

## Economic Instruction

In this section, the *Journal of Economic Education* publishes articles, notes, and communications describing innovations in pedagogy, hardware, materials, and methods for treating traditional subject matter. Issues involving the way economics is taught are emphasized.

MICHAEL WATTS, Section Editor

# Business Conditions and Economic Analysis: An Experiential Learning Program for Economics Students

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*Abstract:* The authors describe the Business Conditions and Economic Analysis (BCEA) program developed at the University of Richmond. The BCEA program is an experiential learning format for economics students built on the success of student-managed investment funds (SMIF) in finance. In its initial implementation, the BCEA group conducts domestic and global macroeconomic analysis and industry studies to support the portfolio decisions of student fund managers. At a more mature stage, the BCEA program includes a Web-based publication for disseminating macroeconomic forecasts and special-topic articles written by BCEA and SMIF students. Generally, the BCEA program is a curricular extension for economics students seeking higher levels of rigor in their course work, academic distinction in economics, and refinement of competencies for careers in financial economics.

Key words: business conditions, experiential learning, student-managed funds

JEL codes: A12, A22, M2

Researchers in education amply document the advantages of experiential learning programs. Dewey (1938) earned the distinction of being the first to promote a “learn-by-doing” education model. Since that time, a number of authors either documented the effectiveness of experiential learning or promoted experiential exercises to complement course work (e.g., Simpson 1997; Loomis and Cox

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2000; Walstad 2001; Becker and Watts 2001). Many schools have ongoing programs that are based on experiential learning activities linked to specific disciplines. Student-managed investment funds (SMIFs), widely used by finance departments, provide an excellent example of a formal experiential learning program. Block and French (1991), Lawrence (1994), Johnson, Alexander, and Allen (1996), Kahl (1997), and Merritt (2002) represent a short list of authors describing the virtues and alternative structures for SMIF programs. These SMIFs are now such a popular and important part of finance programs that the Association of Student Managed Investment Programs meets annually at the National Financial Management Association Conference to allow a forum for discussion on student-managed funds. Mallet and Lerro (2001) reported that 98 institutions with SMIFs are officially part of the association.

In this article, we describe the Business Conditions and Economic Analysis (BCEA) program constructed at the University of Richmond (UR). Built on the success of SMIFs, the BCEA program is a parallel and complementary experiential learning framework designed for economics students. The BCEA program is a senior-year experience devoted to a broad range of economic analysis and forecasting activities. BCEA students prepare weekly updates of business and market conditions for SMIF managers; write monthly reports on timely economic topics; participate in a Fed shadow committee; and make presentations to open forums of students, faculty, and guests. An in-house publication is the culminating step in the program. All of these activities combine prior theory and statistical coursework, writing competencies, and experiential applications to build skills in forecasting and financial economics. The broad range of responsibilities accorded to the BCEA unit is attractive because the program lends itself to implementation on a small scale while offering several avenues for long-term expansion. In addition, more narrow activities of the BCEA program would fit smaller schools whereas a full range of activities might take place sooner at a large school. However, a successful BCEA program need not include all of the activities presented in our model.

## **INSTITUTIONAL CONTEXT FOR THE BCEA PROGRAM**

The UR is a small private university with a strong liberal arts tradition, although business is the largest major. The university has roughly 3,000 undergraduate students. The Robins School of Business graduates about 225 students each year, typically about 30 percent of the graduating class. Richmond has neither a full-time master's of business administration program nor a doctoral program in business. Because student programs provide a clear link to the university's reputation, the involvement of students in hands-on research activities has a high priority. The small scale and student orientation of our university requires significant faculty involvement to run the BCEA program. In a larger institution with full-time graduate business and economics programs, graduate students could handle much of the day-to-day support for the BCEA program.

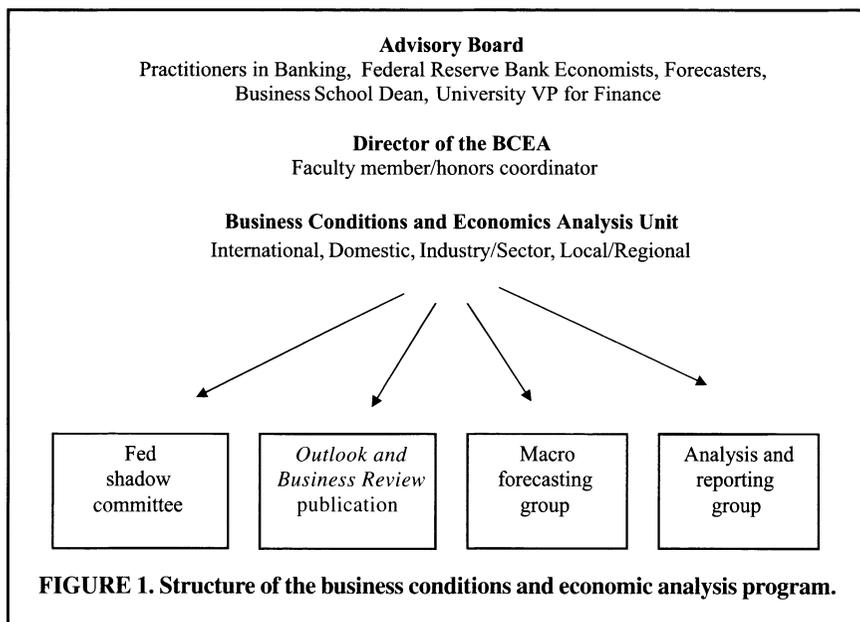
The BCEA program provides a unique opportunity for students with both the interest and capacity for combining academic challenges with practical applications. The SMIF program, initiated at UR in 1993, provides a distinction that helps

finance students compete in the job market. A sizable cohort of economics majors is similarly highly motivated to earn distinctions beyond the requirements of the major. The BCEA program is a natural extension of and complement to a SMIF program. The mission of the BCEA program is to provide evidence that economics students possess the reasoning, research, data analysis, and writing skills that can create a placement advantage in graduate schools and business firms.

Our business school houses the economics department, and the economics faculty falls under the authority of the business school dean. The economics department offers a bachelor's of arts degree through the College of Arts and Sciences as well as an economics major under the bachelor's of science in business administration degree of the school of business. There is a tradition of cooperative ventures between economists and faculty from other business disciplines. This relationship has been important for generating interest in the BCEA program and mustering the necessary resources. Affiliation with a business school strengthens our BCEA prototype in terms of linkages to a SMIF program. Dean and Dolan (2001, 18) found that roughly one-third of four-year institutions have affiliations between economics departments and business schools or departments, and within the narrow educational category of comprehensive universities, the business affiliation rate is nearly 50 percent. Even within a pure liberal arts setting the key components of the BCEA program are viable.

### BCEA PROGRAM STRUCTURE

We describe in Figure 1 the structure and scope of our BCEA program. This outline represents a mature and comprehensive program, although realistic



implementation proceeds by adding these pieces slowly. The BCEA structure includes an advisory board composed of 10 practitioners and professionals of the financial community and selected university officials (e.g., business dean, vice president for finance). The function of the advisory board is to provide periodic guidance and reaction to student reports and presentations. The goal is to provide a link to the local community and offer mentoring relationships for the student analysts. Although the advisory board appears at the top of Figure 1, it is hardly the necessary first step. Logistically, the program begins and relies heavily on the program director. The director is responsible for admission to the program, administrative oversight, and evaluation of student activities. One or a small team of faculty members can best perform this function.

The BCEA activities require economics students with collective skills covering the areas of international and domestic macroeconomics, industrial organization, regulation, econometrics, and a strong familiarity with data and software. Drawing from this pool of skills, the BCEA group can perform either a narrow or a wide range of complementary activities. In a narrow application, the BCEA group provides analysis supporting the portfolio decisions of finance students in the SMIF program. The BCEA group prepares a “Global Overview and Economics Conditions” report, deliverable monthly to all the members of the SMIF program. This report covers key macroeconomic data (e.g., employment, gross domestic product growth, inflation, and interest rates) as well as developments in specific industries and sectors. BCEA students provide weekly oral reporting with supporting analysis to the student managers in the SMIF program.

A student Fed shadow committee within the BCEA program follows the activities of the Federal Open Market Committee (FOMC) and prepares their own recommendations. Although this group can obviously contribute to the macroeconomic analysis provided to SMIF managers, their main activity calls for monitoring Fed policy in a real-time setting. The shadow committee’s premier activity is the annual Fed Challenge, a competition sponsored by several Federal Reserve District Banks. Each fall, the event provides students with an intense forum to test their understanding of current macroeconomic events as they offer their opinions on decisions of the FOMC. Fed Challenge began as a secondary school program in 1994. A parallel competition for college students began in 2001. In 2004, 49 colleges and universities participated in competitions sponsored by three Federal Reserve district banks (Chicago, New York, and Richmond). Finalists from each participating district compete in a national competition. Schools need not be located in a bank’s geographic district to be eligible to compete, but the banks do not fund travel. The Fed Challenge competition works well for our program, but a BCEA program could easily create an in-house panel of faculty and invited guests to judge the shadow committee’s presentations prior to the actual FOMC announcements. This alternative does not pose a geographic constraint with respect to the proximity of a Federal district bank.

At the most advanced stage, an *Outlook and Business Review* publication provides a venue to showcase the polished work of the BCEA group. Students are responsible for production of the *Review* and must take the formal presentation of their work seriously. The publication’s contents include economic forecasts and

analysis of the economy, a feature article prepared by a student on a relevant business topic, and a section on the local and regional economy. Special features on global economic conditions or other special interests of the BCEA students provide additional material for the *Review*. The BCEA team is responsible for special projects and regular features as selected by the student editor and editorial board of the *Review*. An online version of the *Review* provides the most cost-effective form of dissemination, although distribution with a select mailing remains a long-term goal. Each year a selection committee picks a top student to be the editor of the *Review* with the responsibility for editing and managing the publication process. Editorship of the *Review* provides an example of how a student might achieve departmental honors.

## ADVISING AND CURRICULUM DESIGN

The depth and breadth of competencies required for BCEA participants might appear formidable from the perspective of planning. At the same time, an appealing feature of the BCEA program is the focus it provides for student advising and student career development. Students become aware of the activities and goals of the BCEA program early in the advising process. Students with an interest in the program can establish a clear path of courses that will prepare them for the BCEA senior experience and a career in economic analysis and forecasting. One very attractive feature of the BCEA activity is that it requires a cumulative set of skills learned in a sequence of courses, making it difficult for students to view each course as a separate event with a “memory-dump” at the end. Indeed, the suggested BCEA course sequence becomes meaningful to students because early on they see a clear capstone goal to the curriculum.

Three course sequences with alternative specializations compose the BCEA track (Figure 2). The sequences start with the basic economics (microeconomic and macroeconomics) and accounting (financial and managerial) series. Advisors suggest that students take their two required statistics course early, allowing for a course in econometrics in either the spring semester of the third year or fall semester of the fourth year. Students tend to take courses in intermediate macroeconomics, money and banking, financial management, and investments with finance labs in the third year. In the senior year, students take a senior-level course in advanced macroeconomics and forecasting along with other recommended finance courses to include international finance. The advanced macroeconomics and forecasting course complements the model building and forecasting activities of the BCEA students. Faculty in the economics department teach the econometrics and macroeconomics courses. This makes it possible to use data and class exercises aimed at helping students prepare for the types of analysis required in the BCEA program.

Although the staffing demands implied by this curriculum may seem daunting, we should emphasize that, except for advanced macroeconomics and forecasting, all of the courses in the BCEA program existed prior to the program’s initiation. Most, if not all, of these courses are fairly common offerings even in small to mid-sized four-year institutions. The primary difference in the BCEA curriculum

Economics majors<sup>a</sup>

Freshman year	Principles of micro/macro
Sophomore year	Microeconomic theory, business statistics I, financial accounting, money and banking
Junior year	Macroeconomic theory, business statistics II, econometrics, industrial organization, corporate finance, and investments
Senior year	Macroeconomic forecasting, international finance, fixed income and derivatives, and business conditions and economic analysis

Business major with economics and finance concentrations<sup>b</sup> (macro focus)

Freshman year	Principles of micro/macro
Sophomore year	Financial accounting, business statistics I, money and banking, managerial accounting
Junior year	Corporate finance, investments, business statistics II, macroeconomic theory, econometrics, and international finance
Senior year	Macroeconomic forecasting, securities and portfolio analysis, fixed income and derivatives, business conditions and economic analysis

Business major with economics and finance concentrations<sup>b</sup> (micro focus)

Freshman year	Principles of micro/macro
Sophomore year	Financial accounting, business statistics I, microeconomic theory, managerial accounting
Junior year	Corporate finance, business statistics II, econometrics, industrial organization, investments
Senior year	Intermediate financial management, advanced financial management, securities and portfolio analysis, business conditions and economic analysis

**FIGURE 2. Course requirements in economics and finance for the Business Conditions and Economic Analysis (BCEA) curricula.**

<sup>a</sup>Economics majors are not formally required to take finance courses, but students planning on participating in the BCEA program are strongly advised to take the finance courses on the list.

<sup>b</sup>Students must take a minimum of four courses in finance and four courses in economics to meet the concentration requirement. Courses listed here are the recommended courses for students participating in the BCEA program.

comes from the coordination and sequencing of existing courses across economics and finance that provide depth and progression toward a defined set of competencies.

One of the early benefits of structuring the BCEA program has been an active dialogue among the faculty teaching courses in the BCEA sequence. By starting with the end product and goals of the BCEA, the faculty became engaged in useful discussions on the main objectives of each course in the sequence. Coordination of the course offerings in the BCEA program resulted in the appropriate skill set and progression of student learning leading to competencies in model building, data management, and empirical analysis.

## DATA LABS FOR FINANCIAL ECONOMICS

The core functions of the BCEA program require an analysis of economic conditions using the most current data and software. There was a time when data intensive work by undergraduates was not feasible. Students learned about economics, statistics, forecasting, and other skills in the classroom, but activities working with large data sets were impractical and too time intensive. With the current computer literacy of students and the friendly formats of large data sets, students can now develop analytical skills by working with real and timely data.

To support the BCEA initiative, as well as our existing SMIF and honors program, the business school created financial data analysis labs. These labs offer a full complement of real-time data, historical data, data platforms, and software capabilities. Although the lab has many of the same capabilities as the trading rooms found in many business schools, our lab is a working resource for both faculty and students conducting research. Students must demonstrate a proficiency in downloading, managing, and conducting software manipulations for a wide range of economic and financial data.

Technological advances of the last decade dramatically enhanced the feasibility of BCEA activities. Perhaps most notably, economic data are routinely available from public Web sites and assorted government sources (e.g., Bureau of Economic Analysis, Bureau of Commerce, Bureau of Labor Statistics, Board of Governors, and FRED II compiled by the Federal Reserve Bank of St. Louis). It is possible to retrieve hundreds of time-series data sets containing daily, weekly, monthly, and quarterly observations in spreadsheet formats. These data provide fertile ground for cultivating student macroeconomic forecasting skills and analytic skills for industry sectors and geographic regions. Although some proprietary data sources are also important, these more costly data are obtained at significant educational discounts or through well-targeted corporate and alumni support. In Figure 3, we list the data resources currently available to the SMIF and BCEA programs at Richmond.

### BCEA AND SATELLITE PROGRAMS

Although the BCEA program outlined in this article focuses on the involvement of economics students, the program can accommodate students with specific skills from other majors and concentrations. The overall emphasis on data analysis presents an opportunity for students with specific competencies in data management and computer programming to be part of the BCEA program. For example, a Web-site design provides an efficient dissemination of BCEA output, creating a need for specific computer skill sets. In addition, students in the BCEA program assist other student-oriented programs within the business school that can benefit from data analysis and reporting. For example, our Management Department sponsors a Strategic Management Case Competition each year in which our students go through a process of competitive evaluations of group case analysis and presentation skills. The finals of this event occur in conjunction with an in-house Strategic Management Conference that attracts corporate practitioners and invited speakers.

#### Web-based economic data

- Bureau of Economic Analysis (<http://www.bea.doc.gov/bea/dn1.htm>). National Income and Product Account Data (quarterly, annual).
- Bureau of Labor Statistics (<http://www.bls.gov/>). Assorted monthly price indices, detail employment and labor market data
- Census Bureau Economic Programs (<http://www.census.gov/econ/www/>). Monthly economic indicators (e.g., retail sales, shipments, inventories, housing starts) by region and sector.
- Board of Governors of the Federal Reserve (<http://www.federalreserve.gov/>). Daily, weekly, and monthly data (wide range of interest rates, monetary aggregates, monthly industrial production index, *Beige Book* economic condition reports, consumer finance and household debt).
- Federal Reserve Bank of St. Louis (<http://research.stlouisfed.org/fred2/>). A one-site collection of selected data from all of the sources noted above. Not complete, but quite comprehensive and convenient.

#### Subscription data (a partial listing for illustration purposes only)

- Bloomberg Terminal. A comprehensive real time and historical data source with analytic tools. This is an industry standard for data analysis.
- Hoover's. An in-depth source of company financial and background information. This is a good source for company profiles.
- DataStream Advance. Daily updates for financial and economic data. It is a good source for information on markets and economic conditions.
- UCLA Anderson Forecast Member Zone. This is a good source of economic forecasts for the United States. Information from leading economists is provided in a conference format.
- Broadview. Economic data are provided by the Conference Board on a monthly and quarterly basis. Data are provided for the overall economy, regions, and states.
- Country Watch. This is a good source of country-specific economic information. Users can find political, economic, cultural, and business environment information. Data are updated periodically.
- Economist Intelligence Unit. Worldwide data are available on business, trade, finance, economics, and political trends.
- Reuters Business Insight. This is a good source of information on market sectors, such as consumer goods, energy, financial services, healthcare, technology, and so forth.

#### **FIGURE 3. Partial list of data sources available to support the labs and Business Conditions and Economic Analysis (BCEA) program.**

The BCEA group is a resource for global, national, industry, and firm-specific data analysis needs of students competing in the finals. In addition, the BCEA group provides a brief opening summary of current economic conditions and likely scenarios for the future as part of the Strategic Management Conference program.

The BCEA also offers students an avenue for participation in the E. C. Robins School of Business Honors Program. The honors program recognizes a set of honors courses and written products consistent with output from the BCEA program. Not every student in the BCEA may be eligible or choose honors, but the range of activities that the BCEA program embraces allows a flexible structure within which students can contract to earn honors distinction. The faculty director of the BCEA program is also the director of the honors program in economics. Although this dual role might be unduly heavy for larger institutions, the objective is to

keep the quality of honors activities uniform for students in the BCEA program compared with students in other forms of honors activities.

## RESOURCE REQUIREMENTS AND GOODWILL

As with any new initiative, the BCEA program requires new resources to achieve its objectives. Some of these resources are direct costs and some involve indirect costs. As we noted, the only new offering added to our curriculum was advanced macroeconomics and forecasting, although this is a course that may already be in place at some universities. A faculty member experienced in macroeconomic modeling and forecasting should teach this course.

Other direct costs include funding of data, software, travel, and publication costs. Our experience is that local friends of the university have data and software sources that they are willing to donate to the program. Other hard-dollar costs depend on the ambitions of the program. Although some of the costs may be part of the university budget for special programs, the best source of funding is endowment from a donor. Programs like the BCEA initiative help shape the educational environment in ways that practitioners tend to understand. Donors who really want to make a difference with their gifts may find an endowment of a program such as the BCEA to be attractive. For example, donors may have their names attached to lab rooms, speaker or seminar series, chairs for practitioners to run the program, and research centers or publications from the program. The products from programs such as our BCEA initiative can become highly visible, leading to recognition and support for the school.

Other resources required to run the program are less direct but are just as important. The level of coordination and advising involved in the BCEA program requires faculty time that might otherwise go to research or other service activities. It takes considerable goodwill on the part of the faculty and administrators to make the program work. Faculty members often perform duties as members of an advisory board or as reviewers for outside journals, so duties working with the *Outlook and Business Review* should not be unfamiliar. Time is required to coordinate a curriculum and hone the transitions students must make as they work through the course sequence. We recommend that the program director guiding this process receive a one-course release per semester. Similar arrangements should allow faculty to be directors of the Honors and SMIF programs without detracting from ongoing faculty responsibilities. Other faculty members teaching the relevant courses must recognize the importance of the overall program and have good working relationships with each other and the BCEA program director. Under these conditions, the BCEA program becomes viable.

## STATUS OF OUR BCEA PROGRAM

Although implementation of the BCEA program detailed in this article could appear overwhelming, the program has self-contained pieces that accommodate step-by-step development. To demonstrate how implementation of the BCEA might proceed, we describe where we started, where we are now, and where we

are going. In terms of our beginning, a large part of the Richmond BCEA program required only a thoughtful integration of existing curricular elements coupled with interdepartmental faculty cooperation and an emphasis on early advising. With the exception of the new forecasting course, all of the courses listed in Figure 2 already existed. The innovation was to start by identifying the ending competencies and skills students needed for the BCEA program and then work backward through our curriculum to define the logical sequence of courses.

The timing of our work on the BCEA program had an auspicious match with our university's heightened interest in capstone experiences for fourth-year students. Administrative interest in the program provided reinforcement of the goals and objectives for our curriculum tracks, although the level of resource commitment was limited to subscription fees and provision of workspace. Significant faculty time for BCEA activities relied heavily on faculty goodwill. This is probably the start-up reality for any department considering this program. Nevertheless, the current BCEA program offers an impressive addition to the curriculum and presents a publicity opportunity for recruiting high-quality students. Opportunities for additional funding and support should increase as the program develops in stature.

The existence of a well-established SMIF program at Richmond provided an important springboard for launching the BCEA program. The student fund managers welcomed a greater sharing of the information tasks. Further, the concrete measure of financial success or failure of the student-managed fund lends legitimacy and excitement to the BCEA role. The BCEA contributions to a top-down investment analysis clearly link economics and finance with practical real-world skills that many employers value.

Our participation in the Fed Challenge program is a highly complementary aspect of the BCEA. Fed Challenge is a well-managed, rewarding, and expanding competition that is a strong motivation for students engaged in macroeconomic analysis. The competition may present cost constraints for schools not in close proximity to one of the participating Federal Reserve Banks, but travel to the competition represents an attractive funding opportunity for local donors and provides an exciting reward for high-performing students.

The *Review* is the least advanced element of our program and is more complex in its structure and implementation. Although the technical expertise and hardware for producing a Web-based publication are available, it takes time and experience to establish the level of student expertise necessary to produce a high-quality product. Our approach draws heavily on the economics honors students to provide the depth of material worthy of the *Review*. Richmond's economics honors program has a 12-year history. Although the majority of honors theses had topics in microeconomics, the BCEA program provides a new direction for student research. The products that the BCEA group creates on an ongoing basis, such as economic outlooks and reviews, coupled with honors student research represents the depth of material required to launch a *Review*. At this writing, we were working on establishing the structure for the review of materials and were preparing to select our first student editor in the fall of 2005.

## CONCLUSIONS

Traditional classroom mechanisms for delivering higher education play an important role in laying the groundwork for student learning, but new innovations in experiential learning have the potential to make dramatic improvements in student skills and competencies. Our BCEA program can either stand alone or provide opportunities for integration with other experiential programs already present in many colleges and universities. The results defined by the senior-year activities of the BCEA program help set standards and define necessary student competencies for the sequence of courses leading up to the senior year. Formal written and oral presentations of economic forecasts and analysis provide measures of success in student learning. On the basis of these ultimate goals, courses in the BCEA sequence provide a logical inventory of skills, competencies, and learning objectives aimed at a capstone experience.

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