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All We Know that May Be So in Economic Education

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The teaching of economics at the Kindergarten-12 level has been highly researched and reported upon since the 1970's and has primarily concentrated on curriculum, materials, enrollments, and effectiveness of teaching techniques. This paper summarizes two recent reviews of research, the results of the National Assessment of Educational Progress in Economics, and two recent national surveys. Taken together, the findings suggest that more students are taking high school economics than ever before, and that their performance is better than reported performance in other social studies fields. While adequate teacher training remains a stubborn problem, economics teachers appear to use somewhat more variety in their teaching than do their peers.
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Introduction

The teaching of economics at the Kindergarten-12 level has been highly researched and reported upon since the 1970's and has primarily concentrated on curriculum, materials, enrollments, and effectiveness of teaching techniques. Previous studies have focused on how well students are learning economics, how teachers are trained, and other outcomes associated with improved understanding of economics. Several major survey articles have reported upon the current status of economic education and noted several trends. This paper will provide an overview of recent reviews of research in economic education and the results of the recent National Assessment of Educational Progress in economics. It will also highlight the results of recent, national surveys regarding the status of economic education nationally and economics teachers' thinking about the subject.

Reviews of Research

Miller and VanFossen Review

The publication of a special issue on economic education in *Social Studies Research and Practice* presents a good opportunity to pause and observe the trends that have emerged in the past several decades. Two recently published reviews of research are very informative in this regard. The first is the chapter by Steven L. Miller and Phillip J. VanFossen in the *Handbook of Research in Social Studies Education* (2008). This chapter was designed, in part, as a starting point for graduate students and other researchers to gain an overview of research that has been completed and what remains to be done. Almost all of the studies cited by Miller and VanFossen address issues related to economic education. The authors, however, acknowledge that personal finance has taken on new importance. In their conclusion, they state that, "in spite of the historic distinction between personal finance (or consumer) education and economic education, it appears possible (even likely) that financial literacy will become an increasingly important part of economic literacy and thus, economic education" (p. 300).

Miller and VanFossen (2008) draw several important generalizations regarding the current state of economic education. We emphasize four conclusions from Miller and VanFossen that are the most relevant here. First, it seems clear that the development of the *Voluntary National Content Standards in Economics* (1997; hereafter the *Standards*) published by the National Council on Economic Education (now the Council on Economic Education) has played an important role in influencing what economics is taught at the pre-college level. Textbooks and curriculum materials are often aligned to the *Standards*. Many states looked to the *Standards* for guidance on developing state standards. The content of national assessments, such as the National Assessment of Educational Progress in Economics 2006, an assessment of high school seniors, was influenced by the *Standards.*

The *Standards* were produced by a committee of largely mainstream economists and economic educators whose collection of knowledge and experience represent something of a consensus regarding what content is most important at the pre-college level. While the debate continues, of course, as a practical matter, the *Standards* remain dominant.

The *Standards* was revised and reissued by the Council on Economic Education in 2011. The twenty standards themselves were little changed. The writers note that they had stood the test of time. Some new concepts, however, were included such as a more explicit consideration of discounting, compounding, and inflation. Standard 14 on entrepreneurship was revised to reflect current scholarship in the area.

Second, teachers remain poorly prepared to teach basic economics. Miller and VanFossen (2008) point out that, with the exception of advanced placement economics, most economics is taught by social studies teachers who have little formal background in economics although they hold comprehensive social studies certifications. One study cited by Miller & VanFossen (Dumas, Evans, & Weible, 1997) found that, for those states specifying minimum coursework in the social sciences as part of their licensure rules, the mean number of semester hours in economics was 3.9, slightly more than a one-semester course. Separately, in a transcript analysis of prospective teachers at University of Wisconsin-Madison School of Education, Schug and Western (2003) found that 72%of the broad field social studies majors took no courses in business or economics. The elementary education majors were even less likely to have taken business/economics courses. Eighty-one percent of them took not one course. This lack of

economics education presents a problem because studies reveal that students learn more economics from teachers who have more formal preparation in economics (Miller & VanFossen, 2008).

Third, research dating back several years shows that children as well as adolescents can learn basic economics (see, for example, Walstad, 1992 and Sosin, Dick, & Reiser, 1997). The question becomes, how should economics best be included in the curriculum? Studies show that high school students who take a high school economics class score significantly higher on standardized tests than students who have not taken economics (Miller & VanFossen, 2008 provide a summary of findings). Interestingly, students in consumer economics courses and students in social studies courses (with or without economics) scored the same on economics pre- and post-tests, strengthening the conclusion that economics needs to be taught independently of other courses.

These findings intensify the debate between those who favor an integrated approach versus those who favor a specialized way of including economics in the curriculum. It is of little surprise to us that it would be hard to detect improved knowledge of economics in courses like U.S. history which teachers may claim integrates economics into the subject. In order to work, teachers of integrated courses would need to include explicit economics lessons designed for the host subject. When this happens, integration has a much better chance of being effective. One study (Schug & Niederjohn, 2008), for example, found that when this is the case—when explicit economics lessons are taught in U.S. history—statistically significant knowledge gains can be achieved. So, we think there is some reason to believe that, under the right circumstances, integration can be an effective compliment to the capstone, high school economics course.

Finally, Miller & VanFossen (2008) note that there is a large, unfinished research agenda in economic education. The gaps are significant and remarkable.

- The long standing debate in economic education on whether the emphasis at the Kindergarten-12 level should be on conceptual learning or on teaching how to reason economically, or some combination, has been insufficiently studied.
- Little progress has been made in determining if some sorts of instructional approaches are more effective than others.

Watts Review

A second recent review of research is noteworthy even though it overlaps (to some extent) the work by Miller & VanFossen. This review was conducted by Michael Watts (2005) for the then National Council on Economic Education under a contract with the U.S. Department of Education. It is unique in several ways and well worth reading. Watts, for example, draws upon research studies published since 1990 in six different fields: economic education, studies on long-term behavior effects of economic education, studies from social studies education, studies from business and vocational education, education studies in domain-specific features of learning, and education studies on expert versus novice differences in cognitive understanding. He also presents findings from studies that involve pre-college, college, and adult education. For the purpose of this paper, we restrict our analysis of the Watts review to what he includes about pre-college education, noting four highlights.

First, Watts reminds us about an age-old debate in economic education. Some prominent economists argue that economics is too important to be left in the hands of poorly trained high

school teachers and should, instead, only be taken in college. Watts disagrees. He explains that high school students are learning economics one way or another, and that much of the content they are likely to learn is incorrect. He goes on to point out that most secondary students never take an economics course in college and, moreover, students who have taken a high school economics course begin university economics knowing more economics, which suggests that they did indeed learn something correctly in high school.

Second, Watts reports that at both the elementary and secondary levels, students of teachers who know more economics, but also spend more time teaching economics and using appropriate instructional materials, are likely to learn more economics. This conclusion may strike many as mere common sense. Nonetheless, we find it reassuring that the research literature is so supportive. Closely related to this point, Watts finds (as did Miller and VanFossen) that the "safest" way to improve student understanding of economics is to take a separate economics course. Even here, however, Watts notes that taking one high school economics course does not ensure long-term knowledge retention or necessarily qualify students as economically literate.

Third, while social studies teachers tend to dominate economic education, Watts notes that secondary teachers in the fields of business and vocational education typically have a better formal preparation in economics coursework than do teachers in other fields, including social studies teachers. This is an important finding that does not get nearly enough attention in the bureaucratic struggles occurring in public education often involving certification rules. It suggests that the high school economics course should not be a social studies monopoly. This is particularly important in states where economics is a required course for graduation.

Finally, Watts notes that some studies suggest that economics itself is a domain specific field where easy transfers of knowledge may be difficult to make. This same conclusion is also implied by the research he cites involving the expert versus novice studies. Watts goes on to suggest that if, indeed, economics is domain specific, then economic concepts ought to be taught early and often to be fully developed throughout the Kindergarten-12 curriculum. Heavy reliance on the high school economics course is probably not sufficient to provide young people with an adequate understanding of economics at the pre-college level.

2009 National State Survey

Since 1998, the Council on Economic Education (CEE) has conducted six surveys regarding the state of economic and personal finance education in the fifty states (Council on Economic Education, 2009). In 2007, entrepreneurship was added. The most noticeable trend in economic education over the last decade has been the continuation of the strengthening of economics requirements. The 2009 survey reported that economics is now included, at least to some extent, in the educational standards of *all* states. Forty states (the same as in 2007) require that these standards be implemented. The number of states requiring a formal course in economics to graduate from high school has continued to grow from 17 in 2007 to 21 states. Several of these 21 states, such as California, Florida, New York, and Texas, have large populations. As a result, these states make up nearly 65% of the entire U.S. population. Surprisingly, however, the number of states requiring the testing of student knowledge in economics declined from 23 in 2007 to 19 in 2009.

The importance of personal finance in the curriculum has experienced significantly larger growth over the last decade than economics (Council on Economic Education, 2009). Courses in

personal finance were included, to some extent, in the educational standards of 21states in 1998, rising to 44 states in 2009. In 1998, 20 of those states required implementation of the finance course standards while that number has increased to 34 in 2009. The number of states requiring a formal course in personal finance to graduate rose from 1 in 1998 to 13 in 2009, and the number of states requiring testing of student knowledge in finance increased from 1 to 9 over the decade.

Perhaps due in part to the deep recession of 2007-2009 and the slow recovery since, entrepreneurship education has been receiving more attention both at the college and pre-college levels. Yet, by comparison, it is far less emphasized in the curriculum than economics and personal finance. Nineteen states include entrepreneurship in their Kindergarten-12 educational standards and four states require it to be included as part of a high school course, usually economics. Four states require an entrepreneurship course for graduation and five states require testing (Council on Economic Education, 2009).

National Assessments of Educational Progress: The Latest Social Studies Reports

The first National Assessment of Educational Progress in Economics (NAEP) was reported by the U.S. Department of Education in 2006. This national assessment was added in response to the growing emphasis on economics at the high school level. About two-thirds of students reported that they had taken either an advanced or a general economics courses.

Economic education researchers have never been able to conduct a study of this scale. The data were collected from a nationally representative sample of 11,490 twelfth-grade students in 590 public and non-public schools to represent a target population of 3,059,000 students. Typical NAEP procedures were used to establish a stratified sample.

What are the main results of the NAEP economics test? Examining the results by achievement level, 79% of twelfth graders performed at or above Basic, 42% at or above Proficient, and 3% at Advanced. While one must be cautious in comparing the NAEP results in economics to the performance of students on other tests, this level of achievement was much higher than the levels attained in the 2010 NAEP assessments in history, civics, or geography.

- In history, only 45% of twelfth graders performed at or above Basic, 12% at or above Proficient, and 1% at Advanced.
- In civics, 64% of twelfth graders performed at or above Basic, 24% at or above Proficient, and 4%at Advanced.
- In geography, 70% of twelfth graders performed at or above Basic, 20% at or above Proficient, and 1% at Advanced.

What accounts for this relatively positive outcome in economics? We don't know for certain. Perhaps it results from the relatively widespread agreement regarding what economics concepts are most important to teach as demonstrated by publication and revisions of the *Standards*. This is a question that would benefit from additional investigation.

Other interesting findings from the NAEP in economics include the following:

- The average economics score of male students was higher than the average score of female students.
- Students from large city schools had lower average scores than students in other locations.
- The NAEP transcript analysis reveals that the percentage of high school seniors who take an economics course has increased from 49% in 1982 to 66% in 2005.

A National Survey of Economics in the Nation's High Schools

When it comes to matters regarding economics teachers' views of the curriculum, how they teach their subject, and their views on public issues, almost nothing is reported in the research. Recently, however, a nationally representative random sampling of 1,201 pre-college economics and social studies teachers documented the continuation of several previous trends and added new insight into specifically what concepts are being taught and why, as well as the views, goals, and political orientation of the teachers. To assess recent trends and improve the understanding of the teaching of economics, Schug, Dieterle, and Clark (2009) analyzed data collected by the Center for Survey Research and Analysis (CSRA) of a nationally representative random sample of high school social studies teachers across the nation. The sample of U.S. public high schools, drawn from the National Center for Educational Statistics comprehensive database, was stratified by student body size, region, and urbanicity to ensure representativeness. Telephone interviews were conducted from December 2007 to April 2008 producing 1,201 completed surveys. Of the 1,201 interviews, 300 were with U.S. history teachers, 300 with world history teachers, 300 with economics teachers, and 301 with civics/government teachers. A summary of some of the results of this survey follows.

- When asked to rank reasons why it is most important to include economics in the curriculum, 48% of economics teachers choose "forming critically-minded, reflective citizens," much lower than the 60% rating of U.S. history teachers and 62% of civics teachers. Forty-two percent of economics teachers reported that developing an understanding of basic economic concepts was either first or second most important in their ranking. "Helping students learn about other countries" ranked the very least important at 6% by economics teachers.
- What content is most important? Over 60%of economics teachers ranked personal finance and consumer education as the most important content in the course. Far below this ranking was microeconomic content at 36%, macroeconomic content at 31%, and critical thinking about free market institutions at 30%. International trade and institutions ranked only 13%.
- Do economics teachers use different instructional methods from other social studies teachers? Somewhat. Seventy percent of economics teachers report using whole class presentation in every class or almost every class compared to 78% for history teachers and 77% for civics teachers. Economics teachers also spend more class period time having students work in small groups, on problem-solving activities, and on Internet-based activities in comparison to their social studies peers.
- Are economics teachers more market-oriented than other social studies teachers? Somewhat. Seventy-four percent of economics teachers are more likely to agree that the strength of this country is mostly based on the success of American business while their social studies peer responses averaged around 65%. Forty-seven percent of economics teachers were more likely to agree that government regulation of business usually does more harm than good with social studies teachers responses averaging 35%. Fifty-one percent of economics teachers were less likely to agree that the rich just get richer while the poor get poorer, and 49% are less likely to agree that business corporations make too much profit with social studies teachers' responses averaging 62% and 63%, respectively.

We draw four primary conclusions from the national survey. First, the finding that personal finance and consumer education content are regarded as being more important than basic principles of economics is surprising and requires further investigation. Second, it is also surprising to find that, in spite of the rapid globalization of the last decades, economics teachers do not appear to have a strong international economics orientation. Third, the pedagogy utilized by economics teachers differs somewhat from other social studies teachers. They tend to use whole group instruction somewhat less and small group work somewhat more than others. Finally, economics teachers are more likely to support business and the role of profits and more resistant to increased regulations and government provided health care than other social studies teachers.

Conclusions

This paper presents a summary of several recent developments in the field of economic education. It includes an abundance of good news. We know that young people in grades Kindergarten-12 can learn economics. We know they learn it best when they are taught by knowledgeable teachers using well developed curriculum materials. According to the NAEP results, twelfth graders performed better in economics than students did in other social studies fields. Economics teachers appear to use a greater variety of pedagogical approaches than their peers. They are more likely to be supportive of the private sector than other social studies teachers.

Economic education, however, continues to be haunted by old ghosts. While economics enrollments and state requirements have continued to increase, it appears that the state bureaucracies (state departments of education and schools of education), which dominant teacher education and teacher certification, won't budge when it comes to two issues. First, teachers, by and large, remain poorly prepared to teach economics. There has been no movement to expand the formal training of social studies teachers to include more economics. This helps make the case that economics should be an independent subject which should be taught by teachers in business and vocational education, who typically have more formal training in economics than do social studies teachers.

Second, the research suggests that relying on the high school economics course alone will not provide the levels of economic and financial literacy required by today's citizens. At a minimum, it is necessary that states establish parity between content regarding how the public sector works—required content in government and civics—to content regarding how the private sector works—content in economics. This would involve increasing the amount of specialized as well as integrated economics content offered at the Kindergarten-12 level.

References

Dumas, W., Evans, S., & Weible, T. (1997). Minimum state standards for secondary social studies teacher licensure: A national update. *The Social Studies, 72*, 163-166.

Miller, S. L., & VanFossen, P. J. (2008). Recent research on the teaching and learning of pre-collegiate economics education. In L. Levstik & C. Tyson (Eds.), *Handbook of research in social studies education* (pp. 284-304). New York, NY: Routledge.

Schug, M.C., Dieterle, D.A., & Clark, J.R. (2009). Are high school economics

teachers the same as other social studies teachers? The results of a national survey. *Social Education*, *72*, 71-75.

Schug, M.C., & Niederjohn, M.S. (2008). Can students learn economics in U.S. history? *Journal of Private Enterprise*, *23*, 167-176.

Schug, M. C. & Western, R.D. (2003). *Wisconsin public schools: An economics free Zone*. Thiensville, WI: Wisconsin Policy Research Institute.

Sosin, K., Dick, J., & Reiser, M.L. (1997). Determinants of achievement of economics concepts by elementary school students. *Journal of Economic Education*, *28*, 100-121.

Walstad, W. (1992). Economics instruction in high schools. *Journal of Economic Literature*, *30*, 2019-2051.

Web Based References

Council on Economic Education. (2009). *Economic, personal finance and entrepreneurship education in our nation's schools, 2009: A report card: Survey of the states*. Retrieved from http://www.councilforeconed.org/about/survey2009/CEE_2009_Survey.pdf.

Watts, M. (2005). *What works: A review of research on outcomes and effective program delivery in precollege economic education*. New York: National Council on Economic Education. Retrieved from http://www.councilforeconed.org/eee/research/WhatWorks.pdf.

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