Considerations for Designing a Covid Response

Leah Brooks
George Washington University

Jaclene Begley
Fannie Mae

Stan Veugler
American Enterprise Institute

April 2021

The views expressed here are those of the authors and do not necessarily represent those of Fannie Mae.
Mission

- To improve the lives of people in Greater Washington area by studying the neighborhoods and communities of our region
Mission

- To improve the lives of people in Greater Washington area by studying the neighborhoods and communities of our region

We

- produce policy-relevant research on the Capital Region
- host events for the public on topical issues
Mission

- To improve the lives of people in Greater Washington area by studying the neighborhoods and communities of our region

We

- produce policy-relevant research on the Capital Region
- host events for the public on topical issues

Show you our graphs, then explain how we made them
The Capital Region: Urban, Suburban, and Exurban Areas
Questions as of Spring 2020

1. Are regional workers high income enough to withstand a big shock?
2. How viable is telework for the regional workforce?
3. Who can telework by sector, income, and location?
4. Areas of greatest concern: which areas are low telework potential and heavily rental?
1. Incomes Have Grown, But the Middle Class Has Hollowed Out
1. Incomes Have Grown, But the Middle Class Has Hollowed Out
1. Incomes Have Grown, But the Middle Class Has Hollowed Out
1 Incomes Have Grown, But the Middle Class Has Hollowed Out

![Graph showing income distribution with median income of $90,872 in 1990 and $117,902 for households earning more than $117,902.](image-url)
Incomes Have Grown, But the Middle Class Has Hollowed Out

1990:
- Below $68,465
- Above $117,902

Median:
- $90,872
Incomes Have Grown, But the Middle Class Has Hollowed Out
Incomes Have Grown, But the Middle Class Has Hollowed Out
1 Incomes Have Grown, But the Middle Class Has Hollowed Out
Incomes Have Grown, But the Middle Class Has Hollowed Out
Incomes Have Grown, But the Middle Class Has Hollowed Out
1. Incomes Have Grown, But the Middle Class Has Hollowed Out

[Diagram showing neighborhood median income distribution with shaded areas for different income ranges in 1990 and 2018.]
Region Specializes in Professional Services

- Prof’n'l, Scientific & Tech Services
- Health Care and Social Assistance
- Educational Services
- Accomd. and Food Services
- Retail Trade
- Public Administration
- Administration/Waste Management
- Other Services
- Construction
- Finance and Insurance
- Transportation & Warehousing
- Information
- Wholesale Trade
- Manufacturing
- Real Estate/Rental/Leasing
- Arts/Entertainment/Recreation
- Management
- Utilities
- Agriculture
- Mining/Gas
2 Many Regional Jobs Can Be Done From Home – But Some Cannot

- Prof'n'l, Scientific & Tech Services
- Health Care and Social Assistance
- Educational Services
- Accom'd. and Food Services
- Retail Trade
- Public Administration
- Administration/Waste Management
- Other Services
- Construction
- Finance and Insurance
- Transportation & Warehousing
- Information
- Wholesale Trade
- Manufacturing
- Real Estate/Rental/Leasing
- Arts/Entertainment/Recreation
- Management
- Utilities
- Agriculture
- Mining/Gas
Telework is Difficult in Some of the Region’s Largest Industries
Telework More Likely in Higher Income Neighborhoods
3 Same Income: Less Central Neighborhoods $\rightarrow$ Less Telework
4 Areas of Greatest Concern: Low Telework, High Share of Renters
Areas of Greatest Concern: Low Telework, High Share of Renters
Behind the Scenes
How Do We Make These?

Data

- Income
  - American Community Survey tract level data
- Jobs by residence
  - LODES block data
  - Glad federal workers are back in LODES
- Telework
  - Dingel and Neiman (2020) by industry
How Do We Make These?

Data
- Income
  - American Community Survey tract level data
- Jobs by residence
  - LODES block data
  - Glad federal workers are back in LODES
- Telework
  - Dingel and Neiman (2020) by industry

Methods
- R
  - data loading
  - data manipulation
  - map and graph creation
- tidyverse, esp ggplot
  - for graphics
- sf
  - new-ish package for maps and spatial analysis
Thank you all for listening

Thanks to the Census for the great data