Before the
Federal Communications Commission
Washington, D.C. 20554

In the Matter of	)
	)
Applications of Charter Communications, Inc.,	)
Time Warner Cable Inc., and Advance/Newhouse	)
Partnership	) MB Docket No. 15-149
	)
For Consent to the Transfer of Control of	)
Licenses and Authorizations	)

Initial Comments of the Coalition for Broadband Equity

The Coalition for Broadband Equity ("CBE") submits these comments in response to the Applications of

Charter Communications Inc., Time Warner Cable Inc. and Advance/Newhouse Partnership for Consent

to the Transfer of Control of Licenses and Authorizations (the "Applications"). CBE is a coalition

formed by certain agencies of local government, educational institutions, libraries and community

organizations in the cities of Cleveland, Akron, Dayton and Youngstown, OH; Cuyahoga, Greene and

Lorain Counties, OH; the city of Milwaukee, WI; the city of Winston-Salem, NC; and the cities of

Kansas City, MO and Kansas City, KS. All of our member organizations and communities are wholly or

partially located within the service territory of Time Warner Cable ("TWC"), and thus would be directly

affected by the proposed transfer of cable Internet services from TWC to Charter Communications ("New

Charter").

Fifteen of CBE's twenty-one member organizations were participants in large-scale "Sustainable

Broadband Adoption" or "Public Computer Center" projects funded by the Federal Broadband

Technology Opportunities Program ("BTOP") between 2010 and 2013, and all but one have direct recent

experience in promoting Internet literacy and broadband access for digitally underserved individuals and

households in our communities. (See Appendix I for more information.)

In these Initial Comments, CBE members neither support nor oppose the Applications *per se*. Rather, our purpose is to ask the Commission, in determining whether the public interest would be served by approving the Applications, to consider:

 a) the Applicants' track record of making broadband Internet services fully and equitably accessible to residents of the local communities we serve (see Section II);

 b) the state of Internet access in our communities nearly a decade or longer after the Applicants became their dominant cable providers, including the extent to which low income households remain unconnected to mainstream broadband Internet service (see Section III);

c) how the state of broadband Internet access, including the number of low income households lacking mainstream Internet services, affects important areas of public interest and equity in our communities including childhood and adult education, employment, healthcare, access to financial information and services, human services and civic participation (see Section IV);

d) what commitments and future actions by the Applicants and their proposed successor, New Charter, are needed to ensure that approval of the Applications will serve the public interest in our communities, by reducing disparities in broadband Internet access and meaningful Internet use which adversely affect our lower-income neighbors and neighborhoods, as well as the community institutions which serve them (see Section V).

I. Description of Coalition for Broadband Equity participants and our experience in broadband adoption and access initiatives

The Coalition for Broadband Equity (CBE) is a coalition of public and nonprofit organizations, incorporated as an Ohio nonprofit corporation, formed for the specific purpose of representing its members' views, perspective and interests in the predecessor to this proceeding (*MB Docket No. 14-57: Applications of Comcast Corporation, Time Warner Cable Inc., Charter Communications, Inc. and SpinCo For Consent To Assign and Transfer Control of FCC Licenses and Other Authorizations*) , as well

as the broader shared purpose of reducing disparities in broadband Internet access and digital literacy affecting our communities. CBE member organizations joining in these Initial Comments include:

- Connect Your Community 2.0, Cleveland, OH

- OneCommunity, Cleveland, OH

- Cuyahoga Community College, Cleveland, OH

- Cleveland Housing Network, Cleveland, OH

- Ashbury Senior Computer Community Center, Cleveland, OH

- Esperanza, Cleveland, OH

- Famicos Foundation, Cleveland OH

- Straightway Project, Cleveland, OH

- Akron Urban League, Akron, OH

- Lorain County Community College, Elyria, OH

- WinstonNet, Winston-Salem, NC

- Cuyahoga County Public Library, Parma, OH

- Public Library of Youngstown and Mahoning County, Youngstown, OH

- The City of Milwaukee, WI

- Housing Authority of the City of Milwaukee, WI

- Seeds of Literacy, Cleveland, OH

- Cleveland Tenants Organization, Cleveland, OH

- Dayton Metro Public Library, Dayton, OH

- Edgemont Neighborhood Coalition, Dayton, OH

- Greene County Public Library, Xenia, OH

- Connecting For Good, Kansas City, MO

In Appendix I we describe the involvement of each of these organizations in the U.S. Department of Commerce's Broadband Technology Opportunities Program (BTOP), and in other effective initiatives to reduce digital disparities in our respective local communities. To summarize, the members of the CBE share a longstanding commitment and hard-won expertise in promoting digital literacy and home broadband adoption by previously unconnected, mostly lower-income residents of our communities.

II. Applicants have a poor track record of making broadband Internet services fully and equitably accessible to residents of the local communities we serve. In each of our communities, Time Warner Cable has been the sole or dominant cable provider for at least the past nine years. According to the most recent American Community Survey (see Table 1), cable Internet accounted for a majority of fixed home broadband subscriptions in each of our cities in 2014 , ranging from a low of at least 50% in Cleveland (compared to DSL's 29%) to a high of 71% in Winston-Salem. (We say "at least" because ACS' category "Two or more fixed broadband types" undoubtedly includes some additional cable accounts.)

So it's fair to describe TWC as our communities' leading residential Internet provider – presumably deriving substantial profits from that position.

Yet CBE's member organizations have seen little effort by TWC to support digital literacy and access initiatives for our underserved residents and neighborhoods, or to provide affordable service options for low-income households. For example, that unlike Comcast and Cox, TWC (like Charter) has never followed through on the creation of a Connect2Compete program to provide affordable Internet accounts for families of K-12 students in the Federal school lunch program, beyond a small initial pilot effort. Nor, to our knowledge, has TWC ever offered discounted rates or other broadband adoption support for any

other disadvantaged residents in our communities.[1]

As we discuss in Section III, all of the cities served by CBE member organizations have large percentages of our households still living without mainstream broadband Internet access – indeed, any kind of home access including mobile or dial-up. Cleveland, Milwaukee, Dayton, and Kansas City (MO) are among the nation's worst-connected large cities in terms of fixed household broadband connections. (See Table 2.) So TWC's failure to take leadership or contribute to collaborative community efforts to increase broadband adoption in our cities is particularly troublesome, and in our view should raise significant public interest concerns for the Commission.

"Everyday Low Price". The only exception to this bleak picture is TWC's "Everyday Low Price" offering, launched in 2013, which advertises 2 mbps download and 1 mbps upload for $14.99 a month plus the modem rental fee, or about $22 a month. TWC Everyday Low Price is advertised as an ongoing service tier, not a promotional price. This product is clearly intended to be affordable to lower-income households; and (though the bandwidth is far too limited to qualify as "mainstream") it does fill that niche for some of our clients. Unfortunately, the TWC Everyday Low Price option seems likely to vanish if the Applications are approved. Charter offers no comparable low-end affordable option, and there is nothing in the Applicants' filings to suggest that New Charter intends to create one for the public at large. (The Applicants' Public Interest Statement promises to "*build upon Bright House Networks' broadband program for low-income consumers by making a broadband offering available with higher speeds and expanded eligibility while continuing to offer the service at a significant discount";* but this apparently refers to a special program limited to school-lunch-eligible households, not to a generally available rate tier.)

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[1] On this point, we should note that a grant program operated in Cleveland by the Cleveland Foundation, called the "Time Warner / Cleveland City Council Neighborhood Technology Fund", has never in fact received funding or other resources from TWC. The Fund, which makes small annual operating grants to about a dozen community computer programs, was created with a $3 million grant from Adelphia Communications, TWC's local predecessor, as part of a franchise transfer agreement wih City Council in 2000. When TWC took over the franchise from Adelphia in 2006 it arranged to have the Fund's name changed and assumed a seat in the grantmaking committee, but has never made a contribution of its own to the Fund's dwindling balance. TWC also withdrew a longstanding commitment by Adelphia to provide cable modem service at no cost to Cleveland neighborhood access and training centers, like those supported by the Fund.

III. Considering that TWC has long been our dominant home broadband provider, the state of household Internet access in our communities must raise significant concerns about the Applicants' ability and/or willingness to serve all of our residents equitably – especially lower-income households.

According to the most recent American Community Survey, released in September by the U.S. Census, the percentages of households in cities served by CBE members which lacked any fixed broadband Internet service in 2014 ranged from 35% in Winston-Salem and Kansas City (MO) to 50% in Dayton, 51% in Youngstown and 54% in Cleveland. The non-connection percentages for Milwaukee, Kansas City (KS) and Lorain were in the mid-40s. (See Table 1.)

These percentages place Cleveland, Dayton, Kansas City (KS) and Youngstown among the worst-connected cities in the U.S. with respect to mainstream household broadband access. Table 2 shows the 25 U.S. cities with the highest percentages of homes lacking fixed broadband service, among the 184 cities with more than 50,000 households. The median percentage for all 184 cities is 30.4%. Cleveland ranks third worst-connected at 53.6%; Dayton is fifth worst at 49.7%; Kansas City comes in eighth at 47.2%.   Youngstown isn't big enough to appear in this ranking; but its 50.8% of households without fixed broadband connections is worse than all but three of the bigger cities on the list.

(Note that the top ten "worst-connected" on this list includes three additional TWC cities -- Rochester, Laredo and Greensboro.)

Further examination of the available data makes clear that Internet access disparities among residents of our communities are far from random. Lower income households are far less likely than those with higher incomes to have *any* kind of Internet access at home -- not just fixed broadband services like cable and DSL, but even mobile or dial-up access. Table 3 displays 2014 American Community Survey data on households with no home Internet access of any kind, by income cohorts. In each of CBE members' communities, ***over half*** *of households with incomes below $20,000 lacked home Internet access.* The no-Internet percentages are 12% to 19% lower in the $20,000-$35,000 cohort, and continue to fall

consistently and dramatically through the higher income groups. The association between lack of access and lower household income is inescapable.

This association is also strikingly clear in the Commission's own data from Internet providers, reported via Form 477 reports. Table 4 shows Form 477 Census tract data for the cities served by CBE members for December 2013, published on the Commission's website in October 2014 – the most recent data available. It groups the Census tracts in CBE cities with low fixed-broadband connection rates according to this data (codes 1 and 2, denoting fewer than 400 connections per 1,000 households) by their poverty rates as reported in the 2014 American Community Survey. What the chart shows unmistakably is that *Census tracts with low broadband connection rates are overwhelmingly Census tracts with high poverty rates.* In the aggregate, 59% of the low-connection tracts in our cities identified by Form 477 data had more than 40% of their residents living in poverty, and another 38% had poverty rates between 20% and 40%. Only 12 (3%!) of our total 346 low-connection tracts were less than 20% poor.

The weight of the broadband connection gap in our cities falls heavily, not just on our lower-income *neighbors*, but also on our lower-income *neighborhoods*.

IV. The state of broadband Internet access, including the number of low income households lacking mainstream Internet services, affects important areas of public interest and equity for our communities.

So the data confirm that our communities have very large populations that remain disconnected from mainstream Internet access, that these populations mostly consist of lower-income households, and that our high-poverty neighborhoods also have low rates of household broadband connection. These facts are no surprise to CBE's member organizations – or, we would guess, to the Commission or even the Applicants. But having been confirmed by the data, why do we believe these facts raise important issues to be considered by the Commission in weighing the public interest implications of the Applications?

To start with, low-income citizens are members of "the public" just as surely as their better-off fellow

citizens, and their personal interests which may be affected by the Applications should weigh just as heavily in the Commission's deliberations. The Applicants – in particular TWC – have dominated the home Internet markets in our communities for years, but have failed to act creatively or collaboratively to remove barriers and create affordable products for 30%, 40% or 50% of households in those markets. The Commission should ask the Applicants to show, clearly and affirmatively, how approval of the Applications will cause them to break this pattern and start serving the interests of these unserved and unconnected members of our public.

Second, the Applicants' years of failure, as our dominant Internet provider, to engage and connect hundreds of thousands of lower-income households has helped to create a digital chasm within our communities – a chasm in digital understanding, skills and access -- which now impedes progress on important community interests. Among the important "community public interests" put at risk by our communities' persistent, income-driven broadband access gaps are are:

- our communities' critical need to get low-income and older workers effectively engaged in a job market that is conducted almost entirely on line;

- efforts by our local healthcare providers to bring Medicaid and other low-income patients into the electronic medical records system;[2]

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[2] A countywide telephone survey commissioned by OneCommunity's Connect Your Community Project, and carried out in October 2012, found that only 38% Medicaid clients in the city of Cleveland and adjacent lower-income suburbs were fixed home broadband users. See http://connectyourcommunity.org/wp-content/uploads/2015/01/Cuyahoga-County-Survey-of-Internet-Access-and-Use.pdf .

A recent analysis of MetroHealth's 75,000 MyChart users by researchers from the Center for Health Care Research and Policy found that only about 20% of the system's Medicaid-covered patients had logged in, compared to 36% of commercially insured patients. They also found, looking at the percentages of users who engaged in "Common PHR Activities" such as reading messages, viewing lab results, checking allergies and requesting advice, that "Medicaid and uninsured patients had noticeably lower levels of use across all categories". The researchers characterize this pattern as "An Emerging Inequality", and comment that "Differences in the uptake and use of PHRs could increase or exacerbate health disparities." See http://connectyourcommunity.org/metrohealth-study-finds-emerging-inequality-in-online-health-record-adoption-use/.

MetroHealth's Chief Informatics Officer, Dr. David Kaelber, expanded on this concern in a June 10, 2015 letter to the Broadband Opportunity Council: "MetroHealth can already see Cleveland's economic digital divide reflected in our MyChart user data... There is good reason for concern that this disparity may widen, as continuing

- the use of online tools and resources to improve K-12 education, in urban school systems whose students come largely from low-income homes;

- our adult education providers' efforts to prepare the many thousands of our adult residents who lack high school diplomas for a new, totally computerized national GED testing system which demands digital test-taking skills;

- the ability of state and county governments to adopt online tools to serve clients of our unemployment compensation, food assistance, Medicaid and other human services systems more efficiently and equitably, without simply throwing less connected clients overboard;

- local governments' and civic organizations' ability to use online tools and resources to expand citizens' access and accountability, increase civic participation and improve public safety and service delivery – all while large numbers of our citizens lack both the ready access and digital literacy to make use of these tools.

CBE members urge the Commission to consider whether approving the Applications will lead to changes in the Applicants' investment, products, and marketing and customer acquisition practices within our local communities which better support these difficult but important efforts – for example, by providing new paths to digital connection and inclusion for low-income jobseekers, Medicaid patients, GED trainees, schoolchildren and parents, human services clients and voters.

V. What commitments and future actions by the Applicants and their proposed successor, New Charter, are needed to ensure that approval of the Applications will serve the public interest in our communities?

Of course CBE's members are aware that the proposed creation of "New Charter" from the merger of Charter, TWC and Bright House Networks will, to some extent, place TWC's operations in our communities under new management. The replacement of TWC by New Charter would undoubtedly

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efforts to add MyChart users run up against the limited supply of lower-income patients who are actually able to respond."

represent an opportunity for new relationships and priorities to emerge. Among other changes would be an immediate, dramatic improvement in the "normal" broadband speeds available to household subscribers.   We hope for a similarly dramatic improvement in the Applicants' approach to hundreds of thousands of potential new low-income customer households in our communities, and to collaboration with community partners to help those households become effective broadband users.

To this end, CBE's members ask the Commission to condition its approval of the Applications on two minimum commitments from the Applicants, to insure that approval will lead to meaningful increases in broadband Internet use by our communities' lower-income households, reduce digital disparities among our neighborhoods, and enable our community institutions to fully embrace digital tools without fear of marginalizing large numbers of their constituents.

Proposed commitment #1: A truly affordable Internet service tier or program for all low-income households. In their *Public Interest Statement,* pp 14-15, the Applicants state: *"New Charter will build upon Bright House Networks' broadband program for low-income consumers by making a broadband offering available with higher speeds and expanded eligibility while continuing to offer the service at a significant discount, and will begin making the offer available within six months after the transaction closes and across the New Charter footprint within three years of closing."* No additional information about the proposed program, including proposed cost, speed, or eligibility, is on the record as yet.

Bright House Network's existing low-income discounted rate program, Connect2Compete, is a limited-bandwidth service costing $9.95 a month, and limited to families with children enrolled in K-12 education and eligible for Federal free school lunches. The Applicants refer to "*higher speeds and expanded eligibility while continuing to offer the service at a significant discount"*.

Families of K-12 students are a large and important part of our communities' low-income populations, and enabling those families to connect to affordable broadband is an obvious priority for every community. But these families are a still minority of poor households likely to be without Internet access. In Cleveland, for example, households in poverty in 2014 (according to the American Community

Survey) included about 22,700 families with children below age 18, about 6,400 families without children, and about 44,600 unrelated individuals . Even if 80% of the families with children were eligible for school lunches, those families would have constituted only a quarter of Cleveland's poor households. These proportions will vary among communities, but the general truth remains: A broadband discount program limited to school-lunch eligible families will not adequately address the broad digital exclusion problem facing our low income residents and neighborhoods.

So we welcome the Applicants' initiative, but ask the Commission to seek the following specifics:

> a) Eligibility for discounted rates should be open to all low-income households. We suggest using telephone Lifeline program eligibility as the standard. (The discount price should also be available to community facilities such as computer centers which provide Internet access for low-income residents.)

> b) Speed and quality of service should not be unreasonably inferior to standard residential accounts. If New Charter's minimum residential Internet speed is 60 mbps download (as Charter's is now), then the discount program should offer at least 15 to 30 mbps..

> c) CBE's experience suggests strongly that holding the monthly cost of the program to $9.95 is the best way to encourage large-scale takeup. The Commission should seek this price commitment, subject to a showing by the Applicants that it will fail to recover the program's real operating costs other than marketing.

Proposed commitment #2: The low income discount program should include ambitious, accountable participation goals, supported by a major commitment of marketing dollars. The Commission should seek specific annual commitments over a five year period, with effective mechanisms to monitor progress and incentivize compliance. CBE recommends:

> a) Applicants should commit to sign up at least 200,000 households a year for New Charter's low-income discount service -- one million by 2021.
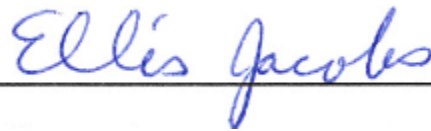
b) Applicants should commit to spend at least $50 million a year (an amount equivalent to 2.5% of Charter and TWC's combined 2014 residential marketing budgets) on marketing and new customer support for the discount initiative. Combined with the sign-up goals described in point a), this would represent an reasonable average investment of $200 per new discount customer household.

The Commission should seek to ensure that, wherever possible, New Charter prioritizes these marketing expenditures to support direct outreach and training partnerships with community-based digital literacy programs in underserved communities.

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Respectfully submitted,

Coalition for Broadband Equity

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Appendix 1. Coalition members' experience in promoting broadband adoption and access

1) CBE members' involvement in the Broadband Technology Opportunities Program

The first eleven of the CBE member organizations listed above were contractual partners or active participants in the Connect Your Community (CYC) Project, a U.S. Department of Commerce Broadband Technology Opportunities Program Sustainable Broadband Adoption project operated from 2010 to 2013 by Cleveland-based OneCommunity. OneCommunity's CYC Project engaged fifteen community-based nonprofit partners to recruit, train, equip and support new broadband adopters in eight localities in Ohio, Michigan, Kentucky, North Carolina and Florida. The CYC Project exceeded its goal of 26,000 documented "Sustainable Broadband Adopters" including about 23,000 previously unconnected home broadband subscribers, and provided free basic computer training to more than 33,000 individual adult participants in the process. The 20-hour CYC classes were conducted by CYC Corps Members and volunteers in more than 350 separate community locations.[11]

During the same period, the Cuyahoga County and Youngstown/Mahoning County Public Libraries were active partners in another BTOP SBA project, Connected Nation's "Every Citizen Online".[22] Over the course of the program, Cuyahoga County Public Library served 10,523 participants at 13 locations. CCPL's locations were just 6% of the program's total locations in Ohio but saw 11% of the attendees in the state. The Youngstown/Mahoning County Public Library made a more modest but still significant contribution to the program.

The City of Milwaukee, in partnership with the Milwaukee Public Library, the Housing Authority of the City of Milwaukee, the Milwaukee Area Workforce Investment Board and the United Community Center, received a BTOP Public Computer Center grant in 2011 to create and operate a program called

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1   See http://www.connectcommunity.org for more information.

2   See http://connectohio.org/every-citizen-online for an overall description of the program.

Connecting Milwaukee Communities. The program improved and expanded the city's network of public access computer centers, including Milwaukee Public Library neighborhood branches, a Senior Center and Housing Authority sites which serve both Authority tenants and the public. The BTOP program provided formal computer training to 7,332 city residents in 2012 and 2013. Though the BTOP program concluded in 2013, the public access computer centers continue to operate.[33]

All told, since 2010 the Coalition's members worked with the Department of Commerce's Broadband Technology Opportunities Program to provide digital literacy training and broadband adoption support to residents of at least 25,000 mostly low income Ohio households in Cuyahoga, Summit, Lorain and Mahoning Counties; as many as 7,000 households in Milwaukee; and at least 1,500 households in Winston-Salem. The members affiliated with the OneCommunity Connect Your Community Project documented at least 9,000 new residential broadband subscribers in these communities as a direct result of the Project's efforts, of whom over 80% subscribed to unsubsidized commercial ISP services after CYC training.

2) Other CBE members' experience in promoting broadband adoption and access

- The Edgemont Neighborhood Coalition of Dayton is a community organization in Dayton's oldest African-American neighborhood. It provides educational programs, operates a community garden and green house, and runs a community computing center. Since 1996 it has been active in efforts to expand access to telecommunications in low income communities and to overcome the digital divide.

- Connecting for Good has been bridging the Digital Divide in low income neighborhoods of Kansas City (both Missouri and Kansas) since 2011 with wireless mesh networks, community technology centers, low cost refurbished PCs and free digital life skills classes. It is the only

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3   See http://www2.ntia.doc.gov/files/grantees/city_of_milwaukee.pdf.

Kansas City area nonprofit, that has digital inclusion as its core mission.

- Dayton Metro Public Library and Greene County Public Library provide extensive computer and Internet access and training to thousands of residents of their respective counties who would otherwise remain unconnected.

- Seeds of Literacy has offered free and easily accessible adult literacy services in Cleveland since 1997. During this time, over 7,500 students have received basic education and GED preparation – over 1,200 in the past year. SOL now provides basic computer training to its GED students, including Northstar Digital Literacy Certification, to prepare them for the fully computerized GED testing process which was adopted nationwide in 2014.

TABLE 1. DISTRIBUTION OF HOUSEHOLDS AMONG TYPES OF FIXED BROADBAND SUBSCRIPTION AND NO FIXED BROADBAND, COALITION FOR BROADBAND EQUITY CITIES, 2014 AMERICAN COMMUNITY SURVEY

Cities served by Coalition for Broadband Equity members	Households	Households with fixed broadband subscrip-tions	Number of households per type of fixed broadband Internet subscription, and percent of all fixed broadband subscriptions											No fixed broadband: Number and percent of all households	
			Cable modem			DSL			Fiber-optic			Satellite Internet service		Two or more fixed broadband types, or other			
Akron	83,604	51,028	27,149	53.20%		9,858	19.32%		4,094	8.02%		803	1.57%	9,124	17.88%	32,576	38.96%
Cleveland	165,984	76,989	38,606	50.14%		22,255	28.91%		3,150	4.09%		1,728	2.24%	11,250	14.61%	88,995	53.62%
Dayton	56,251	28,302	17,121	60.49%		6,058	21.40%		1,006	3.55%		1,043	3.69%	3,074	10.86%	27,949	49.69%
Kansas City, MO	195,125	127,520	65,421	51.30%		18,884	14.81%		28,605	22.43%		3,996	3.13%	10,614	8.32%	67,605	34.65%
Kansas City, KS	55,680	29,411	13,111	44.58%		2,866	9.74%		9,332	31.73%		927	3.15%	3,175	10.80%	26,269	47.18%
Lorain	24,321	12,843	8,172	63.63%		2,431	18.93%		116	0.90%		187	1.46%	1,937	15.08%	11,478	47.19%
Milwaukee	233,161	132,575	85,061	64.16%		25,687	19.38%		9,214	6.95%		2,240	1.69%	10,373	7.82%	100,586	43.14%
Winston-Salem	95,771	62,492	44,310	70.91%		10,510	16.82%		1,500	2.40%		1,600	2.56%	4,572	7.32%	33,279	34.75%
Youngstown	26,934	13,243	7,458	56.32%		3,181	24.02%		450	3.40%		774	5.84%	1,380	10.42%	13,691	50.83%

Source: Table B28002, "PRESENCE AND TYPES OF INTERNET SUBSCRIPTIONS IN HOUSEHOLD", 2014 American Community Survey 1-Year Estimates

Table 2. Percentage of households without fixed broadband subscriptions				
184 cities with 50,000 or more households				
Source: 2014 American Community Survey 1-Year Estimates				
	Total households	*No fixed broadband subscriptions*		*Worst-connected rank*
		Number of households	*Percent of households*	
Median, all 184 cities			30.4%	
Top 25:				
Hialeah, FL	68,027	37,409	55.0%	1
Detroit, MI	253,490	138,849	54.8%	2
Cleveland, OH	165,984	88,995	53.6%	3
Memphis, TN	250,553	125,345	50.0%	4
Dayton, OH	56,251	27,949	49.7%	5
Brownsville, TX	50,340	24,984	49.6%	6
Rochester, NY	83,944	40,349	48.1%	7
Kansas City, KS	55,680	26,269	47.2%	8
Laredo, TX	66,985	30,591	45.7%	9
Greensboro, NC	113,350	51,407	45.4%	10
Jackson, MS	62,679	28,103	44.8%	11
New Orleans, LA	152,788	68,104	44.6%	12
Corpus Christi, TX	117,685	51,362	43.6%	13
Birmingham, AL	88,556	38,523	43.5%	14
Buffalo, NY	110,070	47,640	43.3%	15
Houston, TX	834,204	360,862	43.3%	16
Milwaukee, WI	233,161	100,586	43.1%	17
Cincinnati, OH	137,197	59,148	43.1%	18
Augusta-Richmond Co, GA	69,436	29,741	42.8%	19
Macon-Bibb Co, GA	56,052	23,996	42.8%	20
Baltimore, MD	238,897	102,262	42.8%	21
Baton Rouge, LA	91,034	38,962	42.8%	22
Springfield, MA	55,816	23,683	42.4%	23
Toledo, OH	116,450	49,151	42.2%	24
Dallas, TX	484,335	203,801	42.1%	25

TABLE 3. PERCENTAGES OF HOUSEHOLDS WITH INCOMES BELOW $20,000 WHICH REPORTED NO HOME INTERNET CONNECTIONS IN 2014, COMPARED TO HIGHER INCOME COHORTS (INCLUDES DIAL-UP AND MOBILE), COALITION FOR BROADBAND EQUITY CITIES

2014 American Community Survey 1-Year Estimates

Cities served by Coalition for Broadband Equity members	Households with annual income in 2014 of...						
	Less than $20,000			$20,000-34,999	$35,000-49,999	$50,000-74,999	$75000, and up
	All households	No Internet	% no Internet	% no Internet	% no Internet	% no Internet	% no Internet
Winston-Salem	24,195	12,848	53%	37%	18%	17%	7%
Akron	24,260	12,748	53%	40%	21%	19%	10%
Cleveland	69,718	41,166	59%	41%	27%	20%	13%
Dayton	22,012	11,354	52%	38%	27%	16%	10%
Lorain	7,163	4,514	63%	51%	43%	22%	15%
Youngstown	12,220	7,194	59%	41%	24%	25%	10%
Milwaukee	66,053	37,587	57%	44%	27%	18%	11%
Kansas City (MO and KS combined)	59,478	34,574	58%	39%	29%	17%	7%

Source: ACS Table B28004, "HOUSEHOLD INCOME IN THE LAST 12 MONTHS (IN 2014 INFLATION-ADJUSTED DOLLARS) BY PRESENCE AND TYPE OF INTERNET SUBSCRIPTION IN HOUSEHOLD"

TABLE 4. CONCENTRATION OF HOUSEHOLDS WITHOUT FIXED INTERNET CONNECTIONS IN HIGH-POVERTY CENSUS TRACTS, COALITION FOR BROADBAND EQUITY CITIES, DECEMBER 2013 (FCC FORM 477 CENSUS TRACT DATA)

Cities served by Coalition for Broadband Equity members	All Census tracts with households	Poverty rates of tracts where fewer than 40% of households had fixed broadband connections at 3 mpbs download or better in December 2014 (FCC Form 477 code 1 or 2)							
		Tracts < 40% fixed broadband		Poverty above 40% of residents		Poverty 20% to 40% of residents		Poverty below 20% of residents	
		Number	Percent of all tracts	Number	Percent of tracts < 40% fixed broadband	Number	Percent of tracts < 40% fixed broadband	Number	Percent of tracts < 40% fixed broadband
Youngstown	31	18	58%	12	67%	6	33%	0	0%
Cleveland	175	118	67%	67	57%	49	42%	2	2%
Dayton	63	25	40%	14	56%	9	36%	2	8%
Akron	59	21	36%	12	57%	9	43%	0	0%
Milwaukee	209	75	36%	53	71%	20	27%	2	3%
Winston-Salem	76	20	26%	14	70%	5	25%	1	5%
Kansas City (combined)	234	69	29%	31	45%	33	48%	5	7%
Lorain	18	0	0%	0	NA	0	NA	0	NA
Total, all CBE cities	865	346	40%	203	59%	131	38%	12	3%

Source: http://www.fcc.gov/Bureaus/Common_Carrier/Reports/FCC-State_Link/IAD/excel_tractdata_dec_2013.zip