Exploring Community Data

To complete this worksheet, first:

1) Create an account on the I3 Connectivity Explorer. Look for an email that will allow you to set a new password.

2) Login in.

3) Following the I3 Connectivity Explorer Jumpstart Guide, create a Notebook for your community.

Start with one town ("place") or county. Later, you can add new notebooks for other communities that you're interested in. Remember, that it is easy to zoom "out" from a town to the surrounding county, and easy to flip between notebooks.

1. What residential and business service providers are serving this community?

Visit the page Wireline > Providers (table) to access the FCC Form 477 wireline and fixed wirelines data.

Note: You can use the selectors to filter for home/business providers; specific speed tiers; or to include/exclude satellite providers.

Note: You that you can see the same information on a map Wireline > Providers (map)

Are there any surprises? Possible partners? Does your understanding of technology help you interpret the filing data?

Are any local providers missing from this list? Remember to check home and business tables.
Is this information consistent with your service experience? If you called to order service from vendors in these blocks, do you expect that they would be able to offer you service at the advertised upload and download speeds?

Remember that the FCC reporting requirements do not require that an entire block be served, only that service could be ordered and delivered in a reasonable timeframe.

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2. Speed tests are another measure of broadband capacity. The I3 Connectivity Explorer uses the M-Lab NDT speed test data which is an open source speed test. This is not a government data set.

   Visit the page [Speedtests > M-Lab Speed Test Results](#)

   Speed test results combine business and consumer users. Some people say that they tend to skew high, since slower connections time out and are not counted and people with faster connections may be more inclined to run the test.

   You can improve the speed test data by encouraging people to run speed tests. Just tell them to run the M-Lab speed test or to type "run speed test" into google. The [TestIt application](#) from NACO is available for mobile devices.

   Note: Use the selector to customize this search. For example, you can use the calendar to select speed test for the "past 6 months" and then and then change or keep the other defaults (download, mean/median, rolling average over 3 months.)

   Do the speed test results provide a useful view of the delivered service in your community? Are the results consistent with your experience? Are there enough speed tests to be useful?

   Note: The number of tests for a specific time period can be viewed by clicking on a "point" in the chart.

3. Now consider Internet Subscription Data, which is provided by the U.S. Census Bureau's American Community Survey.

   Visit the page [ACS » Internet > Subscription Rates: Summary](#)

   Note: Use the selector to switch from percent to numbers as you prefer.

   How does your community compare with the US when looking at how people actually use the Internet? Are you above or below the national median for Internet subscriptions? How about for wireline subscriptions – that is people who have fiber, cable or DSL at home?

   If your community is lagging in wireline adoption, is it because people are relying on their cellular data plans or using satellite? What percent of your population is not connected at all?

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4. Often the variation within a region is significant, creating inequity in access and opportunity.

   Visit the page ACS » Internet > Subscription Rates: Details

   Note: Use the Selector to pick the Internet type. (A good place to start is with "wireline")

   Note: Under the bar chart, you can see the subscription range displayed. You can explore the map to identify the census tracts where subscriptions rates are higher and lower.

   What is the range for wireline adoption in your community and how does this fit with the broadband availability information that you gleaned from the FCC Form 477 data? Do the high and lows track with your experience?

   Reasons for non-adoption – Exploring secondary variables

   Visit the page ACS » Internet > Subscription Rates: Details

   Note: You can use the "Additional Demographics" selector to explore secondary variables to better understand the adoption patterns in your region. Persons in Poverty and Household Density are common reasons for not subscribing to the Internet (as are age, education level, disability, and race and ethnicity).

   Based on the data available here, what trends to see in your community? Is density the challenge? Income levels? Or is it both?

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5. **School and Libraries.** Community Anchor Institutions are key to any broadband plan. They can anchor middle mile fiber, provide hubs for learning and education and help level the playing field for residents. Where are the schools and libraries in your community?

   Go to the upper right part of the map and hover over tiered selector that shows that there are more layers to this map. You can add a layer for public schools, private schools, post-secondary schools and/or libraries. Selecting the individual school will give you information on the number of students and Free and reduced lunch eligibility.

   This map does not show whether or not the schools and libraries have fiber or if they use e-rate funding, but you may have that information. Can the schools, libraries and other community anchors play a role in network buildout out plans?

6. Are digital divides inhibiting rural prosperity in your region?

   Visit the page ACS » Internet > Subscription Characteristics: Details

   This table allows you to better understand the demographics of computer and Internet use in your community and to understand where there are gaps in opportunity.

   Use the selector to sort by Age, Race, Educational Status, or Employment Status. The next selector allows you to view the figures as numbers or percentages. The table shows the percent/number of people that have a computer & Internet, have a computer & no Internet, or have no computer. Selecting a cell in the table will display a map that represents that signal cell.

   Using the Age Selector, consider the economic impact of the middle cell – people ages 18-64 with computers but no Internet; the health impact of people of 65 with without access to the Internet; or the educational impact of children under 18 without computers of the Internet. Do any of the figures on these tables concern you? Do they inspire you?

7. Other thoughts and notes:

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