Disparate Impacts of the COVID-19 Pandemic: People vs. Places

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The views expressed here are the presenter’s and do not necessarily represent those of the Federal Reserve Bank of Minneapolis or the Federal Reserve System.
An early proposal

• March 26: Issued a proposal for a large-scale survey to provide a timely, broad view of pandemic extent and impact

• Important features
  • **Frequent** – daily (motivated by disease tracking)
  • **Large** – sufficient sample to generate county-level statistics and those for small demographic populations
  • **Lasting** – up to two years
  • **Modules** – health symptoms, behavior; financial health; mental/social
Motivation for the proposal

- Containing novel coronavirus outbreaks seemed likely to be important for a long period (12-18 months) plus recovery.
- Impact of containment efforts seemed likely to be uneven.
- The virus and containment efforts seemed likely to affect multiple dimensions of wellbeing.
- Surveys seemed possibly an efficient way to track virus given lack of testing infrastructure in March 2020.
- Timely information on disparate impacts could allow policymakers to target aid.
The social science data response

• COVID Impact Survey
  • 10 states, 8 metro areas

• Census Household Pulse Survey
  • 50 states, 15 metro areas

• Others: Understanding America Study, CMU Delphi Project, supplements/additions to existing surveys like SHED, BLS
What we’ve learned

• Containing novel coronavirus outbreaks seemed likely to be important for a long period (12-18 months) plus recovery. Yes.

• Impact of containment efforts seemed likely to be uneven.
  • Demographically yes, geographically no.

• The virus and containment efforts seemed likely to affect multiple dimensions of wellbeing. Yes.

• Surveys seemed possibly an efficient way to track virus given lack of testing infrastructure in March 2020.
  • Virus forecasts no, current health and long-term impacts of COVID infection yes.

• Timely information on disparate impacts could allow targeting aid.
  • No, but tracking aid receipt.
Overview

• Geographic dimensions of COVID-19 cases

• Outcomes in the COVID-19 environment across places: Employment, financial security, and mental health

• Outcomes in the COVID-19 environment across people

• Concluding discussion: Is it possible the economic impact of virus outbreaks will become more localized? And what next?
Geographic Dimensions of COVID-19 Cases
April - New Cases Per 100K by State

May - New Cases Per 100K by State

June - New Cases Per 100K by State

July - New Cases Per 100K by MSA

August - New Cases Per 100K by MSA

Note: Case data from New York Times. Population estimates from 2019 American Community Survey tables..
## New Cases Per 100K by MSA

<table>
<thead>
<tr>
<th>Metro Area</th>
<th>April</th>
<th>May</th>
<th>June</th>
<th>July</th>
<th>August</th>
</tr>
</thead>
<tbody>
<tr>
<td>Atlanta-Sandy Springs-Alpharetta, GA</td>
<td>178</td>
<td>167</td>
<td>254</td>
<td>805</td>
<td>679</td>
</tr>
<tr>
<td>Boston-Cambridge-Newton, MA-NH</td>
<td>877</td>
<td>480</td>
<td>175</td>
<td>122</td>
<td>152</td>
</tr>
<tr>
<td>Chicago-Naperville-Elgin, IL-IN-WI</td>
<td>474</td>
<td>673</td>
<td>216</td>
<td>293</td>
<td>400</td>
</tr>
<tr>
<td>Dallas-Fort Worth-Arlington, TX</td>
<td>86</td>
<td>156</td>
<td>303</td>
<td>781</td>
<td>656</td>
</tr>
<tr>
<td>Detroit-Warren-Dearborn, MI</td>
<td>560</td>
<td>151</td>
<td>166</td>
<td>220</td>
<td>268</td>
</tr>
<tr>
<td>Houston-The Woodlands-Sugar Land, TX</td>
<td>115</td>
<td>111</td>
<td>377</td>
<td>848</td>
<td>716</td>
</tr>
<tr>
<td>Los Angeles-Long Beach-Anaheim, CA</td>
<td>167</td>
<td>271</td>
<td>424</td>
<td>812</td>
<td>497</td>
</tr>
<tr>
<td>Miami-Fort Lauderdale-Pompano Beach, FL</td>
<td>261</td>
<td>181</td>
<td>575</td>
<td>2279</td>
<td>1019</td>
</tr>
<tr>
<td>New York-Newark-Jersey City, NY-NJ-PA</td>
<td>899</td>
<td>237</td>
<td>73</td>
<td>59</td>
<td>61</td>
</tr>
<tr>
<td>Philadelphia-Camden-Wilmington, PA-NJ-DE-MD</td>
<td>543</td>
<td>419</td>
<td>174</td>
<td>218</td>
<td>195</td>
</tr>
<tr>
<td>Phoenix-Mesa-Chandler, AZ</td>
<td>71</td>
<td>128</td>
<td>841</td>
<td>1475</td>
<td>364</td>
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<tr>
<td>Riverside-San Bernardino-Ontario, CA</td>
<td>119</td>
<td>143</td>
<td>376</td>
<td>845</td>
<td>667</td>
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<tr>
<td>San Francisco-Oakland-Berkeley, CA</td>
<td>86</td>
<td>97</td>
<td>172</td>
<td>377</td>
<td>422</td>
</tr>
<tr>
<td>Seattle-Tacoma-Bellevue, WA</td>
<td>161</td>
<td>86</td>
<td>85</td>
<td>231</td>
<td>200</td>
</tr>
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County-Level Cases Per Capita

Note: Case data from New York Times. 2019 county-level population estimates from Census Bureau.
Outcomes in the COVID-19 Environment across Places
Employment-to-Population Ratio

Share Couldn’t Afford Food Wanted

Share Couldn’t Afford Food Wanted

Place-level correlation between cases and outcomes is unstable

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<tr>
<th></th>
<th>Share Employed</th>
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<td>0.052**</td>
<td>-0.041***</td>
<td>0.087***</td>
<td>0.059*</td>
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<td></td>
<td>(0.013)</td>
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<td>0.509</td>
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Unemployment trajectories not systematically different across states with high case rates

Unemployment trajectories not systematically different across states with high case rates

Outcomes in the COVID-19 Environment across People
National changes in employment rates

Race/Ethnic Groups

Education Groups

Age Groups

Gender

Source: Pre-COVID EPOP Ratio calculated using 2018 American Community Survey microdata, accessed through IPUMS USA. Pulse Survey EPOP calculated using Phase 1 Census Bureau Household Pulse Survey microdata.
Local changes in employment rates: Race/Ethnic Groups

Source: Pre-COVID EPOP Ratio calculated using 2018 American Community Survey microdata, accessed through IPUMS USA. Pulse Survey EPOP calculated using Phase 1 Census Bureau Household Pulse Survey microdata.
Local changes in employment rates: Education Groups

Less than HS Diploma

High School Graduate or Equivalent

Some College

Bachelor’s Degree or Higher

Source: Pre-COVID EPOP Ratio calculated using 2018 American Community Survey microdata, accessed through IPUMS USA. Pulse Survey EPOP calculated using Phase 1 Census Bureau Household Pulse Survey microdata.
Local changes in employment rates: Age Groups

Source: Pre-COVID EPOP Ratio calculated using 2018 American Community Survey microdata, accessed through IPUMS USA. Pulse Survey EPOP calculated using Phase 1 Census Bureau Household Pulse Survey microdata.
Local changes in employment rates: Gender

**Source:** Pre-COVID EPOP Ratio calculated using 2018 American Community Survey microdata, accessed through IPUMS USA. Pulse Survey EPOP calculated using Phase 1 Census Bureau Household Pulse Survey microdata.
Factors linking economic impacts across space

• Significant sectoral linkages across US markets (Osotimehin and Popov 2020)

• Common behavioral responses (many authors)
  • Self-reported protective behaviors
  • High frequency cell phone and retail data

• Connections across distant markets mean the US outbreak is not localized (Fogli et al 2020, Pueyo 2020)
Concluding discussion

• The pandemic has expanded and receded on a per capita basis unevenly across the US during the past six months

• While some indicators show geographic patterns that suggest local infections are negatively related to labor market activity, many others are wrong signed or insignificant

• Suggests that economic impacts of the pandemic are not as localized as infections
Concluding discussion

• Instead, the heterogeneous impacts of the virus on economic activity are clearest across people
  • Economic slowdown has most negatively impacted lower earners, those with less schooling, workers of color, and younger workers

• Given this, what do we still need to know?
  • Impacts of infection on earnings, employment and health – immediate and long-run. Start today!
  • More detail about safe behaviors. Knowable!
Thank you!
Share Child’s Education Affected by Pandemic

Share Child’s Education Affected by Pandemic

Share Lost Employment Income in HH

Share Didn’t Pay Rent/Mortgage on Time or Deferred Payment

Share Didn’t Pay Rent/Mortgage on Time or Deferred Payment last month

Share Felt Depressed/Hopeless or Anxious

Share Felt Depressed/Hopeless or Anxious