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ABSTRACT

This publication is the first in what will be a new set of Academy in Transition policy and research reports on important trends in undergraduate education and the changing environment in which colleges and universities are educating a much larger percentage of the population. College-level learning in high school is a rapidly growing, but little-studied, phenomenon. With well over a million Advanced Placement (AP) Examinations taken by more than 700,000 high school students, AP plays an increasingly visible role in defining the content and standards of high school college-entry-significant courses. College-level learning in high school also includes courses for which colleges grant credit as their own, but which are taught to high school students by high school teachers in high school venues. This study examined the central role of college and university policies toward the sponsorship of college-level learning in high school and the acceptance of supposed college-level credits brought in by entering or transferring students. Data are from a national sample of 451 two- and four-year colleges and universities collected and analyzed by the University at Buffalo Learning Productivity Network. Findings reveal great differences in encouragement and accommodation according to the selectivity of the institution, with highly selective institutions requiring higher scores on AP examinations and frequently not allowing them to be credited toward graduation. Less selective institutions are more likely to accept AP results and other forms of college credit. (Contains 17 tables, 13 endnotes, and 25 references.) (SLD)

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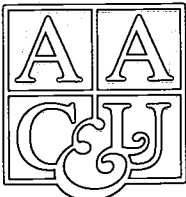
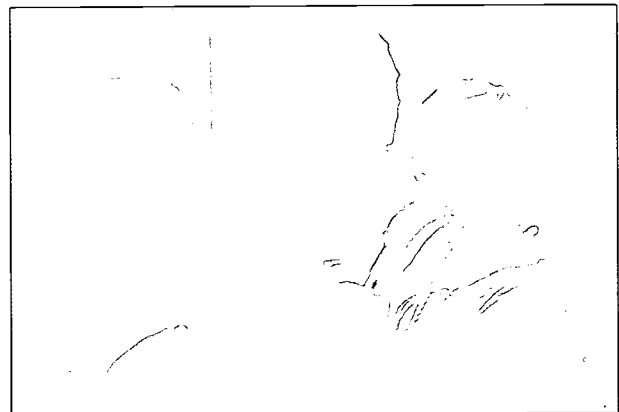
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COLLEGE-LEVEL LEARNING IN HIGH SCHOOL: PURPOSES, POLICIES, AND PRACTICAL IMPLICATIONS

by D. Bruce Johnstone and Beth Del Genio

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by D. Bruce Johnstone and Beth Del Genio

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About this Series

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The Association of American Colleges and Universities (AAC&U) has a long history of working with college leaders across the country to articulate the aims of a liberal education in our time. AAC&U is distinctive as a higher education association. Its mission focuses centrally on the quality of student learning and the changing purpose and nature of undergraduate curricula.

AAC&U is especially well known for projects and publications that specifically address the changing nature of general education in American colleges and universities. Two recent publications have examined current trends in general education reform and the challenge of providing a coherent and substantive general education to the large number of students who now receive their baccalaureate degrees by attending multiple institutions. *The Status of General Education In the Year 2000: Summary of a National Survey* and *General Education in an Age of Student Mobility* document a vibrant movement in higher education for strengthening general education curricula in order to provide today's students with the skills and capacities they need in a rapidly changing world. As has been true in the past, however, discussions about these kinds of issues of curricular reform too often occur only among faculty and campus leaders within higher education. A much wider dialogue about the aims and meaning of an undergraduate education is needed today.

AAC&U has taken the lead in encouraging and facilitating dialogue on issues of importance to the higher education community for many years. Through a series of publications called *The Academy in Transition*, which includes *General Education in an Age of Student Mobility*, AAC&U has helped to fuel dialogue on such issues as the globalization of the undergraduate curricula, contemporary understandings of liberal education, and the growth of interdisciplinary studies.

RESEARCH AND POLICY SERIES

This publication is the first in what will be a new set of *Academy in Transition* policy and research reports on important trends in undergraduate education and especially the changing environment in which colleges and universities are now educating a much larger percentage of the population. Increasingly, trends like the one toward more college-level learning in high school, addressed in this report, raise complicated questions of policy that can only be effectively

answered by bringing together a variety of stakeholders, some of whom are outside of higher education. These include high school educators and counselors, state and national policy leaders, business leaders, and the general public. AAC&U intends that this new series of reports will provide an accessible starting point for dialogue among individuals within and among these different constituencies.

We know that a much larger percentage of high school graduates than ever before now aspires to a college degree and is entering colleges and universities. Educating these students effectively will require significant changes at all levels of education in America. AAC&U's initiative, "Greater Expectations: The Commitment to Quality as a Nation Goes to College," is addressing this new reality and its many implications for the nature of undergraduate education and the preparation students now need to succeed in college.

By publishing this report and those that follow, AAC&U will provide substantive information and analysis contributing to national and local dialogues about this and other pressing issues related to the quality of undergraduate education. We urgently need these dialogues with all stakeholders participating to effectively educate a population of college students much larger and more diverse than we have ever before encountered.

Debra Humphreys
Vice President for Communications and Public Affairs
Association of American Colleges and Universities

Executive Summary

Executive Summary

WHAT IS COLLEGE-LEVEL LEARNING IN HIGH SCHOOL?

College-level learning in high school is a rapidly growing, yet remarkably little-studied, phenomenon. It includes the College Board's familiar Advanced Placement (AP) Program, characterized by course outlines and examinations in some eighteen subjects developed and graded by teams of AP high school teachers and college faculty, and normed against the performances of college students in the similar introductory courses in colleges and universities. With well over a million examinations taken by more than 700,000 high school students, AP plays an increasingly visible role in defining the content and the standards of high school college-entry-significant courses like English, history, mathematics, and foreign languages.

College-level learning in high school also includes the much less visible (indeed, almost surreptitious), but also fast-growing, practice of certain colleges or universities (especially community colleges) granting credit on their transcripts for what are described as their courses, but that are taught to high school students by high school teachers in high school venues.

HOW IS COLLEGE-LEVEL LEARNING RATED?

To some educational reformers, AP and other forms of college-level learning in high school are leading the way toward a more rigorous high school curriculum and higher standards. Others, similarly laudatory, view the AP examinations, like other high stakes summative examinations, as epitomizing the current fascination with measurable performance as the way to judge students, high schools, and high school teachers alike. If performance is what matters, according to this view, and if many bright and ambitious young persons in their middle teens can perform academically at the levels expected of many college students, why not give them the college credential and get them "on their way"? The possibilities that "getting them on their way" might save parents some tuition, might also save taxpayers some of the costs of accommodating students in public colleges, and might further save some students a semester or two and get them more expeditiously into the real adult labor market are thought, by some, to be further benefits of enhanced college-level learning in high school.

There are few criticisms of more appropriate high school curricula and higher standards.

However, there are some who decry the “lock” that AP seems to have over the content of courses taken by the brightest and most academically ambitious high school students. Others fear the “stealth national curriculum” implied by a growing and hegemonic AP, and still others fear a further widening of the academic performance gap between AP-rich and AP-poor high schools. But there is also growing trouble over the degree to which this learning in high school—whether certified as college-level by an AP examination or by the local community college—is truly equivalent to the learning that could be achieved by the same person a year or two older, fully matriculated (even if not necessarily full time) in a college, within a collegiate environment, and surrounded by college-age students and college faculty.

The defenders of college-level learning (especially at sponsoring community colleges) are likely to call the preceding argument both self-serving and academically arrogant—and those frailties are not uncommon in higher education. But when “college-level learning in high school” mainly meant high-achieving high school students wanting not early graduation, but merely to get accepted into an elite college (by signaling their academic achievement and ambition) and perhaps to skip over a few introductory college courses, the effect on the college curriculum was less material and there were few, if any, real issues. Now, when very many students of only moderate levels of academic preparation are carrying into college supposed “college credits” and wanting to use them for early graduation, both the teaching roles and the traditional curricular authority of the college faculty seem profoundly threatened.

WHAT ARE THE KEY ISSUES?

The issues and questions surrounding college-level learning in high school involve many stakeholders: students, parents, high school administrators and teachers, college and university administrators and faculty, elected and appointed government officials, and all who fancy themselves reformers (whether of the high schools, the colleges, or the larger issues of social and racial equity). The issues extend from the effect on the high school curriculum and standards, to the equity of college and university entry, to the financial consequence to parents, taxpayers, and students, to the possible enrichment of the collegiate experience (by permitting more expeditious entry into more advanced courses), to the thorny issues of faculty roles and curricular authority and to tensions between two-year and four-year colleges.

This report sheds light on these issues by examining the central role of college and university policies and practices, both toward the sponsorship of college-level learning in high school and toward the acceptance of supposed college-level credits brought in by entering or transferring students. On the question of acceptance, we were looking for the degree of encouragement and accommodation of college-level credits brought in: whether, for example, the college actively encouraged students to bring in such credits and accommodated them by granting liberal credit toward graduation—as opposed, on the other hand, to a policy where the college-level learning experiences might be expected as an indication of academic ability and ambition, but where actual credit applicable toward early graduation was given only sparingly, if at all.

HOW WERE DATA GATHERED?

The database is a national sample of 451 two- and four-year colleges and universities collected and analyzed by the University at Buffalo Learning Productivity Network. Offices of academic affairs were asked Likert-scaled and open-ended questions about their sponsorship of college-level learning in neighboring high schools, and about their policies and practices toward students entering with supposed college-level learning credits, either from AP (or other examination-based credit systems) or from what we have termed college-based credit (where the high school student leaves the school and travels to the college to take a course or two), and finally from school-based college-level learning (where some college or university has granted credit on its transcript for its course taught in the high school to high school students by a high school teacher).

WHAT WERE THE FINDINGS?

The findings revealed great differences in encouragement and accommodation according to the selectivity of the institution, with highly selective four-year colleges and universities requiring 4s or 5s on the AP—and then frequently not allowing them to be credited toward graduation anyway, and generally discouraging, or not accepting at all, the so-called school-based credits granted on the transcript of another sponsoring college. The less selective colleges and universities, and especially the community colleges, were much more encouraging and accommodating of all of the forms of college-level learning in high school, especially the school-based form, where the college itself is frequently sponsoring courses given in the high school and

granting the high school teacher adjunct faculty status.

Underlying all of the issues of standards, motives, notions of academic integrity, and competing authorities over curriculum and standards lie even more fundamental issues of the very nature of college credit and of the college experience itself. This report is a step toward a better understanding of the stakeholders, the issues, and the varying policies and procedures by which a representative national sample of colleges and universities were dealing with these matters in the closing year of the twentieth century.

I. Introduction

Introduction

It has long been recognized that a few students of what we now think of as high school age can handle the intellectual demands of college. Indeed, Harvard and the other colonial colleges routinely took boys at the ages of fourteen and fifteen. But by the twentieth century, with the American high school established through the twelfth grade, early admission to college came to be limited to a few innovative colleges such as the University of Chicago under William Rainey Harper and later Robert Hutchins. Most young students who were both precocious and ambitious were either left to be bored in high school, challenged with *honors courses* and *advanced tracks*, or were accelerated by *skipping grades* during the elementary and middle school years; the latter could enter college young, but having technically completed high school. After the Second World War, as acceleration came into disfavor, particularly among precocious boys who may have been academically, but were neither socially nor physically, ready for college, another practice emerged which took the name Advanced Placement (AP). This was college-level learning but *in the high school*. Begun with Ford Foundation backing by a handful of Eastern prep schools and their private liberal arts college brethren, AP, since 1956 a program of the College Board, grew by the turn of the twenty-first century to well over a million examinations taken by more than 700,000 high school students and reported to more than 3,000 colleges and universities.

Now, at the start of the twenty-first century, college-level learning is big business, and like lots of big businesses in the midst of headlong and quite unregulated growth, it also brings controversy and raises profound questions. In addition to AP, “dual enrollment” programs have grown up, wherein certain colleges and universities give their credits on their transcripts for their courses—but courses taught in the high school to high school students by high school teachers. To its proponents, college-level learning in high school is the new “gold standard” of high school curricular quality and learning standards. It resonates to contemporary emphases on *performance* and *credit for learning outcomes* rather than for mere *seat time*. Besides all that, it can save money: for the taxpayer, by truncating the number of years the average (or at least the above average) student needs to spend in high school plus college at the taxpayer’s expense; for the parent, by reducing the numbers of years paying tuition; and for the student, by hastening entry into the better paid, college-trained work force.

Almost no one objects to higher standards in high school or to a lessening of the curricular duplication between the last couple of years of high school and the first years of college. But whether the learning in high school—at whatever standard, and however assessed—is truly the same as, and can literally substitute for, learning in college, is quite another matter. And the integrity and the validity of the assessment matters. Those who question all pencil and paper examinations, especially the so-called *high stakes* examinations, are likely to question the AP exam (or at least the use of the AP to shorten the time in college). Those who view a high school learning experience as inherently different (and probably less intellectually rich) than a college experience are likely to resist the substitution of college-level learning in high school for, say, *their* freshman-year experience. And we have still not touched upon the volatile question of who owns the college curriculum and its standards? Or, for that matter, who owns, or at least who effectively controls, the high school curriculum? Is college-level learning still to be mainly for the intellectually precocious and ambitious—and thus to be yet another force widening the gap between those in so-called good high schools being pushed by high achieving parents and those in less advantaged schools? Or, can college-level learning be a way to raise standards and expectations where they are now the lowest—in schools serving large proportions of low-income, and ethnically and linguistically minority children—and thus be a force for educational democratization? Finally, there is the politically volatile matter of budgets and jobs: Is this hype about college-level learning just a taxpayer's lobby plot to cut the budgets of public higher education, effectively turning over what used to be the jobs of college faculty to high school teachers?

This monograph does not answer all of these questions. But it does raise them in the rich context of the many stakeholders to the issues and questions surrounding college-level learning in high school: students, parents, state governments, schools, teachers, colleges, college faculty, and educational reformers of all stripes. The underlying research looks at just one of these stakeholders: the college or university, which must do something with the supposedly college-level learning from high school that the entering student brings in. It is hoped that this monograph will call attention to an educational practice that is rapidly growing, that raises profound questions about the nature of secondary and higher education, and the appropriate links between the two, and that is clearly a major player in educational reform. We hope to bring both firm

data and informed theoretical speculation to a phenomenon that has had too little of either.

ADVANTAGES AND DISADVANTAGES

This fast-growing and politically attractive phenomenon has important implications to both secondary and higher education. Some of the advantages of college-level learning lie in its potential to lessen the duplication between the high school and college curricula; to get the high school student more quickly into the content and expectations of "collegiate" learning; to allow a richer, more substantial curriculum during both the high school and the baccalaureate years; and, possibly, to allow college graduation in less than four full-time years.

At the same time, the practice raises profound questions about the essence of the high school college preparatory curriculum and the locus of that curricular authority, e.g., with the high school, the college, the state (legislatures or education departments or higher education systems), or external agents such as the College Board and its Advanced Placement Program. College-level learning in high school has become a major player in the so-called reform of high school curriculum and standards, as well as in college admissions and success, and therefore has vital equity implications. It also has practical implications with regard to learning productivity, time-to-degree, and jobs; e.g., whether any reduction of curricular duplication between high school and college leads to the loss of high school teaching or college faculty positions.

In all models of CLLHS, it is up to the college or university where the student ultimately matriculates:

- (a) whether the learning will be accepted for college credit at all-or merely used, if at all, for admissions or placement purposes;
- (b) to determine the number of credits and the grades (sometimes only a "credit" or "pass") to be awarded for each course or examination successfully completed and accepted;
- (c) whether the credits thus awarded are good for graduation credit or merely "noted on the transcript"; and
- (d) finally, which requirements of the baccalaureate (e.g., general education, the major, or electives) these credits will satisfy.¹

In turn, the stance on the part of a college's or university's faculty and academic administrators toward the practice depends in part on the level of its selectivity and sometimes on the particular model. For example, while a highly selective institution can expect substantial amounts of college-level learning from its applicants indicating expected levels of academic preparedness and ambition, it can still discourage or limit altogether the application of these credits toward accelerated graduation. At the other extreme, a college or university (generally a less selective one) can reach into neighboring high schools and promote the concept of college-level learning, perhaps as a recruitment tool or net revenue generator (in spite of the tuition dollars given up by early graduation), and it can actively market the possibility for early graduation. Thus, the attitudes and policies of colleges and universities toward college-level learning in high school—and toward its different models—are critical to the goals that this changing and expanding practice intends.

THE PRESENT STUDY

Chapter II presents a typology of the existing forms of college-level learning in high school, and the criticisms and/or limitations associated with each of these forms. Chapter III looks at the historical disconnect and overlap between the American high school and college, and on the wide and increasing variability in student learning in America. This provides a background for Chapter IV on the rationales for the extraordinary recent growth in the practice. Chapter V draws on a questionnaire administered in the 1998-99 academic year to a national sample of colleges and universities on attitudes and policies toward the practice, as well as any direct participation by them in such courses in high schools. Chapter VI summarizes some policy implications of CLLHS for both secondary and higher education.

Several other studies of college-level learning in high school, carried out under the auspices of the University at Buffalo's Learning Productivity Network, have informed this paper. These include: Crooks's 1998 study of state policies toward college-level learning in high school; Barba's study (1998) of high school principals' attitudes toward the concept; Cusker's research (1999) into the use made of (i.e. what portion of which baccalaureate degree requirements were met by) the AP credits carried in by an entering class at SUNY Binghamton; Barnes's study (2001) of "school-based" college-level learning sponsored by the SUNY community colleges;

and Del Genio's study (2000) of college and university policies toward college-level learning in high school and how they are formed. The research has also been informed, and perhaps influenced, by the principal author's long association with the College Board: as a trustee from 1988 through 1994 and chairman in the last two years, and as a member in 1999-2000 of the College Board's Commission on the Future of the Advanced Placement Program.

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II. FORMS AND CRITICISMS OF COLLEGE-LEVEL LEARNING IN HIGH SCHOOL

College-level learning in high school takes a variety of forms, although with no official or even widely accepted nomenclature, and with certain terms (e.g. *concurrent enrollment* and *dual enrollment*) used inconsistently, at times interchangeably and at other times referring to quite different models. The Learning Productivity Network group at the University at Buffalo has found it analytically useful as well as comprehensible to survey recipients at both the high school and collegiate levels, to use the following typology: (a) *examination-based*, (b) *school-based*, and (c) *college-based*:

Examination-Based. The Advanced Placement (AP) Program is an example of *examination-based* college-level learning in high school. The level of mastery is determined by a single examination, composed of both short answer and essay items, made up by teams of experienced high school AP teachers and college faculty; it is graded in central locations (i.e. externally) by teams of high school teachers and college faculty. The scores for each examination are then converted to a 5-point summary report. A score of 5 signifies "extremely well qualified" (in comparison to how college students would perform on this examination at the end of a counterpart college course), 4 "well qualified," 3 "qualified," 2 "possibly qualified," and a score of 1 signifying "no recommendation."

Thirty-two Advanced Placement courses are offered in eighteen subject areas. In 1998-99, some 1,150,000 AP examinations were taken by 704,000 candidates from nearly 14,000 high schools and reported to more than 3,000 colleges and universities.

The Advanced Placement Program is a program of the College Board, with test construction and scoring done under contract by the Educational Testing Service. Procedures established by the College Board and the Educational Testing Service help ensure *validity* (that the scores deemed worthy of college credit are indeed equivalent to the performance of contemporary college students) and *scorer reliability* (that graders are scoring the examinations consistently and comparably).²

Although AP is by far the dominant examination-based program of college-level learning in high school, it is not unlike the College-Level Examination Program (CLEP), also sponsored by the College Board and designed mainly to serve older students. DANTEs is sponsored by the U.S. Defense Department and designed for servicemen and women. Both of these, like the AP, presume to measure and validate college-level subject proficiency in a single examination. Closer

to the AP program in its high school venue and academically elite orientation is the International Baccalaureate (IB), a program originating in Europe, based on examinations and a comprehensive curriculum, and designed to reflect the learning associated with the elite European academic secondary schools such as the French lycée or German Gymnasium. (See IB online at <http://www.ibo.org/>.)

School-Based. The basic form of *school-based* college-level learning in high school is that a single college or university initially grants its credit on its transcript to a course taught in the high school, within the high school schedule, to high school students, by a high school teacher. The teacher has been screened, generally given special instruction, and frequently granted adjunct faculty status by the sponsoring college or university. The course itself can be one regularly taught in the high school, such as American history, English composition, calculus, or a foreign language. Or, it can be a college course generally not taught in the high school but “imported” into the school by the sponsoring college or university specifically for this program, with the sponsoring college’s regular texts, syllabi, and sometimes even its examinations. Successfully passing the course generally provides high school as well as college credit; the credit appears on a regular college transcript as it would for any non-matriculated student.

There are two possible results. If the college or university in which the student matriculates after high school is the institution that sponsored the college-level learning experience, the courses are automatically accepted, indistinguishable from other courses the student will take as a matriculated student. If the high school student matriculates in an institution other than the college or university that sponsored the *school-based* learning experience, that college or university has discretion as to whether to accept the credits like any other college credits earned elsewhere, or whether to treat the credits differently because they were earned prior to high school graduation in a high school venue.

School-based college-level learning has also been growing rapidly, although with much less notice and less national attention, in part because no national aggregate data are kept (unlike the AP and IB *examination-based* programs). This form of college-level learning in high school is sometimes called *dual* or *concurrent enrollment*, although these terms mean different things in various states. Consequently, they will not be used here.

The oldest and best known of these *school-based* programs is Syracuse University’s Project

Advance, or SUPA, begun in 1972, and by 2000 reaching approximately 3,800 students in 120 high schools. The university's promotional brochure (1997) describes Project Advance as "a partnership program linking the University and secondary schools [with the primary mission]...to offer qualified high school seniors the opportunity to enroll in challenging Syracuse University courses normally taken by SU freshmen." The Syracuse program has also promoted the concept to other colleges and universities. It sponsors an annual meeting called the School-College Partnership Director's Conclave, and chronicles these (and other) university-school linkages in several volumes. These are published under the auspices of the American Association for Higher Education.

The fastest growing *school-based* programs appear to be associated with community colleges. Community colleges frequently have close ties to neighboring high schools and sometimes routinely use high school teachers as adjunct instructors. Also, academic standards in the introductory courses at many community colleges may not be different from the content and standards in the more rigorous (honors or AP) courses in many "good" high schools.

Furthermore, the community college can frequently count the full-time equivalent enrollment of school-based courses taught in high school for state enrollment-driven financial assistance, even though the high school is covering virtually all of the costs and is being reimbursed by the state via full-time equivalent school-based aid. Thus, the college-level course that is community college-sponsored and school-based in a local high school brings to the community college both a marketing and a potential financial advantage.³

The *school-based* programs such as SUPA aim at a wider range of high school academic preparedness at schools less selective than historically associated with the AP or IB. In addition, the grading is generally less rigorous, with the result that more students can expect to earn a passable college grade (i.e. "C" or higher) in most school-based courses than can expect to receive AP scores of 3, 4, or 5 in the AP examination, where only a "3" and above signals college-level performance. (See above.) Edmunds (1998), writing on behalf of the Syracuse SUPA Program and seeing the more inclusive standards of SUPA as a distinct "plus," claimed that 91 percent of the students who successfully complete a Project Advance course in high school and who submit the Syracuse University transcript to the college in which they matriculate find the credits "recognized," either for credit or placement. In contrast, he cites College Board data showing that

only 62.5 percent of students taking AP exams can expect scores of 3, 4, or 5 that most colleges require for graduation credit, but that not all accept.

College-based. A third kind of college-level learning in high school may be termed *college-based*. These are courses taught to high school students in the college venue, generally alongside other regularly matriculated college students. They are taught by the same full- or part-time faculty that teach other college freshmen and sophomores. Such programs are generally reserved for a very small number of high-achieving high school students who can be trusted to leave the high school generally a couple of times a week and go to a nearby college for instruction. Such a program—sometimes too much the exception to be termed a “program”—has a close kinship to the so-called early college admissions programs, which admit students (generally precocious and ambitious, and sometimes highly dissatisfied with school) at ages fifteen-seventeen, before the completion of high school. *Early admission*, however, while claiming some of the same history and much of the same theoretical rationale as CLLHS, is conceptually distinct in its policy implications and still very much the exception. It will not be further covered in this study.

School-based and *college-based* college-level learning in high school conceptually meet in the format of distance learning that brings a “regular” college faculty member into the high school—usually via some form of multimedia, asynchronous video instruction. For the purpose of our study, we would call this form “*college-based*” if the primary evaluator were mainly a college faculty member, in a position to evaluate the learning according to contemporaneous teaching and evaluation of students in the full collegiate venue. In the second format, if the distance learning is in the form of supplementing, even substantially, the instruction of the high school teacher with the “distance” instruction of the college faculty member (whether delivered synchronously, in real time, or via recorded video), but where the course remained under the principal control of the high school teacher, we would term this college-level learning *school-based*. Thirdly, if the distance learning were substantially delivered via the Internet, we would employ the term *school- or college-based* college-level learning in high school, again depending on the principal venue—high school or college—of the primary instructor and evaluator. In a fourth format, if the purpose of the distance education were to prepare the high school student for an externally scored examination like the AP that would determine the likelihood of college graduation credit, we would call this form *examination-based*.

Thus, the organizing schema used here centers less on who the teacher is or where the teaching and learning takes place and mainly focuses on the primary academic affiliation of the teacher certifying that the earning is “genuinely college level”: either a team of external graders under the direction of the Educational Testing Service (*examination-based*); a high school teacher (*school-based*); or a college faculty member (*college-based*). This is a contested position. Proponents of what we are calling *school-based* learning may claim that focusing on the evaluation/certification process allows a potentially invidious distinction to be made between their programs and the other two models. The term *school-based* highlights their dependence on high school teachers and venues even though AP has the same dependence; it is differentiated only by its use of an external examination on which to base the claim that the learning was at a level the college might accept for credit.

On the other side, college-based learning tends to be automatically accepted as genuinely “college-level” even if it is taught by an adjunct professor or lecturer, or even by a graduate assistant. All of these may well be inferior in both instructional skills and perhaps even in content mastery to the kind of teacher permitted to teach in some school-based programs. Also, the leaders of the Syracuse University-sponsored SUPA Program point out that its participating high school teachers meet all the academic requirements for adjunct instructor status in the department whose courses they are teaching (1997). Nevertheless, the college and university faculty and academic administrators who are called upon to accept high school learning as meriting full graduation credit (as opposed to mere notation on the transcript, or merely for admission or placement) seem to understand and appreciate the distinctions made here and summarized in Table 1 (page 12).

CRITICISMS OR ALLEGED LIMITATIONS OF COLLEGE-LEVEL LEARNING IN HIGH SCHOOL

Much of the criticism of college-level learning in high school touches upon two issues: *credibility*, i.e. Is this learning truly college level and what can this mean given the enormous range of academic standards in American higher education? Or *turf*, i.e. Who is to say what standards should be given college credit and to what degree are the answers corrupted by less-than-legitimate considerations of self interest?

Table 1: Types of College-Level Learning in High School

	Examination-Based	School-Based	College-Based
Essential Characteristics	“College-level” is certified by examination external both to the high school and to the college of eventual matriculation. Assessment normed against contemporary college students in counterpart courses. High school class is designated “AP” and access generally limited to high-achieving students. Scores of 3, 4, & 5 considered “college-level.”	“College-level” granted via successful performance in the course, taught in the high school by a high school teacher who has been certified (sometimes trained and sometimes accorded “adjunct” faculty status) by the sponsoring college or university on whose transcript the course credits and grade will appear.	Learning takes place in the college, taught by college faculty. “College-level” is certified by the instructor, presumably teaching the same content and applying the same standards as to counterpart course taught to matriculated college students.
Example	The Advanced Placement Program of the College Board.	Syracuse University’s Project Advance oldest and most established.	A special arrangement between a high school, a small number of particular gifted students, and a nearby college or university.
Present scale and apparent growth trajectory	More than 1 million examinations to 700,000+ students in 14,000 high schools in 1998-99, growing at 12 % per year.	No estimates of scale, but seem to be extensive and growing rapidly.	Appears to be modest in scale and not growing rapidly.
Variations	The International Baccalaureate (IB) Program; also, except for non-high school venue, the College Level Examination Program (CLEP) and the DANES program for service men & women.	Most new programs appear to be community college sponsored.	Include distance learning from college teaching sites; also after school and summer programs on college campus, although not with other college students.
Advantages	Widespread acceptance by colleges & universities due to perceived validity & reliability of College Board-monitored external assessment by teams of high school AP teachers and college faculty.	Very low cost as regular high school classes and teachers provide “dual enrollment” for high school and college credit. Considered accessible to “high average” high school student.	Low cost if only a few high-achieving students are added to college classes. No significant question of validity of college-level credit or grade.
Disadvantages	“College-level” determination based on single examination; present AP standards provide scores of 3 or higher to only about 2/3 of test takers.	Absence of external examination plus grading standards apparently lower than AP can lead some colleges to question “college level.”	Logistics of high school students spending part-time in college setting can disrupt the high school and be inappropriate for some students.

A fundamental criticism, however, goes beyond credibility or turf to the question of *what properly constitutes a collegiate learning experience?* If *collegiateness* is determined only by course content and standards, then it ought to make little difference who taught the course or in what venue the learning took place. Whether a “good” or a “bad” high school, a “selective” or an “open admissions” college—or for that matter “home instruction”—the only legitimate question, by this construct, is how much of the appropriate curricular content has been learned?

Critics of *examination-based* programs such as the AP might still claim that a single examination, no matter how well constructed and graded, favors those who test well on a particular examination. Critics of *school-based* programs might still question whether the grading standards are rigorous enough, or whether the high school teachers, however knowledgeable and pedagogically talented, know what is genuinely *college-level* in assessing the learning of their high school-age students.

However, the more fundamental criticism of college-level learning in high school, challenging both the *examination-based* and the *school-based* forms, is the belief that “college-level” ought to signal something more than mere content mastery, however assessed and by whomever taught. Rather, some would claim, college-level ought also reflect learning that comes from the association with young (and not-so-young) adults in the college or university setting, as well as contending with the kind of independence and absence of structure associated with college and university academic life and generally absent in the high school setting.

A variation on this theme is based on the principle underlying some undergraduate general education programs that a critical component of a required general education core goes beyond the content to the shared learning experience itself. Thus, no level of content mastery brought in by the entering (or even the transfer) student, regardless of its level or presumed validity, can substitute for the actual common course experience (Shoenberg, et al. 2001). This was the case of SUNY Binghamton’s revised general education program, as reported by Cusker (1999, 114). Such views may accept the appropriateness of college-level content and standards for as many high school students as can rise to these expectations. But they reject the notion that graduation credit ought always to be extended or that the four-year undergraduate experience should be truncated just because the entering freshman has mastered certain academic content at an acceptable level.

Examination-based programs can be further criticized for the alleged limitations in reliability and validity of any single examination. The proponents of school-based programs make this claim, asserting that a grade based on the teacher's assessment of the student through the duration of the course, drawing on examinations of varying forms, assignments, and the less tangible criteria of "class participation," is a better—and especially a fairer—measure of learning than a single examination that privileges those who test well (Edmonds 1998). Countering this criticism is the view—politically ascendant in most states—that only an externally administered examination can provide the kind of measurable, comparable assessment that is currently in political favor by proponents of greater rigor and of more performance-based rewards to students, teachers, and schools.

The Advanced Placement Program, as the principal examination-based model, is especially vulnerable to the charge of *being a party* to the unfair limitation of access. High school participation in AP requires two things: first, experienced, motivated, content-knowledgeable teachers, and secondly, a school that is both large enough and sufficiently college preparatory-oriented enough to have full classes of students motivated and able to handle AP calculus or AP chemistry. Thirdly, it requires schools affluent enough to be able to offer the class even to a small number of students. Private schools and most suburban high schools fit this description, but it fits fewer urban schools or smaller rural high schools. In addition, the AP examination fee (\$77, in 1999-2000) can be a hurdle for low-income families, even though many districts and even some entire states have programs to subsidize AP examination fees.

The College Board is attempting to spread AP participation to more schools, with special attention to inner city and rural schools; it assists high schools and middle schools to enhance the quality and rigor of all offerings to all children. But the AP program has generally been accurately perceived as a program for the academically advanced and ambitious, with the all-but-inevitable consequent disparity of participation by socioeconomic class (and thus to a degree by race and ethnicity) of the participating students and schools.⁴

What makes the AP even more vulnerable in this virtually inevitable "screening," however, is the inappropriate attention to, or use made of, the AP in selective college and university admission decisions. In California, the legislature has mandated that the public University of California and California State University systems give higher weights on the admissions formu-

las to grades in courses that are labeled AP (regardless of the scores on the AP examinations themselves). This considerably disadvantages students from those small or inner-city or other high schools that, for whatever reason, have limited AP offerings. The position of the College Board and the AP Program is that this is an inappropriate use of the AP exam. Furthermore, their position is that the program itself ought not to be blamed for the consequences of a practice that the Board discourages, nor ought the good that can come from the more rigorous content and standards of AP be thrown out with the inappropriate practice. Nonetheless, the College Board and the AP program as of mid-2000 are caught up as defendants in a lawsuit alleging the discriminatory consequence of the use of the Advanced Placement scores in the admissions process (Hebel 1999).

A quite different criticism, again specifically of the AP program, is the difficulty and/or the uncertainty—depending on the college or university—of gaining credit toward graduation. This was the criticism of Edmunds (1998), noted above, contrasting the difficulty of achieving a 3, 4, or 5 on the AP and the even greater difficulty of actually getting the credit accepted by the college or university of matriculation. This contrasts with the relatively greater ease of gaining college credit through Syracuse University's *school-based* Project Advance. Lichten (2000) has observed the growth of AP from a small program serving only the very top public and private high school students mainly applying to elite private colleges to the very large program it has become at the turn of the twenty-first century. He drew an opposite conclusion from the same data; namely, that the AP examinations have become too easy—and that this is the reason many colleges and universities no longer grant credit for 3s and 4s.⁵

At the same time, the College Board and the Educational Testing Service, which creates and administers the AP examinations, take pains to assure that the examinations not only test what colleges and universities are teaching in their introductory courses, but that the AP grading standards do indeed reflect what the comparable examination performance would have earned for a matriculated college student in a counterpart college course (Del Genio 2000, Hsyer 1999). That different colleges and universities accept different scores for their own college credit only reflects the great variability in standards of American higher educational institutions—and a respect for the importance of retaining that prerogative with the institutions, and especially with the college faculty. Furthermore, the reluctance of colleges and universities to grant “gradu-

ation credit" (that is, beyond mere notation on the transcript) may reflect other considerations that are only marginally, if at all, related to the academic performance on the examination. Some departments have an academic belief (or so it will be expressed) that only *their* introductory course will adequately prepare their majors for their upper division courses. Other departments may be so dependent on the introductory courses to justify their budgets and faculty numbers that they will be reluctant to accept AP (or any other credits) out of fear of losing faculty lines.

Finally, a less frequently heard, but nonetheless thoughtful, criticism of college-level learning in high school is advanced by those who are concerned about the growing curricular hegemony of the college and university over the American high school, and, more specifically, by the growing hegemony of the Advanced Placement Program. In many "good" (especially suburban) high schools, the demand for AP courses by both students and parents is so great that there is virtually no room for indigenous curricular offerings or experimentation in the core subjects of history, English, science, or mathematics involving the "bright and the college-bound"; their time and energy is, as Lee Shulman noted to us, effectively consumed with AP.⁶ Proponents of college-level learning will answer that this hegemony is a small price to pay for a curriculum that is more rigorous and more relevant to the college-bound student. Nevertheless, the growing presence of AP and other forms of college-level learning in high school clearly reduces the curricular degrees of freedom for the high school, its board, its teachers, and its educational leadership.

On the other hand, criticism of *school-based* programs is more likely to be directed to the credibility of the credits that appear on the sponsoring college or university transcript. These transcripts may be indistinguishable from the transcripts of those who would have taken the course with other college students, from the "regular" faculty as a regularly matriculated student at the sponsoring college. This is not to say that there has been any evidence that the same college course—taught from the same text and presumably graded at the same level of rigor, but taken in the high school along with other high school students and taught by a high school teacher—is less worthy of college credit.⁷ Nor is it to suggest that such learning experiences are necessarily any less rigorous than those in an Advanced Placement class. For those who choose to raise it, the "credibility issue" is exacerbated by the absence of an independent "external validation" of the level of learning as there is with AP. Furthermore, it is generally believed—and

given as a point in favor of the *school-based* programs by some of their proponents—that the *school-based* programs are less rigorous than the *examination-based*, or at least that it is easier to receive a B or an A in them as opposed to a 5 or 4 on the AP (see above). Finally, some criticize *school-based* programs for the absence of transparency; that is, for the absence of any indication, especially on a transfer transcript, that some of the courses and grades shown were earned not as a regularly matriculated student, but rather as a high school student in a high school venue.

These issues may loom larger in the case of community college students transferring into four-year colleges with some of the credits on the community college transcript actually earned from the college's sponsorship of a *school-based* program at a local high school. Sometimes there are legislative mandates upon the state four-year colleges to accept for graduation credit all successfully passed community college credits—including, of course, the courses taken in high schools, as long as a sponsoring community college (e.g. Florida) has declared the course to be “college-level” (Crooks 1998). The fact that most four-year college deans and faculty with whom the authors have discussed this practice, confirmed by the survey data, have expressed both surprise and a measure of hostility to it may reflect naivete, ignorance, or the all-too-familiar arrogance of the four-year college faculty and administrators toward community colleges. Nonetheless, it is an ignorance and an opposition that is not likely to be alleviated without more transparency and acknowledgement on the part of those colleges sponsoring school-based courses of the inevitability, if not always of the legitimacy, of these questions of *quality* and *credibility*.

III. *The American High School and College: Disconnect and Overlap*

Disconnect

To understand the rationales, trajectories, and issues surrounding these models of college-level learning in high school, it is useful to review a bit of the history of American education, particularly the striking disconnect between the American high school and the college or university. The modern American high school has been:

- a) largely public in ownership, finance, and control (and where it has been private or parochial, it has differed little in curriculum and standards from the public schools);
- b) “common” (that is, non-specialized and catering to a wide range of academic interests and abilities);
- c) increasingly oriented to preparation for entry into some form of postsecondary education (as opposed to preparation for the workplace or for more general or civic purposes);
- d) notably uneven in rigor and standards, both between and within high schools.

High school in America by the end of the twentieth century embraces grades 9 or 10 through 12, generally carrying students to age 17 or a recent age 18.

Colleges, on the other hand, were largely private through the first half of the twentieth century and mainly public at the close of the century, but they have remained throughout the century generally free from governmental control. American colleges, too, vary enormously in standards and academic rigor, yet are remarkably alike in the general curricular pattern, especially for the dominant four-year baccalaureate degree. In spite of these differences (and exacerbating the aforementioned “disconnect”), there is great similarity—indeed, a virtual overlap—between the curricular content and the educational purposes of the last years of high school and the first years of college. In both, the content and purpose are dominated by two aims: first, the acquisition of basic academic skills—generally mathematics at least through algebra and now extending to what is sometimes called “pre-calculus,” the English language, and sometimes the rudiments of a second language—and second, a general education, broadly cultural and avowedly non-vocational and non-specialized. Historically, this was in contrast to a European education, in which the academic secondary school—academically more selective and more rigorous, and frequently retaining students for an additional year—was to complete the students’ requisite gener-

al education and prepare students for immediate specialization upon entry into the university.

To many, the European pattern has always made more sense, both developmentally and organizationally. That is, if the general education was truly intended for all or at least for most, then it would seem reasonable for it to be completed before most young people left the educational system, if not before the end of compulsory education (which would have been simply unrealistic), then before the end of secondary education. Besides, once a young person was into the culture of a late nineteenth or twentieth century university with both curricular and social freedom, learning that required great discipline and conformity became problematic. Thus, European universities (especially before the advent of the post-World War II *non*-university forms such as polytechnics and *Fachhochschulen*, and before the massification of the 1980s and 90s) could assume that their entering students had completed an education that was both rigorous and common, and they could then safely move toward academic specialization for the tertiary degree.

American colleges and universities—with a much wider range of academic standards to begin with (i.e. many more at the “non-selective” end of the range) and accepting a much larger proportion of the age cohort from comprehensive high schools—were less able to assume either a particular content or a desired level of academic preparedness from their entering matriculates. Thus, the American colleges and universities by the early twentieth century had developed (interestingly, with no governmental intrusion) the undergraduate pattern prevailing today. It features about one and one-half years of general education and required skills—mainly writing, some mathematics, and frequently a foreign language—about the same amount of study devoted to a major or specialization, and the remainder open to free electives. But the potential for overlap and/or duplication between the academic expectations of secondary school and undergraduate higher education—both in content and in standards or expected mastery—has long been substantial.

This is not a new observation. The influential Carnegie Commission on Higher Education in *Less Time, More Options*, published in 1971, reflected the prevalent disdain of that period for conventional education, credentialism, and anything considered “lockstep.” The Commission’s first recommendation was “To shorten the length of time in formal education,” concluding that time spent on the baccalaureate “can be reduced now by one year for many, and subsequently most, students,” largely through college-level learning in high school (Carnegie Commission on

Higher Education 1971, 11). It recommended the expansion of AP and CLEP examination programs, and that "high schools...be accredited by the university systems and by consortia of private colleges to give the equivalent of the first year of work in college" (15-16).

Two years later, in its report *Continuity and Discontinuity*, the Commission (Carnegie Commission on Higher Education 1973, 5-6; 80-83) speculated that this shortening might come about through reforms either at the school (K-12) or the college/university level. The K-12 learning sequence, for example, could be both begun and completed one year earlier, allowing college entry after the end of the high school senior year, but at ages sixteen or seventeen, rather than the current ages of seventeen or eighteen. Or, the K-12 sequence could be enriched and upgraded so that most students would be provided a curriculum that "a good college would consider the equivalent of its lower division general education program." Finally, high school students could be allowed to test out of high school graduation requirements in order to go to college early. Colleges and universities, in turn, should, according to the Commission report, experiment with:

- specially designed three-year bachelors degree programs;
- acceleration through course overload or summer school;
- college credit for the senior in high school through either the accreditation process or testing programs (advanced placement, college level examination program, or other tests);
- early admission of high school students at the end of grade 10 or grade 11;
- concurrent enrollment in high school and college.

VARIABILITY IN STUDENT LEARNING IN AMERICA

The pressure and the opportunity for college-level learning in high school can also be viewed through the lens of the substantial and growing variability in student learning in American education. This variability takes three forms: first, a variation in the individual intellectual and socially determined learning capabilities of the young men and women in their teens; second, a variation in the rigor and educational output of the American high school; and third, a variation in the rigor and the academic demands of the American college.

Variation in intellectual and socially determined learning capabilities. Whatever the mix of genetic or social/cultural determinants, the American teenager clearly varies greatly in his/her conventionally measured intellect, in academic preparedness (i.e., what he or she has actually learned in school), and in all of the socially determined capacities affecting learning. Furthermore, these need not vary in the same way. That is, a young person can be intellectually bright, but academically unprepared and uninterested in learning—or quite the opposite. But there is no question that very many youths of age fifteen or sixteen can perform intellectually as well (that is, learn the same or even more rigorous content as or more quickly) as a great many youths in college who are the age of nineteen or twenty. This is especially so in the one-half of college students who will necessarily be below the measure of central tendency in either intellect or academic preparedness or both, and particularly those who are in the considerably more than one-half of all colleges and universities that are essentially non-selective. Similarly, some youths at ages fifteen and sixteen are as (or more) socially, physically, and emotionally mature as many college students in their late teens or early twenties.

It is not clear whether young people actually are maturing earlier, although measurable indices such as onset of puberty are clearly occurring earlier among today's youth. The Carnegie Commission's 1971 report, *Less Time, More Options*, lamented that young people "reach physiological and social maturity at an earlier age—perhaps about one year, and yet more of them are kept longer in the dependent status of student." In any event, conventional wisdom has most children growing up faster today than a generation or two ago, and this view is consistent with pushing college and university learning expectations down into the high school.

Variation in the academic rigor of the American high school. All the popular sport of high-school "bashing" to the contrary, it is clear that the curricula and standards of many (clearly not all) American high schools at the turn of the twenty-first century are far more rigorous—i.e., more sheer content at a more intellectually rigorous level—than high school curricula and standards of a generation or two ago. In part, of course, this is a reflection of, rather than a sufficient rationale for, the college-level learning reflected in the Advanced Placement program and other college-level learning opportunities. Few high schools twenty-five and fifty years ago taught calculus, or molecular biology, or chemistry with substantial mathematical content. Few offered languages other than French, Spanish, and occasionally Latin—but almost never

Chinese, Japanese, or Russian—and most were offered for two or sometimes (for the most serious students) three years, not the five and six years that is common today in the “better” public and private high schools. The academically ambitious high school student at the turn of the present century is skilled with computers and graphing calculators, and is still more likely than were his parents to be involved with volunteer social services after high school. It is not uncommon for college and university freshmen to comment on the relative ease of their freshman year courses compared to those of their senior year in high school.

Variation in the academic rigor of the American college. Finally, the American college is almost certainly more variable, mainly in the direction of more institutions and more students featuring comparatively less rigor and lower standards of both entry and graduation than a generation or two ago. Primarily, this is an inevitable consequence of what has come to be known as the “massification,” or perhaps even the “virtual universalization,” of higher, or at least some form of postsecondary or tertiary, education.

As high school completion rates in the U.S. reach and exceed 85 percent (and in many communities well over 90 percent),⁸ and as the proportion of those secondary school graduates going on to some form of postsecondary education approaches 70 percent (and from some communities and high schools exceeds 90 percent), there is a large and inevitable increase in the numbers of those matriculating in postsecondary educational institutions who simply do not have the acquired knowledge, academic skills (e.g., in writing or quantitative skills), or academic interests that we once could assume to be “college-level.”

Taken together, these variations support the premise that a significant number of students of high school age can learn at the academic level of many students at many colleges and universities.

IV. The Rationale for College-Level Learning in High School

To this background of disconnect, mission, curricular overlap, and increased variability in all of American education may be added three other more recent themes that also help account for the explosion of interest in college-level learning in high school. The first is what may be referred to loosely as the *standards and accountability movement* in American secondary education. Given vivid boost by publication of *A Nation at Risk* (National Commission on Excellence in Education 1983) and by the late twentieth century ascendancy of political and social conservatism, this movement seems to see in college-level learning in high school—particularly in the Advanced Placement (AP) model—both greater academic rigor and a high stakes test that allows tougher and more market-like comparisons (however inappropriately) to be made among states, schools, and even among teachers.

A second recent theme is the increasing concern for the high and rising costs of higher education—both in the expenses borne by parents and students and the expenses borne by state taxpayers for maintaining a subsidized public higher educational system (Harvey 1998). Anything that holds out the promise of reducing the costs of higher education borne either by the parent, the student, and/or the taxpayer has great appeal, particularly to politicians. And college-level learning in high school—with the potential (however little yet realized) for reducing allegedly wasteful duplication, lowering public expenditures, and reducing time to degree—clearly rings this political bell.

A third “background” theme is the increasing competition among at least the more able and competitive high school students to get into a selective college or university. Those colleges and universities deemed truly selective have not been increasing in number nor increasing in capacity nearly as fast as the numbers of high achieving high school students seeking admission to them. Therefore, there is a greater premium on providing the admissions committees of selective colleges and universities some evidence of both academic preparedness and ambition. To many students, parents, and high school guidance counselors, college-level learning in high school—especially AP, which has the advantage of familiarity and some seeming comparability—serves that purpose.

From these background themes emerge the following five principal purposes or rationales for the growing interest and participation in CLLHS: (1) to enhance the amount and/or level of

learning in high school through a more appropriate (i.e. “college-oriented”) curriculum taught with higher standards; (2) to reduce the number of credits required for the college degree, thereby lowering the costs of higher education to be borne by parents, students, and taxpayers; (3) to enhance the student’s prospects for admission and success in college; (4) for college-level learning providers, to bring status, visibility, and revenue to the providers or sponsors of college-level learning in high school—e.g. the College Board for AP, or the sponsoring colleges and universities for the school-based programs; and (5) for colleges and universities seeking to matriculate students carrying possible college-level credits, to be competitive with other colleges and universities in attracting able students with college-level credits earned in high school.

1. **To enhance the amount and/or level of learning in high school through a more appropriate (i.e. “college-oriented”) curriculum taught with higher standards.** This rationale places CLLHS as an important part of (to some, even as the leading edge of) high school curricular reform. A high school curriculum substantially laced with college-level courses should be more rigorous and appropriate (at least for the college-bound student); this expectation is verified, for example, by research on the collegiate experiences of AP students by Morgan and Ramist (1998; Willingham and Morris 1986) for the Educational Testing Service. Teaching may also improve, as the educational orientation and teacher reward system shifts from “seat time” and strictly teacher-administered evaluations to some kind of externally validated learning outcome, and as the high school teachers begin working more with their college counterparts. Likewise, the motivation of participating students is likely to improve, and it is more likely to extend through to the end of the senior year, as the benefits of academic success continue after college admissions decisions *per se* have been made and academic motivation in regular courses likely dissipates. Casserly (1986), studying AP students in college in the mid 80s, found a variety of personal (retrospective) reasons for taking on the extra challenge of AP in high school, including the encouragement of brothers and sisters, the “natural capstone of earlier acceleration,” and the fact that the AP classes “provided a structure and quiet refuge from disruptive and uninterested classmates.”

It is important to note that these reasons do not require any assumption of accelerated baccalaureates or reduced time-to-degree, nor even any assumption of graduation credit being granted by the college or university in which the high school students will eventually matriculate. College-level learning in high school is valued because it provides more learning *in the high*

school. This rationale is especially embraced by those critics of the American high school who believe the curriculum to be insufficiently rigorous and who further believe that the overwhelmingly proper objective of high school (at least for most children) to be preparation for college. This rationale lies behind much of the political embrace of AP and other forms of “dual enrollment” at both state and federal levels: to advocate for more CLLHS is thought to be “four-square” for educational quality and rigor—and always good politics.

2. **To reduce the number of credits required for the college degree, thereby lowering the costs of higher education to be borne by parents, students, and taxpayers.** Reduction in the number of credits required for the college degree comes through enhanced learning in high school and the reduction of curricular duplication between high school and college. This rationale is responsive to the growing concern for the high and rising costs of higher education. Concern for underlying *costs* is mainly a concern of state governments and taxpayers for the costs of their public higher education systems. Concern for the *prices*—i.e. high and rising tuition—is a concern of parents and students and, of course, of politicians attempting to seem politically responsive to growing tuition anxiety (Johnstone 2000, forthcoming). At least in theory, as long as CLLHS provides graduation credit, it thus shortens the time to (or more accurately, lessens the number of credits needed for) the college degree:

- Parents will have to spend less for undergraduate tuition and living expenses of their college-age children.
- Students can lower both their opportunity costs (i.e., the time spent away from, or prior to, entry into the higher paying, more productive, “adult” work force), as well as their need to borrow and/or to work part-time earning money during college.
- State governments will be able to support smaller public higher education systems than would otherwise be needed, spending fewer tax dollars and releasing these dollars either for other public needs or for state taxpayer relief.

Both the first and second rationale echo the theme of *learning productivity*, a term coined by the co-author (Johnstone 1992; Johnstone and Maloney 1998. See also Groccia and Miller 1998) to acknowledge the need for enhancing output in higher education. At the same time, it

urges policymakers to look for fewer further reductions in inputs or costs and to give relatively greater attention to ways of enhancing outputs or learning, including the promotion of CLLHS. By this rationale, college-level learning in high school can both enhance learning levels in high school and reduce wasteful curricular duplication. Thereby it enhances educational productivity whether or not there is any shortening of the time to degree or any reduction of either costs of, or expenditures on, higher education. At the same time, any enhanced educational productivity that does not simply add to student learning—that is, if it is allowed to reduce the number of credits required for the degree—can also reduce the cost of higher education to the parent, the student, and the state taxpayer.

3. To enhance the student's prospects for admission and success in college. College-level learning in high school can enhance chances for college success in two ways. First, it is thought to serve as a signal—especially to selective college admissions offices—of academic achievement and ambition. Herr's research on the effect of AP or honors credits in high school on the likelihood of admissions, found 58 percent of his sample reporting that "it had become progressively more difficult to be admitted without AP or honors coursework" (Herr 1991). Some colleges and universities boost the calculated high school grade point averages for Advanced Placement courses, even regardless of the actual AP scores (the legislatively mandated practice in California giving rise to the charge of unlawful discrimination and the class action lawsuit, reported above). It is also widely believed that selective college and university admission offices look for AP course experiences as well as actual AP scores as evidence of achievement and ambition, particularly from applicants from high schools known to have an abundance of AP offerings.

Critics may claim that this rationale itself adds no net social value, as it simply rearranges student positions on the admissibility queue: arguably it even loses net social value by enhancing the inequity of accelerating the already considerable advantage of students in suburban, private, and other highly college admissions-oriented high schools. Nevertheless, the aspiring high school student fortunate enough to have college-level learning opportunities will almost certainly be advantaged, particularly at a selective college, for having experienced genuine college-level content and standards in high school. Also, the college admissions office has at least a slight advantage in having college-level learning experiences as another criterion to weigh in the admissions decision.

Second, college-level learning experiences in high school can provide a richer academic experience in college, quite apart from any accelerated degree or graduation credit awarded. Such experiences can provide for earlier entry into more advanced courses in a field. They can allow for second majors and a richer array of electives, as Cusker found to be the case in her 1998 study of AP credits carried in by SUNY Binghamton students. And they can boost the chances of success in the counterpart college course for having already taken the course in high school (admittedly, a practice that goes totally against the criterion of enhancing learning productivity by *lessening* curricular duplication).

4. For college-level learning providers, **to bring status, visibility, and revenue to providers or sponsors of college-level learning in high school (e.g. the College Board for AP, or the sponsoring colleges and universities for school-based programs)**. In addition to the benefits to learners and to the participating high schools and colleges, there are advantages to the actual providers of the college-level learning experience: in the case of examination-based programs, principally to the College Board and its AP Program, and in the case of school-based programs, to the sponsoring college or university. This benefit can be in the form of stature, visibility, and market position, as these advantages accrue to the College Board from its position as sponsor of the increasingly influential AP Program, or to those colleges or universities sponsoring school-based programs from their enhanced visibility within their participating high schools.

The benefit to the providers can also be directly financial. The AP Program has become a major revenue producer for the College Board. *School-based* college-level learning can be an important revenue source for its sponsoring college, either from increased enrollment or net tuition revenue derived from the enhanced market position, as described above. Revenue is also produced from the practice of community colleges receiving FTE-based state assistance from the *school-based* enrollments even though high school is also receiving enrollment-driven state assistance from the same student—and is actually bearing the principal expenses (Barnes 2001).

5. For colleges and universities seeking to matriculate students carrying possible college-level credits, **to be competitive with other colleges and universities in attracting able students with college-level credits earned in high school**. Finally, there are possible benefits to the colleges and universities where students carrying college credits earned in high school may matriculate. One rationale for accepting credits earned in high school is simply to meet a student expecta-

tion within a marketplace where the reluctance to grant credit—and especially graduation credit—may lose an otherwise desirable student prospect to a competing college or university that will. “Meeting the competition” for granting generous graduation credit for CLLHS may mean little for an essentially open admission college that gets few applicants with any appreciable accumulation of AP or school-based college credits anyway. But the selective college or university,

Table 2: Purposes Served by College-Level Learning in High School by Parties, or Actors in the Process

Purposes or Rationales	Parties or Actors				
	Participant (High School Student & Parent)	High School	Provider (AP, or College Sponsor of School Based Learning)	College or University of Potential Matriculation	Agent of Public Policy (School Board, Trustees, or Government)
1) To enhance the amount and/or level of learning in high school: i.e., be a part of high school curricular reform.	May be Important	Major rationale	Major rationale	May be Important	
2) To reduce the number of credits and lower the costs of college to be borne by parents, students, and taxpayers.	May be Important			May be Important	
3) To enhance the student's prospects for admission and success in college.	Major rationale	Major rationale	Major rationale	May be Important	
4) To enhance status, educational leverage, and revenue of provider or sponsor of the college-level learning.				Major rationale	
5) To enhance market positions and undergraduate programs of the potential institutions of matriculation.					

which may otherwise be in a highly advantageous market position, may actually be quite vulnerable to a competitor that is more generous or accommodating precisely because the most academically desirable high school applicants are likely to be the very ones with the greatest accumulation of potential college-level credits from AP, IB, and other college-level learning experiences.

In addition, selective colleges and universities that tend to have the highest number of entering students with the greatest number of potential college credits earned in high school, do not have any financial disincentive to accepting these credits (that is, their applicant pools are deep enough to not lose any net revenue from students who may graduate early). The only disincentive (and it may in some instances be considerable) is likely to be academic—e.g. a belief on the part of the faculty that their own general education courses and their own introductory courses in the disciplines are essential. However, possibly countering this disinclination toward accepting college-level learning from high school is the presumed tendency of faculty at selective research universities, and to a lesser degree at selective colleges, to eschew the teaching of the introductory and general education courses anyway, and thus to look with favor on policies that can get the entering student more quickly into the advanced courses in the disciplines.

In summary, the rationales for college-level learning in high school must be viewed in the context of the different parties to the process or experience, specifically: (1) *the student* (and parent) in a position to be the participant, or learner; (2) *the high school*, which must provide the classes and in most cases the teachers; (3) *the provider* of the potential college credit (AP or other *examination-based* programs or the college or university sponsors of school-based programs); (4) *the colleges and universities* where the students are matriculating and must actually grant or withhold the credit (which may be further differentiated into the interests of the faculty and the interests of the administration or governing board); and (5) *the public interest* in college-level learning in high school, as expressed by school boards, governors, and other elected legislators at both the federal and state level. The interaction of these parties, or actors, as delineated above, within the five rationales, is outlined in Table 2.

V. College and University Policies toward College-Level Learning in High School

Information on college and university policies toward college-level learning is drawn mainly from a questionnaire administered in the 1998-99 academic year to a national sample of colleges and universities; it was filled out principally by staff in the office of academic affairs, frequently with input or assistance from offices of admissions, the registrar, or institutional research. The 451 usable returned questionnaires provide information on:

1. The extent, within recent entering classes, of college-level learning experiences from high school (for which graduation credit may be given or at least considered), in so far as may be known.
2. The extent to which the college or university itself participated in or actively sponsored college-level learning in high schools, either through a program of welcoming into its classes exceptional students from local high schools or through according college credit on its transcript to classes that are monitored and deemed equivalent to their “regular” college courses, although taught in the high school venue by high school teachers.
3. The general attitudes toward CLLHS—e.g. *welcoming*, *moderately accepting*, or *discouraging*—and any differences in such attitudes toward the different types of CLLHS (as described below) or among different types of institution by Carnegie classification.
4. The policies by which college-level learning credits may be applied and “counted” toward the credits needed for baccalaureate degree. More specifically:
 - Where administratively do those policies mainly reside; e.g. only with the department as the “owner” of the counterpart college courses, or at a college- or university-wide level, as with the faculty senate and the chief academic affairs officer?
 - Where on the transcript are the college-level learning credits most commonly accepted; e.g. among the general education requirements, academic skills requirements, introductory courses in the student’s eventual major, or as general elective credits?
 - How (if at all) do these policies differentiate among the various types, or models, of college-level learning in high school; e.g. between the Advanced Placement program of the College Board, as opposed to *school-based*, or *concurrent enrollment* programs, as described above?

5. The general view of the purpose and/or benefit of college-level learning in high school, that is, whether such learning is viewed by the college or university administration or by the faculty (acknowledging that there may be differences) as, for example: (a) part of high school curricular and standards reform, perhaps, but not generally an acceptable substitute for its own courses; (b) a useful signal to the admissions process of an applicant's academic preparedness and ambition; (c) a way to reduce high school-college curricular duplication and thereby permit the student to enter more quickly into more advanced courses in college (but not necessarily to graduate any earlier); or (d) a valid way to save both taxpayer and family resources, and actually truncate a portion of the undergraduate collegiate experience.

The questionnaire was sent to approximately 50 percent of two- and four-year colleges and universities, categorized by the 1998 Carnegie Classification (Carnegie Foundation for the Advancement of Teaching 1994): Research Universities I and II, Doctoral Universities I and II, Masters (Comprehensive) Colleges I and II, Baccalaureate (Liberal Arts) Colleges I and II, and Two-Year Colleges. The states of California, New York, Florida, Virginia, Minnesota, and Utah, where state policies had recently highlighted college-level learning in high school, were over-sampled. The questionnaires were addressed to chief academic officers, with a cover letter explaining the purpose of the project and encouraging assistance from offices of admissions, institutional research, and the registrar. A 33 percent response rate brought 451 usable completed questionnaires.

It was anticipated, correctly, that the proportion of entering students carrying Advanced Placement credits would generally track selectivity: that is, the higher the entering average SAT score, or the lower the admissions rate, the greater the number of entering freshmen likely to be carrying appreciable amounts of potential AP credits (i.e., AP scores of 3, 4, or 5). It was also anticipated, generally correctly, that institutional policies, as well as the overall receptivity toward granting graduation credit and encouraging early graduation, would also vary by selectivity. Finally, it was anticipated that the most selective colleges and universities would be mainly oriented toward the Advanced Placement program, with its orientation toward the most academically prepared and ambitious and its rigorous, externally validated credential; institutions in the middle range of selectivity would likely see more entering students with school-based credits, especially from community colleges. Therefore, for most analyses, the categories of respon-

dent institutions were collapsed into the following six categories:

1. *Selective* (fifty-seven institutions): members of the Consortium for Financing Higher Education (COFHE), thirty-one of the most selective and high-priced private colleges and universities, plus those public universities falling within *Peterson's Guide's* criteria of "most difficult" or "very difficult."⁹
2. *Other Universities* (fifty-two institutions): Research and Doctoral I and II not otherwise included above in "Selective."
3. *Masters* (103 institutions): Masters I and II (public and private).
4. *Baccalaureate I* (eighteen institutions): Baccalaureate I (considerable selectivity, although less than those included in "Selective").
5. *Baccalaureate II* (seventy-four institutions): Baccalaureate II (less selective).
6. *Two-Year* (147 institutions): Associate Degree colleges.

EXTENT OF COLLEGE LEARNING IN HIGH SCHOOL

The extent of AP participation from numbers of student participants and examinations taken is precisely measurable and published by the College Board. In 1998-99 it reached some 700,000 students taking more than one million examinations. To obtain an estimate of AP participation from the vantage point of the "receiving" four-year institutions, those filling out the

Table 3: Percentage of Four-Year Institutions Reporting "Many" Entering Students Carrying Sufficient College-Level Credits to Graduate at least One Semester Early

	Agree [4]	Mainly Agree [3]	Mainly Disagree [2]	Disagree [1]	Mean Score
Selective	39	30	24	7	3.0 ^a
Other Universities	17	26	38	119	2.4 ^b
Masters Institutions	4	14	42	40	1.8
Baccalaureate I Colleges	6	0	53	41	1.7
Baccalaureate II Colleges	1	8	23	67	1.4

^a Significantly different than all other classified institutions.

^b Significantly different than Selective, Masters, Bacc. I Colleges, Bacc. II Colleges.

questionnaire estimated the percentage of the entering class carrying in three or more AP courses for credit at as high as 60-80 percent for such institutions as Brown, Carnegie Mellon, MIT, Santa Cruz, and Stanford. Most (69 percent) selective institutions “agreed or mainly agreed” that their entering students carried sufficient AP or other college-level credits to graduate at least one semester early (if the students chose, and if the institution accepted the credits). The distribution of responses by institutional type and selectivity is shown in Table 3.

The extent of *school-based* and *college-based* CLLHS carried in by entering freshmen or transfer students (at least as estimated by the academic affairs offices of four-year colleges and universities) should be included in Table 3. However, many four-year colleges do not accept such credits from other institutions. Other colleges may not know the number of school-based credits that may be included within the community college credits brought in by their transfers. The survey did, however, provide some estimates of the proportion of colleges and universities that *sponsor* college-level learning for high school students, shown in Table 4.

College-based “programs” (or at least policies to handle requests from high schools and high school students to take courses) are generally small, but are nonetheless offered by approximately one-half of four-year colleges and universities in our sample. Baccalaureate I Colleges are an exception, with only 28 percent welcoming local high school students into their classes, but

Table 4: Percentage of Institutions Reporting Sponsorship of College-Based and School-Based Programs of College-Level Learning in High School

	<i>College-Based</i>		<i>School-Based</i>	
	N	%	N	%
Selective Institutions	23	40%	6	11%
Other Universities	28	55	11	22
Masters Institutions	55	54	28	28
Baccalaureate I Colleges	5	28	2	11
Baccalaureate II Colleges	31	42	14	19
Two Year Colleges	105	72	88	60
Total	247		149	

these colleges are mainly private, selective, often outside large urban centers. Frequently they are without professional education programs and therefore with fewer contacts in the local high schools. Seventy-two percent of the two-year colleges reported provisions to let qualified high school students into their classes—although the numbers actually carrying college credits into four-year institutions is not known.

The much more extensive programs of college-level learning in the high school are the *school-based* programs—at least as measured by the numbers of courses in the high school for which a sponsoring college or university (most often a community college) will grant credit. Table 4 shows the extent to which these programs have grown, especially in community colleges, with 60 percent of our two-year college sample reporting sponsorship of such programs, in an average of nine high schools (a median of 7) per college. Barnes reported that twenty-five of the thirty community colleges in the State University of New York in 1999-2000 claimed such programs, in 245 high schools, enrolling 13,496 students, and involving more than 600 high school teachers giving 847 courses for which college credit could be granted (Barnes 2001).

Sponsorship of *school-based* college-level learning in high school is relatively infrequent in the Selective and the Baccalaureate I colleges, as shown in Table 4, with just 11 percent claiming some program or programs. It is somewhat more prevalent in the other three categories of four-year institutions, generally tracking undergraduate selectivity (the numbers are skewed by the very high numbers of schools and students in Project Advance of Syracuse University, a Research II institution).

Estimates of the national aggregate number of college credits earned and applied in the *school-based* form are problematic. Such programs appear to be growing explosively, particularly in the community colleges. Unlike the College Board and the AP, there is no single entity in a position to officially count either the numbers of programs, the numbers of courses offered, or the numbers of students actually receiving, or at least able to receive, college credit for their experiences.¹⁰ Corroboration of estimates of community college-sponsored *school-based* programs from the four-year colleges that receive transfer transcripts is difficult because these transcripts generally do not indicate the high school venues of these college credits.

Finally, like the AP program, students taking the *school-based* course may or may not elect to try to receive college credit for it; in the case of *school-based* courses, credit from the sponsor-

ing college (in addition to the high school credit) generally requires payment of tuition to the college and may simply not be seen as important to some of the student participants.

Nevertheless, the survey plus other data support the conclusion that college-level learning in high school is both extensive and rapidly growing, especially *examination-based* (primarily AP) and *school-based*, particularly programs sponsored by community colleges.

ENCOURAGEMENT AND ACCOMMODATION OF COLLEGE-LEVEL LEARNING IN HIGH SCHOOL BY COLLEGES AND UNIVERSITIES

“Encouragement and accommodation,” refers to the degree to which, or the ease with which, successful college-level learning from high school (in whatever form and by whatever criteria) is accepted for graduation credit and even, in the most accommodating form, early graduation. Encouragement and accommodation was measured by response to the question: “Which one of the following statements best describes your institution’s policy toward admitted freshmen with successful AP experiences from high school?” Of the 435 responding institutions:

- 3 percent chose the least accommodating response: “Successful AP experiences are viewed as evidence of a challenging high school and a measure of academic ambition (and we may use them for placement purposes), but we generally do not grant credit toward the baccalaureate for AP.”
- 4 percent chose another basically non-accommodating response: “We grant college credit for appropriate AP scores, but these generally do not substitute either for general education or, in many departments, for major requirements.”
- 84 percent—by far the most prevalent response—chose: “We encourage the use of AP credits, some of which can substitute for other requirements and allow either for early graduation, for double majors, or for more elective exploration.”
- 9 percent chose the most accommodating response—to the point of wanting actively to market the possibilities of early graduation: “*We encourage AP (as well as summer study and other forms of college-level learning in high school) and actually feature the desirability of early graduation.*”

By this forced-choice response, most academic administrators see the experience of earning

Table 5: “We are worried about the trend toward more and more college credits supposedly able to be acquired in high school.”

F = 22.1 P < .05	N	Strongly Agree [5]	Mainly Agree [4]	Neutral [3]	Mainly Disagree [4]	Strongly Disagree [5]	Mean Likert
Selective Institutions	52	19%	39%	29%	12%	2%	3.6 ^a
Other Universities	48	21	23	27	19	10	3.3
Masters Institutions	94	6	13	37	30	14	2.7
Baccalaureate I Colleges	18	11	39	33	17	0	3.4
Baccalaureate II Colleges	70	9	17	31	23	20	2.7
Two Year Colleges	138	3	5	23	28	41	2.0 ^b

^a Significantly different than Masters Institutions, Bacc. II Colleges, and 2-Year Colleges.

^b Significantly different than all other categorized institutions.

college credits in high school as mainly one to enrich the college academic experience. Fewer (only 9 percent) see the main purpose to be early graduation. Interestingly, there were no significant differences in the response pattern to this item by category of institution.

When general attitude toward college-level learning in high school was probed with a negatively worded question—“*We are worried about the trend toward more and more college credits supposedly able to be acquired in high school*”—sector differences emerged, as shown in Table 5. Selective colleges and universities, the Baccalaureate I Colleges, and the Other Universities definitely share this worry, as expressed by the respondent of a small Baccalaureate I college: “*We are very concerned about college credit earned during high school and the virtual erosion of the border between high school and college. We do not feel good about the quality of some of this credit. We also do not like the double counting of the same work for high school and for college credit.*” However, the Two-Year Colleges just as definitely do not share the worry, and the Baccalaureate II and the Comprehensive/Masters patterns are more like the two-year colleges than the more selective colleges and universities toward the baccalaureate for AP.”

When early graduation itself was probed, similar important differences among the institutional categories were again revealed, especially at the two “poles” of selectivity and institutional

Table 6: "We actively encourage early graduation by college-level learning in high school and summer enrollment."

F = 17.9 P < .05	N	Strongly Agree [5]	Mainly Agree [4]	Neutral [3]	Mainly Disagree [2]	Strongly Disagree [1]	Mean Likert
Selective Institutions	57	4%	7%	26%	16%	47%	2 ^a
Other Universities	49	8	22	41	10	18	2.9
Masters Institutions	100	8	18	44	17	13	2.9
Baccalaureate I Colleges	17	6	0	47	12	35	2.3
Baccalaureate II Colleges	71	17	17	35	16	16	3
Two Year Colleges	135	35	29	21	4	11	3.7 ^b

^a Significantly different than Other Universities, Masters Institutions, Bacc. II Colleges, 2-Year Colleges.

^b Significantly different than all other categorized institutions.

prestige: the selective colleges and universities, and the two-year colleges. Two-year colleges, as shown in Table 6, were much more likely to agree with the assertion: "We actively encourage early graduation by college-level learning in high school and summer enrollment." Such colleges tend to be much more "consumer oriented" and less dependent, either for reputation or resources, on whether students graduate early. While the Selective institutions were quite opposed to early graduation—probably largely for reasons of academic principle—the Baccalaureate I colleges were also opposed, possibly because, while selective, they are still very enrollment dependent, and compete fiercely in a limited applicant pool from which early departures are not easily replenished.

The survey further probed the college and university chief academic officers' perceptions of the main purposes and/or benefits underlying CLLHS with the assertion: "In principle, early graduation—in part by college-level learning in high school—is an important way to lower costs to parents, students, and taxpayers, and should expand." Responses by institutional type are shown in Table 7. Again, Selective institutions and the Baccalaureate I colleges disagree or are neutral, with only 19 percent of Selective and 29 percent of Baccalaureate I colleges agreeing with the importance of lowering costs. Two-year colleges, demonstrating their practical orientation and

regard for minimizing costs both to the student and to the taxpayer, are overwhelmingly (83 percent) in agreement, with fewer than 3 percent in disagreement.

Another, and much less controversial, purpose served by college-level learning in high school, as discussed earlier, is as a leading part of the reform of secondary school curriculum, standards, and expectations. But when school reform is posited as *the major* purpose of college-level learning in high school, respondents again split along selectivity lines. Eighty percent of the Baccalaureate I colleges and 76 percent of the Selective Institutions, but only 31 percent of the Two-Year colleges, saw the improvement of high school standards and curricula as the major purpose of college-level learning in high school.

From a public Research I university came the free response: *“Earning a bachelor’s degree is not a race. AP courses can enrich a student’s high school experience, but there is more to the college experience than amassing credits to graduate as early as possible.”*

Table 7: “In principle, early graduation—in part by college-level learning in high school—is an important way to lower costs to parents, students, and taxpayers, and should expand.”

F = 24.3 P < .05	N	Strongly Agree [5]	Mainly Agree [4]	Neutral [3]	Mainly Disagree [2]	Strongly Disagree [1]	Mean Likert
Selective Institutions	53	6%	13%	36%	21%	25%	2.5 ^a
Other Universities	47	11	43	15	21	11	3.2
Masters Institutions	97	20	41	27	11	1	3.7 ^b
Baccalaureate I Colleges	17	6	24	24	35	12	3.7
Baccalaureate II Colleges	73	19	34	30	8	8	3.5
Two Year Colleges	138	44	38	14	1	2	4.2 ^c

^a Significantly different than Other Institutions, Masters Institutions, Bacc. II Colleges, 2-Year Colleges.

^b Significantly different than Bacc. I Colleges.

^c Significantly different than all other classified institutions.

Finally, it is important to consider the prevalence among the chief academic officers of the principle, contrary to the very notion of college-level learning in high school, that credit toward the Baccalaureate should involve more than just an appropriate level of subject mastery, and that

Table 8: "The major purpose of college-level learning in high school should be to improve high school standards and curricula—regardless of the use made of the credits in high school."

F = 9.1 P < .05	N	Strongly Agree [5]	Mainly Agree [4]	Neutral [3]	Mainly Disagree [2]	Strongly Disagree [1]	Mean Likert
Selective Institutions	54	33%	43%	11%	11%	2%	4.0 ^a
Other Universities	46	22	30	24	22	2	3.5
Masters Institutions	98	11	28	45	12	4	3.3
Baccalaureate I Colleges	15	20	60	20	0	0	4.0
Baccalaureate II Colleges	71	17	34	24	18	7	3.4
Two Year Colleges	135	12	19	32	20	18	2.9 ^b

^aSignificantly different than Masters Institutions and 2-Year Colleges.

^bSignificantly different than all other classified institutions.

credits earned in high school, through whatever form and at whatever level of mastery, are generally insufficient. This is a strong position, and it was not endorsed by most chief academic officers. But it is significant that this position—virtually rejecting on principle most college-level learning in high school—was endorsed by nearly half (49 percent) of the selective college and university provosts and chief academic officers; in contrast, the assertion was even more adamantly rejected (90 percent) by the two-year college academic heads.

It is important to note that rejection of college-level credit from high school on this basis has nothing to do with a concern for the quality of the learning nor for any possible lost enrollments, but only for the possible loss of a unique "college experience." A private Masters I institution wrote: "We are a progressive college with a unique program that emphasizes a learning/living integration that is typically not addressed in AP courses. While a few students from local high schools have applied courses from [our own college-based program], we do not grant advanced standing based on college courses taken prior to high school graduation." From a Baccalaureate II college: "Our reason for not awarding credit for courses taught in the high school (regardless of the credentials of the instructor) is that we believe the setting and environment affect the level of instruction and discussion."

POLICIES TOWARD ADVANCED PLACEMENT

Much is known about the present numbers and the growth trajectories in the Advanced Placement Program (e.g. the number of AP high school courses, AP exams taken, distribution of scores received, and numbers of students having scores reported to which colleges and universities). Much less is known about the college and university policies for treating these scores, or about how students actually apply their potential AP credits at the institution where they ultimately matriculate (Cusker 1998). Some of the variability and even uncertainty lies in the fact that policies regarding the acceptance of AP scores are shared between the institution as a whole (frequently established by a faculty senate and implemented by the chief academic officer) and the department that “owns” the counterpart course. The locus of authority over such academic policies also varies by institutional selectivity: 76 percent of Selective and 72 percent of the Baccalaureate I colleges reported that the acceptance of AP credits was the prerogative of the department; 79 percent of Two-Year colleges reported that AP policies were established and administered centrally. In general, such academic decentralization—yielding more authority to

Table 9: “We believe that credit toward our Baccalaureate should involve more than just an appropriate level of subject mastery, and that credits earned in high school, through whatever the form and at whatever level of mastery, are generally insufficient.”

F = 17.1 P < .05	N	Strongly Agree [5]	Mainly Agree [4]	Neutral [3]	Mainly Disagree [2]	Strongly Disagree [1]	Mean Likert
Selective Institutions	57	16%	33%	12%	25%	14%	3.1 ^a
Other Universities	46	4	17	13	57	9	2.5
Masters Institutions	99	3	12	17	36	31	2.2
Baccalaureate I Colleges	18	6	28	22	28	17	2.8
Baccalaureate II Colleges	71	1	14	21	32	31	2.2
Two Year Colleges	93	1	2	7	31	59	1.5 ^b

^aSignificantly different than Masters Institutions, Bacc. II Colleges, 2-Year Colleges.

^bSignificantly different than all other classified institutions.

the faculty generally, and to departments especially—can be expected to yield more limitations on the acceptance of college-level learning in high school. In contrast, the more authoritative central administrations of most community colleges and less-selective four-year colleges allow those administrations who are more likely to accept CLLHS to follow whatever course seems most institutionally advantageous vis-à-vis market position, finances, or political acceptability.¹¹

Table 10: “Most of Our Students Who Could Graduate Early with AP and Other Credits Still Choose to Stay the Full Four Years.”

F = 7.4 P ≤ .05	N	Agree [4]	Mainly Agree [3]	Mainly Disagree [2]	Disagree [1]	Mean Likert
Selective Institutions	51	59%	31%	8%	2%	4.0 ^a
Other Universities	37	27	43	14	16	3.5
Masters Institutions	68	19	41	21	19	3.3 ^b
Baccalaureate I Colleges	15	47	47	7	0	4.0
Baccalaureate II Colleges	46	46	46	7	20	3.4

^aSignificantly different than Other Universities, Masters Institutions, Bacc. II Colleges.
^bSignificantly different than Bacc. I Colleges.

Actually, many of the students who accumulate the greatest number of AP scores of 3, 4, and 5 have little interest in early graduation. This may in part be due to the attractiveness of undergraduate life at the more selective colleges and universities, coupled with high socioeconomic status of many of the students with the greatest accumulation of potential AP credits.¹² Cusker’s research at SUNY Binghamton showed very little early graduation, even among students who received a semester’s or more worth of AP credits.

We queried our survey respondents for their perception of the numbers of students who brought enough AP and other college-level credits to graduate early, but who choose not to do so—preferring, apparently, other options such as travel, leaves of absence, taking more credits to graduate, or simply “coasting” for their last semester or two with a light course load. As shown in Table 10 and as expected, this practice is prevalent at the most selective institutions serving traditional-age undergraduates; thus 90 percent of the Selective and 94 percent of the

Baccalaureate I respondents concurred with the observation that most students who could graduate early still choose to spend a full four years at the institution. Community colleges were not considered in this query, as there are relatively few high AP scores in their entering classes, and “early Baccalaureate graduation” has less meaning. But 60 percent of the Masters institutions, whose students are more likely to be first-generation college students, older, and more pragmatic in their collegiate goals, also concurred.

POLICIES OF COLLEGES AND UNIVERSITIES SPONSORING PROGRAMS OF *SCHOOL-BASED* COLLEGE LEVEL LEARNING IN HIGH SCHOOL

As reported above, the school-based format, while most associated with Syracuse University and its well-known Project Advance, has become dominated by community colleges, the sponsor of 59 percent of the *school-based* programs reported by our respondents. Only 11 percent of

Table 11: Sponsorship of School-Based College-Level Learning in High School

	Number and Percent Sponsoring School-Based Programs		Average (Median) Number of High Schools Involved	Average (Median) Number of Courses
	N	%	N	N
Selective Institutions	6	11	7	7.5
Other Universities	11	22	9	10.0
Masters Institutions	28	28	6	7.0
Baccalaureate I Colleges	2	11	2	2.0
Baccalaureate II Colleges	14	19	4	10.0
Associate Degree Colleges	88	60	7	11.0

Selective and Baccalaureate I colleges reported sponsoring *school-based* programs, while between 20 and 30 percent of other four-year institutions reported sponsoring programs that give such *school-based* college credit on their transcripts. Table 11 shows the distribution of school-based programs by type of institution.

**Table 12: Sources of Support for Sponsorship
of School-Based College-Level Learning in High School**

Sources of Support	Support at Initiation of Program				Support at Present			
	Generally or Totally Supportive		Somewhat or Strongly Resisting		Generally or Totally Supportive		Somewhat or Strongly Resisting	
	N	%	N	%	N	%	N	%
N = 459								
Faculty Senate	42	71	17	29	57	84	11	16
Faculty Union	21	75	7	25	25	81	6	19
Campus Administration	136	99	1	1	137	99	2	1
Multi-Campus System Administration	49	94	3	3	50	98	1	2
One or More Surrounding High Schools	129	98	3	3	127	98	3	2
Entity of State (e.g., State Department or Legislature)	82	98	2	2	83	98	2	2

For the institutions that sponsored programs of school-based college-level learning in local (and occasionally not-so-local) high schools, there were no significant differences by institutional category. Both would be expected because there were relatively few numbers of sponsoring institutions in any single category other than two-year colleges. For these institutions, the survey sought information on the sources of support—e.g., faculty senate, faculty union, system administration, local high schools—both at the initiation of the program and at the present time. The results are shown in Table 12. The only significant resistance initially came from the faculty senates and unions, where 29 percent of the institutions reported initial resistance from senates and 25 percent from faculty unions. This resistance has lessened somewhat, but not altogether: 16 percent reported continuing resistance from their senates and 19 percent from their faculty unions. Local high schools are reported overwhelmingly supportive.

Information was also sought from the school-based program sponsors regarding the rationale or incentive to engage in this practice. Of particular interest was the degree to which the sponsoring institutions saw the high school programs as a recruiting technique and whether



they perceived it as a revenue source, either (for private institutions) for the direct tuition dollars brought in, or (for public institutions) through the college's ability to count the high school enrollments (at least those high school students "signing up" for college credit) for full time equivalent (FTE) enrollment-based state assistance.

There were too few Selective and Baccalaureate I institutions sponsoring such programs to analyze by institutional type, but of the 144 institutions responding, just under one-half acknowledged that their sponsorship of school-based college-level learning in neighboring high schools was "mainly a recruiting program so that ... students will be more likely to matriculate."

Table 13: Policies and Perceptions of Institutions Sponsoring School-Based Programs of College-Level Learning in High School

		Agree/ Correct	Mainly Agree	Mainly Disagree	Disagree/ Incorrect
The Content and standards of our college-level courses that are taught in the high schools are every bit as rigorous as the equivalent courses taught on our campus.	N	95	43	4	2
	%	66%	30%	3%	1%
Our regular full-time faculty accepts the participating high school teachers as faculty colleagues just as readily as they do any other adjunct faculty ... on our campus.	N	36	53	26	8
	%	29%	43%	21%	7%
Most other colleges and universities accept ...credits earned by the high school students who take our courses in their high schools.	N	79	50	2	2
	%	59%	38%	1.5%	1.5%
A high school student has a better chance at getting our [school based] credits accepted at another college than if he/she attempted an AP course.	N	25	28	22	18
	%	27%	30%	24%	19%
We see our program as competing with AP for the same attention of the high schools and of many of the same students.	N	32	41	29	42
	%	22%	28%	20%	29%

Three-quarters (74 percent) of the Two-Year Colleges and Masters Institutions reported the ability to receive full "FTE credit" for state aid—a substantial financial incentive, given the low cost to the college of sponsoring a school-based program. Of the nineteen private institutions claiming sponsorship of a school-based program, seven responded that there was enough tuition revenue to "make money even if the participating high school students do not matriculate at our institution."

Not surprisingly, as shown in Table 13, the sponsoring colleges and universities overwhelmingly perceive the content and standards of their school-based courses as every bit as rigorous as the equivalent courses taken on their campuses. They report that other colleges and universities accept these credits as well. Most respondents also reported that their regular full-time faculty accepted the participating "adjunct" high school teachers as "faculty colleagues" just as readily as they accept any other adjunct faculty (29 percent "agreeing" and 43 percent "mainly agreeing" with this assertion).

Finally, in reference to the degree of possible competition between AP (*examination-based*) and the dual enrollment or school-based programs, the school-based program sponsors split evenly, with one-half believing their program did, and one-half believing it did not, "[*compete*] with AP for the same attention of the high school and many of the same students." In a related question, discussed earlier, relating to the comparative "rigor" and/or chances of a student's succeeding in a *school-based* as opposed to an AP course, the school-based program sponsors agreed, but by only a slight margin (57 to 43 percent) that a high school student had "a better chance at getting our [school-based] credits accepted at another college than if he/she attempted an AP course."

ACCEPTANCE OF *SCHOOL-BASED* COLLEGE-LEVEL LEARNING IN HIGH SCHOOL SPONSORED BY OTHER COLLEGES AND UNIVERSITIES

A different picture is revealed when institutions are asked about *their* policies toward the acceptance of school-based credits granted by *other* sponsoring colleges or universities. As expected, the selective institutions are most negative, although not overwhelmingly so, with 47 percent of the fifty-six responding selective institutions affirming that they "*would generally not accept such courses for graduation credit.*" This is compared with between 20 and 25 percent of the other four-year institutions, but only 10 percent of Two-Year Colleges agreeing with that assertion.

A similar pattern was revealed in response to a positively worded assertion: "We would treat the [school-based] credits as we would treat any other credits from another college that a student asks to be transferred; that they were earned prior to high school graduation and in a course taught in the high school would be irrelevant." Just over one-half (55 percent) of the Selective Institutions agreed with this assertion, while 75 percent of "Other Universities," between 84 and 88 percent of the Masters and Baccalaureate institutions, and 95 percent of the Two-Year Colleges agreed with this assertion. We tested the strength of this conviction with another assertion: "We might treat such courses differently if we knew that they were taken in high school from high school teachers—but *we probably wouldn't know*" [emphasis in the questionnaire]. More than one-half of the four-year institutions agreed with this assertion (ranging from 80 percent of the fifteen responding Baccalaureate I colleges to 42 percent of the forty-three responding Selective Institutions) while only 26 percent of the 118 responding Two-Year Colleges agreed.

A number of the respondents provided free responses that indicated strong reservations about the school-based courses. From a director of a *college-based* program at a New York public Masters Institution (admittedly with some possible conflict of interest, or at least a possible "conflict of perspective"):

I believe the explosive growth in college credit being offered for courses which are the same courses seniors in previous years were taking solely for high school credit is cheating high school seniors [who are being] deprived of the introductory courses taken by the majority of college freshmen only a few years ago....[W]hen credit is given for courses taken in high school, such credit should be clearly identified on the college transcript as being different from courses taken at the college and emphatically not identified only by equivalent college course numbers....The course content is not really the most important issue here. We have years of comments from [college-based program] participants noting the clear differences between college and high school teaching methods and expectations, not to mention the differences in contributions to learning which come from the college aged class participants.

Several free response comments volunteered a particular concern about the growth of *school-based* programs of college-level credit in high school sponsored by two-year colleges. From a

Research I university in a state that mandates acceptance of such credits came the comment (echoed in almost identical words from a Masters Institution in the same state): “*We have found that students with AP, IB, and no accelerated credit perform better at [the university] than those who present dual enrollment credit from ...public community colleges/high schools.*” And from a Baccalaureate II private institution: “*Of particular suspicion in our area (Southern States) are [two-year] schools using high school faculty to teach college-level freshman English for posting onto a college transcript.*”

Consistent with other analyses, this “suspicion” correlated almost perfectly with the selectivity of the receiving institution. Almost two-thirds of the Selective and Baccalaureate I institutions and 40 percent of Other Universities expressed a “suspicion” of school-based credit, while only 12 percent of the Two-Year Colleges agreed with this expression, as shown in Table 14.

There was reason to believe that four-year colleges might have special concerns about the quality or general appropriateness of *school-based* credits from other colleges, especially since so many of these credits would be coming from community colleges; many four-year colleges and

Table 14: “We are suspicious of college credits earned in high school from high school teachers, even if the teacher is accorded “adjunct status” and monitored by a sponsoring college.”

F = 18.4 P ≤ .05	N	Strongly Agree [5]	Mainly Agree [4]	Neutral [3]	Mainly Disagree [2]	Strongly Disagree [1]	Mean Likert
Selective Institutions	49	37%	27%	8%	16%	12%	3.6 ^a
Other Universities	47	15	26	17	26	17	3.0
Masters Institutions	94	5	18	27	35	15	2.6
Baccalaureate I Colleges	18	6	61	11	17	6	3.4
Baccalaureate II Colleges	69	10	23	23	22	22	2.8
Two-Year Colleges	131	3	9	12	26	50	1.9 ^b

^aSignificantly different than Masters Institutions, Baccalaureate II, and 2-Year Colleges.

^bSignificantly different than all other classified institutions.

**Table 15: Perceptions and Attitudes of Four-Year Institutions
Toward School-Based Versus College- or Examination-Based College-Level Learning in High School**

		Agree/ Correct	Mainly Agree	Mainly Disagree	Disagree/ Incorrect
"We might accept some of the [school-based] credits depending on the college or university from which the credits were earned."	N	113	36	59	47
	%	44%	14%	23%	18%
"We are more inclined to accept college-level credit through the AP Program (than either school- or college-based programs) because of the externally-validated examinations."	N	78	81	48	43
	%	31%	32%	19%	17%
"We would be more inclined to accept college credits if ... taken in regular college classes with "regular" college faculty alongside college students."	N	80	43	25	106
	%	31%	17%	10%	42%

university faculty, particularly in the more selective institutions, tend to "look down upon" credits from community colleges anyway. Presumably, they would be all the more inclined to do so if they were thinking of community college credits actually earned in a high school venue. Perhaps, then, the acceptance or non-acceptance of school-based credits would be affected by the four-year institution's perception of the college or university sponsoring the school-based program. So we sought a response to the assertion: "*We might accept some of the credits, depending on the college or university from which the credits were earned.*" Slightly more than half agreed with the assertion, although it is not clear from the survey whether those institutional respondents who "disagreed" did so because the sponsoring institution did not matter—or because their institution would not accept the credits in any case.

In order to see whether the concerns emanated from the *school-based* nature of the program, or whether they stemmed more from concerns generally toward CLLHS, we queried the respondents whether their four-year college "*would be more inclined to accept the college credits if they had been taken in regular college classes with 'regular' college faculty alongside college students.*" In

other words, would the perception toward college-level learning in high school be the same had the credits been *college-based*—to which just fewer than one half of the respondents replied in the affirmative. In a similar vein, we sought response to the assertion: “*We are more inclined to accept college-level credit through the AP Program (than either school- or college-based programs) because of the externally validated examinations.*” To this query, 63 percent of the 250 four-year colleges and universities responding either “agreed” or “mainly agreed.” Not surprisingly, only 12 percent of Two-Year Colleges agreed with this assertion, and 43 percent “strongly disagreed.” These responses, shown in Table 15, along with the free responses handed back with the survey results, suggest the following:

- There is a resistance to, or suspicion of, the acceptance of *school-based* credits going beyond the resistance to college-level learning in high school generally.
- This resistance seems to be based in part on a special resistance to, or at least a suspicion of, such credits being awarded by community colleges, especially when four-year colleges are then either required by state policy to accept them without further consideration or are otherwise not able even to recognize, much less to evaluate, the credits.
- Insofar as resistance to the granting of graduation credit for CLLHS is based on a view that there is more to college-level learning than “mere” content mastery, such resistance ought to be found as well to AP and other forms of examination-based programs. However, the external validation of the AP (however much it may be questioned on other grounds) seems to give some comfort to the four-year colleges and universities, which are free to accept or reject graduation credit, or adjust the scores and/or numbers of credits to be awarded based mainly on faculty (and even departmental) academic judgments.

POLICIES OF COLLEGES AND UNIVERSITIES SPONSORING PROGRAMS OF COLLEGE-BASED COLLEGE-LEVEL LEARNING IN HIGH SCHOOL

What this research had identified as *college-based* college-level learning in high school is the most difficult to tabulate with any accuracy because so many colleges and universities invite in, or allow in, a few particularly able and ambitious high schools without needing a “program” as

Table 16: Sponsorship of College-Based College-Level Learning in High School

	Number and Percent Reporting College-Based Programs		Average Number of Participating High Schools	Average Number of Participating Students
	N	%	N	N
Selective Institutions	23	40%	21	20
Other Universities	28	55	26	28
Masters Institutions	55	54	53	56
Baccalaureate I Colleges	5	28	6	5
Baccalaureate II Colleges	31	42	32	29
Two-Year Colleges	105	72	99	98

such. Nonetheless, a solid majority of the institutions in our sample, as shown in Table 16, ranging from 40 percent of Selective Institutions to 72 percent of the Two-Year Institutions, reported “a program or programs, publicized in the local high schools, to encourage qualified high school students to take one or more of your courses taught by your regular faculty, for which they will receive credit on your transcript.”

The prevalence of the different modes of *college-based* college-level learning in high school, as reported in the survey, is shown in Table 17. The most popular mode is for “students to come into regular college courses alongside the fully matriculated college or university students.” The 203 institutions reporting such a program constituted 82 percent of all institutions reporting some form or forms of *college-based* program, and 45 percent of all 451 institutions surveyed. The next most common mode was “utilizing the college summer term,” used by 57 percent of the institutions reporting *college-based* programs, followed by “college faculty going into the high school,” “college faculty teaching in the high school by distance learning,” and “instruction taking place at the college, but in special sections after the high school day (and presumably not necessarily with other college students).”

The support for these programs—both for their initiation and for their continuation—is considerable, especially from the campus administrations, public multi-campus system adminis-

Table 17: Modes of College-Based College-Level Learning in High School, All Institutions Reporting "A Program"

Mode[s] of College-Based Programs at the 247 institutions reporting some program[s]. (Multiple responses allowed.)	N	with Some Program[s]	All 451 Surveyed
In "regular" college classroom, within regular schedule, with matriculated students ("full collegiate" mode)	203	82%	45%
In the college or university summer term	140	57	30
In the high school venue, but with "regular" college faculty coming to the high school	81	33	18
In the high school, with "regular" college faculty via distance learning	60	24	13
At the college, but in the afternoon after close of high school day; not with other college students	34	14	8

trations, and state entities such as state departments of education or governors' offices. Support from the faculty and the academic units (i.e. departments or schools) was also strong, at least as viewed by the responding academic administrators, with 91 percent reporting their faculty, and 93 percent reporting their academic units, to have been "supportive" at the initiation of the program. This support was perceived to have increased to 96 and 95 percent respectively for faculty and academic units at the present time. Although the survey itself did not provide reasons for this minimal resistance, it could well emanate from a few faculty, chairs, or deans who see the *college-based* programs as a distraction from what they believe to be the principal mission of the institution. At the same time, unlike the *school-based* programs, the *college-based* programs, by maintaining all curricular content and academic standards in the hands of the regular college or university faculty, present no threat either to enrollments (and therefore to revenue or jobs) or to the faculty's often fiercely held sense of ownership over the content and standards of what constitutes a basis for college credit.

A slightly greater resistance—although reported by the sponsoring colleges and universities to be only 8 percent at the initiation of the program, diminishing to 5 percent at present—was reported to come from the surrounding high schools. This is a surprisingly low level of resist-

ance considering the potential threat to local high schools if the *college-based* programs were to become too aggressive and successful; for example, it could result in a loss of top high school juniors and seniors from key classes and possibly from other school activities. More significant could be a loss of state revenue if the migration of high school juniors and seniors to local colleges or universities were to shift the daily enrollment count that generates state school aid from the high school to the college.¹³ However, the respondents to this part of the survey were all from the colleges and universities reporting successful *college-based* programs, so the potential resistance from high schools had doubtless already been surmounted. Resistance from local high schools to institutions only contemplating such programs could well be greater.

ACCEPTANCE OF *COLLEGE-BASED* COLLEGE-LEVEL LEARNING IN HIGH SCHOOL SPONSORED BY OTHER COLLEGES AND UNIVERSITIES

Most colleges and universities had little difficulty accepting credits earned from *college-based* programs brought in either by first-time freshmen or transfers. Only 22 percent of the Selective Institutions reported that they "*would generally not accept such courses for graduation credit,*" although some of these institutions simply do not accept any transfer credits, regardless of when and where the courses were taken. Most other institutions (from 89 percent of the Masters Institutions to 100 percent of the Baccalaureate I Colleges) also agreed with the positively worded assertion, "*We would treat the [college-based] credits as we would treat any other credits from another college that a student asks to be transferred; that they were earned prior to high school graduation would be irrelevant.*" However, 25 percent of the Selective Institutions disagreed even with this. In general, *college-based* programs are considerably more acceptable, especially to four-year institutions, than are the *school-based* programs.

VI. Conclusions.

Conclusions

A sobering conclusion from this research, completed in 2000, is how little scholarship or even thoughtful analysis there has been on what the authors perceive to be an arena of educational practice that is dramatically expanding and that has the potential to link virtually all high schools with all colleges and universities. It is an arena in which state and federal education authorities, individual schools and school districts, and higher educational institutions are already deeply involved in policies and practices, but they are too frequently acting both in isolation and in the absence of either clear principles or an appreciation of unintended consequences.

KEY CONCLUSIONS

College-level learning is fraught with both great promise and with considerable peril—or at least considerable “complications.” Some key conclusions, informed both by the survey research reported here, and by many discussions over recent years with college and university presidents and chief academic officers, high school teachers and principals, and college-level learning providers, including both *examination-based* college-level learning (especially leaders and participants in the Advanced Placement Program of the College Board) and participants and proponents of *school-based* programs, are the following:

1. The *amount* of college-level learning in high school is growing dramatically, although there are serious gaps in our understanding simply of how much, what kinds, where, and at what rates of growth. For the AP program, in which the numbers of AP courses, student participants, examinations, and examination results are well known, the critical missing descriptive information is what happens to the AP credits, and what difference does the AP experience make to the collegiate experience? For the *school-based* programs, we know too little about the numbers of high schools and high school students participating, either nationwide or by state (important because such practices are so much a function of state policies), who the college or university sponsors are, and what happens to the participating high school students after the college-level learning experience.
2. The several *rationales* for college-level learning—e.g. as part of high school curricular and standards reform, or as a way to reduce alleged duplication of curricular offerings between

high school and college (with or without faster time to the degree), or as a way to enhance a student's prospects for admission to a selective college—are vastly different, as portrayed in Table 2. Furthermore, the particular operative rationale, in the end, will depend fundamentally on the stakeholder or participant—e.g. the high school student or parent, high school principal or teacher (or teacher's union), the college or university academic administration or faculty (or the faculty of a particular department), or any of several supposed “public actors” on behalf of a more general public interest, such as a state department of education or a governor's office.

This paper drew heavily on a database of views toward college-level learning in high school expressed by chief academic officers of a national sample of colleges and universities.

Although the paper has been informed by scholarship from other perspectives, we know much less, for example, about why students participate in AP or other programs of college-level learning, or why high school principals, or district superintendents participate in such programs, and whether these essentially administrative stakeholders differ from their teachers or faculty. In any event, it makes little sense even to talk or write about policies that might encourage, discourage, or otherwise accommodate college-level learning in high school without stipulating which stakeholder or participant is to be the object of that policy, and what purposes are to be served.

3. The enormous *variability* in the missions, governance, and perceived quality of institutions of higher education in America, coupled with the precious principles of academic freedom and institutional autonomy, mean that college-level learning from high school will continue to be treated very differently by different institutions. Virtually all institutions, faculty and administrations alike, will respond favorably to the prospect of entering students better prepared in high school, and so will see college-level learning favorably in that light. However, some institutions (either academic administrators or faculty or both) will resist these courses substituting for *their* courses, whether in a common general education core or the introductory courses to certain disciplinary majors. Other institutions will almost certainly resist these supposedly “college-level” courses or credits less on academic grounds and more on

self-interested grounds of preserving enrollments, net tuition revenue, and jobs (although these professionally “less acceptable reasons” are less likely to show up on a survey questionnaire). Still others may attempt to market the institution by making their accommodation of college-level learning in high school a key part in their promise of accelerated baccalaureates. In short, the rationale or purpose to be served by college-level learning in high school and the policies by which these courses or credits are accommodated by the college or university depends not only on the stakeholder or participant, but on the nature of the institution.

4. The *dimensions* of institutional variation that seem to matter in these policies are the degree of selectivity, the particular academic mission, the vulnerability to market competition, and the susceptibility to state laws and regulations—as, for example, requirements that all public four-year colleges accept without question all community college credits, even if they may have been earned in a *school-based* mode during high school.
5. The *forms* of college-level learning in high school are also vastly different, particularly those that are *examination-based* (principally the AP) and those that are *school-based* (especially those *school-based* programs that are sponsored by community colleges and essentially open-admission four-year colleges). The difference lies not so much in the actual content and the standards of the supposedly college-level high school academic experience (which is perhaps all that really *ought* to matter) but in the perception, especially on the part of the college or university academic administration and faculty, of the integrity of the process.
6. Variations in *institutional type* are confounded with the variations in form of college-level learning in high school. This is particularly revealed in the differences between the policies and procedures of two-year colleges and of the more selective four-year colleges and universities. Two-year colleges (mainly public community colleges) are much less susceptible than four-year college and universities to departmental and faculty possessiveness over *their* curricula and less “wrapped up” in the kinds of academic principles (although sometimes with “self-interested twists”) that so often preoccupy the faculty of four-year colleges and universities.

Even more “confounding” is the instance when the college or university is also a provider or

sponsor of college-level learning in neighboring high schools—and especially in the case of two-year colleges that give college credits to supposedly college-level courses taught to high school students by high school teachers in what we have described as a school-based program of college-level learning in high school. These two-year colleges relate to the phenomenon of college-level learning in high school not principally as potential acceptors or rejecters of such credits brought in by their entering freshmen, but as providers, or sponsors, of college-level learning (which happens also to bring them considerable financial advantage). As such, two-year colleges are heavily invested in furthering the acceptance of college-level learning in high school. They are especially interested in the acceptance on the part of four-year colleges and universities of any credits on the transcripts of their transferring students that happen to have been earned in this school-based mode prior to the student's matriculation at the two-year college.

7. The *growth* of all forms of college-level learning in high school will change the stakes to all participants in ways that policy makers will not be able to control and, perhaps, not even to anticipate. That is, AP could accomplish certain things, with relatively few “waves” or unintended consequences, when it was a very small program, in the hands of a small number of highly able and dedicated secondary school teachers, primarily from private and “good” public high schools. It had a similarly small number of college faculty “true believers,” mainly from private liberal arts colleges and was oriented mainly to “top” high school students aspiring to selective colleges and universities (but not necessarily expecting to graduate early as a consequence of the experience).

However, an AP (or any other *examination-based*) program that aspires (or is required) to accommodate 15 to 30 percent of high school students, is a very different sort of “player,” profoundly affecting both the high school curriculum and the academic experiences and opportunities of virtually all high school students. And in a nation that at the same time treasures the local control of its schools and yet forever tries to “fix them” at state and federal levels of government, there are bound to be increasing questions of *authority* and *legitimacy* directed to the College Board and the Advanced Placement Program, as to any other major player in the provision of college-level learning in the high school.

8. The *Advanced Placement program* needs to maintain the credibility of its authority, which stems from those high school teachers and college faculty, under the direction of the College Board and the psychometric experts of the Educational Testing Service who devise and update the AP course outlines, make up the examinations, grade and score the examinations, and perform the tests of validity and reliability. This challenge of legitimacy will undoubtedly become greater as the AP program continues to grow—and as the stakes to increasing numbers of high school students also grow. For now, the reputation and the credibility of the AP program to college and universities depends on its long reputation, the conservative and rigorous standards for what the program claims to be worthy of consideration for college credit, and the transparency of the process, including the critical separation of *evaluation* from *teaching*.

As the program expands, and as the inevitably increasing numbers (and probably also as increasing *percentages*) of test takers do not receive the 3s, 4s, and 5s deemed worthy of college credit—and/or as increasing numbers of colleges and universities decline to accept these scores for graduation credit—the AP Program is likely to come under political pressure to justify its considerable (and increasing) academic hegemony over the content and standards of the U.S. high school curriculum.

9. The *school-based* programs have a different challenge to their authority and credibility.

Unlike the AP program, the *school-based* programs are, at least in theory, under the direct academic supervision of a college or university, which should attest to the integrity of both the curriculum and the standards of the course (just as it attests to the academic integrity of courses given to fully matriculated students on its campus taught by its “regular” faculty). However, there is a suspicion on the part of many (not all) four-year institutions that this academic supervision may be inadequate. This suspicion is exacerbated by the deep-seated (if unfortunate) prejudice on the part of many four-year college and university faculty and academic administrators toward the content and standards of community college courses anyway—not to mention those courses in the high schools, taught by high school teachers, that the community college is now asserting to be equivalent to the content and standards of its regular courses. And this suspicion is even further exacerbated by the perception that

the embrace of school-based learning on the part of community colleges is driven at least in part by a financial incentive to capture full-time-equivalent enrollment-based state aid; that state aid in many instances has already been paid to the high school that is actually paying for the instruction.

FUNDAMENTAL QUESTION

Underlying all the issues of college-level learning in high school is the deeply important question of what actually ought to constitute the basis for college credit. To some colleges and universities (especially, but not exclusively, more selective ones) *college-level*, at least for graduation credit, may go beyond mastery of content to experiences requiring full (or even full-time) college matriculation. In such a case, the role and worth of college-level learning in high school will be mainly limited to the reform of the high school curriculum and the possibility of some curricular acceleration (but not necessarily early completion) in college. To other colleges and universities, college-level learning in high school expedites the completion of the postsecondary degree, saves money for the parent, student, and taxpayer, and solves, or at least ameliorates, the historic disconnect between the high school and the college in America. This variation is very much part of American education. To the extent that these differences, manifested in both policy and practice, can be based on purposeful variations in institutional mission and academic principles, and can be fully informed by scholarly analysis, American education, both pre-collegiate and postsecondary, will be well served. It is hoped that this analysis makes just such a contribution.

Notes

Notes

1. An exception to this assertion of college and university authority over these policies and practices—itsself with important policy implications—is the occasion when state governments or systems impose on the public institutions' policies regarding the acceptance of college credits earned in high school.
2. AP scoring standards are validated against college students contemporaneously taking the counterpart college course, who answer the same AP examination questions, with lower end of the AP scores to be given a 5 set to reflect the average of the college students who have received an A in the counterpart college course. (Similarly, the lower end of the range of performance earning scores of 4 or 3 are set to reflect the average grades of contemporary college students achieving Bs and Cs in the counterpart college courses.) See “Validating AP Grades,” Advanced Placement Program, College Board Online: <http://www.collegeboard.org/ap/techman/chap5/>
3. This financial advantage is construed by some as a “double counting” of the enrolled student for the receipt of public funding. See Kenneth Barnes (2001).
4. See the College Board's Advanced Placement Web site at <http://www.collegeboard.org/ap/index>. The senior author's understanding of the dilemma faced by the College Board in attempting a balance between the encouragement and rigorous assessment of academic quality and the need to be as inclusive as possible has been informed by his membership on the College Board's *National Commission on the Future of the AP*.
5. Lichten takes the fact that many colleges and universities do not accept AP 3s (and even 4s) as evidence of a slippage in the standards of the AP examination itself, accelerated by the expansion in the number of AP participants, disregarding other possible explanations for institutions declining to grant graduation credit for AP. For a strong rebuttal of Lichten, see Wayne Camara, Neil J. Dormas, Rich Morgan, and Carol Myford, Advanced Placement: Access Not Exclusion. *Education Policy Archives*, 8:40, Aug. 1, 2000.
6. Lee Shulman, head of the Carnegie Foundation for the Advancement of Teaching, first made this point to the senior author.
7. In fact, the proponents of school-based programs point out that the “regular” college instructor may be an adjunct, or sometimes even a graduate student, or even at times the same high school teacher moonlighting as an adjunct at the local college—but in no way necessarily better than the regular high school teacher (and arguably sometimes inferior).

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8. The percentage of youth ages 18-24 who were "high school completers" in 1998 was 94.2 for Asian/Pacific Islander, 90.2 for White non-Hispanic, 81.4 for Black non-Hispanic, and 62.8 for Hispanic. U.S. Department of Commerce, Bureau of the Census, Current Population Survey, October 1998. See also, National Center for Education Statistics, Table 1: Educational attainment of persons 18 years old and over, by state: 1990 to 1996. NCES Web site <http://nces.ed.gov>.
 9. "Very difficult" is more than 50 percent of entering students in the top ½ of high school graduating class, scoring over 1230 on SAT I or 26 on the ACT, and with 60 percent or fewer applicants admitted. *Peterson's Guide to Four-Year Colleges*, 29th ed. 1999. (Princeton: Peterson's Guides).
 10. Probably the main form has been the publication and occasional updating of *Linking America's Schools and Colleges* by Franklin Wilbur, the founder of Syracuse University's Project Advance, and Leo Lambert, published by the American Association for Higher Education. Wilbur and Lambert's *Second Edition* (1995) reported about nine colleges with more than 700 participating high schools in what this paper identifies as *school-based* programs, with another thirty-two colleges sponsoring *college-based* programs, reaching students from more than 3,300 high schools.
 11. The faculty of most public two-year colleges are powerful, but mainly in their collective bargaining role.
 12. This point can be made with the rhetorical question: "Why would a young person want to graduate early from an exceedingly pleasant undergraduate college experience if the alternative can be a semester or two of travel, additional undergraduate academic explorations, or simply an easy senior year with a light course load?"
 13. This was the case, at least initially, with Minnesota's pioneering Postsecondary Enrollment Options program, which initially moved the enrollment-driven state school aid from the high school to the postsecondary institution. This provision was later amended to lessen the disincentives and financial loss to the high schools. This information was provided to the State University of New York by E. Ann Kelly, manager of PSEOP for the Minnesota Higher Education Coordinating Board, February 11, 1993. See also Susan Urahn, *The Postsecondary Enrollment Options Program*. A Research Report. St. Paul, MN: Research Department of the Minnesota House of Representatives, February 1993.

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We experience the benefits of liberal learning by pursuing intellectual work that is honest, challenging, and significant, and by preparing ourselves to use knowledge and power in responsible ways. Liberal learning is not confined to particular fields of study. What matters in liberal education is substantial content, rigorous methodology, and an active engagement with the societal, ethical, and practical implications of our learning. The spirit and value of liberal learning are equally relevant to all forms of higher education and to all students.

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The ability to think, to learn, and to express oneself both rigorously and creatively, the capacity to understand ideas and issues in context, the commitment to live in society, and the yearning for truth are fundamental features of our humanity. In centering education upon these qualities, liberal learning is society's best investment in our shared future.

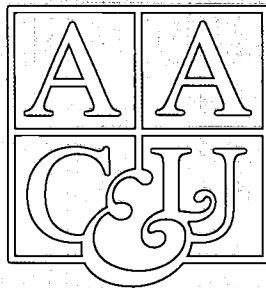
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