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Tom Wheeler
Chairman
Federal Communications Commission
445 12th Street, SW
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    RE: MB Docket No. 14-57

Dear Chairman Wheeler:

This letter discusses an issue that has arisen in discussion of the proposed Comcast/Time Warner Cable merger, namely the rate at which eligible consumers have taken advantage of the Comcast Internet Essentials (IE) program.

The analysis in the following pages puts the uptake of IE in the context of national broadband adoption trends for low-income families with children. The analysis draws on my extensive experience in analyzing the pace and pattern of broadband adoption, which includes a decade at the Pew Research Center and work at the Federal Communications Commission on the development of the National Broadband Plan. To say the least, ongoing low rates of broadband adoption among the poorest American household remains a difficult and stubborn problem.

As noted in this analysis, what follows is not intended to take a position on the proposed merger.

                Sincerely,

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                John B. Horrigan, PhD

ANALYSIS OF UPTAKE RATES OF COMCAST INTERNET ESSENTIALS

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The proposed merger (MB Docket 14-57) between Comcast and Time Warner Cable (TWC) has elicited discussion about the Comcast Internet Essentials (IE) program and the rate at which eligible households have taken the service. As someone who has done extensive work on broadband adoption and use, including a 2014 survey of Comcast Internet Essentials customers, I want to offer a perspective on this issue. I have no position on the merits of the proposed Comcast-TWC merger and the following discussion should not be construed as taking a position.

Since IE began in 2011, the program has signed up 350,000 homes signed up out of 2.6 million eligible homes. This is a 13% uptake rate. Is that too high or too low?[1] To address this, it is important to place the discussion in the context of trends and challenges broadband adoption. Getting more people to adopt broadband at home is difficult, as the data below will show.

Trends

For purposes of understanding trends, I compare broadband adoption in 2009 and 2013 – two years for which data is publicly available for detailed analysis. The following table is based on analysis of combined datasets from the Pew Research Center (PRC) and the FCC for 2009 and combined PRC datasets for 2013. Because the goal is to understand adoption rates for low-income families with school age children, it is necessary to combine datasets to yield enough cases for proper statistical examination of segments of interest.[2]

The following table (Table A) shows broadband adoption rates in 2009 and 2013 for all adult Americans and low-income households with school-age children at home. Note that the table includes the number of cases in each category reported.[3]

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[1] It is quite possible that the 13% national IE uptake figures understate the rate at which low-income families with children have adopted IE. The figure for eligible households likely includes households that already have broadband (Table A below shows that half of low-income homes with school-age children have broadband) from other carriers or Comcast. This means some homes in the 2.6 million figure should be excluded from the uptake percentage; if that were done, a more accurate national uptake figure would be greater than 13%.

[2] A national survey of 2,200 Americans yields valuable information about the general population, but it is less helpful when the focus is on population segments, such as low-income families with school-age children, whose incidence is a fraction of the population. Focus on that segment requires the larger sample sizes that come from combining different data sets that measure the same things.

[3] The number of cases in the "all respondents" column is not the sum of the respondents in the low-income categories since "all respondents" includes those in income categories above the low-income thresholds.

Table A: Broadband Adoption from 2009 to 2013, Low-Income Households with School-Age Children

	Low-income respondents, i.e. annual household incomes of $20,000 or less	Low-income respondents, i.e., annual household incomes of $30,000 or less	All respondents all income level
2009	50%	54%	64%
Number of cases	287	451	7,258
2013	55%	60%	70%
Number of cases	311	522	8,477
% change '09-'13	10%	10%	9%
Sources: For 2009, data was combined from a May 2009 Pew Research Center survey and the FCC's November 2009 survey for the National Broadband Plan. For 2013, data was combined from surveys conducted in May and September of that year.			

The table shows that broadband adoption nationally has not grown rapidly since 2009, with a 9% growth rate according to combined data from Pew and (for 2009) the FCC. For respondents relevant to a discussion of Comcast IE, the results are about the same as national trends. Broadband adoption has grown by 10% over the 2009 to 2013 timeframe for those in homes with less than $20,000 annual income (some 54% of Comcast IE subscribers have household incomes below that threshold) and for those whose household incomes are below $30,000 annually (76% of IE customers). The 10% growth rate is less than Comcast's 13% IE sign-up rate since the program's inception in 2011, a shorter timeframe than the window discussed here.

Another way to think about IE and its impact is to compare the *number* of low-income households with broadband in 2009 and 2013 and see what share of that difference is attributable to IE. It is necessarily a rough estimate, as calculating this must account for changes in the number of households in America, changing poverty rates, while using estimates for changes in broadband adoption. Using the same poverty rate for children (20%) for 2009 and 2013 (which reflects recent reports of a decline in 2013 of the number of children in poverty) about 1.7 million *more* households with children living in poverty had broadband in 2013 than in 2009. With IE having added 350,000 such homes since 2011 (and assuming broadband adoption in this segment crept up a bit by 2011 from the 54% figure for 2009 in Table A), this means Comcast IE's program has accounted for about 25% of new broadband connections among low-income families with children since the program's inception. Approximately one-quarter of the overall broadband adoption growth rate for low-income families with children since 2009 can be credited to IE.

Challenges
Trend analysis of broadband adoption among poor families with children points to ongoing challenges in increasing broadband adoption for the poorest American households. Analysis conducted for the National Broadband Plan showed that, in 2010, low-income Americans and families with children were much more likely than other non-broadband adopters to cite cost as the main barrier to having service

at home.[4] My survey of Comcast IE customers conducted earlier this year found that recent adopters of IE were sensitive to price, with half having lost service in the past, notwithstanding the expectation such customers felt from schools that they (and their children) would have access at home.[5]

Even though cost plays a prominent role in keeping non-adopters from having service at home, research clearly shows that digital skills and insufficient understanding of the Internet's relevance are important as well. That is why programs such as IE – and many funded by the Commerce Department's Broadband Technology Opportunities Program – offer comprehensive help to non-adopters tailored to their needs, which include discounts on access equipment and digital skills training. Comprehensive approaches to addressing multiple barriers to adoption are seen as best practice in the field.[6]

Discussion
From the perspective of policymakers and other stakeholders, the question is how to assess uptake or growth rates that are barely in the teens. Are figures such as 10% or 13% sufficient when it comes to considering how well society has done in promoting broadband adoption? In my view, all stakeholders – in the public, non-profit, and corporate sector – must challenge themselves to do better. The data reviewed within indicate that the problem of broadband adoption for low-income households is a difficult one. Uptake Comcast's IE service has been, in light of the analysis presented here, better than market trends. And Comcast IE's contribution to adding broadband subscribers among low-income families with children has been substantial.

Conclusion
The foregoing discussion points to several conclusions:

1) The uptake of Comcast's IE program exceeds recent national trends in broadband adoption among low-income families with children.
2) IE has contributed to one-quarter (25%) of new broadband subscriptions among low-income families with children since the program began.
3) Overall, growth in home broadband adoption has been tepid in recent years – especially among low-income families with children.

The analysis presented should be a call to national action to address the low rate of broadband adoption in America's poorest communities. It is a challenge not just to Comcast, but also to those in the non-profit sector and all levels of government, to join together to improve broadband adoption rates in the United States. One single initiative or model, by Comcast or others in the private sector, is not likely to be of sufficient scale to meet a problem national in scope. That is why collaboration, investment, and partnerships among all stakeholders going forward is the right approach to increasing broadband adoption in the United States.

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[4] John B. Horrigan, "Broadband Adoption and Use in America." OBI Working Paper No. 1, February 2010, at pages 34 & 35. Available online at: https://apps.fcc.gov/edocs_public/attachmatch/DOC-296442A1.pdf
[5] John B. Horrigan, The Essentials of Connectivity, March 2014. Available online at: http://corporate.comcast.com/images/Final_IE_Research_Full_Paper.pdf
[6] See NTIA's "Broadband Adoption Toolkit" for more on best practice in such programs. Available online at: http://www2.ntia.doc.gov/files/toolkit_042913.pdf