COVID-19 Best Practice Information: Data Visualization of Business Continuity and Service Information

Background

- Information-sharing through data visualization can address mass care and economic needs of individuals during the coronavirus disease (COVID-19) pandemic by identifying, tracking the status of, and publicly disseminating the location and status of local businesses and feeding and supply sites.

- This document outlines examples of how local governments have used data visualization tools to give residents access to real-time information on the location and availability of food, basic supplies, and some non-essential services during the pandemic.

  - **Business owners, community service providers, and the general public** need a unified and authoritative place to share and view service availability and the current status of businesses.

  - **Leaders and decision makers** need to track when and where gaps in feeding and critical supplies emerge throughout response and recovery. They also need to monitor and analyze business continuity and preliminary economic impact within their communities. These types of data can reveal potential shortfalls in availability of essential services and commodities for residents.

- The following is a list of key findings and considerations for jurisdictions and communities regarding ongoing COVID-19 pandemic operations across the country. These are best practices for consideration and do not constitute and should not be considered as guidance in any way.[1]

Key Considerations

- Business owners, essential service providers, and the general public can provide crowdsourced data on critical feeding and supply sites, business continuity, and the stability of essential services during response and recovery. Displaying this critical information on interactive web-based dashboards increases accessibility to the public.

- Existing technology, such as online forms and applications, simplify data collection and streamline data management, while web-based maps and dashboards facilitate public access and understanding of real-time information on food and supply sites, as well as the service status of local businesses and essential services.

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[1] This document contains references and links to non-federal resources and organizations. This information is meant solely for informational purposes and is not intended to be an endorsement of any non-federal entity by FEMA, U.S. Department of Homeland Security, or the U.S. government.

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Lessons Learned Related to Data Visualization of Business Continuity and Service Information During the COVID-19 Pandemic

Mapping Food and Supply Sites

- ▪ **Potential Best Practice:** Dakota County, Minnesota, developed an interactive map that displays local restaurants and school districts offering free meals to students, connecting students facing food insecurity to locations offering free meals. Restaurant owners, school district staff, and other members of the public may submit additional locations through an online survey. County staff review submissions before adding them to the public map.[2]
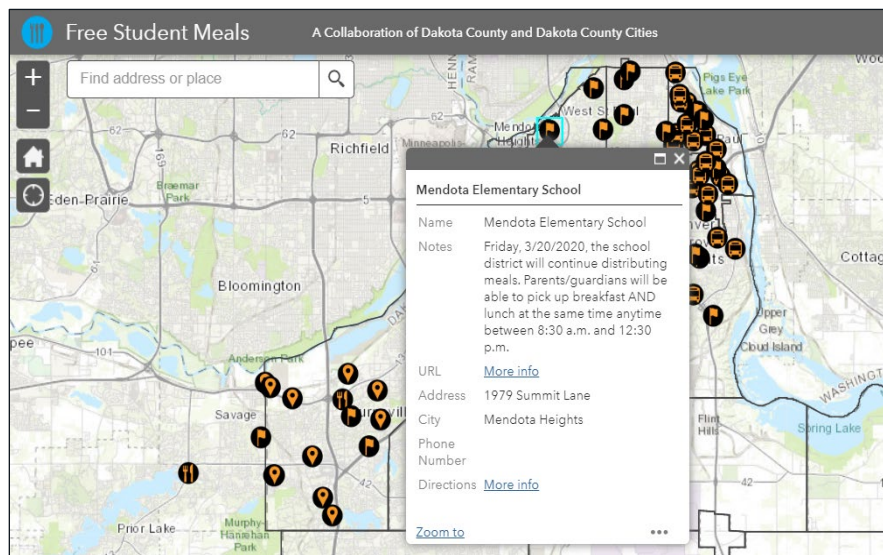

Figure 1: Free Student Meals Map

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[2] Dakota County, Free Student Meals,
https://www.arcgis.com/apps/webappviewer/index.html?id=9090cffdeffe4c91a76918440da61a16&extent=-10432713.2234%2C5536001.773%2C-10269673.0421%2C5612515.2383%2C102100

- **Potential Best Practice:** The City of Santa Monica, California, provides an Essential Services Map that allows residents to search for businesses that are providing essential services, including food and basic necessities. Essential businesses in the City of Santa Monica complete an online form detailing services they offer, and city officials verify the information before adding businesses to the public map.[3]
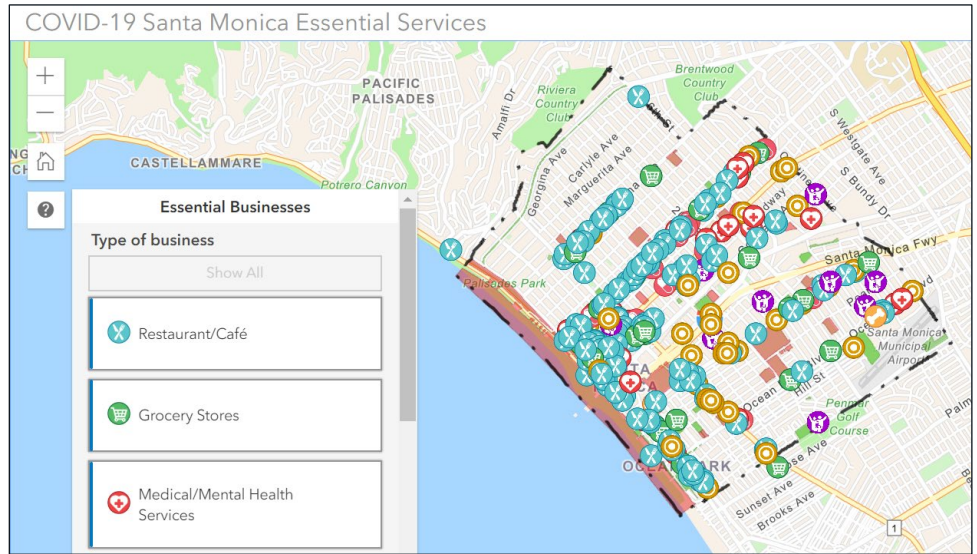

Figure 2: Essential Services Map

- **Potential Best Practice:** The City of Seattle, Washington, launched a #SupportSeattleSmallBiz campaign to support small businesses and workers during a time of economic hardship. As part of this initiative, the city created a Seattle Small Businesses Map to help residents find small businesses providing curbside and/or delivery services. By highlighting small businesses on a user-friendly interface, this map encourages residents to shop at local small businesses. Local businesses can submit status and service information using an online form.[4]
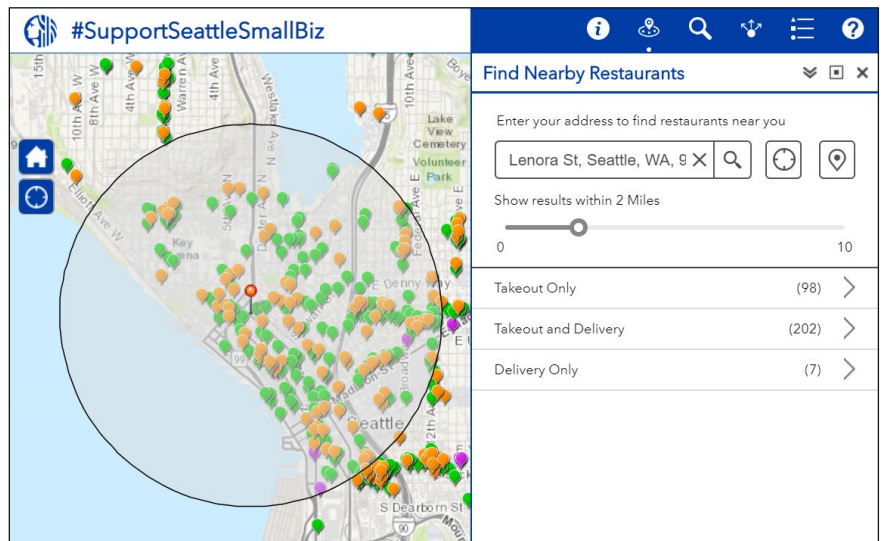

Figure 3: Support Seattle Small Businesses Map

[3] City of Santa Monica, Essential Services Map,
https://smgov.maps.arcgis.com/apps/InteractiveLegend/index.html?appid=42d89e1939d540a4ba79474c90422210
[4] City of Seattle, Support Puget Sound Small Businesses,
https://seattlecitygis.maps.arcgis.com/apps/webappviewer/index.html?id=1499ec293fed4fc587e2c559099a7e64

Visualizing Business Continuity

▪ **Potential Best Practice:** Cobb County, Georgia, developed an online dashboard to help residents locate needed supplies in the county. Through an anonymous online form or app, customers submit information about specific stores, including the stock of supplies, special hygiene and social distancing precautions, crowd sizes, and restricted hours. The dashboard displays information on the supply level of key products such as paper products, dairy, produce, and over-the-counter medications at specific stores. Members of the public can select a point on a map in the dashboard to access reports for that store.[5]
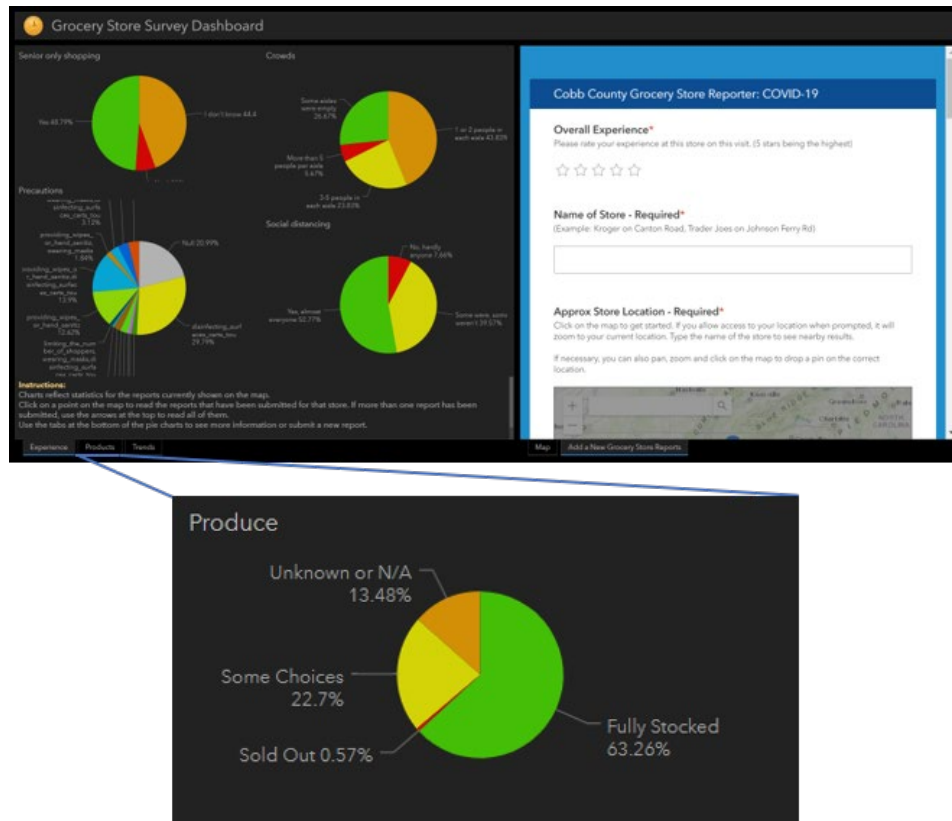

Figure 4: Grocery Store Survey Dashboard

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[5] Cobb County Georgia, Grocery Store Survey Dashboard,
https://cobbcountyga.maps.arcgis.com/apps/opsdashboard/index.html#/d40fdc3a175249ae956e5ca0fb4b85d0

- **Potential Best Practice:** The City of Nashua, New Hampshire, created a web-based self-reporting status application and map to allow local business owners and service providers to report the latest status of business and service availability. Business owners submit status information through an online form or application. Members of the public can access this real-time information using an interactive map. Leaders and decision makers can monitor business continuity, glean preliminary insights on economic impact, and prepare for the economic recovery phase.[6]
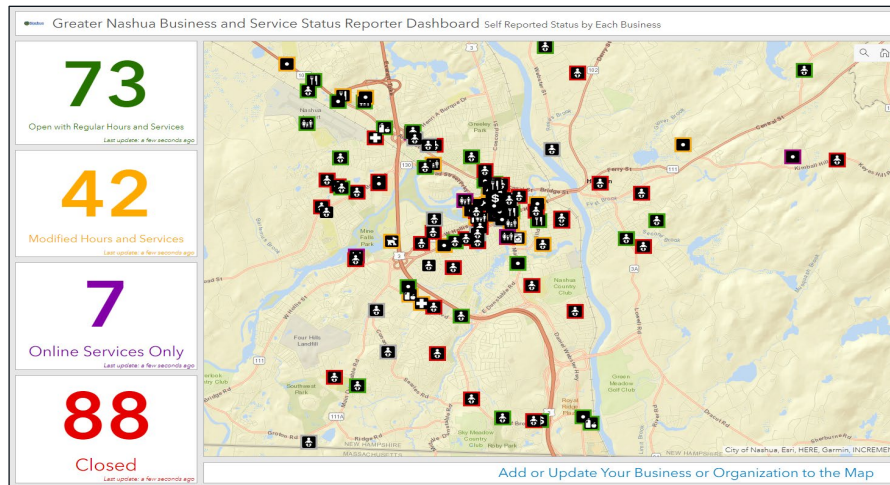

Figure 5: Greater Nashua Business and Service Status Reporter Dashboard

- **Potential Best Practice:** The West Virginia Association of Regional Councils developed a COVID-19 Business Impact Data Hub to collect business operations and economic impact information statewide. Businesses are encouraged to submit location, service, and economic impact information through a web-based form. Business location and service information is provided to the public through an interactive map to help them locate available services. Additionally, economic impact information will aid decision makers in understanding the economic challenges faced by West Virginia businesses.[7]
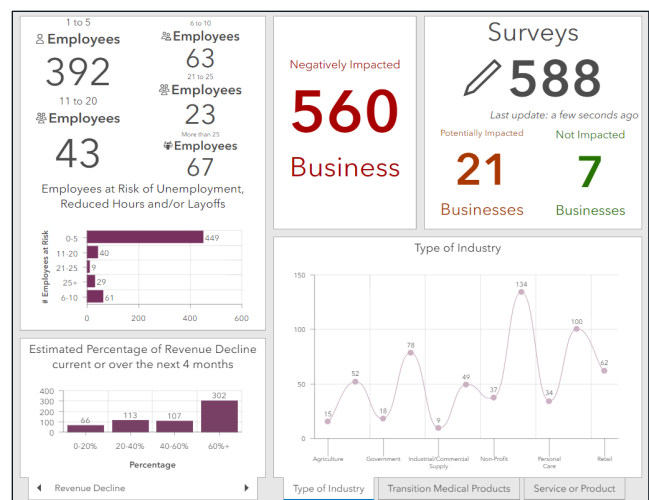

Figure 6: West Virginia COVID-19 Business Impact Data Hub

Topics for the "Best Practices" series are generated from crowd sourced suggestions. Have an idea? Let us research it! Organizations and individuals can e-mail best practices or lessons learned to fema-cipsupport@fema.dhs.gov.

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[6] City of Nashua, Greater Nashua Business and Service Status Reporter Dashboard, https://nashuamaps.maps.arcgis.com/apps/opsdashboard/index.html#/51b21812cd654290aee67c875a649f28

[7] West Virginia Association of Regional Councils Logo, West Virginia Association of Regional Councils COVID-19 Response https://west-virginia-covid-19-business-impact-region1.hub.arcgis.com/