

September 8, 2020

Kathy Smith, Chief Counsel
National Telecommunications and Information Administration (NTIA)
Department of Commerce
14th Street and Constitution Avenue NW
Washington, DC 20230

RE: NTIA Internet Use Survey Questionnaire Development (Docket No. 200813-0218)

Dear Ms. Smith,

On behalf of the Information Technology and Innovation Foundation (ITIF), we are pleased to submit these comments in response to the Computer and Internet Use Supplement for the Census Bureau's November 2019 Current Population Survey (CPS) designed to gather reliable data on Internet use by U.S. households.¹ ITIF is a nonprofit, non-partisan think tank committed to articulating and advancing a pro-productivity, pro-innovation, and pro-technology public policy agenda internationally, in Washington, and in the states. Through its research, policy proposals, and commentary, ITIF is working to advance and support public policies that boost innovation, digital transformation, and productivity.

ITIF applauds the Department of Commerce for continuing to broaden the scope of the U.S. Census Bureau's CPS questions on Internet and computer use, especially in emerging technology areas such as the sharing economy, the Internet of Things, and remote health monitoring. The Internet economy contributes to 3.4 percent of GDP in most large nations, and better information about how consumers and businesses use the Internet can help policymakers better promote adoption and use of these technologies.² However, there are still a number of key changes that can be made to the current survey questions to improve the quality, utility and clarity of the information to be collected.

¹ "NTIA Internet Use Survey Questionnaire Development," *Federal Register*, Vol. 85, No. 160, August 18, 2020, accessed September 3, 2020, <https://www.federalregister.gov/documents/2020/08/18/2020-18041/ntia-internet-use-survey-questionnaire-development>.

² James Manyika and Charles Roxburgh, *The Great Transformer: The Impact of the Internet on Economic Growth and Prosperity* (New York: McKinsey Global Institute, 2011).

ADDITIONAL AREAS OF INQUIRY FOR CPS

Technologies like broadband allow consumers to take on the role of producers in the economy and share in the delivery of a service.³ To better understand the true economic impact of broadband adoption, policymakers need to better understand individuals' activities online. To this end, we were pleased to see the addition of questions regarding how people use the Internet to participate in the sharing economy.⁴ However, ITIF recommends adding additional questions to provide more information on the subject.⁵ Specifically, ITIF suggests adding the following questions:

- During the past year, how much money [have you/has any member of your household] spent on goods or services that you have ordered online? *This question could be answered on a multiple-choice scale where answers are numerical dollar amounts (e.g., Less than \$100, Between \$100 - \$500, etc.).*
- How much of the above was spent on physical goods that were delivered to your household? How much of the above was spent on online services? *These questions could be multiple-choice and percentage based, between 0 and 100 percent.*
- How often during the past year [have you/has any member of your household] used websites in which you rate consumer goods or services? Examples include Yelp, TripAdvisor, and HealthGrades.
- How often during the past year [have you/has any member of your household] used an online government service? Examples include paying your taxes online, renewing a driver's license online, or applying for government benefits.

In addition to the above questions about e-commerce, ITIF suggests adding additional questions to the survey regarding consumer activities that will measure important inhibitors of the Internet economy. Specifically, ITIF recommends adding questions on the use of ad-blocking software (which reduces ad-based revenue for website operators) and intellectual property theft

³ Daniel Castro, Robert Atkinson, and Stephen Ezell, "Embracing the Self-Service Economy," *Information Technology and Innovation Foundation*, 2010, <http://www.itif.org/files/2010-self-service-economy.pdf>.

⁴ Specifically, these questions are USESVC, ESRVCS and EGOODS. See "November 2019 CPS Computer and Internet Use Supplement," *National Telecommunications and Information Administration*, accessed September 3, 2020, https://www.ntia.gov/files/ntia/blogimages/november_2019_cps_supplement_-_final.pdf.

⁵ ECOMME reads, "In the past six months, [have you/has NAME] used the Internet for online shopping, travel reservations, or other consumer services on the Internet? (If needed) [Do you/Does NAME] use the Internet for online shopping, travel reservations, or other consumer services? [Yes/No]." See "November 2019 CPS Computer and Internet Use Supplement."

(which reduces the revenue of both legal content platforms and the content creators). ITIF suggests the following additions:

- How often during the past year [have you/has any member of your household] accessed movies, music, or other digital products or services from a website that you suspect were being distributed by someone without the legal right to do so?
- How often during the past year [have you/has any member of your household] used software to block online advertisements?

The CPS survey should also explore how households use mobile broadband and how this differs from fixed broadband. In previous versions, the survey failed to draw a distinction between the services that participants access on mobile broadband compared to the services they access on fixed broadband. Instead, for participants who indicate their households use mobile broadband, the CPS should include a question that asks respondents what services they use on these differing services. Answers to this question should list online applications and services already mentioned in the activities section of the survey. For example, ITIF suggests the following questions:

- You said that [you/someone in this household/some members of this household] use[s] a mobile Internet service or data plan to go online. While using this service, what online activities do [you/he or she/they] participate in? *This question would allow respondents to select all answers that apply and answers would include the activities previously mentioned in the survey (e.g., online shopping, social networking, e-government, etc.)*
- You said that [you/someone in this household/some members of this household] use[s] a fixed Internet service such as Cable, DSL, or fiber to go online. While using this service, what online activities do [you/he or she/they] participate in? *This question would have the same answer scheme as above.*

By including these questions, the survey will add clarity to how respondents use different applications on differing types of broadband. This data set will then provide additional utility for policymakers making decisions on issues involving fixed versus mobile broadband. The Census Bureau could go further in exploring the relationship between fixed and mobile broadband by adding an option that goes to the substitutability of the two services. When surveying for reasons that people do not use the Internet at home, CPB should consider asking if a mobile data connection provides for their Internet needs, or whether users would subscribe to both a mobile and fixed connection if price was not an issue.

Finally, ITIF suggests including new questions about augmented reality and virtual reality (AR/VR). AR/VR is anticipated to grow as a medium for commerce, entertainment, education, and digital communication, especially as the United States continues to invest in enabling 5G technology.⁶ Collecting information on AR/VR use will help policymakers understand the contributions of these new technologies to the Internet economy and the outcomes of U.S. investment in 5G networks. ITIF suggests the following questions:

- Augmented reality is any immersive technology that overlays digital objects in physical space using a mobile device, computer, or headset. Examples include mobile applications that allow you to view virtual objects in your surroundings. During the last year, [have you/has someone in your household] used an augmented reality application?
- Virtual reality is any immersive technology that allows you to experience a fully virtual space through a headset. Examples include Oculus and Playstation VR programs. During the last year, [have you/has someone in your household] used a virtual reality program?

SUGGESTED CHANGES TO CURRENT QUESTIONS

There are a number of changes to the questions currently included that should be made to improve their clarity and usefulness. First, the current privacy questions will not help policymakers make better decisions or aid critical analysis. As currently worded, the question PSPRE, will likely elicit unhelpful responses because there is no attempt to differentiate between significant and insignificant privacy and security concerns.⁷ Privacy concerns will inevitably affect what people do and say online because people are sensitive to what other people can learn about them. For example, many people will be sensitive to posting controversial political views or compromising personal photos because of how an employer may react to this information. Therefore, as it is currently worded, PSPRE will likely elicit answers that overinflate privacy and

⁶ Former Assistant Secretary Redl has noted that “virtual- and augmented-reality technologies will take a leap forward” as 5G investments lead to increases in capacity and download speeds. See “Remarks of Assistant Secretary Redl at the White House 5G Summit,” National Telecommunications and Information Administration, September 28, 2018, accessed September 3, 2020, <https://www.ntia.doc.gov/speechtestimony/2018/remarks-assistant-secretary-redl-white-house-5g-summit>.

⁷ PSPRE reads, “During the past year, have concerns about privacy or security stopped [you/anyone in this household] from doing any of these activities online: [Conducting financial transactions such as banking, investing, or paying bills online?/ Buying goods or services online?/ Posting photos, status updates, or other information on social networks?/ Expressing an opinion on a controversial or political issue on a blog or social network, or in a forum, email or any other venue?/ Searching for information using a platform such as Google Search, Yahoo Search, Microsoft Bing, or another web search engine?].” See “November 2019 CPS Computer and Internet Use Supplement.”

security concerns.⁸ A better way to structure this question would be to ask to what extent privacy concerns impact respondent's daily lives. We suggest rewording PSPRE to say the following:

- (PSPRE) Have privacy or security concerns substantially impeded [your/anyone in this household's] ability to do any of these activities online?

Likewise, the PSCON question uses vague language and fails to put the respondent's concerns about privacy and security in context and assess their relative importance.⁹ A better approach would be to assess how privacy and security concerns rank relative to other consumer concerns that policymakers may wish to address. At a minimum, the response should allow respondents to differentiate between items of high and low concern. Therefore, if a respondent is only slightly concerned about threats to personal safety but very concerned about government tracking, he or she can make this distinction. A more ideal solution would be to ask respondents about Internet concerns overall, rather than limiting the question to concerns about privacy and security, so respondents can discuss affordability, ease of use, or other issues that may be important to them, and then rank those concerns.

Finally, the survey offers many questions on different apps and services that people use on the Internet, including watching videos, using financial services, online shopping, and on-the-go services. In the previous section, we suggested adding e-government services, ad-blocking services, and rating services. Rather than quantifying these questions with a simple "Yes/No" answer, a better alternative would be to use a ranking system, such as by asking how often respondents use each service. Each of these questions could include "If yes, how often?" followed by a set of multiple-choice options where answers indicate frequency. These multiple-choice answers could be ranked "Every Day," "Several Times a Week," "Several Times a Month," "Less Than Once a Month," and "Never." This ranking system will not only provide better quality information, but also add clarity and specificity to the survey.

⁸ Ibid.

⁹ PSCON reads, "Overall, what concerns [you/members of your household] the most when it comes to online privacy and security risks? [Identity theft/Credit card or banking fraud/Data collection or tracking by online services/Data collection or tracking by government/Loss of control over personal data such as email or social network profiles/Threats to personal safety, such as online harassment, stalking, or cyber-bullying/No concerns/Other]." See "November 2019 CPS Computer and Internet Use Supplement."

CONCLUSION

The Department of Commerce has an opportunity to substantially advance the discussion about the current state of adoption and use of the Internet and related technologies. The adjustments to the survey recommended in this letter will enhance the quality and provide additional clarity and utility from the information collected by the survey.

Sincerely,

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