Economic Education in U.S. High Schools

William B. Walstad, (July 9, 2005)

Thank you for this opportunity to make a presentation at this National Summit on Economic Education in Japan. I think it is a very important event. I applaud you for holding it.

My purpose today is to speak about economic education in the United States. I am pleased to do so because I have been involved in economic education for over thirty years: as a professor of economics who has taught many students; as researcher who has studied economic education; as a director of national projects in economic education for school teachers and economists, and as chair of the Committee of Economic Education for the American Economic Association, the main professional organization for academic economists. This work has given me a broad perspective for commenting on economic education in the United States.

Today I want to share with you what I think are five developments that have been responsible for advancing economic education in the United States. The first explains why making the case for economic education is so important. The second describes how economic instruction is provided in the schools. The third discusses what economic content should be taught to students. The fourth examines testing and who learns from economic instruction. The fifth covers what is needed for effective teacher education.

Also, please note that I broadly define economic education to include instruction in basic economics, personal finance, and business. I think it is necessary to give people a complete economic education—one that helps them understand their economic world, gives them the tools to make economic and financial decisions, and educates them about business. To reduce repetition for this lecture, I will just use the general term economic education throughout my remarks.

Making the Case for Economic Education

I will begin with the case for economic education in the United States—one that has been made by many academic economists, Federal Reserve Bank officers, business leaders, and government officials. Let me cite a few examples.

Thirty-five years ago (1970), George Stigler, the University of Chicago economist and Nobel laureate, wrote an article on the case for the *Journal of Economic Education*. He stated that: "the public has chosen to speak and vote on economic problems, so the only open question is how intelligently it speaks and votes." In his view, economic literacy is necessary for two reasons. First, it serves as "a means of communication among people, incorporating a basic vocabulary or logic that is so frequently encountered that the knowledge should be possessed by everyone." Second, it is a "type of knowledge frequently needed and yet not susceptible to economical purchase from experts." In other words, with this second point Stigler is saying that each person needs to be his or her own economist because it is not possible to depend completely on the advice or help from experts.

Another Nobel laureate, James Tobin, the Yale economist, made a similar statement almost twenty years ago (1986) in a *Wall Street Journal* column:

"The case for economic literacy is obvious. High school graduates will be making economic choices all their lives, as breadwinners and consumers, and as citizens and voters. A wide range of people will bombard them with economic information and
misinformation for their entire lives. They will need some capacity for critical judgment. They will need it whether or not they go to college."

More recently (1999), Alice Rivlin, a former vice chair of the Board of Governors of the Federal Reserve System stated that economic literacy contributes to the functioning of our society because “a free market economy works well only when the participants—producers, consumers, savers, investors—have the information they need to make intelligent decisions.”

And Alan Greenspan, the Chairman of the Board of Governors of the Federal Reserve wrote (2003) about the importance of financial and economic education and stated that “improving basic financial education at the elementary and secondary school levels can provide a foundation for financial literacy, helping younger people to avoid poor financial decisions that can take years to overcome.”

I could cite other quotes, but that is not necessary. The point is a major reason for the advancement of economic education in the United States is that top economists, business leaders, educators, and government officials have spoken publicly in support it for years. Some of them have also taken leadership roles in promoting economic education through various organizations such as the American Economic Association, the not-for-profit National Council on Economic Education, and the Federal Reserve Banks to name a few organizations.

This leadership has resulted in more legislation and funding for economic education at the Federal and state levels. This support has helped improve economics instruction in the schools through more course requirements, improved teacher education, and the development of innovative curriculum.

Providing Economic Instruction in the Schools

A second development advancing economic education in the United States is that a strong effort is made to provide it for all students. What we have learned is that we must begin this education with children in the elementary schools because they are already learning to make economic and financial decisions. Even young children are capable of learning basic economic concepts that help them understand their economic world. In the secondary school, that initial foundation from elementary school can be expanded to a broader set of economic concepts so that students develop the capacity to understand more complex financial or economic decisions.

Waiting until students are in a university to teach economics is a matter of "too little and too late." The majority of students end their formal education with secondary school, and even those students who attend a university may not take an economics course. Only about 63 percent of high school graduates in the United States enroll in universities (NCES, 2000, Table 185), and among those who do, only about 40 percent take even one college course in economics (Siegfried, 2000). The fact best opportunity for economic education occurs before graduation from high school.

To provide this economic education in elementary and secondary schools requires some flexibility. Essentially, two ways are used to provide economic instruction in the United States--as a separate course in economics and through inclusion or “infusion” of economics in other courses (Walstad, 2001; Walstad and Rebeck, 2000).

When economics is taught as a separate course, it is typically taught as a one-semester course in the social studies or business curriculum. Enrollments in such economics courses in high
schools increased dramatically over the years. In 1982, about 24 percent of high school graduates took an economics course in grades 9 to 12. Today about 50 percent do.

The main reason for the increase in economics enrollments is that more states require some type of economics course to be taken for high school graduation. Currently, 15 states have economics mandates (NCEE, 2005) including some of the nation’s largest such as New York, California, and Texas.

There are also other courses that have substantial economics content, but are not pure courses in economics such as government and economics, consumer education, or business. A “government and economics” course is now taken by about 12 percent of students. There are also courses in “consumer economics” (or “personal finance”) and “consumer education” but less than 10 percent of students take such a course. About 15 percent of high school graduates enroll in courses in general business.

Economics can also be taught by including economics concepts in other courses, such as U.S. history. This approach is especially appealing in the middle school and elementary grades because of the constraints on the school curriculum for adding a separate course. Another value of this infusion approach is that students learn the basic economic concepts throughout their education that prepare them for a culminating, “capstone” high school economics course.

The infusion strategy has been widely adopted by schools. One reason is that state legislation encourages the teaching of economics in various subjects in elementary and secondary grades. In 2004, all 50 states and the District of Columbia had standards for teaching economics in the school curriculum (NCEE, 2005).

Specifying the Economic Content to be Taught

A third development advancing economic education in the United States is a consensus on what economic content should be taught and how it should be taught. Two content guides in the United States were prepared by economists and educators.

The first guide was the Framework for Teaching Basic Economic Concepts (Saunders and Gilliard, 1995) that was first published in 1977. The Framework focuses on 21 economic concepts, divided into four categories: fundamental, microeconomics, macroeconomics and international.

The Framework had a significant influence on economic education. The economic concepts in the Framework are included in the major textbooks for high school economics (Clayton, 2001; Miller, 2001; and Pennington, 1999). They affected curriculum guides, teaching materials, and tests produced by departments of education, school districts, and other organizations (Symmes, 1991).

The second content guide is the Voluntary National Content Standards in Economics (NCEE, 1997). It went beyond the simpler concept approach of the Framework and focused on national standards. These standards are 20 content statements about what economics should be taught in grades 1–12 (Siegfried and Meszaros, 1998). Each standard states a basic principle or proposition of economics. The standard statement is then followed by a short rationale written in nontechnical terms. Then, the 20 standards are divided into 211 “benchmarks” that describe what a student should be able to do with that understanding at grades 4, 8 and 12.

One problem with the Standards is not the format, but the feasibility of teaching all the economics content in the standards by the time of high school graduation. Economics must compete
for classroom time other social studies courses that also have lengthy content standards of their own. Teaching economics to the very broad audience of high school students—a much more heterogeneous group than, say, the students in the college principles course—is difficult.

Testing the Economic Understanding of Students

A fourth development influencing economic education in the United States is the emphasis given to testing and research. States and school districts can give incentive for economic instruction by testing students. This type of testing is usually part of a broader assessment of social studies at selected grade levels (for example, grades 4, 8, and 12). In this case, economics questions are only a small portion of any assessment measure, but the inclusion of even a few economics questions encourages teachers and schools to devote classroom time to a subject that otherwise would be neglected. In 2004, about 26 states used tests that included some economics items (NCEE, 2005).

There are also voluntary economics tests, some offered by states and others offered by not-for-profit organizations. The most widely-used measure for a course in basic economics is the *Test of Economic Literacy* (Walstad and Rebeck, 2001a), now in its third edition. This reliable test of economic understanding among U.S. high school students contains multiple-choice questions that were prepared by a national committee of economists and educators and uses the *Framework and Standards* for content validity. The test norming data from 7,243 students show expected differences in scores for students with and without a course in economics, regardless of such factors as gender, race/ethnicity, grade level, verbal ability, school type, or household income.

The Advanced Placement (AP) examinations in economics were developed for high-ability, university-bound students who wanted college credit for completing the equivalent of a one-semester course in microeconomics, macroeconomics, or both. AP economics students attend a semester or a yearlong course in high school that covers the content for most university principles of economics.

No federal testing of high school students has ever been conducted in economics because economics is unfortunately viewed as a minor subject in pre-college education. The National Assessment of Educational Progress (NAEP), however, has administered multiple assessments in history, geography, and civics, often at different grade levels, and in different years to track changes in student understanding over time. A NAEP test in economics for twelfth graders will be given in 2006. This testing should produce a “report card” on student understanding of basic economics similar to ones given in other subjects, and perhaps eventually serve as a basis for tracking high school student understanding of economics over time.

The availability of standardized tests has made it possible to conduct research on what high school students know about economics and the effectiveness of instruction in different types of courses (Becker, Greene and Rosen, 1990). A high school course in economics does make a substantive contribution to the economic understanding of students. Evidence from the testing shows that students who have taken economics score significantly higher than students who did not take such a course (Louis Harris & Associates, Inc., 2005; Walstad and Rebeck, 2001b).

Despite this positive finding, one problem is that even students who take a course in basic economics appear to have a relatively low level of achievement. High school students who completed an economics course scored 61 percent correct on the *Test of Economic Literacy*, while students who had not taken a course scored 41 percent correct. Students showed the most knowledge of fundamental economics (67 percent correct) and microeconomics (62). They scored worse on macroeconomics (57) and international economics (53) (Walstad and Rebeck, 2001b).
The low level of achievement in economics can be attributed to many factors, but the most important reason appears to be the limited instructional time for economics. Major subjects, such as history, are taught to all students over a period of years in concentrated units and courses that begin in the early grades. By contrast, intensive development of economic understanding depends largely on a one-semester course that is typically taught in the last two years of high school and taken by only half high school students.

Preparing Teachers to Teach Economics

The fifth development advancing economic education in the United States is the focus on the importance of teacher education. A report written by several distinguished economists and educators (see Hermanowicz, 1991, for background) recommended that all future teachers, regardless of subject, be required to take one basic course in economics, or preferably the principles sequence in economics. All prospective teachers of social studies would be required to take at least three semester courses in economics, including the principles sequence and one advanced course. Teachers who specialize in teaching economics would complete a concentration of at least six semester courses in economics. Teachers of AP or honors courses should complete ten courses.

Several studies have confirmed that teachers who have taken more courses in economics are more effective in teaching economics. For example, Bosshardt and Watts (1990) found that teachers who were above average in improving student test scores earned more economics credits (about six courses) than teachers who were average (about 3-4 courses) or teachers who were below average (about 2-3 courses) in improving scores. Allgood and Walstad (1999) found that the greatest increase in economic understanding among high school teachers of economics occurred after they had taken six economics courses. The increased knowledge from economics courses was also associated with improved economics learning among the students of these teachers.

The value of teacher coursework means that there needs to be an increase in the number of teachers who take economics. High school teachers of economics need about five or six economics courses to become most effective in teaching economics to students. This objective can be achieved by increasing economics requirements in undergraduate education for social studies teachers, and by increasing the number of teachers who take a progressive set of in-service courses in economics from a national network of economists and educators after they complete their undergraduate education.

Conclusion

Economics instruction in high schools in the United States has improved significantly over the years for a number of reasons. First, a strong case for economic education has been made by top economists, educators, business leaders, and government officials, and some of these individuals have obtain more support for economic education through organizations, legislation, and funding. Second, more students take an economics course and are taught economics in other subjects. Third, content standards are available to guide instruction and the development of textbooks and educational materials. Fourth, state and national testing programs give more attention to testing economic knowledge and measuring outcomes. Fifth, teachers are better prepared to teach economics because there is a national network of economists and economic educators to provide teacher education and support the development of new lesson materials and curricula for economics. It is these factors that make economic education work well in the United States.
References


