



HUD Data Analytics Office of the Chief Data Officer Charter

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U.S. Housing and Urban Development

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1. Introduction

The Foundations for Evidence-Based Policymaking Act¹ (FEBP) requires that each executive branch agency “designate a career appointee...in the agency as the Chief Data Officer” (CDO). Broadly speaking, the CDO shall possess “demonstrated training and experience in data management, collection, analysis, protection, use and dissemination of data”. More specifically, FEBP identifies three pillars of work for which the CDO bears responsibility: data governance; the Open, Public, Electronic, and Necessary (OPEN) Government Data Act²; and the Paperwork Reduction Act (PRA).³

M-19-23, issued by the Office of Management and Budget (OMB) and titled “Phase I Implementation for the Foundations for Evidence-Based Policymaking Act of 2018”, provides implementation guidance pertaining to FEBP. It specifically requires the designation of a CDO by July of 2019 to support implementation of FEBP.⁴ Moreover, it states that each agency must establish an agency Data Governance Body chaired by the CDO by September 2019 to support the implementation of FEBP activities.⁵ The 2019 Federal Data Strategy (FDS) Year One Action Plan administers similar requirements.⁶

¹ “The Foundations for Evidence-Based Policymaking Act of 2018.” H.R. 4174. Jan. 14, 2019. <https://www.congress.gov/115/bills/hr4174/BILLS-115hr4174enr.pdf>

² The OPEN Data Act is part of H.R. 4174.

³ In addition to FEBP, administration policy published by the Office of Management and Budget titled “Managing Information as an Asset”# (M-13-13) declares that executive departments and agencies “must manage information as an asset throughout its life cycle to promote openness and interoperability, and properly safeguard systems and information.” Corresponding policy requirements detailed in M-13-13 include the adoption of data standards, the development of common core metadata, and the creation and maintenance of an enterprise data inventory.

⁴ “Phase 1 Implementation of the Foundations for Evidence-Based Policymaking Act of 2018: Learning Agendas, Personnel, and Planning Guidance.” M-19-23. Office of Management and Budget. July 10, 2019. Pg. 22. <https://www.whitehouse.gov/wp-content/uploads/2019/07/M-19-23.pdf>

⁵ Ibid. Pg. 20.

⁶ “Draft 2019-2020 Federal Data Strategy Action Plan.” Federal Data Strategy Development Team. June 2019. Pg. 11. <https://strategy.data.gov/assets/docs/draft-2019-2020-federal-data-strategy-action-plan.pdf>

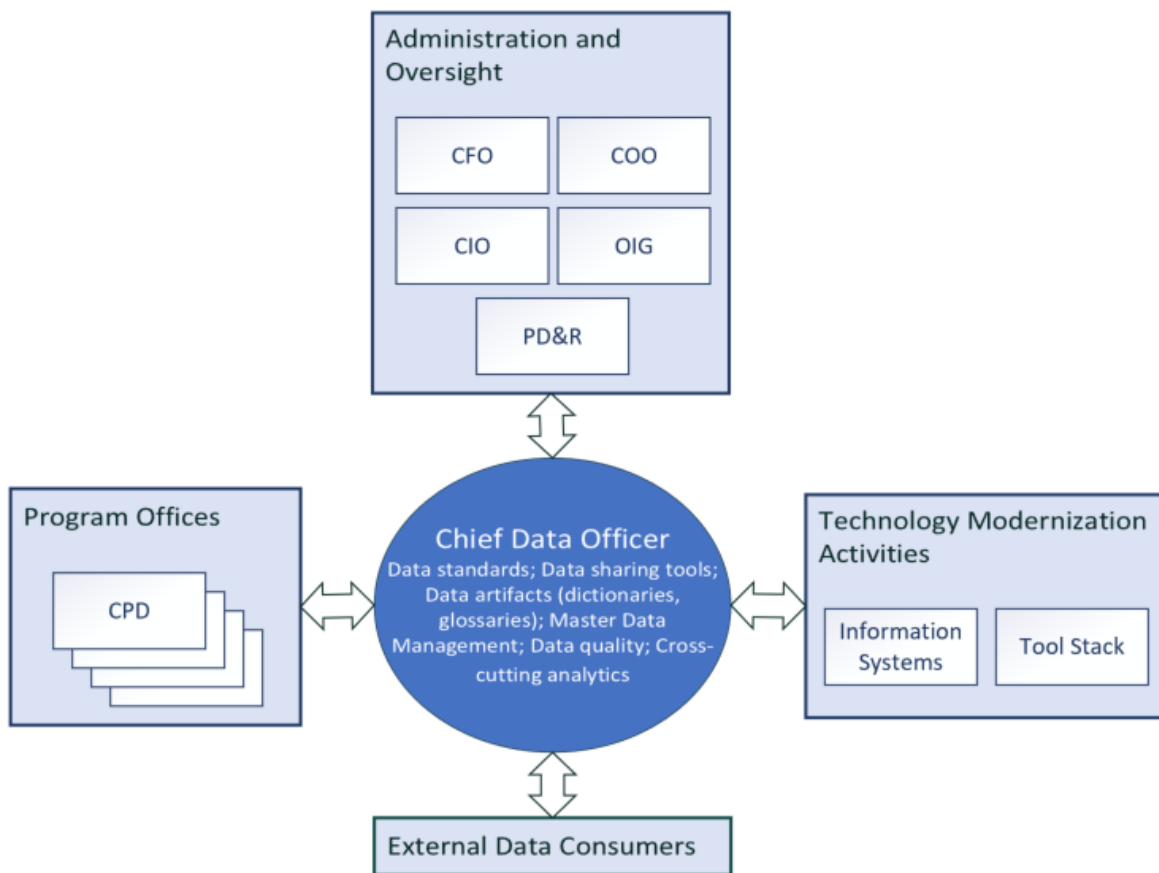
To meet its statutory requirements, comprehensively implement federal policy and corresponding guidance, and address data challenges, HUD is establishing an Office of the Chief Data Officer (OCDO). The CDO will serve as the senior executive responsible for enterprise data governance, OPEN data, and PRA.

- Enterprise data governance will combine and enhance current siloed governance efforts to create a structured and sustainable organization that is dedicated to defining standards, policies, and procedures, developing business processes, and optimizing stakeholder interaction required to manage HUD data as a strategic asset and enhance data-driven decision making across the enterprise
- OPEN data will continue through identification and preparation of applicable data assets, as well as augmentation of open data portals
- PRA Office will transition into the OCDO (reporting to the CDO) and include an additional core function to provide a full life-cycle view of data, so that approved collections contain information useful for both evaluative and administrative purposes⁷

In addition to leading these OCDO functions, the CDO will oversee and coordinate efforts among all HUD entities involved in data governance to ensure a unified and effective approach. Ultimately, the OCDO serves as an integrating force among program offices delivering citizen services, departments that support them, and data-related technology modernization activities. An effective CDO ensures data is fully integrated within HUD and made available to decision makers, policy makers, and researchers who can leverage it. The following graphic illustrates this critical integrator role played by CDO, in which a variety of internal stakeholders and external data consumers are connected through a common and consistent data understanding.

Figure 1: Integrator Role of the CDO

⁷ Page 8 defines the OCDO's PRA functions.



2. CDO Mission

To promote the inherent intersection between policies, processes, technology, and people responsible for using and managing data as a strategic asset that supports HUD's mission.

3. CDO Vision

Establishment of a centralized analytics hub through effective management and integration of data assets that supports a self-service model to drive decision-making, research, strategy, and public engagement by internal and external stakeholders.

4. CDO Authoritative Functions and Responsibilities

As described below, the CDO has the **authority** to:

Leadership & Guidance

- A. Establish, communicate, and enforce a comprehensive lifecycle data management strategy that promotes data-driven mission delivery and modern mission support across the enterprise and down through program offices
- B. Lead establishment and coordination on data standards, policies, and best practices across the enterprise for data collection, data generation, data storage, and data sharing in a way that flows down to existing and new systems and datasets
- C. Champion the development and deployment of self-service data tools, including advanced analytics, and corresponding certification and training to support the use and implementation of those tools
- D. Drive adoption and implementation of OPEN data requirements, lead the development of HUD's OPEN data plan, oversee the management of HUD content on the data.gov portal, and prioritize data assets for publication
- E. Set, communicate, and reinforce data access and sharing guidelines for internally sharing data, including the development of tools or technologies for internal data access
- F. Promote data literacy and data sharing to drive the cultural changes needed to achieve a more transparent, data-driven and OPEN data focused organization
- G. Collaborate with the Chief Information Security Officer (CISO) and the Chief Privacy Officer to ensure consistent care and privacy of data in accordance with federal law and regulations
- H. Serve as the primary authority for decisions related to enterprise data governance, OPEN data, and PRA, and designate other decision-making authorities as needed

Assistance & Implementation

- A. Support the agency's learning agenda by coordinating data access and management activities that support evidence building, including evaluation, performance reporting, and the analysis of regulations
- B. Assist the Performance Improvement Officer in identifying and using data to carry out his/her functions
- C. Assist the Evaluation Officer in obtaining data to carry out his/her functions
- D. Oversee and ensure complete adoption of and adherence to the PRA in HUD's information collection activities
- E. Collaborate with any official in the agency responsible for using, protecting, disseminating, and generating data to ensure all data needs are fully met
- F. Engage with mission support and program offices to measure and improve data quality
- G. Research, assess and promote technologies, tools, approaches and methodologies to unlock the value of enterprise data through access, analytics, and visualization
- H. Designate points of contact for roles and responsibilities related to open data use and implementation

To supplement these areas of authority, the OCDO has **responsibility** for the following pillars as outlined in FEBP:

Enterprise Data Governance

- A. Create and maintain a comprehensive data asset inventory for all data assets created by, maintained, or collected by HUD (as required by FEBP)
- B. Oversee metadata management, master data management, business glossary development, and development of other enterprise-wide artifacts that enable effective use of data

- C. Develop, implement, and educate staff on quantitative and qualitative data quality measures and support monitoring and reporting efforts
- D. Develop, implement, and educate staff on data usage Key Performance Indicators (KPIs) to understand and improve data as a key input to improved decision making
- E. Establish a behavior of governing and managing data assets using repeatable processes and standardized frameworks
- F. Establish and promote the development of a robust team of data practitioners to enable and support a culture of data sharing and repurposing, including data scientists and subject-area (functional) data governance officers
- G. Assess, strategize, and define approaches to decreasing the cost of collecting, managing, and sharing data while increasing the value of data to the agency
- H. Create and institute a systematic and continuous, enterprise-wide assessment process to ensure data collection and data storage practices align with the CISO and Open Data best practices
- I. Collaborate with the Chief Privacy Officer to monitor data privacy mechanisms and implement new practices as needed
- J. In conjunction with OCIO and the Chief Technology Officer (CTO), provide input and recommendations on licensing for data-related systems, architecture, and tools

OPEN Data

- A. Develop and institute a process to evaluate and improve the timeliness, completeness, consistency, accuracy, usefulness and availability of data assets
- B. Promote and encourage adherence to open data standards, in-line with activities happening across federal agencies and according to the OPEN Data Act
- C. Engage HUD employees, the public, and contractors in using existing public data assets within and outside of HUD, and encouraging collaborative approaches on improving data use
- D. Provide the public with the opportunity to request and prioritize specific data assets for disclosure
- E. Lead the publication of open government data assets as machine-readable and not encumbered by access or consumption restrictions
- F. Identify and implement methods for collecting and analyzing digital information on data asset usage by users within and outside an agency, including designating a point of contact within the agency to assist the public and respond to issues

Paperwork Reduction Act (PRA)⁸

- A. Manage the PRA program office to review, evaluate, and process information collection requests to determine their suitability for submission to OMB
- B. Ensure the prompt, efficient, and effective implementation of the information policies and information collection responsibilities established under the PRA
- C. Research, develop, and integrate new mechanisms that further minimize the paperwork burden on the public and other entities
- D. Reinforce a full data life cycle approach in establishing information collections that accounts for data needs beyond program administration to include program evaluation

⁸ FEBP stipulates that PRA functions be consolidated under agency CDOs. Version 2.0 of the United States Office of Personnel Management (OPM) Paperwork Reduction Act Guide lists the Chief Executive's responsibilities. <https://www.opm.gov/about-us/open-government/digital-government-strategy/fitara/paperwork-reduction-act-guide.pdf>, pg. 2.

- E. Develop cognitive testing capabilities as part of the information collection development process to improve data quality at the point of collection
- F. Provide signature and approval, or assign a designee approval and signature authority, for information collection requests before they are submitted to OMB

Additional responsibilities around advancing HUD's data culture and the maturity of its approach to data include:

Technical Responsibilities

- A. Coordinate with the Chief Information Officer (CIO) in reviewing, managing, and improving HUD's enterprise data infrastructure, and address any issues related to data accessibility, compliance, or integrity
- B. Support Records Management as they collaborate with the National Archives and Records Administration (NARA) to archive and preserve HUD's critical documents
- C. Improve integration of HUD's enterprise data management (EDM) environment and program offices in support of robust, and increasingly self-service, reporting capabilities

Non-technical Responsibilities

- A. Work with senior executives and the DGSC to periodically, and as requested, provide updates, communicate achievements and challenges, and incorporate priorities into OCDO planning
- B. Consult with statistical, evaluation, and performance improvement officials within HUD to promote information collection, dissemination, and related resource development
- C. Support program offices by collaborating with functional area data governance officers to present policies and procedures, and ensure their needs are met
- D. Serve as the agency liaison to other agencies and OMB on the best way to use existing agency data for departmental purposes
- E. Implement policies, protocols and guidance related to statutory requirements and executive branch agendas, including FEBP, FDS, and the President's Management Agenda data-related Cross Agency Priority (CAP) Goals

Advocatory Responsibilities

- A. Participate in inter-agency activities such as the CDO Council and Federal legal entity identification standardization/interchange efforts
- B. Establish relationships with external contacts in HUD-related industries, academia, other branches of government, and the general public to promote full utilization of HUD's data assets and data services

6. Critical Success Factors

Success of the OCDO depends upon a multitude of factors, including: HUD executive-level support and guidance; HUD program office cooperation and initiative; and collaboration from CDOs in other federal agencies and OMB. OCDO success can be broken down into three phases: (1) during the OCDO establishment process, (2) within twelve months of OCDO establishment, and (3) long-term tenure of the OCDO. Below is a (non-comprehensive) set of

critical success factors for the first two phases.⁹ The CDO, along with support staff and the DGSC, will determine the Office's long-term tenure critical success factors.

During OCDO establishment process:

- Based on HUD culture, resources and operating procedures, senior executives determine OCDO office location and organizational structure
- Through a combination of research, deliberation and iterative drafting, HUD submits a comprehensive OCDO establishment package to Congress for review and approval for FY 2021
- HUD creates the DGSC, drafts and approves a corresponding charter, identifies necessary members, and requests participation based on current involvement in data governance related work and areas of expertise
- After strategic planning and development, HUD communicates the OCDO proposal and corresponding implications around the use and management of data enterprise-wide
- During the Congressional review process, HUD provides robust and timely responses to Congressional inquiries and requests for additional documentation
- HUD adheres to OMB guidance related to FEBP, as well as the Action Steps and deadlines identified in the 2019-2020 Federal Data Strategy Action Plan

Within twelve months of OCDO establishment:

- CDO and technical team meet with HUD senior executives and Program Office data stewards to gain a thorough understanding of the challenges and obstacles related to the use and management of data as a strategic asset
- OCDO develops a comprehensive assessment of data-related challenges and presents it to HUD senior leadership along with a strategic plan to overcome those challenges
- OCDO assesses data standards currently implemented across the enterprise and constructs a roadmap to further advance data standardization implementation
- CDO collaborates with HUD leadership and the Office of General Counsel to prioritize data governance requirements as described in FEBP and establish strategies for implementation
- CDO designates the Office's additional workstreams (e.g. data visualization and advanced analytics) and establishes strategies to gain executive level buy-in and prioritize corresponding work
- OCDO creates KPIs to quantifiably measure progress related to data governance and other workstreams, and articulate its business value to HUD leadership.

APPENDIX D: Acronyms

The table below provides the acronym and complete term relevant to the content presented within this document.

Table D1: Acronyms

Acronym	Complete Term
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⁹ A separate document titled "Enterprise Data Governance Roadmap" and referenced in Appendix D provides a more comprehensive list of the tasks and objectives HUD and the OCDO needs to accomplish in order to achieve success.

API	Application Programming Interface
AS	Assistant Secretary
CDO	Chief Data Officer
CFO	Chief Financial Officer
CIO	Chief Information Officer
CISO	Chief Information Security Officer
COO	Chief Operating Officer
CTO	Chief Technology Officer
DATA	Digital Accountability and Transparency Act
DGSC	Data Governance Steering Committee
DSAG	Data Stewardship Advisory Group
EDM	Enterprise Data Management
EDW	Enterprise Data Warehouse
FDS	Federal Data Strategy
FEBP	Foundations for Evidence-Based Policymaking Act
GC	General Counsel
HUD	Department of Housing and Urban Development
KPI	Key Performance Indicator
NARA	National Archive and Retention Administration
OCDO	Office of the Chief Data Officer
OCIO	Office of the Chief Information Officer
OCFO	Office of the Chief Financial Officer
OCOO	Office of the Chief Operating Officer
OIG	Office of Inspector General
OMB	Office of Management and Budget
OPEN	Open, Public, Electronic, Necessary
PD&R	Policy Development and Research
PRA	Paperwork Reduction Act
SME	Subject Matter Expert