*+++ +ableau*®

# Citizens & Government: Strengthening the Relationship with Data

# Contents

# Citizens & Government: Strengthening the Relationship With Data

## Introduction

The pandemic may not be over, but the predictions about permanent changes to both our government and our society have begun. Numerous lessons will be learned, but there is one that surely stands out to public sector leaders:

**Going forward, the relationship between citizen and government must be informed by data.**

Overnight, every aspect of life for citizens was impacted by the pandemic. In turn, pressure was applied to government agencies across the country. This time, though, the pressure was different. Long lines at the local agencies were replaced by congested phone lines and overtaxed websites. In many places, the health crisis exposed the gaps in digital government services and citizen experiences.

But the public sector was quick to respond. Agencies raced to digital service delivery to alleviate bottlenecks, communicate with constituents, and enable newly-remote workforces. At the center of this transformation was data. Citizens wanted to know more, and their governments turned to data to tell the story in detail. Both citizens and their governments wanted a better outcome, and the data helped agencies understand communities' needs and make more informed decisions.

**There's no going back now.**

The need for the digital transformation of government agencies accelerated beyond all expectations. As a result of the pandemic and technology advances, even more constituents began interacting with government agencies through more channels, including social media. This created more disparate data to integrate and analyze for improving customer satisfaction, and ultimately mission success.

It's no revelation that data holds immense potential for improving the way organizations operate and deliver for their citizens — but realizing that potential can be difficult. That's where the Tableau platform can provide game-changing capabilities. Tableau is a trusted partner for dozens of U.S. states and federal agencies, and hundreds of municipalities which have begun to harness the power of data to support their missions. Tableau helps organizations understand citizen needs and trends. It provides transparency to the public, increasing their trust in what they are being told. It transforms the workplace for public sector employees, enables them to use data to improve operations, and delivers better outcomes for citizens.

Put into practice, Tableau enables the public sector to use data and visualizations to provide easy constituent access to information through self-service channels — freeing up busy employees to address more complex needs. Interactive dashboards offer citizens opportunities to engage with data that used to be siloed or hard to find, and discover new, actionable insights. Public entities are also able to better understand their workforce's capacity, while improving their workflows and productivity.

## Chapter One: Data and the public sector COVID-19 response

During the COVID-19 pandemic, the public sector has had to adapt rapidly. The ability to make decisions with the most up-to-date information proved essential, whether managing the PPE supply chain or tracking trends in community spread of the virus. Government data analysis has also helped the public understand the effectiveness of public health measures like masking and social distancing, providing much-needed guidance at a time when citizens felt overwhelmed by information.

### Colorado tracks the COVID-19 response

The pandemic demanded an immediate strategic shift and pivot of resources for the Colorado Department of Public Health and Environment (CDPHE).[1] To respond to the COVID-19 pandemic, CDPHE swiftly deployed strategies and allocated resources to help protect citizens from the virus, relying on data to make critical decisions.

Using Tableau, CDPHE used data to track its performance and inform the public about outbreak, case data and vaccine updates.

### Identifying vulnerable communities for rapid response

The COVID-19 pandemic has taken an enormous economic toll, and USDA is taking a data-driven approach to protect rural communities.[2]

Utilizing risk analytics and data visualizations, USDA Rural Development identifies counties most likely to be hardest hit by the economic developments related to COVID-19, enabling field staff to respond more quickly to the needs of rural communities.

## Dallas COVID-19 tracker

The City of Dallas, Texas is sharing its COVID-19 data through a public dashboard to help inform citizens about the virus.[3] The platform enables employees and managers to see and understand mission-critical data when it's needed most, incorporate data into their decision-making processes and regular workflows, and to share their insights via easy-to-understand automated dashboards. With the city's vaccination efforts underway, a new dashboard shows residents how many vaccinations the city has administered.

## Empathetic and reflective design preventing burnout

To mitigate the sensory overload of the pandemic data, the Los Angeles Innovation Team built an empathy-centered information system.[4] The team developed Daily COVID-19 Data Summaries that the Mayor, city officials, and Angelenos access and rely on. The reports showcase how design thinking and reflection can be employed to prevent readers from becoming numb to repetitive, negative news and reduce the emotional exertion of its stakeholders.

## Tracking the vaccination program

The State of Ohio has used Tableau dashboards since the early days of the pandemic to share key information with residents.[5] As public attention and public sector focus has shifted from tracking outbreaks to speeding the distribution of vaccines, Ohio has launched dashboards to show how many Ohioans have received the vaccine, and help those waiting find a local provider.

### TRY IT FOR YOURSELF
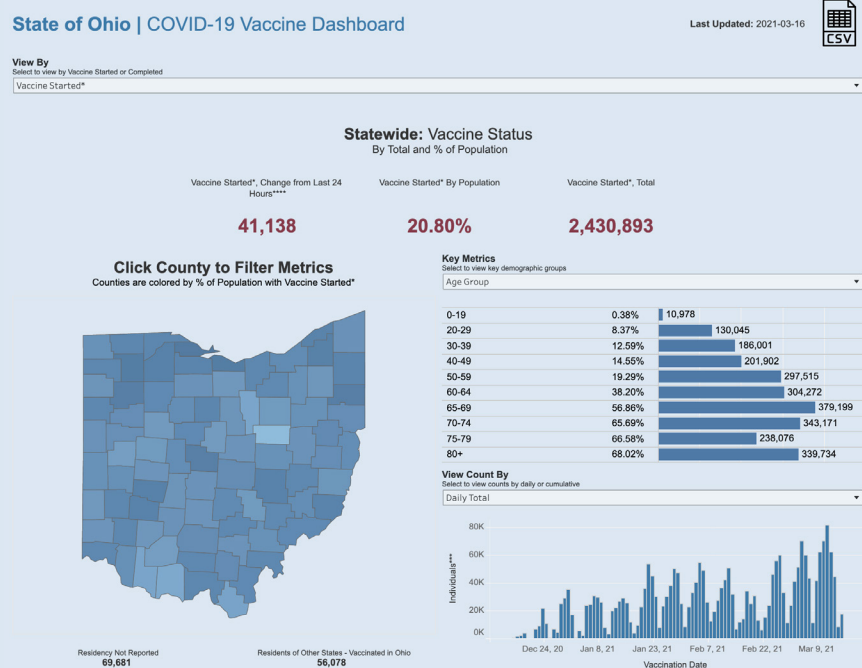
# Chapter Two: Building a Data Culture

With Tableau, instead of spending hours poring over spreadsheets, public sector employees can focus on turning data into impactful visual analyses. However, becoming data-driven requires cultural change to shift the mindset of every person in the organization.

*Setting data priorities*

The COVID-19 pandemic showed that an agile, strategic use of data greatly impacts an organization's ability to react to a changing environment. But getting the most out of your data requires more than just technology. It requires a commitment to promote data-driven decision making at every level of the organization.

- Develop data to support guiding metrics at the leadership level, composed of a few high-level data sources and visualizations to foster a shared source of truth.

- Analyze metrics against historical performance to understand how the organization is faring.

- Track metrics on a regular cadence against expected performance to promptly identify unexpected trends and proactively address business challenges.

Just like in the private sector, public sector employees are being required to upskill to stay relevant in their organization and for their constituents. Fortunately, with its ease-of-use and powerful insights, Tableau helps to foster a passion for analytics at every level. The platform empowers the employees to ask questions of the data; and the Tableau community encourages them to share their findings and best practices.

"We now have our data integrated instead of having our data in siloed instances. We have self-reporting tools, which is another thing that makes it innovative because it allows our users to discover, draw and share insight among their teams. This has improved both their speed and confidence in decision making. We are probably avoiding about $1 million a year with not having to go and generate these reports."

Adriane Burton, **U.S. Health Resources & Services Administration**

Inside organizations that use Tableau, "centers of excellence" are enabling users to share best practices, advice, and use cases to foster their data culture. To accelerate adoption of analytics throughout an organization, Tableau offers free, comprehensive video training for users at all levels, a Tableau certification program, and continuing education offerings to advance data literacy and analytics skills. Equipping the workforce with analytics skills not only creates a pipeline of employees who understand how to work with data, but can also support recruitment and retention efforts as employees obtain experience valued in the modern economy.

### *Get more value out of your organization's investments in data transformation*

Take the next step to expand the use of data and get additional value out of the investments the public sector has made in data analytics during the pandemic:

- Incorporate data assets into employees' existing workflows and applications by setting up email subscriptions, chat alerts, or embedding in workflow applications.

- Search for and incorporate new data into data sources and dashboards that support predictive and prescriptive analytics for more advanced use cases.

- Support development of data knowledge by adding definitions, explanations, notes, and metadata to data assets, gathering feedback from users along the way.

Tableau helps organizations balance the dual goals of governance and self-service access, enabling them to benefit from the innovation and insights that come from access, while securing data with appropriate limits. It enables users to connect disparate data sources into one platform, where they can conduct analysis. Powerful APIs and integration — facilitated by MuleSoft — bring data together in one analytics platform, no matter where it's currently siloed. Tableau Prep offers a full suite of tools to cleanse, prepare, and maintain high-quality datasets, ensuring that insights are reliable and credible.

The Tableau platform makes it possible for employees to engage with data and use it to gain insights, improve processes, and achieve their goals. This is a key component of a strong data culture, and a necessary step toward becoming a data-driven organization. When agencies are operating with better information, and sharing that information clearly and quickly, they can achieve their missions more effectively.

# Chapter Three: Supporting Public Sector With Data

Data and transparency are key to building trust between citizens and their governments. Through this data, agencies are informing citizens with knowledge they can use to protect themselves and their communities, while also providing a self-service model for citizens to engage with government through technology.
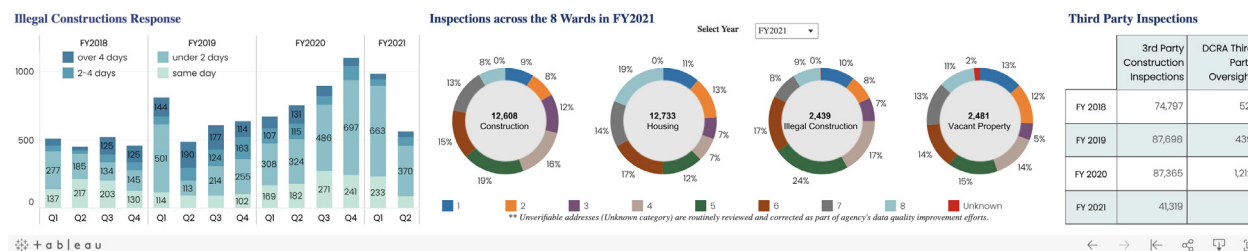
## Upgrading resident services

Today's data-savvy constituents have high expectations when interacting with the government. By sharing the agency's performance, the District of Columbia Department of Consumer and Regulatory Affairs (DCRA) enables the public to easily track DCRA's customer interactions, service goals, and regulatory enforcement, and other important public data.[6]

DCRA's data resources help citizens through tools like the Landlord Violation Tool, which enables D.C. residents to research housing violations and landlords' records. The tool makes the city's database of code violations easy to access for potential renters, who can use it to inform their decision before signing a lease.

## TRY IT FOR YOURSELF

### Identifying scams and fraud

Scams and fraud swindle Americans out of billions of dollars every year. The US Federal Trade Commission (FTC) collects and reports data to protect consumers from scams, fraud, and theft.[7] The FTC uses Tableau to analyze and share its findings with consumers to help them understand risks and identify schemes.

From detailed information about government imposter scams to data on refunds recovered by the FTC on behalf of customers, Tableau dashboards offer a look into the agency's work to protect consumers.
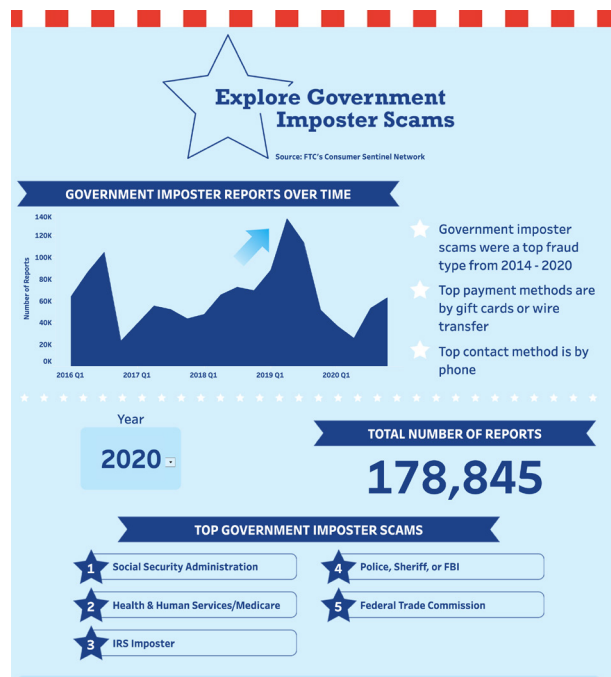
### Improving government performance in Indiana

The State of Indiana Management Performance Hub (MPH) is a state agency focused on improving the quality of life for the people of Indiana through data sharing, innovation, and collaboration. Run by the Indiana governor's office under the Indiana Office of Management and Budget, the agency promotes data-driven policy focused on user experience, decision making, and public data transparency. Nonprofits, other government agencies, and everyday citizens visit MPH online to get the data they need for grant writing, policy advocacy, community plan development, and other program purposes.[8]

"Improving our delivery times has greatly increased the usability of our products. With Tableau, I can meet with the end user, learn about how they want to use the data, and build something very quickly that meets their needs and expectations.

Dakota Bagwell, business intelligence developer, **State of Indiana Management Performance Hub**
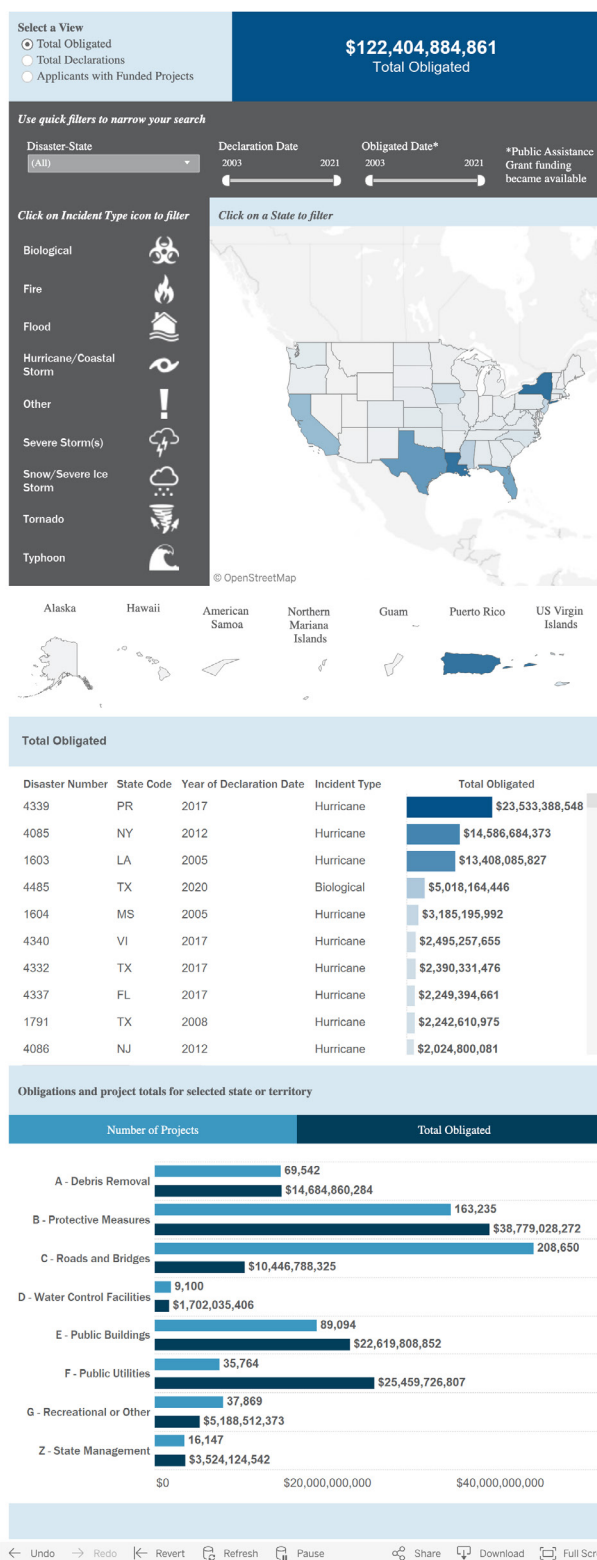
## FEMA by the Numbers

To make its financial data more transparent and improve operations, the US Federal Emergency Management Agency (FEMA) launched the "FEMA By the Numbers" dashboard, which visualizes the agency's most queried data.[9] After Hurricane Sandy, Amber Noel of the Enterprise Analysis Division said that FEMA identified the "need to have some sort of common analytic product that could be used for planning and analysis during that operational period." In 2020, FEMA saw approximately 400 unique users and 22,000 hits on its Tableau server each week, with even more inquiries during disaster events.

"It runs the gamut, we see things like how many disasters have we declared so far this year, how many people are out in the field right now? We also have human capital questions, financial questions, how much money have we outlaid on certain program areas so far this year... This really put decision-making in the hands of the users. They were able to drive it, they were able to dive in, look at what they needed to see. And they didn't have to manipulate really big Excel files. They didn't have to try and download multiple Excel files and then do a pivot or do a filter. It was all right there, it was much more user-friendly for them"

Amber Noel, analysis and communications branch chief, **Enterprise Analysis Division, U.S. Federal Emergency Management Agency**



**TRY IT FOR YOURSELF**

Select a View
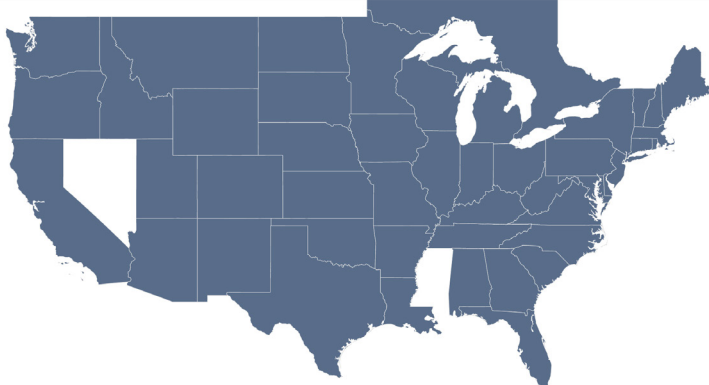- Total Obligated
- Total Declarations
- Applicants with Funded Projects

**$122,404,884,861**
Total Obligated

*Use quick filters to narrow your search*

Disaster-State
(All)

Declaration Date
2003 — 2021

Obligated Date*
2003 — 2021

*Public Assistance Grant funding became available

*Click on Incident Type icon to filter*

- Biological
- Fire
- Flood
- Hurricane/Coastal Storm
- Other
- Severe Storm(s)
- Snow/Severe Ice Storm
- Tornado
- Typhoon

*Click on a State to filter*

© OpenStreetMap

Alaska   Hawaii   American Samoa   Northern Mariana Islands   Guam   Puerto Rico   US Virgin Islands

**Total Obligated**

| Disaster Number | State Code | Year of Declaration Date | Incident Type | Total Obligated |
|---|---|---|---|---|
| 4339 | PR | 2017 | Hurricane | $23,533,388,548 |
| 4085 | NY | 2012 | Hurricane | $14,586,684,373 |
| 1603 | LA | 2005 | Hurricane | $13,408,085,827 |
| 4485 | TX | 2020 | Biological | $5,018,164,446 |
| 1604 | MS | 2005 | Hurricane | $3,185,195,992 |
| 4340 | VI | 2017 | Hurricane | $2,495,257,655 |
| 4332 | TX | 2017 | Hurricane | $2,390,331,476 |
| 4337 | FL | 2017 | Hurricane | $2,249,394,661 |
| 1791 | TX | 2008 | Hurricane | $2,242,610,975 |
| 4086 | NJ | 2012 | Hurricane | $2,024,800,081 |

**Obligations and project totals for selected state or territory**

| Number of Projects | Total Obligated |
|---|---|

| | Number of Projects | Total Obligated |
|---|---|---|
| A - Debris Removal | 69,542 | $14,684,860,284 |
| B - Protective Measures | 163,235 | $38,779,028,272 |
| C - Roads and Bridges | 208,650 | $10,446,788,325 |
| D - Water Control Facilities | 9,100 | $1,702,035,406 |
| E - Public Buildings | 89,094 | $22,619,808,852 |
| F - Public Utilities | 35,764 | $25,459,726,807 |
| G - Recreational or Other | 37,869 | $5,188,512,373 |
| Z - State Management | 16,147 | $3,524,124,542 |

$0   $20,000,000,000   $40,000,000,000

← Undo   → Redo   Revert   Refresh   Pause   Share   Download   Full Screen

See for yourself how Tableau is empowering public sector organizations across the US to use data in new and innovative ways.

## Conclusion

The pandemic and the recovery effort have accelerated digital transformation of government at every level, as agencies have made use of data and technology to solve complex challenges at scale. As citizens and policymakers see the benefits of an increasingly digital government, this trend will continue. As one state CIO attests, "…this isn't even a question at this point. Government is now digital. Our world is now going to be all, or very largely digital." Public sector agencies must harness the power of data through analytics to upgrade citizen experience and improve performance. Public sector decision-makers can prepare their organizations by learning from the progress and best practices of peers, championing a data culture within their own organization, and investing in IT modernization. These strategies will yield long-term benefits for both government and its citizens: improving outcomes, reducing friction, and strengthening trust. To learn more, please visit our Government Analytics page.

# Quotes

"We now have our data integrated instead of having our data in siloed instances. We have self-reporting tools, which is another thing that makes it innovative because it allows our users to discover, draw and share insight among their teams. This has improved both their speed and confidence in decision making. We are probably avoiding about $1 million a year with not having to go and generate these reports."

Adriane Burton, **US Health Resources & Services Administration**

"Tableau lets us provide data and insights to the people who need it most. The better data we have, the better analytics we can perform, and the better outcomes we're able to show. The data gives us better evidence and supports better discussions with the people who implement our programs. Ultimately, it helps to produce better health outcomes, which is our goal."

Leeza Kondos, senior data scientist, **US Agency for International Development**

"With Tableau and Prep Conductor, we're putting the whole ETL process into the analysts' hands. It's made us completely rethink how we design our data architecture—moving away from a warehouse strategy and more toward ad hoc, where the analysts can manipulate and prepare the data in more agile ways that respond to business needs more quickly and effectively."

Jefferson McMillan-Wilhoit, director of health informatics and technology, **Lake County Health Department, Illinois**

"We have 2,600 workbooks created over the last five years, and many of them have been answers to those one-off questions. When someone contacts us and asks us to do something, we try to say 'yes.' And we tend to say 'yes' with Tableau."

Leslie Goldsmith, data analysis supervisor, **Minnesota Pollution Control Agency**

"Tableau helps us tell the story of what the library does in a way we've never been able to before. Telling a story rooted in data— rather than anecdotes—is a much more powerful way of getting across the depth and breadth of what we do here."

Selvon Smith, CIO, **Brooklyn Public Library**

"Tableau has been invaluable in transforming our data culture. It started with top-down advocacy from our senior leaders, and evolved into a real day-to-day transformation. Now we're spending less time building reports and focusing more on analysis so we can provide actions and insights to our executives and business users."

Matt Langevin, senior analytics manager, **Booz Allen Hamilton**

## About Tableau

Organizations around the world are using Tableau to share data and insights and keep their employees and citizenscitizend engaged. Find out how our platform can help your organization to see and understand their data by enabling self-service analytics, allowing collaboration, and swift insight-to-action. Try Tableau for free today.

## Related resources

COVID-19 Data Hub

Modern Vaccine Management: What Leaders Need to Know

How Government Agencies Can Use Data to Manage Through a Crisis

What we can learn from the public sector's response to COVID-19

The Data Culture Playbook

A Guide to Implementing Federal Data Strategy Using Tableau Blueprint

## Recorded presentations

Achieving a Culture of Analytics at the USDA

USAID Global Health: The Implementation of a Data Revolution

+ + + + + t a b l e a u ®

# Citations

1.  "COVID-19 dial dashboard," Colorado COVID-19 Updates, Colorado Department of Public Health & Environment, Accessed March 19, 2021, https://covid19.colorado.gov/data/covid-19-dial-dashboard

2.  "The COVID-19 Pandemic and Rural America," U.S. Department of Agriculture Economic Research Service, Accessed March 19, 2021, https://www.ers.usda.gov/covid-19/rural-america/

3.  "COVID-19 Vaccinations Administered By City of Dallas," City of Dallas COVID Dashboard, City of Dallas, Accessed March 19, 2021, https://dallascitydata.dallascityhall.com/views/CityofDallasCOVIDDashboard_16125638795320/Vaccinations

4.  "Los Angeles Daily COVID-19 Data Summaries," COVID-19: Keeping Los Angeles Safe, Los Angeles County, Access March 19, 2021, https://corona-virus.la/data

5.  "COVID-19 Vaccine Provider Locations," COVID-19 Dashboard, Ohio Department of Public Health, Accessed March 22, 2021, https://coronavirus.ohio.gov/wps/portal/gov/covid-19/dashboards/covid-19-vaccine/covid-19-vaccine-provider-dashboard

6.  "DCRA Agency Dashboard," DCRA Summary Dashboard, Department of Consumer and Regulatory Affairs, Accessed March 19, 2021, https://eservices.dcra.dc.gov/DCRAAgencyDashboard/index

7.  "Explore Government Imposter Scams," Tableau Public, Accessed March 19, 2021, https://public.tableau.com/profile/federal.trade.commission#!/vizhome/GovernmentImposter/Infographic

8.  "Management Performance Hub, State of Indiana, Accessed March 19, 2021," https://www.in.gov/mph/

9.  "Public Assistance Program Summary of Obligations," FEMA Reports and Data, Federal Emergency Management Agency, Accessed March 19, 2021, https://www.fema.gov/data-visualization/public-assistance-program-summary-obligations