

Estimates on Broadband Access Created via Public Libraries

September 2009



The analysis that follows and the data shown in Exhibit 1 represent estimates of the numbers of people with potential access to a broadband connection based on their physical proximity to a public library.¹ For individuals without access to the internet at home, public libraries are often a primary source of access.² For low-income individuals in particular, the library is an essential point of access as most cannot afford to subscribe to a household connection.³ Exhibit 1 estimates that 88% of the total population and 90% of the population living under the federal poverty line live within reasonable proximity of a public library.

Exhibit 1
Populations Living Near Libraries, 2008⁴

	Total Population			
	All People	% of All People	People Living in Poverty	% of All People in Poverty
Total US, 2008	304,060,000	100%	38,010,000	100%
Living Near a Public Library Outlet	266,540,000	88%	34,360,000	90%
Urban				
Total Urban Population	105,550,000	35%	17,320,000	46%
Living Near a Public Library Outlet	105,550,000	35%	17,320,000	46%
Suburban				
Total Suburban Population	127,300,000	42%	11,020,000	29%
Living Near a Public Library Outlet	98,380,000	32%	8,630,000	23%
Rural				
Total Rural Population	71,210,000	23%	9,670,000	25%
Living Near a Public Library Outlet	62,600,000	21%	8,410,000	22%

Source: Community Attributes Spatial Analysis, 2009; US Census, 2000 and 2008; Institute of Museum and Library Sciences (IMLS) Library Statistics 2007.

¹ In order to derive the 'Population Living Near Libraries', residents (by Census Block Group) were "assigned" to the nearest public library using the following criteria: all urban residents are assigned to the nearest library outlet, suburban residents are assigned only if a library outlet is within 3 miles, and rural residents are assigned only if a library outlet exists within 10 miles.

² 71 percent of library computer users indicated that the library is their primary form of access to the Internet. (Source: Hart Research; commissioned by the Gates Foundation, March 2006)

³ We estimate that 25 percent of households with less than \$30K annual income have broadband access at home (Source: Pew Internet & American Life Project, 2008).

⁴ This analysis was initially completed using 2000 Census data (the only year for which block group data are available nationwide). Estimates for 2008 data are derived from the original analysis adjusted by nationwide changes in total population and poverty rates. The most current Census data available (2008) estimates the poverty rate is 12.5%, up from 11.3% in 2000. Estimated 2008 poverty rates for urban, suburban and rural areas are 16.4%, 8.8% and 13.4%, respectively, constrained to areas proximate to public libraries.

While there are more people in the U.S. concentrated in urban areas, as shown above, more library outlets⁵ exist in rural areas, as shown in Exhibit 2. Exhibit 2 illustrates that on average, every library that upgrades to a broadband connection is improving technology access for approximately 15,710 people, including 2,030 people living in poverty.⁶ More specifically:

- Every urban library that upgrades to a broadband connection is improving technology access for approximately 35,480 people, including 5,820 people living in poverty;
- Every suburban library that upgrades to a broadband connection is improving technology access for approximately 16,820 people, including 1,480 people living in poverty; and
- Every rural library that upgrades to a broadband connection is improving technology access for approximately 7,690 people, including 1,030 people living in poverty.

Exhibit 2
Average Population Reached by Library Outlet

Designation	Number of Outlets	Total Population Living Near a Library		Average Persons per Outlet	
		All Persons	Living in Poverty	All Persons	Living in Poverty
Urban	2,975	105,550,000	17,320,000	35,480	5,820
Suburban	5,848	98,380,000	8,630,000	16,820	1,480
Rural	8,141	62,600,000	8,410,000	7,690	1,030
All Outlets	16,964	266,540,000	34,360,000	15,710	2,030

Source: Community Attributes Spatial Analysis, 2009; US Census, 2000 and 2008; Institute of Museum and Library Sciences (IMLS) Library Statistics 2007.

⁵ A library outlet is defined as either a central or main library; or branch library.

⁶ All estimates do not assume actual use of broadband, but the numbers of people who have reasonable physical proximity to a broadband connection via their public library.

Exhibit 3 illustrates the estimated impact of increasing the number of libraries with broadband access. For example, connecting 10% of all urban library outlets to broadband will improve access for approximately 10.5 million people. Connecting 10% of all rural library outlets to broadband will improve access for 6.3 million people. The latter half of the table shows the potential impact of improving access to broadband for people in poverty.

Exhibit 3
Potential Broadband Access Create by Percent of Libraries

	Urban	Suburban	Rural	Aggregate
<u>% of Libraries w/BB</u>	<u>Impact (All People with Improved Access)</u>			
10%	10,555,000	9,838,000	6,260,000	26,653,000
25%	26,387,500	24,595,000	15,650,000	66,632,500
50%	52,775,000	49,190,000	31,300,000	133,265,000
75%	79,162,500	73,785,000	46,950,000	199,897,500
90%	94,995,000	88,542,000	56,340,000	239,877,000
100%	105,550,000	98,380,000	62,600,000	266,540,000
<u>% of Libraries w/BB</u>	<u>Impact (People in Poverty with Improved Access)</u>			
10%	1,732,000	863,000	841,000	3,436,000
25%	4,330,000	2,157,500	2,102,500	8,590,000
50%	8,660,000	4,315,000	4,205,000	17,180,000
75%	12,990,000	6,472,500	6,307,500	25,770,000
90%	15,588,000	7,767,000	7,569,000	30,924,000
100%	17,320,000	8,630,000	8,410,000	34,360,000

Source: Community Attributes Spatial Analysis, 2009; US Census, 2000 and 2008; Institute of Museum and Library Sciences (IMLS) Library Statistics 2007.