



Data Services in the Public Sector

Conversations on Career Pathways



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What does a Chief Data Officer do?

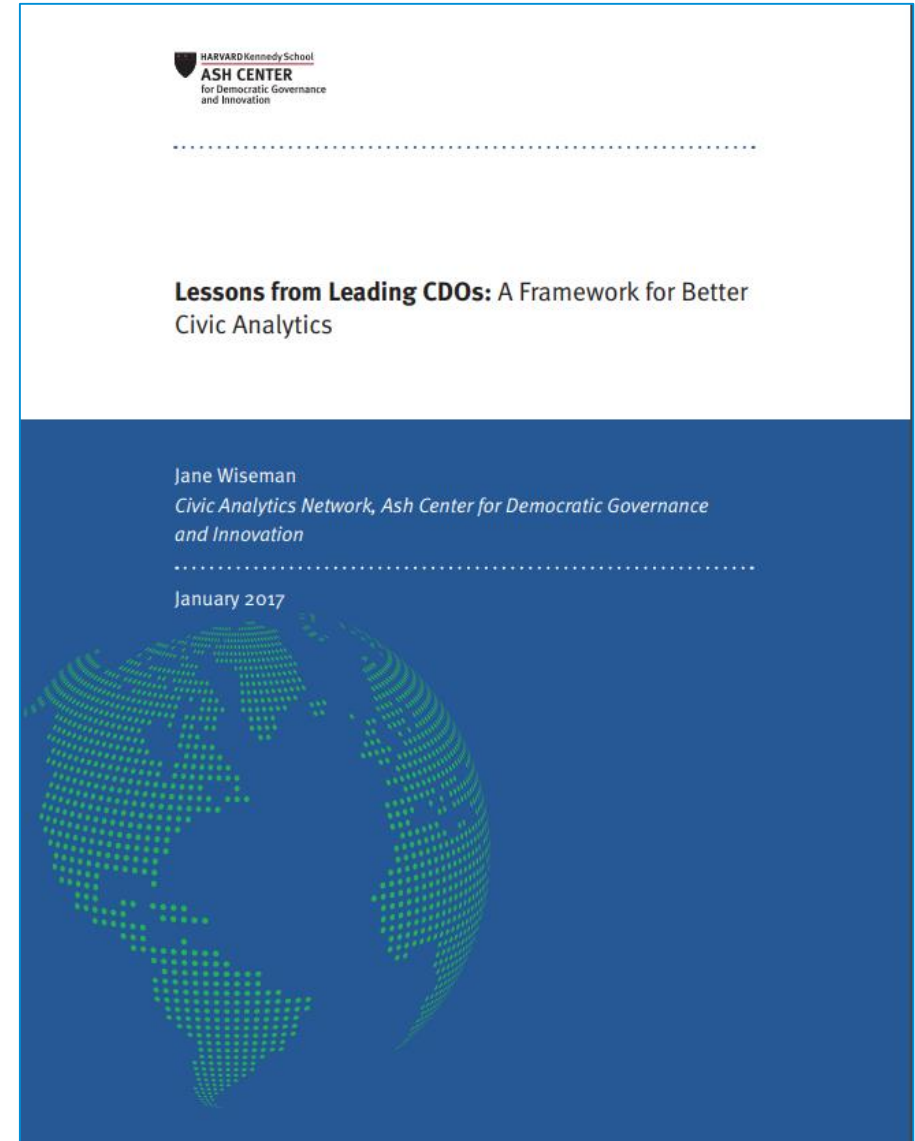
Civic Analytics Network, Ash Center for Democratic Governance and Innovation, Harvard Kennedy School

Lessons from Leading CDOs: A Framework for Better Civic Analytics
- Jane Wiseman, January 2017

Provides Guidance On:

- Strategic Frameworks for a CDO
- How to Build a Team
- Finding, Training and Retaining Talent
- Leveraging Partnerships

http://ash.harvard.edu/files/ash/files/leasons_from_leading_cdos.pdf



<https://data.sccgov.org>

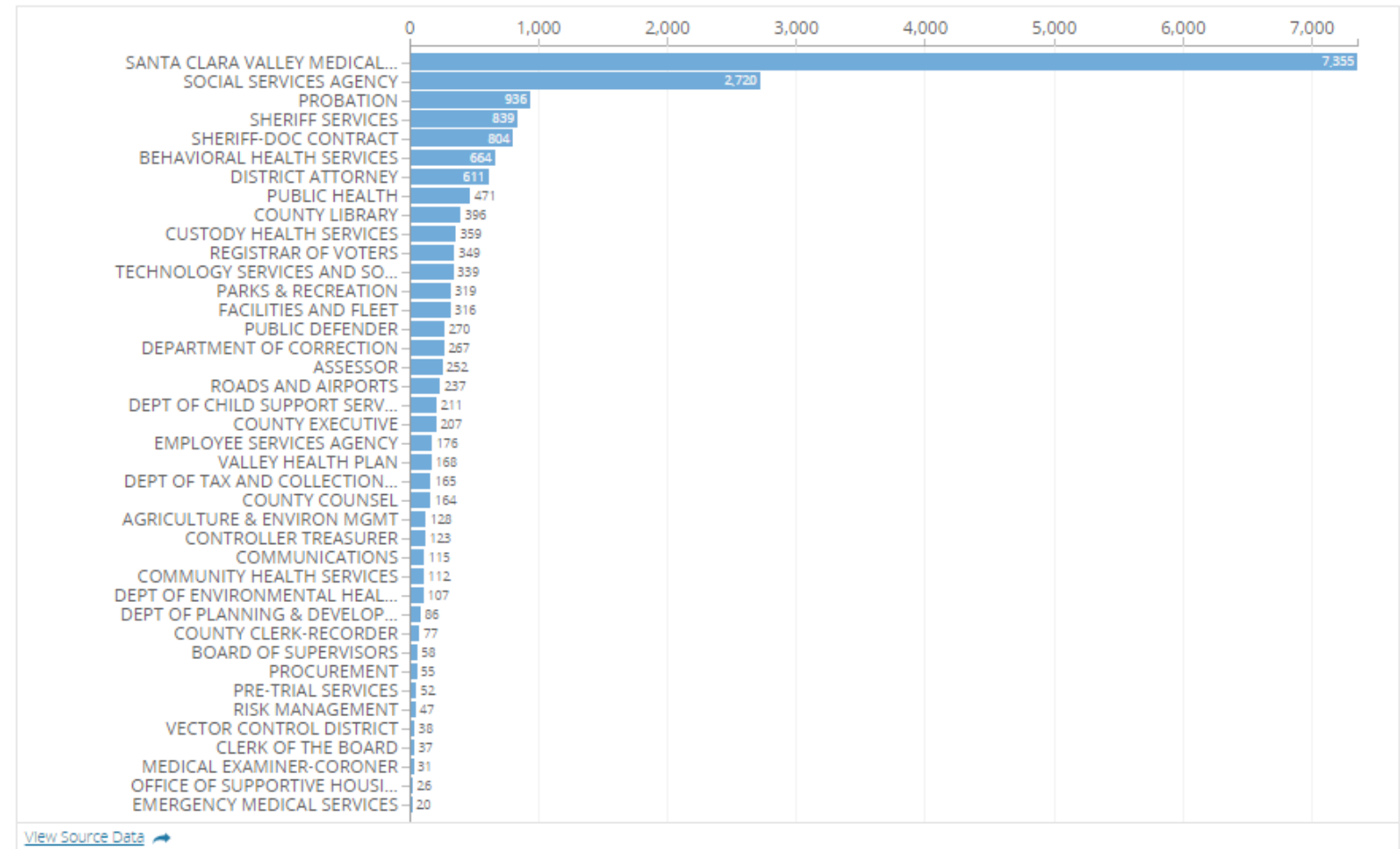
The screenshot shows the homepage of the County of Santa Clara Open Data Portal. At the top left is the County of Santa Clara logo and the text "County of Santa Clara Open Data Portal". To the right is a search bar with a magnifying glass icon and the word "Search". Below the header is a navigation menu with links for "Home Page", "Browse", "Video Tutorial", and "Developers", and a "Sign In" button on the far right. The main banner features a night cityscape with a network overlay and the title "County of Santa Clara Open Data Portal" in large white text. Below the banner is a grid of eight data categories, each with an icon, a title, and a brief description:

- Business**: Data on businesses, community and economic development
- Education**: Data on local schools
- Environment**: Data on sustainability, energy and resource use, and environmental conditions
- Government**: Data on finance, budget, taxes, employees, etc
- Health & Human Services**: Data about health, public health, and services provides to children and families
- Housing & Development**: Data on permitting, constructions, housing
- Public Safety**: Data on crime, fire, and enforcement
- Transportation**: Data about public transit

County Workforce Statistics

- Over 20,000 total employees across dozens of departments
- Recent IT consolidation across departments of approximately 800 staff
- Approximately 70 of the 800 identified performing Data Services roles

Employee Breakdown by Department



Data Services Roles & Responsibilities

	<i>Integration Analysts</i>	<i>Data Engineers</i>	<i>Data Analysts</i>	<i>BI Analysts</i>	<i>Data Scientists</i>	<i>Information Architects</i>
Design Data Analytic Solutions						
Metadata - Model, Classify, Define	I	I	R	R	C	A
Architecture - IaaS, PaaS, DaaS	R	R	C	R	I	A
BI - Metrics, Models, Algorithms	I	I	R	R	A	R
Develop Data Analytic Solutions						
Interfaces - APIs, EDI, Flat Files	A	R	C	C	I	C
Pipelines - ETL, Archives, Purge	R	A	R	C	I	C
BI - Reports, Dashboards, Visualizations	I	I	R	A	R	C
Operate Data Analytic Solutions						
Administration - Configure, Monitor,	R	A	R	R	I	I
Training - BI Tools, Data Sources, Privacy	C	C	R	A	C	C
Quality - Benchmark, Research, Correct	R	R	A	C	C	C

- Created 6 job families for Data Services
- Data Scientist and Information Architects are new classifications
- RACI shows division of work activities classified into Design, Development and Operations

Cross Agency Data Analysis Challenges

- Multiple “Data Hub” initiatives underway to join data across agencies. (i.e. Physical Health, Behavioral Health, Criminal Justice, Homeless Services, Emergency Services, Education, Labor and Economic, etc.)
- Data Hubs use various ETL and Identity Matching and Reconciliation tools and techniques
- Required to do program evaluation and provide evidence-based policy decision making
- Difficult data governance challenges of sharing data legally for care coordination while maintaining privacy and confidentiality
- Several Public and Academic Partnerships / Policy Labs formed to tackle the problem

Actionable Intelligence for Social Policy

- Dozens of Case Studies
- Learning Community Cohorts
- Recent RFI for Data Sharing and Evaluation Platform

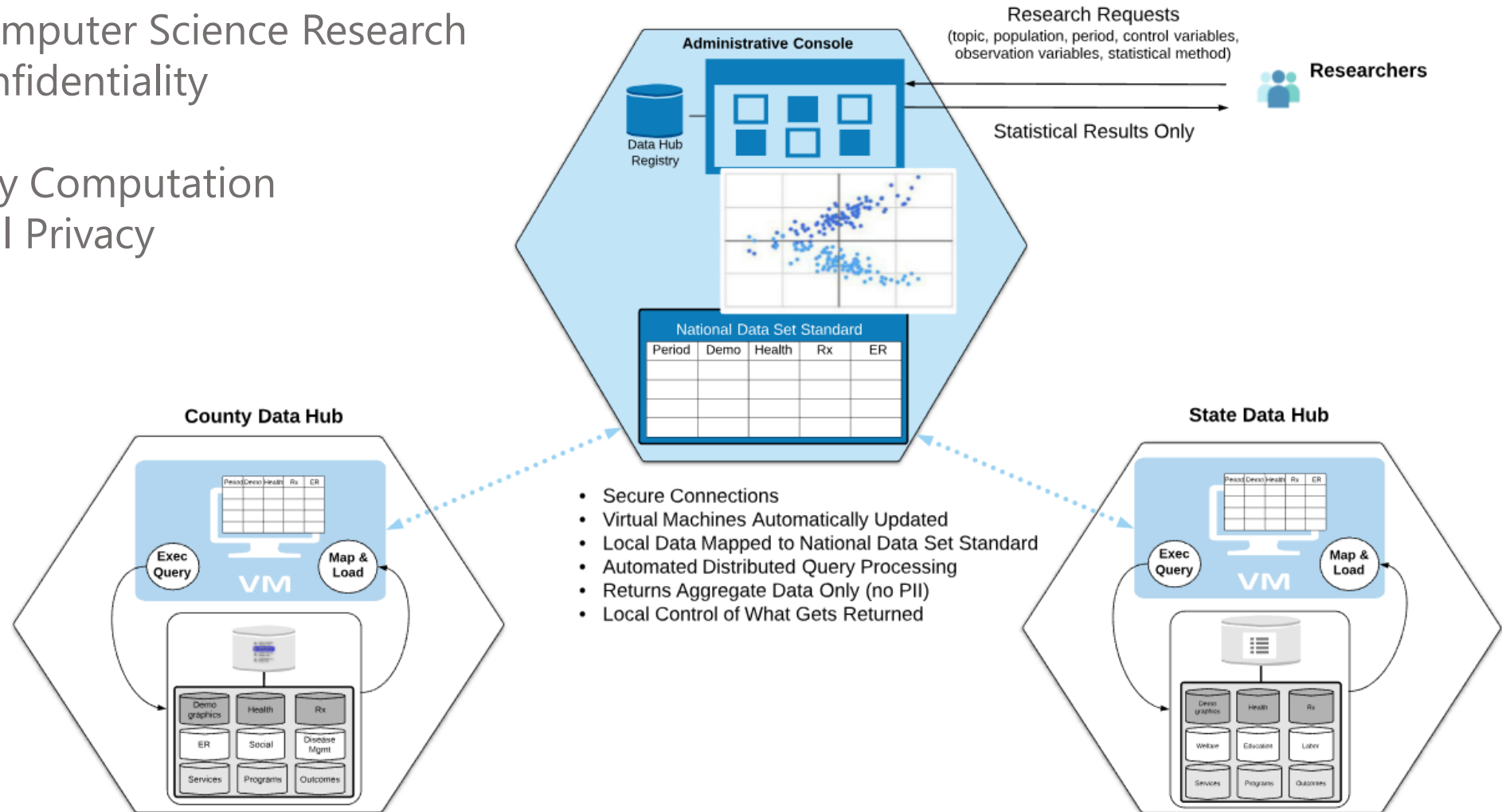
The screenshot shows the homepage of the Actionable Intelligence for Social Policy (AISP) website. The browser address bar displays 'Secure | https://www.aisp.upenn.edu'. The website header includes the AISP logo, navigation links for HOME, IDS, NETWORK, RESOURCES, PEOPLE, NEWS, and FAQs, and a search bar. The main content area features a teal banner with the text: 'Actionable Intelligence for Social Policy is an initiative that focuses on the development, use, and innovation of integrated data systems (IDS) for policy analysis and program reform.' Below this, it states: 'AISP encourages social innovation and social policy experimentation so government can work better, smarter and faster.' To the right of the banner is a circular logo with a stylized face and the text 'Watch the AI introductory video' and 'Watch the IDS Uses video'. The page is divided into three columns: 'Who We Are' (Actionable Intelligence for Social Policy (AISP) housed at the University of Pennsylvania), 'What We Do' (AISP Services: develop capacities of existing and new IDS sites), and 'Follow us on Twitter' (Tweets by @AISP_Penn, including a tweet by Nick Hart, PhD).

<https://www.aisp.upenn.edu/>

National Policy Research Clearinghouse Concept

Promising Computer Science Research to Ensure Confidentiality

- Multi-party Computation
- Differential Privacy



Thank You!

Questions?

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