

SEPTEMBER 21, 2022

Beyond Broadband: Device Access and Digital Equity in Pennsylvania

Theresa Dunne, Research Analyst
Community Development and Regional Outreach
theresa.dunne@phil.frb.org
215-574-6077



Disclaimer

The views expressed here are those of the author and do not necessarily represent the views of the Federal Reserve Bank of Philadelphia or the Federal Reserve System.

Addressing the Digital Divide

- Limited access to **broadband, computing devices, and digital skills training** prevents individuals from fully realizing the economic and social benefits of digital connectivity.
- A study conducted by researchers at the Philadelphia Fed in 2020 found a 27-percentage-point difference in labor force participation rates in Philadelphia between workers with and without a computer with a broadband connection, based on 2014–2018 data.
- While broadband expansion remains critical to closing the digital divide, individuals must have access to reliable devices and to training resources that allow them to optimize their device usage.

Source: Alvaro Sanchez and Adam Scavette, *Broadband Access, Computer Use, and Labor Market Attachment*, Philadelphia: Federal Reserve Bank of Philadelphia, 2020, available at

www.philadelphiafed.org/-/media/frbp/assets/community-development/reports/broadband-access-computer-use-and-labor-market-attachment-in-philadelphia.pdf.

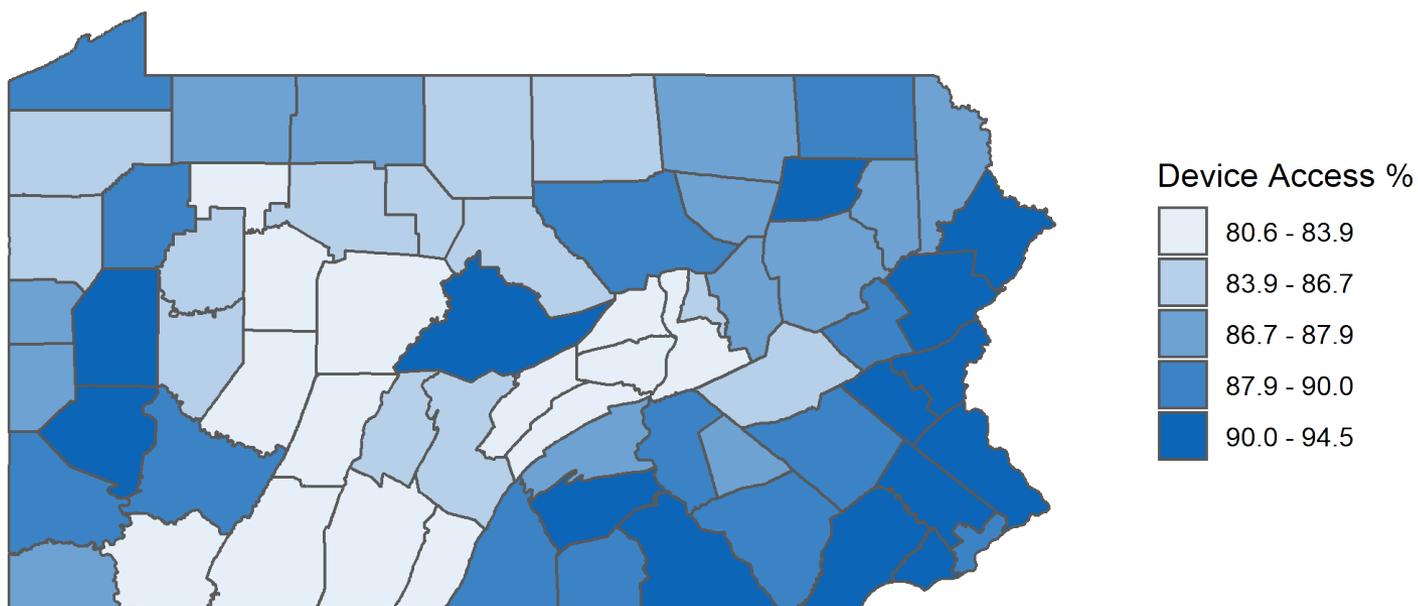
Access to Computing Devices

Device Access in Pennsylvania

- From 2016 to 2020, about 90 percent of Pennsylvania residents had at-home access to a computing device, slightly lower than the national average of 92 percent.
- Pennsylvania ranks 43rd in terms of device access in the United States.
- Disparities in device access vary across urban and rural geographies, demonstrating the need for tailored digital equity plans that address the specific challenges communities face to effectively access and use digital devices.

Source: Author's analysis using American Community Survey 5-Year Estimates (2016–2020), accessed August 2022, data.census.gov/cedsci/all?q=ACS.

Household Access to One or More Computing Devices (2016–2020)



Source: Author's analysis using American Community Survey 5-Year Estimates (2016–2020), accessed August 2022, data.census.gov/cedsci/all?q=ACS.

County-Level Median Values for Device Access: Lowest and Highest Quintile Groupings

Table 1. Socioeconomic and Demographic Median Values Based on Device Access Quintile Groupings at County Level (2016–2020)

Variables	Lowest Quintile Counties		Highest Quintile Counties	
	Median Value	Median %	Median Value	Median %
Total population	47,167	--	335,786	--
Median household income	\$50,703	--	\$70,460	--
65 and above	10,471	21.1%	59,596	18.1%
19 and below	10,906	21.9%	81,833	23.1%
White population	45,682	94.5%	266,722	84.5%
Black population	1,732	2.4%	24,197	5.9%
Hispanic or Latino population	1,048	1.7%	27,316	5.4%
Asian population	275	0.4%	10,918	3.6%
Speaks English less than “very well”	947	1.5%	12,630	3.6%
Veteran population	3,390	8.4%	17,652	7.0%
Population with a designated disability	7,341	16.3%	41,720	12.5%

Note: Race variables throughout the presentation include those of any ethnicity, while the Hispanic or Latino variable includes those of any race. These variables are not mutually exclusive, and therefore may not equal the total population count. The veteran variable accounts for the population over 18 that has previously served active duty in the military. The variable titled “Speaks English less than ‘very well’” accounts for the population over 5 that responded, “Well,” “Not well,” or “Not at all” to the question, “How well does this person speak English?” on the 2020 American Community Survey.

Source: Author’s analysis using American Community Survey 5-Year Estimates (2016–2020), accessed August 2022, data.census.gov/cedsci/all?q=ACS.

Philadelphia County

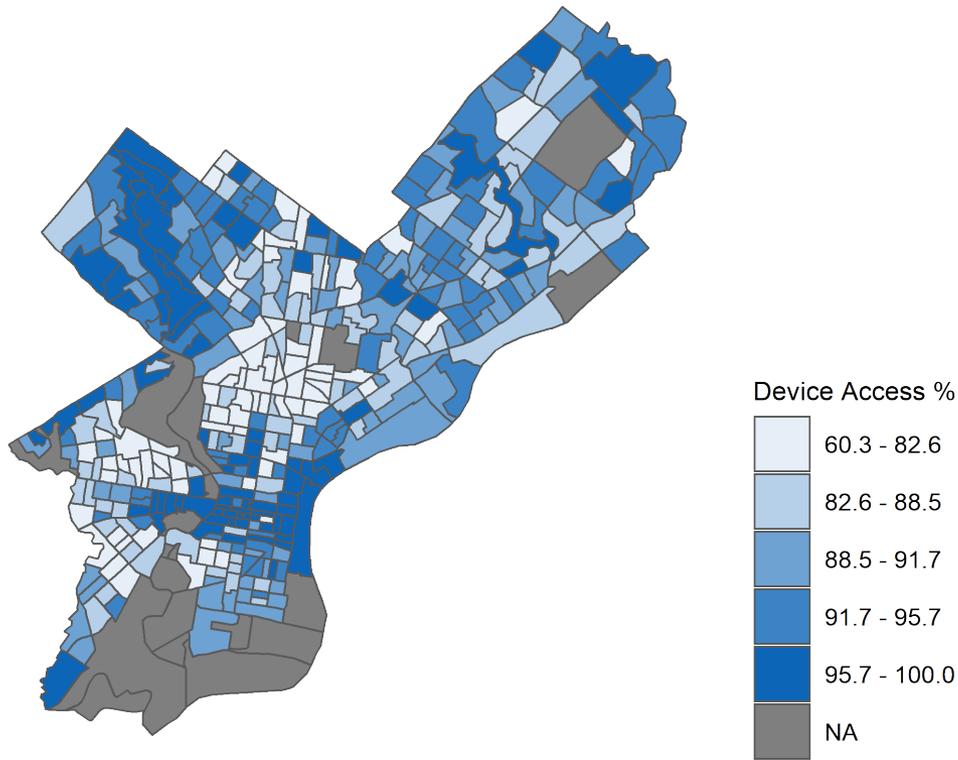


Table 2. Median Values for Lowest and Highest Device Access Quintile Groupings at Tract Level (2016–2020)

Variables	Lowest Quintile	Highest Quintile
Median household income	\$28,906	\$80,470
65 and above	16.0%	10.0%
19 and below	25.9%	14.3%
White population	6.9%	70.0%
Black population	81.5%	13.9%
Hispanic or Latino population	4.2%	5.6%
Asian population	1.0%	5.9%
Speaks English less than “very well”	3.4%	2.5%
Veteran population	3.9%	3.2%
Population with a designated disability	21.1%	9.2%

Source: Author’s analysis using American Community Survey 5-Year Estimates (2016–2020), accessed August 2022, data.census.gov/cedsci/all?q=ACS.

Allegheny County

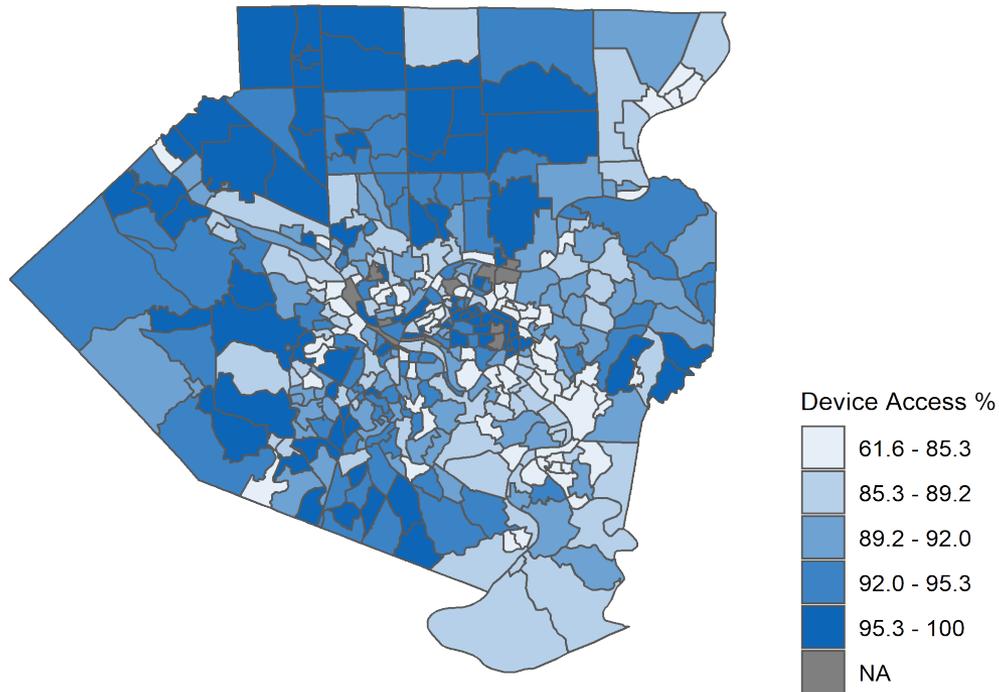


Table 3. Median Values for Lowest and Highest Device Access Quintile Groupings at Tract Level (2016–2020)

Variables	Lowest Quintile	Highest Quintile
Median household income	\$36,436	\$91,625
65 and above	18.8%	16.2%
19 and below	22.5%	21.4%
White population	62.0%	88.6%
Black population	27.9%	2.1%
Hispanic or Latino population	2.0%	1.6%
Asian population	0.5%	4.0%
Speaks English less than “very well”	0.9%	1.7%
Veteran population	7.4%	5.1%
Population with a designated disability	20.1%	8.4%

Source: Author’s analysis using American Community Survey 5-Year Estimates (2016–2020), accessed August 2022, data.census.gov/cedsci/all?q=ACS.

Lehigh County

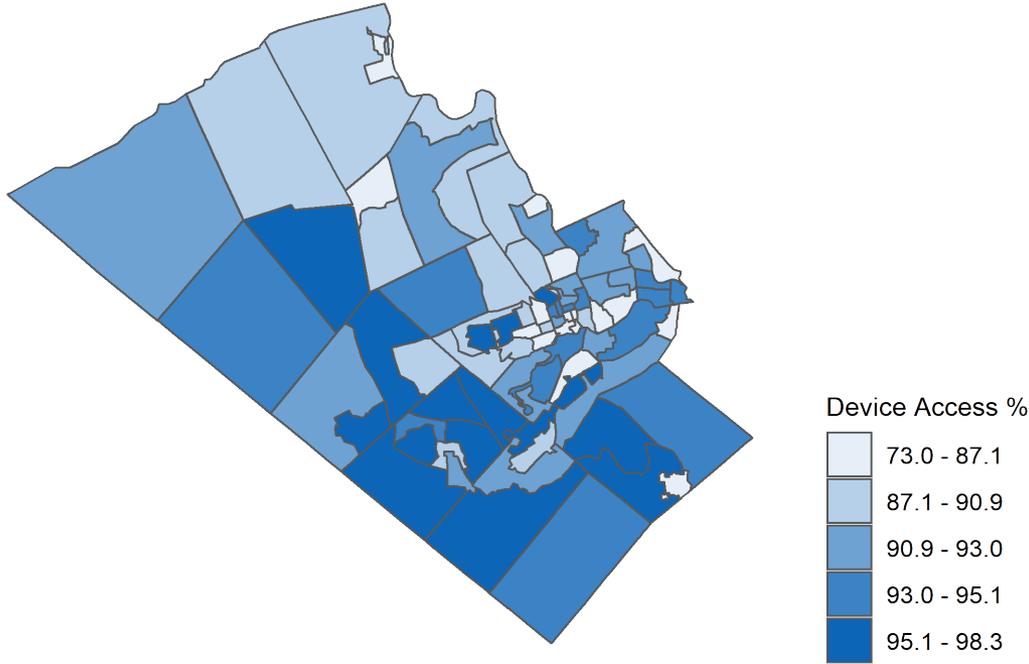


Table 4. Median Values for Lowest and Highest Device Access Quintile Groupings at Tract Level (2016–2020)

Variables	Lowest Quintile	Highest Quintile
Median household income	\$46,454	\$98,000
65 and above	18.2%	17.9%
19 and below	24.1%	24.7%
White population	71.7%	85.2%
Black population	8.4%	3.2%
Hispanic or Latino population	40.1%	6.6%
Asian population	1.4%	3.9%
Speaks English less than “very well”	13.8%	2.1%
Veteran population	4.8%	6.1%
Population with a designated disability	17.6%	9.4%

Source: Author’s analysis using American Community Survey 5-Year Estimates (2016–2020), accessed August 2022, data.census.gov/cedsci/all?q=ACS.

York County

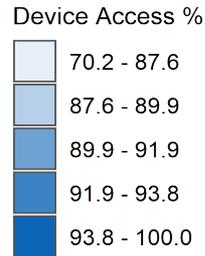
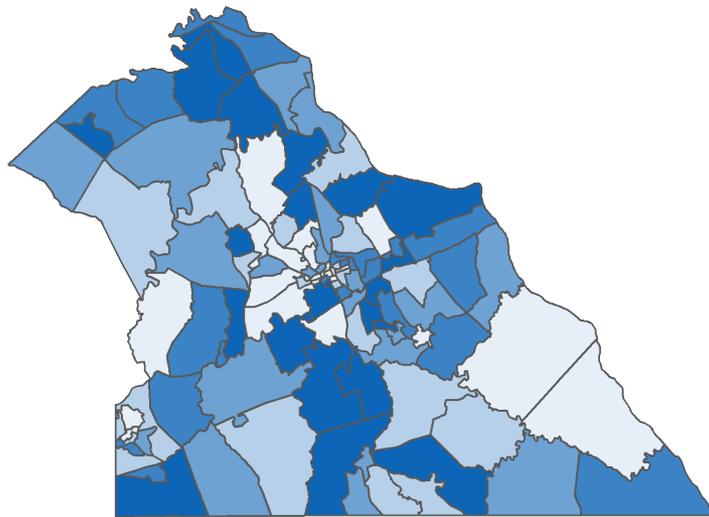


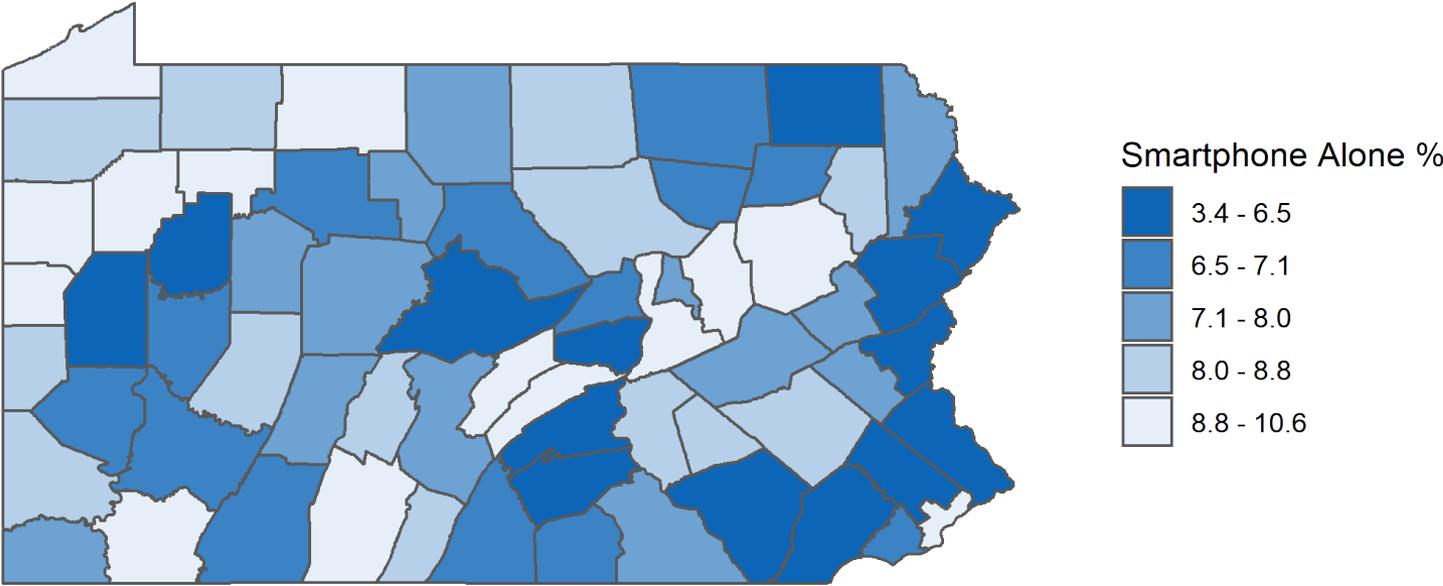
Table 5. Median Values for Lowest and Highest Device Access Quintile Groupings at Tract Level (2016–2020)

Variables	Lowest Quintile	Highest Quintile
Median household income	\$52,898	\$76,833
65 and above	19.0%	15.7%
19 and below	20.4%	25.5%
White population	88.3%	90.9%
Black population	6.1%	2.8%
Hispanic or Latino population	13.6%	4.1%
Asian population	0.8%	1.1%
Speaks English less than “very well”	5.4%	1.3%
Veteran population	5.8%	7.9%
Population with a designated disability	17.4%	9.6%

Source: Author’s analysis using American Community Survey 5-Year Estimates (2016–2020), accessed August 2022, data.census.gov/cedsci/all?q=ACS.

Access to a Smartphone Alone

Household Device Access Through a Smartphone Alone (2016–2020)



Source: Author's analysis using American Community Survey 5-Year Estimates (2016–2020), accessed August 2022, data.census.gov/cedsci/all?q=ACS.

County-Level Median Values for Device Access Through a Smartphone Alone: Lowest and Highest Quintile Groupings

Table 6. Socioeconomic and Demographic Median Values Based on Smartphone Alone Access Quintile Groupings at the County Level (2016–2020)

Variables	Lowest Quintile Counties (low rate of device access through a smartphone alone)		Highest Quintile Counties (high rate of device access through a smartphone alone)	
	Median Value	Median %	Median Value	Median %
Total population	178,311	--	75,769	--
Median household income	\$70,124	--	\$50,967	--
65 and above	32,306	18.6%	15,834	21.1%
19 and below	40,870	23.1%	16,928	22.3%
White population	160,439	87.0%	70,753	93.0%
Black population	7,911	4.0%	1,904	3.0%
Hispanic or Latino population	8,384	4.8%	1,481	2.6%
Asian population	6,568	2.4%	329	0.4%
Speaks English less than “very well”	6,285	3.2%	988	1.4%
Veteran population	11,934	7.6%	5,255	8.8%
Population with a designated disability	24,187	12.5%	12,255	16.9%

Source: Author’s analysis using American Community Survey 5-Year Estimates (2016–2020), accessed August 2022, data.census.gov/cedsci/all?q=ACS.

Philadelphia County

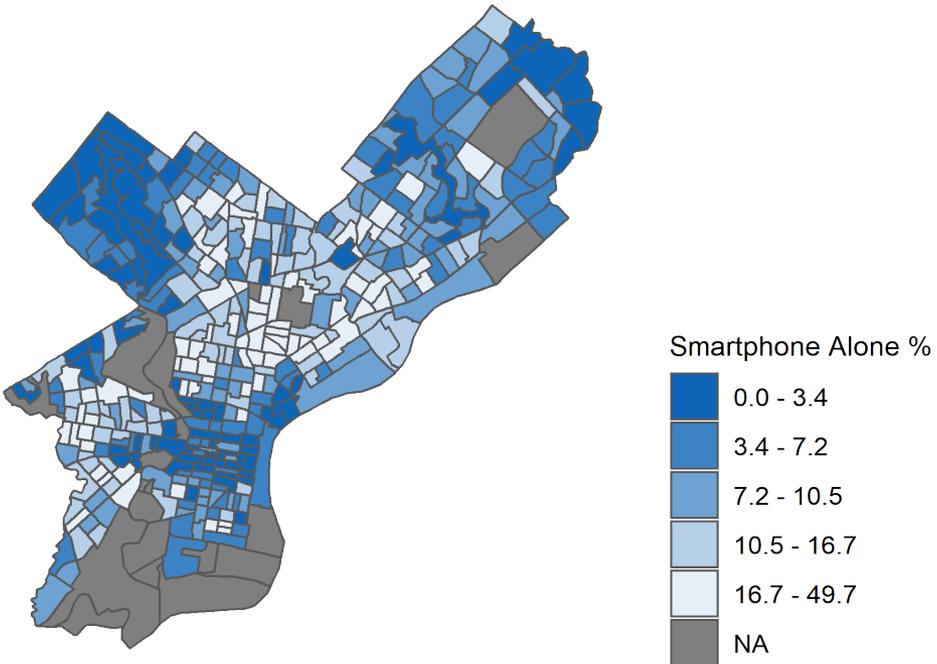


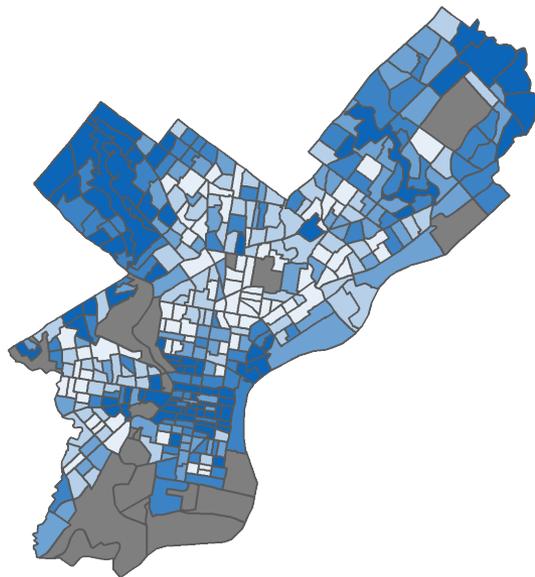
Table 7. Median Values for Lowest and Highest Device Access Through a Smartphone Alone Quintile Groupings at Tract Level (2016–2020)

Variables	Lowest Quintile	Highest Quintile
Median household income	\$84,550	\$28,852
65 and above	12.9%	10.8%
19 and below	15.7%	29.2%
White population	75.7%	13.8%
Black population	9.8%	69.1%
Hispanic or Latino population	4.6%	8.9%
Asian population	5.4%	1.2%
Speaks English less than “very well”	2.6%	7.6%
Veteran population	3.8%	3.5%
Population with a designated disability	10.1%	21.1%

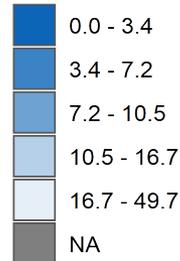
Source: Author’s analysis using American Community Survey 5-Year Estimates (2016–2020), accessed August 2022, data.census.gov/cedsci/all?q=ACS.

Households with Access to a Smartphone Alone Vs. Overall Device Access in Philadelphia (2016–2020)

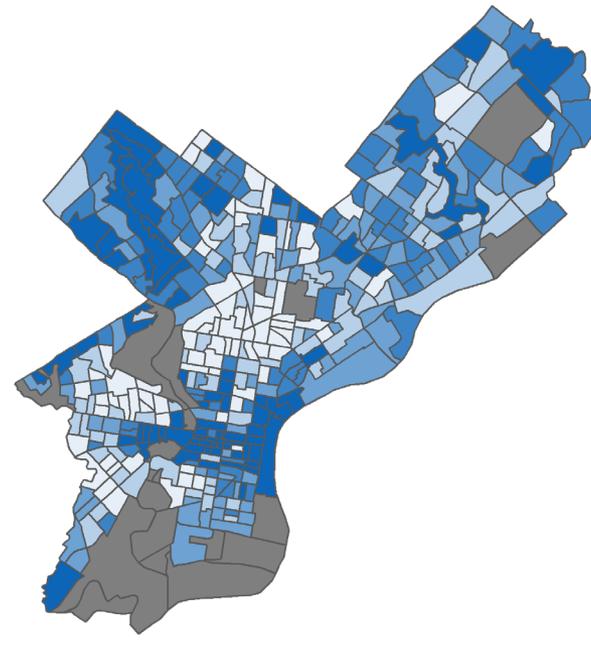
Smartphone Alone %



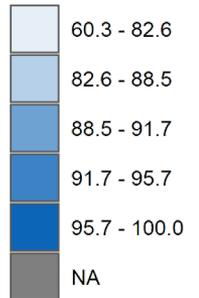
Smartphone Alone %



Device Access %



Device Access %



Source: Author's analysis using American Community Survey 5-Year Estimates (2016–2020), accessed August 2022, data.census.gov/cedsci/all?q=ACS.

Summary of Findings

- Counties with lower rates of device access tended to be less populous and have lower median household incomes than counties with higher rates. They also tended to have higher percentages of White residents and residents 65 and older.
- Tract analyses show that tracts with lower rates of device access in more populous areas tended to have greater percentages of people of color, higher rates of disability, and lower median household incomes.
- Both urban and rural counties were in the highest quintile for device access through a smartphone alone. Many counties in Pennsylvania with high rates of device access through a smartphone alone also see lower rates of device access overall.

Source: Author's analysis using American Community Survey 5-Year Estimates (2016–2020), accessed August 2022, data.census.gov/cedsci/all?q=ACS.

Appendix

County	Population Counts		Household Device Access Shares by Device Type									Socioeconomic and Demographic Characteristics								
	Total households	Total pop.	One or more devices	Computer plus one or more devices	Computer only	Smart-phone plus one or more devices	Smart-phone only	Tablet plus one or more devices	Tablet only	No computing device	Median household income \$	White %	Black %	Asian %	Hispanic %	19 and below %	65 and above %	Pop. w/ designated disability %	Speaks English less than "very well"	Veteran %
Adams	39,628	102,627	88.8	77.1	8.1	76.3	7.1	57.5	0.9	11.2	68,411	92.8	1.6	0.7	7.2	23.1	20.3	13.7	2.8	8.9
Allegheny	545,695	1,218,380	90.4	78.0	6.1	79.9	6.8	61.0	1.4	9.6	62,320	79.0	13.0	3.9	2.2	21.3	18.9	13.6	2.3	7.1
Armstrong	28,035	65,356	85.4	72.0	7.8	71.0	6.9	56.9	1.7	14.6	53,545	97.3	0.9	0.3	0.8	21.0	22.2	17.6	0.6	9.3
Beaver	72,086	164,781	87.8	73.3	6.7	76.6	8.2	58.4	1.2	12.2	59,014	89.7	5.9	0.5	1.7	21.2	21.5	15.8	0.9	8.8
Bedford	19,930	48,154	82.1	67.7	10.9	65.0	9.1	44.7	1.4	17.9	51,531	97.3	1.0	0.2	1.2	21.4	22.7	16.3	0.8	8.4
Berks	156,389	419,062	89.6	75.0	6.4	79.1	8.5	58.4	1.1	10.4	66,154	80.0	5.2	1.5	21.8	25.4	17.3	14.0	7.6	6.6
Blair	51,647	122,495	85.1	70.7	7.2	72.8	8.8	49.3	1.2	14.9	50,856	95.2	1.8	0.6	1.3	22.8	20.7	16.8	0.9	9.6
Bradford	25,084	60,721	87.5	73.8	10.5	69.5	6.6	55.6	1.8	12.5	52,375	96.3	0.7	0.6	1.5	23.9	21.3	14.5	0.9	10.2
Bucks	240,763	627,668	94.2	86.4	5.1	85.3	3.7	70.9	1.0	5.8	93,181	85.7	3.9	4.8	5.5	22.6	18.7	10.5	4.4	6.3
Butler	77,725	187,798	90.7	79.9	7.5	78.4	5.0	62.9	1.5	9.3	72,642	95.5	1.0	1.3	1.6	22.8	18.8	12.8	0.9	8.6
Cambria	56,933	131,611	83.6	68.2	7.7	68.9	7.9	54.1	2.4	16.4	47,644	93.1	3.6	0.5	1.7	22.1	22.5	18.3	0.6	10.0
Cameron	2,334	4,512	86.1	67.9	13.5	67.0	7.6	48.2	1.8	13.9	40,342	95.0	0.2	0.2	0.8	17.2	27.3	20.2	0.4	11.1
Carbon	26,545	63,964	87.9	72.4	7.3	75.1	7.1	57.1	2.0	12.1	57,601	94.2	2.3	0.6	5.1	21.0	20.9	17.1	1.5	9.8
Centre	59,380	162,264	92.2	84.3	6.1	82.4	4.6	62.7	0.7	7.8	61,921	87.3	3.4	6.3	3.0	22.2	14.2	9.3	3.4	5.7
Chester	192,951	521,980	94.2	87.1	6.5	84.6	3.4	70.5	0.7	5.8	104,161	83.3	5.7	5.7	7.5	25.6	16.4	9.0	3.8	6.1
Clarion	15,930	38,633	85.4	73.1	8.5	70.6	6.3	56.1	1.7	14.6	49,695	96.1	1.5	0.4	1.0	22.7	19.6	15.6	1.0	8.3
Clearfield	31,704	79,466	83.2	69.4	9.0	67.9	7.9	51.0	1.5	16.8	50,150	94.3	2.8	0.5	3.0	19.9	20.5	19.2	1.7	9.2
Clinton	15,058	38,549	85.3	73.0	9.1	71.2	6.5	53.8	1.1	14.7	51,145	96.0	1.7	0.8	1.6	24.1	18.7	17.1	1.6	8.6
Columbia	26,482	65,390	87.5	72.7	7.4	75.4	9.8	52.6	1.1	12.5	52,219	94.7	1.7	1.2	3.0	22.4	19.4	13.8	0.8	7.4
Crawford	35,169	85,074	86.3	70.7	8.7	70.5	8.7	53.3	1.9	13.7	51,919	95.2	1.5	0.5	1.4	23.7	20.6	17.8	1.8	9.4

Source: Author's analysis using American Community Survey 5-Year Estimates (2016–2020), accessed August 2022, data.census.gov/cedsci/all?q=ACS.

Appendix cont.

County	Population Counts			Household Device Access Shares by Device Type						Socioeconomic and Demographic Characteristics										
	Total households	Total pop.	One or more devices	Computer plus one or more devices	Computer only	Smart-phone plus one or more devices	Smart-phone only	Tablet plus one or more devices	Tablet only	No computing device	Median household income \$	White %	Black %	Asian %	Hispanic %	19 and below %	65 and above %	Pop. w/ designated disability %	Speaks English less than "very well"	Veteran %
Cumberland	101,176	251,487	90.9	82.1	5.9	80.6	4.6	64.4	1.1	9.1	71,979	86.8	4.1	4.6	4.2	23.4	18.5	12.1	3.1	9.0
Dauphin	113,759	277,071	89.7	75.8	6.5	79.1	8.8	55.4	1.3	10.3	63,123	68.6	19.5	4.8	9.7	24.6	16.9	12.9	5.6	7.7
Delaware	209,596	565,328	92.8	81.1	5.3	83.7	6.6	65.8	1.1	7.2	76,238	67.7	21.6	5.8	4.0	25.1	16.5	11.7	4.6	5.8
Elk	14,215	30,077	86.0	73.9	10.5	69.5	6.6	56.8	1.5	14.0	54,961	97.2	0.6	0.5	0.8	21.0	22.4	15.9	0.4	9.6
Erie	110,388	272,046	89.4	73.7	6.2	78.2	9.5	57.7	1.3	10.6	52,863	85.6	7.1	1.8	4.4	24.6	17.9	15.5	2.8	8.5
Fayette	55,346	130,329	83.6	67.8	7.6	70.2	8.8	52.1	1.6	16.4	49,075	92.1	4.1	0.4	1.3	21.1	21.1	19.7	0.8	8.3
Forest	2,131	7,190	80.7	63.7	8.8	63.2	9.2	45.9	2.5	19.3	41,225	73.9	21.6	0.1	5.8	6.8	23.3	28.8	1.9	9.3
Franklin	61,617	154,954	88.3	76.7	8.0	74.3	7.0	58.4	1.2	11.7	63,420	91.6	4.1	0.7	6.0	24.8	19.5	15.2	2.8	9.6
Fulton	6,040	14,492	82.7	69.2	8.9	67.6	8.7	50.6	1.1	17.3	55,424	96.2	1.4	0.4	1.2	21.8	21.3	16.3	0.3	8.4
Greene	14,503	36,484	87.4	71.2	7.4	74.6	7.9	57.8	2.0	12.6	55,993	93.3	3.2	0.3	1.5	22.3	19.0	19.2	0.5	9.1
Huntingdon	16,779	45,145	86.5	71.5	9.7	70.2	7.8	56.5	1.6	13.5	53,597	91.3	5.5	0.6	2.0	21.0	20.9	16.4	1.5	9.2
Indiana	33,855	84,463	83.8	68.8	7.8	70.3	8.0	51.4	1.9	16.2	49,270	94.1	2.3	0.9	1.3	23.3	19.3	16.3	2.4	7.9
Jefferson	18,400	43,570	83.6	69.4	8.4	68.9	7.6	52.7	1.2	16.4	49,604	97.5	0.5	0.3	1.0	23.5	20.9	16.0	1.2	8.4
Juniata	9,380	24,657	80.6	64.8	8.2	67.0	9.6	49.6	1.2	19.4	53,502	95.9	1.3	0.3	3.9	24.5	20.2	13.5	3.7	7.9
Lackawanna	87,737	210,162	87.8	73.7	6.3	76.9	8.8	55.7	1.2	12.2	54,064	89.2	2.8	3.0	8.0	23.1	19.9	15.6	4.1	7.3
Lancaster	204,003	543,050	88.6	77.7	6.3	77.8	6.0	60.3	1.1	11.4	69,588	87.6	4.1	2.3	10.8	26.2	18.0	11.5	6.2	6.6
Lawrence	37,300	86,148	86.8	70.9	6.6	74.8	8.9	56.8	1.6	13.2	50,080	92.4	3.6	0.4	1.5	22.3	22.0	17.3	1.4	9.2
Lebanon	53,857	140,410	87.7	72.8	7.1	76.1	8.0	58.1	1.3	12.3	61,632	85.6	2.5	1.5	13.6	25.3	19.4	13.5	4.9	8.6
Lehigh	140,072	367,338	91.1	77.4	5.3	81.5	7.9	62.0	1.2	8.9	66,214	76.2	7.3	3.3	25.4	25.3	16.7	13.0	11.0	6.1
Luzerne	130,039	317,547	86.8	70.2	6.5	75.6	10.1	54.4	1.7	13.2	53,194	86.0	5.2	1.2	12.9	22.3	19.9	15.8	4.9	8.3

Source: Author's analysis using American Community Survey 5-Year Estimates (2016–2020) accessed August 2022, from data.census.gov/cedsci/all?q=ACS.

Appendix cont.

County	Population Counts		Household Device Access Shares by Device Type									Socioeconomic and Demographic Characteristics								
	Total households	Total pop.	One or more devices	Computer plus one or more devices	Computer only	Smartphone plus one or more devices	Smartphone only	Tablet plus one or more devices	Tablet only	No computing device	Median household income \$	White %	Black %	Asian %	Hispanic %	19 and below %	65 and above %	Pop. w/ designated disability %	Speaks English less than "very well"	Veteran %
Lycoming	46,160	114,014	88.9	73.3	8.9	73.2	8.0	57.5	1.9	11.1	54,906	91.1	4.8	0.8	2.1	23.3	19.3	15.9	1.0	9.7
McKean	17,059	41,021	86.9	71.1	9.0	70.6	8.8	53.9	1.9	13.1	49,240	94.2	2.4	0.4	2.2	22.8	19.5	19.3	0.8	9.2
Mercer	46,821	110,519	86.2	69.1	7.1	73.7	8.9	56.8	1.9	13.8	50,529	90.7	6.1	0.8	1.5	22.2	21.7	18.6	1.4	9.8
Mifflin	19,075	46,179	81.5	64.8	7.9	68.0	9.7	49.3	1.8	18.5	52,641	96.3	0.6	0.4	1.6	24.3	21.6	14.8	2.3	9.9
Monroe	59,950	168,824	93.0	82.4	5.9	83.1	6.0	64.4	0.9	7.0	68,734	74.3	14.2	2.6	16.6	23.0	17.4	14.6	4.6	8.1
Montgomery	318,648	827,180	94.5	87.0	5.0	86.1	3.8	70.9	0.9	5.5	93,518	78.1	9.3	7.7	5.3	23.9	17.8	10.2	4.6	5.8
Montour	7,475	18,178	84.4	72.0	6.6	73.9	7.5	54.8	0.6	15.6	59,915	93.0	2.0	3.6	2.7	22.4	21.1	13.7	1.7	8.6
Northampton	115,300	304,233	90.1	79.3	5.7	80.9	5.6	61.9	0.7	9.9	73,088	83.4	5.9	2.9	13.7	23.2	19.0	12.2	4.7	7.0
Northumberland	39,048	91,234	83.1	67.7	8.1	69.3	9.8	50.1	1.7	16.9	49,273	93.7	2.5	0.4	3.7	21.5	21.2	17.1	1.2	9.2
Perry	18,512	46,133	87.6	76.0	8.7	74.4	6.5	57.7	0.9	12.4	70,660	96.4	0.9	0.3	2.1	23.5	18.4	13.7	1.5	9.3
Philadelphia	613,125	1,581,531	88.5	70.9	4.4	80.7	10.6	56.7	1.2	11.5	49,127	39.3	41.4	7.4	15.1	24.5	13.7	16.7	10.7	4.5
Pike	22,717	55,660	93.3	83.3	9.3	77.9	4.8	62.7	1.7	6.7	67,495	86.2	6.2	1.3	11.2	19.8	22.2	16.9	2.2	8.8
Potter	6,630	16,685	86.6	70.9	11.4	65.3	7.3	53.3	3.2	13.4	47,696	97.1	0.3	0.4	1.4	22.3	24.0	18.4	1.3	10.0
Schuylkill	58,646	141,935	86.0	71.7	7.8	72.7	7.9	53.8	1.4	14.0	53,703	93.0	3.0	0.4	4.8	21.6	20.4	18.0	1.5	8.9
Snyder	14,824	40,452	83.4	72.3	7.0	70.5	5.6	54.9	1.6	16.6	60,227	96.2	1.0	0.7	2.2	25.2	18.9	13.4	2.4	6.8
Somerset	29,518	73,844	81.9	68.8	8.8	66.8	6.8	53.4	1.5	18.1	51,255	94.8	2.6	0.4	1.5	19.9	22.2	16.8	1.4	9.4
Sullivan	2,751	6,038	87.0	74.6	15.1	63.8	6.7	47.7	2.2	13.0	49,830	94.4	2.8	0.1	3.5	13.2	28.0	17.7	1.6	9.8
Susquehanna	17,027	40,604	89.1	76.7	10.6	71.1	5.7	57.3	1.7	10.9	55,788	97.2	0.6	0.4	1.7	20.6	23.5	16.1	0.7	9.7
Tioga	16,442	40,759	86.6	73.7	10.7	69.9	8.0	51.6	1.2	13.4	51,838	96.9	0.8	0.6	1.3	22.6	22.0	18.1	0.3	11.2
Union	14,762	44,831	83.6	73.1	10.9	67.3	6.8	52.4	0.9	16.4	56,824	88.0	6.6	1.8	6.0	23.6	18.2	13.6	2.5	6.7

Source: Author's analysis using American Community Survey 5-Year Estimates (2016–2020) accessed August 2022, data.census.gov/cedsci/all?q=ACS.

Appendix cont.

County	Population Counts		Household Device Access Shares by Device Type								Socioeconomic and Demographic Characteristics									
	Total households	Total pop.	One or more devices	Computer plus one or more devices	Computer only	Smartphone plus one or more devices	Smartphone only	Tablet plus one or more devices	Tablet only	No computing device	Median household income	White %	Black %	Hispanic %	Asian %	19 and below %	65 and above %	Pop w/ designated disability %	Speaks English less than "very well" %	Veteran %
Venango	22,103	51,355	88.1	71.1	8.4	72.6	8.8	55.8	2.3	11.9	\$1,405	96.1	1.1	0.4	1.1	21.2	22.5	19.4	0.7	10.1
Warren	17,124	39,466	87.4	73.7	10.0	69.7	8.0	55.8	2.2	12.6	\$2,034	96.5	0.6	0.4	1.1	21.3	22.9	15.6	1.2	11.7
Washington	85,201	207,081	89.5	75.1	6.4	78.6	8.2	60.7	1.1	10.5	\$65,478	93.0	3.3	1.8	1.0	22.1	20.5	15.0	0.9	8.1
Wayne	18,938	51,268	86.9	75.3	9.1	72.0	7.3	57.1	1.3	13.1	\$55,572	93.0	3.4	4.6	0.7	18.4	24.0	19.1	1.8	10.8
Westmoreland	153,772	350,722	88.4	76.1	7.5	75.4	6.8	58.3	1.5	11.6	\$61,398	94.3	2.4	1.2	1.0	20.5	22.7	15.3	0.6	8.8
Wyoming	10,887	27,078	90.1	75.7	8.7	75.5	7.1	59.0	1.6	9.9	\$60,075	93.1	1.8	2.0	0.4	22.0	21.2	13.5	0.5	8.9
York	174,425	447,628	90.3	77.0	6.2	80.3	7.9	59.7	1.1	9.7	\$68,940	87.2	5.8	7.8	1.5	24.4	17.5	13.7	2.8	8.2

Source: Author's analysis using American Community Survey 5-Year Estimates (2016–2020), accessed August 2022, data.census.gov/cedsci/all?q=ACS.