



The need for integrating up-to-date statistical data with small area geography

For managing national and global problems

Tim Trainor
President, International Cartographic Association
<https://icaci.org/>

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The Problem Statement

- The U.S. is in a good place with small area geography and with statistical data
- ...but we need to do more...



“Absence of Statistical Data at Small-Enough Levels of Geography”

- Frequent data collection on special topics is needed to address current circumstances.
 - COVID
 - Health
 - Employment
 - Schooling
 - Etc.
- Release of statistical data currently is increasingly challenged by privacy concerns.



The Geocoded Address – the “Bridge” to Linking Statistical with Geospatial Information

- The **address** is the most **elemental** geospatial object
 - Housing unit
 - Apartment within an apartment building
 - Room within an apartment for a separate household
 - Business establishment
 - Etc.
- The **household** is the most **elemental** statistical unit



Learning Lessons...

- The COVID pandemic has given us a greater appreciation for the power of data dashboards.
- On to the dashboards...



Johns Hopkins COVID Dashboard

JOHNS HOPKINS UNIVERSITY & MEDICINE | CORONAVIRUS RESOURCE CENTER

Home Tracking Testing Tracing Vaccines By Region News & Resources About

Tracking Home Critical Trends Global Map U.S. Map Data in Motion

COVID-19 Dashboard by the Center for Systems Science and Engineering (CSSE) at Johns Hopkins University (JHU)

Global Cases

43,806,468

Cases by Country/Region/Sovereignty

- 8,755,581 US
- 7,946,429 India
- 5,409,854 Brazil
- 1,537,142 Russia
- 1,242,923 France
- 1,116,738 Spain
- 1,102,301 Argentina
- 1,025,052 Colombia
- 920,661 United Kingdom
- 895,326 Mexico
- 890,574 Peru
- 716,759 South Africa
- 581,824 Iran
- 564,778 Italy
- 504,525 Chile
- 462,642 Germany

Admin0 Admin1 Admin2

Last Updated at (M/D/YYYY)
10/27/2020, 3:24 PM

Esri, FAO, NOAA

Cumulative Cases Active Cases Incidence Rate Case-Fatality Ratio Testing Rate

Global Deaths

1,163,938

- 226,383 deaths US
- 157,397 deaths Brazil
- 119,502 deaths India
- 89,171 deaths Mexico
- 45,455 deaths United Kingdom
- 37,700 deaths Italy
- 35,575 deaths France

Global Deaths Global Recovered US Deaths, Recovered

US State Level Deaths, Recovered

- 33,433 deaths, 79,162 recovered New York US
- 17,991 deaths, 758,192 recovered Texas US
- 17,416 deaths, recovered California US
- 16,505 deaths, recovered Florida US
- 16,306 deaths, 36,545 recovered New Jersey US
- 9,888 deaths, 122,856 recovered Massachusetts US
- 9,838 deaths, recovered Illinois US

Daily Cases

189 countries/regions

Lancet Inf Dis Article: [Here](#), Mobile Version: [Here](#), Data sources: [Full list](#), Downloadable database: [GitHub](#), [Feature Layer](#).
Lead by JHU CSSE. Technical Support: [Esri Living Atlas team](#) and [JHU APL](#). Financial Support: [JHU](#), [NSF](#), [Bloomberg Philanthropies](#) and [Stavros Niarchos Foundation](#). Resource support: [Slack](#), [Github](#) and [AWS](#). Click [here](#) to [donate](#) to the CSSE dashboard team, and other JHU COVID-19 Research Efforts. [FAQ](#). Read more in this [blog](#). [Contact US](#).



Dashboards – What is offered and What is missing?

- Offered
- Dashboards offer critically important information on different topics
 - Number of COVID cases
 - Where (generally) the number of cases occurred at a point in time
- Missing
- Impact on the population
- Impact on business

What's Next?

Household Pulse Survey Data Tables

The new experimental Household Pulse Survey is designed to quickly and efficiently deploy data collected on how people's lives have been impacted by the coronavirus pandemic.

Data collection for Phase 1 of the Household Pulse Survey began on April 23, 2020, ended on July 21, 2020, and included 12 weekly table releases.

Phase 2 of the survey begins on August 19, 2020, and the Census Bureau expects to collect data through October, 2020, releasing data every two weeks. The links below will take you to the downloadable tables in XLS for each period of release.

Note: Phase 1 of the Household Pulse Survey was collected and disseminated on a weekly basis. Phase 2 has a two-week collection and dissemination period. Despite going to a two-week collection period, the Household Pulse Survey continues to call these collection periods "weeks" for continuity with Phase 1.

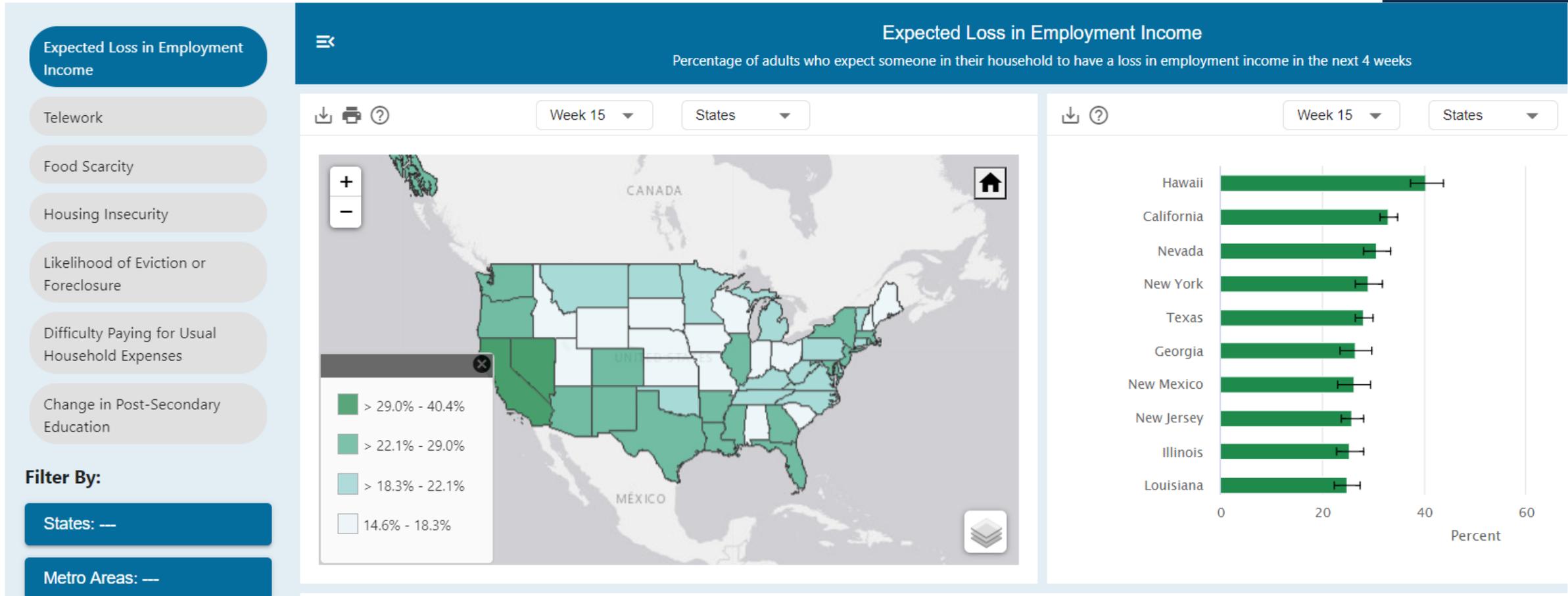




A Different Dashboard...



Household Pulse Survey





Household Pulse Survey

Expected Loss in Employment
Income

Telework

Food Scarcity

Housing Insecurity

Likelihood of Eviction or
Foreclosure

Difficulty Paying for Usual
Household Expenses

Change in Post-Secondary
Education



US Demographic and Economic Data At A Glance



Census COVID-19 Impact Report

Select State: County:

1 of 63

36 Fit page Page 1

STATE COVID-19 IMPACT PLANNING REPORT

New York (FIPS 36)

POPULATION 65 AND OLDER

Female Male

KEY FACTS				
19,618,453	7,316,537	2.60	38.7	81.2%
Total Population	Total Households	Average Household Size	Median Age	Internet At Home

BUSINESSES

547,034 Total Employer Establishments

8,261,269 Total Employees

\$547,344,236 Total Annual Payroll (\$1,000)

1,751,378 Total Non-Employer Establishments

\$92,939,642 Total Non-Employer Revenue (\$1,000)

POVERTY

1,044,943 Households Below Poverty Level

1,094,793 Households Receiving Food Stamps/SNAP

AT-RISK POPULATION

1,731,073 Households With Disability

867,926 Households w/Pop 65+ Living Alone

2,125,466 Households Without Vehicle

HEALTH INSURANCE COVERAGE BY AGE

(Civilian Noninstitutionalized Population)

Age 0-14 Age 15-24 Age 25-44 Age 45+

Source: 2014-2018 American Community Survey, Survey of County Business Patterns (CBP) 2017

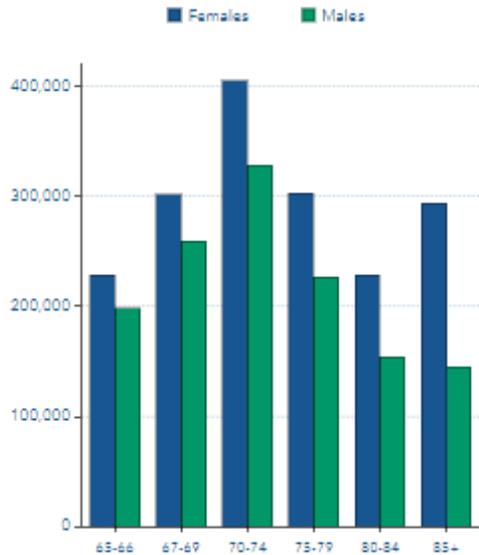


STATE COVID-19 IMPACT PLANNING REPORT

New York (FIPS 36)



POPULATION 65 AND OLDER



KEY FACTS

19,618,453 Total Population	7,316,537 Total Households	2.60 Average Household Size	38.7 Median Age	81.2% Internet At Home
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BUSINESSES



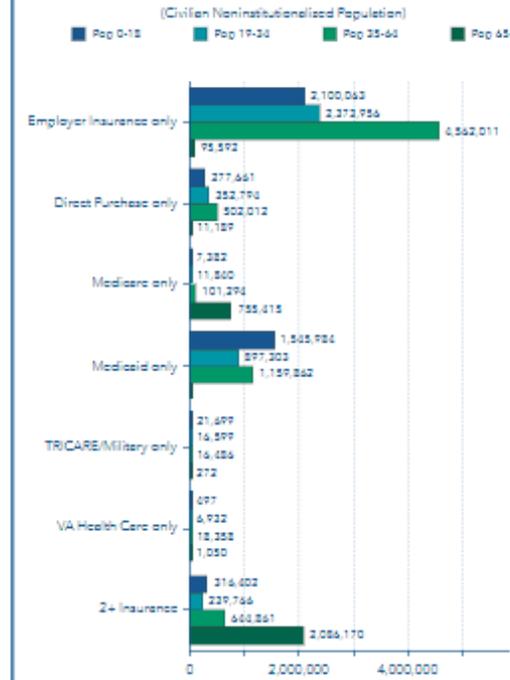
POVERTY



AT-RISK POPULATION



HEALTH INSURANCE COVERAGE BY AGE



Source: 2014-2018 American Community Survey 5-year and County Business Patterns (CBP) 2017



Household and Business Updates



Household Pulse Survey Updates

[Explore Data](#)

[See Data Tables](#)

Based on responses collected **September 16 through September 28**, the Household Pulse Survey estimates that:



Small Business Pulse Survey Updates

[Explore Data](#)

[See Data Tables](#)

Based on responses collected **September 27 through October 3**, the Small Business Pulse Survey estimates that:

Pulse Data Examples...Impact on People and Households

- **24.0%** of American adults expect someone in their household to experience a **loss in employment income** in the next 4 weeks

- **10.1%** of American adults lived in households where there was either sometimes or often **not enough to eat** in the previous 7 days

- **36.6%** of adults live in households where at least one adult **substituted** some or all in-person **work for telework** because of the coronavirus pandemic

- Of adults living in households not current on rent or mortgage, **32.1%** report **eviction or foreclosure in the next two months** is either somewhat or very likely

- **31.9%** of adults live in households where it has been somewhat or very **difficult to pay usual household expenses** during the coronavirus pandemic



Pulse Data Examples...Impact on Businesses

- **23.8%** of U.S. small businesses have **increased their use of online platforms** to offer goods or services since March 13, 2020

- **62.1%** of U.S. **small businesses** have **experienced no change in operating revenues** in the last week

- **74.0%** of U.S. **small businesses** have **requested financial assistance** from the Paycheck Protection Program since March 13, 2020

- **44.1%** of U.S. **small businesses** believe **more than 6 months of time will pass before their business returns to its normal level** of operations

- **21.9%** of U.S. **manufacturing businesses** have **experienced production delays** in the last week



A Path Forward...

- Location (geospatial) is a critical part in bringing statistics to life about people and the economy.
- Where does a mayor and health official go to see:
 - Vulnerable populations
 - Instances of COVID cases by neighborhood
 - Inoculation priority
- Where does a mayor and city planner go to see:
 - Open businesses
 - Closed businesses
 - ...



Is the Geospatial Platform the Single “Go-To” Source?

- Is this “integrated” information (or links to it) on the Platform?
 - No...
- Should it be?
 - Yes
- Examples like these may help in planning for what is needed for a reconstituted Geospatial Platform.



A Sample of Big-Needs Projects Require Geospatial

- Where is the shovel-ready infrastructure work
 - What kind of workers?
 - How many?
 - Where are they living now?
 - What supply chains are needed?
- Redesign of schools and public buildings for social distancing & hybrid learning...
 - ...
- Climate Change...
 - ...
- Economic Opportunities
 - ...
- ...
 - ...
- Is this the future Geospatial Platform...?



Thank You!