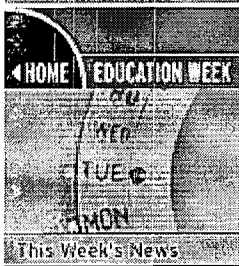


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February 16, 2000

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New Company Hopes To Score Big With Online Advanced Placement Courses

By Andrew Trotter

Eric Delaney knew his first online course—an Advanced Placement U.S. government offering he took last fall—would be a new kind of experience for him.

But the senior, a top student at Marceline (Mo.) High School, didn't expect it would be so tough, and he was taken aback by the score on his first essay: 38 out of 50.

"That doesn't happen real often," Mr. Delaney, 18, recently said of the low mark, which put his perfect 4.0 grade point average at risk.

He recovered by semester's end. But the course, he said, was unlike the usual fare at Marceline High, a 210-student school that offers only one AP course of its own, in calculus. Looking back, he said the online study gave him a taste of the academic demands he expects to face in college.

Mr. Delaney is now taking an AP course in microeconomics online from the same company offering the government course—Apex Learning Inc.

Started in 1998 with a major investment from Paul Allen, a co-founder of Microsoft Corp., Apex has quickly become the most-talked-about player in the expanding niche of online Advanced Placement instruction.

Nationwide, Apex's current four courses—calculus, statistics, government, and microeconomics—are in about 100 schools this year. That number is expected to increase dramatically as the Bellevue, Wash.-based company launches additional courses and begins a broad marketing drive.

Apex recently formed a partnership with Edison Schools Inc., the prominent school management company, and one of its financial backers, which will use Apex's courses and online professional development for Edison's teachers. And it agreed to a marketing deal with Kaplan Educational Centers, a subsidiary of the Washington Post Co., in which the two companies will sell Apex's AP exam-review materials under a joint brand in the consumer market.

Related stories:

["Online Tutors Say They've Got the Answers,"](#) also in This Week's News.

["College Board Plans First Foray Into For-Profit World,"](#) Oct. 6, 1999.

["For-Profit Company To Offer High School Diploma Over Internet,"](#) Oct. 6, 1999.

["Two Reports React to 'Virtual Universities' With Caution,"](#) April 14, 1999.

[Advanced placement](#) defined.

[Distance learning](#) defined.

See our issues page on [Distance Learning](#).

An Attractive Niche

Apex's online competitors include several nonprofit, university-based programs; PA Homeschoolers Inc., a family business based in Kittanning, Pa., that offers 12 AP courses for home schoolers; and Class.com, a for-profit venture owned by the University of Nebraska-Lincoln. Class.com's courses aren't aligned specifically to AP tests, but they are taught at an advanced level.

One reason for the growing interest in online Advanced Placement courses is that many students lack access to such coursework in their schools. Over 40 percent of the nation's high schools offer no AP courses, according to the College Board, the New York City-based nonprofit organization that owns and governs the exams.

Advanced Placement courses, generally recognized as having greater depth than standard high school curricula, are intended to prepare students to take AP exams. Colleges and universities award credit for a high score on the exams.

But many high schools find it difficult or impossible to hire qualified teachers in AP subjects; others say they can't afford to pay for classes that might be attended by only a handful of students.

"We allow schools to incrementally add high-quality classroom experiences, one student at a time," Bryan Barnett, Apex's chief academic officer, said.

The company's courses have been warmly received in its home state of Washington, said Larry E. Norwood, the project coordinator of the state's Internet-based-curriculum grants project.

Mr. Norwood is overseeing the distribution of \$500,000 in state money over two years to support purchases of online AP courses. More than 300 students at 53 schools statewide are participating this year; about 80 percent of the students are using Apex courses, which costs \$395 per semester course per student.

"Apex started out with a pretty good price and an excellent product, and they've been able to corner a great share of that market," Mr. Norwood said.

The company's formula starts with providing an experienced AP teacher for each online class. Enrollment is capped at 25 students, who can be located at schools anywhere in the world.

Lessons draw on sophisticated tutoring software, students' research on the Internet, and online discussions, as well as conventional textbooks and other readings. An Apex teacher e-mails students daily assignments and weekly progress reports, which are also sent to the school and the students' parents.

Apex also provides versions of its courses that allow schools to use their own teachers, as well as review packages that prepare students for particular AP exams.

Promising Start

Marceline High's relationship with Apex began last spring, when four seniors took the online government course from a teacher in Walla Walla, Wash. The school paid a reduced tuition rate because it agreed to be a pilot-test site.

The online option gives the small, rural school a way to offer advanced courses for some of its best students, said Melody Potter, a guidance counselor who oversees the experiment. "It's hard to be able to justify teaching a section with two kids in it," she said.

School officials got really interested after last May's AP test results came out. All four students in the online government course scored at least a 3 out of 5—high enough to earn college credit, Ms. Potter said. In four years, the school's own AP-level calculus course has yet to produce a single such score.

Marceline's experience was mirrored in other high schools that participated in Apex's small trial. Of the total 40 students who completed the company's courses last year, 37 took AP exams, and 31 earned a 3, 4, or 5.

Jamey T. Fitzpatrick, the vice president for development and educational policy of Michigan Virtual University in Lansing, Mich., believes Apex could play a key role in improving the participation of the state's students in AP tests. Currently, 45 percent of Michigan's high schools don't have access to Advanced Placement curricula.

"That's a significant equity issue in this state," Mr. Fitzpatrick said. "One of the most economical ways to try to increase that number is to create alternate delivery vehicles."

MVU, a state-supported economic-development organization, is now marketing Apex courses to Michigan schools; it collects a fee for every school that signs up.

Online AP courses aren't for everyone, Mr. Barnett said, noting that about 22 percent of the students who start an Apex course do not finish it. But he underscored that the schools themselves must pitch in by tracking their students' progress.

"It's easy [for students] to subordinate an online course" to other classwork, he said, "because their regular teachers see them every day."

on the Web

Learn more about online courses offered by [Apex](#), and the University of California's [College Prep Initiative](#).

PHOTOS: Marceline (Mo.) High School offers only one Advanced Placement course, but senior Eric Delaney has been able to take more AP courses using a computer in Melody Potter's office.

—Bryan Day

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"Anderson, Judith" <Judith_Anderson@ed.gov>
01/12/2000 09:07:16 AM

Record Type: Record

To: John B. Buxton/OPD/EOP

cc:

Subject: RE: AP Online

J.B.:

We're working on CJ language that would allow us to handle this one administratively, too. The draft CJ language is below.

Judith
401-3944

* The Challenging Coursework On-Line initiative will support the development of high quality, Web-based Advanced Placement, English-as-a-Second Language, and other challenging courses. Today, students in many high schools in poor rural and inner city schools lack access to the challenging coursework that all students deserve. Distance learning technology can help solve the problem, but only if students have access to high quality on-line coursework. Unfortunately, few such courses exist today. The Challenging Coursework On-Line program will provide funding to develop courses "from scratch" or to improve existing courses. All courses would be evaluated prior to distribution, and developers would be required to provide courseware at discounted rates to needy school districts.

> -----Original Message-----

> From: John_B._Buxton@opd.eop.gov [SMTP:John_B._Buxton@opd.eop.gov]

> Sent: Wednesday, January 05, 2000 3:01 PM

> To: Anderson, Judith

> Subject: RE: AP Online

>

> Thanks, this is precisely what I was looking for. I'm going to try and
> give

> you a call with a question later today.

>

>

>

>

>

>

> (Embedded

> image moved "Anderson, Judith" <Judith_Anderson@ed.gov>

> to file: 01/05/2000 01:29:11 PM

> PIC27699.PCX)

>

>

DOD develops software
by 2 stage process with focus
on leveraging capacity

Course Development

Providers would bid to qualify their courses. The bids would come in two stages. In the first phase, six developers for the ESL course and four of the AP courses--AP Calculus, Computer Science, Physics, Chemistry, and Biology--would receive \$100,000 to prepare and submit proposals and approaches. The best three proposals for each ESL course and the best two for each of the AP courses would receive about \$1 million in funding to develop full instructional course or improve existing courses (or multiple year grants subject to availability of funds of \$3-5M). The offer of initial public research support will be attractive -- particularly for smaller companies. Vendors with existing software in AP and ESL would be encouraged to use the opportunity to improve their systems and obtain qualification. After the year of development, the courses would be evaluated by an independent group (College Board or an organization recommended by the **Web-Based Education Commission**) to determine if they satisfy set criteria. Schools would be notified that the qualifying courses would be made available at half price to eligible students.

↓
where
are
they?
Fiscal
agency?

The program would help companies with existing products in AP and ESL improve their products and help innovative firms develop new products. The most important incentive provided by the program would, of course, be the potential to capture large school markets with a single product. Qualification under the program would allow access to a large market subsidized by the federal government and would be valuable to these firms in marketing to unsubsidized markets worldwide.

Criteria: The AP and ESL courses would be evaluated by the following criteria:

- Plans for testing and verifying approaches in classrooms reflecting undeserved populations (geographic, income, ethnic groups) including participation by local school systems.
- Indications of interest by potential purchasers of the products developed
- Quality of their approach to instruction and likelihood of achieving the expected outcome (proficiency on the AP exams and rapid mastery of English for ESL)
- Techniques for using live instructors communicating with classes over the Internet including strategies for determining how and when the instructor should intervene in the instruction.
- Techniques for encouraging communication among students and answering questions as needed.
- Methods for determining when a student requires personal help or has a question requiring specialized help.
- Quality of the plan to recruit and train instructors for the program.
- Use of open technical standards ensuring that the software can operate over the Internet on any operating system and can be moved to new systems easily as they emerge.
- Conform to open, multi-platform technical standards being established by voluntary standards organizations.
- Modularity allowing easy adaptation to local needs and provision of simple authoring tools to facilitate such adaptation.

private firms own intellectual property / Make tests available to everyone
but can use it for use ~~and~~ it's free

- Engaging instruction designed to hold the student's attention and require constant interaction using simulations and other tools are encouraged.
- In the case of ESL, use of active pronunciation and voice recognition will be encouraged. The systems should be designed for native Spanish speakers but be easily adaptable for students with other first-languages.
- Systems to monitor a student's progress and ensure mastery before moving to a new level – the system should not force the student to move too quickly for his or her comfort.
- Methods proposed for evaluating the system and ensuring improvements in future systems.

2nd sciences, multidisciplinary

The Challenging Coursework On-Line initiative will support the development of high quality, web-based Advanced Placement, ~~Second~~ Language, and other challenging courses. Today, students in many high schools in poor rural and inner city schools lack access to the challenging coursework that all students need and deserve. Distance learning technology can help solve the problem, but only if students have access to high quality on-line coursework. Unfortunately, few such high-quality courses exist today. The Challenging Coursework On-Line program will provide funding for a two-stage grant process to support the research and speed development of high-quality coursework by developers in partnership with local high-need LEAs. The first round of grants would be made to help developers plan and prepare full proposals. The second round would provide three year grants to developers for research and development work.

stimulate the development of innovative for high quality

Challenging Coursework R&D Initiative

Providers would bid to qualify their courses. The bids would come in two stages. In the first phase, six developers for Advanced Placement, second language and other challenging high school coursework would receive grants of \$100,000 to prepare and submit proposals and approaches. The best three proposals for each course would receive about \$1 million in funding to develop full instructional course or improve existing courses. The offer of initial public research support will be attractive – particularly for smaller companies. Vendors with existing software in AP and ESL would be encouraged to use the opportunity to improve their systems and obtain qualification. After the year of development, the courses would be evaluated by an independent group (College Board or an organization recommended by the **Web-Based Education Commission**) to determine if they satisfy set criteria. Schools would be notified that the qualifying courses would be made available at half price to eligible students.

The program would help companies with existing products in AP and ESL improve their products and help innovative firms develop new products. The most important incentive provided by the program would, of course, be the potential to capture large school markets with a single product. Qualification under the program would allow access to a large market subsidized by the federal government and would be valuable to these firms in marketing to unsubsidized markets worldwide.

Criteria: The AP and ESL courses would be evaluated by the following criteria:

- Quality of their approach to instruction and likelihood of achieving the expected outcome (proficiency on the AP exams and rapid mastery of English for ESL)
- Techniques for using live instructors communicating with classes over the Internet including strategies for determining how and when the instructor should intervene in the instruction.
- Techniques for encouraging communication among students and answering questions as needed.
- Methods for determining when a student requires personal help or has a question requiring specialized help.
- Quality of the plan to recruit and train instructors for the program.
- Use of open technical standards ensuring that the software can operate over the Internet on any operating system and can be moved to new systems easily as they emerge.

change the nature of how kids learn

AP require that there are other initiatives working to get kids access to APs - to make sure every kid in America has a way to bring AP to their kids.

Briget
Linda
Bernadette Adams
Yates

This is to make sure content is equity

- Conform to open, multi-platform technical standards being established by voluntary standards organizations.
- Modularity allowing easy adaptation to local needs and provision of simple authoring tools to facilitate such adaptation.
- Engaging instruction designed to hold the student's attention and require constant interaction using simulations and other tools are encouraged.
- In the case of ESL, use of active pronunciation and voice recognition will be encouraged. The systems should be designed for native Spanish speakers but be easily adaptable for students with other first-languages.
- Systems to monitor a student's progress and ensure mastery before moving to a new level – the system should not force the student to move too quickly for his or her comfort.
- Methods proposed for evaluating the system and ensuring improvements in future systems.

>
>
> Record Type: Record
>
>
> To: John B. Buxton/OPD/EOP
>
> cc:
> Subject: RE: AP Online
>
>
>
>
> I've attached the proposed legislation for Next Generation below and
> highlighted relevant sections. I can check to see whether there is any
> further description of what constitutes a consortium (i.e., specified
> roles
> for members) anywhere else in the proposed bill. Generally, however,
> applicants can specify what members' roles will be. Given that the
> businesses will be developing software for eventual use by students, I'm
> assuming that they might want to work with LEAs in the development process
> -- so the requirement to work in consortia with SEAs or LEAs could mesh
> nicely. If you decide that isn't the case, we would need to have special
> language.
> When we get to the final phase -- providing funds to schools to allow them
> to purchase the courses -- we'd probably need to use another program. For
> the AP part, the Advanced placement incentives program might be a
> possibility.
> Judith
> 401-3944
> > -----Original Message-----
> > From: John_B._Buxton@opd.eop.gov [SMTP:John_B._Buxton@opd.eop.gov]
> > Sent: Wednesday, January 05, 2000 12:59 PM
> > To: judith_anderson@ed.gov
> > Subject: AP Online
> >
> > I spoke with Pete Weber yesterday about AP Online and the need for new
> > authorizing language if we don't have LEAs (or states perhaps) as a
> > partner
> > in our online course content development program. Could you email or fax
> > me
> > (456 5581) the authorizing language so I make sure I understand how we
> > need
> > to involve LEAs? Thanks. Also, I want to make sure that we aren't being
> > duplicative with what can already be done under the Next gen program.
> > Thanks. If you need to call, I'm at 456 5567.
> >
> If you want the text in a better format, it's on line at
> <http://www.ed.gov/offices/OESE/ESEA/legislation/index.html>
> "SUBPART 1 -- NEXT-GENERATION TECHNOLOGY INNOVATION AWARDS
> "PURPOSE; PROGRAM AUTHORITY
> "SEC. 3211. (a) PURPOSE. It is the purpose of this subpart to-
> "(1) expand the knowledge base about the use of the next
> generation of advanced computers and telecommunications in delivering new

- > applications for teaching and learning;
- > "(2) address questions of national significance about the
- > next generation of technology and its use to improve teaching and
- > learning;
- > and
- > "(3) develop, for wide-scale adoption by State educational
- > agencies and local educational agencies, models of innovative and
- > effective
- > applications of technology to teaching and learning, such as high quality
- > video, voice recognition devices, modeling and simulation software
- > (particularly web-based software and intelligent tutoring), hand-held
- > devices, and virtual reality and wireless technologies, that are aligned
- > with challenging State academic content and student performance standards.
- > "(b) PROGRAM AUTHORITY.-(1) IN GENERAL. The Secretary is
- > authorized, through the Office of Educational Technology, to award grants,
- > contracts, or cooperative agreements on a competitive basis to eligible
- > applicants in order to carry out the purposes of this subpart.
- > "(2) PERIOD OF AWARD. The Secretary may award grants,
- > contracts, or cooperative agreements under this subpart for a period of
- > not
- > more than five years.
- > "ELIGIBILITY
- > "SEC. 3212. (a) ELIGIBLE APPLICANTS. In order to receive an award
- > under this subpart, an applicant shall, subject to subsection (c)(1), be a
- > consortium that includes-
- > "(1) at least one State educational agency or local
- > educational agency; and
- > "(2) at least one institution of higher education,
- > for-profit business, museum, library, or other public or private entity
- > with
- > a particular expertise that would assist in carrying out the purposes of
- > this subpart.
- > "(b) APPLICATION REQUIREMENTS. In order to receive an award under
- > this subpart, an eligible applicant shall submit an application to the
- > Secretary at such time, and containing such information, as the Secretary
- > may require. Such application shall include-
- > "(1) a description of the proposed project, and how it
- > would carry out the purposes of this subpart; and "(2)
- > a detailed plan for the independent evaluation of the project, which shall
- > include benchmarks to monitor progress toward specific project objectives.
- > "(c) PRIORITIES. In making awards under this subpart, the
- > Secretary may establish one or more priorities consistent with the
- > objectives of this subpart, including:
- > "(1) A priority for applicants, the members of which are
- > one or more of the particular types described in subsection (a)(2).
- > "(2) A priority for projects that develop innovative
- > models of effective use of educational technology, including the
- > development
- > of distance learning networks, software, (including software deliverable
- > through the Internet), and online-learning resources.
- > "(3) A priority for projects serving more than one State
- > and involving large-scale innovations in the use of technology in
- > education.
- > "(4) A priority for projects that develop innovative models

- > that serve traditionally underserved populations, including low-income
- > students, students with disabilities, and students with limited English
- > proficiency.
- > "(5) A priority for projects in which applicants provide
- > substantial financial and other resources to achieve the goals of the
- > project.
- > "(6) A priority for projects that develop innovative models
- > for using electronic networks to provide challenging courses, such as
- > Advanced Placement courses.
- > "USES OF FUNDS
- > "SEC. 3213. A recipient shall use funds awarded under this subpart
- > to-
- > "(1) develop new applications of educational technologies
- > and telecommunications to support school reform efforts, such as wireless
- > and web-based telecommunications, hand-held devices, web-based learning
- > resources, distributed learning environments (including distance learning
- > networks), and the development of educational software and other
- > applications; and
- > "(2) carry out other activities consistent with the purposes of this
- > subpart, such as-
- > "(A) developing innovative models for improving
- > teachers' ability to integrate technology effectively into course
- > curriculum, through sustained and intensive, high-quality professional
- > development;
- > "(B) developing high-quality, standards-based,
- > digital content, including multimedia software, digital video, and
- > web-based
- > resources, such as-
- > "(i) new technological formats to facilitate deeper
- > subject matter understanding in particularly challenging learning
- > environments in areas such as physics, foreign language, or Advanced
- > Placement courses;
- > "(ii) computer modeling, visualization, and
- > simulation tools;
- > "(iii) new methods for assessing student
- > performance;
- > "(iv) web-based and other distance learning
- > curricula and related materials, such as interoperable software
- > components;
- > "(v) learning-focused digital libraries,
- > information retrieval systems, and other designs for supporting broad
- > re-use
- > of learning content; and
- > "(vi) software that supports the
- > development, modification, and maintenance of educational materials;
- > "(C) using telecommunications, and other
- > technologies, to make programs accessible to students with special needs
- > (such as low-income students, students with disabilities, students in
- > remote
- > areas, and students with limited English proficiency) through such
- > activities as using technology to support mentoring;
- > "(D) providing classroom and extracurricular
- > opportunities for female students to explore the different uses of
- > technology;

> "(E) promoting school-family partnerships, which
> may include services for adults and families, particularly parent
> education
> programs that provide parents with training, information, and support on
> how
> to help their children achieve to high academic standards;
> "(F) acquiring connectivity linkages, resources,
> distance learning networks, and services, including hardware and software,
> as needed to accomplish the goals of the project; and
> "(G) collaborating with other Department of
> Education and Federal information technology research and development
> programs.
> "EVALUATION
> "SEC. 3214. The Secretary is authorized to-
> "(1) develop tools and provide resources for recipients of
> funds under this subpart to evaluate their activities;
> "(2) provide technical assistance to assist recipients of
> funds under this subpart in evaluating their projects;
> "(3) conduct independent evaluations of the activities
> assisted under this subpart; and
> "(4) disseminate findings and methodologies from evaluations
> of activities assisted under this subpart, or other information obtained
> from such projects that would promote the design, replication, or
> implementation of effective models for evaluating the impact of
> educational
> technology on teaching and learning.
> "AUTHORIZATION OF APPROPRIATIONS
> "SEC. 3215. For purposes of carrying out this subpart, there are
> authorized to be appropriated such sums as may be necessary for fiscal
> year
> 2001 and for each of the four succeeding fiscal years."
>
>
>
>
>
> << File: PIC27699.PCX >>

Every American High School Student Can Take Advanced Placement Courses Equal to the Best Offered Anywhere

Every American Can Learn English Quickly and Efficiently

The E-rate, the Technology Literacy Challenge, and other Clinton/Gore Administration programs have helped put computers and internet connections into nearly every school and more than a third of all classrooms. Teachers and students even in small rural schools can reach libraries of materials that would have made scholars at major universities jealous in 1990. But this is just the beginning. It's now time to put these computers and connections to work bringing new kinds of teaching materials to students and teachers.

Advanced Placement courses in science and mathematics in high school are important for getting talented kids interested in these subjects and preparing them for demanding college courses. More than half of all students are in schools too small or too poor to provide advanced placement courses. The program proposed will provide funds directly to schools that will allow them to purchase high-quality interactive courses for 100,000 students each year in calculus, physics, chemistry and other subjects over the internet. These courses often offer on-line tutorial assistance which can supplement local teaching resources as needed.

3.4 million children in K-12 schools need language instruction in English. The number is increasing rapidly and over a quarter of all US schools are trying to hire additional instructors. In addition, the Department of Education supports English instruction for 1.8 million adults and the program has a long waiting list. The proposed program would provide resources for schools to purchase online language instruction materials and similar resources for facilities offering instruction to adults. The program would provide resources for 800 thousand students to use online English language instruction each year.

Thanks to the programs put in place by the Administration thus far, US schools are making spectacular progress in using information technology to enrich instruction for every kid in every age group in every school. This program will provide resources helping them take the next big step in using IT in schools. By supporting competitive products and encouraging development of courses that can easily be modified, each course can be relatively inexpensively modified according to local instructional needs and practices. It will encourage creative partnerships between educators and IT businesses to develop and deliver high-quality instructional materials over the net and it will provide schools with resources to select and purchase materials suitable to their needs in two key areas: advanced placement and English Language Instruction.

Program Costs:

	\$ millions
Providing AP courses in Science and Math to underserved schools	\$40
ESL courses for 100,000 K-12 students	\$100
ESL courses for 1.8 million adults (software only)	\$120
Total	\$260

How It Will Work:

Tuition Assistance.

The Department of Education will provide 50 percent (up to \$400 per year) of the tuition for qualifying students for on-line AP that meet standards established by a non-federal certifying organization. This would support both software costs and the services of online tutors needed to supplement local instructors for 100,000 high schools students who otherwise would not have access to AP courses.

ESL courses would provide 50 percent (up to \$100 per year per student) for software and limited online instructional support for 900 thousand students per year. Adult ESL students may receive \$60 per course.¹

Qualifications for both AP and ESL students could be based on existing ED programs that help low-income students pay for AP exams² and programs aimed at ESL instruction.

Course Development/Qualification. (\$15 million for development)

Providers would bid to qualify their courses. The bids would come in two stages. In the first phase, six developers for the ESL course and each of the AP courses--AP Calculus, Computer Science, Physics, Chemistry, and Biology--would receive \$100,000 to prepare and submit proposals and approaches. The best three proposals for each course would receive about \$1 million in funding to develop full instructional course or improve existing courses. The offer of initial public research support will be attractive -- particularly for smaller companies. Vendors with existing software in AP and ESL would be encouraged to use the opportunity to improve their systems and obtain qualification. After the year of development, the courses would be evaluated by an independent group (College Board or an organization recommended by the **Web-Based Education Commission**) to determine if they satisfy set criteria. Schools would be notified that the qualifying courses would be made available at half price to eligible students.

The program would help companies with existing products in AP and ESL improve their products and help innovative firms develop new products. The most important incentive provided by the program would, of course, be the potential to capture large school markets with a single product. Qualification under the program would allow access to a large market subsidized by the federal government and would be valuable to these firms in marketing to unsubsidized markets worldwide.

Criteria: The AP and ESL courses would be evaluated by the following criteria:

- Quality of their approach to instruction and likelihood of achieving the expected outcome (proficiency on the AP exams and rapid mastery of English for ESL)

¹ We are trying to find out how much ED currently spends supporting the 1.8 million adults enrolled in ED -- supported English as a Second Language programs.

² Thirty-three states and the District of Columbia applied for the AP Incentive Program grants and will share in more than \$2.8 million to encourage low-income students to prepare for and take AP tests. US Department of Education, July 21, 1999.

- Techniques for using live instructors communicating with classes over the Internet including strategies for determining how and when the instructor should intervene in the instruction.
- Techniques for encouraging communication among students and answering questions as needed.
- Methods for determining when a student requires personal help or has a question requiring specialized help.
- Quality of the plan to recruit and train instructors for the program.
- Use of open technical standards ensuring that the software can operate over the Internet on any operating system and can be moved to new systems easily as they emerge.
- Conform to open, multi-platform technical standards being established by voluntary standards organizations.
- Modularity allowing easy adaptation to local needs and provision of simple authoring tools to facilitate such adaptation.
- Engaging instruction designed to hold the student's attention and require constant interaction using simulations and other tools are encouraged.
- In the case of ESL, use of active pronunciation and voice recognition will be encouraged. The systems should be designed for native Spanish speakers but be easily adaptable for students with other first-languages.
- Systems to monitor a student's progress and ensure mastery before moving to a new level – the system should not force the student to move too quickly for his or her comfort.
- Methods proposed for evaluating the system and ensuring improvements in future systems.

Why AP and ESL: AP and ESL courses were selected for three reasons. (1) Demand for these courses is high and growing, (2) many school systems have difficulty offering courses in these areas because of a lack of resources or because not enough students are present in the school to justify hiring staff to teach them, and (3) the instructional resources being developed for delivery over the Internet are well-suited to teaching them.

(1) Demand:

Access to AP. Research clearly shows that students who take challenging course work, like AP courses, prior to college, excel in college and later on in life. While the AP program is open to all students, not all schools participate. In fact only about an estimate fifty percent of high schools in the U.S. offer AP courses. It is not surprising that students who attend schools that offer AP courses and examinations are probably more likely to take AP examinations than students who attend schools that do not participate in the AP program.

- In 1997, whites were more likely than blacks or Hispanics to take AP examinations in all subject areas, with the exception of foreign languages.
- By participating in the AP program, high school students may acquire college credit for their knowledge of college-level subjects.

ESL.. The number of limited English proficiency (LEP) students in our nation's schools is large and growing. Between 1990 and 1997, the number of LEP students increased by 57 percent, to roughly 3.4 million. The lack of English language skills make it difficult to ensure that all children receive an adequate education. Large immigrant populations have placed huge budgetary burdens on school systems in Texas, Florida, and California; however, LEP students and their families are increasingly living in places that have not previously served large numbers of LEP students. Over the past 10 years, the LEP population more than doubled in 18 states: Alaska, Florida, Georgia, Idaho, Indiana, Iowa, Kansas, Kentucky, Minnesota, Montana, Nebraska, Nevada, New Hampshire, North Carolina, Oklahoma, Oregon, Tennessee, and Washington. LEP students arrive at their schools at various ages and often with little or no prior formal schooling. Twelve percent of LEP students in middle school and 20 percent in high school have missed more than two years of schooling since age six. Twenty-three percent of LEP students have limited skills in their native language.

In 1998, 54 percent of all teachers taught LEP or culturally diverse students, yet only 20 percent felt very well prepared to meet the needs of these students. While these numbers of students are increasing, in last school for which data was available, 1993-1994, 27 percent of all schools with bilingual/ESL teaching vacancies found them very difficult or impossible to fill, more than for many other teaching fields.

There also is an enormous demand for adult ESL courses. In 1997, 1.85 million adults took ESL courses supported by the US Department of Education. There are long waiting lists for these courses in major cities and many rural areas lack any ESL learning facilities.³ Of the 12 million adults that speak something other than English as their primary language, only about 11 percent took ESL courses. About 25 percent, 3 million adults, reported that they had not taken an ESL course but were interested in doing so. Among those who wanted to take a course and were aware of opportunities, the main barriers to doing so were time, money, and child care/transportation—making online courses that could be delivered relatively inexpensively and taken anywhere and anytime, a natural fit to address these issues.

(2) *New Technology* The computers and communication systems becoming available in even the smallest and most remote school systems in the US are capable of being used much more effectively than they are today. It is possible, for example, to use JAVA™ applets to build powerful, simulations of chemistry experiments, methods for visualizing complex concepts in cellular biology, and similar tools. Push technology, shared whiteboards, streaming audio, and plain old email correspondence can be used to create collaborative environments and ensure that questions are promptly, and expertly answered. These and other methods open the possibility that a single student in an inner city school or a remote rural school can be given a first-rate AP course with help from skilled instructors and an ability to play with simulations of all manner of expensive scientific tools.

³ National Evaluation of Adult Education Programs (NEAEP) prepared for the U.S. Department of Education with data from the 1991/1992 program year.

The new information devices are being used with great facility to teach foreign languages in places like the federal Foreign Services Language Schools and courses taught by the US military and intelligence communities. Many of these schools are using products developed by commercial suppliers to facilitate learning of both spoken and written languages. None are designed to teach English but the methods of instruction developed can easily be moved to meet the needs of ESL. The ability to modularize software also means that the same instructional package can be quickly adapted to teach English to people with many different native languages – if this objective is built into the design process at an early stage.

In both AP and ESL, the program can expect bids from many highly qualified firms eager to expand their methods into Internet-based instruction.

EDUCATION DAILY

The education community's independent daily news service

Clinton Enacts Budget; Both Sides Claim Victory

President Clinton yesterday signed into law the fiscal 2000 education budget, providing \$2 billion more for federal school programs but disappointing advocates who had hoped for a record-breaking windfall.

Budget 2000

After implementing a spending cut of 0.38 percent, the Education Department this year will get an increase of \$2.07 billion, or 6.1 percent. That boost, for \$35.6 billion overall, falls short of the \$5 billion increase sought by the Committee for Education Funding (CEF), a non-partisan coalition of K-12 and higher education groups (ED, April 22).

"This was not a banner year for education funding," said Ellin Nolan, CEF's vice president and a lobbyist for the Coalition of Higher Education Assistance Organizations. "We want Congress and the president to ... commit to a substantial increase in education funding in FY 2001."

The next budget battle is just around the corner. Clinton must submit his last budget to Congress in February.

White House, GOP Celebrate

The White House regards the fiscal 2000 bill, H.R. 3194, as an outright victory, noting that the measure provides:

- \$253.7 million more, to \$453.7 million overall, for after-school programs;
- \$100 million more, to \$1.3 billion overall, for smaller classes in early grades; and
- \$134 million for improvements to low-performing Title I schools through public school choice, a new allocation.

"We value education, and this budget truly puts education first, continuing our commitment to hire 100,000 highly qualified teachers (more on p. 2)

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Online Service Broadens Access To AP Coursework

More than half of American high schools offer Advanced Placement (AP) classes, which allow ambitious students to earn college credit in advance. But critics say that's not enough, considering the increasing weight such courses receive in the college admissions process.

A high-profile lawsuit in California has put a spotlight on the issue of disparate access to AP courses. Demanding access for all qualified and interested students, the ACLU argues that limited AP offerings in poorer schools hurt low-income students' chances of acceptance into public colleges (ED, Aug. 3).

Robert Vaughan, coordinator of the Seattle Public Schools' gifted and talented program, saw the same problem in his district and elsewhere in Washington state. Whereas some high schools offered several AP classes, others offered none.

His musings on how to bridge that part of the "digital divide" led to the arrival of one of this decade's more promising advances in education technology: online AP courses.

In hopes of solving the AP access gap, Vaughan mentioned one idea to a parent who happened to work for Microsoft co-founder Paul Allen: (more on p. 4)

Clinton Enacts Budget; Both Sides Claim Victory (Cont.)

to lower class size in the early grades," Clinton said Monday.

Congressional Republicans, meanwhile, touted the bill as a victory, too. They succeeded in devoting a greater share of money in Clinton's class-size program to teacher training, increased special ed funding by nearly \$700 million, to \$5 billion, and raised the maximum Pell Grant to \$3,300, beating Clinton's request.

And the House GOP portrayed the spending cut—to be implemented by the Clinton administration, not by Congress—as an important victory. "We tried to cut waste by just sug-

gesting a 1 percent across-the-board cut," said House Majority Whip Tom Delay, R-Texas, referring to a bill including a cut of 0.97 percent that Clinton vetoed. "Incredibly, the Democrats maintain that a measly 1 percent of waste could not be found in the federal government. Well, even the president eventually agreed with us."

But the House GOP fell short of its goal—which Republican lawmakers often cited in April, when debating the fiscal 2000 budget resolution—to increase funding for K-12 programs by at least \$2.3 billion.

—William J. Cahir

Small Schools, Reforms Get Bipartisan Praise, Money

Lawmakers are cheering many provisions in the final education spending deal for fiscal 2000, including a \$45 million appropriation for smaller schools and millions more for best-practices reforms.

House Democrats claim that Rep. David Obey, D-Wis., the top liberal on the House Appropriations Committee, secured the \$45 million to help school districts operate smaller high schools. Meanwhile, House Republicans touted the \$134 million secured by Rep. Bill Goodling, R-Pa., to turn around low-performing Title I schools (ED, Nov. 17).

Lawmakers from both parties, meanwhile, bragged about an \$85 million increase in support for the Comprehensive School Reform Demonstration (CSRD) line-item, which Congress boosted to \$255 million overall. The program urges high-poverty schools to adopt research-based school reforms, such as the Success for All reading program. Both Obey and Rep. John Porter, R-Ill., creators of the CSRD initiative, have said it deserves more money.

The fiscal 2000 deal provides a \$75 million increase, to \$220 million, for Obey-Porter incentive grants to schools that want to adopt research-based, comprehensive reforms. Also, it appropriates \$10 million more, to \$20 million in FY2000, for expanded research and development of reform models.

But Congress froze at \$15 million its support for capacity-building contracts with school reform developers, who train expert facilitators in research-based programs for schools in rural and other isolated areas.

The \$45 million small-schools initiative, an afterthought compared to President Clinton's \$1.3 billion program for reducing class size in early grades, is a new competitive grant program. Obey's staff says the money will enable districts to create schools within schools; establish career academies; or structure the school day in any way that would increase the personal attention students receive. The program emphasizes the need for smaller high schools. (more)



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Supreme Court Dismisses Part Of Texas Race Case

The Supreme Court yesterday threw out part of a white student's lawsuit alleging that the University of Texas denied him admission to a doctoral program because of his race.

The high court ruled in an unsigned decision that a federal appeals court erred in ordering to trial a race-based admissions case brought by Francois Lesage, despite evidence that other significant factors contributed to his being denied admission to the school's doctoral program in counseling psychology.

The justices held that the government is not liable for damages over a decision alleged to be illegal in cases where it is clear the decision was based on legally permissible grounds and therefore would have been made anyway.

"Where there is no allegation of an ongoing or imminent constitutional violation to support a claim of forward-looking relief, the government's conclusive demonstration that it would have made the same decision absent the alleged discrimination precludes any finding of liability," the justices wrote.

Slim Chance

University officials say Lesage would not have been admitted in the 1996-97 school year even if they did not use a race-conscious admissions policy. Officials testified in pretrial hearings that Lesage was eliminated from consideration in the first round, when the applicant pool for roughly 20 available slots was narrowed from 220 to 40.

Eighty applicants had higher undergraduate grade point averages than his; 152 scored higher on graduate school admission tests than he did; and 73 had higher overall scores than his. But Lesage disputed officials' contentions that race was not factored into decisions until the applicants were whittled down to 40.

Compared with other applicants, Lesage fell short on a number of criteria, which include an applicant's undergraduate grade-point average, Graduate Record Exam scores, personal statement and letters of recommendation.

Lesage had a 3.65 GPA with a 1,030 score on the GRE, but the average GPA for those accepted was 3.56 with a GRE score of 1,242. The averages among minorities accepted were 3.45 and 1,186.

The U.S. District Court of Texas dismissed Lesage's lawsuit before it reached trial, holding that he did not prove discrimination on the basis of being white. But the 5th Circuit Court of Appeals reversed that decision after hearing statements from a member of the admissions committee who stressed the need for "qualified minority applicants."

That court said a trial was needed to determine whether race was a factor in this case.

The Supreme Court reversed the 5th Circuit Court of Appeals ruling in *Texas v. Lesage* (98-1111), ordering the lower court to review the case again in light of its Nov. 29 ruling. The appeals court will also review Lesage's claims under commonly used federal civil rights laws. —Esmeralda Barnes

Small Schools, Reforms Get Bipartisan Praise, Money (Cont.)

The effort is needed, Democrats say, because over the next 10 years, the growth in student enrollment will shift to high schools. Analysts expect the high school population to jump by 1.2 million students, to 14.7 million, by 2009.

Meanwhile, Sen. Jeff Bingaman, D-N.M., praised Goodling's \$134 million plan for reforms to Title I schools identified as needing academic improvement.

The nation's major school groups have criticized the plan as an ill-conceived mandate to run public school-choice programs (ED, Nov. 18). But Bingaman welcomed the concentration of added money on troubled schools.

"In 1998, only eight states reported that school support teams have been able to serve the majority of schools identified as in need of improvement," he said. "Less than half of the schools identified as being in need of improvement in 1997-98 reported that this designation led to additional professional development or assistance."

The \$134 million will "ensure that school districts have necessary resources available to implement the corrective action provisions of Title I," he added. —William J. Cahir

Online Service Broadens Access To AP Coursework (Cont. from p. 1)

Allow online access to AP courses to meet "the needs of that motivated student who is ready to take an AP class but doesn't have a teacher."

Allen, now a venture capitalist that sees online education as one of Internet commerce's most promising fields, quickly spotted a business opportunity. In 1997, he founded APEX Online Learning with the goal of democratizing (and profiting from) access to AP coursework and exams, which are administered by the College Board.

After pilot testing last year, the Seattle-based APEX went fully functional this semester. Now, 300 students are enrolled in virtual AP classes (of up to 25 students each) through APEX's online network, and 18,000 students have used APEX to review for AP exams.

"We're going to make a major contribution to education," said Sally Narodick, APEX's chief executive officer. "Schools need to open their minds and bring distance-learning into the classrooms."

She sees isolated rural schools and underserved urban schools as the APEX's target market, as well as individual families and middle-class schools that simply cannot offer every type of AP class.

The company's biggest obstacle, she said, is access—even in 1999, not all schools are wired to the Internet or have adequate access for programs like APEX. But federal subsidies for online access and other initiatives are quickly changing that, she said.

APEX currently offers versions of four AP subjects: calculus, statistics, government and politics, and microeconomics (macroeconomics will be added to its catalog this spring). It hopes to roll out up to 12 more courses over the next five years and enroll thousands more students.

Seeding Opportunity

In all, the College Board offers 32 AP courses in 18 subject areas. Founded in 1956, the program is seen as one of education's success stories and a rare example of a rigorous, nationally accepted curriculum. Last year, over 700,000 students took more than 1 million AP exams (ED, March 16). Ninety percent of colleges offer credit for AP courses.

The courses, developed by AP instructors, college professors and multimedia experts, meet both College Board and University of California guidelines. APEX students who do well on AP exams receive the same college credit as "bricks and mortar" students.

Last year, students who participated in the APEX pilot program outdid their peers nationally: 87 percent of them scored a 3 or higher on AP exams (the threshold for college credit), compared with 65 percent nationally.

Instead of merely posting course material online and allowing students to "sink or swim," APEX has sought to create a virtual classroom where students receive individual guidance and support.

So far, the company employs 14 online instructors, who conduct online discussions and grade student work. Students correspond with their online instructor almost daily through e-mail, faxes, phone calls and live Internet discussions.

Using Technology For Good

Students must spend at least five hours online a week to remain in good graces with APEX. If a student falls behind in class, APEX notifies onsite mentors at each school. Mentors and parents receive e-mail reports on each student every week.

Each APEX class costs \$395. Another program expanding access to AP courses is a relatively new federal grant program that pays the \$75 AP exam fees for low-income students. In the recently approved federal budget, funding for the program jumped to \$15 million from \$4 million (ED, May 22, 1998).

Vaughan, who mentors 20 students in Seattle APEX courses, believes schools have a moral imperative to use technology to expand AP access because "we know it makes [students] successful when they go to college."

"It adds an ethically worthwhile twist to the Internet," he said. "It creates opportunity in schools with no history of AP classes."

For more information, contact APEX Online Learning at 110-110th Ave. NE, Suite 385, Bellevue, WA 98004; (800)453-1454; e-mail: inquiries@netu.com; or apex.netu.com.

—Jonathan Fox

Head Start Plans Grants To Put Experts' Report To Work

Congress gave the Head Start preschool child development program \$17 million this year for research and evaluation studies to assess the impact of the 35-year-old program.

Funding is just in time to implement experts' recent recommendations on how to conduct the rigorous research Congress wants. The program will issue a grant announcement early next year, a spokesman for the Health and Human Services Department said last week.

Lawmakers continue to support the popular big-ticket program, providing \$5.3 billion for fiscal 2000, at President Clinton's request.

But Congress and its watchdog, the General Accounting Office, complain that research is inadequate to judge the program.

Barriers to obtaining good data have included problems of conducting controlled trials, which by definition involve denying program participation to many children.

A new framework for research from the congressionally mandated Advisory Committee on Head Start Research concludes controlled experiments are a must. The report says research should:

- ✓ Address a limited number of questions, with program impact as the primary question;
- ✓ Examine a limited number of pre-specified child and family outcomes likely to show the greatest effect of participation, with school readiness the primary outcome;
- ✓ Have multiple measures in independent domains;
- ✓ Address racial, cultural and linguistic differences;
- ✓ Minimize selection, participation, attrition and measurement bias;
- ✓ Capture how program variation is related to outcomes;
- ✓ Provide for longitudinal evaluation of children; and
- ✓ Provide information that will be useful for continuously improving Head Start.

Access the report, "A Recommended Framework for Studying the Impact of the Head Start Program," at www.acf.dhhs.gov/programs/hsreac.
—Pam Moore

Funding Alert

◆ **Compaq Teaching With Technology Grants:** Compaq Computer Corp. is seeking applications under its Teaching with Technology grant program, an annual competition that recognizes K-12 educators who use technology creatively and effectively to improve student learning.

Submitted initiatives must be in use during the current school year.

Deadline: March 15. Applications are available now, and will be accepted online.

Funds: One winner per state will receive a Compaq computer to support their classroom technology initiative. State winners will compete in a second, regional round. Nine winners, one from each region, will receive a server in addition to the computer.

The regions are: Mid-Atlantic states, New England, South Central states, Gulf Coast states, Golden area (California and Hawaii), Mountain region, Great Lakes region and the Heartland. From the regional winners, three national winners each will receive a stipend to attend the National Educational Computing Conference next June, where they will demonstrate their projects.

Eligibility: K-12 educators teaching in U.S. or Department of Defense Dependent schools. Applicants must be K-12 classroom teachers during the 1999-2000 school year, teach at a tax-exempt school and be U.S. residents. Projects must be Windows-based.

Contact: E-mail, awards@techcorps.org. For more information, or to apply online, access www.compaq.com/education/k12.

(more)

Funding Alert (Cont.)

◆ **Walgreen Co. Early Education:**

Walgreen Co., a pharmacy chain, divides charitable support among education, health and human services, civic and community, and arts and culture programs.

Health is Walgreen's main philanthropic focus. Education giving supports projects targeting the earlier grades. The company also supports one-on-one tutoring programs in Chicago, San Antonio, Milwaukee, Boston and St. Louis. The company gives funding priority to requests that reflect the demographics of its customers and employees.

Deadline: None. If applicants do not receive a response within 90 days, they should resubmit their proposals.

Funds: Most funds support ongoing commitments to pre-selected organizations. Discretionary grants typically range from \$500 to \$2,500. About 65 percent of grants support Chicago-area organizations; the rest go to programs in communities where the company has stores.

Eligibility: Nonprofit organizations, primarily in the Chicago area and communities where Walgreens stores are located. The company has stores in 38 states. Limited funds also are reserved for pre-selected national organizations.

Contact: For guidelines, (847)914-2856; fax, (847)914-2660. Submit proposals to: Edward H. King, Director of Trade and Corporate Relations, Walgreen Co., Mail Stop 2255, 200 Wilmot Rd., Deerfield, IL 60015. For general giving information, see the company's Web site, www.walgreens.com/about/community.

◆ **ThinkQuest Junior Web Design:**

ThinkQuest is inviting applications for the ThinkQuest Junior competition, which awards cash and technology prizes to fourth- through sixth-graders for creative Web site designs.

Deadline: Jan. 31.

Funds: Students will compete for three levels of awards in each of five categories (arts and literature, math and science, social sciences, sports and health, and interdisciplinary).

Award levels include platinum—\$1,000 per student, \$2,000 per coach and \$1,000 per school; gold—\$750 per student, \$1,500 per coach and \$750 per school; and silver—\$500 per student, \$1,000 per coach and \$500 per school. One team will be chosen from among all of the finalists as "Best of Contest." This award includes \$1,500 per student, \$3,000 per coach and \$1,500 per school.

The "Innovative Simulation Award"—a new award for 2000—will recognize an entry that, in addition to meeting ThinkQuest criteria, is judged to contain the most innovative interactive simulation. This award includes \$1,250 per student, \$2,500 per coach and \$1,250 per school. The team that wins this award is not eligible for a category or "Best of Contest" award.

Eligibility: Teams of fourth- through sixth-grade students. Teams must consist of two to six students and one or two adult coaches. Students must attend a U.S. or U.S.-sponsored public, private or parochial school; a qualified home school; or another school that ThinkQuest deems appropriate.

Contact: Visit www.thinkquest.org.

AT&T Puts \$1.25 Million Into IT Training For City Youths

AT&T this month announced four initiatives designed to provide technology-related job skills training for inner-city youths.

The telecommunications giant has pledged \$1.25 million to the programs. Support will include \$250,000 for a forum series, in which young people will meet with policymakers about job, education and related issues; and \$100,000 for an academy that will develop high school curriculum in information technology.

AT&T also will support Job Corps programs and distribution of free print and electronic education resources in two New Jersey cities.

More information is available on the Internet at www.att.com/learning network.

—Hannah R. Gladfelter

Every American High School Student Can Take Advanced Placement Courses Equal to the Best Offered Anywhere

Every American Can Learn English Quickly and Efficiently

The E-rate, the Technology Literacy Challenge, and other Clinton/Gore Administration programs have helped put computers and internet connections into nearly every school and more than a third of all classrooms. Teachers and students even in small rural schools can reach libraries of materials that would have made scholars at major universities jealous in 1990. But this is just the beginning. It's now time to put these computers and connections to work bringing new kinds of teaching materials to students and teachers.

Advanced Placement courses in science and mathematics in high school are important for getting talented kids interested in these subjects and preparing them for demanding college courses. More than half of all students are in schools too small or too poor to provide advanced placement courses. The program proposed will provide funds directly to schools that will allow them to purchase high-quality interactive courses for 100,000 students each year in calculus, physics, chemistry and other subjects over the internet. These courses often offer on-line tutorial assistance which can supplement local teaching resources as needed.

3.4 million children in K-12 schools need language instruction in English. The number is increasing rapidly and over a quarter of all US schools are trying to hire additional instructors. In addition, the Department of Education supports English instruction for 1.8 million adults and the program has a long waiting list. The proposed program would provide resources for schools to purchase online language instruction materials and similar resources for facilities offering instruction to adults. The program would provide resources for 800 thousand students to use online English language instruction each year.

Thanks to the programs put in place by the Administration thus far, US schools are making spectacular progress in using information technology to enrich instruction for every kid in every age group in every school. This program will provide resources helping them take the next big step in using IT in schools. By supporting competitive products and encouraging development of courses that can easily be modified, each course can be relatively inexpensively modified according to local instructional needs and practices. It will encourage creative partnerships between educators and IT businesses to develop and deliver high-quality instructional materials over the net and it will provide schools with resources to select and purchase materials suitable to their needs in two key areas: advanced placement and English Language Instruction.

Program Costs:

	<u>\$ millions</u>
Providing AP courses in Science and Math to underserved schools	\$40
ESL courses for 100,000 K-12 students	\$100
ESL courses for 1.8 million adults (software only)	\$120
Total	\$260

How It Will Work:

Tuition Assistance.

The Department of Education will provide 50 percent (up to \$400 per year) of the tuition for qualifying students for on-line AP that meet standards established by a non-federal certifying organization. This would support both software costs and the services of online tutors needed to supplement local instructors for 100,000 high schools students who otherwise would not have access to AP courses.

ESL courses would provide 50 percent (up to \$100 per year per student) for software and limited online instructional support for 900 thousand students per year. Adult ESL students may receive \$60 per course.

Qualifications for both AP and ESL students could be based on existing ED programs that help low-income students pay for AP exams and programs aimed at ESL instruction.

Course Development/Qualification. (\$15 million for development)

Providers would bid to qualify their courses. The bids would come in two stages. In the first phase, six developers for the ESL course and each of the AP courses--AP Calculus, Computer Science, Physics, Chemistry, and Biology--would receive \$100,000 to prepare and submit proposals and approaches. The best three proposals for each course would receive about \$1 million in funding to develop full instructional course or improve existing courses. The offer of initial public research support will be attractive -- particularly for smaller companies. Vendors with existing software in AP and ESL would be encouraged to use the opportunity to improve their systems and obtain qualification. After the year of development, the courses would be evaluated by an independent group (College Board or an organization recommended by the **Web-Based Education Commission**) to determine if they satisfy set criteria. Schools would be notified that the qualifying courses would be made available at half price to eligible students.

The program would help companies with existing products in AP and ESL improve their products and help innovative firms develop new products. The most important incentive provided by the program would, of course, be the potential to capture large school markets with a single product. Qualification under the program would allow access to a large market subsidized by the federal government and would be valuable to these firms in marketing to unsubsidized markets worldwide.

Criteria: The AP and ESL courses would be evaluated by the following criteria:

We are trying to find out how much ED currently spends supporting the 1.8 million adults enrolled in ED -- supported English as a Second Language programs.

Thirty-three states and the District of Columbia applied for the AP Incentive Program grants and will share in more than \$2.8 million to encourage low-income students to prepare for and take AP tests. US Department of Education, July 21, 1999.

- Quality of their approach to instruction and likelihood of achieving the expected outcome (proficiency on the AP exams and rapid mastery of English for ESL)
- Techniques for using live instructors communicating with classes over the Internet including strategies for determining how and when the instructor should intervene in the instruction.
- Techniques for encouraging communication among students and answering questions as needed.
- Methods for determining when a student requires personal help or has a question requiring specialized help.
- Quality of the plan to recruit and train instructors for the program.
- Use of open technical standards ensuring that the software can operate over the Internet on any operating system and can be moved to new systems easily as they emerge.
- Conform to open, multi-platform technical standards being established by voluntary standards organizations.
- Modularity allowing easy adaptation to local needs and provision of simple authoring tools to facilitate such adaptation.
- Engaging instruction designed to hold the student's attention and require constant interaction using simulations and other tools are encouraged.
- In the case of ESL, use of active pronunciation and voice recognition will be encouraged. The systems should be designed for native Spanish speakers but be easily adaptable for students with other first-languages.
- Systems to monitor a student's progress and ensure mastery before moving to a new level – the system should not force the student to move too quickly for his or her comfort.
- Methods proposed for evaluating the system and ensuring improvements in future systems.

Why AP and ESL: AP and ESL courses were selected for three reasons. (1) Demand for these courses is high and growing, (2) many school systems have difficulty offering courses in these areas because of a lack of resources or because not enough students are present in the school to justify hiring staff to teach them, and (3) the instructional resources being developed for delivery over the Internet are well-suited to teaching them.

(1) Demand:

Access to AP. Research clearly shows that students who take challenging course work, like AP courses, prior to college, excel in college and later on in life. While the AP program is open to all students, not all schools participate. In fact only about an estimate fifty percent of high schools in the U.S. offer AP courses. It is not surprising that students who attend schools that offer AP courses and examinations are probably more likely to take AP examinations than students who attend schools that do not participate in the AP

program.

- In 1997, whites were more likely than blacks or Hispanics to take AP examinations in all subject areas, with the exception of foreign languages.
- By participating in the AP program, high school students may acquire college credit for their knowledge of college-level subjects.

ESL. The number of limited English proficiency (LEP) students in our nation's schools is large and growing. Between 1990 and 1997, the number of LEP students increased by 57 percent, to roughly 3.4 million. The lack of English language skills make it difficult to ensure that all children receive an adequate education. Large immigrant populations have placed huge budgetary burdens on school systems in Texas, Florida, and California; however, LEP students and their families are increasingly living in places that have not previously served large numbers of LEP students. Over the past 10 years, the LEP population more than doubled in 18 states: Alaska, Florida, Georgia, Idaho, Indiana, Iowa, Kansas, Kentucky, Minnesota, Montana, Nebraska, Nevada, New Hampshire, North Carolina, Oklahoma, Oregon, Tennessee, and Washington. LEP students arrive at their schools at various ages and often with little or no prior formal schooling. Twelve percent of LEP students in middle school and 20 percent in high school have missed more than two years of schooling since age six. Twenty-three percent of LEP students have limited skills in their native language.

In 1998, 54 percent of all teachers taught LEP or culturally diverse students, yet only 20 percent felt very well prepared to meet the needs of these students. While these numbers of students are increasing, in last school for which data was available, 1993-1994, 27 percent of all schools with bilingual/ESL teaching vacancies found them very difficult or impossible to fill, more than for many other teaching fields.

There also is an enormous demand for adult ESL courses. In 1997, 1.85 million adults took ESL courses supported by the US Department of Education. There are long waiting lists for these courses in major cities and many rural areas lack any ESL learning facilities. Of the 12 million adults that speak something other than English as their primary language, only about 11 percent took ESL courses. About 25 percent, 3 million adults, reported that they had not taken an ESL course but were interested in doing so. Among those who wanted to take a course and were aware of opportunities, the main barriers to doing so were time, money, and child care/transportation—making online courses that could be delivered relatively inexpensively and taken anywhere and anytime, a natural fit to address these issues.

(2) New Technology. The computers and communication systems becoming available in even the smallest and most remote school systems in the US are capable of being used much more effectively than they are today. It is possible, for example, to use JAVA™ applets to build powerful, simulations of chemistry experiments, methods for visualizing

complex concepts in cellular biology, and similar tools. Push technology, shared whiteboards, streaming audio, and plain old email correspondence can be used to create collaborative environments and ensure that questions are promptly, and expertly answered. These and other methods open the possibility that a single student in an inner city school or a remote rural school can be given a first-rate AP course with help from skilled instructors and an ability to play with simulations of all manner of expensive scientific tools.

The new information devices are being used with great facility to teach foreign languages in places like the federal Foreign Services Language Schools and courses taught by the US military and intelligence communities. Many of these schools are using products developed by commercial suppliers to facilitate learning of both spoken and written languages. None are designed to teach English but the methods of instruction developed can easily be moved to meet the needs of ESL. The ability to modularize software also means that the same instructional package can be quickly adapted to teach English to people with many different native languages – if this objective is built into the design process at an early stage.

In both AP and ESL, the program can expect bids from many highly qualified firms eager to expand their methods into Internet-based instruction.



Thomas A. Kalil

12/01/99 08:42:27 AM



Record Type: Record

To: John B. Buxton/OPD/EOP@EOP

CC:

Subject: RE: AP courses for low-income students

This is what she sent - it's not exactly what I had in mind - what do you think?

----- Forwarded by Thomas A. Kalil/OPD/EOP on 12/01/99 08:41 AM -----



Sally Narodick <SallyN@netu.com>

11/30/99 08:11:13 PM

Record Type: Record

To: Thomas A. Kalil/OPD/EOP

CC:

Subject: RE: AP courses for low-income students

Tom,

I truly apologize. We are in the midst of raising a second round of venture capital (now nicely concluded) and the demand for our product is just exploding, so I got swamped. No excuse - but we are just feeling a bit of growing pains right now.

We will have 10 subject areas covered next September and probably 15 the year after that. Most of these are two semester courses (ie Amount of work necessary to prepare for the exam requires two semesters.

We charge \$400 per semester, so for many courses it costs \$800 for two semesters to prepare for the exam.

We would be happy to work in a partnership with the Federal Government to make these courses available to low income students for \$200 per semester. For every \$500,000 partnership commitment, we would provide 3300 enrollments at a reduced \$200 fee and this offer would extend for a three year period (ie take 3 years to burn through the 3300 enrollments.

For example, if you wanted to focus on one course, say AP Calculus AP which is a two semester course, you could pay us a partnership fee of \$500,000 and

we would provide 3300 semesters of Calculus enrollments (or 1650 full year courses of two semesters each). We could provide a special product code for the qualifying students and keep track of the enrollments received under this program. You would have to work out the details with the schools or other agency as to how they identify qualifying students.

An alternative example is that for a \$500,000 partnership fee, we would offer 3300 semesters in any subjects we offer, so that you don't need to identify ahead of time where the demand might come from. This would probably be used up faster but we can still offer the 3 year time frame. If you anticipate more demand, we can create more than one partnership. If there is a different duration of the program (other than 3 years) that makes sense in your cycle, we can adjust for that as well.

Another program I can offer is subsidized enrollments in the school AP review product. This is an online diagnostic and review product offered to schools so that each AP student might have a login password and unlimited access to an award-winning review product to better prepare them for the AP exam. The product features online diagnostics, linked to tutorials that review subject matter in areas where students might be weak. It also offers live moderated online study sessions daily so that students might have access to the most experienced AP teachers preparing them for success on the exam. This product is for the students who are taking an AP course in their school, but may not have a highly experienced AP teacher. This particular product is sold by Kaplan Education Centers in the school market for \$250. We sell classroom licenses to school for \$70-\$100 per student enrolled depending upon volume. I could offer schools a per head enrollment fee of \$35 per qualified disadvantaged student (per subject taken) for a partnership fee of \$250,000 - maximum of 7,000 students to be enrolled over a 3 year period per partnership fee. This could be very popular in those school districts that offer courses but need help in improving scores of disadvantaged students. Again, students could select whatever subject interested them.

Finally - another idea (although perhaps remote or not politically correct) we have had quite a bit of request for Spanish language versions of our courses and/or review product - to make the material available in the native language of many of the students. We've also had quite a bit of request for an AP course in Spanish (the test is given) because many Hispanic students would have a strong probability of success in a Spanish AP exam, and that would help them boost grade point, augment their transcripts and get college credit. We haven't yet researched the educational viability of teaching the subject in Spanish for students who will be taking their education and their tests in English, but it is an interesting area to explore. We are quite interested in developing a Spanish language AP course, but it has small enrollments so that hasn't yet met our business criteria. Your program may have an interest in subsidizing development of this type of course, in return for reduced fees. We would ask a \$350,000 development fee (1/2 cost) plus the above partnership fee for reduced enrollment.

I hope this is responsive to your request. Thanks again for considering us and again my sincere apologies for the delay. Let me know if you need any other materials or if I can help further. I will have new demo CD's available in January if that would help as well.

Sally Narodick
CEO
APEX Online Learning, Inc.
110 110th Avenue, NE
Bellevue, WA 98004
Tel: 425-468-6627
Fax: 425-468-6501

-----Original Message-----

From: Thomas_A._Kalil@opd.eop.gov [mailto:Thomas_A._Kalil@opd.eop.gov]
Sent: Tuesday, November 30, 1999 2:01 PM
To: sallyn@vnw.com
Subject: AP courses for low-income students

Dear Sally:

I'd greatly appreciate any thoughts you have
on numbers.

What sort of partnership would make it
worthwhile for you to make AP courses at
marginal cost (\$200/course) for low-income
students - assuming that they would be
10-15 percent of the test-takers?

Thanks!

Tom Kalil

**Harnessing the Power of Technology to Serve all Students:
Providing Access to Challenging Coursework
for Students from Rural and Inner City Districts**

Summary

This proposal is designed to ensure that students have access to challenging high school coursework regardless of the location of their school. Within two years, any student—no matter his or her place of schooling—will be able to take high school AP coursework. To accomplish this ambitious goal, the initiative would include a package of proposals. First, it would increase or maintain existing support for three key technology access programs: E-Rate, the Technology Literacy Challenge Fund, and the Technology Teacher Training Program. Second, it would develop a public-private partnership with leading course software developers like APEX (run by Microsoft co-founder, Paul Allen), which would subsidize the cost of high quality Web-based course development in return for cut-rate prices for high poverty school districts. Third, it would offer a grant program for districts to support their efforts to provide challenging coursework for their students. The cost of the new components of the package would be \$25 million for course development and grants; \$50 million for the grant program; and \$150 million in increased funding for current programs, for a total of \$225 million.

Background and Rationale

The federal government has a historic role in supporting education for children who gain the most from it: children in high poverty schools. Lacking the necessary fiscal and community resources, high poverty schools are generally unable to provide high quality educational opportunities. It's these schools—the schools that harbor the most pressing needs—that disproportionately lack qualified teachers, access to technology, and other resources that augment the most basic curriculum.

This Administration has not only continued to provide investments in disadvantaged communities through such programs as Head Start and Title I, but it has committed to shaping a federal role in education that holds all students to high standards, expects they can achieve, and holds schools accountable for results. In addition, the Administration has fought to make college affordable to all Americans so that students who work hard and prepare themselves to enter college will not face prohibitive financial barriers to higher education.

However, many high schools in poor rural and inner city school districts include another type of barrier: poor access to challenging coursework that students deserve—and need to enter college. Faced with higher proportions of unlicensed and out of field teachers, especially in areas like math and science, little in the way of community financial and professional resources, and smaller numbers of students interested or prepared to take challenging courses, these schools are unable to provide AP courses, honors electives and other important offerings like foreign languages. Fewer than 60% of high schools offer

AP courses to their students. That means 2 out of 5 high schools do not have access to coursework that research shows is the best predictor of college success. And those high schools are disproportionately located in poor communities.

One way to bridge this gap is through distance learning technology. Not new to American schools, but still scarce among them, distance learning encompasses Web-based courses, compressed video, and courses televised via satellite. Distance learning technology can help provide coursework for students who attend schools unable to offer certain courses, need alternatives to traditional education, or seek more high quality offerings in areas such as English as a second language and remedial writing and reading at the high school level.

The following represent some current state-level efforts in distance learning at the high school level:

- Florida and Iowa have created Virtual High Schools, whereby students from across the state can access coursework in a variety of disciplines. Coursework is delivered via the World Wide Web.
- Virginia delivers AP courses via satellite. Nearly 2,000 students took courses through this means in the 1998-99 school year in the state.
- Mississippi and North Carolina offers courses on compressed video, which is gaining acceptance as costs are coming down.
- The Massachusetts-based Concord Consortium (federally funded) offers courses nationally and trains teachers to develop and teach courses for the Web.
- Universities around the country are partnering with states and school districts to offer college level and credit courses to high school students. The University of Nebraska has created a for-profit subsidiary to develop and offer on-line courses.

Of the three technologies, Web-based instruction appears to have the most currency. It provides for lower equipment and transaction costs, uses a technology which is in schools at present and with which most students are familiar, and it is more immune to technological obsolescence than compressed video and television as it can adapt to new software and delivery mechanisms utilizing the Web.

A Federal Role

There are a number of issues involved in attempting to provide access to challenging and needed coursework for under-served schools and student populations. Among them are the following:

- Training teachers to use technology and course software
- Accessing the equipment needed to support Web-based courses
- The cost of connectivity
- The quality of course content and its cost

At present, the federal government is supporting initiatives that focus on the first three issues. The Teacher Training Technology Program, the Technology Literacy Challenge Fund, and E-Rate are all working to provide schools with the capacity to access and use computer technology and connect to the World Wide Web in an affordable way. The Star Schools and Technology Innovation grants have also provided seed funding to partnerships endeavoring to offer access to educational opportunities through distance learning. The latter two programs, however, are small and have been frozen to concentrate on supporting currently funded initiatives.

Finally, Senator Bingaman (D-NM) introduced S.1704 last session, which would have authorized \$10 million in grants for school districts and schools to offer on-line Advanced Placement courses. Grant funds would have been able to be used to purchase on-line curriculum, train teachers to use on-line curriculum or purchase course materials; schools could contract with non-profit or for-profit companies. The bill was referred to the HELP Committee.

The last issue listed above—course content and cost—remains a hurdle. The quality of current offerings on the Web is of considerable variance. Much of the reason is that the cost of course development is very high. The Southern Regional Education Board reports that states in this game have found course development to be roughly \$200,000 per course; private developers quote numbers in excess of \$700,000 per course. To add to the problem, software developers with access to the capital needed for high quality R&D efforts are generally unwilling to jump into the on-line high school course market because of the multiplicity of standards, curriculum requirements and assessments across states. Where developers are coming into the market—for example APEX in developing AP courses—they are doing so where the standards are national in scope. At the same time, their products are not cheap and generally unaffordable for the student populations that needs them most.

With ongoing initiatives in training, equipment and connectivity, the key area for federal involvement and support is in the area of course development and subsidy. Through this approach, the federal government would allow states to continue their own efforts to offer coursework based on their standards and unique needs (e.g., Florida's Virtual High School), but provide quality content and take the pressure off of course development.

Initiative Design

The initiative is a package composed of three distinct pieces:

1. Propose increased funding for the Technology Teacher Training program and the Technology Literacy Challenge Fund and continuing the funding plan for the E-Rate program.
2. A public private partnership with a group of course developers. In exchange for a hefty subsidy of course development for AP courses, courses in ESL, foreign

languages, and other challenging coursework, course/software developers would offer the courses at major discounts (or free) to eligible high poverty schools.

3. A competitive grant program for states and districts to allow schools to apply for course access and to help defray the costs of additional expenses needed to support such an initiative. The program would basically resemble the one proposed by Senator Bingaman, S.1704, and would authorize grants for school districts and schools to offer on-line Advanced Placement courses, as well as other on-line courses. Grant funds could be used to purchase on-line curriculum, train teachers to use on-line curriculum or purchase course materials; schools could contract with non-profit or for-profit companies. Schools could partner with local community colleges and local Community Technology Centers for access to needed facilities and equipment. The grant program could also subsidize state and school efforts to offer access to on-line available college-level credit courses at colleges and universities.

We have had initial discussions with APEX, which creates and sells web-based AP courses, about subsidizing the cost of R&D in return for cutting in half the cost of their software for poor districts. APEX is very interested in a partnership of this breadth and scope and the group is sending along some paper on a potential commitment.

Cost

The new costs associated with this initiative would be \$50 million to support the partnership with industry and a grant program for states and districts. The cost breakdown would be as follows:

- \$25 million for subsidizing the development of up to 16 AP courses and courses in other areas such as ESL, foreign language, remedial needs, and in math and science. At \$500,000 per course (APEX's initial offer), the project could subsidize the development of 50 high quality courses.
- \$50 million grant program to offer access to courses and seed local efforts to provide courses to students.

The initiative would also seek increased funding in the amount of \$150 million:

- Maintain E-Rate at \$2.25 billion commitment
- Increase Teacher Technology Training funds from current level of \$75 million to \$125 million.
- Increase Technology Literacy Challenge Fund appropriation from \$425 million to \$525 million (OMB plans this request).

Together with the new course development and access initiative, the total new costs would be \$170 million.

Possible Critiques of the Approach

Critique: *Effort would fund development without guarantee that schools would take-up discount rate courses on the Web.* The subsidy of industry would have to occur before districts signaled a desire to pay for courses at discount rates or target other resources to support this effort.

Response: The efforts already occurring in states are testament to the demand for such services. That said, the initiative would warrant a lot of outreach to eligible communities (concomitant perhaps with E-Rate outreach efforts).

Critique: *Given the small size of the course development industry, partnering with companies will end up undercutting competition in the industry.*

Response: This danger does exist, but if the partnership were opened up, bid out, and committed to not doing a sole source contract, then it could actually increase competition in the industry.

Political Considerations

- Sen. Kennedy is the major supporter for the Star Schools Program (it was his creation) and the Senate in general likes the program. It will be frozen for next year and an initiative like this could attract support.
- Republicans and Democrats have supported AP fee assistance and would likely support this effort to increase access to AP courses and other challenging coursework. The College Board's government relations shop reports that Sen. Bingaman (D-NM), Rep. Cunningham (R-CA), and Sen. Hutchison (R-TX) are among the program's most ardent supporters.
- The rural support aspect of the initiative could win support among Republicans who pushed for the Rural Education Act in the House's ESEA reauthorization proposal. Although that initiative was more of Super Ed-Flex accountability model dressed up in a rural education rescue program, the issue of supporting rural educational needs is a real one that should develop broad support. Inner city advocates should also line up.
- There is the potential for opposition from two areas: those who see this as a move towards national standards and curriculum and 2) those who see this as a move towards faceless education that might support home schooling and the like. Both arguments are fairly weak, but the language describing and promoting the initiative would need to be sensitive. I.e., national course curriculum and virtual school terms could stir unnecessary opposition. Teachers unions, for example, will be especially sensitive to the latter issue.

Distance Learning:

Funding Sources

Districts are using various **funding sources** to provide this AP opportunity to their students, including general curriculum funds, gifted/talented monies and funding to support math education.

Some states and localities have special funding available as well.

Federal Government

- Advanced Placement Incentive Program

Purpose of Program: The primary purpose of the Advanced Placement Incentive Program is to enable States to reimburse part or all of the cost of advanced placement test fees for low-income individuals who (1) are enrolled in an advanced placement class; and (2) plan to take an advanced placement test. In addition, a State educational agency (SEA) in a State in which no eligible low-income individual is required to pay more than a nominal fee to take advanced placement tests in core subjects may use any grant funds; that remain after test fees have been paid on behalf of all eligible low-income individuals, for activities directly related to increasing (a) the enrollment of low-income individuals in advanced placement courses; (b) the participation of low-income individuals in advanced placement tests; and (c) the availability of advanced placement courses in schools serving high-poverty areas. This program is authorized under Title VIII, Part B, of the Higher Education Amendments of 1998 (1998 Amendments) (20 U.S.C. 1070a-11, note). Who May Apply: SEAs in any State, including the District of Columbia, the Commonwealth of Puerto Rico, the Virgin Islands, Guam, American Samoa, the Northern Mariana Islands, the Republic of the Marshall Islands, the Federated States of Micronesia, and the Republic of Palau.

- Technology Innovation Challenge Grants

The Clinton Administration selected 20 school district partnerships in 17 states to be awarded grants totaling \$30 million to help provide the additional support to meet the challenge of preparing new teachers, and supporting existing ones, to teach effectively using technology.

The Technology Innovative Challenge Grant Program serves as a catalyst for positive change for schools. It supports educators, industry partners, communities, parents, and others who are using new technologies to help bring high quality education to every classroom and neighborhood.

"School districts are forming partnerships with businesses and community organizations across the country to meet the challenge of bringing their schools and communities into the information age," said President Clinton.

"These Challenge grants will help schools put computers in classrooms and provide more training for teachers to use technology to improve their lesson plans. These grants are one of many efforts needed to ensure that our students are prepared for the challenges of the 21st century."

"The grants focus on enhancing teachers' skills and their professional development to use computers and advanced learning technologies in their classrooms," said U.S. Secretary of Education Richard W. Riley. "Students will benefit from teachers who are familiar with these rapidly changing technologies and are able to effectively integrate them into their teaching curriculum."

The 20 school district partnerships receiving new grants are located in 17 states. They will work with partners in 150 school districts, 100 businesses, and 80 colleges and universities, benefitting about one million students and providing additional training opportunities for thousands of teachers in these communities.

The grants will range in size from \$789,000 to \$2 million a year for five years, and will leverage business and community partners by generating matching commitments valued at more than \$90 million.

Challenge Grant communities work to integrate new technologies into state or local education improvement efforts that have been stimulated by a growing national commitment to raising education standards.

Effective use of new technologies in these communities will contribute to improved student achievement in reading, writing, science, mathematics, history, the arts and other disciplines. Each project will support effective training for teachers and promote greater parent and community involvement in education.

These projects also will help smooth the transition from school to careers and college by engaging students in real-life learning experiences through which they can develop the life-long learning skills necessary to navigate the changing economy.

- Title VI

Title VI supports local education innovations. States must subgrant at least 85 per cent of funds competitively to school districts to support activities in eight primary areas: (1) technology related to implementing reform; (2) acquisition and use of instructional and educational materials, including library materials and computer software; (3) promising education reform projects such as magnet schools; (4) programs for at-risk children; (5) literacy programs for students and their parents; (6) pro-grams for gifted and talented children; (7) school reform efforts linked to Goals 2000; and (8) school improvement programs or activities authorized under Title I.

California

- Digital High School Funds

- University of California College Prep Initiative (UCCP) funds. The Initiative was established to provide online college preparatory courses to high school students who otherwise would not have this opportunity.

Michigan

- Michigan Virtual University.

Michigan high school students go online for Advanced Placement courses

LANSING, Mich. — August 10, 1999 — Starting this fall, Michigan high school students who excel in their everyday classes can enroll in online Advanced Placement (AP) courses through the Michigan Virtual University (MVU)

Thanks to a new partnership between Michigan Virtual University and APEX Online Learning, Inc., students across Michigan will be able to earn college credit via the Internet. In recent years, many high schools have offered college-level Advanced Placement courses while the student is still in high school. Not all school districts, however, have been able to offer them, either due to financial constraints or an insufficient number of interested and qualified students.

APEX online courses are multimedia, independent study courses that include 150 hours of curriculum, an online teacher who answers questions and grades the students' work, and ongoing assessment and reporting. Creative teams of certified teachers and subject experts design courses that include learning activities such as tutorials, multi-media simulations and online discussions.

As an introductory perk, MVU offered 100 course scholarships (one semester each) to Michigan high schools for any of these online courses:

- Calculus AB (two semester course)
- Statistics (two semester course)
- Microeconomics (one semester course)
- U.S. Government and Politics (one semester course)

In conjunction with the scholarships, MVU has been collaborating with the Michigan Association of Intermediate School Administrators and the Michigan Association of School Administrators to offer free training and a small stipend to the in-school educators who serve as on-site mentors for the students.

Most colleges look favorably upon applicants who take AP classes, and most will grant credit or waive a course requirement for students who score well on AP exams. Students enjoy the flexibility of the online courses because

they can access the course 24 hours a day on the Internet and work at their own pace.

The Michigan Virtual University is an initiative of Governor John Engler, who in his January State of the State Address cited the need for online Advanced Placement courses for Michigan students. Jamey Fitzpatrick, MVU vice president of development and education policy, said "Because these are the first Michigan Virtual University offerings to the K-12 community, we had to be particularly careful in selecting a provider that guarantees high quality course content. The APEX courses are exactly what we were looking for and will be essential in establishing our reputation as a leading provider of distributed learning opportunities."

Rachel Martinez, education manager for APEX, said "We are proud to have been selected to support Michigan Virtual University's vision to use technology to offer Michigan students broader access to the challenging AP curriculum. And our thanks to Bob McDonough, director of academic services for the College Board/Midwest, who played an instrumental role in understanding the educational needs of Michigan and providing solutions which brought MVU and APEX together."

The Michigan Virtual University is a private, not-for-profit Michigan corporation established in 1998 to deliver education and training through the innovative use of electronic learning technologies such as the World Wide Web, intranets and CD-ROMs. MVU serves as a broker and is developing a slate of distributed learning programs and services throughout Michigan.

APEX Online Learning is a Seattle-based company that began in 1997 as a research project of Paul Allen, one of the founders of Microsoft. It is dedicated to expanding access to learning opportunities — opportunities that help students reach their next educational and professional goal through online learning. APEX provides effective products by combining the interactivity and accessibility of the Internet with the experience of master teachers and content specialists. Current programming includes Advanced Placement online courses in five subject areas and AP exam review.

Washington State

A first round of grant applications were being accepted until September 7, 1999 for the Internet-Based Curriculum Grant Program.

United States Dept. of Agriculture:

The Distance Learning and Telemedicine Grant and Loan Program (DLT) was created to encourage, improve, and make affordable the use of

telecommunications, computer networks and related technology for rural communities to improve access to educational and/or medical services.

Background, Accomplishments , Initiatives, Applicant Eligibility, Qualifying Situations, Qualifying Equipment

Background

The 1990 Farm Bill authorized the Distance Learning and Telemedicine Grant Program to provide grants to rural schools and health care providers. The 1996 Farm Bill reauthorized the Distance Learning and Telemedicine Grant Program and established a new loan component. The DLT helps rural schools and health care providers invest in telecommunications facilities and equipment to bring educational and medical resources that otherwise might be unavailable to rural areas.

Demand for the DLT has been very high; for the four fiscal years from 1993 through 1996, USDA's Rural Utilities Service received 858 applications seeking a total of \$262 million. Due to budget constraints, only \$35 million was available. This money funded 119 projects in 39 states and one U.S. territory.

In January of 1997, RUS received \$6.5 million in funding authority from the Fund for Rural America. Utilizing these funds, RUS funded an additional 23 projects, bringing the grand total to 142 grants totaling \$41.5 million.

Accomplishments - "Real Results"

Funding for telemedicine and distance learning services are having a profound effect on the quality of life for rural residents. Distance is a barrier that prevents rural residents from accessing high quality educational and health care services. Distance learning and telemedicine services, utilizing Advanced Telecommunications

Technologies, can bridge this distance for rural Americans so that they can access the same quality education and health care services as the rest of the nation. Distance Learning Services can provide rural schools, students, teachers, and parents with many new opportunities. A trip to the local library in a rural town can be as rewarding as opening the information door to the world. Parents can receive continuing education courses increasing career enhancement opportunities. Health and public safety officials can receive advanced certification training in their local communities without having to travel to major city centers.

The DLT has helped rural residents access the information superhighway, which offers rural America an unprecedented opportunity to compete on an equal footing with big cities and with other countries. The information superhighway is already bringing jobs, educational and health care services to rural areas, and more fully integrating rural Americans into the mainstream of

the American economy and culture. Yet there also exists a danger that some parts of rural America will lack access to "on-line" resources and will fall even further behind the rest of the country.

The Administration believes that the information superhighway is crucial to rural development and recognizes that the Federal government, in partnership with the private sector, has an important role to play in ensuring that rural Americans have full access to those resources.

The DLT has facilitated an important step forward. Through four years of program activity, approximately 704 rural schools and education centers will gain access to improved educational resources through the information superhighway by sharing limited teaching resources and gaining invaluable access to libraries, training centers, vocational schools, and other institutions located throughout the country.

Program Initiatives

The program is intended to fund projects which are primarily "dynamic"; i.e., those systems which deliver critically needed educational and medical services in rural areas through structured interactive educational training and/or medical professional presence over distances. Intermittent services which cannot readily show usage or tangible results such as community bulletin boards, or Internet Home pages, may be considered as adjuncts to dynamic systems, but would not be suitable as a primary purpose under the DLT.

The program facilitates "networking" of multiple dispersed sites over a geographic area, rather than a single stand alone entity. Applicants must submit proposals which, to the extent possible, maximize the number of geographically dispersed sites.

Projects must be driven from the "ground up". For instance, applicants must document significant local community involvement and input in designing projects.

Projects funded are required to be self-sustaining without the need for further grant or loan funding. Ongoing costs for sustaining the proposed system, through user fees, tax assessments, school budgets, or other funding, should, to the extent possible, originate locally.

To ensure sustainable projects, RUS endeavors to fund applications which maximize system utilization and benefits to rural residents. For example, projects which serve multi-purposes, such as providing adult education and vocational training, while also delivering K-12 and college courses, are highly desirable.

The DLT funds capital costs of acquiring and installing telecommunications hardware located at schools, hospitals, and other eligible sites. It also funds other non-recurring capital costs of establishing a distance learning and telemedicine system. System operating expenses, including salaries, are not eligible.

Applicants should fund telecommunications access and usage fees for network transmission facilities through revenue from the project, or from sources other than RUS. Services should be provided through the local telephone telecommunications carrier, or other telecommunications provider.

Applicant Eligibility

Rural schools, libraries, hospitals, health care clinics, and related organizations which operate rural educational or health care facilities. Indian tribes, consortiums or partnerships, and other incorporated organizations that operate educational or medical facilities in rural areas. The DLT is an exclusively rural program. Urban institutions are encouraged to participate as network partners; however, grant funding will be provided only to facilitate educational and/or medical services to rural areas. Funds will not be provided to State or Local governments; however, State supported institutions which provide educational and/or medical services to rural areas are eligible.

Distance Learning situations include, but are not limited to:
Linking rural schools within regions to share limited teaching resources.
Linking a rural school or a grouping of rural schools to institutions located in metropolitan or more populated centers. Utilizing rural libraries or other community facilities as distance learning centers, linking them with on-line resources or regional institutions. Utilizing job training centers, vocational schools, or other facilities incorporated by job training programs.

Types of Equipment Funded

The DLT is "hardware intensive", but other costs, limited to the capital costs of establishing the project, such as software, training, and technical assistance, may be considered.

RUS will fund up to 90% of the costs of acquiring eligible equipment for requested loans. RUS will fund up to 70% of the costs of acquiring eligible equipment for grants, combination grant and loans, and all applications not specifically requesting loans. See 7 CFR Part 1703 for specific guidelines.

Examples of eligible equipment:

Equipment used for distance learning classrooms, such as encoding and decoding devices, specialized cameras and video monitors, video switchers, microphone mixers, computers and local area networking equipment.

PROGRAMS:

APEX:

APEX Advanced Placement Online Courses

<http://www.apex.netu.com/>

APEX is an independent educational services company that offers online courses which prepare students for AP exams. APEX courses are designed to meet the curriculum standards published by The College Board. The course materials are prepared by a team that includes experienced AP teachers so each APEX course covers all the topics likely to appear on the exam for that subject. All courses are reviewed by a panel drawn from The College Board's Development Committee, the people who write the AP Exams. APEX courses for the 1998-99 school year include calculus, US government & politics, environmental science and statistics.

APEX is an independent educational enterprise that develops and delivers online Advanced Placement courses to individuals and schools. The APEX Project was initiated by Paul Allen, co-founder of Microsoft, to bring the full power of computers and the Internet to online learning for Advanced Placement students. Because APEX is focused exclusively on Advanced Placement courses, APEX is able to concentrate a unique combination of specialized talent and resources on the development and delivery of these curricula. Using the unique multimedia and interactive capabilities of the Internet, APEX has developed online courses that offer learning alternatives for high-achieving students. Students can earn school credit and prepare for Advanced Placement exams even when a particular AP course isn't offered at their school, or when they have scheduling conflicts.

The APEX instructional designers have combined the strengths of master AP teachers, the knowledge of content experts, and the power of new Internet technology to create comprehensive courses that meet all College Board AP curriculum requirements. Because the courses are online and created in advance, students can complete assignments at their own pace at school or at home. Each course includes a set of learning activities and tests that takes about ten hours a week to complete.

An APEX "class" is made up of 25 students from across the country and an online AP teacher dedicated to helping each student master the AP course. Students interact with each other during special online discussion groups to share information, opinions, and solutions. APEX online teachers interact with each student via email or phone to answer questions and provide encouragement, while monitoring progress and evaluating assignments and tests.

APEX classes give students an opportunity to gain the knowledge and skills necessary to be well-prepared for AP exams, learn new computer skills, and make friends from around the country.

Cost

Tuition for an APEX Advanced Placement course is \$395 per semester course per student. This fee includes:

- Online instructor mentoring and supervision by an experienced AP teacher.
- A complete curriculum designed specifically to meet standards published by the College Board.
- Unlimited access to online course materials, including multimedia tutorials and assessments.
- Special exam rehearsal exercises modeled on actual exam.
- All necessary software.
- Any required texts.
- All registration fees.

Some AP courses are one semester, most are two semesters long. Students pay for each semester separately. Some courses require special application software (such as computation packages for math) or equipment (such as a graphing calculator).

Technical Requirements

To install and run APEX programs, you need to have the following hardware:

- A PC with at least a Pentium 75 MHz processor, 16 MB of RAM, and 80 MB* of available hard drive space for a complete installation
- A sound card and speakers or headphones
- A CD-ROM drive.
- A 28.8 kbps speed modem minimum
- Consistent, reliable Internet access at 28.8 KBPS or above
- A printer
- Access at least once a week to a fax machine

And one of the following Operating Systems:

- Windows95
- Windows98
- or Windows NT 4.0

***Note:** The APEX Installation requires 80 megabytes of free hard drive space for a complete installation only. If you currently have Internet Explorer 4.01 SP1 or later installed on your hard drive, 50 megabytes of free space is adequate.

Academic Requirements

In general, students should be self-motivated and good independent learners.

Good writing skills are important to a student's ability to succeed in an AP course, and essay writing is important to do well on the free-response sections of an AP Exam. Because this course is computer-based, students should have basic keyboarding skills and be comfortable with basic functions of Windows 95, getting online, using email, and using a word processor.

VULCAN-NORTHWEST

Academic Systems, the higher education division of The Lightspan Partnership, Inc., produces interactive, multimedia instructional programs that offer an enhanced learning environment in mathematics and writing for college students in developmental and entry-level courses. Created in concert with educators, Academic Systems' Interactive Mathematics and Interactive English programs have demonstrated impressive increases in learning and achievement. Academic Systems courses are offered at over 250 college campuses in 36 states to more than 150,000 students.

Interactive Mathematics is a comprehensive interactive instructional program that comprise content typically covered in pre-algebra through college algebra courses. The program includes Windows-based, interactive lessons on CD-ROM; an integrated management system; and accompanying student and teacher print materials. There are four standard course packages: Pre-algebra, Elementary Algebra, Intermediate Algebra, and College Algebra.

Interactive English is an interactive instructional program for developmental writing through freshman composition courses. The program includes Windows-based, interactive writing assignments, multimedia instructional resources and online writing tools on CD-ROM; an integrated management system; and accompanying student and teacher print materials.

ARCHIPELAGO

Archipelago, a Harcourt Higher Learning Company, is an educational multimedia publisher. Archipelago specializes in the development of content-based multimedia and Web sites. Their in-house staff includes expert computer programmers, animators, graphic artists and designers, video and audio producers, editors, project managers, and Web producers. Archipelago is currently developing interactive multimedia course presentations for the distributed learning environment. These products will provide students with the flexibility they need to take courses anytime, anywhere.

Archipelago brings strong educational credentials and first-hand teaching experience to its multimedia courses. Archipelago's founder and president Gary Lopez (Ph.D., marine biology, Scripps Institution of Oceanography) began his work in education as a college instructor and his work in media as a filmmaker

and software designer. Gary's client list includes Encyclopedia Britannica Educational Corporation, The Cousteau Society, the Corporation for Public Broadcasting, and most major educational publishers. Brian Rowlett (University of California, San Diego) Archipelago's Vice President Technology, and Pat Harman (University of Illinois at Urbana-Champaign), Director of Art and Design, also have university-level teaching experience in their disciplines. This classroom teaching experience, combined with more than fourteen years of developing educational and documentary media, makes Archipelago a unique publisher.

Archipelago Productions was purchased in 1993 by Harcourt General Corporation -- the parent company of Harcourt, an international publisher with eleven elementary, secondary, college, professional, and trade publishing units. Archipelago is a division within this corporation, producing college and high school Advanced Placement (AP)-level multimedia products. The company also works closely with its sister publishing divisions to produce a variety of educational materials. Over the past several years Archipelago has produced a number of custom multimedia presentations such as the Saunders Interactive General Chemistry CD-ROM, Saunders Core Concepts in Physics, Encuentros - introductory Spanish CD-ROMs, and over twenty-five other CD-ROM titles designed for student purchase and classroom presentation. Also, more than fifty videodisk products (with a variety of custom features) and over fifty applications of the LectureActive™ Presentation software are available.

Courses

Chemistry
Economics
Physics
Biology

UNIVERSITY OF NEBRASKA:

University of Nebraska's CLASS Program
<http://class.unl.edu/>

CLASS courses are open to any learner who has access to a computer that meets the minimum configurations and the World Wide Web. Schools, learning centers and home schools can purchase a site license and provide the courses locally, offering credit and using local teachers. CLASS courses can be used to supplement curriculum or incorporated into the classroom experience.

As part of the Department of Distance Education, the UNL Independent Study High School (ISHS), founded in 1929 to help small rural schools, currently serves nearly 14,000 enrollments annually from students in all 50 states of the United States and more than 135 other countries. The Independent Study High

School is fully accredited by the North Central Association of Colleges and Schools and the Nebraska Department of Education and as such is authorized to grant a fully accredited high school diploma.

In addition to serving individual diploma students, UNL's ISHS works closely with local school districts and alternative educational centers to help them supplement their curriculum. Schools and adult or community learning centers use UNL distance education instructional materials for individualized instruction in all types of settings, such as their own distance education programs, in regularly scheduled day classes, in classroom mini-courses, or in programs for at-risk students.

The University of Nebraska-Lincoln Independent Study High School offers a complete four-year high school curriculum of more than 130 core and elective courses in 16 subject matter areas. Students can earn a high school diploma by taking only distance education courses. However, more than 65% of the students enrolled in UNL distance education courses use the courses as a supplement to their high school curriculum.

Benefits:

- Help students overcome scheduling conflicts.
- Provide courses not offered by your high school.
- Offer enrichment courses for advanced students.
- Provide basic courses for special-needs students.
- Provide alternatives for students who cannot attend traditional daytime classes.

Courses:

Agriculture

Art

Business

Career Planning

Computers and Technology

Driver Education

English as a Second Language

English

Family and Consumer Science

Industrial Education

Languages:

- French
- German
- Latin
- Spanish

Mathematics

Music:

- Piano
 - Theory and Appreciation
- Photography
Science
Social Studies
Study Skills

Virtual High Schools:

Kentucky Virtual High School

Governor Announces First Ever Statewide Virtual High School

Frankfort, Ky. -- In January, Kentucky high school students will be able to go online with Internet access to advanced courses in foreign languages, math and science.

It's called the Kentucky Virtual High School (KVHS), It is the first ever project of its kind in the world. A few school districts in other states have online high school courses, but Kentucky will become the first with a statewide program.

The Kentucky Virtual High School will give students everywhere in the state the opportunity to take challenging advanced courses not available at their local high schools.

"This is a major step forward in terms of equality of opportunity for all students, particularly those in rural areas," Kentucky Governor Patton said. "Kentucky is a national leader in educational technology in terms of providing schools and students with computers and easy access to the vast resources of the Internet. The Kentucky Virtual High School will make us the leader in delivering curriculum and high quality instruction to students in our high schools and adult education programs."

Patton said the courses would also be available to adults working toward a GED or regular high school diploma, to persons learning English as a second language, home school students and young people housed in the Juvenile Justice System.

Courses will include Algebra I and II, Geometry I and II, Chemistry I and II, Physics I and II, Spanish I and II, German I and II, Latin III, Latin literature, humanities and college level calculus. The Department of Education has calculated that the cost of these Internet courses is equal to the cost of a traditional classroom course.

Students taking classes via the computer will sign up at their local high school and work with a certified Kentucky teacher, trained in teaching via the

Internet. The student will communicate with the teacher and classmates, do assignments, take tests and receive regular credit.

All classes will be completely on line, some with CD-Rom and Video as companion materials. Other courses will be added in the future. All Kentucky high schools have Internet access. Students can also access the courses from home, an office, a public library or anywhere there is an online computer at any time of day or night.

Education Commissioner Wilmer Cody said, "The initial course offerings will feature courses in the areas of greatest need in Kentucky, particularly in rural areas.

We don't have enough foreign language teachers or math teachers or science teachers. This project addresses that issue in a very effective way."

The virtual high school project has involved several agencies working together: The governor's office, the Kentucky Commonwealth Virtual University, Kentucky Educational Television, and the Kentucky Department of Education. The Virtual University's one stop call center, library services, teacher training and college courses will support the KVHS.

The KVHS also has two corporate partnerships. One is with Class.com, Inc., to secondary courses developed by the Division of Continuing Studies at the University of Nebraska with a \$17 million Star Schools Grant from the U. S Department of Education. The other partnership is with eCollege.com which creates Internet education solutions, to bring online education to the classroom and to the distance learning student

California

Access to highest quality a-f courses (including honors and AP courses). As part of the University's service mission, leverage our resources to ensure that all California high school graduates have access to high-quality courses that will qualify them for UC.

Target high schools. Focus on ensuring that such courses are available to students in high schools whose UC participation rate is currently substantially below the State average. Thus the VHS project is closely aligned with the University's outreach efforts.

Fully UC-certified. Investigate ways in which courses offered by the VHS can be certified as UC-approved (by means of a partnership between high schools and University faculty). [Possible examples: Find a means of providing winners of the California high school teaching of the year with a partial sabbatical in order

to develop a course, in partnership with UC, for the VHS. Leverage existing UC projects/expertise such as partnering with the Berkeley Lawrence Hall of Science in the development of VHS science curriculum.

Integrate non-UC efforts. Leverage the efforts of other institutions and firms (e.g., the advanced placement curriculum being developed by Vulcan Northwest, Inc.).

Resource web site. Develop a library of on-line resources that will permit high schools to enhance their existing a-f curriculum (e.g., software/tool for building on-line courses, resource library/content for building on-line courses, research about on-line learning).

Organization/funding models. Develop an organizational and funding model for the virtual charter high school that does not depend on the cost of participation being borne by the individual high school student.

Assumption (to be verified): Affordability is a key issue for students in those high schools with a less than average UC participation rate. (Since this initiative is envisioned as a potential component of UC's outreach effort, organizational/funding models must address affordability issues.)

Leverage points. Find a way to leverage existing projects (e.g., California Virtual University) and research efforts/faculty expertise within UC; and existing programs within California high schools.

Florida

High school courses are produced in cooperation with the P.K. Yonge Laboratory School of the University of Florida. Each course is designed to be the equivalent of its classroom counterpart. All of the high school courses satisfy the requirements outlined by the Curriculum Frameworks, which specifies the legal standards for Florida's public education. Each course reflects the recommended competencies and performance standards set down by the Florida Department of Education.

ISSUE BRIEF

Curriculum Development / Acquisition

1.Acquiring the rights to deliver already-developed curriculum (e.g., AP courses from Vulcan Northwest and other commercial providers, UC subject matter initiatives, other universities, other states, etc.).

2.Contracting with non-University providers/outside agencies to develop courses needed to achieve project objectives.

3. Working with high school teachers to transform their existing high-quality courses to ones that can be delivered on-line (e.g., might involve grants/release time to selected high school teachers, grants/release time to UC faculty/graduate students and pedagogy support staff to work with these teachers to re-think/develop their course; technical support to transform this curriculum to on-line formats.)

1. Developing courses within UC, CSU, California privates, or community colleges (e.g., grants/release time to faculty/graduate students and pedagogy support staff, etc.).

Content Acquisition

1. Developing and maintaining Web site of publicly-available resources (e.g., on-going maintenance of the pages on the VHS site).

2. Acquiring the rights to make available commercial materials (e.g., those developed by textbook publishers).

3. Developing and posting resources that exist within UC, etc. (e.g., California Digital Library project).

WEB RESOURCES

Full Courses Available Online (some w/CD ROM Supplements)

UC CMIL High School Courses

<http://www-cmil.unex.berkeley.edu/1998/09HS/default.html>

CMIL provides a core curriculum of high school independent learning courses, designed and selected specifically for California students, which meet University of California's "a-f" requirements. Adults as well as high school students may enroll in high school independent learning courses. Students who wish to earn high school graduation or honors-level credit must obtain the approval of their high school principal or counselor. Credit for a completed high school course is granted by the high school whose requirements the student is fulfilling, not by CMIL. Each high school course described in this catalog is the equivalent of a high school term or semester course with attendance one hour per day, five days a week.

Archipelago

<http://www.archipelago.com/>

Archipelago offers complete courses for the distributed learning environment. Archipelago develops interactive multimedia courses for distance and distributed learning. Archipelago courses are designed for asynchronous use, giving students the flexibility to take courses anytime, anywhere. Archipelago courses provide instructors with complete course content, as well as easy-to-use editing tools to modify presentations to reflect their own teaching styles.

Academic Systems

<http://www.academic.com/>

Academic Systems provides online, multimedia curricula designed to help faculty increase student academic achievement in colleges and universities. Academic Systems' Interactive Mathematics is a series of college-level, interactive multimedia courses that provide comprehensive mathematics instruction in an engaging and challenging interactive multimedia environment. Interactive English is a new computer-mediated course designed to prepare students for college-level composition.

Rice University's World Lecture Hall

<http://www.utexas.edu/world/lecture/>

The World Lecture Hall (WLH) from Rice University, contains links to pages created by faculty worldwide who are using the Web to deliver class materials. Courses are organized in a user-friendly alphabetical table and range from partial course materials to full courses online. This site includes a full listing of links to US universities, community colleges and K-12 home sites.

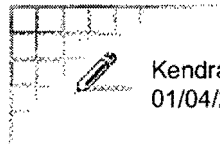
John B. Buxton

01/04/2000 06:03:33 PM

Record Type: Record

To: Kendra L. Brooks/OPD/EOP
cc:
bcc: Records Management@EOP
Subject: Re: AP article 

Thanks. The AP for poor kids is sweeping the nation. Why don't you get down to Florida and advise the gov to add SAT test prep.
Kendra L. Brooks



Kendra L. Brooks
01/04/2000 05:46:00 PM

Record Type: Record

To: John B. Buxton/OPD/EOP@EOP
cc:
Subject: AP article

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HEADLINE: CRITICS SAY BUSH PLAN IS 'NAIVE'; THEY SAY THE
'ONE FLORIDA' PLAN IGNORES EDUCATION IN EARLY
CHILDHOOD; RACIAL PREFERENCES

BYLINE: JANET MARSHALL Ledger Tallahassee Bureau

BODY:

TALLAHASSEE -- While Gov. Jeb Bush's "One Florida" plan has not stopped Ward Connerly's anti-racial preference campaign, it has given Florida alternatives that could blunt the impact if Connerly succeeds.

But the alternatives are untested, and a growing number of critics contend they won't do enough to help minorities advance if race-based educational preferences end.

Maureen Dinnen, president of the FTP-NEA teachers' union, says Bush's educational proposals lack the substance needed to produce far-reaching and significant results.

"A lot of these things seem like the icing," Dinnen said. "They don't seem like the cake."

Bush's broad plan to end traditional affirmative action, called "One Florida," recommends a ban on race-based preferences in the university admissions process. The Board of Regents offered tentative support for the ban last week in a 10-3 vote. It will take a final vote in the next month or two. Its approval is required for the ban to take effect.

In place of preferences, Bush proposes an array of race-neutral measures, including a guarantee that the top 20 percent of each graduating high school class gets a spot in one of the 10 state universities.

Bush also wants to strengthen the public school system so all students, regardless of socio-

economic background, can compete in the application process.

To some educators and minority legislators, the proposals sound well-meaning but naive.

Turning failing schools into stellar ones -- with solid college-

preparatory programs -- could take years, they say. What happens in the meantime, they ask, to students whose public schools are failing but who no longer get an edge in the college admissions process because of their race?

Rep. Cynthia Chestnut, D-Gainesville, said she expects minority enrollment in Florida colleges will "plummet" as it did in some California schools the year after race-based preferences ended there.

She said Bush's plan does nothing to start preparing children for college when it counts: in elementary and middle school.

"If we don't prepare students really at the K-3 level, they are not going to be prepared to be in anyone's talented 20th," Chestnut said. "This (plan) needs some work."

Bush proposes eight steps for improving poor-performing public schools, focusing on high schools. In Florida's 65 D and F high schools, the minority population averages 72 percent and the poverty rate averages about 70 percent.

Bush says he wants the Legislature to allocate \$ 1.6 million to pay for every sophomore to take the PSAT, a precursor to the important SAT. Currently, students in D and F schools are four times less likely to take the PSAT as

children in A and B schools.

"It's a nice touch, but I don't really think it's going to have a big effect," Dinnen said. "Waiting until a 10th-grade test to all of a sudden pour in some help, I don't think that's where you do it."

Bush also wants to increase the availability of Advanced Placement classes for students in D and F schools. These classes are considered excellent preparation for college.

But students in D and F schools are four times less likely to be enrolled in AP English and five times less likely to be enrolled in AP math as students in A and B schools. Twenty-five of Florida's 67 districts offer no AP classes at all, the state Department of Education says.

Bush is trying to be proactive. But educators say his method for increasing AP access is flawed.

The governor suggests giving AP teachers a cut of the money schools get when students pass AP tests. The financial incentive will encourage teachers to take on AP assignments, he said.

But Dinnen said teachers already like teaching AP classes, in part because the students are smart and studious. The problem is not lack of teacher initiative, Dinnen said, but trouble finding enough qualified students to take the classes.

Ward Hurst, director of secondary education in Polk County, said the best way to establish an AP program is to set up AP preparatory classes for students in ninth, 10th and 11th grades.

"It is something that takes some time," Hurst said.

Students whose schools lack AP classes can take a few through the Orlando-based Florida Online High School, which enables students to take classes by computer.

Bush wants the Legislature to allocate \$ 2.4 million so the school can hire about 18 more teachers and offer more advanced classes for children in D and F schools.

The school now enrolls students on a first-come, first-served basis. But Principal Julie Young said it likely will start reserving space for children in D and F schools.

But Chestnut questions how many students in D and F schools, where the poverty level is high, have access to computers.

She also quarrels with Bush's proposal to spend \$ 10 million expanding his Governor's Mentoring Initiative, which matches adult mentors with children in low-performing schools.

"Just think what that \$ 10 million could do in 65 (D and F school) classrooms," Chestnut said. "If we want a one Florida, then let's really put our money where our mouth is. Let's reduce class size in the D and F schools. Let's put the best