



odgga

OFFICE OF DATA  
GOVERNANCE  
AND ANALYTICS

# Data Management Maturity Assessment

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Results and Objectives



- Scoring scaled on rating of 0 (worst) to 4 (best practice)
- 30 questions covering 4 key areas:
  - People and Culture (8 Questions)
  - Data Activities (9 Questions)
  - Business Process (9 Questions)
  - Technology (4 Questions)
- Average completion time was 20-25 minutes

<https://sage-reports.cdo.virginia.gov/Reports/powerbi/CDO/ODGA%20Assessment%20survey>

# Data Management Maturity Levels

# 4

## 34%

## 3

## 45%

## 2

## 21%

## 1

## 0

DMM Template

DMM Results (All)

<b>Predictive</b>	<ul style="list-style-type: none"> <li>Information management as an asset</li> <li>Data strategy key to business success</li> <li>Continuous improvement</li> <li>Culturally aligned</li> <li>Analytics trusted and relevant</li> <li>Data at the 'right' quality</li> <li>Measurements are business focused</li> </ul>
<b>Proactive</b>	<ul style="list-style-type: none"> <li>Decision support</li> <li>Root cause analysis</li> <li>Business owned</li> <li>IT stewarded</li> <li>Culture 'gets' data</li> <li>Key performance indicators (KPIs) in place</li> </ul>
<b>Stable</b>	<ul style="list-style-type: none"> <li>Data has value</li> <li>Roles defined</li> <li>Governance defined</li> </ul>
<b>Reactive</b>	<ul style="list-style-type: none"> <li>Primary data understood</li> <li>Operational processes</li> <li>Informal roles</li> <li>Some change capacity</li> <li>Some business ownership</li> <li>Lots of 'outlaws'</li> <li>Only some data trusted</li> <li>Key performance indicators (KPIs) weak</li> </ul>
<b>Chaotic</b>	<ul style="list-style-type: none"> <li>Some process</li> <li>Data resides in IT</li> <li>No change capacity</li> <li>No useful key performance indicators (KPIs)</li> <li>Roles not defined</li> <li>Datasets not reconciled</li> </ul>
	<ul style="list-style-type: none"> <li>Manual process</li> <li>Siloed data</li> <li>Quality not assessed</li> <li>No data standards</li> <li>No data strategy</li> </ul>

# Agency Maturity Survey Results

## Response Rate

**74.6%**

Up from **0%** in 2021 (No baseline)

## 47 Agency Respondents



63 Agencies Solicited

## Survey Median Score

**2.48**

- Business Processes scored lowest
- People and Culture scored highest

## Of Respondents Say:

**21.2%**



- Rate their program as "reactive" and in need of work.

## Of Respondents Say:

**44.6%**



- They are "stable" regarding their data program

## Of Respondents Say:

**34.2%**



- Rate themselves proactive

## Highlights



**75%**

Agency Response Rate



**3.87**

Highest Overall Score



**1.01**

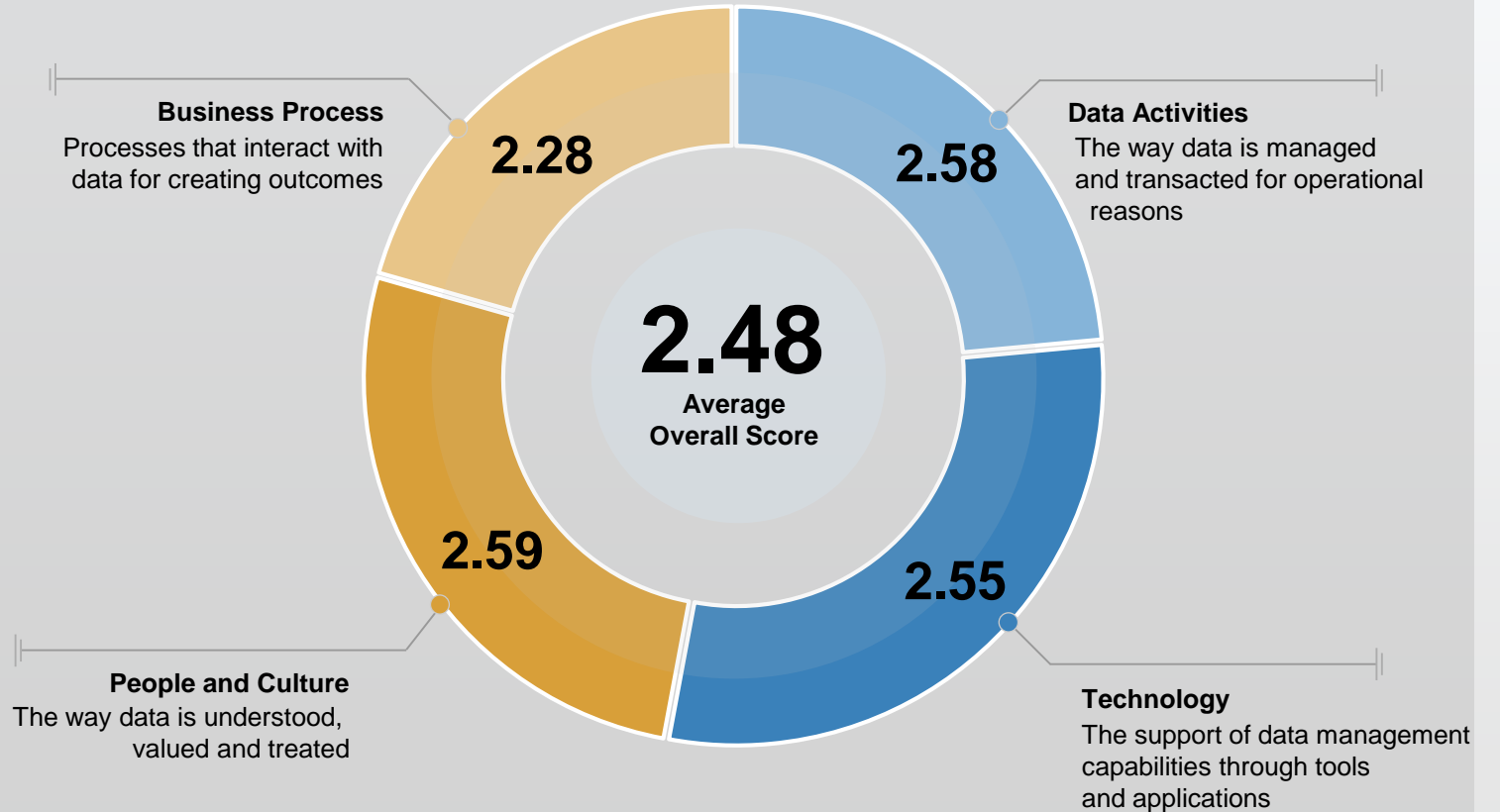
Lowest Overall Score



## Organization



## Technology





**Q16** **Approach/Plan for improving data quality**

28% of Agencies rated "1". "Fix and forget it" approach.

**Q12** **Metadata Management**

Overall score = 1.85. Seven agencies rated themselves "0".

**Q24** **Lack of metrics on data quality**

32% Agencies rated "1" or lower

**Q6** **Use of logs to record data management risks/issues**

32% Agencies rated "1" or lower

**Q30** **Data Modeling**

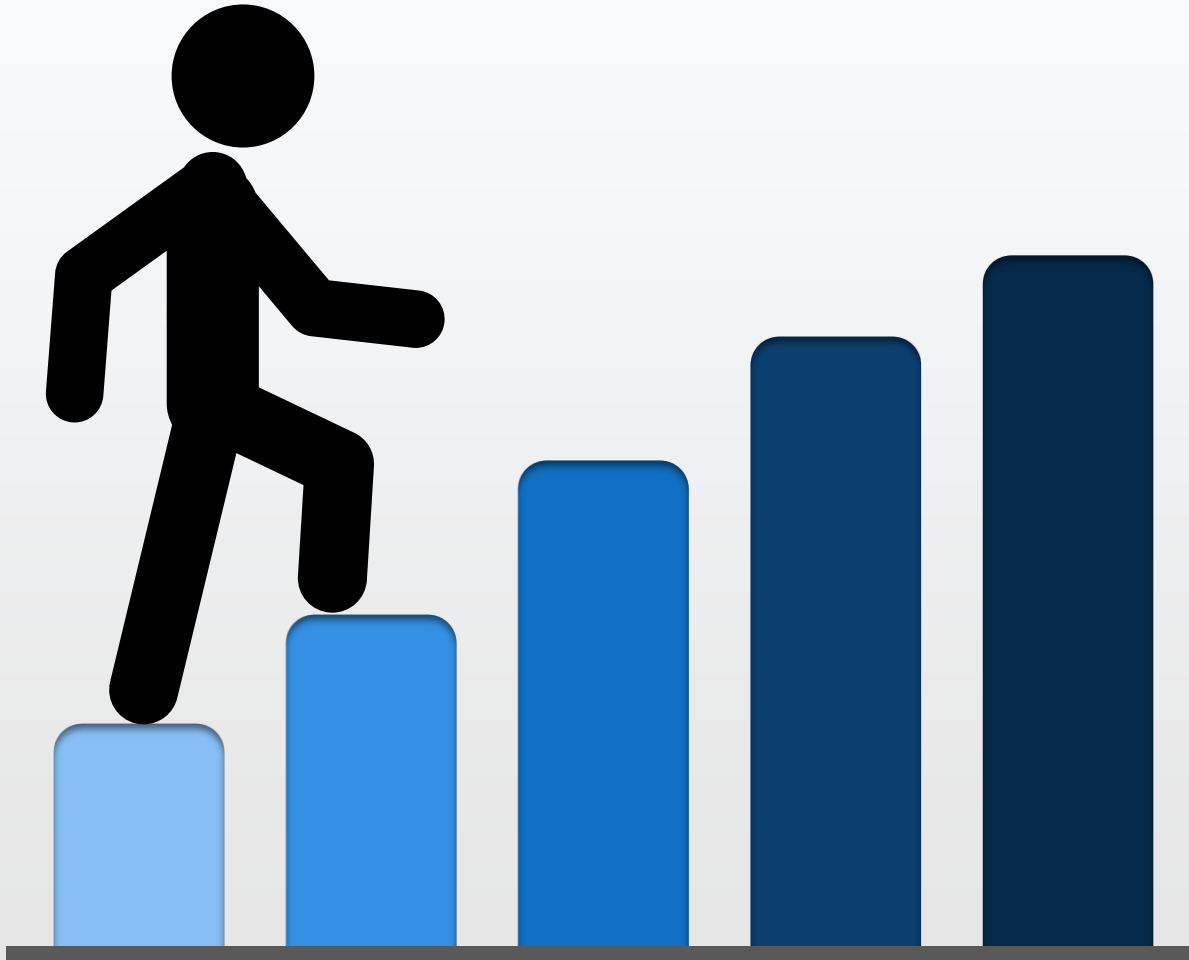
60% of agencies (28) have trouble with data modeling. 24% regard their data as being "primarily in silos"

**Q4** **Roles exist for data activities**

85% of agencies (40) have formal roles for data established, with data stewards and owners

**Q5** **Management Support**

Senior Management Sponsorship for data initiatives at agencies. Average score "3", only one agency rated themselves "1"



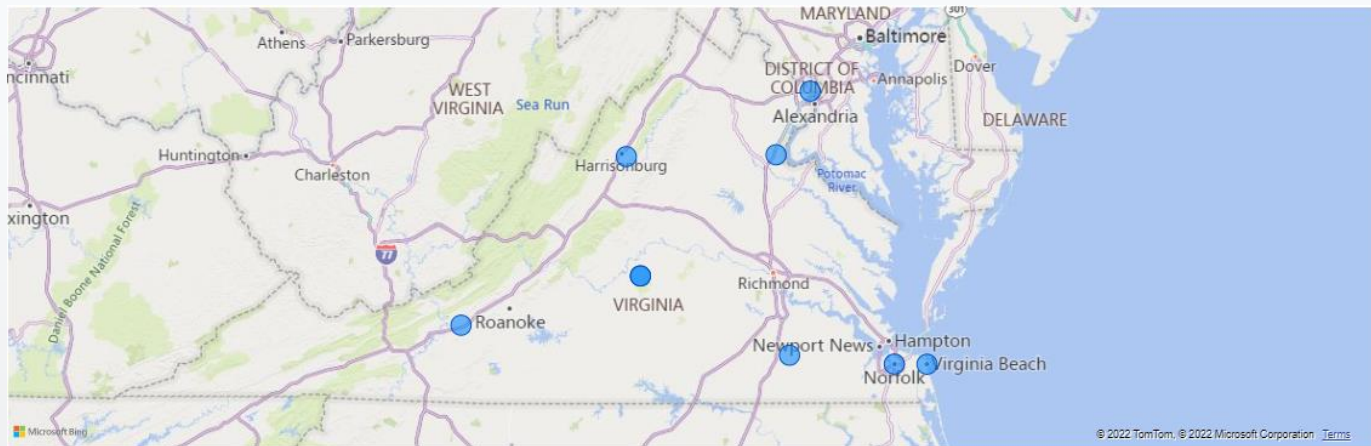
- **Select Agencies to engage.** *More mature programs tend to have data that can already attribute to outcomes. Less mature will benefit from implementing efficiencies in process or technology.*
- **Evaluate Data Plans.** *Business Analysis. Determine alignment of Commonwealth data objectives with agencies' plans and preliminary outcomes*
- **Determine outcomes.** *Evaluate business objectives, existing outcomes and processes for determination as a larger part of top 5 key outcomes..*
- **Determine Datasets.** *Identify datasets and sources needed to facilitate objectives. Incorporate into Commonwealth Data Trust.*



# Top 5 outcomes to work toward with agencies

1. Workforce Development
2. Cybersecurity
3. Health and Human Services
4. Tax and Finance
5. Single Citizen Experience

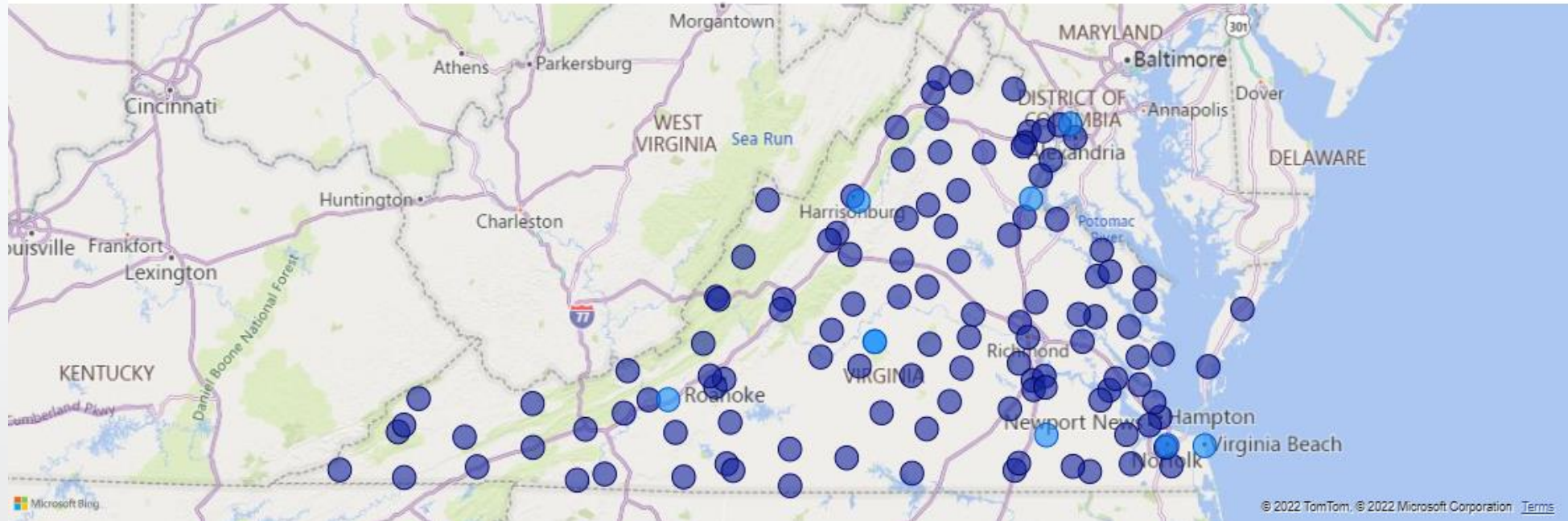
- Four localities visited since last VDAC on 7/19/22
- Two locality events presented at, one attended
- Four visits planned for the rest of 2022
  - Sussex
  - Montgomery
  - Rockingham
  - Stafford



VISIT ORDER	STATUS	DATE	RURAL or NON - RURAL	COUNTY / CITY	EXACT LOCATION
1	Visited	Thursday, August 18, 2022	Non-Rural	Norfolk	810 Union St, Norfolk, VA, 23510, US
3	Visited	Tuesday, August 30, 2022	Non-Rural	Arlington County	
4	Visited	Monday, September 26, 2022	Non-Rural	Virginia Beach	2408 Courthouse Drive (Building 21), Virginia Beach, VA 23462
Conference	Visited	Monday, October 03, 2022	Non-Rural	Virginia Municipal League Annual Conference	500 E Broad St, Richmond, VA 23219
Conference	Visited	Wednesday, October 19, 2022	Non-Rural	Capital Cybersecurity Summit	1069 W Broad St Suite 743, Falls Church, VA 22044
7	Visited	Thursday, October 27, 2022	Non-Rural	Sussex County	20135 Princeton Road, Stony Creek VA, 23888
8	Visited	Thursday, November 10, 2022	Non-Rural	Montgomery County	755 Roanoke Street, Christiansburg, VA 24015
9	Visited	Tuesday, November 29, 2022	Non-Rural	Rockingham County	20 East Gay Street, Harrisonburg, VA 22802
10	Visited	Wednesday, December 14, 2022	Non-Rural	Stafford County	2143 Richmond Highway, Stafford VA 22554

<https://sage-reports.cdo.virginia.gov/Reports/powerbi/CDO/CDO%20Localities%20Outreach%20Tracker>

● Future Visit ● Visited



25 locality visits planned per fiscal year.

- A diverse and equitable effort is planned with visit rotation based on these variables:

- Geographic region
- Urban vs Rural
- Existing relationships or prior engagements
- Consolidation of visits where possible

- Resources and staff constraints are common theme. Often one person wearing many hats
- Little understanding at smaller localities how they would kick start a data program (if one doesn't exist)
- Large and small localities call for regional discussion/participation groups for data in the same way that IT or Cyber operates
- Smaller localities are still using paper or spreadsheets for data management
- In one case, EMS services were affected due to no data transfer abilities with area hospitals. All paper workflow.



Virginia Department of  
Emergency Management

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# Payroll Automation Tool

Date: October 25, 2022

# Payroll Automation Tool

The Office of Data Governance and Analytics collaborated with VDEM's Accounting office to build a customized business process automation that reconciled data sets from three disparate systems. The output of that automation was then used to reallocate payroll expenses to authorized funding for disaster response.



# DISASTER PAYROLL REALLOCATION

- During times of disaster VDEM personnel coordinate the response and recovery to natural, manmade and recently public health threats to the Commonwealth of VA.
- Personnel are re-directed from steady state activities and dedicate time and effort to the disaster(s) at hand, VDEM is 75% Non-General Funded (NGF); time and effort towards disaster response is not an allowable expense to the NGF sources.
- Payroll expense coding is budgeted at the beginning of the fiscal year to steady state funding and default directly to those codes each payroll cycle.



# PAYROLL WORKFLOW

- The payroll workflow was performed using data from three disparate systems with no ability to integrate.
- Timekeeping system, Payroll System, Accounting System



- Accountants would perform a series of reconciliations of each data set using a combination of Microsoft Excel functions and formulas to segregate, analyze and compute the detailed payroll data to move employees disaster response payroll expenses.





# BENEFITS OF AUTOMATION

- Reduced the time and effort burden of manually structuring, manipulating, and analyzing data sets.
- Timely redistribution of payroll expenses, realigning expenses provides accurate spend data that is visible to oversight agencies.
- Supports the agency's ability to properly develop reporting of disaster related personnel expenses, which supports budget development, audit requirements, and future funding decisions.
- The Payroll Automation Tool allowed VDEM's Accounting Office to reallocate nearly 1.2M in disaster payroll expenses. Depending on the duration of the disaster the volume of payroll being reconciled utilizing the manual process would take 1-3 weeks as Accountants balanced competing priorities. The automated function reduced this process to less than 1.5 hours.



# FUTURE INITIATIVES

- The agency continues to look for efficiencies that:
  - Leverage available and explore new technology,
  - Streamline and automate our financial and administrative processes,
  - Reduce the risks of human error,
  - Increase efficiency, and
  - Support continuity of operations



# Questions?



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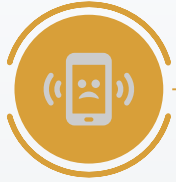
# THANK YOU!



» [vaemergency.gov](https://vaemergency.gov)

f [VAemergency](https://www.facebook.com/VAemergency)

t [@VDEM](https://twitter.com/VDEM)



## **Codify the Chief Data Officer Role**

Ensure the role of the Chief Data Officer is permanent – Set to sunset June 30, 2023



## **Codify the Office of Data Governance and Analytics**

Ensure the ODGA is a permanent agency.



## **Secure Funding for the ODGA**

Ensure Decision Packages provide General funding needed



## Overview

- An office at the enterprise level within the Commonwealth of Virginia charged with advising state agencies and political subdivisions regarding policies, standards, and best practices concerning the creation, maintenance, analysis, and dissemination of data.

## Mission

To maximize the value of Commonwealth data through strategic governance, secure and appropriate data sharing, and enterprise analytics services informing actionable intelligence that helps Virginians live better lives.

## What We Do

- Oversee data sharing among state, regional, local public entities & public institutions of higher education
- Implement data governance strategies
- Promote and increase access to Commonwealth data
- Develop innovative data analysis and intelligence methodologies to promote data-driven policy making, decision making, research, and analysis
- Manage the Commonwealth Data Trust
- Identify, coordinate, and oversee data analytics projects studies linking government services to stakeholder outcomes
- Manage the Virginia Open Data Portal ([data.virginia.gov](http://data.virginia.gov))
- Provide operational support to the Virginia Data Commission, Executive Data Board, Data Governance Council, Data Stewards Group

## Senior Leadership



**Ken Pfeil**

Commonwealth Chief Data Officer



**Marcus Thornton**

Deputy Chief Data Officer

## What's Next

- Establish Commonwealth predictive analytics environment
- Connect Workforce Data Trust, Commonwealth Data Trust and VLDS synergies into overall workforce management ecosystem
- Determine recidivism rates from Department of Corrections
- Standup a Single Citizen Portal for Virginians

## 2021 – 2022 Key Accomplishments

- Partnered with Virginia Department of Health (VDH) to consolidate COVID-19 registration data from 35 local health districts in Virginia. ODGA curated, processed, and securely maintained all data used to launch [vaccinate.virginia.gov](http://vaccinate.virginia.gov).
- Partnered with Virginia Employment Commission (VEC) to host their Fraud Detection System and create a series of reporting dashboards.
- Partnered with Virginia Department of Emergency Management (VDEM) and assisted with their payroll automation into Cardinal.
- Provided Entity Matching for Virginia Department of Health.
- Designed and implemented the creation of the Commonwealth Universal Entity Index (a crosswalk table). Virginia's first de-identified repository of all Virginians.



## Office of Data Governance and Analytics

**Established:** July 2021

**Staff Count:** 16

**URL:**  
[odga.virginia.gov](http://odga.virginia.gov)

**Email:**  
[odga@governor.virginia.gov](mailto:odga@governor.virginia.gov)

**Secretariat:**  
Secretary of Administration

**Address:**  
1111 East Broad Street  
Richmond, Virginia 23219

## Vision

To inspire the global evolution of data from information to actionable intelligence providing better outcomes for everyone.

## Who We Are

- Data engineers
- Data analytics specialist
- Power BI specialist
- Data curator
- Project managers
- Database administrator
- Business analyst
- Systems administrator
- Communications professionals

# ODGA Key Accomplishments

## Key Accomplishment

## Impact

**Year 2021** – Partnered with VDH to consolidate Covid-19 registration data from 35 health districts in Virginia. The ODGA curated, processed, and securely maintained all data used to launch [vaccinate.virginia.gov](https://vaccinate.virginia.gov)

- Was **instrumental in the launch of [vaccinate.virginia.gov](https://vaccinate.virginia.gov)** which was Virginia’s campaign to have a single system to register and schedule a Covid-19 vaccine.
- **Provided Virginians** with access to track their own vaccine status.

**Year 2021** – Partnered with VEC to host their Fraud Detection System

- **Provided infrastructure relief** to the Virginia Employment Commission.
- The VEC Fraud Detection System is still currently in production providing key results and possible fraud indicators to VEC investigators.

# ODGA Key Accomplishments

## Key Accomplishment

## Impact

**Year 2021** – Partnered with Virginia Department of Emergency Management (VDEM) and assisted with their payroll automation into Cardinal.

- **Reduced the time that VDEM reconciled payroll** from 3 weeks to 1.5 hours at a cost reduction of \$1.2M.
- VDEM was able to **successfully migrate all payroll reconciled data** into the Cardinal system.

**Year 2021** – Partnered with Virginia Employment Commission to create a series of dashboard reporting.

- **Created** 17 reports for VEC surround claims and payment reconciliations
- **ODGA provided cost savings** to VEC by avoiding vendor charges.



# ODGA Key Accomplishments

## Key Accomplishment

## Impact

**Year 2022** - Provided Entity Matching for Virginia Department of Health (VDH).

- **Provided VEC with matched records** of 7.6 million Virginians regarding social determinates of health data.
- **VEC is now able to add social determinates of health data** to the vaccine and immunization data they already had in their repository.

**Year 2022** – Designed and Implemented the creation of the Universal Entity Index. (A cross walk table) Virginia's first De-Identified repository of all Virginians.

- ODGA was able to leverage this crosswalk table to **provide intelligence and analytics from multiple systems to assist agencies with their data needs.**
- Allows for a **Single Citizen Portal** for Virginians to leverage.

# Upcoming Projects for ODGA

## Project or Initiative

## Purpose

Commonwealth Predictive Analytics Environment

- Establish predictive analytics model (Cybersecurity) in cloud AI/ML for Agencies to leverage (such as predictive mental decline, homelessness prevention, resource/capital investments, weather event impacts.).

Connect Workforce Data Trust, Commonwealth Data Trust and VLDS synergies into overall Workforce management ecosystem

- Partner with SoL Workforce Data Trust and DOE's VLDS
- Operationalize and automate Workforce initiatives across the Commonwealth to facilitate job growth

Determine Recidivism rates from Department of Corrections

- Track the recidivism rates of inmates re-entering society.

Standup a Single Citizen Portal for Virginians

- Leverage the ODGA's Universal Entity Index from Agencies contributed datasets for a Single Citizen Portal to enable unified citizen experience.



# Attention

ODGA PRESENTS  
THE 2023 DATATHON



# 2023 Virginia Datathon

## 01 In the Beginning

In September 2014, the first Virginia Datathon was held and was a first of its kind among state governments across the country.

## 02 When is it?

The next Virginia Datathon is on April 19-21, 2023

## 03 Why?

The event continues bringing together state agencies and has expanded to include students, localities, non-profits, and the private sector to leverage technology and data to develop innovative solutions addressing complex problems.



# THANK YOU!

Email: [odga@governor.virginia.gov](mailto:odga@governor.virginia.gov)

Web: [odga.virginia.gov](http://odga.virginia.gov)

**Social:**  [virginia-office-of-data-governance-and-analytics](https://www.linkedin.com/company/virginia-office-of-data-governance-and-analytics)

 [@VirginiaODGA](https://twitter.com/VirginiaODGA)