are some similarities among types; for example, graduate institutions are faced with the challenge of integrating content associated with graduate teaching with undergraduate teaching, and integrating the members of the department devoted to undergraduate teaching with those devoted to graduate teaching. The challenges faced by research liberal arts colleges differ from those of other liberal arts colleges at which research plays a smaller component in evaluation of faculty; these in turn differ from challenges faced by universities.[4]

Potential Structural Changes

- *Increase the number of professors whose training is designed to promote good teaching of undergraduates, not to promote research.*

- *Require all undergraduate teachers to have had specific courses before they are allowed to teach at the undergraduate level.*

[4] Given our own backgrounds, the potential changes we list are targeted at enhancing the liberal education environment associated with the economics majors within research liberal arts colleges. We hope that some of the ideas carry over to other institutional settings and disciplines, but we do not claim that they do.

- *Require certification for undergraduate teaching separate from a research-oriented PhD training.*
- *Create a program developed by liberal arts schools that provides training relevant to undergraduate teaching.*
- *Create opportunities for reeducation of faculty further along in their careers in preparation for participating in liberal arts education.*
- *Create training opportunities for successful professionals to return to the classroom and share their skills with undergraduates.*
- *Develop an alternative ranking system for research productivity that gives greater weight to liberal arts and teaching-relevant research rather than "discipline-specific" research.*
- *Divide the undergraduate economics major into an Economic Science major and an Economic Policy major.*
- *Create a pre-professional major for students whose interests are only tangentially linked to economics.*

Improving Pedagogical Practices

Content and Skills

- *Revise introductory course content.*
- *Enhance the use of context and application.*
- *Integrate skills and content across courses.*
- *Implement summative and formative assessment of skill acquisition.*

Pedagogical Practices

- *Improve classroom dynamics.*
- *Encourage pedagogical experimentation.*
- *Engage in the conversation of best practice.*
- *Develop and promote the teaching commons.*

Creating Institutional Value

- *Create economic education positions at teaching-oriented colleges.*

- *Institute a system for which excellence in teaching creates institutional value.*

Conclusion

Let us conclude our discussion by reiterating the caveat that we have continually expressed. Education is a personal process, involving a connection between the professor and the student. That connection comes about best when the professor is teaching about that which he or she is passionate. Thus, professors should retain their property rights over what is taught and how it is taught. Reports or mandates telling professors to do something different than what they want to do will reduce the passion of teaching and undermine the catalyst role of education, which in our view is central to enhancing economic education in ways that are consistent with the liberal education perspective.

In our view it is better to have what we might consider the "wrong" content taught passionately than the 'right' content taught perfunctorily. It is this perspective that has driven so much of this report and its focus on broader questions of institutional structure rather than on specific disciplinary content. The content of what is taught will, and should, be determined by the individual professors and schools. Ideally, however, one would want the "right content" taught passionately, and if one's goal is a liberally educated student, given the current structure of graduate schools and universities, that is not going to happen, because the passionately taught content will be research driven, not teaching driven. Only major institutional change at both the graduate training level and the undergraduate institutional level will affect that.

In the absence of such major institutional change, marginal improvements can be made by modifying incentives and institutions to give more emphasis to pedagogy and teaching. While there is no one set of "best practices" in economics pedagogy that make it suitable for a liberal education, there are better practices and worse practices, and discussion of such practices should be an important part of the discussion at any college or university. University administrations that have not created an atmosphere that makes such discussions central have failed in an important part of their job.

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