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**AFRICAN AMERICANS
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The Internet Revolution

The Internet revolution has been a focus of both private and public attention for about ten years. During that time, technology has changed significantly and the diffusion of various forms of technology throughout the United States has been widespread, but uneven. This paper explores the extent to which African Americans have participated in the Internet revolution. A number of factors are related to computer and Internet use—income, education, family situation, and age, as well as geographic location. All of these intersect with race, so it is often difficult to disentangle the reasons for racial and ethnic differences in use. This paper examines several of the major factors that affect Internet use across and within racial groups, especially African Americans. It also looks at the way in which those who do have Internet connections use the Internet, as a way of informing how efforts might be made to make the Internet more engaging (as well as more accessible) to African Americans. It also explores the advantages that some of the more recent advances, such as broadband, could offer to the African American community.

African Americans and the Internet: National Survey Data

U.S. households have come a long way since the National Telecommunications and Information Administration (NTIA) released *Falling Through the Net*, its first report on computer and Internet use, in 1995. At the time of this report, less than a third of households had computers and only one-half of them were using the Internet at home. By the time of the sixth report, released in September 2004, over 60% of households had at least one computer in the home and over 50% had an Internet connection. Although increases in use have been observed among all groups, racial and ethnic differences have persisted over time.

In October 2003, the month in which the data for the last NTIA report were collected, 45.6 percent of African Americans were Internet users (at home or elsewhere) compared to 65.1 percent of Whites, 63 percent of Asian Americans, and 37.2 percent of Hispanics.¹

The nature of Internet connections has changed over time. When the surveys were first undertaken, most residential users were online via a dial-up connection. In the space of two years, between 2001 and 2003, the use of broadband doubled, so that by September 2003 nearly one in five households (19.9%) were connected to the Internet through a broadband connection. The diversity in the type of broadband connection has increased as well, with cable modem dropping to 56.4 percent and other means, principally DSL, increasing accordingly. Broadband use varies by region of the country, with households in the Northeast and West being more likely to be connected through broadband. Use of DSL is greatest, proportionately in the West, but a slightly larger number of DSL users in 2003 were in the South. The lowest penetration for DSL was in the Northeast. While individuals can use the Internet from a number of locations—work, public facility, or home—those who use the Internet at home use it for more activities and broadband users have the greatest variety in activities conducted online.

In the wake of *Falling Through the Net*, the phrase “digital divide” was coined to describe inequalities in access to the Internet. Most of those without access – mostly people of color and low-income households – were at a disadvantage because of the potential the Internet holds for conveying knowledge and information. African American households, for

¹ Data drawn from *A Nation: Online: Entering the Broadband Age* (Washington, DC.: U.S. Department of Commerce, 2004) Although more recent polling and survey data are available, the samples are not large enough to allow for the examination of use by race by various factors such as income and education. Also, not all polling organizations make their data available so it is not possible to disaggregate across location of use and other factors that are important.

example, were only one-third as likely as white households to have a computer in the home in 1995. In discussions at the time, many pointed to the ways in which they thought the Internet could reduce disparities in knowledge access, saying it could provide a library at people's fingertips, give access to museums and other online cultural experiences, and make available news and information unfiltered by "media bias."²

While some of the gaps in computer use and Internet access have decreased, equality is not yet in sight. The "digital divide" can also apply to "extent of use, knowledge of search strategies, and social supports, ability to evaluate the quality of information, and diversity of uses."³ In this area, there continue to be strong racial differences. While some argue that these differences will disappear with diffusion of the technology, others such as DiMaggio and his colleagues, point out that differences tend to persist in information services more so than in information goods. Information services are defined as ?????..... Information goods are generally tangible products.

Some recent polls suggest that the digital divide has completely disappeared. For example, a Harris poll released in May 2005 suggests that racial and ethnic differences have virtually disappeared and that income and education differences have shrunk significantly. According to the poll, African Americans are on line more or less in proportion to their representation in the population (11% of the on-line population versus 12% of the overall population) and Hispanics are on-line at slightly higher rates (13% of the on-line population versus 12% of the population). However, the poll reports results only for adults and the racial and income/education data provided are only for all locations (home, work, and other)

² As it has turned out, the vast amount of unfiltered information available has created its own problems in terms of accuracy and reliability.

combined. This aggregation of locations and focus on those age 18 or over means the findings are not exactly comparable to some other surveys or data focusing only on use at home.

Using a similar sample size (2,000) and framing of the basic question, a Princeton Survey Research survey conducted in May-June 2005 for the Pew Internet initiative continued to find significant racial differences in Internet access. According to their survey, 57% of African Americans use the Internet, as opposed to 70% of whites. A number of factors on which there are significant racial differences continue to play a role in Internet access, according to this survey—income and educational attainment, for example.⁴

Comparing data from the 2005 Pew surveys and earlier surveys in 2002 reveals that there has been about an eight percentage point increase in Internet use by both whites and African Americans, but the racial differences still exist. African Americans are less likely to have Internet at home and for those with access, they use the Internet from home less frequently than their white counterparts. For example, among Internet users, about 77% of African Americans said they used the Internet from home compared to 90% of whites. These percentages are virtually the same as in 2002. Only 33% of the African American Internet users who have access at home went online during an average day in 2005, compared to 49% of whites who have home access. Again, there is little difference from 2002.⁵

³ Paul DiMaggio et al, “Social Implications of the Internet” (Palo Alto, CA: Annual Review of Sociology, 2001), 27:307-36., p. 310.

⁴ Susannah Fox, *Digital Divisions* (Washington, DC: Pew Internet and American Life Project, October, 2005).

⁵ In this forthcoming report from the Pew Internet and American Life Project, all Pew surveys done in 2002 were combined to construct a new dataset for the year and January through September 2005 surveys were combined for the 2005 dataset.

African Americans Computers and the Internet

African Americans have a number of characteristics that could explain their lower computer and Internet use. The 2004 median income for African American households was \$30,134, only 61.5% of the median income for white households. Educational attainment is also lower among African Americans, with only 17.6 percent of those over age 25 having completed college, and 19.4 percent having a high school education or less in 2004. This is in comparison to 30.6 percent of whites with college degrees and 10.0 percent with a high school diploma or less.⁶ In examining what role these differences might play in use of computers and the Internet, it is necessary to look at use racial use by income and education.

The Current Population Survey (CPS) that is the basis for the analysis in *A Nation On-line: Entering the Broadband Age*, was used by the Joint Center to analyze African Americans' use of the Internet. In this survey of 57,000 households containing 134,000 individuals, there are 14,000 African American households. When weighted, they represent 12% of the households in the United States. In 2003, African American households were less likely to have a computer in the home, a prerequisite for most Internet use.⁷ Only one-half of African American households had a computer, compared to three-quarters of white households. Consequently, disparities exist in terms of Internet access at home, with only

⁶ U.S. Bureau of the Census, income data from 2004 Income and Poverty report <http://www.census.gov/prod/2005pubs/p60-229.pdf> and 2004 Current Population Survey <http://www.census.gov/population/socdemo/education/cps2004/tab01a-04.pdf> ,. Figures for African Americans are for those in the "black alone" racial category.

⁷ Although other means are used, such as a PDA or cell phone, these alternatives account for a very small proportion of users.

four in ten African American households accessing the Internet from home compared to over six in ten white households.

According to the CPS data, among households that had no Internet connections in 2003, African Americans were most likely to say that the three primary reasons were:

1. costs,
2. lack of a computer, and
3. “don’t need/not interested”.

White households give the same three reasons, but “don’t need” was the most cited, followed by costs and lack of a computer. Similar reasons were given for not having high speed Internet access with almost equal numbers of households citing “don’t need” and “too expensive.” There was no racial difference in rank order.

Computer and Internet Use by Education. The association between education and computer ownership holds for African Americans, as it does for whites, but computer ownership is about 20 to 25 percentage points lower at most educational levels. While the differential is smaller for those with a college degree, the difference is still large (17 percentage points). Similar differences exist in terms of Internet use by computer ownership. For example, less than one-half of college-educated African Americans with computers use the Internet at home compared to about two-thirds of college-educated whites with computers at home.

Table 1: Percent of Individuals with Computers Using the Internet at Home, by Race, 2003
(ages 3 and older)

| Level of Education Completed | African Americans | Whites |
|------------------------------|-------------------|--------|
| Less than High School | 21.4 | 47.3 |
| High School | 28.8 | 50.2 |
| Some College | 39.0 | 59.9 |
| Bachelors' Degree or More | 45.1 | 68.1 |

Source: Joint Center tabulations from the 2003 Current Population Survey, Computer and Internet Use supplement.

Some of these differentials carry over into the workplace, with a smaller percentage of African Americans at each educational level using a computer at work. The differences are greater for those with a high school education or less, but they remain substantial, even for college-educated African Americans. These differences at work could be explained by the differences in occupation between African Americans and whites, as blacks are less likely to be in managerial and professional jobs where computers are widely used, especially for information gathering. Also, differences in workplace settings might play a role, with African Americans being more likely to be in small and/or minority-owned companies.

Computer and Internet Use by Income. In many respects, income is a better predictor of racial differences in computer and Internet use, but not in all respects. For households with incomes of \$75,000 or more, the racial difference in computer ownership is fairly small. Similarly, Internet use differentials are smaller, though they do exist. In the lowest income category (under \$25,000 in household income) the differences in computer ownership and Internet use are quite significant; African American households in this income category are only one-half as likely to have computers and be on the Internet as their White counterparts.

Table 2: Home Computer and Internet Use by Income and Race, 2003
(individuals age 3 and over)

| House Income | Home Computer Use by African Americans | Home Internet Use by African Americans | Home Computer Use by Whites | Home Internet Use by Whites |
|---------------------|----------------------------------------|----------------------------------------|-----------------------------|-----------------------------|
| Less than \$25,000 | 29.7 | 13.0 | 46.5 | 26.9 |
| \$25,000-49,999.99 | 57.2 | 31.3 | 71.8 | 46.5 |
| \$50,000-74,999.99 | 77.0 | 51.1 | 86.4 | 61.8 |
| \$75,000-99,999.99 | 84.6 | 57.8 | 91.3 | 69.7 |
| \$100,000 and above | 90.7 | 65.4 | 95.5 | 75.2 |

Source: Joint Center tabulations from the 2003 Current Population Survey, Computer and Internet Use supplement.

Factors Explaining Broadband Use. The Joint Center did a logistic regression analysis of the variables that appeared to be significant in explaining African American's use of broadband. This technique allows us to gauge the impact of a given included variable on broadband use, having already accounted for the effect of other important variables. The results indicate that family income has the biggest impact on whether or not an African American household uses broadband, with education and metro location coming in second and third. Families with incomes between \$40,000 and \$60,000 are a third more likely to have broadband than those with incomes below \$40,000; those with incomes between \$60,000 and \$100,000 are nearly twice as likely; and those with incomes over \$100,000 are three times more likely than those in the lowest income category to have broadband at home. Households where the head of the household has at least some college education are 40 to 50 percent more likely to have broadband. Households with children are about 25 percent more likely than those without to have broadband.

Broadband use has increased rapidly in the past few years. Data from the 2005 Pew surveys shows that broadband use doubled among white Internet users between 2002 and 2005, so that just over one-half of those who have Internet access at home have high-speed connections at home. African Americans also increased their use of high speed connections, but by only 68%. Consequently, the gap between the two groups of home Internet users has grown from 4 percentage points to 19 percentage points. While whites were more likely to have a cable modem connection to the Internet, African Americans using broadband were somewhat more likely to have a DSL connection. Some of the same variables as those found in analysis of the CPS data would seem to explain differences in broadband use within race—income and education being prominent. However, racial differences persist within

most income and education categories. In other words, African Americans with the same education or income are less likely to have broadband access to the Internet. (Does this hold true if broadband is available to their home?)

Table 3: Broadband Use at Home by Income and by Education, by Race, 2005
(percent of Internet users)

Table 3A: Use by Income Level

| Total Family Income | Home Broadband Use by African American Home Internet Users | Home Broadband Use by White Home Internet Users |
|---------------------|------------------------------------------------------------|-------------------------------------------------|
| Less than \$30,000 | 30% | 43% |
| \$30,000-49,999 | 29% | 46% |
| \$50,000-74,999 | 42% | 44% |
| \$75,000 and above | 40% | 66% |

Table 3B: Use by Educational Attainment

| Educational Attainment | Home Broadband Use by African American Internet Users | Home Broadband Use by White Internet Users |
|---------------------------|-------------------------------------------------------|--------------------------------------------|
| Less than High School | 30% | 48% |
| High School Graduate | 21% | 44% |
| Some College | 31% | 52% |
| College Graduate or Above | 47% | 57% |

Source: Pew Internet and American Life Project, tabulations from 2002 and 2005 surveys

How the Internet is Used

How people use the Internet varies along a number of dimensions. While some of these differences are related to income and education, there appear to be a number of racial and gender differences in use as well. Data in the CPS offers an opportunity to examine some of these differences. For this report, the Joint Center examined differences by race and education and race and income. African Americans are less likely to use their home computers to send e-mails, even when you adjust for education. For households with a high school education or less, African Americans are only half as likely to use e-mail as their white counterparts. The gaps for college-educated African Americans are on the order of 20 percentage points. Since the use of the Internet is lower in the African American community, it may be the case that even higher educated African Americans are more likely than whites to be communicating with people (family and friends) who are not online. Therefore, they may rely more on voice communication, through land lines or cell phones. In addition, unless their contacts also are online, voice communications would be required.

There are fewer racial differences for children in terms of Internet use. While use at school differs by education of parent, there are virtually no differences by race. African American children, however, are more likely to use the Internet at public libraries, which probably reflects its lower availability at home.

While use of the Internet for taking courses, obtaining information on products, news/sports/weather, and making purchases differs by education, there are substantial

differences within educational levels by race. African Americans are substantially less likely to use the Internet for most of these purposes. The differences for course taking are small, but few households use the Internet for this purpose; about 3 percent overall. There are very few racial differences in use of the Internet for playing games or other entertainment purposes, such as TV, movies or radio. When it comes to searching for jobs, African Americans' behavior is very close to that of their white counterparts. While individuals with higher levels of education are more likely to use the Internet to find out about job openings and submit resumes, African Americans behave very much like their white counterparts with similar levels of education.

Various analyses have been done on what individuals do on the Internet and racial comparisons are available in some of them. The Pew Charitable Trusts set up a project on the Internet and American Life, which is examining the use of the Internet by individuals and communities. Their 2000 report on *African Americans and the Internet*, uses data from several special polls to examine how African Americans use the Internet.⁸ They found that African Americans who used the Internet were more likely than their white counterparts to have used it “for information about major life issues such as researching new jobs and finding places to live.” In addition they were more likely to use it for entertainment and for religious or spiritual information. The differentials were largest for listening to music and seeking religious information. African Americans were less likely to use the Internet for e-mail, but are more likely to seek out health information.

⁸ Tom Spooner and Lee Rainie, *African Americans and the Internet* (Washington Pew Internet and American Life Project, 2000).

Among demographic groups, the 2000 Pew study found African American women were more likely to be Internet users than African American men. This could be related to the fact that women are more likely to be in office jobs where computers and Internet connections are more common. Patterns of usage among Internet users differed by gender, with women being more likely to get health, religious, and job information while men were more likely to purchase products and get financial and sports information. (These gender-related use patterns are similar to those for whites.) Among African Americans, those who had been online longer used the Internet more and used it more often. Use of the Internet also differs by age. While patterns are somewhat similar across races, African Americans between 18 and 34 years of age are the group within their race most likely to be online, with over one-fourth of them using the Internet. They are in fact, more likely to be online than their white counterparts. Among whites, the age group with the highest percent online is 35 to 44 year olds. This is the age group where there is virtually no racial difference; the same proportion of African Americans and whites in this age group use the Internet.

Jupiter Research, in a report from early 2005 finds that African Americans are more likely to respond or take action as a result of an online advertisement (entered a sweepstakes, registered for a coupon, etc) and were more likely than other groups to purchase media on line—videos, CDs, etc, but less likely to buy clothing, books or PCs.

A study on Internet use among African Americans completed for AOL in 2005 found that African American Internet users made extensive use of the Internet for locating information (92%), communicating with family and friends (86%), getting driving directions (85%), and for educational, finance, health, and career purposes.⁹ They use it to make travel

⁹ AOL African American Cyberstudy 2005 conducted by Images Market Research

arrangements or identify travel options. Since the bulk of the sample for this study was Internet users who responded to an electronic invitation to complete a web-based survey, the sample might not be representative of the entire African American population or even those with Internet connections. However, the uses by this group are similar to those found in other studies, which would suggest that these patterns hold true for a broad section of the African American population.

The Pew report explores the theory that African Americans are less likely to use the Internet because they are more oriented toward entertainment technologies such as television and radio. A slightly different perspective is taken by researchers such as Jorge Schement.¹⁰ In his analysis of Latinos use of the Internet, he points out that these entertainment technologies usually involve a one time outlay for the equipment and little or no on-going costs. Additionally, these technologies can often be more easily shared or used as a group activity. A similar rationale could be used for African Americans since this preference may be related to income and family size.

¹⁰ Cited in Waldo Lopez-Aqueres and Elsa Macias, *Broadband Internet Access Among Latinos: Status, Issues, and Opportunities* (Los Angeles, CA: Tomas Rivera Policy Institute, August 2004).

How Broadband is Used

Broadband access to the Internet has significant advantages over dial-up in terms of speed. This enhances the experience and elevates the use of the Internet because it allows faster downloads and (depending on service) faster uploading of data, files, and other attachments. While broadband may not be needed for all activities that many Internet users engage in, it is recommended for newer, more robust applications.

Many current broadband users are telecommuters, working from home on a regular or occasional basis. One study estimates that in 2003, 37 percent of cable modem subscribers were telecommuters.¹¹ Individuals who use broadband engage in a variety of activities online. According to a 2004 report by Horrigan and Rainie, issued by the Pew Internet and American Life Project, early broadband users are not bothered by content issues.¹² They use it to share files, search for information and to create their own. The range of activities goes from job training to video downloads, but they also create Web content on their own Websites or those of others. A major advantage of broadband is the ability to “multi-task”, to communicate via e-mail while listening to radio and scanning websites. Broadband users do less television watching, shopping in stores, reading newspapers, and sitting in traffic.

Broadband users differ from other Internet users in the way and the frequency with which they use the Internet. They are more likely to go online on a daily basis and spend more time online when they do. Women, as it turns out, are more intense users of the

¹¹ Amy Cravens, *Speeding Ticket: The US Residential Broadband Market by Segment and Technology* Report no. IN0401378IA (Scottsdale, AZ: In-Stat/MDR, September 2004)

¹² John B. Horrigan and Lee Rainie, *The Broadband Difference* (Washington, DC: Pew Internet and American Life Project, May 2004).

Internet. Broadband users may be more civically involved, or at least the users who telecommute on a regular basis. We need to clarify this – it implies that telecommuters are more civically engaged? According to the Pew report, telecommuters ??? are nearly twice as likely to get involved in community groups or increase their level of involvement.

According to the 2005 Pew surveys, African Americans with broadband at home behave much like their white counterparts. They use the Internet with similar frequency, they send e-mails at similar rates, and they get news on-line about as often. This would suggest that many of the differences in home Internet use are between dial-up and broadband. Since African Americans are more likely to be in the first category, the differences we observe in Internet use could be attributed to the type of connection they have. However, these data do not address the direction of causation. Are African Americans with dial-up connections less likely to go online because it is slow or are they less likely to have broadband because they have little need or desire for frequent use of the Internet and therefore dial-up is sufficient?

The question is, can we take the profile of early adopters and use it to motivate others to join the broadband camp or to predict the ways in which people can be advantaged through broadband? Most current broadband users started out as dial-up Internet users. One of the main reasons they moved over to broadband was experience with it at work. For example, the 2004 Pew report notes that over 80% of the broadband users were exposed to it at work and over 40% said that influenced their decision to change their home connection. The difference between a broadband connection and dial-up was readily apparent. As dial-up became more frustrating or limiting to them, they made the switch.

For some Internet users, broadband access at work and in public venues is sufficient, but there are drawbacks to both. Public venues may impose time limits that prevent extensive use and skills development and their hours of operation may not be attractive to people who need to use these services during evening hours. Similar restrictions in terms of personal use at work can be problematic for employees with little flexibility in their work hours or arrival and departure times, for example individuals with parental responsibilities. In addition, most employers discourage use of company resources, especially computers and Internet, for personal use.

One study cites an April 2004 survey which indicates that African Americans spend more time on the Internet than whites and dial-up subscribers among African Americans were more likely to indicate they expect to switch to broadband within a year.¹³ The report also discusses the expectations of these potential users and concludes that non-white respondents had greater expectations of their broadband usage than whites, saying they would use it at higher rates than whites for most applications. The researchers conclude that this greater excitement may indicate nonwhites are willing to spend more on these services and “providers need to launch focused campaigns catering to non-White ethnic groups.”

The need to generate demand in new markets may be greater than expected. A recent study by the Pew Internet and American Life Project suggests that pent-up demand for home broadband use may be exhausted. This is based on an examination of the rates of increase in broadband use over the past three years. The author’s analysis suggests that most of the experienced dial-up users have already switched to broadband and “newbies”, as Pew calls them, rarely move to broadband because they don’t use the Internet enough for it to be

necessary. The researchers also suggest that those remaining in the “moderately experienced” dial-up group are not likely to switch to broadband because of their characteristics (income, education) and their patterns of Internet use.¹⁴

There are certainly a number of features of Internet (broadband) use that should be attractive to African Americans. Improving educational and employment outcomes are fundamental to economic advancement within the African American community. This fact is well-known within the African American community and African Americans who are online are more likely to use the Internet for job search and training or educational purposes. Young African Americans who are online are more likely than their peers to download study aids and enroll in an online course. But fewer African Americans are on-line generally. Therefore, one avenue to promoting broadband use is to find other contexts in which users can become familiar with its benefits.

The Promise of Broadband (this section is excellent – really brings it home)

There is a tendency to view broadband diffusion from the perspective of the individual household, because residential use provides sufficient customer density to generate the economic returns needed by industry. However, it is useful to think about this diffusion from a community perspective as well, especially when assessing the benefits within the African American community. Some of the literature on computer and Internet use discusses the need to view these through a community lens, asserting that use is guided by the context in which computers are used. In an article on how minority and marginalized

¹³ Amy Cravens, *Speeding Ticket: The U.S. Residential Broadband Market by Segment and Technology* (Scottsdale, AZ: In-Stat/MDR, September 2004)

¹⁴John B. Horrigan, “Broadband Adoption at Home in the United States: Growing But Slowing,” Paper presented at the 33rd Annual Telecommunications Policy Research Conference, September 24, 2005.

groups use computers and the Internet, authors examine how low-income families become engaged in Internet use.¹⁵ They emphasize the importance of the community, with people learning from family and friends or taking up computer activity on behalf of others. One example focused on an individual who served as the conduit of information from the Internet for people in his social network. Another focused on how a group of black women shared information and concerns about health issues through the Internet. The authors conclude that finding out what is meaningful in the everyday lives of the target audience can be key to promoting use of the Internet. The same can be said of broadband use in particular.

These community contexts might include community-based health facilities, neighborhood improvement groups, schools and training centers, churches and local businesses. Because African Americans are more geographically isolated than other groups in this country, diffusion of broadband service into their communities would not only provide access to individual households, but also to community-based institutions that serve the African American community and bolster its economic base. A focus on these institutions could have dual benefits. In the first round, there are community-level benefits. In the second round, there are industry benefits as broadband use in the community context is likely to generate additional demand at the household level, just as use at work generates demand for individual users.

Libraries and community centers can also facilitate engagement of young people in Internet use for teaching online job search techniques. These sites, along with health providers' offices and hospitals can be locations for health information.¹⁶

¹⁵ Bharat Mehra, Cecelia Merkel, and Ann Peterson Bishop, "The Internet for Empowerment of Minority and Marginalized Users," *New Media and Society* (Thousand Oaks, CA: Sage Publications, 2004), vol 6: 781-802. The Children's partnership.

One of the great expectations is that broadband will generate advances in health care by allowing more access to medical information and medications, plus medical check-ups and diagnoses on line. However, the feasibility of doing this from individual households seems unlikely, at least in the near term, until medical institutions invest more in telehealth technologies. On the other hand, community-based health facilities and satellite facilities such as senior citizen centers should be locations where individuals with modest incomes and limited mobility could be assisted with medical information and could receive specialized diagnosis and treatment from medical providers who are located off-site. Seniors are not the only ones who can benefit from online access to medical information and advice. A recent report on *Measuring Digital Opportunity for America's Children*, discusses the advantage the Internet can offer for children, ranging from its use by teens and young adults to search for health information to the ability to monitor children's asthma.¹⁷ Young adults use the Internet to find information on sensitive subjects. Those who access health information online frequently seek out medical care or change their health behavior as a result, according to one study cited. But at the present time, African Americans and Latino youths are much less likely to use the Internet for this purpose despite their greater risk for poor health outcomes. This is another way in which community centers could be used to cultivate use, either by focusing on health as part of a larger initiative or building comfort in use of the Internet through other areas of use, such as job hunting.

Recent studies have documented Internet use for managing childhood asthma. Parents of children with asthma use the Internet to communicate with medical care providers

¹⁷ Wendy Lazarus and Andrew Wainer with Laurie Lipper, *Measuring Digital Opportunity for America's Children: Where We Stand and Where We Go from Here* (Santa Monica, CA: The Children's Partnership, June 2005).

and the children themselves are able to engage in interactive responses on health conditions. Both activities have contributed to reduced incidence of asthma attacks. Given that African American children have a very high incidence of asthma, this approach to managing a chronic condition can improve health outcomes and reduce the number of days these children miss school. Parents can also use the Internet to communicate with their children's school but parents in households with incomes over \$50,000 are three times as likely to do this as those with household incomes under \$30,000.

Delivering the Broadband Promise to African American Communities

Internet use is heavily influenced by income and those who are not on the Internet often cite "cost" as a major barrier. What can providers do to influence price structure? Various marketing reports on this issue offer different recommendations on multi-tiered pricing and bundling of services. A 2005 report by the Yankee Group finds that cost/price is less of a problem with the availability of tiered pricing, but pointed out that business looks more to speed and reliability. While reliability might be important for both business and residential users, the speed needed by residential users may not be as great. Increased competition in the broadband marketplace, satellite, cable, DSL, and wireless, and bundling of multiple services have reduced consumer prices. The trend of lowered prices and bandwidth (speed) options can test out this theory and point the way for pricing strategies that could be pursued with the expansion of other broadband technologies.

The 2005 Yankee Group report also argues that value-added services are pushing subscribers to use services more and attracting new customers who may be more inclined to stay. This may be more important than bundling. The earlier report states that "service

providers must take a localized approach to marketing broadband services.” Using a community context to provide a “live hands-on demonstration” it argues, would be more effective than a mass marketing appeal. This would certainly seem to be true in the African American community, given the findings of several studies on how African Americans use the Internet or “come to” it.

Conclusion

Broadband is increasingly available in the marketplace and at declining prices. African American access to broadband is contingent upon education, income, and occupation, but the racial differences in use within income and education categories suggest that these factors do not fully explain low use by African Americans. Providers who want to reach African American consumers should consider improved content and more exposure to technology in general. The interest in topics such as health, employment, and education by African Americans currently online could guide content development.

African American owned businesses could benefit from broadband access, especially if their principal customers are major businesses. Many major corporations are moving to online procurement and vendors need to be able to identify business opportunities and complete bids online. Seminars that promote and explain these applications could be effective in expanding use.

APPENDIX

DEFINING THE BROADBAND MARKET

The Internet market is not a national market, but 51 state level markets, with sub-markets within states. Therefore it is useful to look at state level data on the characteristics of the African American population that have been found to affect Internet use and related factors that may play a role in Internet use either at work/school or at home. The variables that general research and the Joint Center's analysis have found to affect Internet use among African Americans are: gender, income, education, presence of children, and occupation. In this section, variation in some of these variables across ten states and the District of Columbia is reviewed. The jurisdictions selected are those with large African American populations. Collectively the states contain an African American population of 17.6 million (just over 47 percent of the U.S. total in 2004) and over 45 percent of the African American businesses in the United States (545,355 in 2002).

The following tables contain information on the school enrollment, educational attainment, employment status, occupational distribution, household income, and poverty status of the African American population in each state. There is quite a bit of variation in all variables, but a few states stand out in terms of the economic and educational status of African Americans. In particular, Florida and Pennsylvania are states in which African Americans seem to have lower levels of education (more with less than a high school diploma and fewer with Bachelors' degrees or more). Moreover, African Americans in the workforce are less likely to be in managerial jobs and more likely to be in protective and personal services. African Americans in Florida are also more likely to be in or near poverty. This would suggest that African Americans in these states are less likely to be exposed to the

Internet at work and have less income for Internet at home. As such, special attention would be needed to engage the populations through community-based settings that would expose the potential of the Internet. Low price Internet options would also be needed to push out use.

The states of New Jersey, Delaware, and Pennsylvania had higher than average unemployment rates which would suggest that access to the Internet for job hunting and perhaps skills upgrading would be important. Again, community-based settings and special content would be useful. On the other side of the coin, the state of Maryland has much lower poverty rates and a higher proportion of African American workers in professional and technical jobs. So this might be a market that needs little in the way of special coaching, but may be more demanding in terms of content.