

Remote Work in Pennsylvania: Overview

HARRISBURG – The COVID-19 pandemic reshaped where and how Pennsylvanians work. This brief is the first in a series that will examine trends in remote work among Pennsylvania's workforce before and after the pandemic, using data from the U.S. Census Bureau's American Community Survey (ACS) Public Use Microdata Sample (PUMS) from 2016 to 2024. Data for 2020 were excluded because the Census Bureau's pandemic-related experimental estimates for that year are not comparable to standard ACS releases.

Statewide Trend

From 2016 to 2019, the percentage of Pennsylvania's workforce working remotely hovered near five percent, rising from 4.7 percent in 2016 to 5.3 percent in 2019 [Figure 1]. This was a small but statistically significant increase over the four-year period, though no single year-over-year change was significant on its own.

Year	Estimate	MOE	CV
2016	4.7%	± 0.2%	2.6%
2017	4.8%	± 0.2%	2.5%
2018	4.9%	± 0.2%	2.0%
2019	5.3%	± 0.2%	2.6%
2020			
2021	18.4%	± 0.4%	1.2%
2022	15.1%	± 0.3%	1.3%
2023	14.1%	± 0.3%	1.5%
2024	13.6%	± 0.4%	1.6%

Figure 1. Statewide share of the workforce working from home, 2016-2024 (excluding 2020).

[Link to remote work by year figure.](#)

After peaking at 18.4 percent in 2021, remote work fell to 15.1 percent in 2022, 14.1 percent in 2023, and 13.6 percent in 2024. The year-over-year declines between 2021 and 2023 were statistically significant, though the decrease between 2023 and 2024 was not, indicating that the decline in remote work may be slowing. Even so, Pennsylvanians were about two and a half times as likely to work remotely in 2024 as in 2019.

Regional Trend

Custom geographic regions (hereafter, “regions”) were constructed by aggregating sub-county PUMAs¹ to their corresponding counties, resulting in regions that are either single-county or multi-county. PUMAs are redefined each decade, and changes in population can shift their boundaries between vintages. Because the 2020 Decennial PUMAs were first implemented in the 2022 ACS, the geographic analysis defines the post-pandemic period as 2022–2024 and the pre-pandemic period as 2016–2018. This ensures three years on each side of the pandemic, with a consistent PUMA vintage within each period. Estimates for each period were calculated as three-year averages.

Pre- and Post-Pandemic

From 2016 to 2018, Chester had the highest share of its workforce working remotely (8.1%), followed by Montgomery (6.5%) [Figure 2]. Nine of the 38 regions had remote-work shares of at least 5.0 percent, while another 16 had shares below 4.0 percent. Schuylkill (3.0%) and Monroe (3.2%) had the lowest.

From 2022 to 2024, Chester (21.6%) and Montgomery (20.6%) again had the highest shares of the workforce working remotely [Figure 3]. Nine regions had shares of 15.0 percent or more, and 23 had shares of 10.0 percent or more. Cameron-Clearfield-Elk-McKean-Potter (6.4%) and Clarion-Forest-Jefferson-Venango (6.6%) had the lowest.

Note: Figures 2 and 3 share the same color scale, and shading is directly comparable between maps. View the maps directly using link for region names and values.

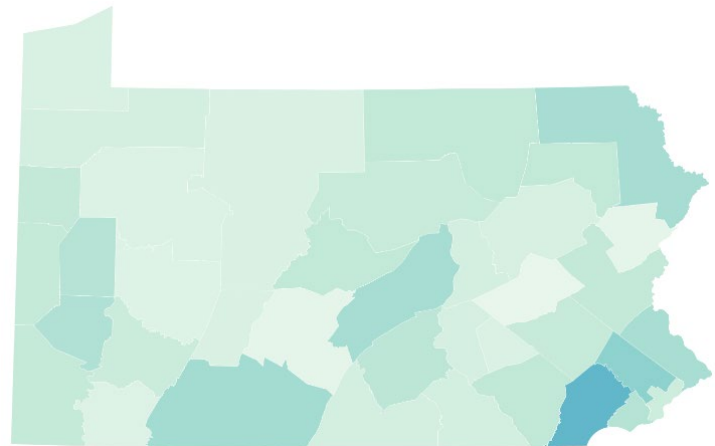


Figure 2. Share of the workforce working from home by region, 2016–2018. [Link to interactive map of remote work in 2016–2018.](#)

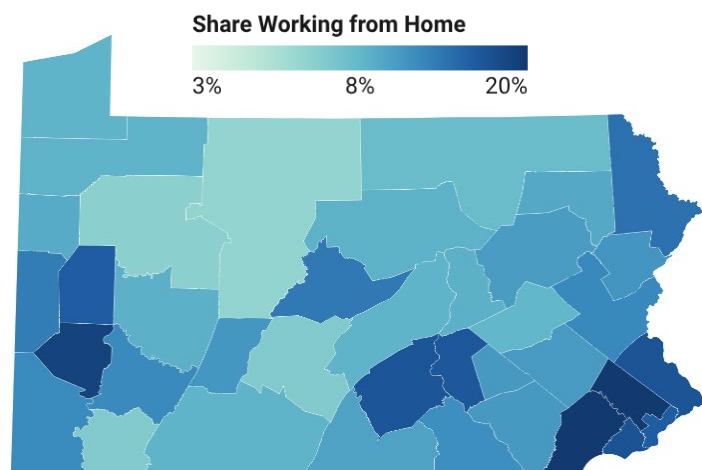
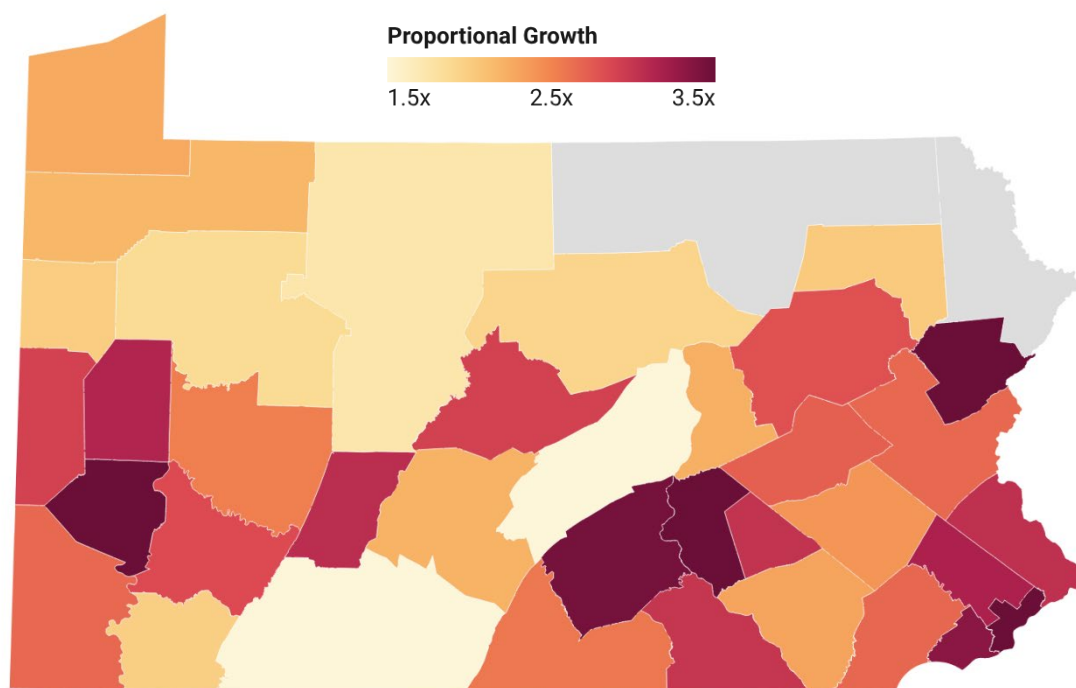


Figure 3. Share of the workforce working from home by region, 2022–2024. [Link to interactive map of remote work in 2022–2024.](#)

¹ Public Use Microdata Areas (PUMAs) are Census-defined geographic areas designed for use with PUMS data and defined in part by population size. For example, under the 2020 PUMA definitions, some PUMAs correspond one-to-one with a county (e.g., Centre County PUMA), while less populated counties may be combined into a single PUMA (e.g., Pike & Wayne Counties PUMA), and highly populated counties may be split across several PUMAs (e.g., Philadelphia is split into 11 sub-county PUMAs).

Growth in Remote Work

Two northeastern regions changed boundaries between PUMA vintages and were excluded from comparisons across the two periods, leaving 36 comparable regions. The largest proportional growth occurred in Dauphin, where the share of the workforce working remotely from 2022 to 2024 (16.6%) was 4.3 times its 2016–2018 share (3.9%) [Figure 4]. Philadelphia followed at 3.8 times, then Allegheny and Monroe at 3.6 times each. Eleven regions had remote-work shares that were at least three times their pre-pandemic levels.



[Link to interactive map of proportional growth in remote work.](#)

The smallest growth occurred in Bedford-Fulton-Somerset and Juniata-Mifflin-Snyder-Union, each at 1.5 times their pre-pandemic shares, followed by Cameron-Clearfield-Elk-McKean-Potter at 1.7 times. The two regions with the smallest proportional growth had among the highest pre-pandemic shares in the state, at 5.8 and 5.7 percent, respectively.

Our next brief will explore trends by industry and occupation. Stay tuned!

Credit: Nathaniel Netznik, MAS '27, Research Specialist Intern, Institute of State & Regional Affairs.

Sources: American Community Survey 1-Year Estimates, Public Use Microdata Sample (PUMS), accessed via IPUMS USA, University of Minnesota, www.ipums.org.

Questions? Contact the Pennsylvania State Data Center at pasdc@psu.edu or pasdc.hbg.psu.edu.