



Kids + Broadband = Greater Opportunity

“Adoption Plus (A+) Program”

A COMPREHENSIVE PILOT PROGRAM TO PROMOTE BROADBAND ADOPTION IN LOW-INCOME HOUSEHOLDS WITH MIDDLE SCHOOL-AGED CHILDREN

The Adoption Plus (“A+”) pilot program is a proposed two-year, public-private partnership designed to promote sustainable broadband adoption for a vitally important-but-vulnerable population—middle school-aged children in low income households that do not currently receive broadband service. The program is called *Adoption Plus* because it is a comprehensive approach that treats broadband adoption as a multi-faceted problem that requires multi-faceted solutions. Barriers to adoption—e.g., relevance, digital literacy, computer ownership, affordability—are interwoven and cannot be resolved in isolation.

The goal of the A+ program is to help give millions of students the opportunity to become digital citizens of the 21st Century by driving sustainable broadband adoption and positively and materially affecting educational outcomes. Meeting this goal would not only advance the economic and social well-being of participating students, it would advance the economic and social well-being of our nation for decades to come.

To date, all of the cable broadband Internet Service Providers (ISPs) represented on the Board of Directors of the National Cable & Telecommunications Association (NCTA), reaching approximately 86 percent of U.S. households with broadband service, have agreed to participate in the A+ program as described herein.¹ Based on that potential reach and the value of the broadband services described below, NCTA estimates the cable industry’s total contribution could reach up to \$572 million. In addition, NCTA and participating cable broadband ISPs would commit to airing local public service announcements (PSAs) explaining and promoting local A+ efforts upon the launch of the program. The value of such PSAs and other promotional efforts has not yet been determined.

A+ Program Overview

The A+ pilot program is a proposed two-year, public-private partnership to assist up to 3.5 million students in approximately 1.8 million low-income

¹ The participating MSOs to date are: Comcast, Time Warner Cable, Cox, Charter, Cablevision, Bright House, Mediacom, Suddenlink, Insight Communications, Bresnan Communications, Midcontinent Communications, GCI, US Cable, Bend Broadband, Eagle Communications, and Sjoberg’s Cable.

households obtain and use broadband Internet access. The eligible population would consist of middle school-aged students eligible for reduced or free school lunch under the National School Lunch Program.² The partnership would include participating school districts nationwide, the federal and state governments, non-profit corporations promoting digital literacy, computer manufacturers (including retailers and/or non-profits supplying computers that access the Internet), and broadband ISPs. With federal funding and contributions by various participants as described below, the program would promote broadband adoption by offering middle school students from low-income households a comprehensive support structure that includes: (1) digital media literacy education, including online safety training; (2) discounted desktop, laptop, or netbook computers that can access the Internet (“computers”)³; and (3) discounted home broadband service to households that do not currently receive a broadband service. These benefits would be provided by A+ partners, including participating school districts (media literacy training); participating computer manufacturers, retailers and/or non-profits (discounted computers); and participating broadband Internet Service Providers (discounted home broadband service). Each of these components is described more fully below.

Digital Media Literacy

Under the A+ Program, School Districts (or their state equivalent) would be responsible for providing digital media literacy training to eligible students, including online safety and the responsible use of broadband.⁴ Such training may be provided directly or in conjunction with qualified non-profit organizations. School Districts will also be encouraged to extend training programs to parents or guardians of all participating students. In all cases, training under an approved A+ program must meet minimum standards established by NTIA and the U.S. Department of Education. And, where appropriate, all training must be accessible to all eligible students and

² We emphasize that the target population contemplated by this proposal is broader than just students who actually participate in the National School Lunch program. Not all students who are eligible actually receive a reduced or free lunch. Our intention is to capture a broader universe based on students’ eligibility to participate in the school lunch program.

³ For convenience, we will use the term “computers” to mean the full range of desktops, laptops and netbooks that can access the Internet, including PCs and Macs.

⁴ Businesses, educators and parents recognize digital media literacy as a critical element of the 21st century knowledge and skills necessary for success now and in the future. See, e.g., the Horizon Project under the New Media Consortium’s Emerging Technologies Initiative (“digital media literacy continues its rise in importance as a key 21st century skill. . . . Faculty and instructors are beginning to realize that they are limiting their students by not helping them to develop and use digital media literacy skills across the curriculum.”) <http://horizon.wiki.nmc.org/2010+Critical+Challenges>; the Partnership for 21st Century Skills www.21stcenturyskills.org/; “CIC Survey Shows Media Literacy a Vital and Underserved Need in Schools”, Cable In the Classroom Media Literacy Report, News Release, November 2006, <http://i.ciconline.org/docs/CICmedialitreport11-2006.pdf>; Common Sense Media, Joan Ganz Cooney Center Digital Media Study, April 21, 2008.

conform to other programs in instances where English is a student's second language.

School Districts (or their state equivalent) would also be responsible under the A+ program for applying for federal funds for their area. Federal funds for School District participation in the A+ program would involve a traditional, multi-year grant approach involving a specific grant proposal with estimated costs. At a minimum, however, school districts seeking grant support would be required to demonstrate the ability to accomplish the following:

- Administration of an A+ program including the ability to identify and verify the names of eligible middle school students in grades 6 through 9 (those eligible for free or reduced-cost lunch through the National School Lunch Program) and the home address and telephone number of eligible households (defined as any household that includes at least one eligible student).
- Implementation of planned digital literacy education for eligible students, including online safety, and training for participating students on how to use a computer to access the Internet.
- Determinations of household eligibility, including a determination (in coordination with participating broadband ISP(s)) that the household does not currently subscribe to a broadband service.
- How the School District would address lost, stolen or damaged hardware and any other reasonably foreseeable expenses.
- The procedures that the School District intends to follow for helping students receive technical support when necessary to ensure the proper functioning of their computers, and for determining when a student's eligibility (and similarly, a household's eligibility) for the program expires.

Discounted Computers

Under the A+ program, once an eligible student is enrolled in an A+ digital media literacy program, he or she would be eligible to purchase a single discounted computer.

While participating computer manufacturers would be expected to provide their own contribution to discount the cost of computers, the federal government should establish a national partnership with participating consumer electronics manufacturers/retailers of such devices and/or non-

profit organizations, and could provide support to participating consumer electronics manufacturers/retailers and/or non-profit organizations, as necessary, to further reduce the cost of the devices to participating students. Discounted computers could also be provided through direct contributions from consumer electronics manufacturers/retailers or non-profit organizations, or a combination of methods.

In designing the program, the federal government would determine both the level of support necessary to induce sufficient manufacturer/retailer participation in the A+ program and a minimal co-payment from each student wishing to receive a subsidized device. For instance, the federal government could provide each participating student with a computer "coupon" similar to the DTV converter box coupon program recently administered by NTIA.⁵ The coupons could be distributed by participating schools and be redeemed for a qualifying computer at participating consumer electronics retailers to partially offset the cost of making low-cost, computers available to eligible students.

To encourage the participation of computer manufacturers, NTIA would establish minimum performance guidelines for those computers eligible for support. Such guidelines should include:

- Performance capabilities, including hardware and software requirements for eligible computers, and appropriate means of providing technical support for such devices (e.g., an 800 number).
- A procedure for publishing a list of computers that comply with performance requirements.
- Procedures to inhibit fraud, waste, and abuse, including a mechanism for computer manufacturers to verify student eligibility in advance of providing a discounted computer.
- A requirement that each eligible student enroll in the School District's digital media literacy training before being eligible to purchase a subsidized computer.
- A requirement that each eligible student receive not more than one subsidized computer.⁶

⁵ Such a new coupon program could rely on many of the same processing systems and protections against fraud, waste and abuse that NTIA recently used in the DTV converter box context.

⁶ Although families can and do share a single computer, we recommend that this program allow each student to receive a discounted computer, even if more than one participating student resides in the same household.

- A mechanism to facilitate the prompt payment of support amounts, if any, from the government to computer manufacturers for each computer coupon submitted for payment.

Discounted Broadband Service

For any household with a computer and an eligible student enrolled in an A+ digital media literacy program, participating ISPs would: (1) provide broadband service at a 50% discount; (2) provide a modem at a 50% discount, whether purchased or rented; and (3) provide free installation of broadband service. Each eligible and participating student would receive such discounted broadband service for two years.⁷

The broadband service provided to these households would be the lowest tier already offered by the broadband ISP serving the area, but with a minimum advertised downstream transmission speed offering of at least 1 megabit per second (Mbps).⁸ Participating broadband ISPs would also provide parental control software and other online safety/security tools. The participating School District (in coordination with participating broadband ISP(s)) would be responsible for verifying whether a household qualifies as an 'eligible household'.

To encourage the participation of broadband ISPs and to ensure efficient administration of the program, NTIA would establish service guidelines for participating broadband ISPs. Such guidelines would include:

- A requirement to provide, at a minimum, the provider's entry level broadband Internet access advertised speed offering (of at least 1 Mbps downstream) and modem to each eligible household within its service territory at a discounted monthly price of 50 percent below the regular monthly price of the provider's entry level broadband Internet access service and the provider's applicable modem charge.
- A requirement to provide such discounted services to an eligible household for a period of two years, so long as the participating school district certifies at the outset and at the end of year one that the household contains at least one child participating in the A+ program

⁷ There may, of course, be instances where more than one participating A+ program student resides in the same household. Unlike a computer, which could be issued to each participating student, the discounted broadband service would be provided only once to that household for a period of two years.

⁸ While we have established a minimum advertised speed of 1 Mbps in order to take into account differences among providers and industries and to ensure a quality broadband experience for the student, we note that at least some cable broadband ISPs who have committed to participate in the A+ program will offer higher speed tiers.

who is eligible for reduced or free lunch under the National School Lunch Program.

- A requirement to provide installation of the broadband service at no charge to the eligible household.
- A requirement to provide the broadband ISP's standard, or other commercially available, parental control software and other online safety/security tools.
- A mechanism for broadband ISPs to verify household eligibility in advance of providing broadband Internet access service.
- A requirement that each eligible student enroll in the School District's digital literacy training and, if necessary, have purchased a discounted computer before being eligible to receive discounted broadband Internet access service at home.
- An explicit recognition that broadband ISPs shall not be required to provide broadband Internet access service to an eligible household that is outside the provider's service territory, or otherwise in a geographic area where service consistent with the guidelines of the A+ program cannot be reliably provided.

A+ Program Funding

NTIA (in consultation with the FCC, the U.S. Department of Education, and other relevant government agencies) would establish guidelines and requirements for participating School Districts, computer manufacturers, and broadband ISPs and would provide two distinct support payments for major elements of the A+ program. The A+ pilot proposal does not contemplate any federal subsidy for participating broadband ISPs.

1. *Payments to School Districts.* The federal government would provide support to participating school districts by providing funding to defray: (1) the cost of identifying and verifying eligible children (and their household addresses); (2) the cost of providing appropriate training in digital literacy, online safety, and other online skills that meet standards set by NTIA and the U.S. Department of Education; (3) increased costs attributable to ensuring accessibility to the training, including, where appropriate, instances where English is a student's second language; and (4) other qualifying administrative tasks. Training programs could be provided directly through

participating schools or through partnerships with appropriate non-profit partners under A+ program rules. NTIA would accept grant proposals from those School Districts seeking federal aid pursuant to A+ Program guidelines. We believe the federal government could fund digital literacy programs and administrative costs for approximately \$100 million over the two year-period of this pilot program.

Federal funding for the A+ program could be secured by reprogramming funds allocated to NTIA by the American Recovery and Reinvestment Act of 2009, including funds available under the State Broadband Data and Development Grant Program. Grants to school districts could require a 20% match requirement (per existing adoption programs under the Broadband Technologies Opportunities Program), while related support for computers would be made pursuant to the formula support levels established by NTIA as part of the guidelines for the A+ program.⁹

2. *Payments to Computer Manufacturers and Retailers.* The program contemplates that computers will be made available by computer manufacturers at substantially reduced prices to eligible students. This could be aided through a federal subsidy such as a government-coupon program similar to the DTV converter box program. Under this approach, the federal government would provide support to participating computer manufacturers by providing each eligible and participating student with a computer coupon distributed by participating schools. In designing the program, the federal government would determine both the level of support per coupon necessary to incent sufficient computer manufacturer participation in the A+ program and a minimal co-payment from each student wishing to receive a subsidized computer. Each computer coupon would be redeemable by the computer manufacturer and would partially offset the cost of making low-cost, broadband capable computers available to eligible students.

Discounted computers could also be provided through direct contributions from consumer electronics manufacturers/retailers or non-profit organizations, or a combination of methods.

A+ Program Administration

⁹ NTIA should consider counting at least a portion of the value of the discounted Internet access (and computers, to the extent that the discount is not federally funded) toward the requirement that school district provide 20% of the costs of the digital media literacy program to be funded by a BTOP grant. See Recovery Act, § 6001(f) (limiting the federal share of any broadband project to 80%); see *also* NOFA, 74 Fed. Reg. at 33112.

Participating School Districts would be responsible for administering the A+ program for their area. Among other things, the School District would be required to: (1) ensure that the eligibility criteria are enforced; (2) establish and conduct appropriate media literacy training courses; (3) implement, if necessary, government support programs for discounted computers; and (4) coordinate with state and federal government officials, consumer electronics manufacturers and retailers and broadband Internet service providers to implement the A+ program and protect it from fraud, waste and abuse.

A+ Program Eligibility

The A+ Program contains three specific eligibility criteria: (1) participants must be middle school students (grades 6-8 or 7-9, depending on the particular school district);¹⁰ (2) participants must be eligible for free or reduced school lunches under the National School Lunch Program; and (3) the student's household does not receive broadband Internet service and has not cancelled such service in the three (3) months prior to applying to participate in the A+ program. Based on those criteria, we estimate that up to 3.5 million students in approximately 1.8 million households would be eligible to participate in the A+ program.¹¹

These criteria were chosen to target a population where the A+ program can do a significant amount of good. As an initial matter, broadband has the potential to transform the educational experiences of participating students. As the recent study by the Advanced Communications Law and Policy Institute (ACLP) found, broadband adoption affects education in a variety of ways—from facilitating distance learning to promoting 21st century skill development.¹² Indeed, students without broadband are at a

¹⁰ NCTA recognizes that individual schools and school districts vary in their definition of what constitutes a middle school. Some include grades 6 through 8 while others include grades 7 through 9. Either group would potentially be eligible, as would low income children in similar grades attending private or parochial schools. The A+ program is limited to this three year cohort of students—students entering grade six during year two, for example, will not be eligible. However, at the expiration of the A+ program, the federal government and school districts may choose to explore other mechanisms and funding streams to create a similar but sustainable program.

¹¹ Thus, depending on what type of middle school participated, once the A+ program launched, all participating students in grades 6, 7 and 8, for example, would participate in a program that lasted two years from launch.

¹² “*Barriers to Broadband Adoption*”, A Report to the Federal Communications Commission, The Advanced Communications Law & Policy Institute, New York Law School, October 2009, Table 13, Overview of Broadband's Impacts on Traditional Education Paradigm, at 69 (“*ACLP Report*”), citing the Partnership for 21st Century Skills, “*Maximizing the Impact: The Pivotal Role of Technology in a 21st Century Education System*”, <http://www.21stcenturyskills.org/documents/p21setdaistepaper.pdf> (core skills include digital literacy and fluency in using basic and advanced Internet tools; empowering students with these skills could have positive impact on U.S. economic output; in global education environment broadband enables students to reach overseas resources;); see also Ray Uhalde and Jeff Strohl, *America in the Global Economy*, A Background Paper for the new Commission on the Skills of the American Workforce (Dec. 2006), available at http://www.skillscommission.org/pdf/Staff%20Papers/america_Global_Economy.pdf.

growing disadvantage vis-à-vis their connected peers. One survey, for instance, found that 71% of teens say the Internet has been the primary source for recent school projects.¹³ It also found that 65% of teens go online at home to complete Internet-related homework.¹⁴ Moreover, broadband enables students to participate in online and distance learning opportunities, and delivers some of the assistive and adaptive applications that make the educational process more accessible for children with disabilities.

It is well-documented that regular access to computers and fluency in using basic and advanced Internet tools improves student performance. As the FCC Broadband Taskforce pointed out, broadband non-adopters are at an educational disadvantage and underperform in educational outcomes.¹⁵ Likewise, the ACLP report points out:

Students are using broadband as a supplement for in-class learning and as a resource to assist with assignments. Indeed, one study found that, in households with broadband connections, "children ages 6 – 17 reported that high speed access affected both their online and offline activities, including schoolwork. According to these children, since getting broadband, 66 percent spent more time online, 36 percent watched less TV, and 23 percent [improved their] grades."¹⁶

The A+ program specifically targets middle school students because—with appropriate guidance and digital media literacy training—this age group is developmentally capable of safely and effectively taking advantage of the benefits of broadband. As the Maine Legislature noted in establishing a technology education program aimed at middle school students:

[M]iddle school is an appropriate, critical beginning point for introduction of high concentrations of learning technology,

¹³ FCC Broadband Taskforce Presentation, Commission Meeting, Sept. 29, 2009 at slide 83. Pew Research also showed that 80 percent of parents surveyed said that the Internet helps their children with schoolwork. *Id.* at slide 120. And according to National Education Association (NEA) research, 95 percent of educators agree that "technology [e.g. computers; the Internet], when used properly, improved student learning." *ACLP Report* at 71, citing "Access, Adequacy, and Equity in Education Technology", at 23, NEA (May 2008), available at <http://www.edutopia.org/files/existing/pdfs/NEA-Access.Adequacy.andEquityinEdTech.pdf>

¹⁴ Natalie Carlson, "National Survey Finds Kids Give High Marks to High Speed", *Hispanic PR Wire* (April 2007), cited in FCC Broadband Taskforce Presentation, Sept. 29, 2009 at slide 83.

¹⁵ FCC Broadband Taskforce Presentation, Sept. 29, 2009 at slide 120.

¹⁶ *ACLP Report* at 70, citing "Connected to the Future", Center for Public Broadcasting, 2002; see also Linda A. Jackson et al, "Does Home Internet Use Influence the Academic Performance of Low-Income Children," *Developmental Psychology* 42(3) (2006) 429; Robert Atkinson and Daniel Castro, "Digital Quality of Life: Understanding the Personal and Social Benefits of the Information Technology Revolution: Education & Training" at 22, Information Technology and Innovation Foundation, Oct. 2008.

for several reasons: (1) middle school is an important transition period for many students, where it is crucial to use powerful, personalized learning tools to keep students engaged academically; (2) middle school students and teachers are generally receptive and adaptive to collaborative, integrated approaches to teaching and learning; and (3) middle school students would carry technology-based skills into high school, where more varied options for computer access sometimes exist.¹⁷

Moreover, home broadband access also encourages parental engagement in their child's education, as it enables them to connect to school resources and allows them to check their child's grades, homework and progress, and to communicate by email with teachers.

By limiting eligibility to the families of students that qualify for free or reduced-cost lunches, the program targets a segment of the population that has dramatically lower broadband adoption rates than the general population.¹⁸ As the FCC Broadband Taskforce recently reported, the broadband adoption rate among those with annual incomes of less than \$20,000 per year was only 35%, compared to an adoption rate of 88% among those with annual incomes over \$100,000.¹⁹ Similarly, the ACLP Report noted a significant gap in home Internet access between those eligible for free or reduced lunches and those that were not. It noted that "just 41 percent of students in the eighth grade who take part in the free and reduced lunch program had home Internet access in 2003, compared to 72 percent for those not participating."²⁰

These disparities in broadband adoption rates can only exacerbate existing educational achievement gaps.²¹ However, in some low-income

¹⁷ Task Force on the Maine Learning Technology Endowment, Final Report, "*Teaching & Learning for Tomorrow: A Learning Technology Plan for Maine's Future*" at 40, <http://www.maine.gov/mlti/resources/history/mlterpt.pdf>.

¹⁸ A body of education research shows a correlation between poverty and low academic achievement. While there are many examples of high-performing, high-poverty schools – and failing schools in middle- to upper-income communities – high-poverty schools are disproportionately represented in the ranks of low-performing schools. Therefore, a large proportion of the A+ program's resources would benefit families of children in these schools.

See e.g. Annotated Bibliography: "*The Impact of School-Based Poverty Concentration on Academic Achievement & Student Outcomes Poverty & Race Research Action Council*"

http://www.prrac.org/pdf/annotated_bibliography_on_school_poverty_concentration.pdf; "*Socioeconomic Status and the Fates of Adolescents*," José J Escarce, Editor, Health Services Research, October 2003, 38(5) at 1229–1234.

¹⁹ See FCC Broadband Taskforce Presentation, Sept. 29, 2009 at slide 82.

²⁰ ACLP Report at 81.

²¹ FCC Broadband Taskforce Presentation, Sept. 29, 2009 at slide 120 (noting that broadband non-adopters are at an educational disadvantage and that the cost of digital exclusion is growing). See also Id. at slide 115 (noting

areas where laptops or netbook-like devices and home broadband connections have been provided to children, and the technology was thoughtfully integrated into learning and instruction, research shows positive effects on student academic performance, engagement, and attitude.²² In Henrico County, Virginia, for example, where students were provided computers and subsidized home broadband connections, one school principal noted that “laptops were especially beneficial for at-risk students.”²³

Finally, although it is not the focus of the program, there likely will be positive effects among other members of the household. Children are often more familiar with technological devices and applications than are their parents and often become the informal tech support for the household.²⁴ Especially in families where English is not the primary language, children can also be the family’s online navigators, showing parents and caregivers how to connect to health care resources, social services, and employment opportunities.

A+ Program Assessment

The A+ program has two overarching goals: first, drive sustainable broadband adoption in populations that currently do not benefit from broadband; and, second, materially and positively affect educational performance among participating students. But, as with any pilot program of this scale, these metrics should be tested in order to determine success or failure and to determine if any refinements or changes to the program would be required in order to achieve those two overarching goals. The federal government should be responsible for establishing a mechanism for assessing the impact of the A+ program. The Department of Education, working with NTIA and the FCC, should be asked to do an assessment that would include:

that the achievement gap is “staggering,” e.g., among ACT-tested students with household incomes below \$30,000/year, only 33% had college-level literacy skills, while among students with household incomes above \$100,000/year, the college literacy level was 70%).

²² In Green County, NC, students in grades 6-12 received laptops and home connections. High school proficiency scores in this area rose from 53 to 78%, SAT composite scores by 41 points and college applications have tripled. “*High Speed Broadband Access for All Kids: Breaking through the Barriers*”, State Educational Technology Directors Association, June 2008, http://www.setda.org/c/document_library/get_file?folderId=270&name=DLFE-211.pdf. In Lemon Grove, CA, another well-studied example, where Cox Communications provided home connections and students received netbook-like devices, the community saw similar results. See LemonLink Press Packet at section V, <http://www.lgsd.k12.ca.us/lemonlink/PressPacket.htm>; “*LemonLINK, One-to-One & Beyond: Managing Change Successfully in Education Technology*” San Diego State University Case Study, 2005; see also <http://www.metiri.com/NSF-Study/MIPProfile.pdf> (reporting on positive impact of similar technology program in the state of Michigan).

²³ <http://www.sri.com/news/releases/06-22-04.html>; see also http://www.projectred.org/uploads/Henrico_County_FinalReport.pdf.

²⁴ Common Sense Media, Joan Ganz Cooney Center Digital Media Study, April 21, 2008.

- Participation levels in the A+ program, including reasons why otherwise eligible students chose not to participate;
- The impact of the A+ program on broadband adoption rates—both during the course of the program and after the program ends in order to measure sustainable broadband adoption;
- The impact of the A+ program on educational outcomes of participating students; and
- The impact of the A+ program on the broader participating households.