Recommendations

1 More and Better Use of Learning Time

From the time they are 5 until they are 18, most American children today spend between six and seven hours in classrooms on weekdays during the school year, which typically stretches from September into June. Today's publicly supported learning time was designed to respond to the needs of students and their families – the students and families of the 19th century. The allocation and use of time today is still tied to an agrarian economy where children rarely left their mother's side until they entered school at age 5, where children were needed to help in the fields during the after-school hours and summer months, and where only an elite few were destined for any education beyond the early grades. This way of life was replaced over 100 years ago by a manufacturing-driven economy, which demanded a different set of skills and an increase in formal learning time. America responded by lengthening the school year and sending a greater share of young people to high schools.

By the 1950s, high-school education had become widespread, with a high-school diploma serving as the entry-level credential required for success in an industrial-age factory job. While attendance became nearly universal, the dominant philosophy of high-school education was to tailor it to specific groups. About 20% of students were deemed to be college-bound and provided with a rigorous academic curriculum. Another 20% were destined for vocational training, and the remaining 60% were to be provided with a general education. With the creation of the GI Bill returning World War II veterans swelled the ranks at college campuses, beginning the democratization of higher education.

By the 1970s, a new economy propelled by information, technology and knowledge began to replace the one based on manufacturing. This information-age economy requires that most students obtain a college education or post-secondary occupational credential. Indeed, to ensure that students are prepared for such study, researchers and policymakers alike agree that many children need to start learning at younger ages, especially children most at risk of starting school developmentally behind their peers.

This economic revolution coincided with dramatic changes in families and communities. The 1950s traditional concept of a two-parent family in which one spouse, usually the wife, stays home to take care of children is much less common. About 32% of children now grow up in single-parent households.[49] In over two-thirds of families with school-age children, both parents work outside the home.[50] As such, more children spend their early years in child care, pre-school or in front of a television, rather than at home with a parent as they might have a century ago. As children grow older, many of their parents struggle to find adequate after-school care for them. As a result, 14 million children in the U.S. return to an empty home when the dismissal bell rings.[51]

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[49] U.S. Census Bureau, *Current Population Survey, March and Annual Social and Economic Supplements: Families and Living Arrangements*, 2003. Available at: http://www.census.gov/prod/2004pubs/p20-553.pdf

[50] Center for Research on Women at Wellesley College, *Making the Case: A Fact Sheet on Children and Youth in Out-of-School Time* (Wellesley, MA: 2003). Available at: http://www.niost.org/publications/Factsheet_2003.PDF

[51] After-school Alliance, *American After 3 PM: A Household Survey on After-school in America* (Washington, DC: After-school Alliance, 2004). Available at: http://www.afterschoolalliance.org/press_archives/Working_Families_Rpt.pdf

Despite these economic and family changes and the greater knowledge and more complex skills demanded of workers, schools and districts continue to use time as they did when students' after-school activities included chopping and toting firewood and weeding crops. At the same time, other countries have been making more time available for learning and using the available time differently. Many nations offer a longer school year. They start the learning process when students are younger by offering universal pre-school, and they extend learning opportunities by making college increasingly accessible.

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A. Transform learning time

The Challenge

Overhauling the use of learning time requires a review from every angle of how time is spent today in the K-12 system – including the length of the school year and the use of after-school time.

The 180-day, September-to-June school year is a mainstay of the American education system, but it is not the norm in other industrialized nations. While American school calendars continue to be structured much as they were half a century ago, other nations are forging ahead. Many of the countries that outperform the United States on international comparisons of student performance keep their students in school longer.

Figure 4: Length of School Year in Selected Industrialized Nations[52]

Country	Length of School Year	Country	Length of School Year
South Korea	225	England	190
Japan	223	Canada	188
Chinese Taipei	221	Singapore	180
Italy	210	United States	180
Czech Republic	197	Hong Kong, SAR	176
Russian Federation	195	Belgium (Flemish)	175
Netherlands	191	*International Average*	*193*

[52] Ina Mullis et al., *Mathematics Benchmarking Report: TIMSS 1999 -- 8th Grade* (Boston, MA: Boston College/ International Association for the Evaluation of Education Achievement, April 2001). Available at: http://timss.bc.edu/timss1999b/pdf/TB99_Math_contents.pdf

The Trends in International Mathematics and Science Study (TIMSS), considered one of the gold standards in comparing student performance across countries, revealed that in only two of the 13 participating nations did students spend fewer days in school than American students. On average, students in participating nations spent 193 days annually in school, compared to only 180 in the U.S. Drawn out across 12 years of study, this 13-day annual deficit translates into a 156-day gap over an academic career – or nearly one full school year. There is little doubt that the extra time students in other countries devote to education contributes to the differences in academic achievement.

Just as the length of the school year is no longer responsive to students' needs or those of their families, neither is its construction. The convention of requiring students to attend for 9 or 10 months and then take a long vacation is counterproductive to long-term learning. Students lose some of their knowledge and mastery of subject matter during the summer months when they are out of school for an extended period. One study found that students lost an average of 2.6 months worth of math skills over the summer.[53] As a result, teachers spend precious time at the beginning of the school year reviewing material taught in the previous year.

The summer learning loss is greatest among low-income children, who often lack the enriching out-of-school opportunities available to their more affluent peers. Although middle-income students experience slight gains in reading performance over the summer, low-income students lose nearly two months of reading skills.[54] The long summer break also has a detrimental effect on some students who

Time for Learning Both In and Out of School: The Cases of Singapore and South Korea

The relationship between time spent in a classroom and student test scores is not always a perfect one. For example, Singapore has a 180-day school year – just like the U.S. Yet, its students are ranked first in every single subject and age group in the latest TIMSS test, while American students only performed in the middle of the pack among industrialized nations. How can this be? While the American and Singaporean student populations differ in many ways, one major variation lies in how much time they spend studying outside of school. It turns out that although students in both countries have the same length school year, Singaporean students devoted much more time outside of school to education. About 59% of eighth graders in Singapore said they spent more than three hours on homework each night, compared to only 22% of Americans.

South Korea, also a top TIMSS performer, has taken just the opposite approach to learning time. At 225 days, the South Korean school year was longer than that of any other participating nation. Beyond formal time in school, however, South Korean students spent relatively little time on education – as evidenced by the mere 16% of South Korean students who said they spent more than three hours per day studying outside of school.

Information here is from:
Ina Mullis et al., Mathematics Benchmarking Report: TIMSS 1999 -- 8th Grade (Boston, MA: Boston College/ International Association for the Evaluation of Education Achievement, April 2001).

[53] H. Cooper et. al, "The Effects of Summer Vacation on Achievement Test Scores: A Narrative and Meta-analytic Review," *Review of Educational Research*, 66, no. 3 (1996): 227-268.
[54] Ibid.

are learning English, many of whom have little opportunity to engage in regular practice of their English speaking skills when they are away from school.

Like a school year that is too short and poorly organized, abruptly thrusting American children out of the classroom door in the middle of the afternoon is a wasted opportunity and exposes them to an array of harmful activities and poor outcomes. Lack of adult supervision has been linked to an increased likelihood of accidents, injuries, lower social competence, lower grades, lower achievement test scores, and participation in delinquent and other high-risk behaviors, including experimentation with alcohol, drugs, tobacco and sex.[55] Providing adult supervision is a critical first step as it helps to build a strong foundation for learning. However, it is only the first step. Emerging evidence is demonstrating that innovative, high-quality programs in non-school hours enhance the academic, social, emotional, cultural and physical growth of students. These programs, however, remain the exception in our schools and communities, not the norm.

But even for those parents who manage to find activities to keep their children from spending the after-school hours alone, truly high-quality programs are too rare. Many are not well-designed or well-implemented, frequently consisting of little more than time and space to do homework. They seldom have enough adults to provide individualized or small-group tutoring, supervised games, art programs, or other recreational activities. Additionally, students in low-income communities have fewer

Breaking the Mold of Time In KIPP Schools Across the Country

Some schools are breaking the mold of how time is used. The Knowledge is Power Program (KIPP), a group of charter schools serving students in fifth through eighth grades, extends the school day, the school week and the school year. At the almost 40 KIPP schools across the country, the school day typically begins at 7:30 a.m. and ends at 5 p.m. Half-day classes are also held on Saturdays and, in addition, students attend a summer session of two to four weeks. On average, KIPP students spend over 60% more time in school per year than do their peers in traditional public schools. The KIPP model is improving outcomes for students at-risk for academic failure.

Gaston College Preparatory (GCP) is a KIPP school located in Gaston, North Carolina. Over 95% of its students are African-American, and 85% qualify for the free/reduced lunch program. Although fewer than half of incoming fifth graders were performing at grade level when they entered GCP, over 90% of them were doing so by the end of their first year in the school. Out of North Carolina's 2,219 schools in 2002-03, GCP was the sixth-highest performing school in the state. While many factors – rigorous curriculum, a commitment to high-quality instruction, and high expectations of students, parents and families, teachers, principals and all others connected to the schools – contribute to GCP's success and to that of KIPP schools elsewhere, the schools' innovative and effective use of time is a key component.

Information here is from:
Knowledge is Power Program, KIPP Schools in Action: Student Achievement (Houston, TX: Knowledge Is Power Program). Available at: http://kipp.org/print_studentachieve.html

[55] Afterschool Alliance, *Afterschool Keeps Kids Safe (crime and drug prevention); Afterschool and Healthy Lifestyles (physical fitness and nutrition); Afterschool and Pregnancy Prevention; Afterschool and the Building of Character; Afterschool programs level the playing field for all youth* (Washington, DC: Afterschool Alliance, 2005). Available at: http://www.afterschoolalliance.org/issue_br.cfm

after-school opportunities, and the programs that are offered tend to focus on addressing risks, not improving students' skills and knowledge.[56] Better options for the use of after-school time are critical for all these reasons.

Even within the structure of the current school day and school year, the public education sector has been slow to embrace alternative strategies to use time more productively in a way that encourages innovation and raises student achievement. Individual students have different needs and thrive in different settings. Too much of our education system supports the status quo and a basic "one size fits all approach." As the superintendent of a major urban school district recently wrote, "…the tools for achieving productivity common in virtually every other sector in America—flexibility, competition, incentives, efficiency, and innovation—are not used systematically in our schools. Instead, they are conspicuously absent."[57]

Despite the benefits of year-round schooling and high-quality after-school programs, calls for changes such as extending the school day and/or school year are often met with skepticism, if not resistance. Critics of extended-day schools and year-round schooling question the positive effects on student achievement. Many parents, remembering their own experiences of summer holidays as children, balk at the prospect of year-round school, as do employers who rely on high-school students for summer help. Despite these issues, tradition or habit must no longer be an acceptable rationale for the structure and design of student learning time.

The Recommendation

States should constructively align school time with student learning and provide incentives for all school districts to better use the current school day, extend the school day to meet student needs and interests, and reorganize the school year with short intersession breaks that offer voluntary tutoring or enrichment programs. In continually low-performing school districts, states should provide an extra 30 days of schooling and hold district officials accountable for significantly improved results. The federal government should help fund extra learning time in these districts and provide technical assistance, materials and personnel to help educators transition to these organizational improvements.

The Use of Current Time

Obviously, it makes no sense to extend school time if the hours students currently spend in school are used inefficiently. Several schools across the country are already experimenting with innovative ways to make the current school day more effective. Many schools are successfully preparing their learners by teaching some subjects, such as science labs, in longer blocks. Others use cross-age and peer tutoring as ways to effectively augment teachers' activities. Some partner with organizations like science museums to better engage students in the subject matter. In rural areas, many schools are availing themselves of distance

[56] Linda Lumsden, "After-school Programs," ED480741 (2000). Accessed through ERIC Clearinghouse on Education Policy and Management. Available at: http://www.ericdigests.org/2004-2/programs.html
[57] Alan D. Bersin, "Making Schools Productive: The Point of Accountability and the Key to Renewal," Commentary, *Education Week,* April 20, 2005.

learning options in order to give students access to courses that are not offered on-site. Most importantly, innovative schools and districts purposefully build in time for teachers to plan together and engage in activities to develop their content skills and instructional strategies. They sometimes have unique and varied ways of using teacher time, such as hiring part-time teachers, scheduling non-traditional hours that include after-school or evening classes, or telecasting instructors over the Internet.

In their current use of time, districts must respond to the range of student learning styles, interests and preferences by implementing a variety of school models that promote active learning and imaginative teaching and by allowing families and students to choose which of these best fits their needs. This is at the heart of systems that put students first. Implementing choice is rarely easy and requires addressing educational, community, ideological and political concerns. As efforts in Chicago and Boston demonstrate, however, public school choice represents one increasingly prominent approach in an array of strategies to advance systemic reform. It reflects deeply rooted societal values of innovation, flexibility and fair competition, and should continue to be one instrument in the school improvement toolbox.

Reorganized and Extended School Year

One solution to the problem of the loss of learning that occurs over the long summer break is to adopt a year-round school calendar, which extends the school year over 12 months, instead of the usual nine. Most schools that have done so are in session 180 days, the standard number in an academic year across the country.[58] They do not add days but rather break the school year up into shorter segments. The most popular configuration is 45 days of instruction followed by 15 days of intersession vacation.[59] Most schools and districts that have moved to year-round schooling have done so to alleviate over-crowding, rather than to enhance student learning and improve achievement. Nevertheless, they are realizing the academic benefits of reorganizing the school year.

Applying the Montessori Approach at a Charter School in Arizona

Sedona Charter School, a Montessori school established by Arizona parents and community members, consistently ranks among the highest achieving schools in the state. Following the Montessori philosophy, students progress at their own pace through multi-age classrooms. The school's teacher-student ratio averages 1:10 to 1:15, allowing teachers to work individually with students. Although nearly half of Sedona students qualify to receive free/reduced-price lunch, the 2003 SAT-9 test scores of students in grades two through six were high enough to place each grade within the top 20 of the state's 508 traditional and charter school districts.

Information here is from:
Sedona Charter School (Sedona, AZ: Sedona Charter School). Available at: http://www.sedonacharterschool.com

[58] Jeffrey Tomlinson, *Number of Instructional Days/Hours in the School Year* (Denver, CO: Education Commission of the States, 2004). Available at: http://www.ecs.org/clearinghouse/55/26/5526.htm
[59] The Century Foundation, *Idea Brief: All-Day, All-Year Schools* (New York, NY: The Century Foundation, 2004). Available at: http://www.tcf.org/Publications/Education/allday_allyear.pdf

Fostering Choice and Innovation in Boston

The Boston Pilot Schools Network provides a rigorous and meaningful curriculum and commits to ensuring that all students are successful. The network offers its member schools significant autonomy in staffing, use of time, budgeting, governance and curriculum. It was created almost a decade ago by the public school system to afford students more choice and, perhaps equally as important, to develop new ideas and promising practices that could then be disseminated throughout the system. Boston has embraced choice partly because it allows experimentation that can be brought to scale.

Information here is from:
The Boston Pilot/Horace Mann Schools Network. (Boston, MA). Available at: http://www.ccebos.org/pilotschools/conditions.html

Under this configuration of the academic calendar, some schools use the breaks between sessions to provide enrichment programs and remedial support. Such intersession enrichment programs effectively lengthen the school year for students who need the extra time to keep up or catch up academically. Though extra care must be taken to ensure such schedules are not detrimental to older students' ability to engage in meaningful work experiences and to receive advisement support for college applications, research suggests that these intersession programs help students learn more.[60]

If students in continually low-performing school districts are to have a chance at catching up and meeting standards, they will need much more time engaged in learning activities. An important step for them is to extend the school year by 30 days.

After-School Programs

After-school programs can support student learning in powerful ways and lead to meaningful gains in achievement. Evaluations of programs such as Los Angeles' Best Educated Students for Tomorrow (LA's BEST), The After-School Corporation (TASC) in New York, and YS-Care After-School Program in California have demonstrated how after-school programs can improve learning and academic outcomes for students.[61] Other more traditional after-school programs like interscholastic and intramural sports, bands and orchestras, and drama programs can support social and emotional development as well as important habits for academic success. Clubs and tournaments like the New York City Chess-in-the-Schools program develop both academic critical-thinking and problem-solving skills as well as other social skills.[62]

[60] The Century Foundation, *Idea Brief: All-Day, All-Year Schools* (New York, NY: The Century Foundation, 2004). Available at: http://www.tcf.org/Publications/Education/allday_allyear.pdf
[61] After-school Alliance, *After-school Alliance Backgrounder: Formal Evaluations of After-school Programs* (Washington, DC: After-school Alliance, 2003). Available at: http://www.afterschoolalliance.org/elections/backgrounder.cfm
[62] For more information on Chess-in-the-Schools, see http://www.chessintheschools.org.

High-quality after-school programs can bring substantial benefits to every student and should be available to all of them. It is, however, critical that students most at-risk for poor outcomes, frequently those from low-income families or unsafe neighborhoods, be guaranteed participation in high-quality after-school programs. They have the most to gain because they are often the farthest behind and most likely to stay behind without additional learning and developmental opportunities. Yet, these students are often the ones with the most limited access to such high-quality after-school programs.[63] They should be offered free access to such programs.

Extended-Day Schools

Extended-day schools are somewhat rare. They are not simply schools that run or host after-school programs. Although they fill the same hours as traditional schools with after-school programs, they differ in format and content. The content and activities of extended-day programs are directly connected to those of the normal school day, are run on school sites, and are typically led by regular teachers and paraprofessionals.

In high-quality extended-day programs, activities are aligned with student learning goals and may include small-group tutorials, homework clubs, instruction in study skills and computer skills, and advanced or supplementary subjects such as foreign language and advanced science. Cultural and recreational activities, increasingly squeezed out of traditional school days, are often incorporated as well.[64] In addition, extended-day programs held on-site at schools help to bridge the digital divide by enabling low-income students to access physical resources, such as computers, that may exist at school but not at home. The organization of these activities, moreover, allows for more individualized learning—more one-on-one or

After-School Opportunities for Teens in Chicago

After-School Matters in Chicago, an initiative created by civic and community leaders, provides out-of-school learning opportunities for older youth. It aims to reach more than half of Chicago's teenagers by 2005, offering them supports and opportunities in the out-of-school hours. It links together clusters of schools, parks, and libraries to form neighborhood "campuses" throughout the city. Currently, 18 clusters (up from six in 2000) are home to four After-School Matters programs—focusing on the arts (visual and performing), sports (playing and coaching), technology (Web design and robotics), and literacy (through storytelling). Each program contains an element of paid employment, apprenticeship with skilled adults, opportunities to teach others, and intentional skill building.

Information here is from:
Hilary Pennington, Fast Track to College: Increasing Postsecondary Success for All Students (Washington, DC: Center for American Progress and the Institute for America's Future, 2004). Available at: http://www.americanprogress.org/site/pp.asp?c=biJRJ8OVF&b=19382

[63] After-school Alliance, *After-school Alliance Backgrounder: Formal Evaluations of After-school Programs* (Washington, DC: After-school Alliance, 2003). Available at: http://www.afterschoolalliance.org/elections/backgrounder.cfm

[64] Olatokunbo S. Fashola, *Review of Extended-Day and After-School Programs and Their Effectiveness: Report No. 24* (Baltimore, MD: Center for Research on the Education of Students Placed At Risk, Johns Hopkins University, 1998), p. 8. Available at: http://www.csos.jhu.edu/crespar/techReports/Report24.pdf

small group time with teachers than the usual school day provides. In short, this extended time is not separate from classroom curricula or instructional activities; it is embedded in and enhances them.

Extended-day programs often look different for high-school students. They frequently combine rigorous course work, personalized supports, and internships—paid for low-income students—in the community. Some connect high school with community colleges and blend school and work through youth apprenticeships

B. All children should enter school ready to learn

The Challenge

Children's readiness to learn forms the foundation for their long-term academic success. Those who have pre-school learning opportunities and enter kindergarten prepared for school do better academically. But contrary to common perception, turning 5, the age at which children generally become eligible to enroll in kindergarten, does not mean that a child is ready to start school.

Far too few children are truly ready for school when they begin kindergarten. In 1999, only 39% of all 3- to 5-year-olds had gained at least three of the four literacy school readiness skills (i.e., recognizing letters, counting to 20 or higher, writing their names, and reading or pretending to read).[65] Among low-income children, that number was much smaller – just 19%, compared to 45% for all other children. Similar disparities were seen between children of different ethnicities.[66] While 42% of white children and 48% of Asian children had gained at least three of the literacy school readiness skills, only 35% of African-Americans and 25% of Hispanic children had done so.[67] Children who do not acquire these readiness skills arrive at school already behind, making it much more difficult for them to catch up or get ahead.

Lack of school readiness stems from multiple sources, including poverty. Parents of low-income children are more likely to have lower levels of education and know less about cultivating early language, cognitive and social skills. They also have reduced access to stimulating learning activities, such as visiting libraries, museums or zoos, which promote high levels of development in young children. Access to such programs is not the only challenge facing many families; quality is also a concern. Both African-American and Hispanic children are less likely to attend high-quality preschool programs than white children.[68]

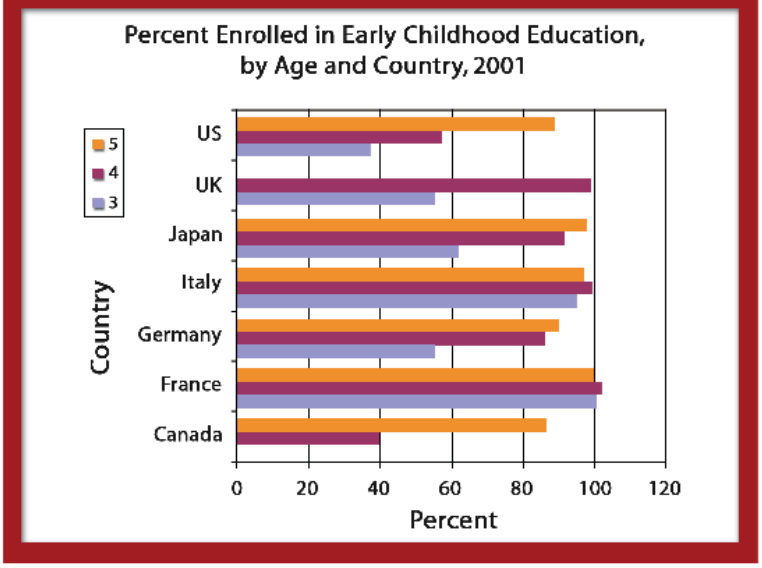
In comparison to several industrialized nations, the United States falls short in financing early childhood education and in educating the majority of its 3- and 4-year-old pre-school population. European countries, for example, predominantly rely on public financing to

[65] Child Trends, *Early School Readiness* (Washington, DC: Child Trends Databank, 2003). Available at: http://www.childtrendsdatabank.org/indicators/7EarlySchoolReadiness.cfm
[66] Ibid.
[67] Ibid.
[68] Katherine A. Magnuson and Jane Waldfogel, "Early Childhood Care and Education: Effects on Ethnic and Racial Gaps in School Readiness," *The Future of Children* vol. 15, no. 1, Spring 2005. Available at: http://www.futureofchildren.org/information2826/information_show.htm?doc_id=255993

support early childhood education. In some instances, parents share the costs, but their contributions are based on the family's ability to pay and are usually limited to wrap-around services such as before- and after-school and holiday care.[69] Belgium, France and Italy enroll 95-99% of their 3- to 6-year-old populations in early childhood education programs, while Denmark, Sweden and Finland enroll 73-83% of the same population.[70]

In contrast, American state-run pre-kindergarten programs currently serve approximately 700,000 children, most of whom are 4-year-olds, and the federal Head Start program serves about 800,000 3- and 4-year-olds.[71] The children served by these programs constitute a mere 20% of the nation's 3- and 4-year-olds. Within the last ten years, enrollment of African-Americans in any sort of pre-school has increased to reach a level on par with their white peers; however, enrollment among Hispanic children has remained lower.[72] State spending on pre-school programs ranges from $1,000 to $9,000 per child; on average, state spending is half that of Head Start.[73]

Figure 5: Pre-School Enrollment in Select Industrialized Nations[74]



[69] Committee for Economic Development, *Preschool for All: A Priority for American Business Leaders* (Washington, DC: Committee for Economic Development). Available at: http://www.ced.org/docs/newsletter_prek_2004_08.pdf

[70] Ibid.

[71] Dr. Steve Barnett, Testimony to the Subcommittee on Education Reform, April 21, 2005. http://edworkforce.house.gov/hearings/109th/edr/headstart042105/barnett.htm. These numbers do not include disabled children or children in private care programs paid for in part with child care subsidies.

[72] Katherine A. Magnuson and Jane Waldfogel, "Early Childhood Care and Education: Effects on Ethnic and Racial Gaps in School Readiness," *The Future of Children* vol. 15, no. 1, Spring 2005. Available at: http://www.futureofchildren.org/information2826/information_show.htm?doc_id=255993

[73] Dr. Steve Barnett, Testimony to the Subcommittee on Education Reform, April 21, 2005. http://edworkforce.house.gov/hearings/109th/edr/headstart042105/barnett.htm.

[74] National Center for Education Statistics, *Comparative Indicators of Education in the United States and Other G8 Countries: 2004* (Washington, DC: National Center for Education Statistics, 2004). Available at: http://nces.ed.gov/pubs2005/2005021.pdf

While pre-school programs provide an important foundation for learning, high-quality full-day kindergarten is also a key building block in ensuring that students get off to a strong start. Recent research indicates that developmentally appropriate all-day kindergarten benefits children more than half-day kindergarten. In fact, several studies have found that children in full-day kindergarten demonstrate "more independent learning, classroom involvement, productivity in work with their peers, and reflectiveness in their work than their half-day kindergarten peers…. (T)hey express less withdrawal, anger, shyness and blaming behavior than half-day kindergarteners."[75] About 60% of the nation's schoolchildren attend full-day kindergarten. Access is not consistent, however, and only nine states require districts to offer full-day programs. Just two states, Louisiana and West Virginia, require full-day kindergarten for every student.[76]

However the data are examined, children who begin behind generally stay behind.[77] As a result, there is no point in a child's life more significant than the period between birth and age 5; it is in this period that children are learning how to learn. We must use this time in children's lives wisely.

The Recommendation

All 3- and 4-year-olds, beginning with low-income and minority children who need it most, should have access to universal, high-quality pre-kindergarten and full-day kindergarten paid for with a combination of federal, state, local, and private dollars.

Pre-School Programs

As the payoffs of early childhood education are becoming more evident, there is a push to make these programs more widely available and accessible, particularly to low-income and minority families. Quality pre-kindergarten programs prepare children for the academic years ahead of them. Research has shown that children who participate in Head Start, for example, are better prepared to begin school and do better academically. Twenty percent of African-American children who are enrolled in pre-school are in Head Start programs; by one estimate, if Head Start did not exist, the gap in test scores between African-American and white children would be as much as 24% larger.[78]

Yet, the quality of pre-school and pre-kindergarten programs varies considerably, in part because the attributes of high-quality programs have not been fully explored or defined.[79] Early research, however, suggests that programs with the greatest benefits for

[75] Sherrill Martinez and Lue Ann Snider, *Summary of Research: Full-Day Kindergarten* (Topeka, KS: Kansas State Department of Education, 2001). Available at: http://www.ksde.org/pre/full_day_kindergarten.html
[76] Education Commission of the States, "Helping State Leaders Shape Education Policy," *The Progress of Education Reform* vol. 5, no. 4, September 2004. Available at http://www.ecs.org/html/issue.asp?issueid=77.
[77] Sharon Vandivere et. al., *Indicators of Early School Success and Child Well-Being* (Washington, DC: Child Trends, 2004). Available at: http://www.childtrendsdatabank.org/../PDF/ECLS-K.pdf
[78] Katherine A. Magnuson and Jane Waldfogel, "Early Childhood Care and Education: Effects on Ethnic and Racial Gaps in School Readiness," *The Future of Children* vol. 15, no. 1, Spring 2005. Available at: http://www.futureofchildren.org/information2826/information_show.htm?doc_id=255993
[79] Ibid.

children are staffed by teachers with college degrees and early childhood certification; offer developmentally appropriate education, including a focus on language development and comprehensive services such as meals and health and developmental screenings; and encourage parental involvement. Further research should be undertaken to test the impact of these attributes and to identify other critical characteristics of high-quality pre-kindergarten programs.

The benefits of high-quality, universal pre-kindergarten programs will flow not only to the children who attend them but to the entire nation. Research consistently indicates that for every $1 investment in high-quality pre-school, there is a $7 return in long-term education outcomes and earnings, as well as decreases in crime, teen pregnancy, welfare rates, and the need for special and remedial education.[80] As economists have noted, these returns reverberate through our economy:

> "…recent studies suggest that one critical form of education, early childhood education… is grossly under-funded. However, if properly funded and managed, investment in [early childhood education] yields an extraordinary return, far exceeding the return on most investments, private or public…. In the future any proposed economic development list should have … early childhood development at the top."[81]

Chicago's Child-Parent Center Program

This federally-funded, child-centered program was created in 1967 to provide Chicago's economically disadvantaged children, ages 3-9, with comprehensive educational and family-support services. Specifically, the program offers half-day pre-school, half- or full-day kindergarten, and supplemental services to children in grades 1-3 and their families. The program emphasizes early intervention, parental and community involvement, and continuity between pre-school and the early elementary years. With a focus on basic language arts and math skills, children participating in the program have shown academic achievement and positive social development.

The Chicago Longitudinal Study, a research study on the Child-Parent Center program, revealed that children who participate in the program academically outperform non-participants, are less likely to be held back in school, are less likely to be placed in special education, and experience lower rates of official juvenile arrests.

Information here is from:
University of Wisconsin-Madison, Waisman Center, *Chicago Longitudinal Study Newsletter* (Chicago, IL: Univeristy of Wisconsin-Madison, August 2000). Available at: http://www.waisman.wisc.edu/cls/NEWSLETTER2.PDF

[80] Progressive Policy Institute, *Open the Preschool Door, Close the Preparation Gap* (Washington, DC: Progressive Policy Institute, 2004). Available at: http:www.ppionline.org/documents/PreK_0904.pdf. Much of this research is based on the Chicago Longitudinal Study of the Chicago Child-Parent Center Program in Chicago's Public Schools. See also http://www.waisman.wisc.edu/cls/cbaexecsum4.html or http://www.waisman.wisc.edu/cls/NEWSLETTER2.PDF.

[81] Robert Grunewald and Arthur Rolnick, "Early Childhood Development: Economic Development with a High Public Return," *Fedgazette* (Minneapolis, MN: Federal Reserve Bank of Minneapolis, 2003). As quoted in Robert G. Lynch, *Exceptional Returns: Economic, Fiscal and Social Benefits of Investment in Early Childhood Development* (Washington, DC: Economic Policy Institute, 2004).

Early Childhood Education: An Investment in Our Future
LESSONS FROM OHIO FORUM

Communities and businesses in Ohio are committed to early childhood care and education. Public-private partnerships, for example, between Cuyahoga County and 23 non-profit organizations support the county's Early Childhood Initiative, which provides a network of services to families with young children. These services primarily consist of early screening and nurse visits for new mothers and have had positive results. Ohio's Head Start also has strong relationships with childcare providers and high school students, making it a model now implemented by other states. PNC Bank's involvement in the Success by 6 and Help Me Grow initiatives demonstrate the business sector's investment in high-quality early childhood programs as a crucial step in preparing our future workforce.

Information here is from:
Presentations by Michelle Katona, Interim Coordinator, Early Childhood Initiative, Cuyahoga County; Barbara Haxton, Executive Director, Ohio Head Start Association, Inc.; and John Taylor, Regional President, PNC Bank at the Renewing Our Schools, Securing Our Future forum in Columbus, OH, September 9, 2004. Available at: http://www.americanprogress.org/atf/cf/{E9245FE4-9A2B-43C7-A521-5D6FF2E06E03}/Report_ohio.pdf

Full-Day Kindergarten

All-day kindergarten has been linked to greater academic success in areas such as math and reading in both the short- and long-term. It has also been positively linked to children's social and behavioral skill development.

As is true within every school, what matters most is what happens in the classroom. Productive, positive all-day kindergarten programs are those that are developmentally appropriate. Research studies to date indicate the attributes of such programs include a focus on experiential learning and higher order thinking; an emphasis on language development and appropriate pre-literacy experiences; a balance of child- and teacher-initiated activities; a balance of small-group, large-group and individual activities; time to play; and mixed-ability and mixed-age grouping.[82]

Full-day kindergarten alone will not eliminate the gap in achievement between poor and non-poor children or between minority and non-minority children. But students who participate in full-day kindergarten see greater advances in academic, social and emotional development than those who participate in half-day programs. Given this and in light of the increased likelihood that poor and minority children will not be adequately prepared to start school, it is critical that these children have the opportunity to attend full-day kindergarten.

[82] Sherrill Martinez and Lue Ann Snider, *Summary of Research: Full-Day Kindergarten* (Topeka, KS: Kansas State Department of Education, 2001). Available at: http://www.ksde.org/pre/full_day_kindergarten.html

C. Every student must be academically prepared for study beyond high school and be assured that advanced study is affordable

The Challenge

In the 20th century, high-school education became widely available, if not universally pursued. At the time, staying in school until 12th grade offered young people a good shot at attaining a middle-class lifestyle. Today, a high-school diploma is no longer sufficient to gain access to the American dream; a college degree or post-secondary vocational credential is essential. Although this economic reality has sparked growth in the college-educated population, too many of America's youth are not oriented toward higher education or are unable – either financially or academically – to pursue it.

As we continue to embrace a knowledge-driven, global economy, the importance of education – and, in particular, a college degree or a post-secondary vocational credential – will be magnified.

Those with less education find that fewer jobs are available to them, and the jobs that are tend to be clustered toward the lower end of the pay scale. (See Figure 6.) As we continue to embrace a knowledge-driven, global economy, the importance of education – and, in particular, a college degree or a post-secondary vocational credential – will be magnified. It is, therefore, imperative that all students are academically prepared for and can afford post-secondary education.

The nation, however, stands a long way from this goal. The first challenge is getting more students successfully through high school. The high-school graduation rate has stalled at approximately 71%, meaning more than one-quarter of all students who enroll in 9th grade do not earn a diploma four years later.[83] The future is particularly bleak for these young people.

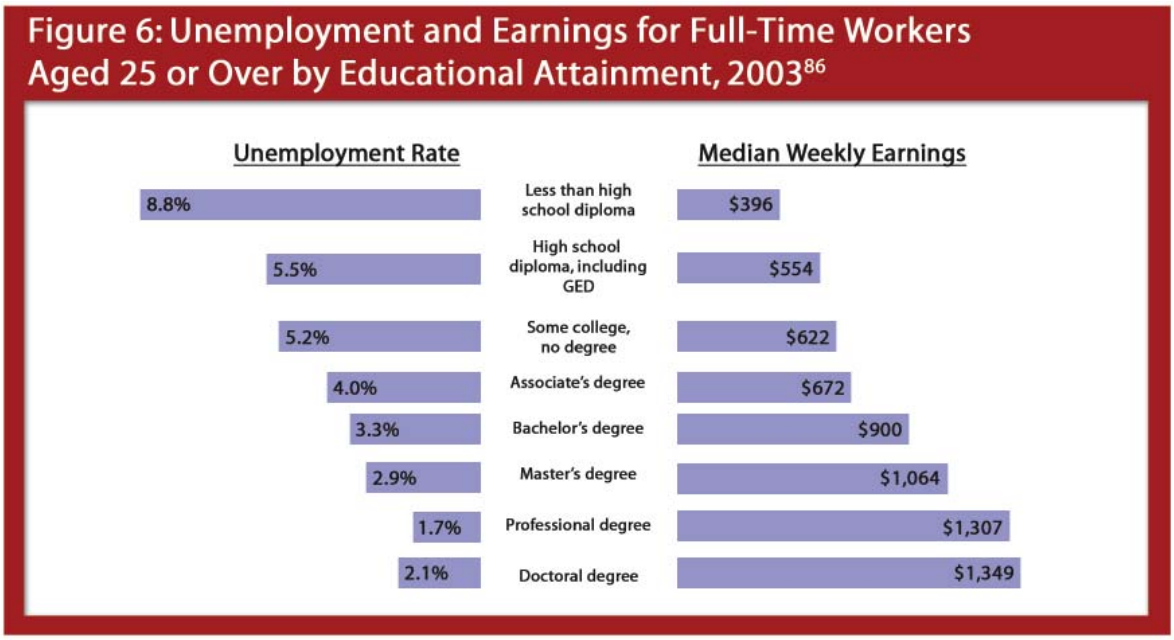
Of those who do complete high school, too few enroll in a university or community college. Last year, about 67% of high-school graduates enrolled by the following fall.[84] Enrollment, however, is no guarantee that one will earn a degree. Research indicates that only 63% of those who enroll in a four-year college graduate in six years. Of those who enroll in community colleges with hopes of earning an associate's degree, about one-fourth do so within three years; of those who transferred to four-year schools, only 36% earned a bachelor's degree.[85]

The inability to earn a post-secondary credential carries with it not only serious and enduring personal consequences but also jeopardizes the future of America's economy. By one estimate, American employers in 2020

[83] Jay Greene and Marcus A. Winters, *Public High-School Graduation and College Readiness Rates: 1991-2002* (New York, NY: Manhattan Institute for Policy Research, Feb. 2005). Available at: http://www.manhattan-institute.org/pdf/ewp_08.pdf

[84] Bureau of Labor Statistics, *College Enrollment and Work Activity of 2004 Graduates*, 2005. Available at: http://www.bls.gov/news.release/hsgec.nr0.htm

[85] Lutz Berkner, et al, *Descriptive Summary of 1995-96 Beginning Post-secondary Students: Six Years Later* (Washington, DC: National Center for Education Statistics, December 2002). Available at: http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2003151



will need 14 million more workers with some college education than our post-secondary institutions are on track to produce.[87] Nowhere is addressing this shortage more crucial than in science and technology fields. Between 1980 and 2000, American job openings in science and engineering grew at an average annual rate of 4.9%, much greater than the 1.1% growth rate in the entire labor force. During that period, the number of jobs in mathematics and computer science exploded by 623%. Although some of those jobs were lost in the recent recession, technology will continue to play an important role in our economy.

There is little evidence that the growth in science and engineering will slow or will be any less vital to the nation's economic health. At the same time, while we struggle to keep up with our own workforce needs, other industrialized nations now outpace us in graduating students in these key areas. (See Figure 7.)

Too few American students overall graduate with diplomas in these fields, but the rates of underrepresented minorities entering these fields are particularly dismal. While African-Americans and Hispanics constitute 24% of the population, they make up only 7% of the science and engineering workforce.[88] Cultivating the vast, untapped, and growing reserve of talent among these groups is essential to meeting workforce demands.

[86] Occupational Outlook Quarterly, *More Education: Lower Unemployment, Higher Pay* (Washington, DC: Bureau of Labor Statistics, Fall 2004). Available at: http://www.bls.gov/opub/ooq/2004/fall/oochart.pdf

[87] Anthony Carnevale and Donna Desrochers, *Help Wanted…Credentials Required in the Knowledge Economy,* (Princeton, NJ: Educational Testing Service and Washington, DC: American Association of Community Colleges, 2001).

[88] Figures calculated based on data provided in Appendix Table 3-14 of *Science and Engineering Indicators, 2004*. (Arlington, VA: National Science Foundation, 2004). Available at: http://www.nsf.gov/sbe/srs/seind04/append/c3/at03-14.pdf

Figure 7: Degrees in Science, Math and Engineering as a Percentage of All Bachelor's Degrees Awarded, 2000[89]

	Natural Science	Math/ Computer Science	Engineering
Canada	8.9	4.7	8.3
China	11.2	N/A	38.7
European Union	8.5	4.6	13.5
France	12.2	5.5	12.5
Germany	6.4	4.1	20.3
India	19.6	N/A	3.9
Ireland	12.0	7.5	10.8
Japan	2.6	0.9	19.3
Netherlands	3.2	1.9	11.1
Spain	5.3	4.3	13.1
United Kingdom	11.9	6.7	7.4
United States	6.7	3.9	4.8

Increasingly concerned about these trends, business leaders have bemoaned their inability to hire qualified workers. Many have identified the culprit as the nation's education system in general and high schools in particular. Microsoft founder Bill Gates recently remarked,

> "American high schools are obsolete. By obsolete, I don't just mean that our high schools are broken, flawed and underfunded. ... By obsolete, I mean that our high schools – even when they are working exactly as designed – cannot teach our kids what they need to know today."[90]

Three major barriers today stand in the way of better preparing America's teens to earn the credentials necessary for their own financial well-being and for America's continued economic success – a lack of academic preparation, a leaky pipeline from high school to college, and the escalating cost of post-secondary education.

First, high schools need to do a better job of academically preparing students for college, thereby giving a high-school diploma greater meaning. Too many students arrive in 9th grade behind in reading and math skills and few ever catch up. A sizable number of students cope with a watered-down curriculum that often lacks an apparent relevance to the real world. These students complete their coursework, but fail to truly master the skills necessary for post-secondary study or for a job that pays a living wage. Evidence of this disturbing phenomenon lies in the fact that over half – 53% – of all college students take at least one remedial course in English or math.[91] In some

[89] Figures calculated based on data provided in Appendix Table 2-33 of *Science and Engineering Indicators, 2004*. (Arlington, VA: National Science Foundation, 2004). Available at: http://www.nsf.gov/sbe/srs/seind04/append/c2/at02-33.xls

[90] Robert Pear, "Microsoft Chairman Challenges Governors to Improve High Schools," *New York Times,* Feb. 27, 2005. Text of speech also available at: http://www.gatesfoundation.org/MediaCenter/Speeches/BillgSpeeches/BGSpeechNGA-050226.htm

[91] American Diploma Project, *Ready or Not: Creating a High-School Diploma That Counts* (Washington, DC: Achieve, Inc., 2004). Available at: http://www.achieve.org/dstore.nsf/Lookup/ADPreport/$file/ADPreport.pdf

urban community colleges, 75% of students need remedial coursework.[92]

Second, large cracks pervade the education pipeline from high-school enrollment to college completion, and too many students, particularly those from low-income families, slip through them. High schools often fail to clearly articulate the relevance of a diploma and provide few incentives to encourage persistence among those most at-risk of dropping out. Moreover, once those students have chosen to leave high school early, schools do little to persuade them to return.

Finally, soaring tuition costs and stagnant financial aid packages present significant barriers to young people hoping to join the ranks of the college-educated. Last year alone, the average cost of attending a four-year public university grew 10.5%, and some state universities have raised tuition by as much as 40% over the last few years.[93] At the same time, not enough students are receiving the financial aid needed to alleviate the painful effects of rising tuition.

The federal Pell Grant program, which was established to equalize post-secondary opportunities for low-income students, is falling far short of its admirable purpose. Twenty years ago, the maximum Pell Grant funded about 50% of the average cost of tuition, fees, room and board at a four-year public university. This year, the Pell Grant covered only 36% of those costs. The sons and daughters of low-income families are increasingly squeezed. Last year, the shortfall between the $4,050 maximum Pell Grant award and low-income families' unmet needs averaged $6,200 per year at private schools and $3,800 at public four-year colleges.[94] Need-based grants offered by states have not proven sufficient to fill this void.[95] As college costs have risen, middle-income families have also been pinched financially, and students from both income groups have had to find alternative means of paying for higher education.

For some, the crunch of college costs means working long hours during the school year, which may affect students' studies and certainly changes the nature of their college experience. For others, it means taking on mountains of student loans or having their parents sacrifice their retirement savings. Finally, some students forgo post-secondary education completely, or leave before completing a degree or getting the requisite training that they sought. It is estimated that 400,000 low- and moderate-income qualified high-school graduates will not pursue a full-time, four-year degree this year because of an inability to pay.[96]

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[92] Hilary Pennington, *Fast Track to College: Increasing Post-secondary Success for All Students* (Washington, DC: Center for American Progress and the Institute for America's Future, 2004). Available at: http://www.americanprogress.org/site/pp.asp?c=biJRJ8OVF&b=19382

[93] Sandy Baum and Kathleen Payea, *Trends in College Pricing 2004* (Washington, DC: College Board, 2004). Available at: http://www.collegeboard.com/prod_downloads/press/cost04/041264TrendsPricing2004_FINAL.pdf

[94] Jessi Hempel, "College Tuition? Gumption Won't Cover It," *Business Week*, May 31, 2004.

[95] Edward P. St. John, *Affordability of Post-secondary Education: Equity and Adequacy Across the 50 States* (Washington, DC: Center for American Progress and the Institute for America's Future, 2005). Available at: http://www.americanprogress.org/site/pp.asp?c=biJRJ8OVF&b=19382

[96] Brian Fitzgerald, *Empty Promises: The Myth of College Access in America* (Massachusetts: New England Board of Higher Education, Sept. 27, 2003). Available at: http://www.nebhe.org/event_archive/BFitzgerald_9_27_03.pdf

Without adequate financial aid, low-income students have a harder time getting the education they need to achieve the American dream. The statistics bear this out; freshmen from wealthier families are much more likely to complete college. Of those students who entered four-year institutions in 1995-96 with the goal of earning a bachelor's degree, 77% of those with family incomes greater than $70,000 had done so within six years, compared to only 54% of those whose family income was below $25,000.[97]

We owe it to all young Americans to ensure that they are academically prepared for higher education and have financial access to it. By helping individuals achieve to their fullest potential, we both bolster our economy and strengthen our democracy.

The Recommendation

Policymakers and educators must undertake the radical redesign of high schools and their relationship with post-secondary institutions, assure that every student is prepared for and has access to college, provide incentives for preparation for science and technological jobs, and work aggressively to redirect school dropouts back into learning environments that lead to an employment credential.

High-School Redesign

Serious attention is now being devoted to high-school redesign. Philanthropists, led by the Carnegie Corporation and the Bill and Melinda Gates Foundation, are investing heavily in creating small learning communities in large high schools, in breaking existing large high schools into smaller schools and in designing new small high schools.[98] Small schools and small learning communities in larger schools are promoting better relationships between students and teachers, more student interest in specific careers and, in some places, better student performance.[99] Philanthropists like Carnegie Corporation, the Edna McConnell Clark Foundation and W. K. Kellogg Foundation have also invested in middle grade reform so that students arrive in high school with better preparation. It is now time to make privately-funded innovations public policy. Indeed, many state policymakers, including governors, are actively seeking to improve middle and high schools by raising standards, restructuring schools, designing more challenging courses, and developing tougher tests for students.[100]

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[97] Sandy Baum and Kathleen Payea, *Education Pays 2004: The Benefits of Higher Education for Individuals and Society* (Washington, DC: College Board, 2004). Available at: http://www.collegeboard.com/prod_downloads/press/cost04/EducationPays2004.pdf

[98] Patte Barthe, "A Common Core Curriculum for the New Century," *Thinking K-16*. (Washington, DC: Education Trust, 2003). Available at: http://www2.edtrust.org/NR/rdonlyres/26923A64-4266-444B-99ED-2A6D5F14061F/0/k16_winter2003.pdf

[99] The Carnegie Corporation, *Schools for a New Society Leads the Way*. (New York, NY: The Carnegie Corporation, 2004). Available at: http://www.carnegie.org/sns/pdf/SNS-BrochureForWeb.pdf

[100] Robert Pear, "Governors in 13 States Plan to Raise Standards in High Schools," *The New York Times*. February 28, 2005, sec. A-11.

Redesigning Schools for the 21st Century: Promising Innovations
LESSONS FROM NEW YORK FORUM

Middle or early college high schools, while rare, are emerging models of high school education that serve to create a seamless transition to post-secondary education. Middle or early college high schools are secondary institutions located on college campuses. Students attending these schools typically graduate from high school with some college credit, and in some cases even an associate's degree. Middle College Charter High School (MCCHS) at LaGuardia Community College in New York is such a school. The drop-out rate at MCCHS is one-third the citywide average, and 96% of the school's graduates continue on to college. The middle college model has demonstrated success, even for students who historically underperform academically. MCCHS's focus on literacy and student motivation has helped the school's underserved students achieve academically. Success with this model is also largely attributed to long-term relationships between students and teachers, real-life work or school experiences that serve to ground students' expectations regarding their future, and leadership experiences.

Information here is from:
Presentation by Cecilia Cunningham, Executive Director, Middle College National Consortium at the Renewing Our Schools, Securing Our Future forum in New York, NY, December 10, 2004. Available at: http://www.americanprogress.org/atf/cf/{E9245FE4-9A2B-43C7-A521-5D6FF2E06E03}/New%20York%20report.pdf

Structural change, however, is not enough to ensure better outcomes for high-school students. High schools must prepare every student for the challenges of post-secondary education by ensuring that all students complete a rigorous, four-year course of study in high school. This will benefit not only those who pursue college but also those who choose vocational routes, which today demand increasingly high levels of skills. For example, tool and die makers must complete a multi-year apprenticeship or post-secondary training program; to enter one of these programs, students must have completed algebra, geometry, trigonometry and basic statistics.[101] While some students will invariably opt not to enroll in higher education directly after high school and will instead enlist in the armed services or pursue immediate employment, nearly all will ultimately conclude that college education – from certificate courses to degree programs – is the key to a better life for themselves and their families. We must guarantee that those students leave high school with the academic preparation that makes reentry into the educational ranks possible.

In outlining the knowledge and skills their high-school graduates need, states must do more than count courses and seat time. The content of the K-12 curriculum and high-school exit requirements must align with and be sufficiently rigorous to meet the expectations of the state's post-secondary institutions. In addition, states must develop and implement high-quality comprehensive assessments that accurately measure student performance in meeting challenging academic goals.

[101] Patte, Barthe, "A Common Core Curriculum for the New Century," *Thinking K-16* (Washington, DC: Education Trust, 2003). Available at: http://www2.edtrust.org/NR/rdonlyres/26923A64-4266-444B-99ED-2A6D5F14061F/0/k16_winter2003.pdf

Linking High School and College

On top of the rigorous curriculum outlined above, the leaky pipeline from high school to post-secondary education must be repaired by developing and expanding courses of study, or "pathways," which link high school with college or post-secondary vocational training. Hilary Pennington recommends a set of three "Fast Track to College" courses of study in a paper commissioned by this Task Force.[102] These pathways include an Academic Head Start on College, an Accelerated Career/Technical College, and a Gap Year/College in the Community. Taken together, these three options would provide students with earlier exposure to the world beyond high school and, in some cases, actually give them a head start on earning credits toward a post-secondary credential. Importantly, they would do so in many cases by putting these students physically on a college campus or in a work setting while in high school, thereby acclimating them to the post-secondary environment. While those students who are adequately served by the current system could opt to continue in it, all students would be offered the choice of pursuing these pathways.

The first proposal, an Academic Head Start on College, provides incentives for high schools and post-secondary institutions to create coherent programs of study that merge the last few years of high school with the first two years of higher education so that, in a five-year period, students will be able to earn both their high-school diploma and an associate's degree or have two years of coursework that will transfer to four-year institutions. Many high schools and higher educational institutions are already experimenting with or have established partnerships that enable high-school students to take post-secondary classes. In fact, positive models like middle colleges and early colleges are becoming increasingly popular across the country. In most settings, however, student enrollment is piecemeal, rather than part of a coordinated program with a specific outcome.

The second strategy is an Accelerated Career/Technical College pathway, which would meet the needs of students who do not want to pursue a traditional four-year degree but need training and education not fully available in high schools. The Accelerated Career/Technical College pathway would establish dual enrollment programs between high schools and community colleges. This is especially important where high-school occupational and technical programs are unable to fund state of the art equipment and faculty needed in many fast-changing fields.

The third option, the College in the Community pathway, would be offered in place of the traditional senior year. It would combine paid work experience or community service with academics at a post-secondary institution and personalized support. Such a program would introduce students to post-secondary education and the world of work, beyond hourly wage jobs such as those in the fast food industry. It would enable them to see, perhaps for the first time, what the future could hold for them should they complete high school and post-secondary education.

[102] Hilary Pennington, *Fast Track to College: Increasing Post-secondary Success for All Students* (Washington, DC: Center for American Progress and the Institute for America's Future, 2004). Available at: http://www.americanprogress.org/site/pp.asp?c=biJRJ8OVF&b=19382

Reconnecting With High School Dropouts

One of the greatest unmet needs in education today is for effective strategies to encourage high school dropouts to return to school. The nation can no longer afford to forget about them. One possible option is to provide financial incentives for high schools and community colleges to compete to serve these students by attaching a higher rate of public funding to them. These students would be encouraged to reenter a traditional or alternative high school, join a technically oriented "college" to get a head start on a credential, attend a community college rather than a GED program so that they move quickly into college-level work, or reenter the education system through a College in the Community program, as described earlier.

Another promising option is underway in the five-year-old Gateway to College Program, run by the Portland Community College, which offers high-school drop-outs aged 16 to 20 a chance to reconnect with education. Students spend the first term of the rigorous program working with a small cohort of fellow students to develop basic study skills and communications techniques. After that, students enter the regular community college classes, where they simultaneously earn high school and college credit, allowing them to earn a high school diploma while progressing towards an associate's degree or certificate. Over the course of 32 cohorts and nearly 600 students, there has been a 92% daily attendance rate; 71% of students successfully completed their cohort term, passing all five classes with a "C" or better; and 86% of these students successfully transitioned to the comprehensive campus, taking courses with the general college population. All made significant college progress: they earned an average of 64 college credits while in the program, and 9% completed their associate's degree by the time they finished their high school diploma requirements.

Information here is from:
David Broder, "A Model For High Schools," *Washington Post,* Feb. 24, 2005.
More information available at: http://www.gatewaytocollege.org

An Affordable College Education

Finally, if we are to expand post-secondary enrollment, states and the federal government must boost need-based grants and loans to better align financial aid with rising college costs. Over the next three years, the maximum Pell Grant should be raised so that it covers as much as it did two decades ago – 50% of the average tuition, fees, room and board at four-year, public universities. In subsequent years, Pell Grants should increase at the same rate as the average annual cost (tuition, fees, room and board) increases at four-year, public universities.

The Pell Grant program should also be used to expand the science and technology workforce by providing eligible students with an additional $5,000 annually if they pursue math, science or engineering fields. Additional efforts should be made to encourage the enrollment of students of color and women, who, for a variety of reasons, are underrepresented in these areas.

Post-Secondary Education: Ensuring Access for All
LESSONS FROM MISSOURI FORUM

Like many other states, Missouri is home to a large number of non-traditional college students – those who are older, working, or are parents. It is also home to many first-generation college students, often from minority or low-income families. Making a college education a reality for these students frequently requires special efforts. The first step in this process involves helping students navigate their college and financial aid applications. Missouri has used a grant from the Lumina Foundation to develop a one-day walk-in program called College Goals Sunday, which last year helped 1,000 participants at eight sites across the state complete their financial aid forms. The program will expand to 23 sites this year. In order to make it easier for non-traditional students to complete their coursework once they are enrolled, some Missouri universities are taking advantage of online and distance-learning programs. Webster University, located just outside of St. Louis, for example, has established a "WorldClassRoom" that offers courses and programs that are available at any time of the day from any computer that has Internet access. Online students are taught under the same rigorous academic standards as those in traditional classroom programs.

Information here is from:

Presentations by Dan Peterson, Director of Financial Assistance and Outreach, Department of Higher Education and Benjamin Ola. Akande, Dean, School of Business and Technology, Webster University at the Renewing Our Schools, Securing Our Future forum in St. Louis, MO, October 20, 2004. Available at: http://www.americanprogress.org/atf/cf/{E9245FE4-9A2B-43C7-A521-5D6FF2E06E03}/MO%20Report%20FINAL.pdf