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Joanne Budler, State Librarian

State Library of Kansas

Sam Brownback, Governor

November 14, 2012

TO: Special Committee on Rural Broadband  
Representative Sharon Schwartz, Chairperson  
Senator Jay Emler, Vice-Chairperson  
Senator Pat Apple  
Senator Marci Francisco  
Senator Ralph Ostmeyer  
Senator Mike Peterson  
Representative Mike Burgess  
Representative Terry Calloway  
Representative Ramon Gonzalez  
Representative Annie Kuether  
Representative Forrest Knox  
Representative Reynaldo Mesa  
Representative Jerry Williams

FROM: Jo Budler, State Librarian *JB*

RE: Rural Broadband Services for Kansas Libraries

Chairperson Schwartz, members of the Special Committee on Rural Broadband, my name is Jo Budler and I have served as State Librarian of Kansas since March 2010. Thank you for allowing me to talk with you about computers and broadband in libraries.

My staff and I have prepared a packet for you with a lot of information in it. I have also included a summary of a grant which the State Library of Kansas (SLK) received in 2003 from the Bill and Melinda Gates Foundation. I will not review that today but I thought that you might be interested so I included it.

In 2008 the SLK received an additional grant from the Bill and Melinda Gates Foundation but did not really start work on it in earnest until Spring 2010. At that time, the Gates Foundation recognized that Kansas had a network in place, Kan-ed, which was making a single T-1 (1.544 Mbps) broadband connection available at no charge to schools, hospitals and libraries. It was determined that this was the best way to get broadband into libraries. Yet there were still many libraries which were not connected to broadband. Gates determined that the State Library should use the grant funding to:

- Help librarians understand the importance of broadband as a service to their community members;
- Encourage adoption of the Kan-ed service or an alternative broadband service of same or higher speed;
- Encourage librarians to apply for Federal e-rate funding to assist in the funding of broadband.

The State Library created a Broadband Advisory Council with approximately 30 members including members from state agencies (KDOT, Commission on Disability Concerns, Department of Aging, Services, Department of Labor, State Historical Society, Kansas Corporation Cor

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Commerce, Department of Education, Kan-ed), the League of Kansas Municipalities, the Board of Regents, librarians, and Regional Library System directors and staff.

The Broadband Advisory Council helped State Library staff create a "Target Connectivity Table." You will find this on page 8 of the Broadband Everywhere? Workbook in your packet of information. This is a simple tool to help libraries plan for their Internet connection needs. It is based on the number of computers in the library and indicates a target connection speed. You will also see a map of current public library Internet connection speeds (updated August 1, 2012 and before T-1 lines were removed from libraries).

The Broadband Everywhere! Workbook was part of a planning session that took place on August 22nd at 7 sites across Kansas. As you can imagine, the Gates grant changed dramatically when changes were made to the funding of Kan-ed in the 2011 and 2012 Legislative sessions. Once it was clear that T-1 lines at no charge would not be available in the future for libraries, the State Library began gathering information to assist libraries in planning for alternative broadband. The planning session on August 22nd was part of that information gathering.

Over the last several years, many government services have moved to e-government, that is, the service is only available via the Internet. On page 6 of your workbook, you will find a list of the eGovernment services people come to their libraries to access: filing taxes, renewing licenses, finding and applying for jobs, finding election results, road conditions, and municipal codes. The list will undoubtedly grow as government moves more services onto the Internet. While this may be cost effective for government, it increases the cost for the library that now must provide higher broadband speeds to accommodate greater demand. In addition, this places greater demands on other library resources including staff, computers, printers, and training.

It is important to note that these services require high upload speed. Often commercial Internet services offer high download but limited or low upload speeds. This can be problematic when submitting a job application or filing income tax forms.

Many Kansans do not have broadband in their homes. For some it is not available or, if it is, it is not affordable. Many Kansans have Internet access but it is not robust enough to accomplish these eGovernment tasks. For these people libraries provide a safety net of connectivity.

Libraries face some major challenges regarding broadband access. In your packet you will also find a chart of libraries. The chart includes information about each library including population served, if a library has a Kan-ed connection, if other Internet connectivity is available, and the cost. The last column of the chart shows the percentage of the broadband cost in relation to the library's operating budget.

On August 22nd, approximately 100 people across Kansas met to discuss the need for broadband in Kansas libraries. There was agreement that broadband is a necessary utility in all our communities and that it is appropriate that libraries provide this service so that all Kansans have access. Attendees affirmed that it is important that local partnerships be developed and that reliable funding such as the Kansas Universal Service Fund assist libraries in acquiring adequate broadband for their communities.

I will be happy to take questions at this time. Thank you.

BILL & MELINDA GATES FOUNDATION — STATE PARTNERSHIP PROGRAM  
SUMMARY OF ACTIVITIES AND OUTCOMES

In late March 2003, the Bill & Melinda Gates Foundation provided the State Library of Kansas with an implementation report detailing the activity of their State Partnership Program for libraries in Kansas. The statistical evidence points to a dramatic change in the place of public access computing in our public libraries as a result of the Foundation's efforts on our behalf.

Some highlights of the report:

TRAINING

Attendance at Gates foundation training totaled 1,405 Kansas library staff from 233 library buildings. Of this number, over 1,000 were trained along with or after installation of granted computers. During the first part of training, 82% of participants responded to a survey identifying training needs - above the national average of 80%!

Summaries of feedback about training provided after installation of granted computers may be found at <<http://www.gatesresources.org/kansas/>>.

HARDWARE, SOFTWARE, & DOCUMENTATION

**The Foundation granted 499 Gates Library Computers for public use and 90 Content Servers in support of public access computing to Kansas libraries. Using their own funds, Kansas libraries purchased an additional 36 public use computers, 2 content servers and 3 public service desk computers. In all, the current program provided 630 new computers to public libraries in our state.**

**Included in this total are six computer training labs, each consisting of 12 computers, one for the instructor and 11 for trainees. Training labs were installed in the public libraries of Dodge City, Finney County, Great Bend, Hutchinson, Kansas City (main branch), and Pittsburg.**

Prior to the current program, a lab was also installed at Wichita (main branch) in 2000, along with 24 public access computers in 6 branches, as part of the Foundation's Accelerated Program for large libraries.

Total computers (both programs) **666**

Total training labs **7**

NETWORKING

According to Foundation records, of the 232 library buildings awarded networking grants, the percentage using Dial-up connections dropped from 55% prior to the implementation, to 33% at the conclusion of the program. 154 buildings, or 66% of networking grant recipients, now have dedicated internet connections. Of these, 113 or 49% have symmetrical connections with a speed of at least 200 Kbps, defined by the Foundation as "broadband".

Total checks written by GF to Kansas libraries **\$2,273,681.64**

Buildings/Libraries Granted:

	US Library Program only	USLP + Accelerated Program
Public library entities	216	217
Branches of above <sup>[1]</sup> <sup>[2]</sup>	10	15
Regional library systems	7	7
State library	1	1
TOTAL	234	240

<sup>[1]</sup>Branches (other than main library):

Argentine Branch - Kansas City Kansas Public Library  
 Elwood Branch - Library District #1, Doniphan County  
 Gridley Branch - Coffey County Library<sup>4</sup>  
 Healy Extension - Lane County Library  
 Haviland Branch - Kiowa County Library  
 Mullinville Branch - Kiowa County Library  
 Leroy Branch - Coffey County Library<sup>4</sup>  
 Wathena Branch - Library District #1, Doniphan County  
 Waverly Branch - Coffey County Library<sup>4</sup>  
 West Wyandotte Branch - Kansas City Kansas Public Library

<sup>[2]</sup>No grants to Main (Burlington), Lebo, or New Strawn branches

Library	County	Public Access Computers	Population	Current Connection (Mbps)		Alternative Cost Range (\$)		Alternative Cost as % of Budget	
				Download	Upload	Low	High	Low	High
Abilene Public Library	Dickinson	16	6,400	1.5	1.5	30	88	0.1%	0.4%
Agra/F Lee Doctor Library	Phillips	2	269	5.9	0.7	33	43	5.0%	6.5%
Allen/Lyon County Library Dist 1	Lyon	7	859	1.5	1.5	70	70	2.7%	2.7%
Almena City Library	Norton	2	425	10.0	3.9	43	203	3.1%	14.7%
Altamont Public Library	Labette	2	1,049	11.8	3.6	80	80	3.4%	3.4%
Altoona Public Library	Wilson	2	463	0.8	0.4	80	80	11.4%	11.4%
Americus Township Library	Lyon	6	1,511	1.5	1.5	104	104	2.2%	2.2%
Andale District Library	Sedgwick	3	1,583	1.0	1.0	50	70	1.1%	1.5%
Andover Public Library	Butler	13	10,328	15.0	3.0	54	100	0.1%	0.3%
Anthony Public Library	Harper	10	2,224	5.2	0.6	43	63	0.7%	1.0%
Argonia/Dixon Township Library	Sumner	2	661	6.0	1.0	50	129	2.7%	7.0%
Arkansas City Public Library	Cowley	17	11,070	17.1	7.0	54	100	0.2%	0.3%
Arlington City Library	Reno	4	434	7.3	0.8	30	60	2.2%	4.4%
Arma City Library	Crawford	5	1,513	1.5	1.5	110	110	4.3%	4.3%
Ashland Library	Clark	5	867	1.5	1.5	99	99	2.3%	2.3%
Atchison Library	Atchison	30	10,402	3.0	3.0	38	63	0.1%	0.1%
Attica City Library	Harper	2	570	0.8	0.8	40	90	3.3%	7.3%
Atwood Public Library	Rawlins	2	2,503	3.8	0.8	33	203	0.7%	4.3%
Augusta Public Library	Butler	16	8,693	6.5	19.4	54	100	0.2%	0.4%
Axtell Public Library	Marshall	4	417	1.5	1.5	75	75	10.6%	10.6%
Baldwin City Library	Douglas	7	4,308	3.0	3.0	120	120	0.9%	0.9%
Basehor Community Library	Leavenworth	45	8,730	1.5	1.5	33	73	0.1%	0.1%
Baxter Springs/Johnston Public Lib	Cherokee	4	4,153	5.7	0.9	80	80	0.8%	0.8%
Beattie City	Marshall	2	259	1.5	1.5	45	45	39.2%	39.2%
Belle Plaine Public Library	Sumner	3	1,528	3.9	0.5	40	40	1.1%	1.1%
Belleville Public Library	Republic	6	1,832	9.8	1.0	50	300	0.3%	2.0%
Beloit/Port Library	Mitchell	3	3,640	4.0	0.4	36	300	0.3%	2.4%
Bern Community Library	Nemaha	4	438	1.5	1.5	65	65	2.9%	2.9%
Bird City Public Library	Cheyenne	5	407	1.6	0.5	43	50	4.1%	4.7%
Bison Community Library	Rush	4	208	1.6	0.3	38	150	3.2%	12.5%
Blue Mound/Linn County Lib Dist 3	Linn	3	529	4.9	0.8	80	80	21.0%	21.0%
Blue Rapids Public Library	Marshall	5	1,018	1.5	1.5	75	120	4.4%	7.1%
Bonner Springs City Library	Wyandotte	24	7,152	3.0	3.0	80	120	0.2%	0.3%

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Library	County	Public Access Computers	Population	Current Connection (Mbps)		Alternative Cost Range (\$)		Alternative Cost as % of Budget	
				Download	Upload	Low	High	Low	High
Bronson Public Library	Bourbon	4	336	1.5	1.5	60	60	4.9%	4.9%
Brownell Public Library	Ness	0	40	NC	NC	38	80	68.1%	143.4%
Bucklin Public Library	Ford	4	727	1.5	1.5	69	69	1.3%	1.3%
Buhler Public Library	Reno	4	1,332	4.0	1.0	50	50	1.1%	1.1%
Burlingame Community Library	Osage	8	958	1.5	1.5	80	179	1.8%	4.1%
Burlington/Coffey County Library	Coffey	44	8,409	23.9	7.4	80	80	0.1%	0.1%
Burns Public Library	Marion	6	260	1.5	1.5	65	65	7.0%	7.0%
Burr Oak Public Library	Jewell	5	422	10.5	4.1	53	203	4.5%	17.1%
Burton Public Library	Harvey	2	896	5.0	1.0	54	100	3.3%	6.0%
Bushton/Farmer Township Comm Lib	Rice	2	692	3.0	0.5	33	203	4.9%	29.9%
Caldwell Carnegie	Summer	4	1,144	3.0	0.5	40	240	1.8%	10.7%
Caney City Library	Montgomery	5	1,976	1.5	1.5	110	110	2.2%	2.2%
Canton Carnegie Township Library	Mcpherson	1	1,053	0.8	0.3	60	86	5.0%	7.2%
Carbondale City Library	Osage	6	1,378	1.5	1.5	45	45	1.2%	1.2%
Cawker City Public Library	Mitchell	2	463	4.2	0.4	36	300	2.5%	21.1%
Cedar Vale Memorial Library	Chautauqua	3	617	2.7	0.4	45	45	3.5%	3.5%
Centralia Community Library	Nemaha	5	486	1.5	1.5	50	50	2.2%	2.2%
Chanute Public Library	Neosho	10	8,843	63.9	31.2	195	195	0.6%	0.6%
Chapman Public Library	Dickinson	4	1,332	1.5	1.5	85	85	2.9%	2.9%
Cheney Public Library	Sedgwick	5	2,703	18.8	5.7	54	100	1.0%	1.8%
Cherryvale Public Library	Montgomery	3	2,253	23.8	1.1	54	100	1.2%	2.3%
Chetopa City Library	Labette	4	1,234	2.5	0.6	38	43	3.2%	3.6%
Cimarron City Library	Gray	14	1,989	1.5	1.5	99	99	0.9%	0.9%
Clatfin/Independent Township Lib	Barton	4	784	3.2	1.7	53	203	1.8%	6.9%
Clay Center Carnegie Library	Clay	6	4,442	1.5	1.5	65	65	0.4%	0.4%
Cleawater Public Library	Sedgwick	3	2,405	4.0	0.5	45	45	0.6%	0.6%
Clifton Public Library	Clay	2	502	1.5	1.5	85	85	10.9%	10.9%
Clyde/Randolph-Decker Pub Lib	Cloud Co.	6	685	0.9	0.6	49	49	2.0%	2.0%
Coffeyville Public Library	Montgomery	14	10,312	1.5	1.5	54	100	0.2%	0.3%
Colby/Pioneer Memorial Library	Thomas	22	4,803	1.5	1.5	40	100	0.2%	0.4%
Coldwater-Wilmore Regional Library	Comanche	4	1,223	1.5	1.5	50	69	0.8%	1.2%
Colony City Library	Anderson	2	377	1.0	0.5	60	60	8.8%	8.8%
Columbus Public Library	Cherokee	9	3,185	4.8	8.2	47	77	0.6%	1.0%

Library	County	Public Access Computers	Population	Current Connection (Mbps)		Alternative Cost Range (\$)		Alternative Cost as % of Budget	
				Download	Upload	Low	High	Low	High
Colwich Community Library	Sedgwick	1	2,350	0.7	0.4	54	100	0.8%	1.5%
Concordia/Frank Carlson Library	Cloud	7	5,208	1.4	0.8	36	300	0.2%	1.8%
Conway Springs City Library	Sumner	1	1,193	6.0	1.0	50	129	2.8%	7.2%
Copeland Public Library	Gray	2	308	13.0	0.5	69	69	9.4%	9.4%
Corring City Library	Nemaha	3	160	1.5	1.5	60	80	7.0%	9.3%
Cottonwood Falls/Burnley Memorial	Chase	7	1,063	1.5	1.5	85	85	4.5%	4.5%
Council Grove Public Library	Morris	9	2,274	1.5	1.5	85	85	1.1%	1.1%
Courtland Community Library	Republic	5	298	9.5	3.5	53	203	7.0%	26.8%
Cuba/Hilcrest Public Library	Republic	3	724	5.9	0.9	70	70	2.7%	2.7%
Cunningham Public Library	Kingman	3	452	5.0	1.0	54	100	3.6%	6.7%
Delphos Public Library	Ottawa	2	437	6.9	1.0	45	55	2.8%	3.4%
Derby Public Library	Sedgwick	45	22,517	14.6	1.9	54	100	0.1%	0.1%
Dighton/Lane County Library	Lane	8	1,743	1.5	1.5	40	100	0.5%	1.4%
Dodge City Public Library	Ford	41	25,689	14.6	14.2	1550	1550	1.5%	1.5%
Douglass Public Library	Butler	6	2,594	2.4	0.3	43	63	0.5%	0.8%
Downs Carnegie Library	Osborne	6	883	10.3	4.3	28	43	0.7%	1.1%
Dwight Library	Morris	1	326	1.5	1.5	85	85	27.4%	27.4%
Echa Public Library	Labette	1	413	1.5	0.7	60	60	5.7%	5.7%
Effingham Community Library	Atchison	9	575	1.5	1.5	120	120	6.1%	6.1%
El Dorado/Bradford Memorial Lib	Butler	13	12,591	10.0	2.0	54	100	0.1%	0.2%
Elkhart/Morton County Library	Morton	24	2,978	1.5	1.5	225	225	1.0%	1.0%
Ellinwood School Community Library	Barton	9	2,035	12.0	6.1	33	203	1.4%	8.7%
Ellis Public Library	Ellis	8	1,952	3.0	0.5	38	150	0.8%	3.3%
Ellsworth/J H Robbins Mem Lib	Ellsworth	8	2,858	2.9	0.4	45	55	0.2%	0.3%
Emporia Public Library	Lyon	19	32,228	1.5	1.5	190	190	0.3%	0.3%
Enterprise Public Library	Dickinson	2	816	8.5	0.5	65	65	1.9%	1.9%
Erie City Public Library	Neosho	7	1,160	12.4	7.3	33	43	0.6%	0.8%
Eudora Public Library	Douglas	8	7,646	1.5	1.5	33	73	0.3%	0.6%
Eureka Carnegie Library	Greenwood	11	2,559	2.9	0.4	80	80	0.9%	0.9%
Everest/Barnes Reading Room	Brown	4	509	1.5	1.5	40	85	2.9%	6.1%
Fall River Public Library	Greenwood	1	142	1.5	0.1	25	25	6.2%	6.2%
Florence Public Library	Marion	5	596	1.5	1.5	65	65	6.2%	6.2%
Ford City Library	Ford	2	324	1.5	1.5	99	99	13.2%	13.2%

Library	County	Public Access Computers	Population	Current Connection (Mbps)		Alternative Cost Range (\$)		Alternative Cost as % of Budget	
				Download	Upload	Low	High	Low	High
Formoso Public Library	Jewell	4	108	15.8	8.5	50	300	6.3%	37.8%
Fort Scott Public Library	Bourbon	7	7,941	2.6	0.5	33	43	0.1%	0.2%
Fowler Public Library	Meade	6	546	1.5	1.5	200	200	9.6%	9.6%
Frankfort City Library	Marshall	3	776	1.5	1.5	80	80	2.6%	2.6%
Fredonia Public Library	Wilson	11	3,393	1.0	0.4	25	25	0.2%	0.2%
Galena Public Library	Cherokee	7	3,126	1.3	1.2	80	80	1.4%	1.4%
Garden City/Finney County Public Lib	Finney	29	40,998	10.0	2.0	125	125	0.2%	0.2%
Garden Plain Community Library	Sedgwick	2	868	18.2	4.4	54	100	3.8%	7.1%
Garnett Public Library	Anderson	8	3,222	9.8	0.8	80	80	0.7%	0.7%
Gaylord City Library	Smith	0	120	NC	NC	30	40	23.3%	31.0%
Geneseo Public Library	Rice	1	259	0.8	0.3	60	86	9.8%	14.1%
Girard Public Library	Crawford	11	2,722	3.1	0.7	60	60	0.3%	0.3%
Glascow City Library	Cloud	1	488	6.9	1.0	45	55	4.3%	5.3%
Glen Elder Library	Mitchell	4	385	4.3	0.4	36	300	4.6%	38.8%
Goddard Public Library	Sedgwick	6	3,869	5.0	1.0	54	100	0.7%	1.3%
Goessel Public Library	Marion	3	512	1.5	1.5	35	70	1.5%	3.0%
Goodland Public Library	Sherman	15	4,388	9.8	0.9	60	100	0.3%	0.6%
Gove City Library	Gove	2	88	22.2	3.3	73	203	10.1%	28.2%
Grainfield City Library	Gove	3	275	6.8	0.6	73	203	12.4%	34.6%
Great Bend Public Library	Barton	27	15,564	12.0	2.1	73	203	0.1%	0.4%
Greensburg/Kiowa County Library	Kiowa	8	2,541	16.6	0.9	60	129	1.0%	2.2%
Grenola Public Library	Elk	4	215	4.2	0.5	45	45	7.7%	7.7%
Grimmell/Moore Family Library	Gove	2	276	1.5	1.5	40	40	7.5%	7.5%
Gypsum Community Library	Saline	3	404	5.0	1.0	45	55	5.0%	6.1%
Halstead Public Library	Harvey	4	1,890	5.0	1.0	54	100	0.7%	1.4%
Hamilton City Library	Greenwood	7	303	9.6	1.0	38	43	3.4%	3.9%
Hanover Public Library	Washington	4	573	1.5	1.5	80	80	4.4%	4.4%
Hanston City Library	Hodgeman	1	241	1.5	1.5	99	99	8.7%	8.7%
Hardtner Public Library	Barber	5	178	2.8	0.8	50	150	3.0%	9.0%
Harper Public Library	Harper	6	1,416	0.9	0.6	50	150	1.3%	3.9%
Hartford/Elmendorf Township	Lyon	3	964	1.5	1.5	85	85	3.8%	3.8%
Haven Public Library	Reno	4	1,163	1.5	1.5	50	70	1.1%	1.5%
Hays Public Library	Ellis	42	20,368	10.1	10.1	73	203	0.1%	0.2%

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Library	County	Public Access Computers	Population	Current Connection (Mbps)		Alternative Cost Range (\$)		Alternative Cost as % of Budget	
				Download	Upload	Low	High	Low	High
Haysville Community Library	Sedgwick	32	10,364	4.7	0.6	43	63	0.1%	0.2%
Heppler City Library	Crawford	4	153	1.0	0.5	60	60	14.2%	14.2%
Herrington Public Library	Dickinson	4	2,400	1.5	1.5	80	80	1.0%	1.0%
Hesston Public Library	Harvey	4	3,741	16.1	8.3	54	100	0.3%	0.6%
Hiawatha/Morrill Public Library	Brown	28	3,169	3.0	3.0	46	85	0.2%	0.4%
Hill City/Graham County Public Lib	Graham	5	2,592	6.5	23.3	43	203	0.4%	0.4%
Hillsboro Public Library	Marion	6	2,638	1.5	1.5	65	65	0.9%	1.9%
Hoisington Public Library	Barton	5	2,883	5.8	1.6	43	203	0.6%	2.6%
Holtan/Beck-Bookman	Jackson	8	3,258	1.5	1.5	45	180	0.4%	1.5%
Hope Community Library	Dickinson	2	358	1.5	1.5	85	85	11.1%	11.1%
Horton Public Library	Brown	8	1,799	1.5	1.5	40	85	0.7%	1.5%
Howard City Library	Elk	4	757	4.0	0.5	45	45	5.1%	5.1%
Hoxie/Sheridan County Library	Sheridan	5	2,510	10.1	4.0	53	203	0.9%	3.3%
Hugoton/Stevens County Library	Stevens	15	5,056	1.5	1.5	1044	1044	2.6%	2.6%
Humboldt Public Library	Allen	5	1,832	1.5	1.5	60	60	0.9%	0.9%
Hutchinson Public Library	Reno	45	40,889	2.6	2.9	54	100	0.0%	0.1%
Independence Public Library	Montgomery	50	13,540	6.0	1.5	195	195	0.5%	0.5%
Linman Public Library	Mcpherson	3	1,187	19.9	36.6	40	50	1.4%	1.8%
Iola Free Public Library	Allen	11	5,782	17.6	6.4	43	43	0.2%	0.2%
Jamestown City Library	Cloud	2	377	3.8	0.4	36	300	4.1%	34.4%
Jennings City Library	Decatur	2	118	5.1	0.7	43	203	12.9%	60.8%
Jetmore Municipal Library	Hodgeman	5	846	1.5	1.5	69	69	1.7%	1.7%
Jewell Public Library	Jewell	5	405	4.3	0.4	36	300	2.6%	21.7%
Johnson/Stanton County Public Lib	Stanton	13	2,148	1.5	1.5	1485	1485	6.1%	6.1%
Junction City/Dorothy Brantlage Pub	Geary	18	31,171	1.5	1.5	250	250	0.3%	0.3%
Kanopolis Public Library	Ellsworth	2	506	2.0	0.5	43	43	3.5%	3.5%
Kansas City, Kansas Public Library	Wyandotte	170	135,410	60.0	60.0	70	70	0.0%	0.0%
Kensington Community Library	Smith	5	464	6.6	0.5	43	203	3.4%	15.9%
Kingman Carnegie Library	Kingman	11	2,996	5.0	1.0	54	100	0.4%	0.7%
Kinsley Library	Edwards	7	1,449	1.5	1.5	150	150	1.6%	1.6%
Kiowa Public Library	Barber	5	908	1.5	1.5	40	90	3.6%	8.1%
Kimwin City Library	Phillips	3	207	11.6	1.9	43	43	5.9%	5.9%
Kismet Public Library	Seward	4	2,121	1.5	1.5	60	60	1.3%	1.3%

9-6

Library	County	Public Access Computers	Population	Current Connection (Mbps)		Alternative Cost Range (\$)		Alternative Cost as % of Budget	
				Download	Upload	Low	High	Low	High
Library									
LaCrosse/Barnard Library	Rush	6	1,332	1.5	0.5	45	55	1.0%	1.2%
LaCygne/Linn County Library Dist #2	Linn	24	1,687	2.7	2.3	75	95	0.3%	0.4%
Lakin/Keary County Library	Keary	7	4,159	3.1	0.5	104	104	0.3%	0.3%
Lansing Community Library	Leavenworth	15	10,691	1.5	1.5	80	80	0.6%	0.6%
Larned/Jordaan Memorial Library	Pawnee	7	6,291	21.2	6.4	80	125	0.6%	0.9%
Lawrence Public Library	Douglas	62	90,520	1.5	1.5	33	73	0.0%	0.0%
Leavenworth Public Library	Leavenworth	38	34,729	9.7	2.4	80	80	0.1%	0.1%
Lebanon Community Library	Smith	4	262	16.8	4.3	53	203	3.3%	12.7%
Lenora Public Library	Norton	4	266	5.5	0.6	43	203	6.0%	28.2%
Leon Public Library	Butler	0	640	NC	NC	45	45	12.5%	12.5%
Leonardville City Library	Riley	4	475	1.5	1.5	85	85	16.9%	16.9%
Leoti/Wichita County Library	Wichita	2	2,148	3.0	3.0	70	70	1.4%	1.4%
Lewis/Meadowlark Library	Edwards	3	554	1.5	1.5	113	1325	6.5%	76.3%
Liberal Memorial Library	Seward	30	20,074	1.5	1.5	60	60	0.1%	0.1%
Lincoln Carnegie Library	Lincoln	3	1,213	1.5	1.5	45	55	1.2%	1.4%
Lindsborg Community Library	Mcpherson	4	3,245	5.1	0.6	43	63	0.8%	1.1%
Linwood Community Library Dist #1	Leavenworth	10	3,840	1.5	1.5	33	73	0.2%	0.5%
Little River Community Library	Rice	4	711	1.6	1.0	40	60	3.6%	5.4%
Logan Public Library	Phillips	2	532	6.6	4.5	43	203	3.7%	17.6%
Long Island Community Library	Phillips	2	140	3.4	3.7	43	203	8.2%	38.9%
Longton Library	Elk	5	367	11.6	1.0	45	45	5.2%	5.2%
Louisburg/Library Dist #1 Miami Co	Miami	18	8,500	1.5	1.5	70	140	0.1%	0.2%
Lucas Public Library	Russell	4	409	1.0	4.8	88	220	10.9%	27.4%
Luray City Library	Russell	2	180	0.7	0.4	60	110	4.8%	8.9%
Lyndon Carnegie Library	Osage	7	1,485	1.5	1.5	80	179	1.3%	2.8%
Lyons Public Library	Rice	5	3,399	23.0	6.2	54	100	0.7%	1.3%
Macksville City Library	Stafford	3	476	0.6	0.2	30	49	1.8%	3.0%
Madison Public Library	Greenwood	3	750	14.6	17.9	80	80	2.7%	2.7%
Manhattan Public Library	Riley	81	52,284	1.5	1.5	54	100	0.0%	0.0%
Mankato City Library	Jewell	4	794	3.5	0.4	36	300	2.3%	18.8%
Marion City Library	Marion	6	1,880	1.5	1.5	65	65	0.9%	0.9%
Marquette Community Library	Mcpherson	1	769	1.6	0.4	35	35	2.0%	2.0%
Marysville Public Library	Marshall	11	3,126	1.5	1.5	75	75	0.4%	0.4%

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Library	County	Public Access Computers	Population	Current Connection (Mbps)		Alternative Cost Range (\$)		Alternative Cost as % of Budget	
				Download	Upload	Low	High	Low	High
McCracken Public Library	Rush	2	278	1.5	0.8	55	55	5.0%	5.0%
McCune Osage Township Library	Crawford	11	781	7.0	0.4	60	60	2.0%	2.0%
McClouth Public Library	Jefferson	6	835	1.5	1.5	120	120	3.5%	3.5%
McPherson Public Library	Mcpherson	16	13,396	15.0	3.0	54	100	0.1%	0.2%
Meade Public Library	Meade	9	1,538	1.5	1.5	70	200	0.8%	2.2%
Medicine Lodge/Lincoln Library	Barber	4	1,917	0.8	0.8	40	90	0.4%	0.9%
Meriden Community Library	Jefferson	9	2,726	1.5	1.5	120	120	2.3%	2.3%
Minneapolis Public Library	Ottawa	8	1,978	5.3	3.9	45	55	1.0%	1.2%
Minneola City Library	Clark	3	638	1.5	1.5	60	60	2.7%	2.7%
Moline Public Library	Elk	4	426	4.1	0.5	45	45	4.4%	4.4%
Montezuma Township Library	Gray	6	1,542	1.5	1.5	99	99	2.1%	2.1%
Moran Public Library	Allen	5	522	3.0	0.6	25	25	2.0%	2.0%
Mound City/Linn County Lib Dist #4	Linn	8	1,388	5.6	0.8	25	25	0.2%	0.2%
Mound Valley Public Library	Labette	4	407	0.5	0.3	81	81	10.9%	10.9%
Moundridge Public Library	Mcpherson	2	1,636	1.5	1.0	35	70	0.5%	1.1%
Mt Hope Public Library	Sedgwick	6	1,184	1.5	1.5	30	50	1.1%	1.8%
Mulvane Public Library	Sumner	4	5,866	14.3	5.7	54	100	0.4%	0.7%
Neodesha/W A Rankin Memorial	Wilson	9	2,633	5.0	5.0	50	70	0.6%	0.8%
Ness City Public Library	Ness	5	1,261	1.5	1.5	113	1325	1.3%	14.7%
Newton Public Library	Harvey	22	18,133	2.6	2.8	70	70	0.1%	0.1%
Nickerson Public Library	Reno	1	1,144	20.4	6.5	54	100	2.5%	4.7%
Norcatur Public Library	Decatur	3	144	10.1	4.4	53	203	18.9%	72.3%
Norton Public Library	Norton	11	2,651	9.5	3.8	53	203	0.4%	1.6%
Nortonville Public Library	Jefferson	7	961	1.5	1.5	35	180	0.9%	4.8%
Norwich Public Library	Kingman	6	499	30.0	30.0	70	129	9.7%	18.0%
Oakley Public Library	Logan	7	1,844	5.8	2.9	43	100	0.3%	0.8%
Oberlin City Library	Decatur	7	1,656	10.3	11.6	53	203	1.1%	4.2%
Olathe Public Library	Johnson	87	119,993	10.0	0.0	115	200	0.0%	0.1%
Osage City/Lieber Public Library	Osage	12	2,824	1.5	1.5	80	179	0.6%	1.2%
Osawatomie Public Library	Miami	7	4,488	1.5	1.5	79	120	0.7%	1.1%
Osborne Public Library	Osborne	6	1,354	10.1	2.9	53	203	0.9%	3.6%
Oskaloosa Public Library	Jefferson	8	2,128	1.5	1.5	45	180	0.7%	2.9%
Oswego Public Library	Labette	7	1,979	1.9	0.5	25	25	0.5%	0.5%

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Library	County	Public Access Computers	Population	Current Connection (Mbps)		Alternative Cost Range (\$)		Alternative Cost as % of Budget	
				Download	Upload	Low	High	Low	High
Library									
Otis Community Library	Rush	3	302	1.5	0.8	38	150	2.7%	10.6%
Ottawa Library	Franklin	28	12,850	3.0	3.0	38	63	0.1%	0.1%
Overbrook Public Library	Osage	10	928	1.5	1.5	120	120	1.9%	1.9%
Overland Park/Johnson County Lib	Johnson	369	414,097	60.0	60.0	3080	3080	0.2%	0.2%
Oxford Public Library	Sumner	1	1,068	3.6	0.3	50	150	1.8%	5.3%
Palco Public Library	Rooks	3	217	7.1	4.3	53	203	6.0%	22.8%
Paola Free Library	Miami	15	5,351	1.5	1.5	38	63	0.1%	0.2%
Park City Community Library	Sedgwick	10	7,787	19.0	9.0	54	100	0.3%	0.6%
Parker/Linn County Library Dist #1	Linn	4	2,004	1.5	1.5	81	81	1.9%	1.9%
Parsons Public Library	Labette	9	11,065	2.2	0.4	50	70	0.2%	0.2%
Partridge Public Library	Reno	4	250	1.5	1.5	38	70	2.3%	4.3%
Peabody Township Library	Marion	5	1,359	1.5	1.5	126	126	3.6%	3.6%
Phillipsburg City Library	Phillips	12	2,367	5.0	4.6	43	203	0.4%	2.0%
Pittsburg Public Library	Crawford	32	19,646	6.0	6.0	54	100	0.1%	0.1%
Plains Community Library	Meade	7	1,095	1.5	1.5	85	200	1.1%	2.5%
Plainville Memorial Library	Rooks	5	1,821	6.3	2.7	40	45	0.4%	0.5%
Pleasanton Lincoln Library	Linn	8	2,008	3.6	0.6	60	60	0.5%	0.5%
Pomona	Franklin	4	945	3.7	0.7	120	120	5.6%	5.6%
Potwin Public Library	Butler	1	649	1.5	0.4	70	70	7.2%	7.2%
Prairie View/Sunshine City Lib	Phillips	3	127	3.3	0.4	33	203	6.4%	39.1%
Pratt Public Library	Pratt	12	9,411	7.5	3.5	70	90	0.3%	0.4%
Prescott City Public	Linn	5	271	3.6	0.6	60	60	7.2%	7.2%
Pretty Prairie Public Library	Reno	2	598	3.0	0.4	38	48	2.4%	3.0%
Protection Township Library	Comanche	9	727	1.5	1.5	99	99	3.4%	3.4%
Quinter/Jay Johnson Public Library	Gove	5	782	9.7	3.7	53	203	1.0%	3.8%
Randall Public Library	Jewell	2	70	1.7	0.3	36	300	5.4%	44.7%
Ransom Public Library	Ness	4	279	1.5	1.5	113	1325	5.8%	67.6%
Republic/Rae Hobson Mem Lib	Republic	2	133	1.0	1.5	28	203	5.2%	37.7%
Richmond Library	Franklin	5	503	1.5	1.5	120	120	5.0%	5.0%
Riley City Library	Riley	4	1,026	1.5	1.5	85	85	6.8%	6.8%
Rose Hill Library	Butler	4	4,034	2.1	0.4	54	100	0.7%	1.3%
Rossville Community Library	Shawnee	8	2,212	1.5	1.5	120	120	1.7%	1.7%
Russell Public Library	Russell	6	4,217	9.9	4.8	53	203	0.4%	1.5%

Library	County	Public Access Computers	Population	Current Connection (Mbps)		Alternative Cost Range (\$)		Alternative Cost as % of Budget	
				Download	Upload	Low	High	Low	High
Sabetha/Mary Cotton Public Library	Nemaha	12	2,482	1.5	1.5	46	85	0.4%	0.8%
Salina Public Library	Saline	56	46,483	15.0	1.0	55	125	0.0%	0.1%
Salanta/Dudley Township Pub Lib	Haskell	5	1,622	1.5	1.5	104	1485	1.7%	24.5%
Savonburg Public Library	Allen	5	86	3.2	2.0	60	60	6.8%	6.8%
Scandia City Library	Republic	4	343	3.9	0.4	40	300	3.9%	29.4%
Scott City/Scott County Library	Scott	10	4,577	2.7	2.9	65	65	0.3%	0.3%
Sedan Public Library	Chautauqua	4	1,168	4.9	0.6	38	43	1.7%	1.9%
Sedgwick/Lillian Tear Library	Harvey	4	1,667	16.0	7.1	54	100	1.4%	2.6%
Selden Public Library	Sheridan	2	178	5.3	0.6	43	203	11.6%	54.6%
Seneca Free Library	Nemaha	11	2,013	1.5	1.5	46	85	0.5%	0.9%
Sharon Springs Public Library	Wallace	4	657	2.7	2.3	60	124	2.4%	5.1%
Sharon/Wisner Library	Barber	1	185	0.1	0.1	45	45	39.1%	39.1%
Silver Lake Library	Shawnee	5	2,119	1.5	1.5	120	120	0.9%	0.9%
Smith Center Public Library	Smith	3	1,644	8.6	3.8	53	203	0.8%	3.1%
Solomon Public Library	Dickinson	3	1,077	1.5	1.5	65	65	2.3%	2.3%
South Haven Township Library	Sumner	1	539	0.5	0.6	30	60	4.1%	8.2%
Spearville Township Library	Ford	6	1,232	1.5	1.5	99	99	1.9%	1.9%
St Marys/Pottawatomie Wabaunsee R	Pottawatomie	43	22,468	1.5	1.5	80	80	0.2%	0.2%
St Paul/Graves Memorial Public Lib	Neosho	9	939	1.5	1.5	45	45	1.4%	1.4%
St. Francis Public Library	Cheyenne	3	1,282	2.3	0.4	38	63	1.2%	2.0%
St. John/Ida Long Goodman Mem Lib	Stafford	7	1,173	1.5	1.5	30	49	1.2%	2.0%
Stafford/Nora E Larabee Mem Lib	Stafford	3	1,028	1.7	0.4	43	63	1.4%	2.0%
Sterling Free Public Library	Rice	6	2,535	16.9	6.5	54	100	0.2%	0.4%
Stockton Public Library	Rooks	10	1,402	9.4	4.3	53	203	0.7%	2.9%
Sublette/Haskell Township Library	Haskell	3	1,816	3.0	3.0	70	70	0.7%	0.7%
Sylvan Grove Public Library	Lincoln	2	286	0.1	1.0	88	220	5.6%	14.1%
Sylvia Public Library	Reno	2	292	1.6	0.6	50	70	7.6%	10.6%
Syracuse/Hamilton County Library	Hamilton	6	2,631	1.5	1.5	65	1485	0.5%	10.6%
Thayer/Friday Reading Club City Lib	Neosho	5	487	3.1	0.6	25	25	2.1%	2.1%
Tonganoxie Public Library	Leavenworth	23	4,305	3.0	3.0	43	63	0.2%	0.2%
Topeka & Shawnee County Public Lib	Shawnee	186	170,378	17.5	39.6	1550	1550	0.1%	0.1%
Toronto Public Library	Woodson	5	265	2.8	0.6	25	25	3.5%	3.5%
Towanda Public Library	Butler	4	1,359	24.3	5.5	54	100	1.3%	2.4%

Library	County	Public Access Computers	Population	Current Connection (Mbps)		Alternative Cost Range (\$)		Alternative Cost as % of Budget	
				Download	Upload	Low	High	Low	High
Tribune/Greeley County Library	Greeley	6	1,266	1.5	1.5	65	65	0.9%	0.9%
Troy/Library District #1	Doniphan	26	7,319	10.0	6.8	85	85	0.3%	0.3%
Turon Community Library	Reno	2	428	1.5	1.5	45	45	4.6%	4.6%
Udall Public Library	Cowley	2	743	3.9	0.2	43	150	5.3%	18.6%
Ulysses/Grant County Library	Grant	29	7,395	2.0	1.0	104	1262	0.2%	2.8%
Utica Library Association	Ness	2	188	1.5	1.5	38	113	6.9%	20.4%
Valley Center/Edna Buschow Mem Lib	Sedgwick	5	6,521	5.0	1.0	54	100	0.3%	0.5%
Valley Falls/Delaware Township Lib	Jefferson	10	2,046	1.5	1.5	45	180	0.7%	3.0%
Vermillion Public Library	Marshall	5	95	1.5	1.5	90	909	34.5%	348.6%
Viola Township Library	Sedgwick	1	646	4.0	0.5	45	50	7.5%	8.3%
Wakeeney Public Library	Trego	7	1,716	10.6	4.2	53	203	0.8%	3.2%
Wakelield Public Library	Clay	5	870	5.9	0.5	65	65	2.1%	2.1%
Walnut Public Library	Crawford	4	219	1.0	0.5	60	60	19.4%	19.4%
Walton Community Library	Harvey	4	286	3.2	0.8	80	80	20.8%	20.8%
Warrego Public Library	Pottawatomie	9	4,312	1.5	1.5	100	100	0.6%	0.6%
Washington Library	Washington	3	1,105	1.5	1.5	60	60	1.2%	1.2%
Waterville Public Library	Marshall	6	616	1.5	1.5	75	75	3.2%	3.2%
Weir Public Library	Cherokee	4	703	0.5	0.5	60	60	3.9%	3.9%
Wellington Public Library	Sumner	4	7,735	6.0	0.5	66	150	0.4%	0.8%
Wellsville City Library	Franklin	9	1,737	1.5	1.5	50	50	0.7%	0.7%
Wetmore Public	Nemaha	5	341	1.5	1.5	50	50	2.9%	2.9%
White City Public Library	Morris	5	525	1.5	1.5	85	85	72.6%	72.6%
Whitewater Memorial Library	Butler	4	633	2.5	0.4	43	63	1.1%	1.6%
Wichita Public Library	Sedgwick	88	372,186	1.5	1.5	54	100	0.0%	0.0%
Williamsburg Library	Franklin	9	357	1.5	1.5	38	63	1.3%	2.2%
Wisley/Elm Creek Township Library	Morris	4	363	1.5	1.5	85	85	13.7%	13.7%
Wilson/Lang Memorial	Ellsworth	7	758	1.3	0.4	88	220	4.9%	12.2%
Winchester Public Library	Jefferson	6	1,282	1.5	1.5	120	120	4.3%	4.3%
Winfield Public Library	Cowley	10	11,497	10.0	2.0	54	100	0.1%	0.2%
Yates Center Public Library	Woodson	8	1,376	1.5	1.5	110	110	2.3%	2.3%
Zenda Public Library	Kingman	2	190	0.5	0.4	35	150	3.7%	15.9%

9-14

## Federal Communication Commission (FCC): National Broadcast Plan

The following was taken from the Executive Summary of the FCC's National Broadband Plan:

Broadband is the great infrastructure challenge of the early 21st century.

Like electricity a century ago, broadband is a foundation for economic growth, job creation, global competitiveness and a better way of life. It is enabling entire new industries and unlocking vast new possibilities for existing ones. It is changing how we educate children, deliver health care, manage energy, ensure public safety, engage government, and access, organize and disseminate knowledge.

Fueled primarily by private sector investment and innovation, the American broadband ecosystem has evolved rapidly. The number of Americans who have broadband at home has grown from eight million in 2000 to nearly 200 million last year. Increasingly capable fixed and mobile networks allow Americans to access a growing number of valuable applications through innovative devices.

But broadband in America is not all it needs to be. Approximately 100 million Americans do not have broadband at home. Broadband-enabled health information technology (IT) can improve care and lower costs by hundreds of billions of dollars in the coming decades, yet the United States is behind many advanced countries in the adoption of such technology. Broadband can provide teachers with tools that allow students to learn the same course material in half the time, but there is a dearth of easily accessible digital educational content required for such opportunities. A broadband-enabled Smart Grid could increase energy independence and efficiency, but much of the data required to capture these benefits are inaccessible to consumers, businesses and entrepreneurs. And nearly a decade after 9/11, our first responders still lack a nationwide public safety mobile broadband communications network, even though such a network...

### Long-Term Goals:

... The plan recommends that the country adopt and track the following six goals to serve as a compass over the next decade.

Goal No. 1: At least 100 million U.S. homes should have affordable access to actual download speeds of at least 100 megabits per second and actual upload speeds of at least 50 megabits per second.

Goal No. 2: The United States should lead the world in mobile innovation, with the fastest and most extensive wireless networks of any nation.

Goal No. 3: Every American should have affordable access to robust broadband service, and the means and skills to subscribe if they so choose.

Goal No. 4: Every American community should have affordable access to at least 1 gigabit per second broadband service to anchor institutions such as schools, hospitals and government buildings.

Goal No. 5: To ensure the safety of the American people, every first responder should have access to a nationwide, wireless, interoperable broadband public safety network.

Goal No. 6: To ensure that America leads in the clean energy economy, every American should be able to use broadband to track and manage their real-time energy consumption.

Meeting these six goals will help achieve the Congressional mandate of using broadband to achieve national purposes, while improving the economics of deployment and adoption. In particular, the first two goals will create the world's most attractive market for broadband applications, devices and infrastructure and ensure America has the infrastructure to attract the leading communications and IT applications, devices and technologies. The third goal, meanwhile, will ensure every American has the opportunity to take advantage of the benefits broadband offers, including improved health care, better education, access to a greater number of economic opportunities and greater civic participation.

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