The 1994 Federal Goals 2000 Act expanded the national standards movement to include economics. In fact, economics was the only subject added by that Act to the national goals set previously.\(^1\) This led to the creation of the Voluntary National Content Standards in Economics (VNCSE), which were unveiled in January 1997.\(^2\) The VNCSE is organized around the core principles of the discipline. This now makes it possible for any state that wishes to include economics in its standards to do so in a way that imparts the distinctive, analytically powerful economic mode of reasoning.

Although “standards wars” have not yet broken out in economics, there have been a few public controversies, and also many less visible state efforts with varying degrees of contention. These controversies differ in a striking way from those over other subject standards, discussed in other contributions to this volume. Some of those controversies (e.g., over the history standards) reflect disagreements within the discipline over the content of what should be taught.\(^3\) Other controversies (e.g., those in science and mathematics) reflect disagreements within the discipline (broadly defined to include science and mathematics educators in education schools as well as scientists and mathematicians in disciplinary departments) over how the material should be taught at K–12.

In economics, however, there has been almost no controversy within the discipline over the VNCSE: objections have come almost entirely from those outside the discipline. There are two reasons for this. First,
there is fairly broad consensus within the economics community about the core principles of economics (even though economists are notoriously disputatious on the policy implications), and there is also little or no disagreement between research economists and economics educators about how they should be taught. Second, those who are unschooled in economics nonetheless sometimes believe they have an intuitive understanding of the subject from their everyday experience that trumps the often counter-intuitive views of a vaguely suspect profession. This latter condition—the sense of a surprising number of laypersons that their intuitive understanding of economics equals or surpasses that of the profession—sharply distinguishes economics controversies from those over science or mathematics. Some of the key arguments raised against the economics standards (e.g., its difficulty or abstractness) have close analogues in science or mathematics but are generally not considered decisive in those subjects. These arguments, often demonstrably flawed, nonetheless carry more weight when raised against economics, I contend, because of the different attitude toward the profession in question. Another remarkable implication of this attitude is that a state’s economics standards can on occasion be drawn up entirely by non-economists, who refuse and reject professional input. As related in the penultimate section of this chapter, this was the experience in Massachusetts until public controversy forced some accommodation to the profession.

Nationwide, it is too early to tell what effect VNCSE is having on state standards, not to mention K–12 instruction itself. But it is not too early to reflect on the nature of VNCSE and some of the potential obstacles to their full implementation. That is the purpose of this essay.

A Description of The VNCSE

The VNCSE represents a bold statement that real, discipline-based economics should be taught to all students, starting in elementary school. It stipulates that economics should be taught as a set of analytic principles specific to the discipline, such as tradeoffs and opportunity cost, rather than in a non-disciplinary fashion, or from the viewpoint of some other discipline, such as history, or personal finance and business.

The VNCSE was written by a team of economists and economics educators put together by the National Council on Economic Education (NCEE). As John Siegfried and Bonnie Meszaros report, the writing
committee and several subcommittees generated about ten drafts, which were reviewed by a number of outside organizations and individuals. In addition, a formal review committee provided input after reading an intermediate draft. After a year or so of work, the NCEE unveiled the 46-page VNCSE in January 1997. The hope is that this document, and supporting teaching materials, will inform the work of states and localities as they construct their own standards.

The document consists of a one-page introduction, followed by twenty content standards. Each content standard begins with a basic economic principle that students will be expected to understand (see the Appendix), and a one-sentence general statement of what students will be able to do with that understanding. It is followed by a few paragraphs that provide the rationale for that content standard. Finally, the bulk of each two- or three-page standard consists of more detailed benchmarks for grades 4, 8, and/or 12 of what is to be mastered, along with examples of how that mastery might be demonstrated. Since the document is densely packed with rich lessons, I can only sketch their nature in this limited space.

A quick perusal of the Appendix conveys the general disciplinary approach of the VNCSE. The standards are designed to teach the economic mode of reasoning. That is why the VNCSE is organized around basic principles or propositions. Each principle can itself be broken down into its building blocks, suitable for different grade levels. Clusters of related principles comprise larger themes (e.g., #1–2, #3–6, #7–9, #10–11, #12–15, #16–17, #18–20).

As a concrete example, consider the cluster #7–9, and, specifically, principle #8: “Prices send signals and provide incentives to buyers and sellers. When supply or demand changes, market prices adjust, affecting incentives.” If one had to pick a single basic principle that conveys the fundamental insight of economics into how a market economy functions, this would probably be it. This is the principle (along with #7 and #9) that unlocks the mystery of how an unplanned economy manages to come up with something close to the right number of two-ply toilet paper rolls, sushi rolls, and Fruit Roll-Ups in the nation’s supermarkets every week, without excess wastage or long lines, such as those that were endemic to the former Soviet Union for basic staples and amenities of life.

It is a principle that can be broken down into its building blocks and taught at various levels of sophistication. The VNCSE asks that grade 4
students understand that high prices lead buyers to purchase less of any given good or service while inducing sellers to produce more of it. By grade 8, students are to have a deeper understanding of the underlying reasons for these relationships. To use the concise language of the basic analytical tools of economics, students are to understand that demand curves generally slope down, supply curves generally slope up, and why. By grade 12, students are expected to use these basic concepts to analyze the consequences of changing conditions of demand and supply in order for them to understand, for example, what to expect in the wake of a freeze in the orange crop. Extending the analysis from product markets to labor markets (in standard #13) helps students understand how various forms of technological progress can differentially affect workers of varying types and levels of skill, an essential lesson to help students understand both their own future and that of society at large.

Grade 12 students who have mastered standard #8 will also understand the often unintended consequences of market interventions such as price ceilings and floors. This helps explain not only the Soviet experience, but, among other things, the U.S. experience (for better or worse) during the oil embargo, rent control in various cities, and farm price support policies. Extending the analysis from product markets to labor markets helps students understand the perennial debates over the minimum wage.

It is worth noting here what is not in the VNCSE. For the most part, the standards are designed to convey the principles that have been the mainstay of economics over much of the last century and not the new developments of the last decade or two. These developments have tried to broaden the discipline’s focus beyond the competitive model toward a richer analysis of strategic interactions (using game theory) and of economic uncertainty or imperfect information. It is fair to say that there is professional disagreement on how fundamentally these developments alter the discipline. Some would stress, for example, that prices do not necessarily serve as the simple allocative signals described in standard #8 when sellers know more about the good’s quality than buyers. By contrast, others would argue that professional economists are naturally more interested in these developments on the frontier for their novelty than in the tried-and-true fundamentals that are more relevant for everyday understanding and policy analysis.\footnote{Richard Feynman conveys a similar dilemma in teaching introductory physics. Does one teach, for example, the Newtonian “law” that mass is}
independent of velocity, which is “close enough” for speeds under 100 miles/second? Or does one begin with the more general law, a law that not only gives very different results as we approach the speed of light but, moreover, shows that the simple theory is philosophically completely wrong?\textsuperscript{13} Feynman gives no general answer to this dilemma. He was brilliant enough, and blessed with freshmen at the California Institute of Technology, to get away with the latter approach occasionally.

The VNCSE, facing different constraints, wisely chose to impart the fundamentals, on which further insights could be built at a later stage of education. But this does come at a cost. A few of the objections that are raised against traditional economics, discussed later, are in fact recognized by some in the field and are the subject of activity on the frontier. It is difficult to respond to such objections by saying, “Yes, we know that, but you need to learn the fundamentals first, and later on, perhaps in college or graduate school, we can get to your objections.” And yet, there seems no obvious alternative, just as we teach Newtonian physics to high school students and tantalize them with the mysteries of relativity, to be pursued in higher education.

On the other hand, I do not want to leave the impression that developments on the frontier solve the major problems of economics with the same degree of confidence that we might have in relativity or quantum physics. Indeed, there is a healthy debate within economics as to whether it has become too technical, too austere, too reliant on assumptions of hyper-rationality, and the like. Unfortunately, observers of this debate from outside the profession sometimes bring it into discussions of K–12 economics, where it is really quite irrelevant. That is, even if one thinks that recent economics, as reflected in the profession’s often impenetrable journals, has gone off the rails (a judgment I do not share), one may still conclude that K–12 students can benefit greatly from learning the traditional fundamentals in the VNCSE. As I relate below, in the Massachusetts story, there has been some confusion on this distinction between K–12 economics and economics on the frontier.

The main point here is that VNCSE is real economics, designed for K–12. It is, in my view, a major accomplishment. But even among non–economists who clearly distinguish K–12 economics from the more advanced variety, there are still those—notably, some education officials—who raise questions about the difficulty of teaching the
discipline’s fundamentals at K–12, and about the substance of the material itself. These questions may or may not be widespread, but they have at least been raised in some instances, and they merit a thoughtful examination.

**Is Economics too Difficult for K–12?**

There is a perception among some education policy-makers that the discipline of economics is simply too difficult to teach at the elementary or even secondary level, and perhaps too difficult for teachers to learn. There are two distinct reasons for this.

The first reason is a rather simple misunderstanding regarding the level of mathematics required in K–12 economics. From time to time, one encounters vastly exaggerated perceptions that real discipline–based economics requires advanced mathematics, such as calculus. Even at the college level this is false: the freshman course rarely uses calculus, and the typical economics major makes little or no use of calculus either. This erroneous notion probably comes from perusing the professional economics journals, where higher mathematics does predominate, as it does in graduate programs.

For college level economics, graphs and elementary algebra are the more common tools of mathematics. Since these tools are taught in K–12, some of them can surely be used by the middle school years. Indeed, it is not uncommon for bar graphs to be introduced as early as kindergarten, so economic concepts can (but certainly need not) be taught graphically at that level, as I have done on invitation to my children’s classes. Indeed, the VNCSE presents its twenty basic economic principles in plain English, without any equations or graphs. The general point is that sophisticated disciplines can be taught at K–12 with analytical tools appropriate to the grade. To suggest otherwise would imply that Newton’s Laws of Motion
Discipline-based economics standards cannot be taught in K–12 because they are taught in college using calculus.

There is a second, less easily dismissed reason that students and teachers find economics difficult: the lean and analytical approach that is the discipline’s hallmark. Quite aside from the elementary mathematics or graphs involved, K–12 students (and their teachers) can and do find economics too abstract or too theoretical and therefore too difficult or too boring. Of course, they are right about one thing: economic reasoning is abstract. It should also be immediately granted that some of the standards are too difficult for elementary school or middle school, as the VNCSE clearly indicates, and some of the upper level benchmarks may in fact be too difficult for many high school students as well.

That said, the difficulty students have with abstract reasoning is hardly confined to economics. Algebra and formal logic are surely more abstract. If one rejects (as did Massachusetts) the teaching of ‘economics’ ‘timeless abstractions,’ then by the same logic, Euclidean geometry would also have to be rejected as overly difficult and impractical for K–12 students. And yet, there are good reasons to teach algebra, geometry, and the syllogism at the K–12 level. So too, there are good reasons to teach economics as a set of principles, tied together with logical reasoning.

To teach, for example, the relatively simple lesson that price is almost always inversely related to the quantity of market demand, holding other things equal, is to make an abstract statement. That is so whether the principle is stated verbally or with the aid of a downward-sloping demand curve, the most basic analytical device of economics. Further abstractions are called for in working through the logic of why the demand curve slopes down and the powerful consequences that follow from it. Such abstract analysis can and should be accompanied by illustrative examples, including current events, such as the proliferation of computers as their prices drop, or the effect on teen smoking as taxes are imposed on cigarettes. Historic events can also illustrate, as in the rise in food prices during famines and the historical experience with price controls. But without the abstract analysis, students will be at a loss to answer such questions as the one posed by the controversial 1994 National Standards for United States History: “Why did people have to wait in long lines [in the 1970s] to buy gasoline for their cars?”

Abstract principles can be taught at different levels of difficulty with different levels of formalism. We teach young children the difference
between necessary and sufficient conditions long before we use these terms and before we introduce them to the syllogism. So, too, young children can be readily taught the elementary lessons of opportunity cost and tradeoffs even if we do not use those terms or formal representations. It seems to me that the objection to economic reasoning as overly abstract is, at one level, part and parcel of the same reaction against deductive mathematics instruction, and abstraction in other parts of the curriculum. The result is that college faculty often find their students to be unprepared for rigorous abstract reasoning, more so, perhaps, than in previous decades. This would suggest that there should be more (or better) instruction in abstract thinking, rather than less.

However, there is more to the adverse reaction to the abstract nature of economic analysis. It is arguably more difficult than algebra precisely, and perhaps ironically, because the subject matter is more concrete. A student can pass algebra, at least at a certain low level, by mastering certain rules and applying them consistently to solve algebraic equations. The problem which eventually presents itself is that students often have little understanding of what an algebraic equation means whenever any content is ascribed to the x’s and y’s. By contrast, economic problems are never so abstract as to be completely devoid of content, as in an algebraic expression. The P’s and Q’s in economics always refer to something concrete, such as a price or a quantity, even if it is of some unspecified good. As a result, students often get confused or lulled into sloppy thought until they learn to momentarily suspend their everyday personal experience in order to apply rigorous economic logic. Since everyone thinks they know economics intuitively, it is difficult to derive and understand results that are often counter-intuitive. This is not a problem that applies to learning pure algebra.

Of course, I do not mean to suggest that factual content should be even further stripped from economics to avoid confusing students with the real world. Economics is about the real world. Its abstractions are made for a purpose: to reach a deeper understanding about the real world, to learn lessons that are not obvious on the surface. Economic theory is designed to understand empirical reality and cannot be divorced from it. The authors of VNCSE are certainly aware that students need to know certain basic economic facts, such as the size of the economy, the current rates of unemployment, inflation, and interest, but chose not to build any of the standards around them. W. Lee Hansen expresses general approval of the document, but cites E.D. Hirsch’s arguments to
suggest that perhaps a separate standard on basic economic facts might have been added. It is true that a few economic facts are necessary prior to formal analysis, notably in the area of macroeconomics, as the VNCSE authors note. But for the most part, economic facts are best conveyed through examples that apply economic analysis, and the examples may often be drawn from the newspapers. Economic literacy is truly a matter of reasoning.

Is Economics Ideological, Amoral, Immoral, or Doctrinaire?

What about the substance of economics, its assumptions and implications? What are some of the general lessons of the discipline, and are they welcome in educational circles? There are many who believe that mainstream economics provides an unwarranted defense of free markets, or at least gives short shrift to the case for government intervention. Critics charge that economics serves the interests of the rich and of powerful corporations, wittingly or not, against the less fortunate and the environment. There are those who believe that mainstream economics is obsessed with efficiency at the expense of equity. It is also perceived by some to be an amoral—if not immoral discipline—based on the assumption of greed, and devoid of ethical considerations.

The reader will not be surprised when I write that many of these charges arise out of a flawed understanding of economics, deeply flawed in some cases. But these sentiments are abroad, and it is worth examining these charges to understand the reasons for such hostility, including some failures of the economics profession itself.

Is Economics Ideologically Pro-Market and Anti-Statist?

It is a fact that the study of the price system generally leads economists and their students to a deeper understanding of the functions served by markets (VNCSE standards #7–9), and under what conditions, as well as a more acute awareness of the unintended consequences of some government interventions. But the lessons of economics hardly stop there. Economic analysis also isolates the conditions under which markets fail—notably in the presence of externalities, such as pollution—thereby providing a firmer and more focused rationale for government intervention than those unschooled in the discipline are often able to provide (VNCSE #16). The extension of economic analysis to govern-
ment actors also illuminates the conditions under which the cost of intervention can outweigh the benefits, due, for example, to the inefficiencies of interest group politics (VNCSE #17).

The upshot is that there is a wide range of professional opinion regarding the relative strengths of market and non-market mechanisms in different contexts, due to differing assessments of empirical magnitudes, as well as differing personal values used to weigh the tradeoffs society faces. But in general, it is fair to say that even the more liberal economists, advisors to Democratic presidents, for example, are more wary of some popular government interventions than the general public. This has been repeatedly demonstrated by polls comparing professional and lay opinion on such matters as the minimum wage, free trade, or environmental regulations. In many cases, economists favor alternative interventions (such as wage subsidies vs. minimum wage, or marketable emissions permits vs. direct pollution controls) which try to use, modify, or even create market mechanisms to better achieve economic and social goals. But such subtleties are lost on those education officials who fear that any curricular space granted to discipline-based economics will result in free-market sectarianism inflicted on our children.\(^{21}\)

Is “Value-Free” Economics Amoral?

Economics is often thought to be an amoral discipline. This is because it tries to draw as bright a line as possible between the “positive” analysis of how the economy works and what tradeoffs we face, and the “normative” judgments we might make on how to weigh various tradeoffs and evaluate outcomes. Since normative judgments rest on widely varying values, and since economics has traditionally claimed little or no expertise on those values, the profession typically tries (with varying degrees of success) to present the tradeoffs, while leaving the value judgments to politicians, voters, and others.\(^{22}\) Of course, individual economists have their own values, and these can surely taint their positive analysis as do those of other fallible human beings, but the culture of economics is to at least make the effort, unlike those disciplines that have fallen to the postmodern currents of our day.

This stance is offensive to some. A good example is a recent opinion piece, “God and the National Economics Standards,” by Warren E. Nord, Director of the Program in the Humanities and Human Values at the University of North Carolina at Chapel Hill.\(^{23}\) Nord faults the VNCSE
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and various economics texts for failing to discuss “justice” (particularly religious precepts of justice), and for attempting to be “value free.” At a certain level, this is true: textbook economics does not typically presume to pick and choose among the many different notions of justice at play in the polity.

At a more advanced level, it is not true. There has been much advanced work in economics on defining and measuring various notions of justice and fairness—much work on “normative” economics. To take but one example, economists have long been interested in the philosopher John Rawls’ 1971 classic A Theory of Justice. A number of economists have seriously engaged Rawls’ thought experiment of what kind of distributive system one would choose from behind the “veil of ignorance,” prior to being assigned the skills that generate income. The relations between risk and inequality lie firmly in the purview of economics. Should this kind of analysis be brought down to the K–12 curriculum? Perhaps, but at the present state of the art it might require far more technical expertise than most critics of K–12 economics are willing to abide.

Even at a more elementary level, economics does help focus one’s thinking on the hard problems encountered in the search for justice. The VNCSE pays fully proper attention, for example, to the distribution of income and to the distributional effects of government policies. Justice cannot be served without an understanding of what the tradeoffs are, if any, between equity and efficiency under any given policy. Is justice served by policies which raise incomes of those at, say, the 10th percentile by $1,000 at the expense of an $X,000 drop for those in some higher percentile? Economics instruction can certainly advance the search for justice by leading students to think about such difficult questions as the size of “X” they would be willing to countenance. Is justice served by minimum wage legislation which raises the income of the working poor while reducing the employment of those with the least skills, as some research indicates, or are there better ways to advance distributional equity? Surely the positive analysis of economics has much to offer students in their thinking about justice, even if it left the question of its proper definition to philosophy and religion.

Nord, unfortunately, gives voice to a more widespread misunderstanding when he asserts that the VNCSE gives “no moral weight to the needs of the poor.” The VNCSE (and economics more generally) study the income distribution and the distributional effect of government
policies (see standards #13 and #16, and their more detailed benchmarks\(^{25}\)) precisely because they recognize society accords moral weight to the fortunes of the poor; they just refrain from saying what that weight should be. Unfortunately, economists’ professional aversion to moral posturing\(^{26}\) is misinterpreted by some as moral indifference.\(^{27}\)

Conversely, the normative/positive distinction in mainstream economics is also suspect to some that place highest value on liberty rather than equality.\(^{28}\) The Hayekian view is that mainstream economics’ focus on the level and distribution of economic welfare is overly consequentialist, and neglectful of the primary value of economic freedom, which is, in turn, a prerequisite for political freedom. This idea is pithily captured in the title of Milton Friedman’s 1962 classic *Capitalism and Freedom*.

**Is the “Individualism” of Economics Immoral?**

Economics is sometimes viewed as morally suspect because of the discipline’s simplifying assumption that individuals act to advance their self-interest.\(^{29}\) To state what should be obvious, the assumption does not endorse selfishness, it merely analyzes the consequences of such behavior. Nor does the fact that under certain stringent conditions an economy of such individuals reaches an efficient outcome without government intervention (Adam Smith’s “Invisible Hand” result) in any way imply that selfishness is prescribed. To the contrary, certain forms of market failure, in the provision of public goods, are a consequence of “free-riding” by selfish individuals. To the extent that economics oversimplifies by assuming selfish behavior, it **overstates** the rationale for government intervention rather than **understating** it, as its critics imply. To take another simple example, if we recognize some degree of altruism among economic actors to explain charitable giving, as we certainly must, then the case for government redistribution is **weakened**, not strengthened.\(^{30}\)

Closely related (but not quite identical) is the suspicion of economics’ methodological individualism. The mode of analysis begins with individual consumers, workers, and firms choosing their actions subject to the constraints they face in the market. The analysis continues by aggregating up to find equilibrium in each market and in the economy as a whole.\(^{31}\) From this methodology, critics (of whom Nord provides yet another convenient example) jump to the quite unwarranted conclusion
that “generally speaking, neo-classical theory emphasizes individualism over community.” To the contrary, as economist Kenneth Arrow points out, “method and value are distinct.”

Analyses based in methodological individualism are used routinely to evaluate social outcomes, both for the community as a whole and for subgroups. For example, racial discrimination is most powerfully analyzed by the concept of statistical discrimination (developed by Arrow, among others), whereby individuals rationally (if unfairly) use intrinsically irrelevant group markers in the absence of perfect information on the individuals they encounter. To assert that an analysis which begins with individuals thereby devalues communities or groups makes no more sense than to argue that modern evolutionary biology, which builds up from the logical imperatives of the “selfish gene,” is unconcerned with the species.

What is the alternative to the methodological individualist approach to economics? As Arrow observes, “Whether in Marxist or other forms, such theories relied heavily on disembodied actors, such as classes or national spirits, rather than on the actual persons.” While there remain strongly held minority approaches of this type within economics, it is fair to say that the attraction to such class-based approaches as Marxism is greater among some of those outside the profession (for example, among some historians), who have never studied economics, than among those who have.

Is the VNCSE Unduly Doctrinaire?

An overwhelming majority of the profession subscribes to the consensus principles in the VNCSE, as indicated by periodic surveys of professional opinion. This is true, even though economists notoriously disagree on the policy implications of those principles, as well as on the significance of developments on the frontier. As mentioned above, drafts of the VNCSE were widely circulated and externally reviewed. In the end, there were no dissenting opinions or objections from members of the writing committee. As Hansen observes, “This is a notable achievement, because cantankerous economists pride themselves on registering their objections.”

Nonetheless, adherents to alternative views from outside the profession consider economics unduly narrow for ignoring them. Nord, for example, fairly thunders at VNCSE’s decision to write the standards
around the mainstream, or “neoclassical,” paradigm of economics to the exclusion of Marxist, socialist, and religious viewpoints. He rejects VNCSE’s reason for doing so (given below) as an “appalling” and “profoundly illiberal” rationale for “indoctrination.”

This is an issue that has a long history in economic standard-setting. In 1986, the Joint Council on Economic Education demonstrated its open-mindedness by convening a two and one-half day conference at M.I.T. devoted to the question of whether the Framework (the VNCSE’s predecessor) satisfactorily captured the scope of economic thought. The conference began with a keynote lecture by Paul Samuelson, who recounted that the same issue had arisen from a different angle at the time of the National Task Force in 1960, when his textbook was considered “heresy.” As he described the shifting landscape,

It was the tragedy of my teachers’ generation that, as they grew older, economics grew more liberal, and even radical. It has been the comedy of my era that, as we grew older, our profession became more conservative.

Each of the six sessions at the 1986 conference was built around an invited paper from a prominent critic of the mainstream, such as Robert Heilbroner, Lester Thurow, James K. Galbraith, and Barbara Bergmann. Respondents found some of the criticisms overblown, but the more common and more telling question was simply “whether the expected benefits of change [in the Framework] were worth the opportunity cost....” A decade later, the VNCSE’s authors considered this question and concluded:

Including strongly held minority views of economic processes risks undermining the entire venture. With too many qualifications and alternatives, teachers and their students may abandon economics entirely out of frustration born of confusion and uncertainty.

No doubt the same rationale applies to many fields, since no field is devoid of minority viewpoints. Some of the minority viewpoints might even eventually prevail. Nonetheless, standard-setters usually accord each field its own judgment in such matters. Economics is unusual in that non-economists feel quite strongly about the subject, even if they have not studied it. The only other comparable case that comes to mind is the pressure on biology educators to accord “equal time” to creationism. The dilemma is real. Should parents who believe in creationism, or
Christian economics, or Marxism be denied the right to have their children instructed in these minority views? Certainly not. But it is a rather different matter to require that all children be instructed in every fringe theory, of which there are quite a few in any given field. In short, the critics’ point here is best understood as an argument against having standards at all, and in favor of unfettered school choice. If there are to be standards, then choices must be made about what goes in those standards; and if there are to be economics standards, with rather limited curricular space, then the professional judgments of VNCSE and the vast majority of the profession must at least be the starting point from which public education officials begin.

**Is Economics Best Taught Within Other Disciplines?**

Many educators who reject the disciplinary approach to economics in K–12 believe that it is best taught instead from the perspective of another discipline—history, civics, geography—or under the interdisciplinary aegis of “social studies.” The argument for doing so is that these subjects must be taught anyway, and since they at least touch on economic topics, they present an opportunity to bring economics into the curriculum. How much economics do the standards in these areas contain, and what is its quality?

Stephen Buckles and Michael Watts recently reviewed the economic content of the national standards documents in history, civics, geography, and social studies (817 pages in all). They found a substantial number of economic issues and events raised in these standards. The major problem was that they found very little economic reasoning in the standards that might help students understand the issues and events presented. That is, “they all assume that teachers and students will have or somehow develop an understanding of how market economies allocate resources. It is not always clear that the writers of these volumes have such an understanding themselves...” (p. 166). In terms of the VNCSE, these standards do not convey the principles of microeconomics (standards #7-9) or macroeconomics (standards #18-20).

Since the standards in these subjects do not invoke economic reasoning, it is not surprising that they often seem at odds with the general lessons of the economics discipline. Buckles and Watts provide the following summary assessment:
We found an uncritical acceptance in these documents for wide-ranging government intervention and planning, little or no recognition of the principle of comparing costs and benefits of alternative public policies, an unbalanced emphasis on the costs of economic growth with little attention to accompanying benefits, and a general failure to recognize the range and efficiency of market functions...If these documents were implemented in their current forms, we believe they would contribute to low levels of economic literacy among those students taking only those courses and confuse students who take a separate economics course (p. 165)

The point here is not simply that these standards are generally more statist than VNCSE; the point is that these standards provide little basis for analyzing what governments or markets do well, and what they do not, and why. They particularly lack anything corresponding to VNCSE standard #17, analyzing the sources of government failure, to go along with the analysis of market failure (#16). As a result, students would have little basis to understand, for example, why President Clinton would declare an end to the era of big government, let alone whether this was wise or not.

The National Standards for United States History provide a particularly striking example of the failure to convey economic reasoning to students through the economic content of another discipline. The main reason for this failure is that the standards were developed with no participation from those economists who specialize in economic history, the economic historians. Economic history has, in recent decades, become more firmly grounded in economic reasoning and has benefited greatly from sophisticated statistical analysis (i.e. econometrics). Unfortunately, there is relatively little contact between the history profession and the economic historians. One is struck by Sheldon Stern’s account (in this volume) of the offense taken by history educators at the idea that economic analysis might fruitfully be applied to such topics as slavery. And yet the Nobel Prize in Economics was awarded to economic historian Robert Fogel in large part because of his extensive econometric work on precisely this topic.

The National Standards for United States History, produced at UCLA’s National Center for History in the Schools, went through two published editions, which I shall refer to as UCLA-I and UCLA-II. UCLA-I, issued in 1994, was highly controversial. The U.S. Senate passed a resolution disapproving of these standards by a vote of 99–1. UCLA-I’s economic shortcomings played a small role in the more general criticism they engendered. The NCEE endorsed the standards
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(even though officials there knew of their economic shortcomings) in the hope that they could serve as a vehicle for increasing the economic content of K–12 curriculum.

In the wake of widespread criticism (on non-economic grounds), the standards were revised, and UCLA-II was issued in 1996. Much of the controversy was side-stepped by simply eliminating the teaching examples. But since the teaching examples provided much of the content of UCLA-I, the result is that UCLA-II’s economic shortcomings are primarily errors of omission, as Buckles and Watts conclude. Unfortunately, because the textbook writers, curriculum writers, and state standard-setters need to fill in the missing content, they will often refer back to UCLA-I. In fact, its authors report that “When the new edition was imminent, the NCHS found that orders for the first edition surged, notably from teachers who wanted to get their hands on the practical teaching activities before they disappeared from the market.”

Thus, it is still relevant to consider some examples of the flawed economic content in UCLA-I.

The example that received most attention during the 1994-1995 controversy was UCLA-I’s treatment of the causes of the Great Depression, the most closely studied episode in macroeconomic history. Economic historians have spent decades debating what caused the Depression to be so much deeper and longer than other downturns. They have made considerable progress in disproving certain popular theories, developing others, and marshalling supporting evidence. At the risk of oversimplifying a complicated debate, the two main contenders are the monetarist and Keynesian views. The monetarist view is represented by the massive, detailed work of Nobel laureate Milton Friedman and Anna Schwartz, which places heavy responsibility on the failure of the Federal Reserve System to maintain the money supply as banks failed. The Keynesian view, most fully developed by MIT’s Peter Temin (though originating with the ideas of Barry Eichengreen and Jeffrey Sachs), gives greater weight to international transmission of deflation by adherence to the gold standard.

UCLA-I’s teaching examples on the causes of the Great Depression mention the gold standard in passing, but do not mention the Federal Reserve at all. Herbert Hoover’s support for a balanced budget is mentioned, but the money supply is not. Friedman and Schwartz’s landmark work, which is probably the most influential analysis of the
Depression among economists, is either unknown to UCLA-I’s authors or considered unworthy of inclusion. Instead, UCLA-I’s preferred theories of the Great Depression are those that have been discredited by modern economic research. Chief among these is the idea that the “trickle down” economics of Calvin Coolidge and Andrew Mellon contributed to the 1920s’ widening income inequality, which, in turn, led to the Depression. The precise mechanism is not spelled out, but it would seem to be the rather dated “underconsumptionist” argument. Temin’s calculations show that this “imagined cause” could not account for more than a minuscule portion of the decline in GDP.

The artfully chosen term “trickle down economics” seems designed to anticipate the Reagan era, where the term originated, and to link that era back to the Great Depression. Indeed, when UCLA-I turns to the subject of President Reagan’s economic policies, students are asked to evaluate Tip O’Neill’s characterizations of him as “Herbert Hoover with a smile” and “a cheerleader for selfishness.” Of course, the economy boomed during most of the Reagan years (unlike the Hoover years), but the standards make no mention of that boom at all. They do, however, draw repeated attention to the relatively brief recession during the Bush administration, which at one point they call “the recession of the 1990s.” It is a curious term for the mild eight-month downturn (July 1990–March 1991), associated with Saddam Hussein’s invasion of Kuwait.

The revised standards issued in 1996, UCLA-II, omit the teaching examples and thus much of the content attached to the standards themselves. For example, students are expected to “evaluate the causes of the Great Depression.” But since none is given, it seems likely that state standard-setters, curriculum writers, and textbook writers will refer back to the flawed UCLA-I for guidance. Students are asked to “evaluate major debates among historians” on this and other economic topics, but economic historians are not mentioned. And as Buckles and Watts point out, the students will not have any analytical background to understand economic history or current economic issues without some explicit standards in economic principles, like those given in VNCSE.

Buckles and Watts summarize the tenor of the stripped-down UCLA-II standards:

Throughout most of this document, people are seen as overcoming problems that the economic system imposes on them, often with political responses, or
sometimes with more environmentally enlightened or even Luddite responses.
Emphasis is based on such concepts as class conflict, exploitation...(p. 160).

A focus on income distribution permeates the standards, especially by race and gender. But without the analytical basis to understand this important issue, the material sometimes reduces to a certain amount of posturing, or even analytical error. The discipline of economics has a lot to say about ethnic and gender income differences. But the UCLA authors are not open to it, perhaps out of hostility to methodological individualism in favor of more “social and historical determinism” (to use Arrow’s term) or multicultural and class analysis.

The main lesson from this extended analysis of the history standards is that we simply cannot expect economic principles to be conveyed through such a vehicle. Historians have too much on their hands sorting out the conflicts in their own discipline without trying to convey the principles of a discipline that is rather foreign to most of them and to which many of them are temperamentally hostile.

Can Economics Standards Be Non-Discipline-Based?

Since we cannot expect economic reasoning to be well conveyed through the standards of another discipline, states will have to draft separate economics standards. It might seem logical that such standards would be written by, or least with, economists and/or economics educators. However, curious as it may be, this is not always the case. When economics standards are part of a more general history-social science/studies document, then the team that writes the document may or may not have any economists on it. If not, we are unlikely to get discipline-based economics or other-discipline-based economics, but rather non-discipline-based economics. The Massachusetts History and Social Science Curriculum Framework, which describes its economics strand as “pre-disciplinary,” is a case in point.

The general problems—and lessons for others—can be stated simply, by contrasting the process with the language of the enabling legislation, the 1993 Massachusetts Education Reform Act. That Act mandated the Board of Education to establish K–12 standards in six core subjects, including “history and social science.” This meant that economics, the archetypal social science, would be accorded its own set of standards within the document, rather than simply being woven into the history
standards. This was in fact the outcome: the document contained an economics “strand” with five learning standards, alongside the fifteen learning standards in the history, geography, and civics strands. Beyond that, however, the process and outcome were at variance with at least the spirit of the legislation.

The use of the term “social science” rather than “social studies” carried the clear inference that economics would be taught as a discipline that at least tries to be scientific. Unfortunately, the Board ultimately chose not to be bound by this language. Indeed, in a meeting immediately prior to the Board’s adoption of the standards, the chairman of the Board denounced the economics profession precisely for its “scientific pretensions.”

The Act of 1993 also stated that the standards should be drawn up in a process that “may include,” among others, “leading college and university figures...in subject matter disciplines...” And yet, economics appears to have been the only subject in which no one from higher education was asked to participate, even after some came forward to offer their judgments. Indeed, the standards that were enacted made a point of sharply distinguishing “economics as it is pursued at higher educational levels” from that which the Board deemed appropriate at K–12, a distinction which appears not to have been made in the standards for other disciplines.

Finally, the Act also stated that the standards “shall be constructed with due regard to the work and recommendations of national organizations.” Instead, as we shall see, another key Board member openly dismissed the VNCSE. Although professional humility is always in order, it is still noteworthy that economics is the only field in which Massachusetts entirely excluded the professionals from the process, at least until public controversy forced some accommodation, at the very end.

The economics strand evolved through a long process fraught with highly public controversy because it was part of the inevitably controversial history framework. The process extended over more than two years, went through at least ten drafts, and at least three or four different drafting teams. One important lesson can be immediately drawn from this saga: if the economics strand had been assigned to a team of economists and economics educators, that strand might have been more insulated from the controversy that swirled all around it. Instead, each time the drafting team was replaced, the economics strand was rewritten...
by a new set of non-economists chosen primarily with an eye to how they would write the history standards.

The first drafts were written over much of 1995–1996 in the state department of education, under the supervision of a career official who favored a “multidisciplinary” approach to economics. The result, not surprisingly, was a non-disciplinary approach. The standards simply used the mandated rubric of “economics” as a crude vehicle to devote more of the curriculum to a hodge-podge of topics favored by the authors, such as the rainforests, early Native American life, African village life, etc. They conveyed a tendentious picture of market economies through the examination of advertising’s claims, literary works such as Dickens and Hugo, and the fictional video portrayal of the slave trade in *Roots*, and through teaching children to sing union songs.

The shortcomings of such non-disciplinary “rainforest economics” can be readily grasped by noting that real economic research on the rainforests is based on the principles of externalities (VNCSE #16) that cross national boundaries. Since the draft standards provided no such principles, their treatment of rainforests, and of environmental problems more generally, was devoid of economics. In short, the “multidisciplinary” approach was used to avoid teaching economics rather than to enrich it.

In 1996, Governor Weld appointed a new Board, chaired by John Silber, who brought in a historian to revise the history and social studies standards. As it happens, this historian held strong, idiosyncratic views about how a market economy works, as expressed earlier that year in the *Boston Globe*:

> Having all but eliminated the countervailing powers of labor and government, capitalism is now faced with the problem of how to save itself from itself, by itself. It has never succeeded in doing so before. Now, if ever, is the time for business leaders to confront the danger they pose to themselves and the rest of us...

Naturally, the economics strand remained unburdened by the principles of economic reasoning. Much of what was faulty from earlier drafts was carried over. The new draft was particularly heavy in the area of economic history and suffered from the usual defects, discussed in the previous section. For example, the economically illiterate analysis of the causes of the Great Depression (see note 46) seemed to be in keeping with the author’s view that capitalism would destroy itself without government intervention, and ignored the evidence that faulty policy
choices contributed greatly to the Depression’s depth and length. Throughout the strand, a regulated social democracy was clearly designated as the normative modern economy, but no economic principles were provided by which to understand the costs and benefits of regulation.  

In late 1996, the controversy-plagued standards were re-assigned to yet another drafting team, this time a three-person subcommittee of the Board itself. The economics strand was overhauled by subcommittee member James Peyser, who had solid training in economics and was executive director of an influential market-oriented Massachusetts policy think-tank. His final draft, in April 1997, explained the shift in approach:

Although the ability to apply an economic lens to historical events is important, learning to use the vocabulary of economics and learning to reason about economic issues in a modern market economy have emerged as key goals in the current standard-setting movement.

Peyser and the department of education staff drew explicitly on the VNCSE. The result was a much-improved economics strand. It would doubtless have been improved further yet had Peyser been freer of the constraints of format, organization, and some content handed down to him from earlier drafts. The new draft contained for the first time such basic economic concepts as incentives, opportunity cost, marginal benefit and marginal cost, competition, comparative advantage, GDP accounting, and national income determination. For the first time, supply and demand were included in a serious way, with rigorous teaching examples, instead of simply mouthing the words with no content. In short, after two years of non-disciplinary drafts by previous teams, the draft contained real economics. Nor did it reflect a pro-market or pro-government bias. Students were asked to “evaluate the costs and benefits of government intervention” in various microeconomic and macroeconomic functions and, moreover, were provided the basic principles to make such evaluation.

But in the next twist of the screw, most of these gains were reversed. A new draft was written by yet another subcommittee of the Board, headed by Edwin Delattre, dean of Boston University’s School of Education. A moral philosopher by training, Delattre would reveal in due course his aversion to economics. Much of the drafting was returned to the economically unsophisticated hands of the historian whose previous economics strand had received public professional criticism. Unlike
Peyser’s drafting team, no assistance from professional economists was sought, despite advice to do so.

As a result, for the first time in the long saga of the history and social science framework, the controversy over economics became one of the top issues in the debate. Predictably, the draft received “criticisms from several professors of economics around the state,” according to Chairman Silber. But the very deep flaws were evident to non-economists as well, especially by comparison with the April draft written by Peyser. The economics strand was singled out for strong written criticisms from three of the nine Board members.\(^\text{53}\) Public testimony by several non-economists, including professors of history and political science, also included sharp criticism of the economics strand.\(^\text{54}\)

The issue was clearly drawn. Participants on both sides of the debate clearly stated that the question was whether economics would be taught “as a distinct academic discipline” (to quote Peyser) or not. Indeed, the most immediate change made by the drafting team was to expand the introduction in order to explain why it was rejecting the criticisms in favor of its decision not to teach much discipline-based economics.

The main rationale given for taking a “pre-disciplinary” approach was that “economics is an inherently difficult subject for students in pre-K–12 grades.”\(^\text{55}\) After presenting an inflated notion of the mathematical level of college economics, “including calculus,”\(^\text{56}\) the standards state:

\[
\text{...a student cannot proceed with study of the formal discipline of economics without first having mastered knowledge and skills typical of a college–preparatory senior high school curriculum.}\]

The standards also reject the discipline’s “timeless abstractions” as overly difficult. Instead, the approach taken in Massachusetts is to teach economics by “telling stories,” such as “fairy tales,” in the early grades. In later grades the idea is to connect “the economic facts, reasoning, and concepts to the work that students are pursuing in history, geography, and civics,” i.e., to take the multi-disciplinary approach.

Upon reading the standards and listening to the Board discuss it, one sensed the reason for its non-disciplinary approach was only partly a matter of the subject’s perceived difficulty. Some of the Board was animated by an unmistakable antipathy toward the \textit{substance} of the discipline. As I testified to the Board,
Chairman Silber had taken the opportunity of the untelevised portion of the Board meeting on the standards to pronounce judgment on the profession’s “obscurantism,” hiding behind its mathematical modelling and failing to deliver the goods. In the televised portion of the hearings, Chairman Silber continued his attack on some of the profession’s “trivia and falsifications.” He insisted that he was only speaking of a “small aspect of the field.” But if so, one could only wonder why it was deemed important enough to introduce into the discussion.

In any case, for whatever reason, the June 2, 1997, draft standards were a giant step backward for economic literacy over the April 1997 draft prepared by Peyser. Every change of omission and commission was for the worse. Such fundamental concepts as “incentives” (VNCSE #4) were completely excised—neither the word nor the concept appears at all in the June 2 draft. Nor does the marginal principle (VNCSE #2), one of the most important and basic ideas in economics over the last century. The idea of weighing the costs and benefits of government interventions (VNCSE #16-17) was expunged, replaced by a somewhat uncritical statist bias (e.g., “the law of unintended consequences” is introduced but applied only to scientific and material progress and never to government policies). Without such building blocks, it was hardly surprising that the standards contained no coherent account of how the price system allocates resources and coordinates a market economy (VNCSE #7-9), which is the core of microeconomics.

Since the standards were stripped of much of the essence of economics, one might ask what filled the void? Much of it was filled by the authors’ idiosyncratic interests (e.g., a rather puzzling item on “obsolescence” in the standard on trade, and a preK-4 standard on “gradations and variations in ownership”), a melange of noble sentiments that have nothing to do with economics (e.g., the value of working together appears three times), an excessive focus on economic history and non-market economic systems (e.g., “utopian communist colonies in 19th century America”), and an occasional flirtation with certain romanticized pre-capitalist ideas.

One standard that raised several eyebrows required students to “understand differences between the price of something [and] its intrinsic worth.” This seemed to refer to the medieval doctrine of “just price.”
This suspicion was confirmed by the chairman of the drafting subcommittee, Edwin Delattre, as he defended the standard to the Board:

Criticism...of the idea of “just price” as devoid of scientific content, even if true, does not show the idea to be devoid of significant content.

As this comment indicates, Delattre was perhaps more interested in the moral content of the economics strand than its scientific content, despite the fact that it was written to meet a “social science” mandate.

Delattre’s view of the economics profession was also illustrated by his comment on the VNCSE. In explaining why the VNCSE—content was reduced from the Peyser draft to its very minimal representation in his subcommittee’s draft, he simply stated “there were claims made in [VNCSE] that seemed to me false.” No further details were provided. Immediately following this judgment, the Board defeated the key motion, to replace his draft with the more discipline-based April draft, by a vote of 5-4.

In the end, the drafting subcommittee did respond to a number of the criticisms raised both by economists and non-economists, as well as by other Board members. After the vote, Delattre solicited the suggestions of Peyser. The drafters added the concept of incentives (but never linked it to the price system, as in the fundamental VNCSE #8). They added the marginal principle to various parts of the document (but never deleted the introductory material that students need not be taught how to economize). They deleted the reference to utopian communist colonies (but retained an inordinate emphasis on non-market systems and economic history). They deleted the unscientific distinction between needs and wants, added the idea that individual effort and competition might also be as valuable as “working together,” and slightly reworded a few of the more egregious standards. Some ingeniously chosen “examples” (due to Peyser) were introduced that illustrated sound economic principles rather than the ill-considered standards to which these “examples” were linked. For instance, the standard on price and “intrinsic worth” was effectively undercut by linking it to an “example” on the relation of scarcity to price and the paradox of water and diamonds. Unfortunately, this ingenious use of “examples” to remedy faulty standards may not fully succeed at the district level, since the districts draw mainly on the standards themselves in their curriculum documents and often simply ignore the “examples.”
While containing some real economic content, the Massachusetts standards bear the unmistakable imprint of their tortuous evolution and the absence of economists from their creation. The economics strand has something of the character of a shopping list of concepts, some of which are sound economics, and others of which are not. What it lacks is the coherent disciplinary structure that would have required the participation of professional economists. It is certainly not a model for other states to emulate. They should do what Massachusetts never did: get professional help from the National Council on Economics Education and make full use of the VNCSE.

Ultimately, the quality of economics instruction in Massachusetts (as elsewhere) will be driven by the student assessments. A twelve-member assessment committee for history and social sciences was eventually appointed, after the extended controversy in adopting the framework. Since the economics strand constitutes five of the framework’s twenty learning standards, one might have hoped that a proportionate share of the committee members—perhaps three of twelve—would have some professional economic expertise. The actual number of seats allocated to economists was zero, not even one seat for an economic historian. It is very hard to understand how such a committee would be able to come up with sound economics test questions or, indeed, how it would be able to choose questions from off-the-shelf tests, such as the NCEE’s Test of Economic Literacy.

The fundamental problem in Massachusetts was that although the state law had mandated standards for social sciences, the authorities charged with carrying out that mandate simply did not want much economics in the curriculum, for a variety of reasons. In part, there was an obdurate exaggeration of the level of mathematics required. In addition, Delattre and Silber, two moral philosophers by training, had some aversion to economics’ value-free approach and/or its perceived free-market stance. The specific lesson illustrated by the Massachusetts experience is that this obstacle to discipline-based economics transcends simple political categories. It is not only far-left critics who are suspicious of economics but also some social conservatives.

Another, perhaps more fundamental obstacle was Silber’s view that history, geography, and civics are really all the social studies that belong in K–12 and that there is simply no room for economics. I cannot say that he is wrong about K–12 priorities. Since the most fundamental lesson of economics is that life is full of tradeoffs, those of us in the
profession certainly understand that people will differ on how to weigh those tradeoffs. Economists, and others with less obvious turf to protect and promote, have made the case for K–12 economic literacy elsewhere. It is for others to decide if that case is persuasive. But unless and until the authorities are clear on that decision, one cannot hope for sound economics standards. Thus, I closed my testimony to the Massachusetts Board with a question that any state board should ask itself before drawing up its standards:

Does the Board in fact want economics taught in K–12? If the Board cannot find people who like economics to write the standards, then perhaps the Board should simply drop the effort entirely, rather than inflict on the children of the Commonwealth something you yourselves do not believe in.

Conclusion

Any state that decides to set discipline-based economics standards using the VNCSE faces some serious implementation challenges: how much economics can fit into the curriculum, in what grades and courses will it be taught, and how will teachers be trained? VNCSE calls for a significant increase in the economics component of the K–12 curriculum at the same time that curricular demands are rising in other subjects, at least some of which merit greater priority. It is, in fact, a legitimate question whether the quantity of VNCSE material is too great to fit into a crowded K–12 curriculum, where economics is accorded only a one–semester high school course, portions of non-economics courses such as history, or scattered units in the elementary social studies curriculum. It is conceivable that a comprehensive curriculum can be designed which at least touches on all twenty standards, but it seems likely that school systems will have to prioritize which standards are to be covered in any depth. VNCSE is not to be faulted for setting out the lay of the land, especially since quite a bit of prioritizing went into the selection of these twenty standards. But further difficult tradeoffs will almost certainly confront most school systems, and they will need sound professional advice from the community of economists and economics educators.

Traditionally, most of the K–12 economics instruction has taken place in a senior year elective. Enrollment in such a course has grown since 1961, reaching about 45 percent by 1990. A good part of this rise occurred during the 1980s, as a number of states began mandating a course in economics for graduation from high school, although the
quality and content of such courses has varied widely. But this may be changing. Following the Federal Goals Act, VNCSE sets benchmarks of “competency over challenging subject matter” for grades 4 and 8, as well as 12. Preliminary indications are that in recent years the rise in twelfth grade economics may be reversing itself, as state mandated economics instruction moves to the earlier grades. If so, the addition of economics to the federal goals in 1994 and the creation of VNCSE in 1997 might have the unintended effect of reallocating economics to lower grades and to non-economics courses, rather than increasing the overall economics content of the curriculum.

The reallocation of economics content to lower grades and non-economics courses poses serious challenges for instruction. As is well-known, teacher preparation in economics, which has never been particularly strong, even for many twelfth grade economics instructors, is much weaker among elementary and middle school teachers, and non-economics social studies teachers in high school. It will be a tall order to improve the economics training of such a broad spectrum of teachers. Research indicates that non-credit, in-service workshops in economics are ineffective: economic reasoning is a distinctive skill that cannot be casually picked up on the side. It will require either an increase in pre-service, college-level economics, or in-service courses for college credit. If it proves impossible to achieve this result on the broad scale required, then perhaps it will be necessary to move toward a system of economics specialists, analogous to those in art, music, and foreign languages, at the elementary level as well as secondary.

Moreover, research shows that although a high school economics course typically raises student scores on standardized economics tests, there is little or no discernible effect from economics “infusion” into other social studies courses. This negative result probably reflects the more diffuse nature of such courses, as well as the lower degree of economics training among teachers in these other social studies courses.

The implication is very clear: if the reallocation of economics into lower grades and non-economics courses is to have any payoff, it must be accompanied by strong and effective economics standards. Equally or even more important will be the adoption of strong and effective student assessments that will operationalize the standards and drive the curriculum and teacher preparation. Much depends on the writing of these assessments, and all the issues that arise in the standards debate arise here, too.
The VNCSE represents a major step toward discipline-based economics instruction in K–12. It is too early to tell whether the potential created by this nationally recognized set of standards will be fulfilled—there have been other such efforts in the past, and yet economic literacy is still quite low. Many of the obstacles that can, but need not, arise are illustrated by the cautionary tale of Massachusetts.\textsuperscript{77} Other states have done a better job with the help of the economics education community. One thing seems certain: we will not have strong or meaningful economics standards and assessments without the participation of economists in these activities.

I have stressed the resistance of many in the education community to the ideas of economics on their own grounds. But in addition, we should not dismiss the influence of self-interest. We should not be surprised that the leaders of a public education system that is largely sheltered from the forces of competition and heavily influenced by a strong teachers’ union are less open to understanding the strengths of the market and the forces of competition than even the general public, let alone the economics profession. This follows from the same principle of understandable self-interest (real or at least perceived) that leads trade unions to favor the minimum wage and to oppose free trade. Indeed, as the debate over market-based education reform escalates, and the education establishment mounts its defense, this may not be the most propitious moment to ask that establishment to introduce the serious study of economics to the curriculum!\textsuperscript{78}

Nonetheless, it is probably true that low economic literacy, rather than naked self-interest, is the main obstacle to a major upgrading of K–12 economics. That is, unless and until the education community becomes more conversant in economics, there will remain, at best, a certain ambivalence about bringing economics into the curriculum in any serious way. This may be a case of what economists call multiple equilibria. We may be stuck in a low-level equilibrium trap, where low-economic literacy on the part of the general public and the education community in particular is itself preventing the steps necessary to an improvement in the next generation’s economic literacy.\textsuperscript{79} There may be a higher-level equilibrium, where economic literacy is widespread and sustains itself by transmission to the next generation, but we cannot get to that high-level equilibrium from the current low-level one without a large, discrete leap of some kind. If so, this would explain the disappointing results of the last 40 years of organized attempts to improve K–12 economics. It
remains to be seen whether the current standards movement, and the VNCSE in particular, will provide enough momentum to make the necessary leap forward.

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Appendix: Voluntary National Content Standards in Economics *

Students will understand that:
1. Productive resources are limited. Therefore, people cannot have all the goods and services they want; as a result, they must choose some things and give up others.
2. Effective decision making requires comparing the additional costs of alternatives with the additional benefits. Most choices involve doing a little more or a little less of something; few choices are “all or nothing” decisions.
3. Different methods can be used to allocate goods and services. People acting individually or collectively through government must choose which methods to use to allocate different kinds of goods and services.
4. People respond predictably to positive and negative incentives.
5. Voluntary exchange occurs only when all participating parties expect to gain. This is true for trade among individuals or organizations within a nation, and usually among individuals or organizations in different nations.
6. When individuals, regions, and nations specialize in what they can produce at the lowest cost and then trade with others, both production and consumption increase.
7. Markets exist when buyers and sellers interact. This interaction determines market prices and thereby allocates scarce goods and services.
8. Prices send signals and provide incentives to buyers and sellers. When supply or demand changes, market prices adjust, affecting incentives.
9. Competition among sellers lowers costs and prices, and encourages producers to produce more of what consumers are willing and able to buy. Competition among buyers increases prices and allocates goods and services to those people who are willing and able to pay the most for them.
10. Institutions evolve in market economies to help individuals and groups accomplish their goals. Banks, labor unions, corporations, legal systems, and not-for-profit organizations are examples of important institutions. A different kind of institution, clearly defined and enforced property rights, is essential to a market economy.
11. Money makes it easier to trade, borrow, save, invest, and compare the value of goods and services.
12. Interest rates, adjusted for inflation, rise and fall to balance the amount saved with the amount borrowed, which affects the allocation of scarce resources between present and future uses.

13. Income for most people is determined by the market value of the productive resources they sell. What workers earn depends, primarily, on the market value of what they produce and how productive they are.

14. Entrepreneurs are people who take the risks of organizing productive resources to make goods and services. Profit is an important incentive that leads entrepreneurs to accept the risks of business failure.

15. Investment in factories, machinery, new technology, and in the health, education, and training of people can raise future standards of living.

16. There is an economic role for government in a market economy, whenever the benefits of a government policy outweigh its costs. Governments often provide for national defense, address environmental concerns, define and protect property rights, and attempt to make markets more competitive. Most government policies also redistribute income.

17. Costs of government policies sometimes exceed benefits. This may occur because of incentives facing voters, government officials, and government employees, because of actions by special interest groups that can impose costs on the general public, or because social goals other than economic efficiency are being pursued.

18. A nation’s overall levels of income, employment, and prices are determined by the interaction of spending and production decisions made by all households, firms, government agencies, and others in the economy.

19. Unemployment imposes costs on individuals and nations. Unexpected inflation imposes costs on many people and benefits some others because it arbitrarily redistributes purchasing power. Inflation can reduce the rate of growth of national living standards because individuals and organizations use resources to protect themselves against the uncertainty of future prices.

20. Federal government budgetary policy and the Federal Reserve System’s monetary policy influence the overall levels of employment, output, and prices.

*The VNCSE principles, given here, are stated in lay language. Economists seeking a quick translation into the terminology of the discipline may find it in Siegfried and Meszaros, op. cit., Appendix A. As stated in the text, each VNCSE standard also includes a one-sentence general statement of skill expectations, a few paragraphs of rationale, and about two pages of more detailed benchmarks.
Notes

1 The 1989 National Education Goals, set by President Bush and the nation’s governors, specified five subjects: English, mathematics, science, history, and geography. The arts, civics, and foreign languages were added to the list by 1991–92, when the Education Department made awards to national groups for the establishment of standards. By including economics, the 1994 Federal Goals 2000 Act brought the number of academic subjects to nine. (See Diane Ravitch, National Standards in American Education: A Citizen’s Guide, Brookings Institution, Washington, D.C., 1995.)


3 Of course, the national history standards also drew much fire from outside the discipline, including the U.S. Senate. (As discussed below, I also criticized the history standards, over its economic content.) But the controversy would likely not have been sustained had there not been substantial disagreement among historians, e.g. Arthur Schlesinger, Jr.'s critique of the 1994 National Standards for U.S. History.

4 The one significant, albeit minority view is from those economics educators who de-emphasize economic analysis in favor of a more business-oriented stress on marketing, accounting, and the like.

5 Survey data analyzed by William Walstad led him to conclude, “What is especially disturbing is that people who have no basic knowledge about an economic issue are quite willing to state an opinion on that issue.” (“Why It's Important to Understand Economics,” The Region 12 (4), December 1998, Federal Reserve Bank of Minneapolis, pp. 23-26. This special issue, on economic literacy, contains a number of articles referred to below. It can be found at http://woodrow.mpls.frb.fed.us/pubs/region/98-12)

6 Full disclosure: I was an open critic of the Massachusetts economics standards at the time, as detailed below.

7 This section draws mainly on the VNCSE itself and John J. Siegfried and Bonnie T. Meszaros, “Voluntary Economics Content Standards for America's Schools: Rationale and Development,” Journal of Economic Education 29 (2), Spring 1998, pp. 139-149.

8 The other partners in this project were the National Association of Economic Educators, the Foundation for Teaching Economics, and the American Economic Association's Committee on Economic Education.

9 By contrast, the national standards documents in history, social studies, civics, and geography average over 200 pages. One of the VNCSE's key objectives was parsimony. The document's relative brevity reflects the principles-based approach that defines economics, as opposed to the more expansive principles-based and necessarily factually substantive approach characteristic of history, geography and civics.

10 See Siegfried and Meszaros for a fuller description.

11 William B. Walstad provides relevant historical background in “Economics Instruction in High Schools,” Journal of Economic Literature 20 (December 1992),
Efforts to upgrade K–12 economics from the descriptive non-analytical approach of an earlier era date to 1960, when the American Economic Association and the Committee on Economic Development created the National Task Force on Economic Education. The Task Force recommended economics be taught with “central emphasis on the rational way of thinking.” Its 1961 report included a list of 45 concepts and institutions. In 1977, the Task Force report was replaced by the Joint Council on Economic Education (NCEE’s previous name) Framework for Teaching Economics: Basic Concepts. The Framework streamlined the content to a shorter list, with better organization, again stressing the analytical and rational approach. It was revised in 1984, resulting in 22 basic economic concepts, under four categories: fundamental, microeconomic, macroeconomic, and international. According to Walstad, this document “significantly influenced economics instruction” through curriculum guides, textbooks, and other teaching materials. The VNCSE is the successor to these documents.


This latter issue, that teachers or potential teachers are often intimidated by the perceived difficulty of economics, is perennially raised in discussions of teacher preparation, e.g. Walstad (1992), *op. cit.* This issue was directly raised in Massachusetts, as discussed in Note 55 below. Sometimes education policy makers and standard setters also seem to be intimidated by the subject. *The Region, op.cit.*, p.48.

The 20 standards themselves eschew the discipline's terminology. Terms such as opportunity costs, equilibrium and externalities are relegated to the benchmarks. The VNCSE also refrains from using such technical concepts found in college courses as elasticity and diminishing marginal returns. Indeed, there has been at least one complaint that the VNCSE demands too little (K.Pennar, “Economics Made Too Simple,” *Business Week*, January 20, 1997, p.32), a charge rejected by the VNCSE authors, and, I think, rightly so. The VNCSE authors aimed for standards “to be challenging but attainable” by 95 percent of high school graduates “exerting a sustained effort,” and in seeking that level, the authors chose “to err in the direction of too challenging rather than insufficiently challenging” (Siegfried and Meszaros, *op. cit.*, p. 144). By the incremental logic of standard #2, we should first try to implement the rather substantial improvement represented by the VNSCE, before ratcheting up the demands any further, as Pennar suggests. A good candidate for the first omission to be rectified is the concept of present discounted value, which is central not only to matters of personal finance (such as mortgages), but also to understanding the future of Social Security.

Standards #12, 17 and 20) have no fourth– or eighth–grade benchmarks; #18 has no fourth–grade benchmark.

The same thing can be said about calculus. College students can readily learn the rules to find a derivative, but are often unable to interpret a derivative in the context of actual variables; they are unable to translate the result into plain English. To the extent that these problems can be ameliorated by applying mathematical techniques to concrete problems in math class, economics provides a ready set of examples,
both at the college and pre-college level. For example, the techniques for solving a pair of simultaneous linear equations can be readily illustrated for middle school students with supply and demand equations, yielding equilibrium (market-clearing) price and quantity.


21 In times past, the external critique of economics standards was rather different. In 1961–1962, the Wall Street Journal ran four lengthy editorials tagging the Task Force report (VNCSE's predecessor) as “Statism for Sophomores” (Walstad (1992), op. cit., p. 2034).


23 Warren E. Nord, “God and the National Economics Standards,” Education Week, October 21, 1998. At the risk of over-emphasizing the importance of this piece, I shall use Nord as a convenient example of a number of shibboleths about economics. His innocence of the field is illustrated by his discussion of the environment, which seems oblivious to the well-developed economic analysis of environmental problems, and the practical policy prescriptions which have helped so much to clean up the nation's air and water in recent decades. Nord's empirical grasp is indicated by his assertion that “we find ourselves engulfed in a catastrophic environmental crisis.”

24 The moral philosopher John Silber provides an insightful analysis of the minimum wage as an application of moral choice in the public arena (Straight Shooting, Harper-Collins, New York, 1990, pp. 191–2). He specifically cites the contribution of economics to the moral calculus: “The law of supply and demand is inflexible in this regard; there is no economic incentive to hire artificially overpriced labor.”

25 The second sentence of standard #13 is unfortunately worded, a casualty of the tension between VNCSE's goals of accuracy, parsimony, and accessibility of language. In attempting to avoid the jargon of marginal productivity theory, the standard misrepresents that theory by stating that wages depend on “how productive” workers are. Without such qualifying phrases as “on the margin” or “how much the last worker adds to output,” the statement is incorrect and seriously misleading since no meaning can be attached to the “productivity” of any given worker without reference to the other inputs, including other workers, capital, etc. Unfortunately, this type of inaccurate statement is partly to blame for the facile charge that economic theory provides an apology or justification for the distribution of income. Critics of marginal productivity theory wrongly ascribe to it the implication that wages are determined “fairly” because each worker supposedly gets his or her “contribution to output.” But marginal productivity theory, properly understood, makes no such claim since it does not turn on any ill-defined
“contribution to output.” Indeed, it is perfectly consistent with marginal productivity theory for each worker's wage to fall when all workers exert, say, twice the effort. (This result obtains under certain conditions, when the adverse effect on wages of expanding the effective amount of labor outweighs the fact that each worker is rewarded for more units of effective labor, i.e. for more effort.) Such a result clearly contradicts any reasonable meaning of “fair”. Thus, marginal productivity theory simply does not say that wages are “fair.” The wording of standard #13, unfortunately, contributes to this misunderstanding.

The term may seem uncharitable, but one hardly knows how else to characterize such statements as Nord's pointed use of the 1986 American Catholic bishops' statement on the economy: “economists, like all of us, must realize that ‘human dignity, realized in community with others and with the whole of God's creation, is the norm against which every social institution is measured.’”

Of course it is true that, like non-economists, some economists may well be morally indifferent to the fortunes of the poor, in their personal or professional capacities, or both. Some economists certainly devote their considerable talents to helping investors get richer, while others devote their careers to studying income inequality. This no more defines the moral content of the economics profession than does the fact that the construction industry builds low-rent housing and luxury condominiums.

Textbook writer Paul Heyne, who came to economics as a divinity student, also argues against the normative/positive distinction on the grounds that market principles advance moral purposes (“Moral Misunderstanding and the Justification of Markets,” The Region, op. cit. pp.29–32). His view is rooted in the consequences of markets for material well-being by virtue of the price system's superior informational properties. This is also a Hayekian theme, albeit a different one from the primacy of liberty.

Nord provides yet another convenient example of this confused line of attack. He argues that in contrast to economics' analysis of “self-interested utility-maximizers, no religious tradition allows self-interest to be accepted as normative…[VNCSE] show[s] no interest whatever in altruism or compassion.”

As in the case of “justice,” there is quite a bit of advanced work in the study of altruism and its opposite, envy. Should this be brought down to the elementary level? Perhaps, since many important phenomena, such as bequests and charity, cannot be understood without it. But many other insights can be obtained without such a generalization, and there are large benefits to simplification.

As Kenneth Arrow (“Methodological Individualism and Social Knowledge,” American Economic Review 84 (2), May 1994, pp. 1–9) points out, methodological individualism is most rigorously followed in game theory, which is increasingly important in economic analysis although absent from VNCSE.

He might also have noted the exclusion of Austrian economics, i.e., Hayek, von Mises, et. al. Indeed, in 1963, Chicago economist (and later Nobel Laureate) George Stigler objected to the National Task Force report for exclusion of similar non-mainstream views (Walstad (1992), p.2033).

William Baumol’s wry appropriation of the old saw has become standard. “I am here to report that there is absolutely nothing wrong with the current state of economics and that, besides, the discipline’s fundamental problems are being remedied as quickly as can reasonably be expected.” As he aptly states, “Our political goals differ; our social goals differ. It is only our analyses that have a great deal in common. The last of these facts, incidentally, is one of the basic misunderstandings of the general public.” With regard to the well-known criticisms of mainstream economics, he finds “no working alternatives to the mainstream approaches, with all their warts and blemishes.” (“Economic Education and the Critics of Mainstream Economics,” Journal of Economic Education, 19(4), Fall 1998, pp. 323–330).


Siegfried and Meszaros, op. cit., p. 143.

In making this comparison, I do not mean to suggest that the weight of scientific evidence in support of mainstream economics is as strong as that supporting evolution. I mean only to compare the confidence with which those outside these two professions substitute their judgment of the evidence for those within.

Steven Arons makes this case on First Amendment grounds (Short Route to Chaos: Conscience, Community, and the Re-constitution of American Schooling, 1997, University of Massachusetts Press: Amherst).

They confine themselves to the revised history standards, referred to below as UCLA-II. The original standards, UCLA-I, were considerably worse and, as discussed below, are still unfortunately influential. (Stephen Buckles and Michael Watts, “National Standards in Economics, History, Social Studies, Civics and Geography: Complementarities, Competition, or Peaceful Coexistence?” Journal of Economic Education 29 (2), Spring 1998, pp. 157–166).

In fairness to UCLA-I, one of the teaching examples does pose the question, “Was slavery profitable?” to which much of Fogel’s work was addressed. However, it is unclear whether the contributions of economic historians would be included, since both UCLA-I and UCLA-II call for students to “evaluate major debates among historians” on economic aspects of slavery.


Gary B. Nash, Charlotte Crabtree, and Ross E. Dunn, History on Trial, 1997, Albert A. Knopf: New York, p. 254. Nash and Crabtree co-directed the history standards project. As the authors explain, the standards were revised subject to the independent review of a Council on Basic Education committee that included such critics of UCLA-I as Diane Ravitch. “The NCHS assured the CBE commission that it would not reprint the first edition because the new book superseded it. But Nash and his associates rejected the ‘defective Corvair’ theory that the first editions…should be ‘recalled’ or withheld from teachers, libraries, or any citizens who wanted them.”

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45 The teaching examples do mention the collapse of the banks. But instead of mentioning the Federal Reserve’s failure in this regard, UCLA-I seems to lead students to the opposite conclusion by asking them to consider the view that while Hoover “provided relief for banks, he refused it to people.”

46 The standards also seem to imply that the stock market crash contributed significantly to the Great Depression, a view that “time has not been kind to” (Temin, p.6), especially since the rather similar 1987 crash had no adverse effect on the economy. In addition, the teaching examples cite the Smoot-Hawley tariff, an argument that “fails on both theoretical and historical grounds,” according to Temin, if for no other reason than the export sector of the U.S. economy was too small for any retaliatory tariffs to have much effect. Finally, the teaching examples for the causes of the Great Depression mention “the increased productivity of business in the 1920s” and note that “mechanization displace[d] workers.” The point here is not clear, but some curriculum writers or state standard-setters might take this to refer to the archaic notion of “overproduction”, a concept that is “not useful…in the investigation of the Great Depression” (Temin p.5).

Two years after the national history standards controversy, the story was replayed in Massachusetts, and the example of the Great Depression’s causes arose again. A November 1996 draft of the Massachusetts History and Social Science Frameworks asks students to consider the roles played “by industrial over-production or underconsumption, by income disparities, by unregulated stock market speculation,” among others. As I explained to the Massachusetts Board of Education (January 15, 1997), such theories are “economically illiterate…if over-production caused 25% unemployment in 1933, then by the same logic, we should have 100% unemployment in the vastly more productive economy of 1997.” The final standards, issued in September 1997, excise “over-production,” and add the Fed, but still heads the list of causes with the stock market crash and the idea that “low incomes of farmers and industrial workers…limit mass purchasing power.” Some “imagined causes” die hard. It seems that some redistributionist critics of market economics have so little confidence in a direct appeal to equity considerations that they must also argue that income disparities depress aggregate demand. It may be a convenient argument but as an explanation of the Great Depression is not support by the evidence. After all, our own era’s rise in income inequality since the 1970s is a matter of concern in its own right, even though it did not lead to any Great Depression or even to the lesser downturns we have experienced.

47 There are other shortcomings in UCLA-I’s treatment of postwar economics: (i) The “unprecedented economic growth” in the postwar period is attributed to increased defense spending and international prominence, compared to war-devastated Europe and Asia. This demand-side view is not much credited among economists, since
defense and exports constitute relatively small portions of GDP, and in any case, is irrelevant to what made the period’s growth so “unprecedented,” namely the high rate of productivity growth. (ii) Similarly, the growth in service sector employment is discussed in demand–side terms, without any reference to long-term supply–side trends. Ever since the enunciation of “Baumol’s Law,” it has been well understood that the main force driving up the service sector’s share of employment has been the relatively rapid growth in manufacturing productivity. (iii) The standards ignore the role of monetary policy in both the inflationary period of the 1970s, and in ending that inflation, through the recessions of 1980–1982. But of course even if monetary policy were included, students would have little or no basis for understanding it, without a grounding in the principles of macroeconomics.


He later resigned his position with a very public blast against the “Western” tilt taken by a subsequent drafting team. (Dan French, “Reform is undercut in favor of ideology,” *Boston Globe*, January 14, 1997.)

Sheldon Stern has commented on *Roots*’ historical inaccuracy elsewhere in this volume. The slave trade is presented as the sole example of “how trade influences and/or transforms societies.”

For example, the draft asked students to “describe the renewed debates of the late 20th century over the degree, and aims, of government intervention in the American economy and government regulation of private economic power, and explain the rival interests involved.” Note that the terms of the debate are limited to “rival interests” and power, with no reference at all to costs and benefits in terms of efficiency.

This team used the Virginia standards as the basis for its work. Virginia’s standards were rated top in the nation for history by the Fordham Foundation, but were thin on economics.

Board member Roberta Schaefer took special note of the questionable economics in the history sections. For example, noting the somewhat tendentious standard that asks students to “assess the complicity of government and private institutions in perpetuation of economic injustice,” Schaefer wrote “just what is meant by ‘economic injustice’: that some people are richer than others?”

Richard Bennett, who had helped write earlier drafts, found that in the June draft “the economics strand grossly oversimplifies the field of economics, reducing it to studies in history and ethics….the economics strand is decidedly underwhelming.” Marc Landy, chairman of the political science department at Boston College, also found that the economics strand “misses the essential…it doesn’t explain free market principles…how the political economy of the United States works at the core. Supply, demand, price, marginal utility: these are not matters that can be left to college students.” Finally, Stephan Thernstrom, the Winthrop Professor of History at Harvard University, noted the “woefully inadequate treatment of economics in general here that shows up in history.”

A related reason given was that the subject is too difficult for teachers. Silber wrote that discipline-based standards “would require teachers who are economics majors.” Delattre told the Board that there was “no greater source of concern in the field
[apparently referring to the state’s teachers] than the status of economics in the framework.”

56 This view was reiterated by Delattre at the Board’s June 16, 1997, meeting: “It has seemed to me clear that economics cannot be taught in schools fully to the standards of professional economists, who present economics in terms of mathematical models, especially those which turn on the calculus.” Boston University’s Professor Laurence Kotlikoff tried, to no avail, to correct this misperception about college economics, writing to the Board, “With the exception of certain advanced courses, we do not use anything beyond high school algebra in any of our undergraduate courses.” In any case, as Peyser pointed out in the Board meeting, his April draft did not anticipate the use of calculus, differential equations or any other higher mathematics for the instruction of K–12 economics. The tools required, he pointed out, were no more demanding or abstract than required for K–12 mathematics and science: simple algebra and graphs.

57 This was the version approved by the Board at its June 16, 1997, meeting. The final published version replaced the phrase “. . . typical of a college-preparatory . . .” with “. . . required in a sound. . . .”

58 Indeed, the introduction to the economics strand implies that it is unnecessary to teach marginal analysis: “We teach economics not to train children to be economic actors. They will become economizers regardless of how they are educated, because that is part of human nature.” The point is false in important respects. Those uneducated in economics often confuse average and marginal benefits and costs, resulting in wrong-headed personal and policy decisions, including environmental policy.

59 As Peyser wrote, “this is hardly a central concept, unless you want to slam corporations for ‘planned obsolescence.’”

60 Among historians of economic thought, there is some debate regarding what Aquinas and other medieval thinkers meant by “just price.” According to Raymond DeRoover, Aquinas’ concept corresponded to what economists now refer to as the long-run equilibrium price. John Duns Scotus’ view was perhaps closer to the value–laden version associated with the term today.

61 In a similar vein, Delattre’s remarks continued by defending the June draft’s standard on the distinction between “needs and wants.” This is a common feature of non-discipline-based economics standards, despite the fact that it has nothing to do with economics. The analysis of supply and demand applies in the same way to those goods commonly (if imprecisely) referred to as “needs” as they do to “wants.” Delattre defended this standard by stating “we would scarcely be willing to encourage students to believe that not wanting to do something is the same as not needing to do it, whether in economic or other contexts.” What seems to motivate this idea is that schools and parents can and should try to shape their children’s priorities (or “preferences,” to use the language of economics)—a perfectly defensible normative function of moral education. The function of economics is quite different, to provide a positive analysis of how preferences—of whatever type and origin—play themselves out in the market.

62 The student member of the Board was among those voting for the April draft, evidently rejecting the argument that discipline–based economics was too difficult for students.
Brookline is one district that reproduced the flawed state economics standards in its curriculum frameworks while excluding all of the “examples”.

Laurence Kotlikoff wrote the Board urging it to have some “first-rate economist not just kibitz, but sit down and formulate the standard. The resulting product will not be above or beyond the teachers. What it will be is economics, not some non-economist’s misconceptions of the field.”

Board members Abigail Thernstrom and Roberta Schaefer strongly urged this step in response to my suggestion at the June 1997 Board meeting.

Interestingly enough, the content guide to the economics section of the Massachusetts teacher tests is much better than the curriculum frameworks.

See, for example, the contributions of William Walstad and Bonnie Meszaros, Mary Suiter, and Michael Watts (among others) in *The Region, op. cit.* Also, the VNCSE itself contains a separate rationale for asking students to understand each of the twenty standards. Of course, the fact that economic literacy is so low (as indicated in periodic surveys of the general public by the NCEE) in the world’s most prosperous economy suggests that some modesty may be in order: if economic education does not take off, perhaps we shall continue to muddle through reasonably well anyway. Indeed, not all economics professors favor K–12 instruction if they think it will be so poorly done that students will have to be re-taught at college. As Paul Samuelson put it, in attributing this view to his teacher, “Jesuits like to work with virginal material” (Samuelson, *op. cit.*, p.107).

Board member Schaefer suggested a vote on this basic question but was overruled.

Writing in 1992, as the standard-setting movement was picking up steam but before economics was added to the national goals, Walstad, *op. cit.*, anticipated that the national standards movement might squeeze out economics in favor of other subjects.

For example, the economics standards in Delaware’s Social Studies Framework is four pages long (vs. 46 for the VNCSE). It predates VNCSE (1995 vs. 1997) but is similar in spirit, perhaps because the University of Delaware’s Centre for Economic Education and Entrepreneurship played a role in both undertakings. Delaware sets out many of the same VNCSE principles in a total of 18 benchmark under four standards: microeconomics, macroeconomics, economic systems, and international trade.

See Walstad (1992) and (1998), *op. cit.* Also, AP economics courses were introduced in 1989. The number of AP examinations in economics has grown to about 1% of high school graduates. The significance of this development may exceed its numbers, by improving the content of the economics curriculum as well as teacher training, with possible spillovers to the non–AP curriculum.

This statement is based on a phone conversation with John Clow, who is preparing a report on these trends for the National Council on Economic Education.

For a different perspective on this dilemma, see Cecilia A. Conrad, “National Standards or Economic Imperialism?” *Journal of Economic Education* 29 (2), Spring 1998, pp. 167–169.

See, for example, Walstad (1992), *op. cit.*, Section V, Meszaros and Suiter, *op. cit.*, and Michael K. Salemi, “How Economists Can Improve Economic Education,” also in the December 1998 issue of *The Region*, pp. 35–37. A 1985 transcript study found that social studies teachers candidates averaged 4.0 credit hours in economics,
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compared to 21.9 in history, 9.0 in political science, 8.0 in psychology, and 5.8 in sociology. Among elementary school teachers, fewer than half had any college courses in economics, as of the mid–1980s.

Professional development seminars may be able to improve K–12 economics pedagogy to those who already have a college-level background in this discipline.

Massachusetts may have another chance to get it right. Even as I write, in early 1999, James Peyser has become chairman of the Board of Education after John Silber stepped down and recommended Peyser as his replacement.

The Massachusetts History and Social Science Curriculum Framework provides an example of slanted coverage of education reform issues. In discussing the inner cities in the 1980s and 1990s, the framework states that “unequal school funding raise[d] new racial tensions” (p.38). It is curious that the Massachusetts Board of Education would put such a statement in the curriculum when many urban school districts, in Massachusetts and elsewhere, spend more than the state average per pupil.

Another example may be found in some of the transition economies, where, according to the NCEE, it is proving difficult to upgrade the low level of economic literacy after decades of Communist rule, even though the benefits top be gained might well be quite large. Some of these countries are apparently more interested in upgrading business training—marketing, management, etc. — than economics per se, according to Patricia Elder, “The Challenge of Economic Literacy in Post–Soviet Countries,” The Region, op. cit., pp. 51–53. Paul Heyne, however, reports that his students in Hungary understand market economy principles better than his American students because of their eagerness to transform a dysfunctional economy (Ronald Wirtz, “Econ 101: Is this the Best Way to Teach Economics?” The Region, op. cit., p.57).