2020 Global Data Management Benchmark Report

Version 2.2

DCAM

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2020 GLOBAL DATA MANAGEMENT BENCHMARK REPORT

Executive Summary

Welcome!

The EDM Council is proud to once again provide a current perspective of the data management industry through the **2020 Global Data Management Benchmark Survey.** As was done in our previous surveys in 2015 and 2017, we have utilized the DCAM®, the Data Capability Assessment Model, as the foundation to the topics and questions that were put forth, to assess how the industry has progressed in its data management program agenda.

2020 – A Global Survey with New Industry Insights

Previous surveys focused primarily on the Finance Industry. This year, we expanded our reach to include multiple industry sectors, including manufacturing, software, services, consultancies, and others, resulting in over 30% of the 2020 Benchmark survey coming from these sectors.

Geographically, results came from across the globe – 38% from the Americas; 27% from EMEA and 35% from APAC regions. The challenge and benefits of data management are being realized across all regions and across all business sectors. We are pleased to have been able to capture this broader perspective in 2020!

Data Management: A Strategic Priority

The discipline of data management is evolving. No longer a 'nice to have', data management is front and center to nearly every organization across every industry. The need to capture, organize, analyze and understand the information we glean from our customers, competitors and the industry at large is critically important to the health and wellbeing of our businesses and our society. The 2020 Benchmark Survey reflects the strategic expansion of the CDO role:

- Enterprise Accountability: 80% of CDO's now have Global/Enterprise responsibility
- Job Scope: 52% of CDO's are responsible for both Data Management and Analytics
- Reporting Lines: 76% of the Data Management Programs are now reporting to the "C"-Suite

A shift from 'defensive' to 'offensive'

In the 2015 survey, the effects of the earlier financial crisis and pressure from global regulatory bodies forced organizations to view their data programs from a defensive posture. Are we managing our data effectively so we can better assess our risks? Do we fully understand our systemic exposures? Have we improved our ability to respond to future crises or events? Few would argue that this was not the right business case at that time, nor were these disputed as the right drivers of our data management program.

Since the 2017 survey, there has been a shift in thinking. Organizations are now looking at the offensive posture of data management. Yes, we still need to understand our risks, but how can we leverage our data to better understand our customers and markets? What can we learn from our data to build new and innovative products and services, improve sales, or enter brand new markets to realize new business and social opportunities?

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Executive Summary

New data, New Technology, New Responsibilities

With this new perspective comes new sources of data and new advances in technology. Data is growing, not only in volume, but in scope. We capture and store data from satellites, signals, video, audio. With IoT, nearly everything we do is captured on our home devices and mobile phones.

Advanced analytic programs, leveraging artificial intelligence and machine learning have now become the buzzwords of our industry. And not just buzzwords, but real capabilities that are enabling us to explore even deeper into our data – to uncover new patterns and new dependencies that were previously hidden. But, as Uncle Ben, the famous uncle of the *Spiderman* character once said, "With great power comes great responsibility!" Are we responsibly and ethically using our data? Are our efforts going towards economic and social good? Or are we breaching individual privacies? This has given rise to new responsibilities for the Chief Data Office – driving data ethics and ESG initiatives.

So how are we doing???

The 2020 Global Data Management Benchmark survey asked participants to share their thoughts on how their data programs have been progressing and if they are adding true business value to their organizations. How successful have firms been in identifying their data strategies; building their data management programs; designing, defining and architecting their data; collaborating with and leveraging technology; and establishing the right data governance best practices to ensure proper and ethical use of data?

In comparison to previous years' surveys, we've seen improvement, but we've also seen a lowering of some scores, not because capabilities have decreased, but because the scope and breadth of responsibilities have greatly increased. The discipline of data management is evolving – and so with it, are the necessary skills and necessary responsibilities that must be realized to manage it.

The industry is stepping up!

Skills are improving, education and awareness are increasing, and recognition of the importance of properly managing information has made its way to the C-Suite and the Board of Directors of organizations across the globe. We are very excited to share with you, the results of the *2020 Data Management Benchmark Survey.*

The data industry is still young. The advances and opportunities seem boundless. Smart homes, smart businesses, smart cities and smart cars will all be driven by responsible data management. Enjoy the ride!

John A. Bottega
President, EDM Council
March 2020
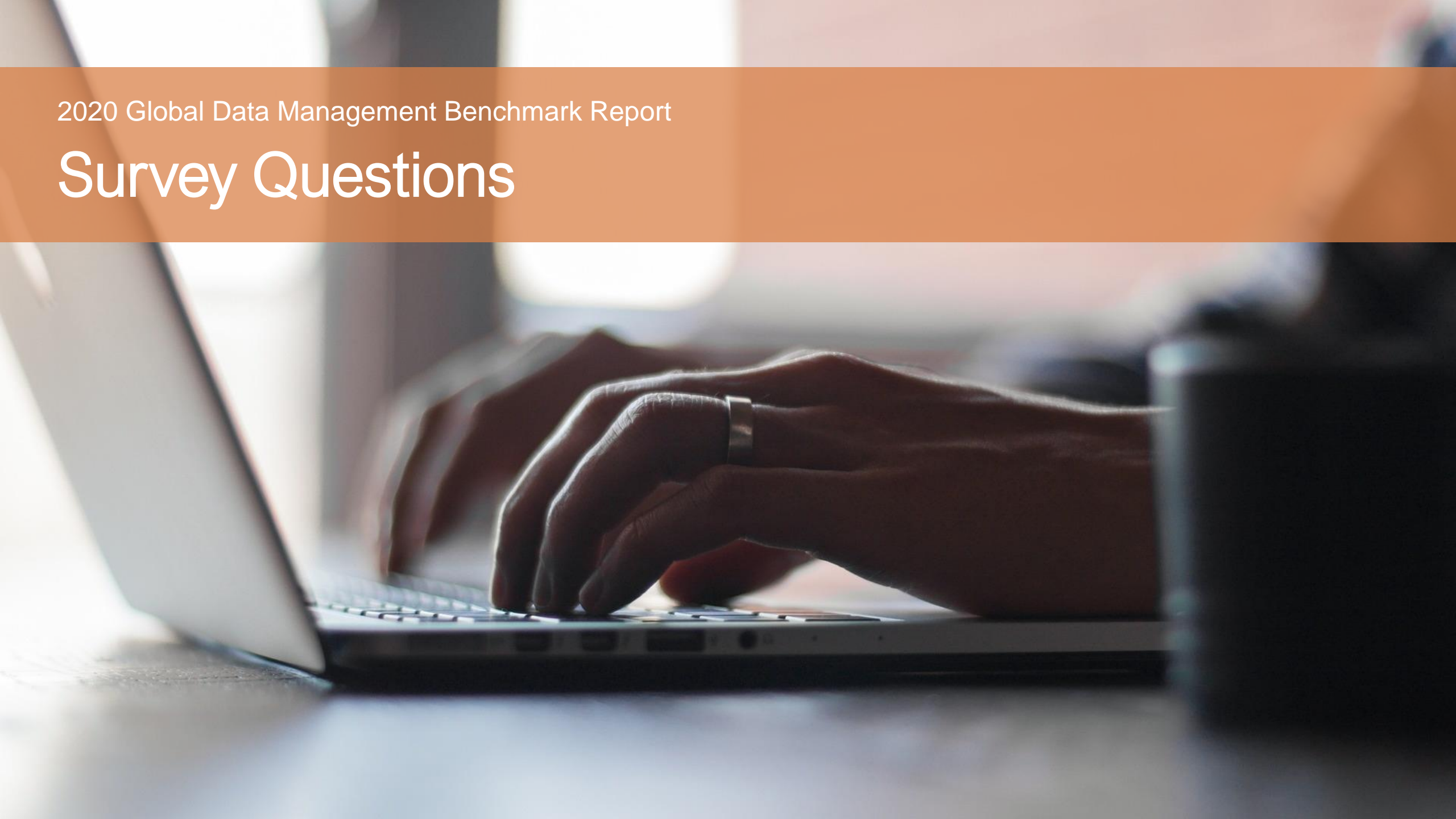
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2020 Global Data Management Benchmark Report

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2020 Global Data Management Benchmark Report

Survey Questions

2020 GLOBAL DATA MANAGEMENT BENCHMARK SURVEY

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Survey Questions

Survey Question	Description	DCAM Cross-Reference
The Data Management Strategy and Business Case		
The Data Management Strategy & Business Case determines how data management is defined, organized, funded, governed and embedded into the operations of the organization. The strategy defines why the initiative is needed, how it will be implemented, and provides the rationale for the investment in the data management initiative.		
1. **A formal Data Management Strategy and approach has been developed and communicated to organizational stakeholders.**	A data management strategy formally exists and defines how the organization will approach the management of data content in a way that is meaningful to business stakeholders.	DCAM 1.1 and 1.3
2. **A Data Management Business Case (including requirements and prioritizations) has been developed and communicated to organizational stakeholders.**	The Data Management Business Case, describing the rationale for the data program investment, has been articulated and communicated to key organizational stakeholders.	DCAM 1.2
The Data Management Program and Funding Model		
The Data Management Program is a formally established organizational function created to support the proper curation and use of a firm's information assets. The Data Management Funding Model ensures that appropriate levels of funding and resources are applied to ensure program sustainability.		
3. **Your organization has a formally established, structured and funded Data Management Program.**	Data management program is formally established, funded and is operational.	DCAM 2.1, 2.2, 2.3
4. **Formal plans, roadmaps and deliverables have been defined and articulated to program stakeholders.**	Once established, the data program has defined and effectively communicated the program's objectives, deliverables and roadmaps.	DCAM 2.4
5. **Data Management Process Excellence is formally established.**	Data Management Process Excellence is defined through the implementation of standardized, organization-wide processes that are repeatable, sustainable, measurable and auditable, and adhere to industry best practices.	DCAM 2.5

2020 GLOBAL DATA MANAGEMENT BENCHMARK SURVEY

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Survey Questions

Survey Question	Description	DCAM Cross-Reference
6. **Data Management Stakeholder Engagement is established and confirmed.**	A broad set of stakeholders is required to effectively manage the data, including support from the business, technology, operations and cross-organizational control functions. A successful data management program requires committed participation and resources across the organization.	DCAM 2.6
7. **Data management communications and training programs have been developed and implemented across the organization.**	Internal communications and formal training are needed to affect the required organization-wide behavior and cultural change. Both are needed to drive awareness and adherence to the Data Management Program.	DCAM 2.7
8. **Metrics have been defined and are being captured to determine the success and continuous improvement of the Data Management Program.**	Program metrics such as KPIs (Key Performance Indicators) and KRIs (Key Risk Indicators) are being captured and used to measure the success of the data management program, as well as ensure continuous improvement.	DCAM 2.8

Business, Technology and Data Architecture

Business architecture is the strategy and design of efficient processes to support business objectives. Data Architecture defines the data. Technology architecture defines the physical infrastructure. Together, all three must work in concert to have a successful data management program.

9. **Your organization has a formally established and supported Data Architecture Program (focus on the definition and modeling of data content).**	A formally established data architecture function exists, focused on the design and definition of data content (its structure, definition, relationships, etc.).	DCAM 3.1
10. **Business Architecture is established and integrated into your data management program.**	Business architecture determines the scope and requirements of data (what data is needed), considers all data restrictions and protections (e.g. use of PII – Personally Identifiable Information), and ensures that the right data is being used for the right business objective (appropriate use of data).	DCAM 3.2
11. **Logical data domains, models and metadata have been identified and documented and usage is supported by policy.**	Data is defined through the identification and documentation of logical data domains. Logical data domains represent categories of data that are needed to run various business functions. For each domain, logical data models and definitions of data attributes are required, as well as a fully populated metadata (data describing data). Use and definition of data are then governed by policy and procedure.	DCAM 3.3 and 3.4

Survey Questions

Survey Question	Description	DCAM Cross-Reference
12. Technology vision and strategy, in support of the data management program, have been developed and documented.	The role of the Technology function is to define, design and implement the physical architecture needed to support business and data requirements. Technology defines the database strategies, analytics platforms, middleware solutions, storage and retention technologies, information security considerations, and all other aspects of the holistic technology infrastructure needed to support the data management goals and objectives.	DCAM 4.1
13. Tools required to support the data management program have been identified and implemented.	Data management tools (e.g. data quality tools, data governance platforms, metadata repositories, etc.), must be determined based on business and data management requirements. Technology is then responsible for designing the roadmaps, implementing the required tools, and ensuring appropriate governance is applied to the use of these tools.	DCAM 4.2
14. Data Management Operational Risk planning is in place.	The Data Management governance structure must be in alignment with operational risk governance and engaged in the contingency planning and testing for data access and maintenance in the event of an operational disruption.	DCAM 4.3

Data Quality Management

Data Quality Management defines the goals, approaches and plans of action that ensure data content is of sufficient quality to support defined business and strategic objectives of the organization.

Survey Question	Description	DCAM Cross-Reference
15. A Data Quality Management program is formalized and established.	A formal approach to data quality must be established within an organization. The goals, objectives and approach must be defined and communicated to all stakeholders. Dedicated time and resources must be committed to ensure data is fit for purpose.	DCAM 5.1
16. Data is profiled, measured, monitored and maintained.	Understanding the current state of your data is critically important to a successful data management program. Profiling and measuring creates the data quality benchmark. Monitoring and maintaining the data ensures quality control points are implemented, DQ metrics are captured and continuous monitoring is established.	DCAM 5.2, 5.4

2020 GLOBAL DATA MANAGEMENT BENCHMARK SURVEY

Survey Questions

Survey Question	Description	DCAM Cross-Reference
17. **Data Quality root cause analysis is routinely performed.**	Data remediation plans must be developed and executed to resolve the most pressing DQ issues. The remediation must include both correcting the existing data and performing root-cause-fix to eliminate future data defects.	DCAM 5.3
Data Governance *The Data Governance function is the backbone of a successful data management (DM) initiative. Data governance is the process of setting standards, defining rules, establishing policy and implementing oversight. It is these steps that ensure adherence to DM best practices. Governance formalizes and empowers the DM initiative to ensure propagation and sustainability throughout the organization.*		
18. **Data Governance function is formally established and operational.**	Data Governance strategy and approach has been defined, communicated and reviewed and approved by program stakeholders. Roles and responsibilities have been assigned, project management, program funding and issue management are all operational.	DCAM 6.1, 6.3
19. **Policy and Standards have been written, approved and implemented.**	DM policy and standards must be established for the organization and approved by stakeholders and executive governing bodies. The policy and standards must align with cross-control function policy and standards and be auditable.	DCAM 6.2
20. **Governance and maintenance of authorized data domains, data structures, data models, data definitions and data glossaries, is established and operational.**	Governance of all related data structures (data models; data definitions; data glossaries), and the identification and governance of authorized data domains, has been established and is operational.	DCAM 6.4
21. **The access and use of data, driven by access controls, data-sharing agreements and contractual use of [market] data, is governed.**	Governance is appropriately implemented in controlling the access and use of data, enforcing the contractual restrictions of third-party data, and establishing and monitoring adherence to the Data Sharing Agreements.	DCAM 6.5
22. **The "ethical" access, use and outcomes of data are considered, reviewed and governed.**	Governing the data ethics includes establishing a formal data ethics oversight function, adhering to the ethical access and appropriate use of data, and monitoring whether the outcomes of data use adhere to established ethical standards.	DCAM 6.6

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2020 GLOBAL DATA MANAGEMENT BENCHMARK SURVEY

Survey Questions

Survey Question	Description	DCAM Cross-Reference
Data Control Environment		
The Data Control Environment refers to the state of operation in which the data assets of an organization are holistically managed throughout the organization. The purpose of the data control environment is to coordinate the people, process and technology to ensure data management is part of the operating culture of the organization.		
23. **A data control environment, (established controls of data across the data lifecycle) and collaboration with cross-organizational control groups, is evidenced and operational.**	Evidence of the data control environment is the result of effectively integrating the capabilities of data strategy, program, architecture, data quality and data governance across the organization. Active engagement by stakeholders and cross-organizational control functions is required to ensure the success of the data program.	DCAM 7.1, 7.2
24. **Risks associated with the access and use of data are being tracked, prioritized and mitigated.**	The formal process of identifying data risk must be integrated into the data management initiative. Risks must be tracked, prioritized, mitigated and integrated into the overall risk management framework of the organization (e.g.: three lines of defense; risk; audit).	DCAM 7.3

2020 Global Data Management Benchmark Report

DCAM®: The Data Capability Assessment Model

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DCAM FRAMEWORK AND SCORING GUIDE

About DCAM

DCAM® **(the Data Management Capability Assessment Model)** is the industry-standard, best practice framework designed to assist today's information professional in developing and sustaining a comprehensive data management program. DCAM is organized into seven major components.

Each component is defined by a series of required data management capabilities with each capability supported by a series of sub-capabilities, objectives, implementation advice and sample artifacts of evidence needed for verification of achievement.

DCAM, first published in 2014, was developed and continues to evolve based on the collective experiences of hundreds of data management professionals.

- DCAM is the synthesis of research and analysis of data management practitioners across the industry.

- DCAM was developed following the Socratic method of question and debate, to ensure the model is practical and in line with core principles of data management.

- DCAM is designed to be applicable and easily understood by non-specialists, while structured for continued improvement across an entire organization.
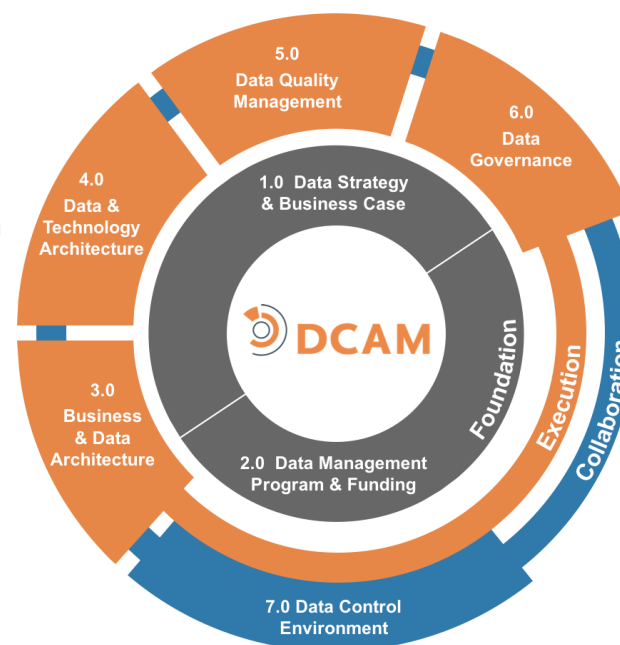
How is DCAM Applied?

Firms are utilizing DCAM in a variety of ways throughout the data management program lifecycle, including these use cases:

- **Program Initiation**
  - DCAM serves as a guideline to help launch new data management programs as well as align existing programs to best practice.
  - DCAM provides an established set of criteria for sustainable data management implementation and growth.

- **Current State Assessment, Benchmarking and Regulatory Readiness**
  - Firms are utilizing DCAM to evaluate their programs, educate their stakeholders, identify gaps and compare their progress against industry peers.
  - DCAM assessments provide demonstrable and auditable evidence to market authorities on the adoption of data management best practice.
  - DCAM directly maps to the risk data principles of BCBS 239 and data privacy regulations such as GDPR

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DCAM FRAMEWORK AND SCORING GUIDE

How DCAM is Scored

DCAM is structured to define and measure data management capability. The singular goal of DCAM is the achievement of the requirements necessary to develop, implement and sustain an effective data management program.

Each requirement clearly defines the rationale for the specified capability and the dependencies that link the components of data management into a cohesive program. DCAM is linked to a scoring matrix developed by the EDM Council to evaluate achievement of capability from three critical dimensions:

- Engagement: to ensure that the right people with the appropriate levels of authority are participating in the data management program
- Process: to measure the degree to which data management processes are established, structured and repeatable
- Evidence: the business artifacts that are necessary to audit against each capability statement

CROSSING THE CAPABILITY CHASM
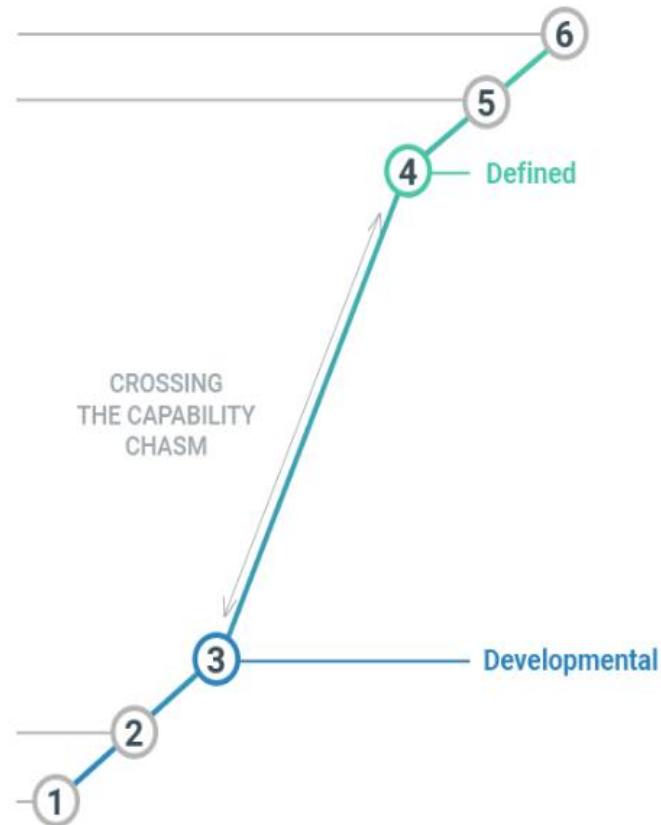
Scoring Scale

1	**Not Initiated**	**Ad hoc data management** Performed by heroes
2	**Conceptual**	**Initial planning activities** White board sessions
3	**Developmental**	**Engagement underway** Stakeholders being recruited and initial discussions about roles, responsibilities, standards and processes
4	**Defined**	**Data management capabilities established and verified by stakeholders** Roles and responsibilities structured, policy and standards implemented, glossaries and identifiers established, sustainable funding
5	**Achieved**	**Data management capabilities adopted, and compliance enforced** Sanctioned by executive management, activity coordinated, adherence audited, strategic funding
6	**Enhanced**	**Data management capabilities fully integrated into operations** Continuous improvement

2020 Global Data Management Benchmark Report

Demographics & Profile of Participants

INDUSTRY PARTICIPATION

The 2020 Global Data Management Benchmark Survey saw an increase in responses with 31% coming from Other Industry vs. 69% from Financial Industry

Financial Industry – 69%

Universal Banks (diversified financial firm including sell side, buy side, retail, etc.), 40%

Buy-Side (asset management, pension management and fund management), 23%

Retail and Commercial Banks, 17%

Insurance, 7%

Asset Servicing & Market Infrastructure (Exchanges, Custody, Clearing house), 5%

Sell Side (invest… banking, broker/ dealers), 4%

Pension Funds, 3%

Regulatory, 1%

Other Industry – 31%

Consulting Services, 31%

Other Manufacturing, 9%

Public Administration, 9%

Software / Technology / Platform Provider, 9%

Services, 8%

University / Academia, 8%

Data Services Vendor, 6%

Pharmaceutical / Healthcare, 5%

Retail Trade, 5%

Transport… & Public Utilities, 5%

Agric… 1%

Mining, 1%

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GLOBAL CONTRIBUTION

The 2020 Global Data Management Benchmark Survey had a broad distribution across all global regions

35 countries contributed to the 2020 Global Benchmark Survey

| Americas, 38% | EMEA, 27% | APAC, 35% |

2020 SURVEY - DEMOGRAPHICS

ORGANIZATION SIZE
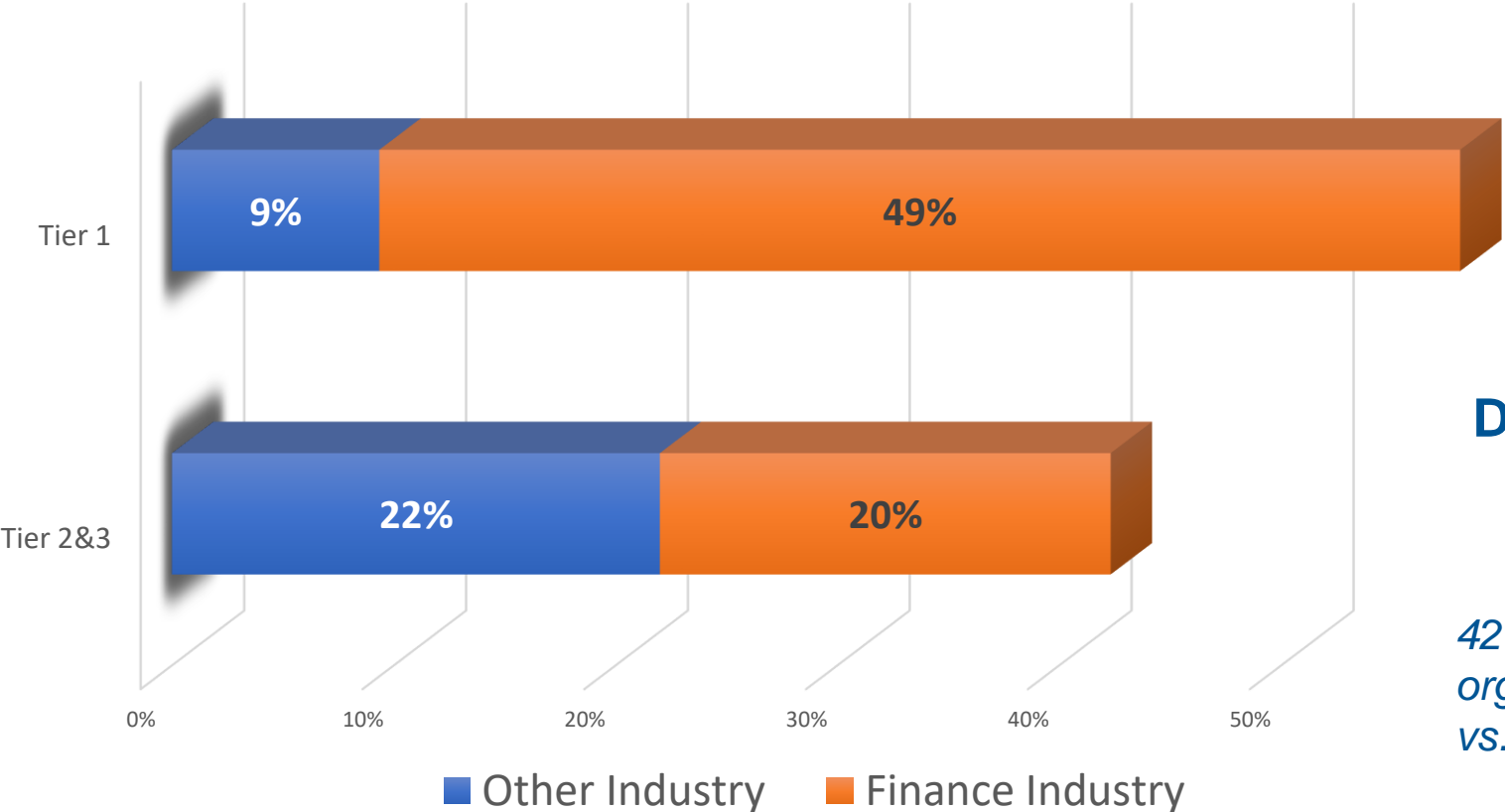
Data Management Programs are not reserved to Tier 1 firms anymore!

42% of the participants classify their organizations as Tier 2 and Tier 3 firms vs. 26% in 2015

DATA MANAGEMENT PROGRAM

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WHAT IS THE SCOPE OF THE DATA MANAGEMENT PROGRAM?

66% of Data Management Programs operate on an Enterprise-wide basis
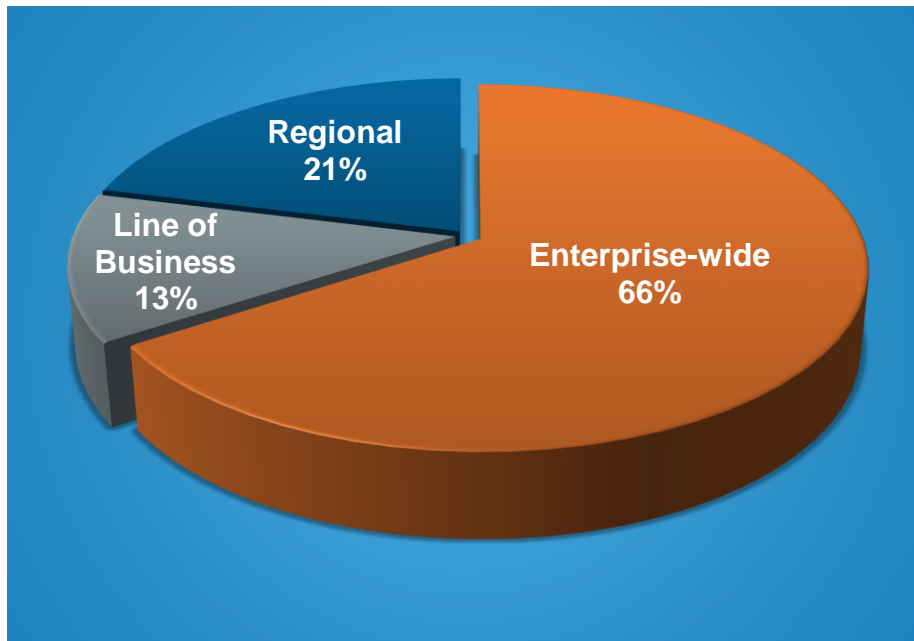
51% of the respondents said their programs are centrally funded vs. LOB/Project or Start-up
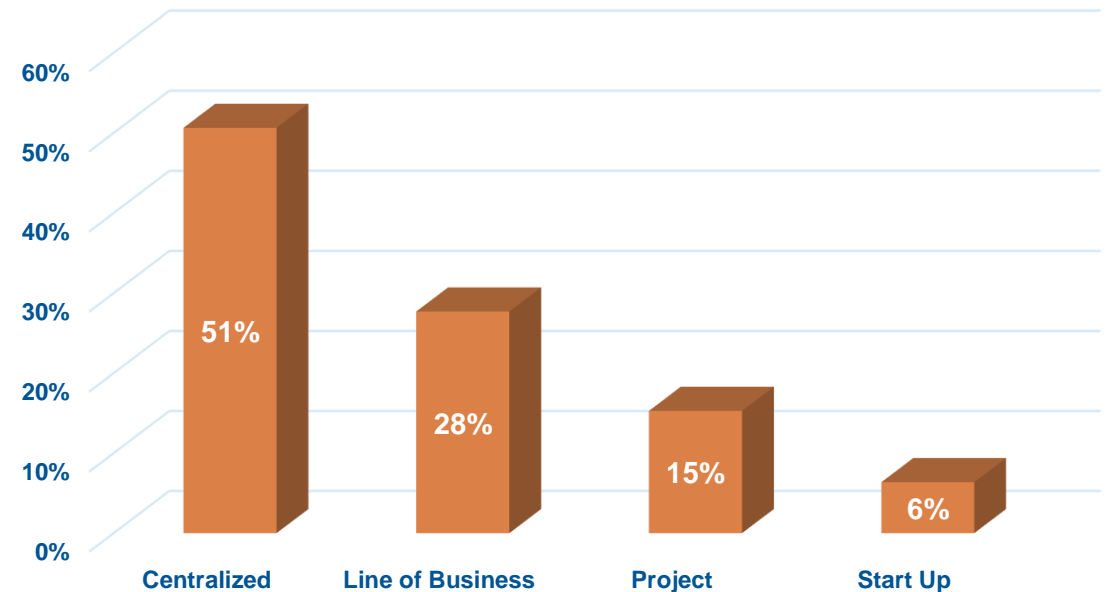
DATA MANAGEMENT PROGRAM

HOW MANY YEARS HAS THE DATA MANAGEMENT PROGRAM BEEN OPERATIONAL?

Chart showing percentages by years operational:
- 1 YEAR OR LESS: 20%
- 1-3 YEARS: 37%
- 3-5 YEARS: 25%
- 5+ YEARS: 18%
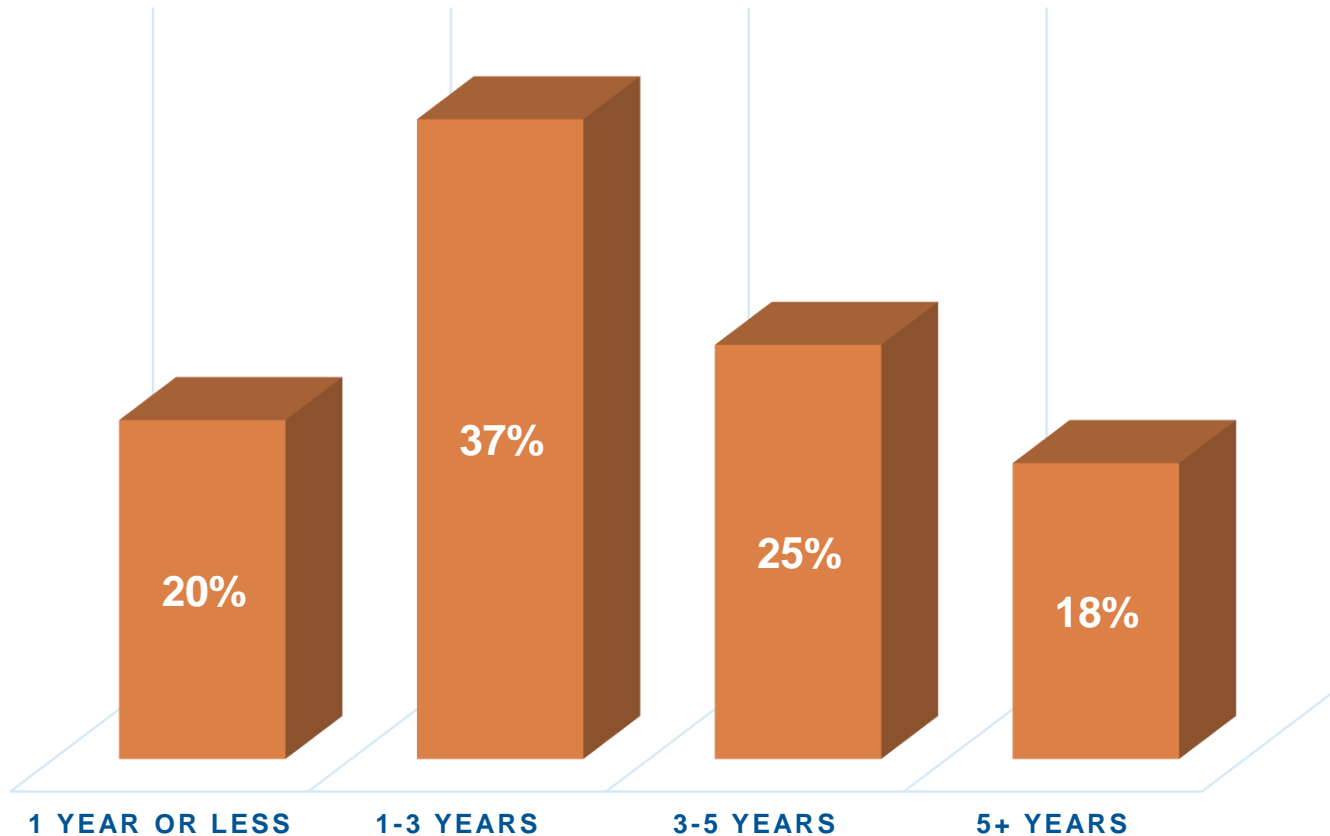
Existing Data Management Programs continue to mature, while new programs are being launched

- *43% of programs have been in place in 3 years or more, as compared to 19% in 2017*
- *Nearly 57% of the programs are new - having been started in the past 3 years*

DATA MANAGEMENT PROGRAM

WHERE DOES THE DATA MANAGEMENT PROGRAM REPORT TO IN YOUR ORGANIZATION?
(Multiple-choice question to capture dual reporting lines)
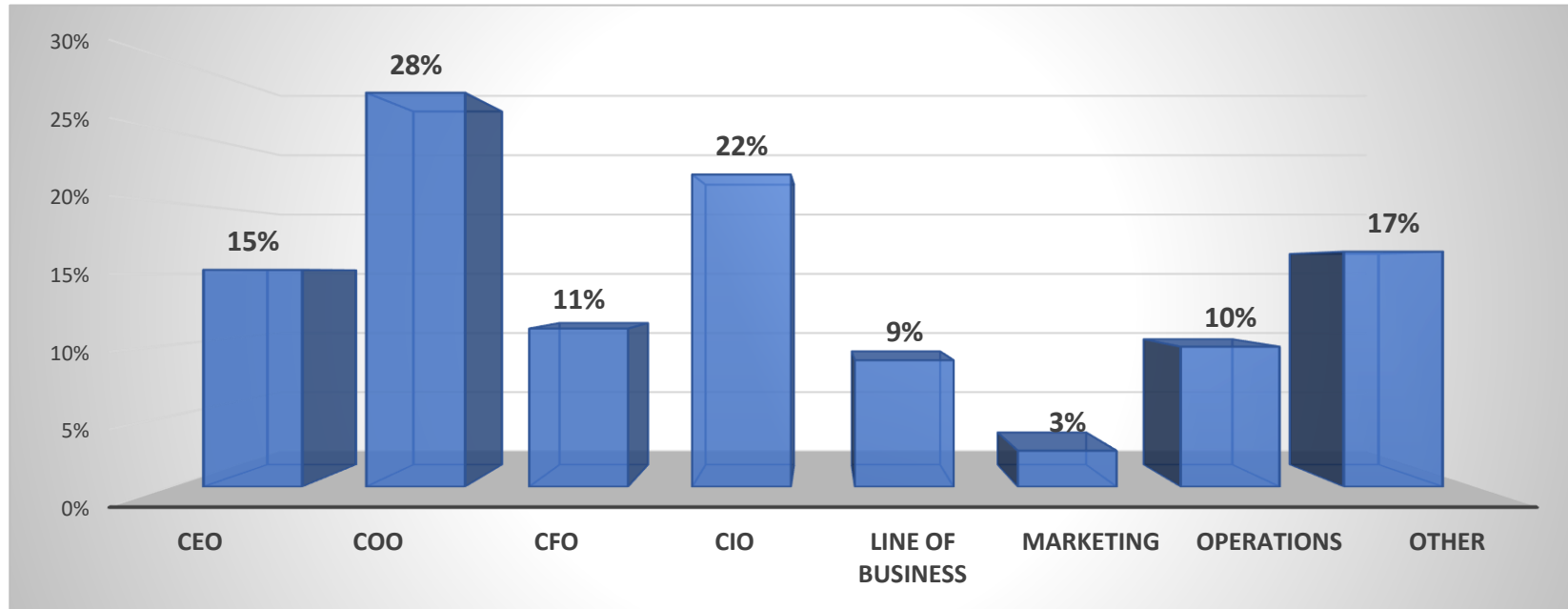
Data Management Program continues to elevate to the "C" suite.

- *76% of the data management programs are now reporting to the "C" suite*
  - *Highest percentage of programs reporting to the COO – 28%*
  - *New emergence in 2020 of direct reporting to the CEO – 15%*
  - *Direct report to the CIO shifting: 22% in 2020, down from 32% in 2017*

WHERE DOES THE DATA MANAGEMENT PROGRAM REPORT TO IN YOUR ORGANIZATION?
(Multiple-choice question to capture dual reporting lines)

Finance Industry

Category	Value
CEO	8%
COO	31%
CFO	13%
CIO	20%
Line of Business	8%
Marketing	2%
Operations	11%
Other	16%

VS.

Other Industry

Category	Value
CEO	31%
COO	19%
CFO	6%
CIO	26%
Line of Business	10%
Marketing	3%
Operations	5%
Other	17%

Reporting lines: Finance Industry vs Other Industry

When comparing Finance Industry reporting to Other Industry reporting lines, we observed similar distribution of reporting into Non-"C-suite" executives

However, when observing the C-Suite Reporting lines, the groups differed:

- *COO Reporting: 31% Finance vs 19% Other*
- *CFO Reporting: 13% Finance vs. 6% Other*
- *CEO Reporting: 8% Finance vs 31% Other*
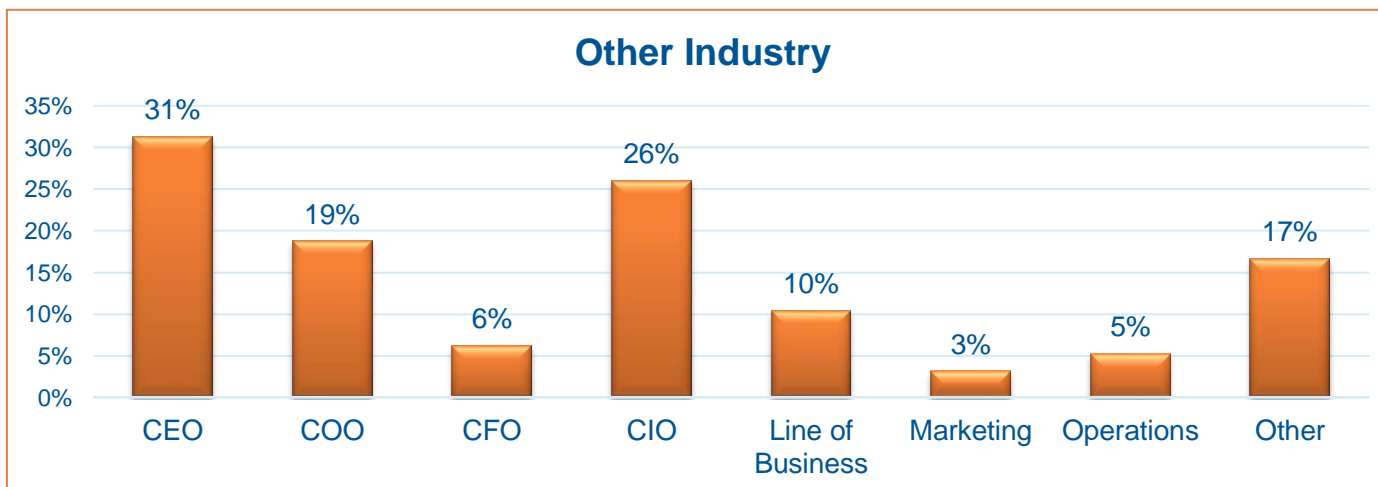
Significantly more programs in Other Finance reporting into the CEO. Contributing Factors:

Data Management in Finance was driven by the Financial Crisis. Thus, the accountability fell to the CFO, CIO and COO

In Other Industry, having newer data programs, higher percentage of data programs are reporting into the CEO

However, in 2020, this was the first time we observed data programs reporting into the CEO across all industries

DATA MANAGEMENT PROGRAM

DOES YOUR ORGANIZATION HAVE A CHIEF DATA EXECUTIVE (CDO OR EQUIVALENT)?

**60% of those surveyed
have a Chief Data Executive**

40%

60%

Chief Data Executive Tenure
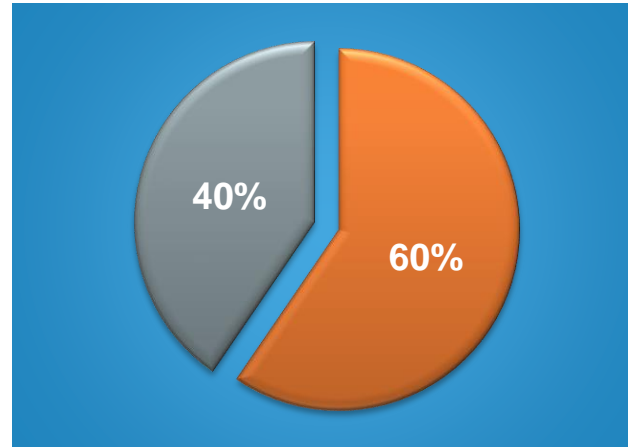
The role and tenure of the Chief Data Executive is increasing.

The Finance Industry, primarily due to the Financial Crisis of 2008, has supported this role for a longer period – 88% one year and longer

Other Industry organizations, although later to the game, have shown a significant increase in executive hiring – 35% in the past year

Finance Industry

13%	49%	39%
1 year or less	1-3 years	longer than 3 years

Other Industry

35%	57%	8%
1 year or less	1-3 years	longer than 3 years

DATA MANAGEMENT PROGRAM

DOES YOUR ORGANIZATION HAVE A CHIEF DATA EXECUTIVE (CDO OR EQUIVALENT)?

Scope of Responsibility

Regional 15%

Line of Business 5%
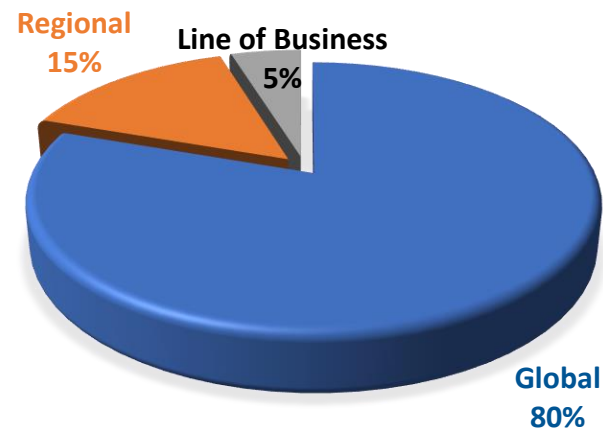
Global 80%

More Chief Data Executives are assuming global or enterprise roles
80% of organizations with a Chief Data Executive classify their roles as 'global'

Data Management — 96%

Data Analytics — 52%

Data Ethics — 42%
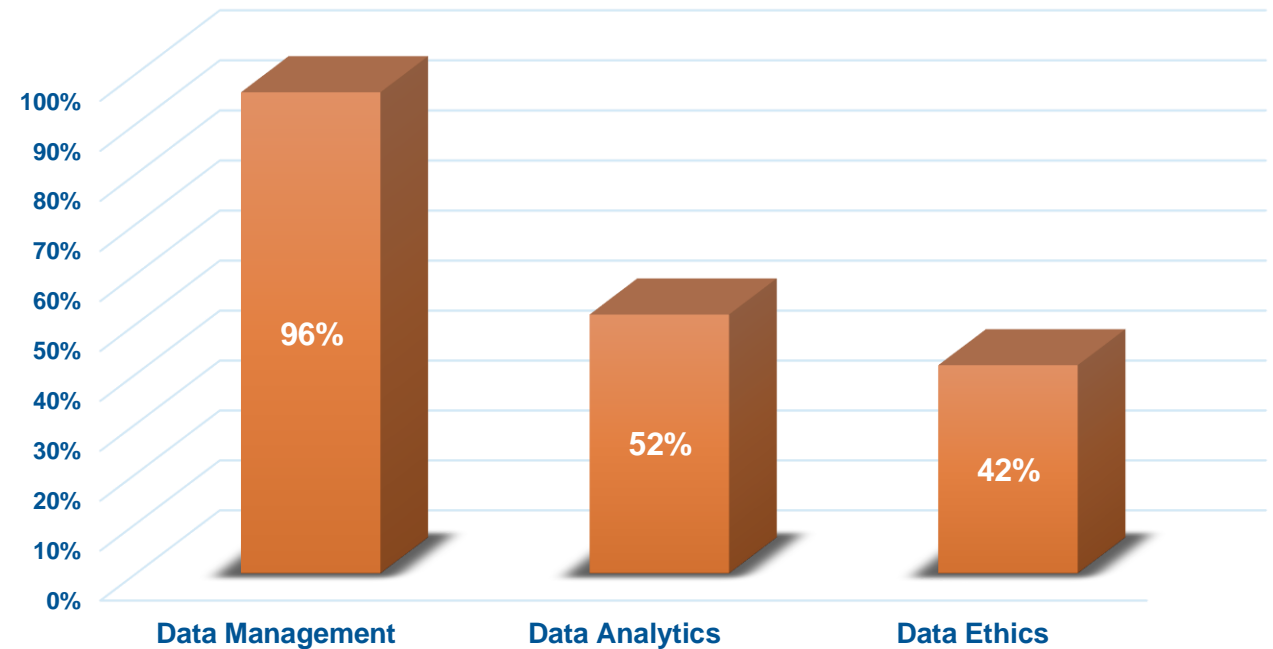
Chief Data Executive's Expanded Role
While traditional data management (Data Governance; Data Quality) ranked the highest (96%), new responsibilities have fallen to the Chief Data Executive. 52% of respondents include "Data Analytics" as part of their role and 42% are responsible for "Data Ethics" – neither of these functional responsibilities appears in previous surveys (2017 or 2015).

DATA MANAGEMENT PROGRAM

DOES YOUR DATA MANAGEMENT PROGRAM UTILIZE A DATA MANAGEMENT MATURITY MODEL?

Do you utilize a Data Maturity Model?

50%

50% of respondents state that they are using a data maturity model for their programs.
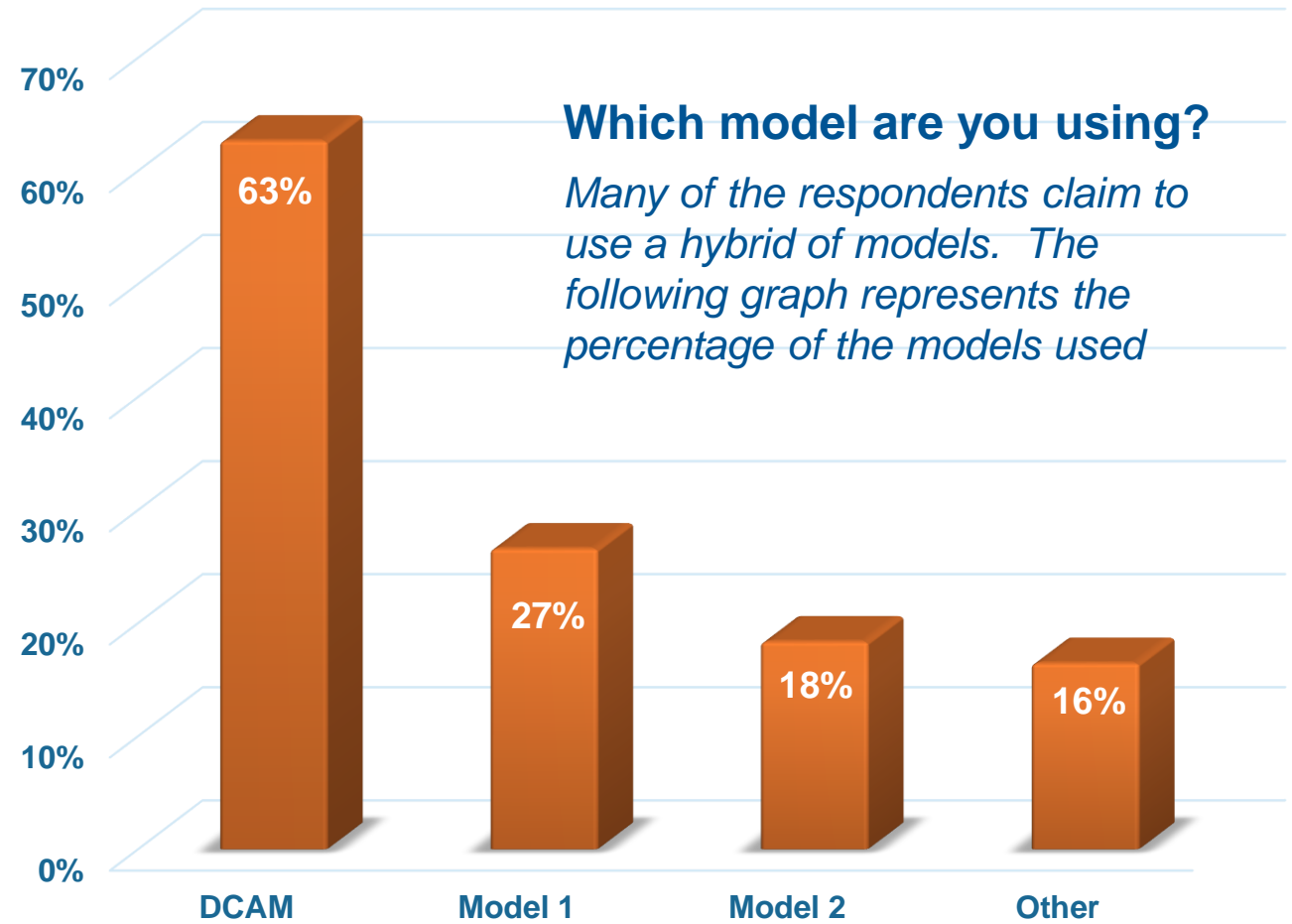
Which model are you using?

Many of the respondents claim to use a hybrid of models. The following graph represents the percentage of the models used

Bar chart:
- DCAM: 63%
- Model 1: 27%
- Model 2: 18%
- Other: 16%

(Y-axis: 0% to 70%)

DOES YOUR ORGANIZATION HAVE A FORMAL DATA SCIENCE/BIG DATA ANALYTICS PROGRAM?

Formal Analytics & Big Data Programs

The growth and focus of analytics as part of a firm's overall data management strategy is increasing. 41% of respondents stated that they either have a defined and planned program or are fully operational, while 45% are in the 'aspirational' or 'in process' stage.
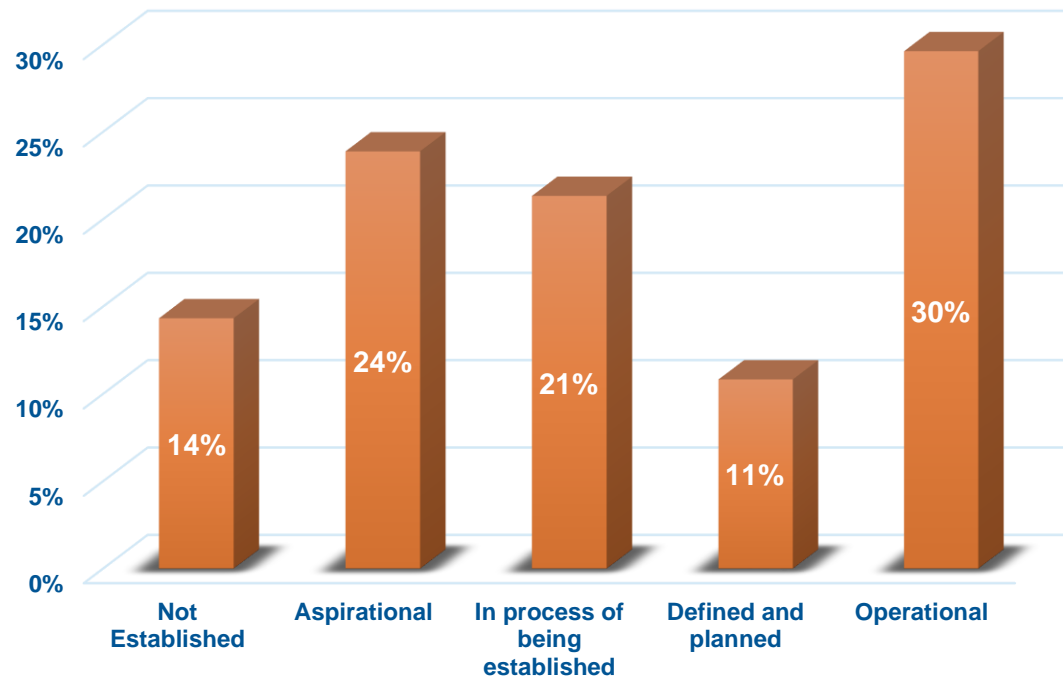
Data Management Oversight for Analytics

More and more, the responsibility of a firm's data analytics and big data programs are falling to the Data Management Function within organizations. 56% of respondents said their data management functions have either partial or full oversight over their analytic programs.
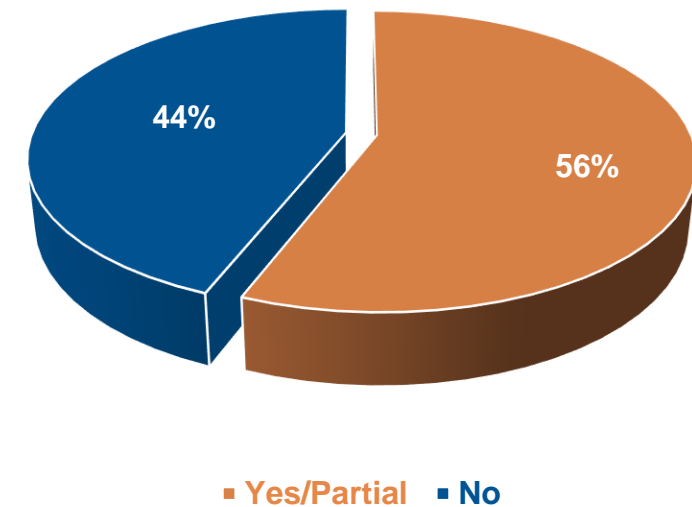
DOES YOUR ORGANIZATION HAVE A FORMAL DATA SCIENCE/BIG DATA ANALYTICS PROGRAM?
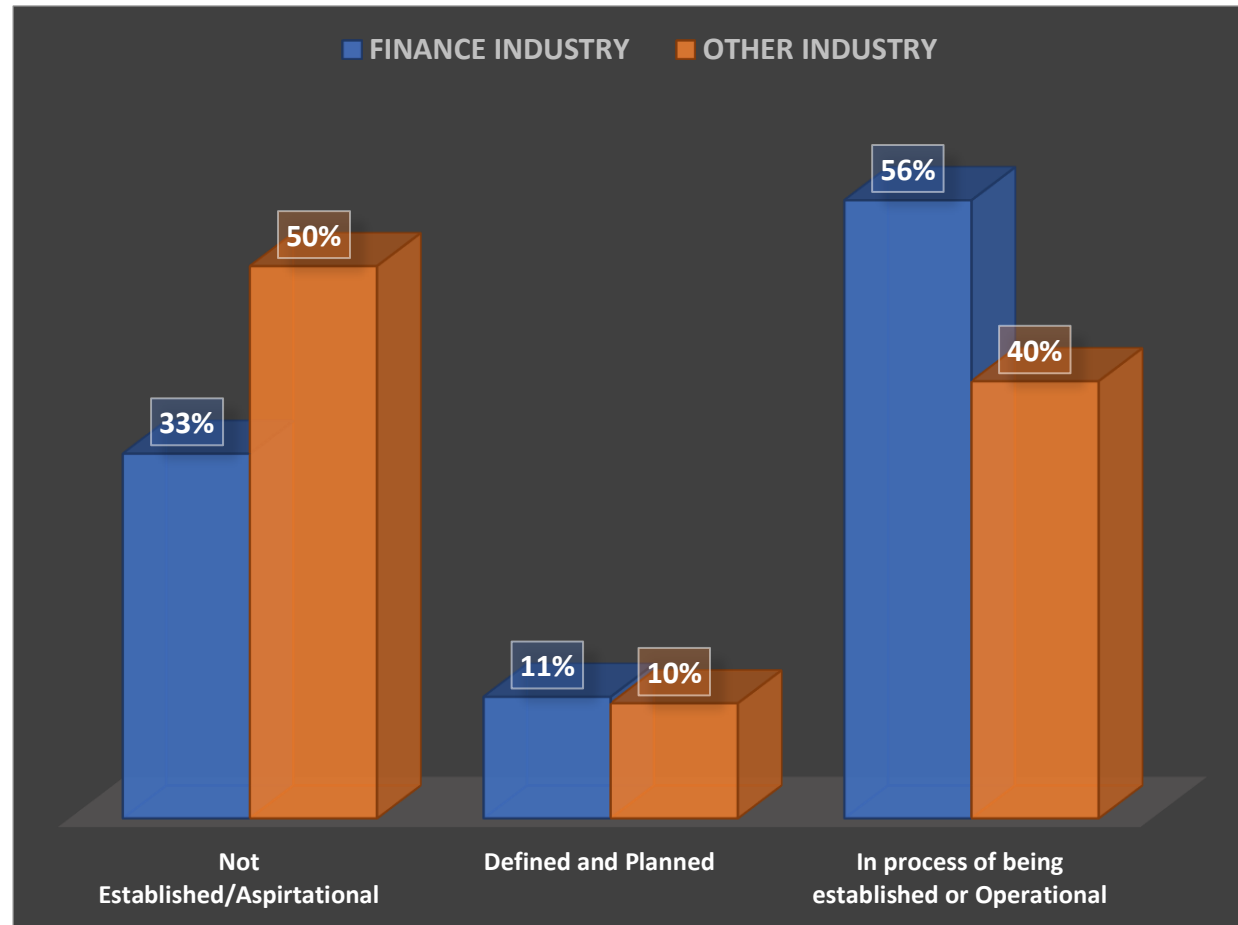
Maturity of your Data Analytics Program

The growth and focus of analytics as part of a firm's overall data management strategy is increasing. 2020 survey shows firms are either committed to an analytics program or waiting on the sidelines.

- *56% of Finance Industry respondents are either in process of establish or have established an analytics program while 40% of Other Industry respondents have jumped into formal analytic programs.*

WHAT ARE THE TOP BUSINESS DRIVERS / WHAT ARE THE TOP DATA MANAGEMENT PRIORITIES

Chart: Top Business Drivers for Data Management — 61% Data Governance, 56% Data Quality, 33% Regulatory Drivers, 32% Advanced Analytics, 31% Operational Efficiency, 25% Technology Transformation, 22% Data Pain-Point, 21% Risk Drivers, 21% Information Security.

Chart: Top Data Management Priorities — 41% Data Architecture, 38% Data Lineage, 36% Defining Data Management Strategy, 33% Policy and Standards…, 32% Data Glossary, 28% Meta Data Management, 26% Data Management Metrics, 22% Prioritizing Critical Data, 12% Legacy Environment Challenges, 12% Hiring Required Skill Sets, 11% Technical Architecture, 8% Semantic Model Development.

Top Business Drivers for Data Management

This graph represents the percentage of times a specific **business driver** was identified in the 'top 3'.

- *Data Governance and Data Quality continue to be the top drivers.*
- *Regulatory drivers dropped to 33% vs. 66% in 2017 as the Financial Crisis fades*
- *Advanced analytics, which did not appear as a business driver in 2017,was identified as a top-3 driver by 33% of the respondents*
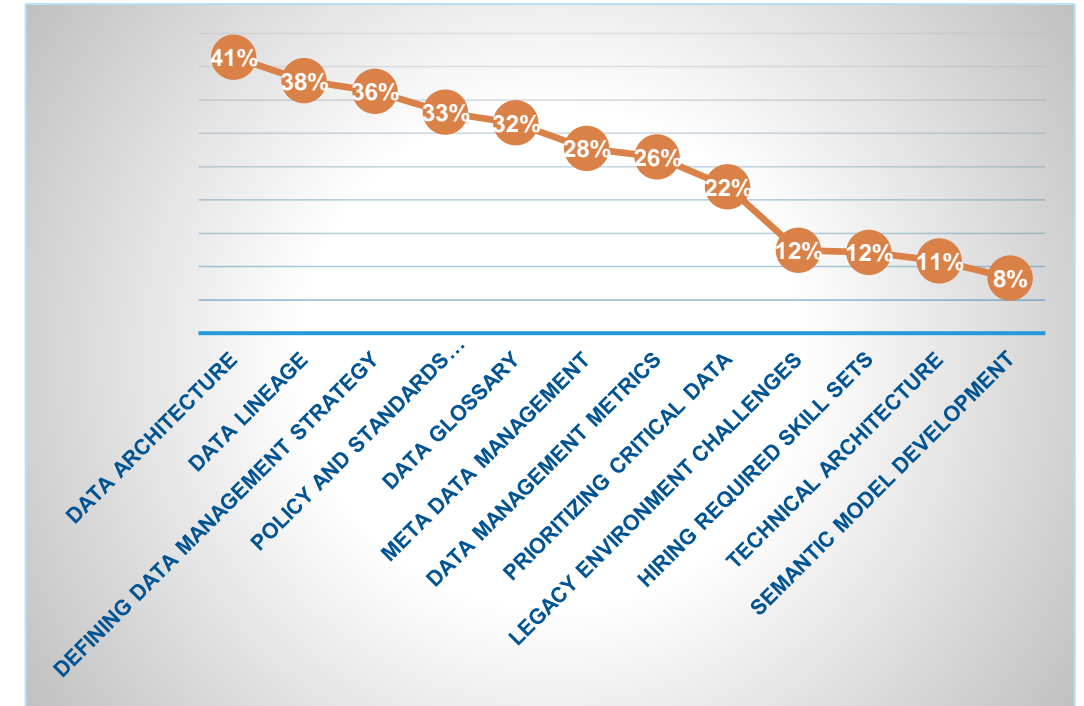
Top Data Management Priorities

This graph represents the percentage of times a specific data management **priority** was identified in the 'top 3'.

- *41% identified Data Architecture (Defining and modeling data) as the #1 data management priority*
- *Lineage; Strategy and Developing Policy ran 38%; 36% and 33% respectively*

2020 Global Data Management Benchmark Report

Survey Results & Observations
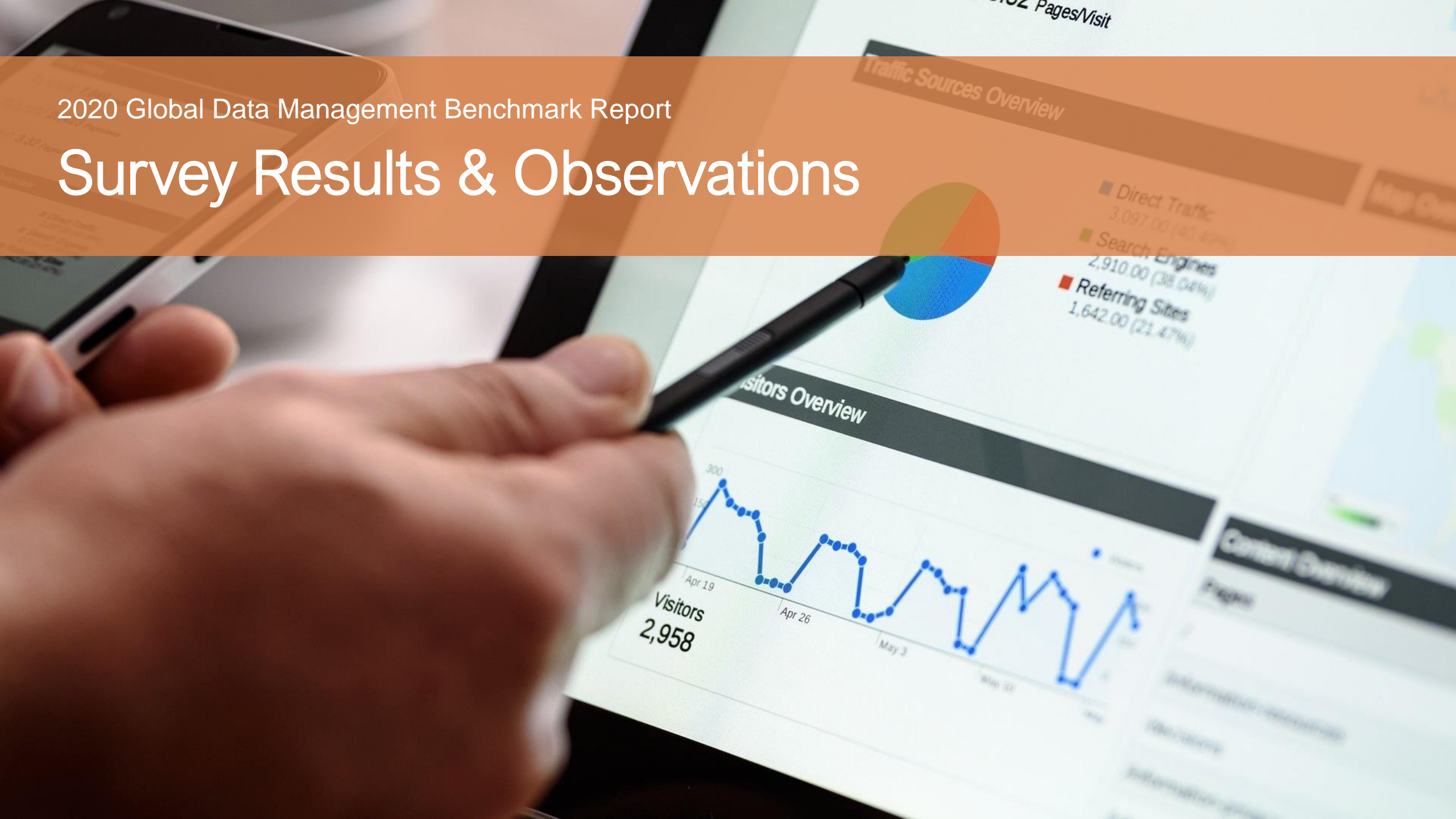
1.0 The Data Management Strategy and Business Case

The Data Management Strategy & Business Case determines how data management (DM) is defined, organized, funded, governed and embedded into the operations of the organization. It defines the long-term vision including a description of stakeholders or stakeholder functions that must be aligned. Data Management Strategy demonstrates the business value that the program will seek to achieve. It becomes the blueprint for the organization to evaluate, define, plan, measure and execute a successful and mature DM initiative.

The purpose of developing a DM strategy and business case is to articulate the rationale for the DM initiative. The strategy defines why the initiative is needed, as well as the goals, and expected benefits. The strategy also describes how to mobilize the organization in order to implement a successful DM initiative. The DM business case provides the rationale for the investment in the DM initiative. DM is no different than any other established business process. It needs to be justified, funded, measured and evaluated. It provides clarity of purpose, enabling agreement and support of initiative objectives from senior executives as well as program stakeholders.
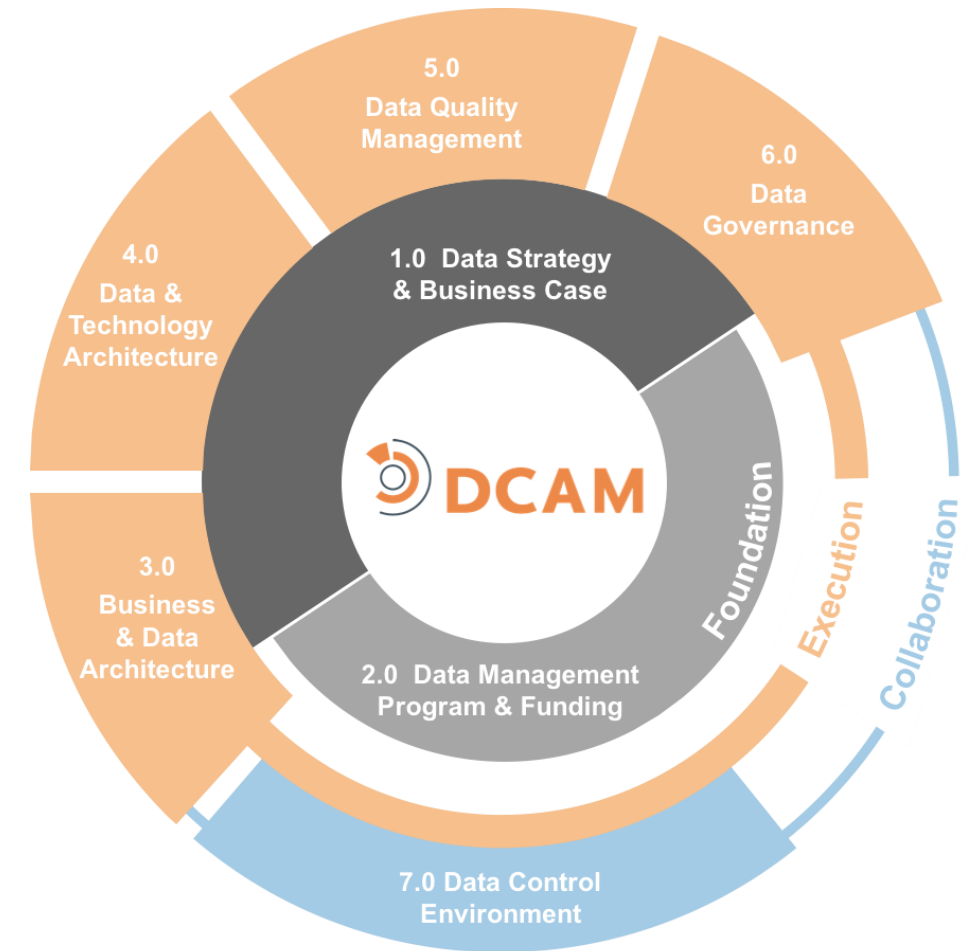
Question 1: A Formal Data Management Strategy and approach has been developed and communicated to organizational stakeholders

The Data Management Strategy determines how data management is defined, organized, funded, governed and embedded into the operations of the organization. It defines the long-term vision and becomes the blueprint for the organization to evaluate, define, plan, measure and execute a successful and mature data initiative.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	3.36	18%
Finance Industry	3.52	19%
Other Industry	3.00	16%

- Finance Sector saw a slight decrease in *Achieved/Performed* (52% vs 55% in 2015 and 2017), however, Finance outpaced Other Industry organizations (52% vs. 37%)
- Overall, scores remained low as Finance Industry and Other Industry organizations scored less than 20% achieved

All Industries

	All Industry	Finance Industry	Other Industry
1 Not initiated	7%	3%	15%
2 Planning	17%	12%	26%
3 Underway	30%	33%	23%
4 Performed	29%	33%	21%
5 Achieved	18%	19%	16%
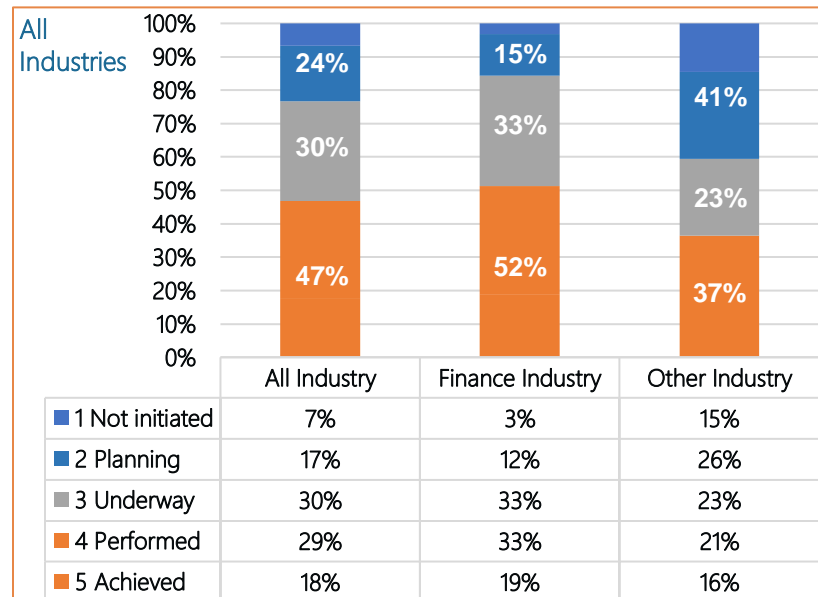
Analysis

Developing a data management strategy remains a recognized priority, however, many challenges remain. As the role of Data Management continues to expand, the objectives, expected outcomes and approaches to the data program continue to evolve.

An effective Data Management Strategy must take into consideration expanding data types (unstructured; signal; sensor; social media), expanding 'value-add' requirements (revenue expectations), delivering business value while managing data ethics and data privacy.

This expanded responsibility may have accounted for the slight decrease in firms declaring that they have developed a formal data strategy

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	3%	5%	0%	3%	0%	0%	0%
2 Planning	9%	20%	0%	11%	0%	19%	25%
3 Underway	22%	36%	38%	35%	55%	50%	75%
4 Performed	43%	23%	50%	24%	36%	25%	0%
5 Achieved	22%	16%	13%	27%	9%	6%	0%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	7%	0%	27%	17%	11%	38%	0%
2 Planning	21%	38%	27%	23%	44%	0%	33%
3 Underway	36%	25%	7%	17%	11%	50%	33%
4 Performed	36%	25%	20%	27%	11%	0%	8%
5 Achieved	0%	13%	20%	17%	22%	13%	25%
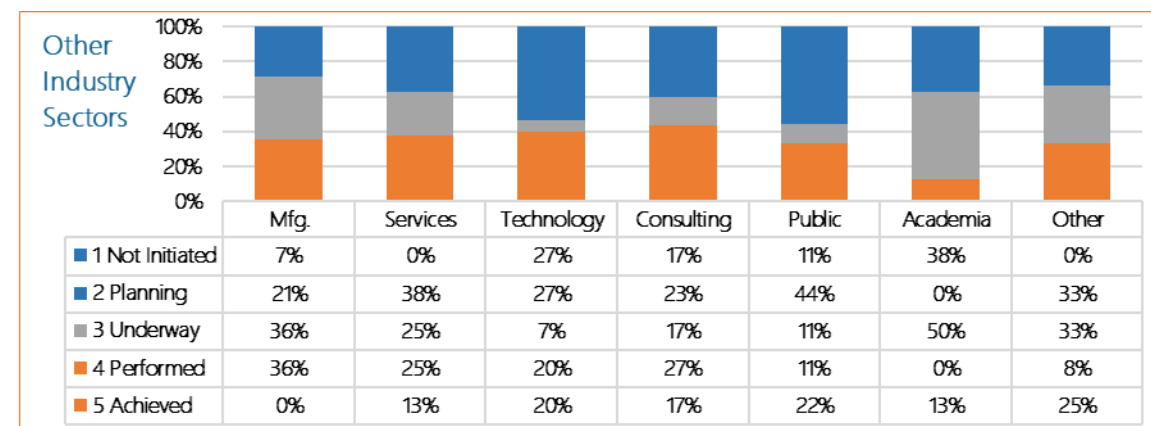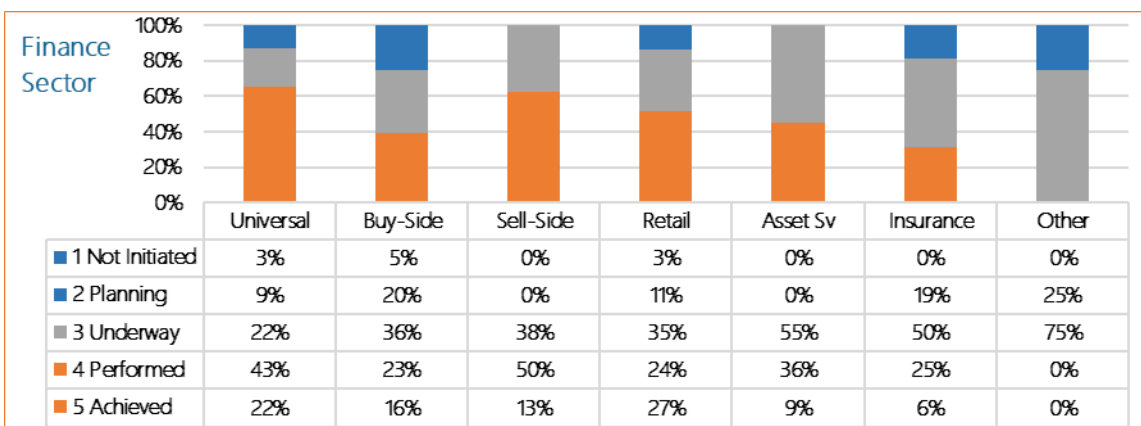
Question 2: A Data Management Business Case (including requirements and prioritization) has been developed and communicated

The purpose of developing a *Data Management Business Case* is to articulate the rationale for the data initiative. The business case is the justification for the initiative. It articulates the data related issues facing an organization and describes the expected outcomes and benefits that can be achieved through the implementation of a successful DM program.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	3.32	22%
Finance Industry	3.52	25%
Other Industry	2.89	17%

- More than three-quarters of Other Industry lack an *Achieved* business case
- Finance Industry *Achieved* grew slightly compared to 2015 and 1017 (15%; 20% vs. 25% in 2020)
- Significant interest exists cross industry for a standardized approach to business case and data valuation

All Industries

	All Industry	Finance Industry	Other Industry
1 Not initiated	9%	6%	18%
2 Planning	17%	13%	27%
3 Underway	29%	32%	24%
4 Performed	22%	25%	15%
5 Achieved	22%	25%	17%
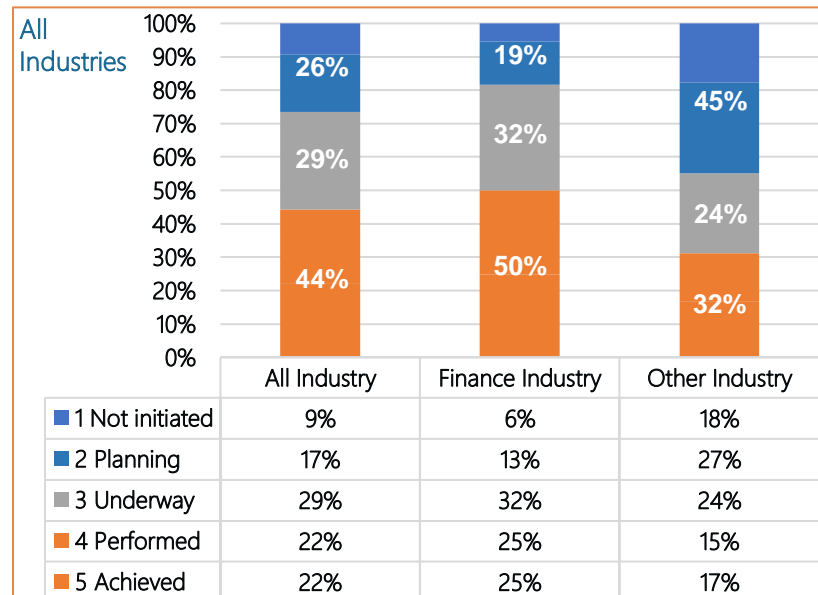
Analysis

Like all investment, clear objectives and benefits must be defined justifying the spend. In previous surveys, risk and regulation (the defensive business case) were the undisputed objectives justifying the investment.

Although these objectives are still true across all industries, building the 'offensive' business case is becoming the new requirement:

- What benefits can be realized via an effective data program?
- What new markets can be broached?
- What new products and services can be developed and delivered?
- How can a firm leverage its information to improve revenues?

These critical considerations continue to challenge the industry when defining the data business case

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	5%	7%	0%	5%	0%	13%	0%
2 Planning	15%	13%	0%	8%	9%	13%	50%
3 Underway	27%	39%	25%	30%	36%	38%	25%
4 Performed	29%	21%	50%	24%	18%	19%	0%
5 Achieved	24%	20%	25%	32%	36%	19%	25%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	0%	0%	13%	27%	33%	38%	8%
2 Planning	36%	38%	40%	17%	33%	25%	17%
3 Underway	43%	25%	20%	17%	11%	25%	33%
4 Performed	21%	13%	0%	20%	11%	13%	17%
5 Achieved	0%	25%	27%	20%	11%	0%	25%

2.0 The Data Management Program and Funding Model

The Data Management Program is an organizational function dedicated to the management of data as an asset throughout an organization. It illustrates how the management of data quality (DQ), its definition and its content support strategic, business and operational objectives. It also reinforces the necessity of orchestration, active collaboration and alignment among diverse stakeholders in order to instill confidence in data as a trusted factor of input into business and operational processes.

The purpose of a data management (DM) program is to organize and embed the DM concepts into the operational framework of an organization on a sustainable basis. The creation and implementation of the DM program elevates the importance of DM and integrates it as a core aspect of organizational operations. It establishes DM as a sustainable activity by ensuring sustainable funding. It reinforces the importance of managing data across the organization via education, training, and communication.

The Data Management Funding Model describes the overall framework and high-level engagement of senior management used to ensure that the objectives and processes of DM become a sustainably funded activity within the organization.
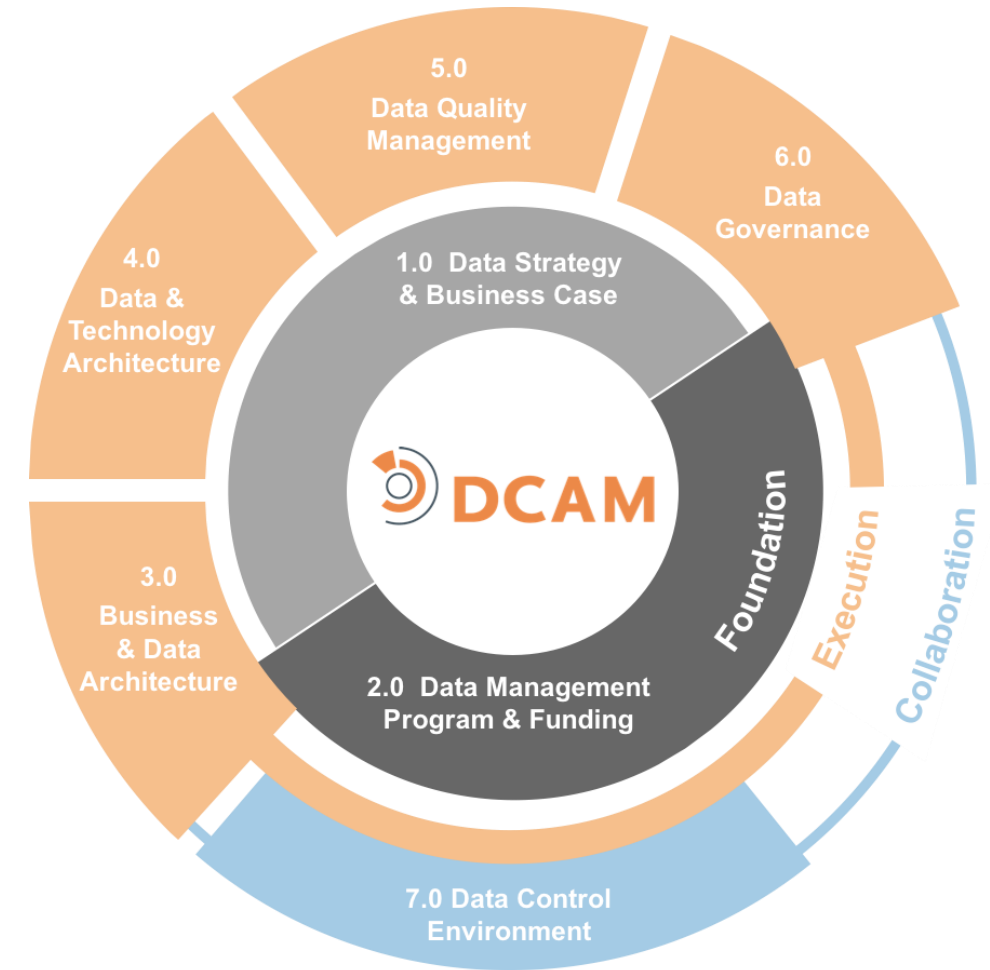
Question 3: Your organization has a formally established, structured and funded Data Management Program.

A *Data Management Program* is a formally established, independent and sustainable part of the organization. It defines the lines of responsibility and accountability. It ensures access to appropriate staff resources and functional capabilities, has strong support of executive management, and is granted appropriate governance authority to ensure the implementation of a successful data management initiative.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	3.54	28%
Finance Industry	3.77	31%
Other Industry	3.02	21%

- An increase in established data programs were observed. Finance Industry increased in 2020 to 31% *Achieved* vs. 22% and 20% in 2015 and 2017 respectively
- Other Industry reported 21% *Achieved*
- *Achieved/Performed* showed progress: Finance Industry: 60% / Other Industry: 37%

All Industries

	All Industry	Finance Industry	Other Industry
1 Not initiated	9%	4%	20%
2 Planning	13%	10%	19%
3 Underway	25%	26%	24%
4 Performed	25%	29%	16%
5 Achieved	28%	31%	21%
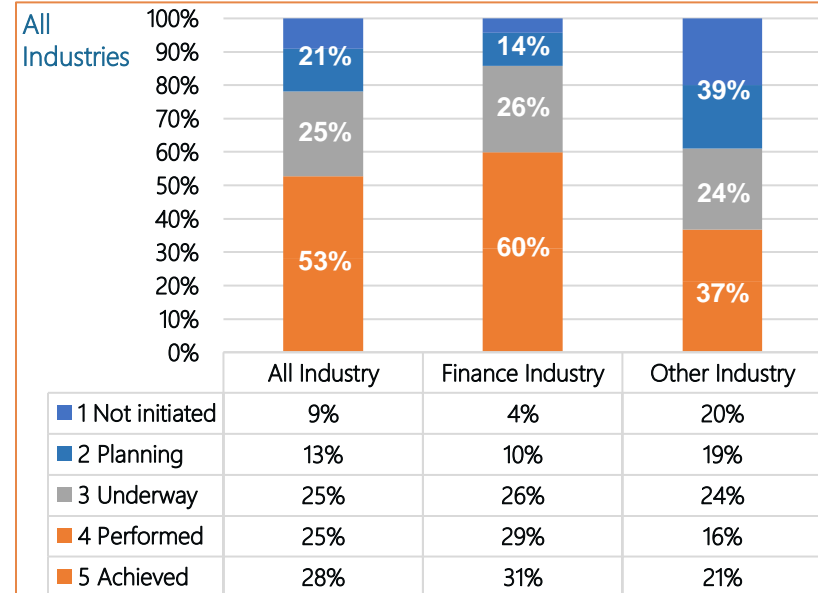
Analysis

Early data management programs struggled due to lack of formality, dedicated resources and/or dedicated funding.

As the importance of data and data management has increased, organizations are recognizing the need to establish separately funded, formal and independent data programs. As interest and demand for Artificial Intelligence and Machine Learning solutions grows, the need for accurate, timely and trusted data grows with it.

This is affecting all organizations across all verticals.

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	5%	5%	0%	3%	9%	0%	0%
2 Planning	9%	15%	0%	8%	0%	13%	25%
3 Underway	23%	31%	13%	27%	36%	20%	25%
4 Performed	30%	31%	50%	27%	18%	20%	0%
5 Achieved	33%	18%	38%	35%	36%	47%	50%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	7%	0%	29%	33%	11%	25%	8%
2 Planning	29%	0%	7%	10%	33%	25%	42%
3 Underway	36%	63%	29%	13%	44%	13%	0%
4 Performed	14%	0%	7%	30%	0%	0%	25%
5 Achieved	14%	38%	29%	13%	11%	38%	25%

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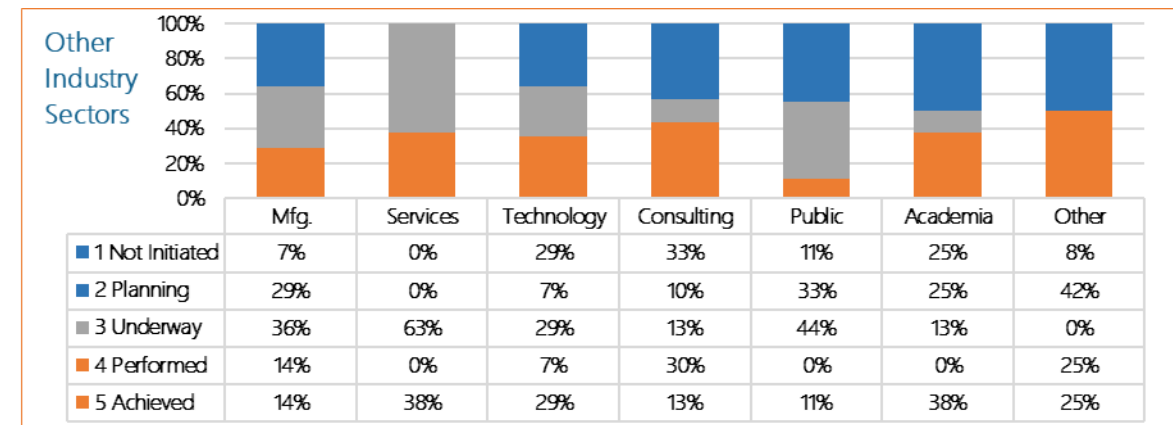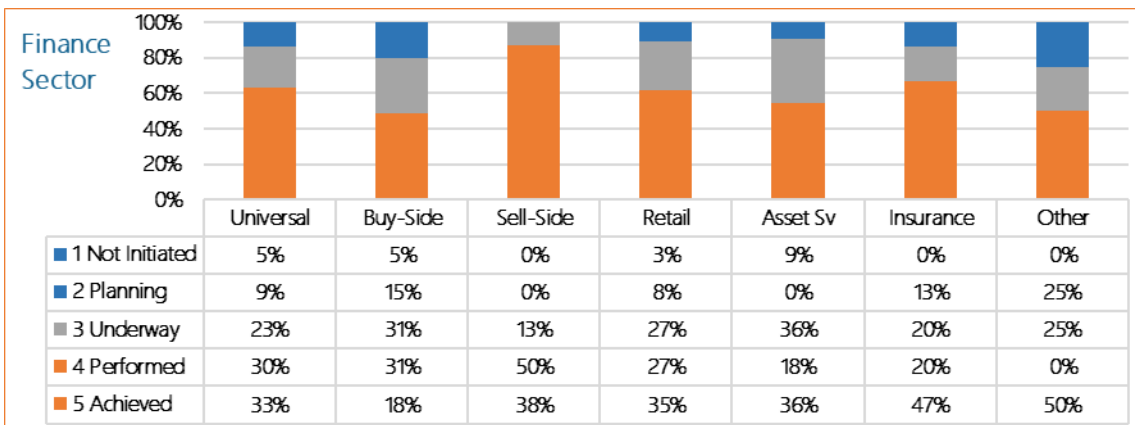
Question 4: Formal Plans, Roadmaps and Deliverables have been defined and articulated to program stakeholders.

Program Roadmaps must describe the steps required to attain the DM initiative's target-state for its organizational structure and function. Stakeholders must be engaged and validate the roadmaps. Once roadmaps are approved, they must be translated into detailed project plans.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	3.38	21%
Finance Industry	3.58	23%
Other Industry	2.93	19%

- Finance Industry outpaced Other Industry in *Achieved/Performed*: 53% vs. 35%
- Other Industry Sectors posted lowest *Achieved* scores across sub-verticals: (ex: Mfg. 0%; Public Sector 11%; Academia 13%)

All Industries

	All Industry	Finance Industry	Other Industry
1 Not initiated	9%	4%	19%
2 Planning	16%	12%	25%
3 Underway	28%	31%	21%
4 Performed	26%	30%	16%
5 Achieved	21%	23%	19%
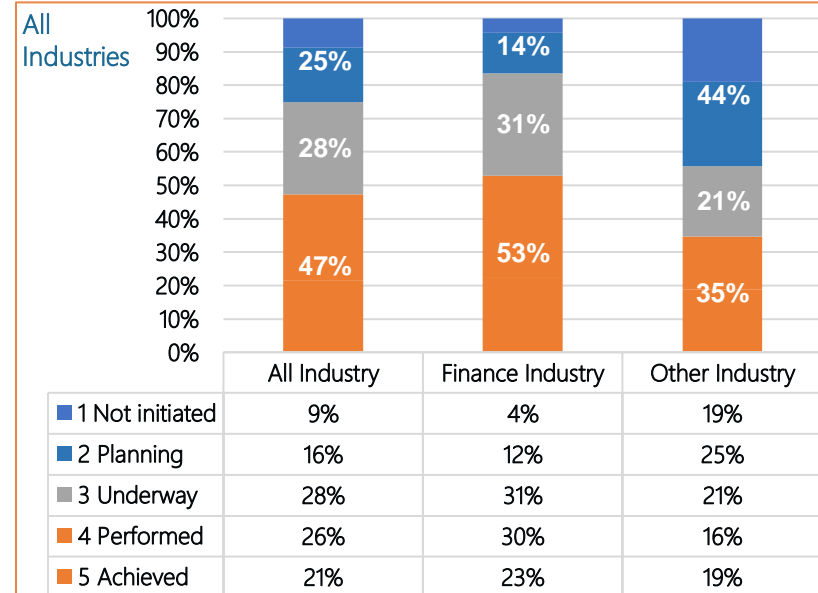
Analysis

A successful data management program will clearly define the objectives, plans and deliverables, and ensure all stakeholders are properly informed.

Finance Industry scored higher in aggregate, as well as across individual sub-sectors. Regulatory pressure across the sector may have accounted for the disparity in these metrics.

Other Industry showed a wider range of scores – Consulting and Software Sectors, where deliverables are key to the everyday business, showed a greater discipline towards communication delivers vs. Public and Academia Sectors, where project deliverable drivers may not be as strict as consulting and software.

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	4%	7%	0%	3%	0%	0%	25%
2 Planning	11%	15%	0%	14%	9%	20%	0%
3 Underway	28%	35%	38%	27%	55%	13%	50%
4 Performed	30%	31%	38%	27%	18%	47%	0%
5 Achieved	27%	13%	25%	30%	18%	20%	25%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	7%	0%	21%	27%	22%	38%	8%
2 Planning	29%	50%	29%	20%	22%	0%	33%
3 Underway	36%	13%	7%	13%	44%	38%	17%
4 Performed	29%	0%	21%	17%	0%	13%	17%
5 Achieved	0%	38%	21%	23%	11%	13%	25%

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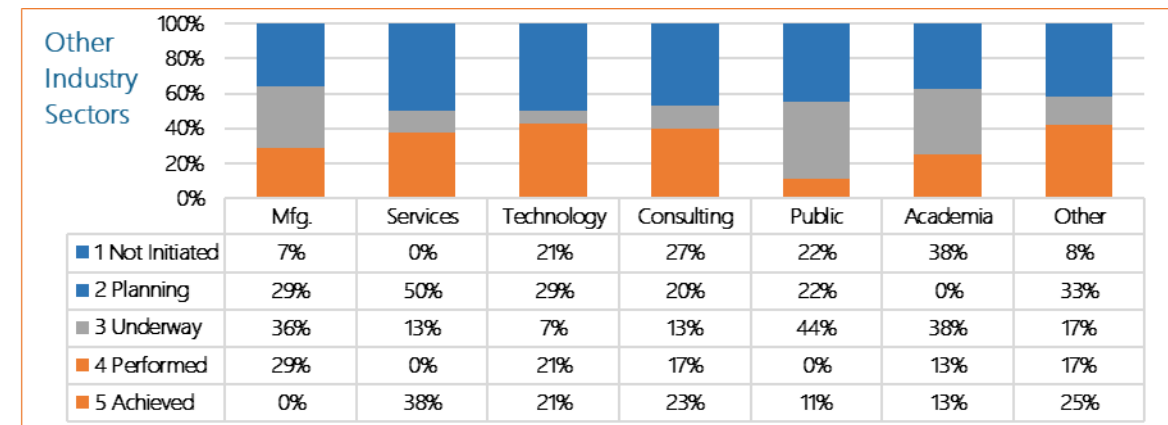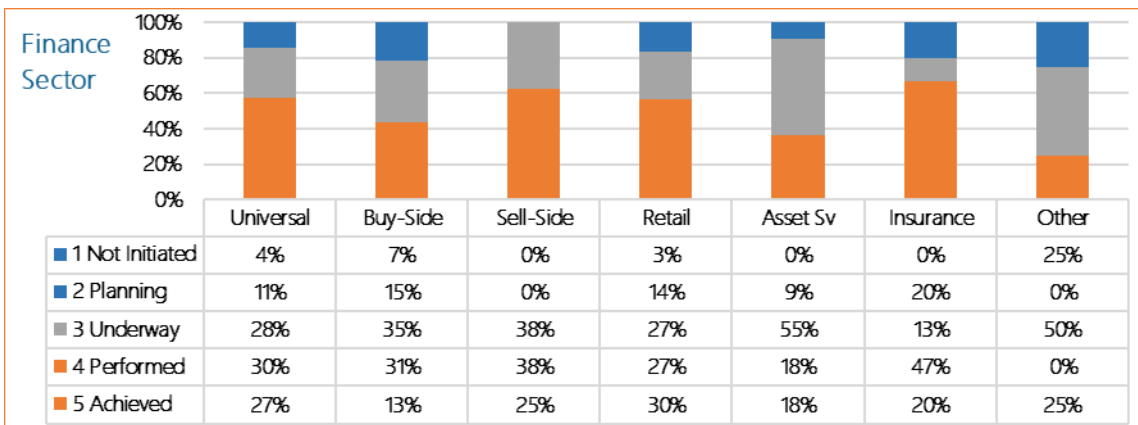
Question 5: Data Management Process Excellence is formally established.

A success Data Management initiative depends on the repeatable execution of standard, sustainable and measurable data management processes. The *Data Management Process Excellence* approach is needed to realize this objective. In collaboration with lines of business, the Data Management Office helps establish processes that improve the scope and quality of enterprise data

DCAM

Industry	Avg DCAM	% Achieved
All Industry	2.89	8%
Finance Industry	3.04	8%
Other Industry	2.54	9%

- Less than 10% of the All Industry successfully *Achieved* establishing repeatable data management processes (Finance Industry: 8% Other Industry: 9% All Industry 8%)
- Highest Finance Sector score: 13% (Sell Side Sector)
- Highest Other Industry Sector score: 21% (Technology Sector)

All Industries

	All Industry	Finance Industry	Other Industry
1 Not initiated	16%	10%	29%
2 Planning	19%	17%	23%
3 Underway	35%	41%	22%
4 Performed	22%	25%	16%
5 Achieved	8%	8%	9%
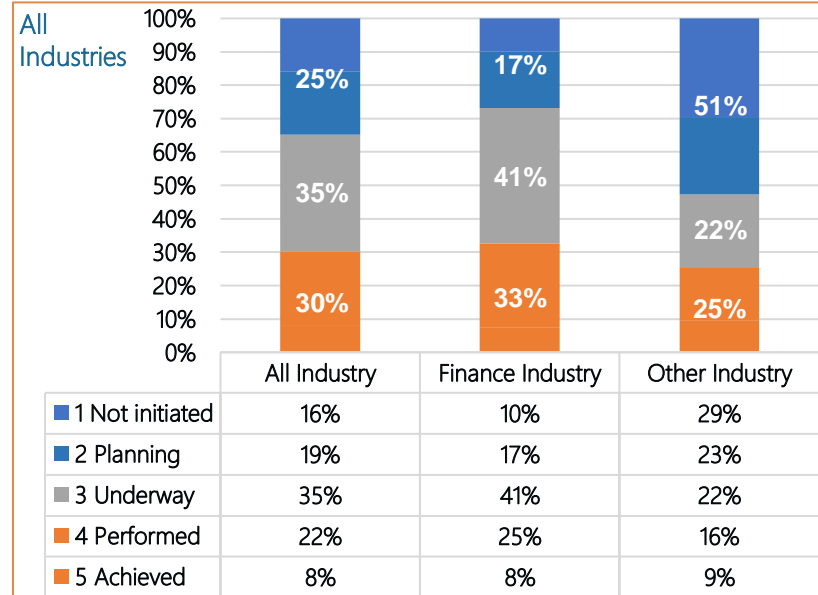
Analysis

The key to a sustainable data management program is the establishment of standardized and repeatable procedures. Standard procedures transcend human capital turnover and knowledge 'leaving' a firm.

Finance Sector scored lower despite an earlier start to data management, potentially due to creating ad hoc procedures to satisfy regulatory pressures.

Several Other Industry Sector verticals (specifically, Consulting, Software and Public Sector) scored the highest in establishing standard procedures, consistent with how these industries historically operate.

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	7%	18%	0%	5%	9%	7%	25%
2 Planning	20%	18%	0%	19%	18%	0%	25%
3 Underway	37%	42%	50%	32%	45%	73%	25%
4 Performed	24%	18%	38%	38%	18%	20%	25%
5 Achieved	12%	4%	13%	5%	9%	0%	0%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	14%	25%	21%	37%	56%	25%	25%
2 Planning	43%	25%	21%	10%	22%	38%	25%
3 Underway	21%	25%	21%	17%	11%	38%	33%
4 Performed	21%	25%	14%	23%	0%	0%	8%
5 Achieved	0%	0%	21%	13%	11%	0%	8%
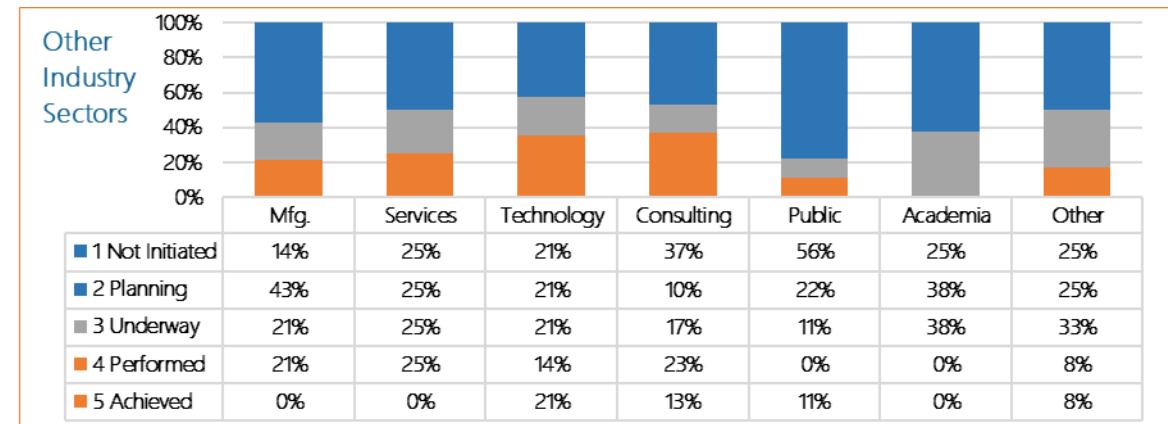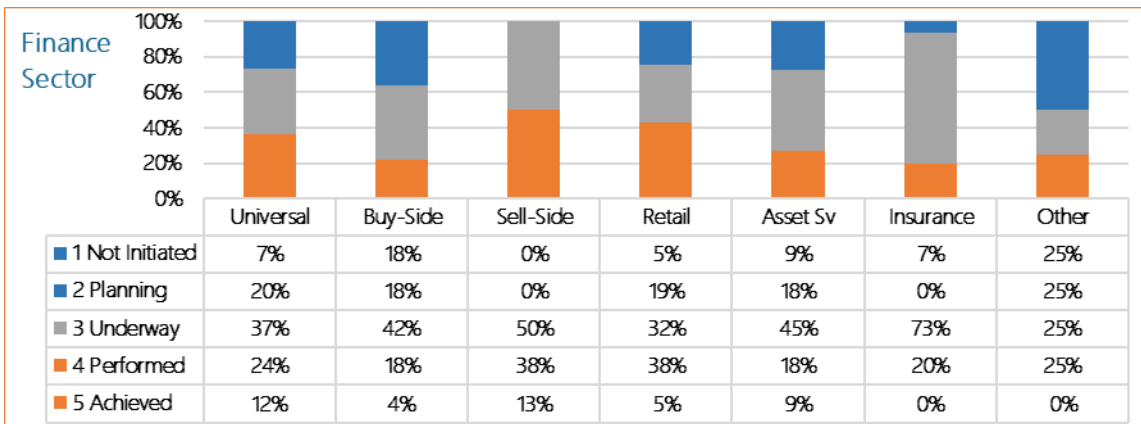
Question 6: Data Management Stakeholder Engagement is established and confirmed.

Data Management Stakeholder Engagement requires participation and cooperation across the enterprise. Stakeholders must be engaged in and held accountable for delivery of timely and high-quality data. To strengthen that commitment, performance in support of the data management program should be reflected in stakeholder reviews and compensation.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	3.34	20%
Finance Industry	3.48	19%
Other Industry	3.03	21%

- Capability *Achieved* figures for the Finance Industry remained flat vs. previous surveys: 20% and 21% in 2015 and 2017 respectively vs. 19% in 2020

- Combined *Achieved/Performed* scores were lower in 2020 for the Finance Industry (47% vs. 53% and 54% in 2015 and 2017).

All Industries

	All Industry	Finance Industry	Other Industry
1 Not initiated	8%	3%	19%
2 Planning	17%	14%	24%
3 Underway	30%	35%	17%
4 Performed	25%	28%	19%
5 Achieved	20%	19%	21%
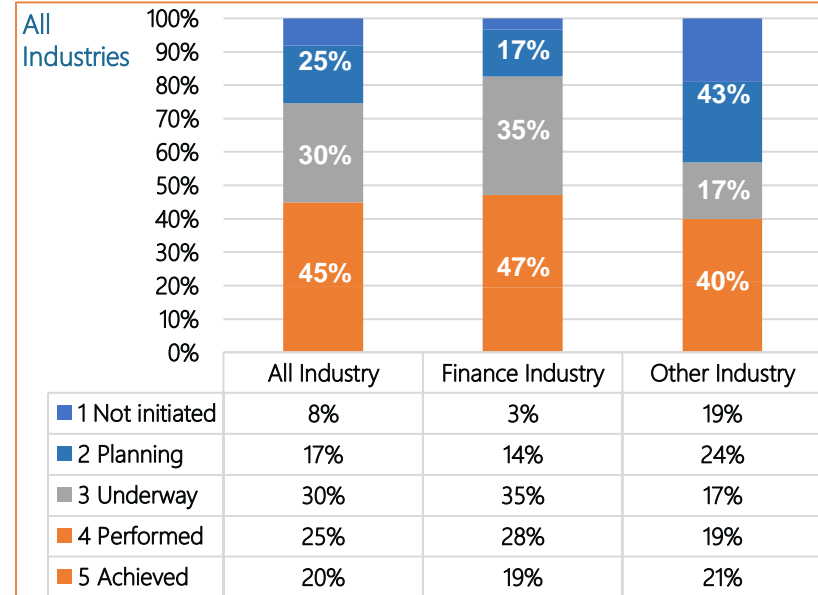
Analysis

Successful data management is a federated function. Stakeholders throughout an organization must shoulder the responsibility of properly handling the "data asset" as it passes throughout the organization.

As the responsibility of the CDO and the Data Management Program expands, new Stakeholders must be identified and brought "to the party".

Awareness of the systemic impact of data and the need for stakeholder engagement must be communicated.

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	4%	4%	0%	5%	0%	0%	0%
2 Planning	12%	18%	0%	14%	0%	20%	50%
3 Underway	30%	47%	38%	27%	45%	33%	25%
4 Performed	24%	22%	25%	41%	36%	40%	0%
5 Achieved	29%	9%	38%	14%	18%	7%	25%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	14%	0%	21%	20%	33%	13%	25%
2 Planning	29%	38%	29%	20%	33%	13%	17%
3 Underway	21%	25%	7%	17%	11%	38%	8%
4 Performed	29%	13%	14%	20%	11%	0%	33%
5 Achieved	7%	25%	29%	23%	11%	38%	17%

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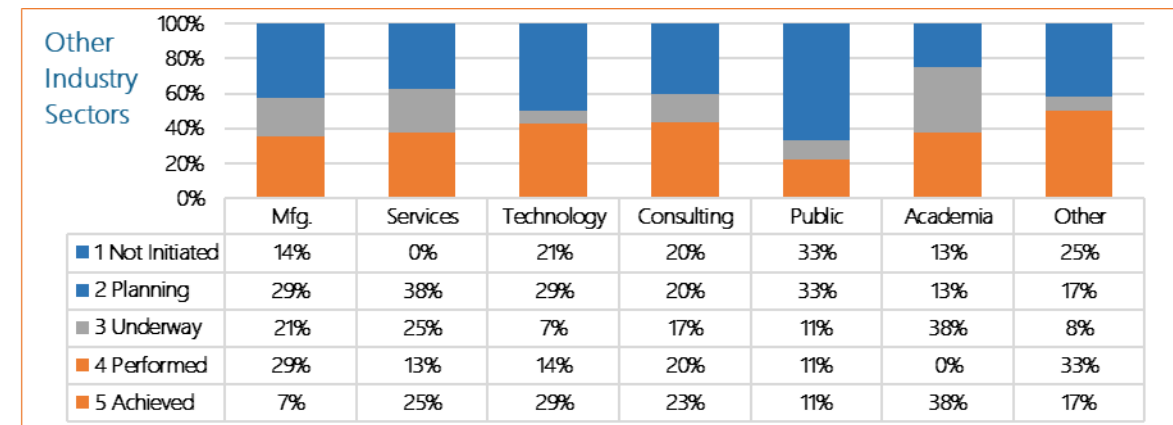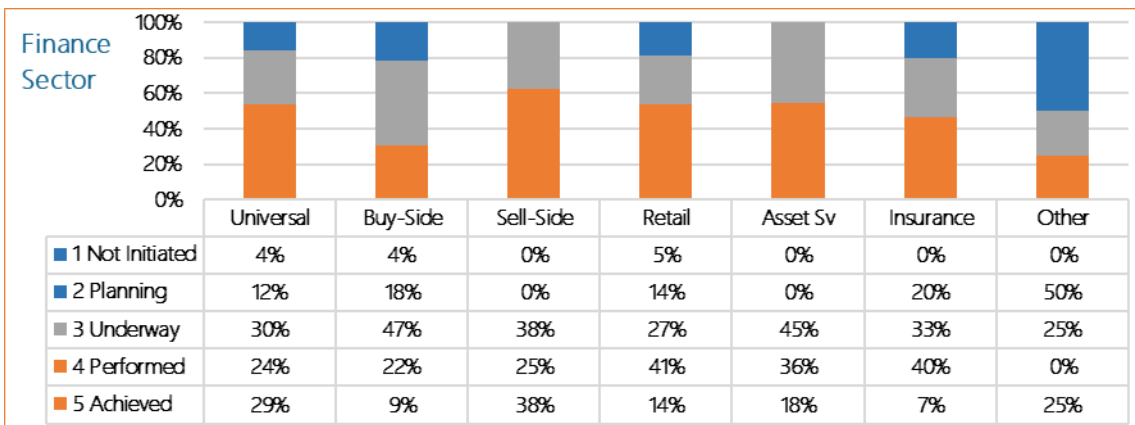
Question 7: Data Management Communications and Training Programs have been developed and implemented across the organization.

Internal Communications and Formal Training are needed to affect organization-wide behavior and cultural change. Plans for internal communications are needed to drive awareness and adherence to the data program. The communication strategy must be designed and implemented according to the culture of the organization and incorporated into the DMS.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	2.94	12%
Finance Industry	3.11	15%
Other Industry	2.58	7%

- On average the overall scores for this topic are lower than most.

- Other Industry *Achieved* only 7%. Finance Industry only 15%

- Several Other Industry Sectors reported 0% *Achieved* (Manufacturing; Services; Academia)

All Industries

	All Industry	Finance Industry	Other Industry
1 Not initiated	16%	12%	25%
2 Planning	20%	18%	24%
3 Underway	31%	33%	25%
4 Performed	21%	22%	18%
5 Achieved	12%	15%	7%
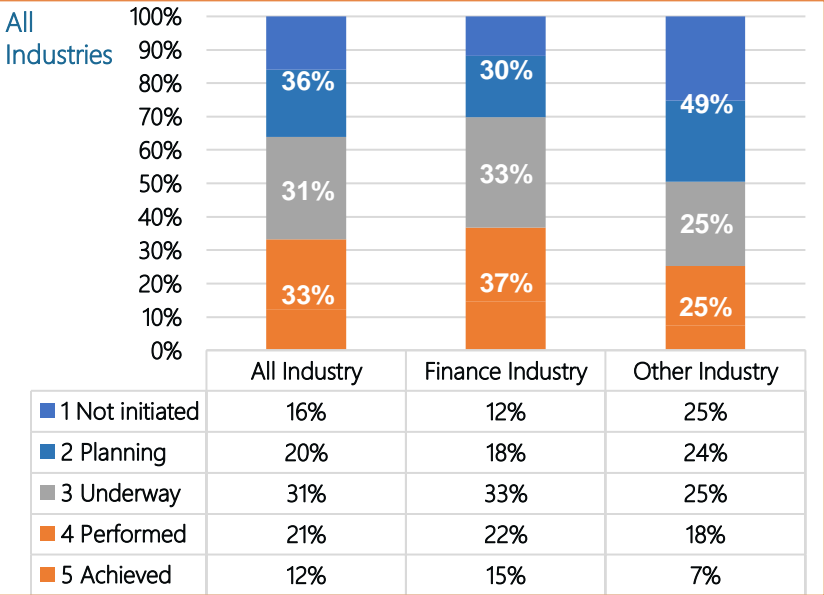
Analysis

In many organizations, data management was the 'best kept secret'. Few firms had formal communication programs to promote their programs, or formal education programs to train their stakeholders.

This is changing. One-third of the industry now states that they have A*chieved/Performed* the implementation of communication and training programs, while one-third claim they are *Underway* in the developing of their programs.

As the demand for advanced analytics, ML and AI continue to grow, the need to hire and retain qualified staff increases. As data is touched by more and more stakeholders throughout the data supply chain, the need to communicate and inform stakeholders of best practices will become a mandatory requirement.

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	6%	22%	0%	11%	0%	20%	25%
2 Planning	21%	15%	0%	19%	36%	13%	25%
3 Underway	21%	51%	50%	27%	36%	40%	25%
4 Performed	28%	5%	25%	35%	18%	20%	25%
5 Achieved	24%	7%	25%	8%	9%	7%	0%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	21%	25%	21%	33%	11%	38%	17%
2 Planning	14%	25%	14%	17%	44%	63%	25%
3 Underway	36%	25%	29%	13%	33%	0%	50%
4 Performed	29%	25%	21%	27%	0%	0%	0%
5 Achieved	0%	0%	14%	10%	11%	0%	8%
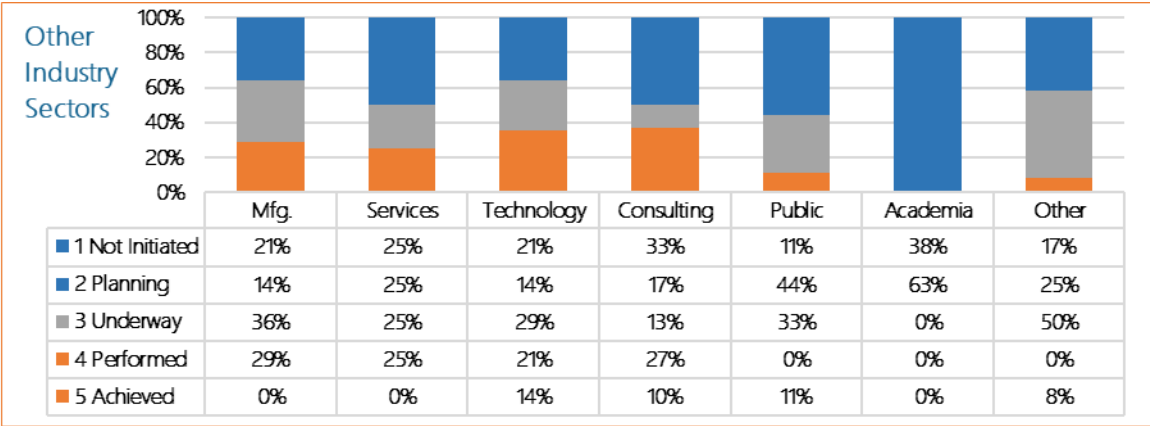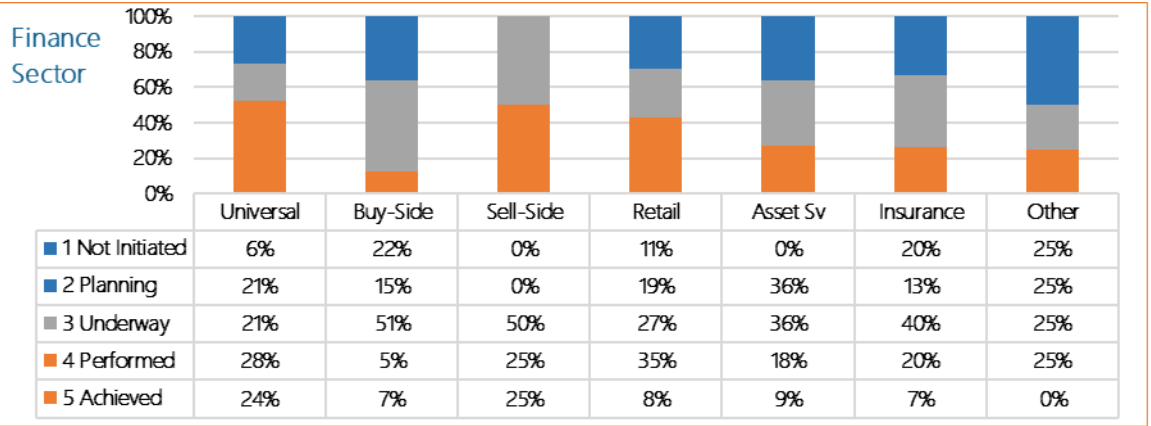
Question 8: Metrics have been defined and are being captured to determine the success and continuous improvement of the Data Management

Metrics are essential to validating the benefits of your data management program. Therefore, having a program in place to identify KPIs, track program implementations, define and document outcome benefits and capture and report financial metrics is a required capability in a mature data program.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	2.83	12%
Finance Industry	2.99	13%
Other Industry	2.46	11%

- Although the scores for achieving a metrics-driven data program remain low, improvement was noticed from previous years benchmarks: Finance Industry reporting 13% A*chieved* in 2020 vs. just 7% in 2017

- Comparing *Achieved/Performed/Underway*, Finance Industry reported 65% vs. 57% in 2017

- Academia and Public Sectors had the highest *Not Initiated* –Academia: 63%; Public Sector: 56%

All Industries

	All Industry	Finance Industry	Other Industry
1 Not initiated	21%	15%	35%
2 Planning	21%	20%	21%
3 Underway	26%	29%	18%
4 Performed	21%	23%	16%
5 Achieved	12%	13%	11%
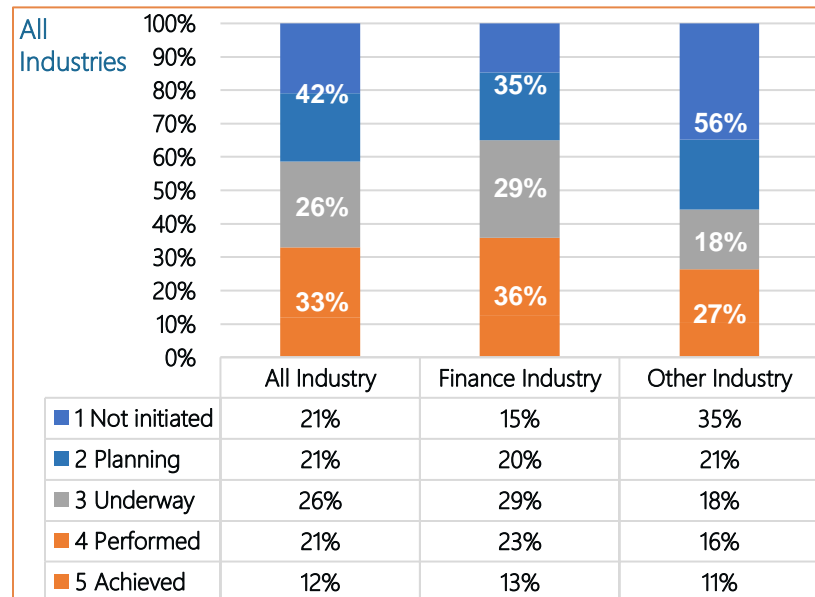
Analysis

Due to the systemic nature of data management, where benefits are sometimes realized far from where the investment was made, it can be difficult to capture and report outcome metrics. Observations suggest that many programs, once approved and implemented, are not revisited to measure the impact of the changes made to the improved data supply chain.

Industry is recognizing this challenge and working towards developing better approaches to metric capture. EDMC Members ranked #1 in a data topic pole, the need to develop a standard way to predict the ROI of data programs.

As the industry shifts from defensive to offensive, more programs will be required to identify the benefits realized from data investments, pushing industry to improved metrics capture.

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	10%	25%	0%	11%	0%	20%	50%
2 Planning	16%	27%	13%	24%	27%	7%	25%
3 Underway	26%	31%	38%	22%	45%	47%	25%
4 Performed	30%	11%	38%	27%	18%	20%	0%
5 Achieved	18%	5%	13%	16%	9%	7%	0%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	29%	25%	36%	33%	56%	63%	17%
2 Planning	21%	13%	14%	17%	22%	25%	42%
3 Underway	21%	38%	14%	13%	11%	0%	33%
4 Performed	21%	0%	14%	30%	0%	13%	0%
5 Achieved	7%	25%	21%	7%	11%	0%	8%

3.0 Business and Data Architecture

The path to integrated architecture across the organization begins with business architecture and how it defines requirements for data architecture.

Business Architecture is the strategy, design and execution of the capabilities needed to support the organization business functions. Business architecture defines the processes required to meet the objectives of the business. The processes have requirements for data and data management (DM). Those requirements must be defined as input and output of the business process.

Data Architecture is the strategy and execution of how data is designed (identified and described) to support the business objectives. Data architecture speaks to the design, definition, management and control of information content. Data architecture identifies data domains, documents metadata, defines critical data elements, establishes taxonomies and ontologies that are critical to ensuring that the meaning of data is precise and unambiguous, and that the usage of data is consistent and transparent.

A data architecture function establishes consistency in definition and use of data throughout an organization. Adhering to a prescribed data architecture forces business and technology resources to take the necessary steps to define and document data meaning, define the appropriate use of the data, and to ensure that proper governance is in place to manage data as meaning on a sustainable basis.

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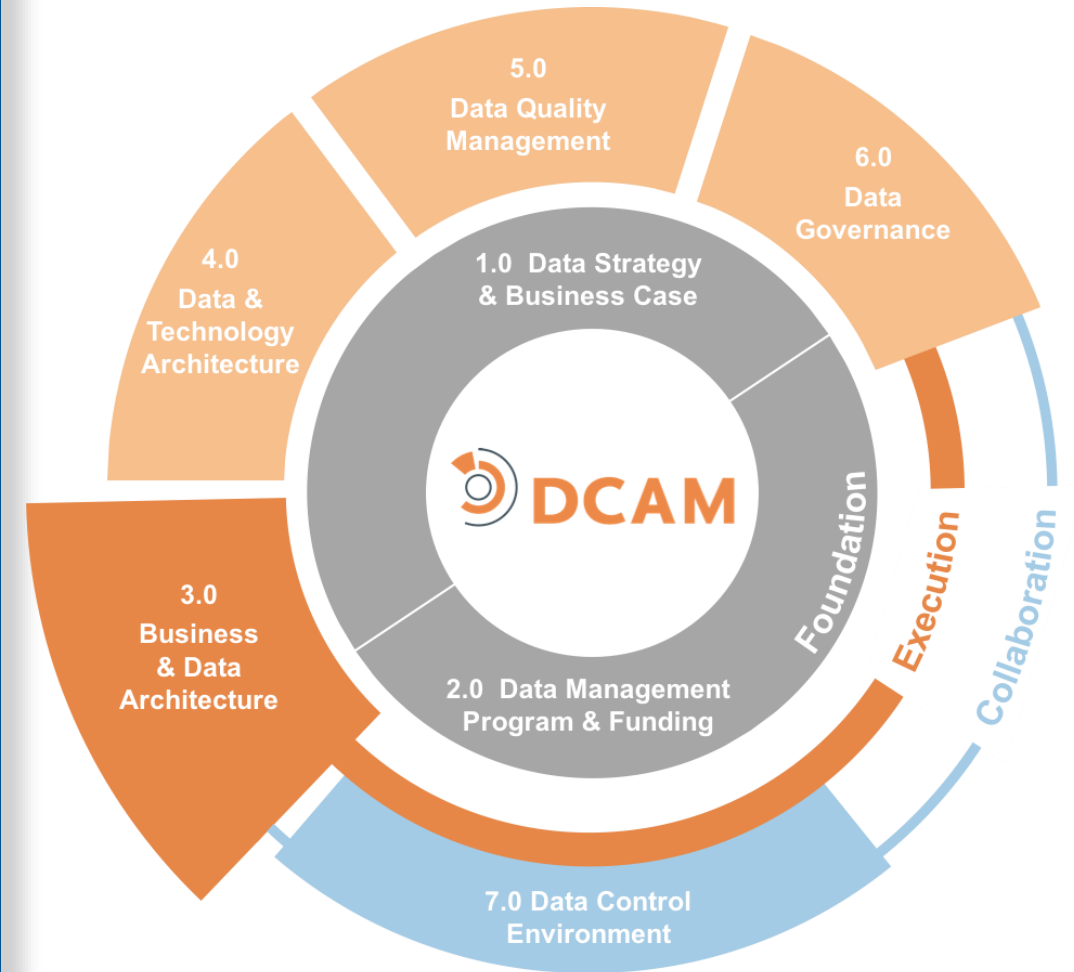
Question 9: Your organization has a formally established and supported Data Architecture Program

Data Architecture speaks to the design, definition, management and control of information content. It identifies data domains, documents metadata, defines critical data elements, establishes taxonomies and ontologies that are critical to ensuring that the meaning of data is precise and unambiguous, and that the usage of data is consistent and transparent.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	3.13	14%
Finance Industry	3.24	14%
Other Industry	2.90	16%

- Less than 50% of All Industry reported their Data Architecture programs *Achieved/Performed*

- Finance Industry reported 26% *Not Initiated/Planning* while *Other Industry* was much higher: 43%

- Academia reported 0% *Achieved/Performed*

All Industries

	All Industry	Finance Industry	Other Industry
1 Not initiated	12%	9%	18%
2 Planning	19%	17%	25%
3 Underway	29%	32%	23%
4 Performed	26%	29%	17%
5 Achieved	14%	14%	16%
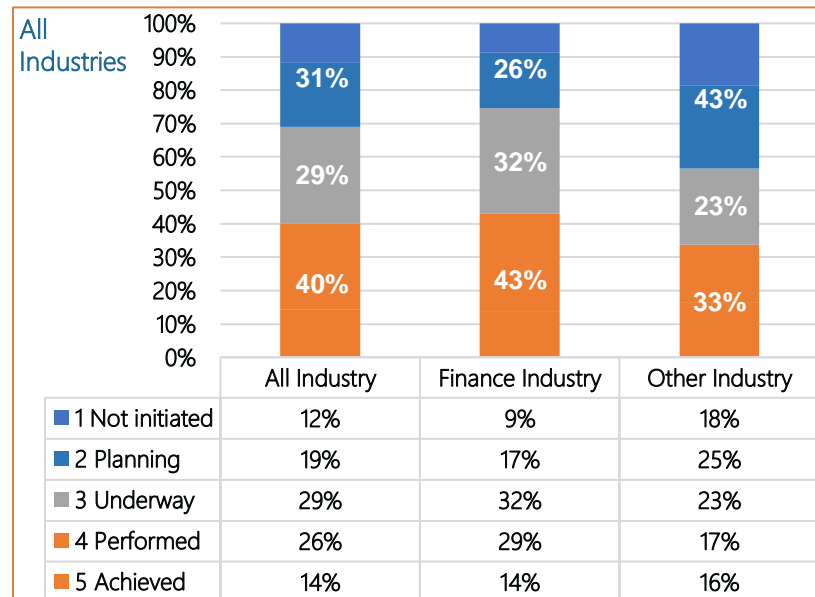
Analysis

In 2017, participants were asked if they have achieved data harmonization across the data supply chain (the net effect of good data architecture.) In 2017, 46% of the industry reported their data architecture programs *Underway* vs. 25% *Achieved/Performed*

In 2020, *Achieved/Performed* increased to 40%, signaling a move in the right direction across all industries to recognize the importance of the 'meaning' of data.

Despite the progress, 30% of All Industries are still reporting their data architecture programs *Not Initiated/Planning,* indicating that challenges remain…highly skilled data architects are at a premium and harmonizing data meaning is difficult given the need to change culture and re-engineer legacy environments.

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	6%	11%	0%	16%	0%	7%	0%
2 Planning	24%	15%	13%	8%	10%	14%	0%
3 Underway	24%	43%	25%	32%	50%	14%	50%
4 Performed	27%	20%	38%	32%	30%	57%	50%
5 Achieved	18%	11%	25%	11%	10%	7%	0%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	15%	13%	21%	21%	22%	13%	17%
2 Planning	31%	25%	14%	21%	33%	50%	17%
3 Underway	38%	25%	29%	7%	22%	38%	25%
4 Performed	8%	13%	14%	25%	11%	0%	33%
5 Achieved	8%	25%	21%	25%	11%	0%	8%

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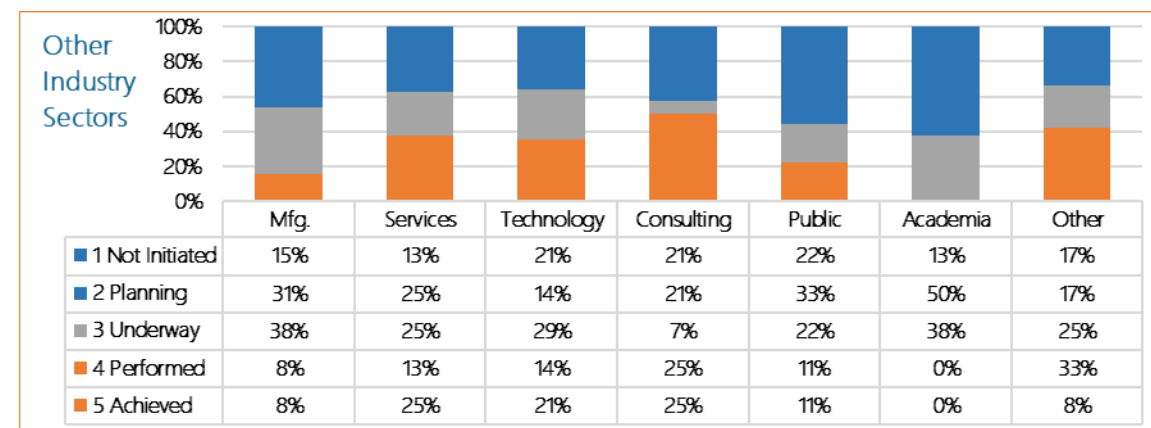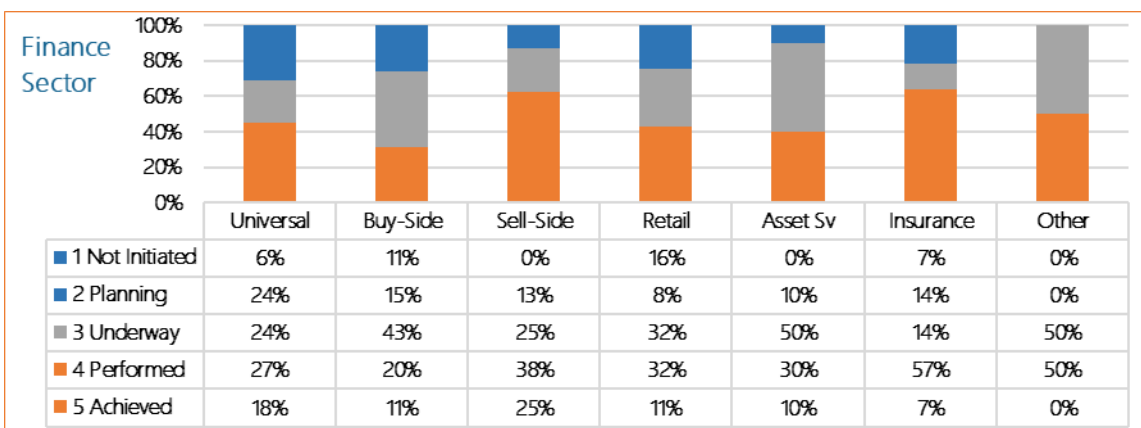
NEW!

Question 10: Business Architecture is established and integrated into your data management program.

Business Architecture is the strategy, design and execution of the capabilities needed to support the organization business functions. Business architecture defines the processes required to meet the objectives of the business, which in turn, defines the data requirements – the input and output of the business process.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	2.91	11%
Finance Industry	3.00	11%
Other Industry	2.71	11%

- *Achieved* scores for business architecture were among the lowest in the survey
- Scores for incorporating business architecture into data management programs were the same across all industries
- Nearly 40% of All Industry indicated they have not initiated or are just planning to incorporate business architecture into the data programs

All Industries

	All Industry	Finance Industry	Other Industry
1 Not initiated	15%	14%	20%
2 Planning	24%	22%	28%
3 Underway	26%	26%	25%
4 Performed	24%	27%	16%
5 Achieved	11%	11%	11%
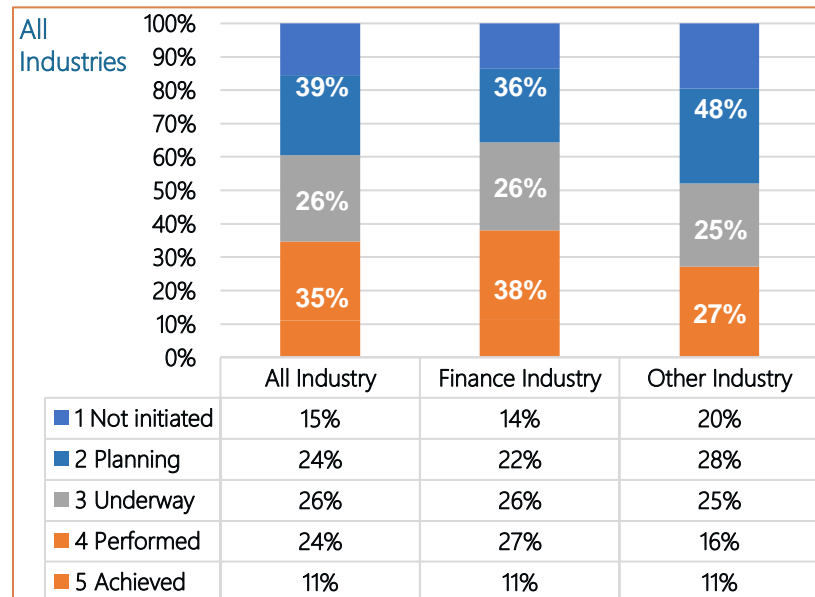
Analysis

For the longest time, data was considered the sole responsibility of technology. As the practice of data management becomes more understood, firms are recognizing that good data management begins with well defined business processes.

The concept of "business driving data, driving technology", is still a relatively new concept. Thus incorporating business architecture into the data management process scored very low across all industries.
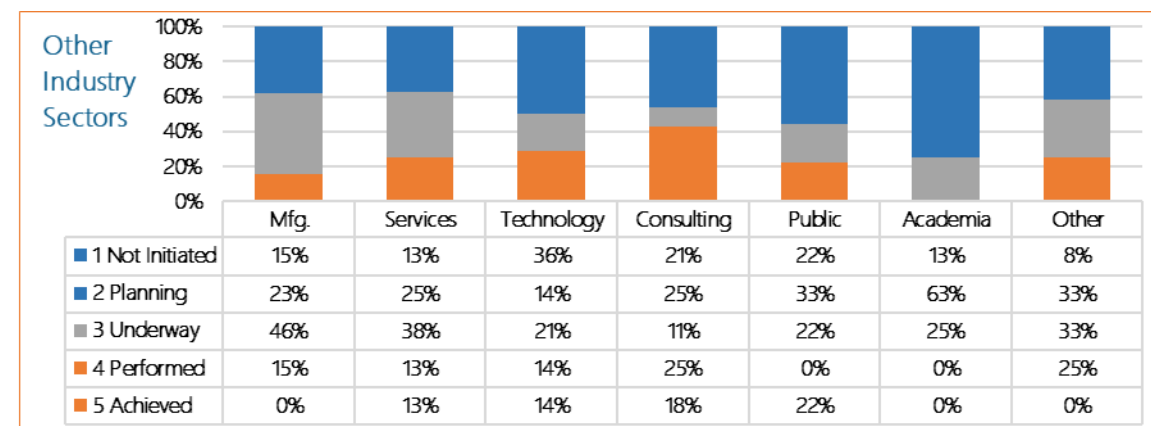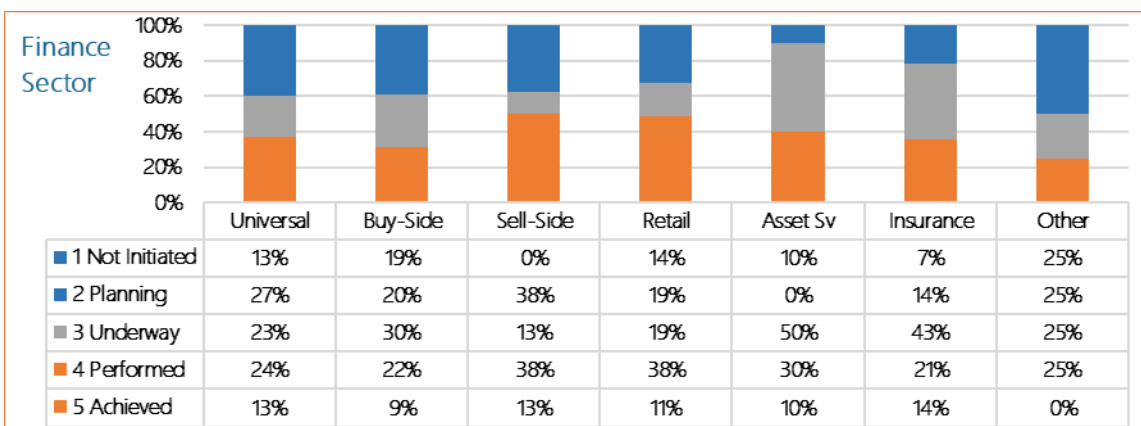
Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	13%	19%	0%	14%	10%	7%	25%
2 Planning	27%	20%	38%	19%	0%	14%	25%
3 Underway	23%	30%	13%	19%	50%	43%	25%
4 Performed	24%	22%	38%	38%	30%	21%	25%
5 Achieved	13%	9%	13%	11%	10%	14%	0%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	15%	13%	36%	21%	22%	13%	8%
2 Planning	23%	25%	14%	25%	33%	63%	33%
3 Underway	46%	38%	21%	11%	22%	25%	33%
4 Performed	15%	13%	14%	25%	0%	0%	25%
5 Achieved	0%	13%	14%	18%	22%	0%	0%

Question 11: Logical Data Domains, models and metadata have been identified and documented and usage is supported by policy.

Logical Data Domains are the categories of data needed to satisfy specific business functions. Logical domains are NOT the physical databases. Identification of domains must be driven by the business, from the perspective of what data is needed to perform the required business functions.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	3.23	15%
Finance Industry	3.37	16%
Other Industry	2.91	14%

- Finance Industry *Achieved/Performed* increased to 43% in 2020 from 37% in the 2017 survey
- Finance Industry outpaced Other Industry in identifying logical domains, bolstered by regulatory pressure following the Financial Crisis
- Full adoption (*Achieved*) across all industry remains low (15% average)

All Industries

	All Industry	Finance Industry	Other Industry
1 Not initiated	6%	3%	14%
2 Planning	20%	17%	26%
3 Underway	35%	37%	30%
4 Performed	24%	27%	15%
5 Achieved	15%	16%	14%
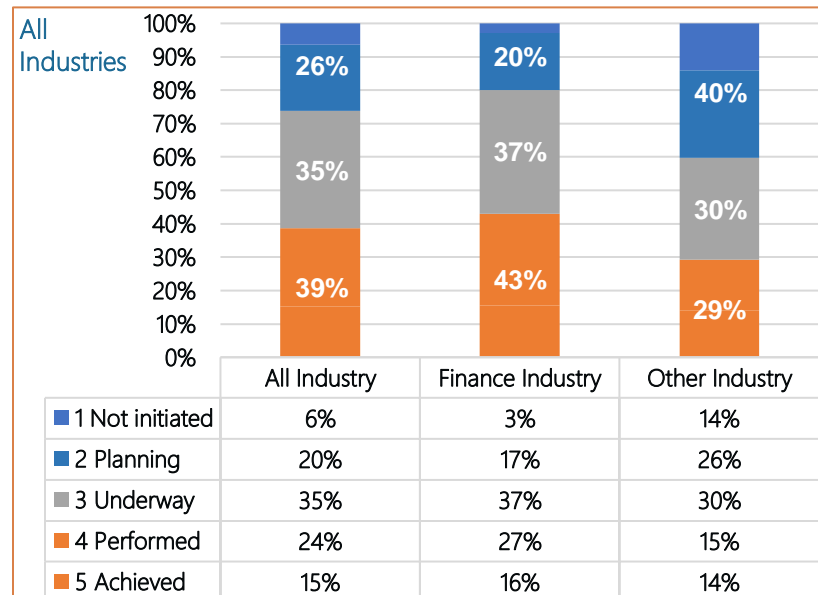
Analysis

The concept of identifying logical domains is a culture shift for many organizations, moving focus from the 'database' to the 'data'. On the heals of the Financial Crisis, regulators applied pressure to the industry to advance this thinking in order to bring attention to the data itself, regardless of where is it persisted.

Although we have seen an increase in adoption across the combined stages of *Achieved/Performed/Underway* (80% in Finance vs. 76% in 2017), full adoption remains low. This could be, in part, due to the increase in data sources and data types (unstructured, social media, etc.), as the industry struggles with managing this expanding portfolio of information required to stay competitive in today's marketplace.

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	3%	4%	0%	5%	0%	0%	0%
2 Planning	18%	17%	13%	22%	0%	21%	0%
3 Underway	38%	39%	25%	27%	50%	36%	75%
4 Performed	28%	22%	13%	32%	30%	36%	25%
5 Achieved	13%	19%	50%	14%	20%	7%	0%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	8%	0%	14%	14%	33%	13%	17%
2 Planning	15%	38%	29%	21%	33%	38%	25%
3 Underway	54%	38%	21%	21%	11%	50%	33%
4 Performed	15%	13%	7%	21%	11%	0%	25%
5 Achieved	8%	13%	29%	21%	11%	0%	0%

4.0 Technology Architecture

The requirements for data as well as for data management (DM), are interpreted through data architecture. This interpretation defines the requirements to design the physical data consumed, produced and provisioned by the business process. Data architecture is a bridge between the requirements for data of the business process and the physical execution of that data in technology infrastructure.

Technology Architecture is the strategy and execution of how the physical infrastructure is designed to support the business and data needs of the organization.

Technology architecture refers to the strategy, design and implementation of the technology infrastructure which supports the defined business and data architecture. Technology architecture defines the platforms and the tools and how they need to be designed for maximum efficiency to support the requirements of the business process, data and DM. The purpose of technology architecture is to support the business process and define how data is physically acquired, moved, persisted and distributed in a streamlined and efficient manner. Physical data proximity, bandwidth, processing time, backup, recovery and archiving are some of the important elements of a mature technology architecture.

The efficient and effective movement of data is critical to business operations. Technology architecture determines how data, tools and platforms operate in collaboration to satisfy business requirements. The proper alignment of these components dictates application efficiency and system processing speed. This enables organizations to control costs and achieve infrastructure scalability and elasticity which are characteristic of an organization that is designed for long-term implementation success.

Question 12: Technology Vision and Strategy, in support of the data management program, has been developed and documented.

The role of the Technology is to define and design the architecture needed to satisfy the data requirements of the organization. Working in collaboration with the data management program, technology defines the database strategies, analytic platforms and all other aspects of a holistic technology infrastructure.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	3.14	15%
Finance Industry	3.27	15%
Other Industry	2.84	16%

- Implementing a technology vision for data management remained relatively flat since the 2017 survey. Finance Industry *Achieved/Performed* saw a slight drop to 38% vs. 40% in 2017

- Combined *Achieved/Performed/Underway* scored 78% for Finance Industry vs. 54% in Other industry

- Only 15% of All Industry reported *Achieved*

All Industries

	All Industry	Finance Industry	Other Industry
1 Not initiated	10%	6%	18%
2 Planning	20%	16%	27%
3 Underway	35%	40%	23%
4 Performed	21%	23%	15%
5 Achieved	15%	15%	16%
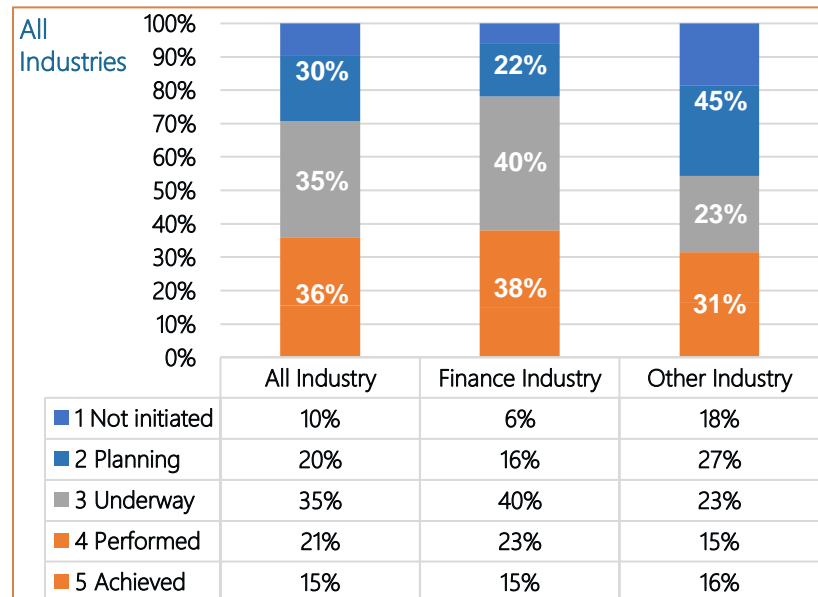
Analysis

The Financial industry's view of defining a technology vision for data management has remained status quo since the 2017 survey. Other Industry have progressed in this capability, with 31% of the respondents rating their programs *Achieved/Performed.* This is a positive indication that all industries are recognizing the need for technology collaboration with their data management initiatives.

However, the gap of *Not Initiated* remains higher than expected, especially given the advances in data management, data science, AI and ML capabilities. It is important for all industries to recognize that good data is needed as input into these advanced technologies.

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	5%	6%	0%	11%	0%	7%	0%
2 Planning	19%	17%	25%	14%	10%	0%	25%
3 Underway	33%	39%	63%	32%	60%	71%	50%
4 Performed	27%	24%	0%	22%	30%	14%	0%
5 Achieved	15%	15%	13%	22%	0%	7%	25%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	15%	0%	7%	25%	33%	38%	8%
2 Planning	38%	25%	29%	18%	33%	25%	33%
3 Underway	31%	38%	29%	11%	11%	25%	33%
4 Performed	8%	25%	14%	18%	11%	0%	25%
5 Achieved	8%	13%	21%	29%	11%	13%	0%
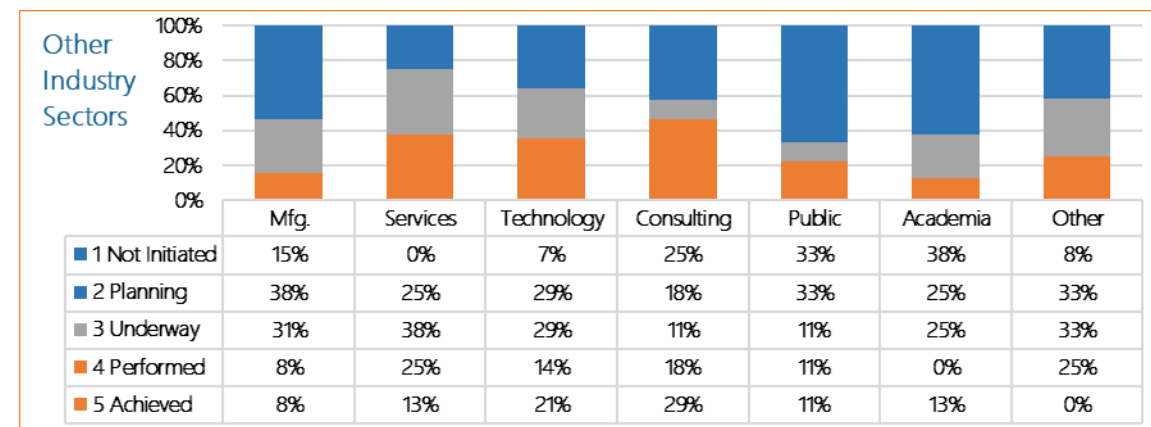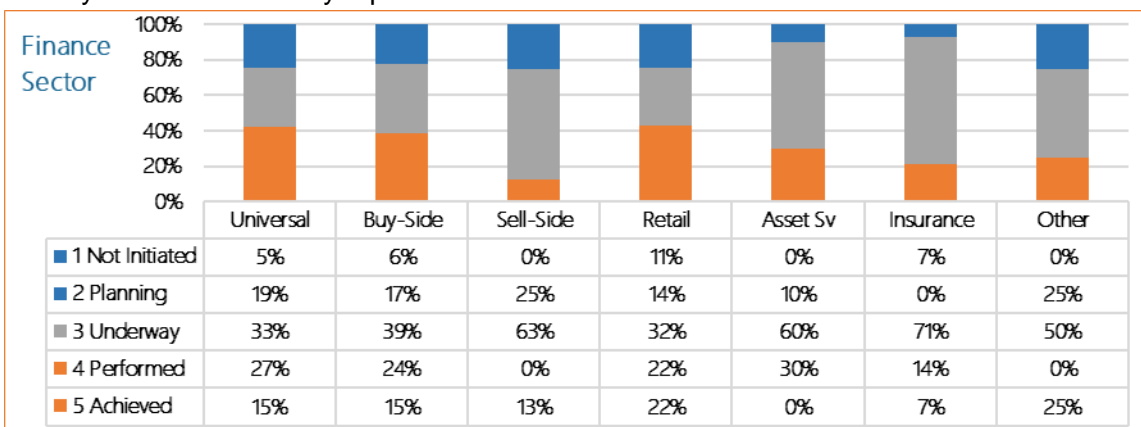
NEW!

Question 13: Tools required to support the data management program have been identified and implemented.

There are many tools available in the marketplace can be utilized in support of your data management program (governance tools; metadata; data quality; etc.) Selection of such tools must first be driven by business requirements, then reviewed and implemented and governed by technology.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	3.24	16%
Finance Industry	3.46	20%
Other Industry	2.75	8%

- 20% of Finance Industry claimed to have reached *Achieved*. 48% of Finance Industry reached *Achieved/Performed*.
- Other Industry scored only 8% *Achieved,* while *Achieved/Performed* came in at 30%

All Industries

	All Industry	Finance Industry	Other Industry
1 Not initiated	9%	5%	17%
2 Planning	16%	11%	28%
3 Underway	32%	36%	25%
4 Performed	26%	28%	22%
5 Achieved	16%	20%	8%

Analysis

Today's data management programs are growing in scope and scale. Tools and platforms must not only address quality and completeness of the data but also take into consideration new data types, new delivery models and new, more knowledgeable stakeholders who expect self-service capabilities.
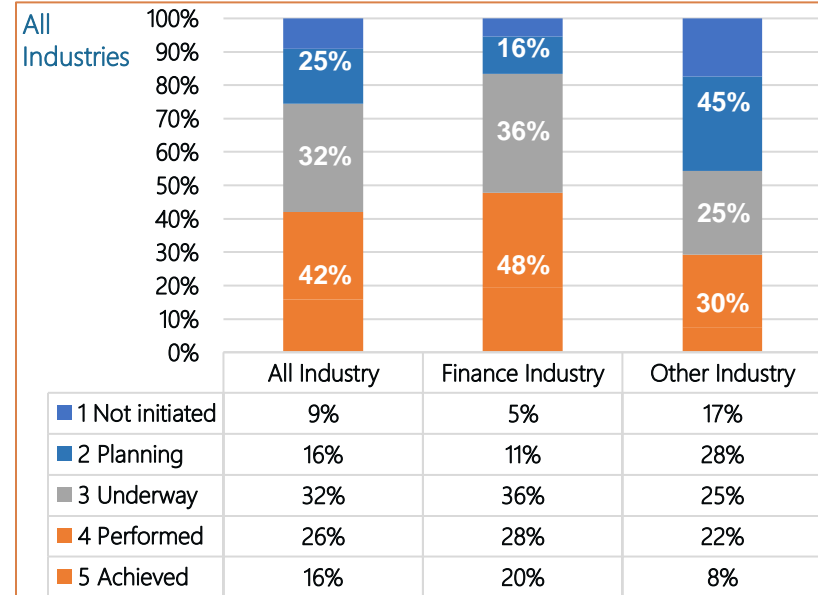
Finance Industry have made significant strides in bringing in tools and incorporating them into their data programs. Other Industries, although behind Finance in their tool adoption, are likewise recognizing the importance of tool selection.

Selecting and deploying data management tools is a priority, however, many times tools are selected in advance of a identifying the business-driven requirements. It is important to select tools that are fit-for-purpose to ensure maximum tool benefits while controlling costs.
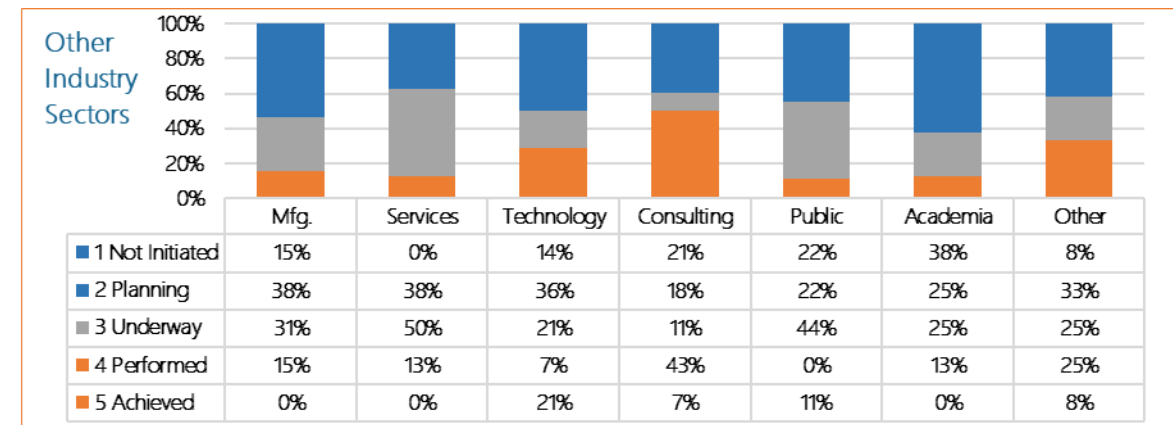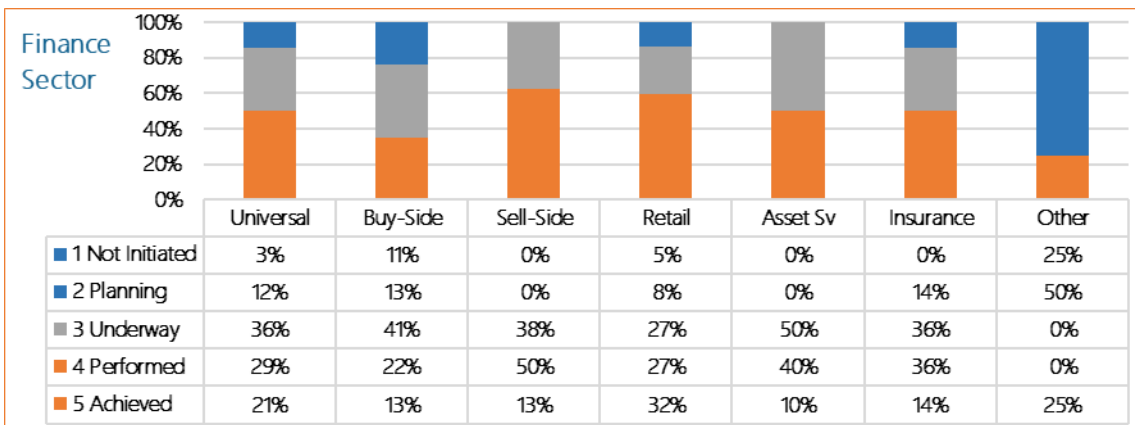
Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	3%	11%	0%	5%	0%	0%	25%
2 Planning	12%	13%	0%	8%	0%	14%	50%
3 Underway	36%	41%	38%	27%	50%	36%	0%
4 Performed	29%	22%	50%	27%	40%	36%	0%
5 Achieved	21%	13%	13%	32%	10%	14%	25%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	15%	0%	14%	21%	22%	38%	8%
2 Planning	38%	38%	36%	18%	22%	25%	33%
3 Underway	31%	50%	21%	11%	44%	25%	25%
4 Performed	15%	13%	7%	43%	0%	13%	25%
5 Achieved	0%	0%	21%	7%	11%	0%	8%

NEW!

Question 14: Data management Operational Risk planning is in place.

A mature data management program addresses O*perational Risk*, business continuity, and disaster recovery strategies.   Data Management must be in alignment with operational risk governance and engaged in the contingency planning and testing for data access and maintenance in the event of an operational disruption.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	2.99	15%
Finance Industry	3.16	17%
Other Industry	2.63	13%

- 60% of those surveyed stated that data management operational risk are either *Not Initiated* or just in *Planning*
- Only 15% of All Industry claim to have data management operational risk planning in place
- Retail had the highest Operational Risk score: 62% *Achieved/Performed*

All Industries

	All Industry	Finance Industry	Other Industry
1 Not initiated	20%	15%	30%
2 Planning	19%	17%	23%
3 Underway	21%	24%	15%
4 Performed	25%	28%	18%
5 Achieved	15%	17%	13%

Analysis

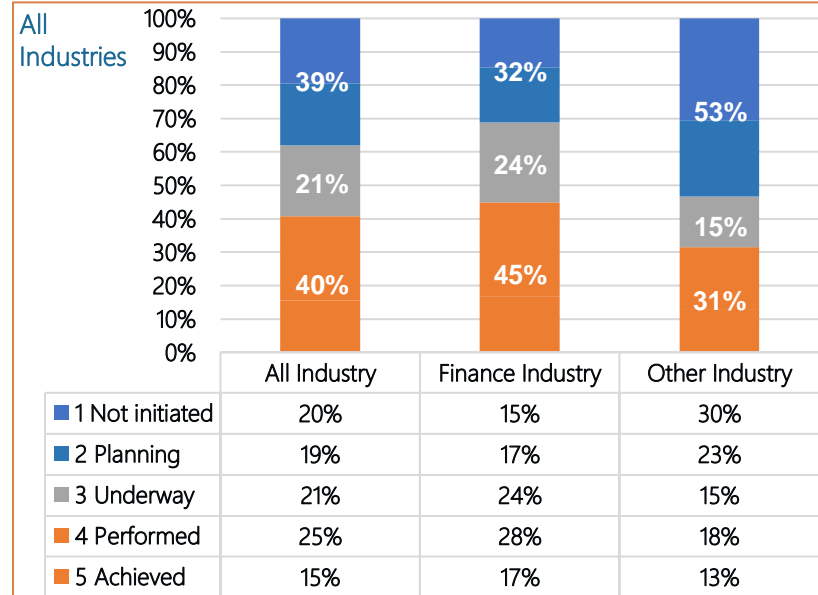A key to a sustainable data management program is alignment with operation risk planning. Critical business and operational functions are dependent on guaranteed availability and flow accurate and timely data.

This question is new in the 2020 survey. Assuming nearly all firms have contingency planning, the responses to this question regarding the alignment of data programs to these plans scored surprising low. (less than 50% considered their program alignment to contingency planning to being *Achieved/Performed*).

Data Management is not solely responsible for contingency and continuity planning but must be an active participant in these functions and must coordinate with the business ensure sustainable operations.

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	9%	30%	0%	14%	10%	7%	0%
2 Planning	14%	22%	50%	8%	0%	7%	75%
3 Underway	24%	22%	13%	16%	50%	43%	0%
4 Performed	31%	19%	25%	35%	30%	36%	25%
5 Achieved	22%	7%	13%	27%	10%	7%	0%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	38%	25%	14%	32%	33%	63%	17%
2 Planning	23%	13%	21%	21%	22%	13%	42%
3 Underway	23%	38%	14%	4%	22%	13%	17%
4 Performed	15%	13%	21%	32%	0%	0%	17%
5 Achieved	0%	13%	29%	11%	22%	13%	8%

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5.0 Data Quality Management

The Data Quality Management function defines the goals, approaches and plans of action that ensure data content is of sufficient quality to support defined business and strategic objectives of the organization. The function should be developed in alignment with business objectives, measured against defined data quality (DQ) dimensions and based on an analysis of the current state of DQ. Data Quality Management is a series of processes across the full data supply chain to ensure that the data provisioned meets the needs of its intended consumers.

DQ requires an understanding of how data is sourced, defined, transformed, provisioned and consumed. DQ is not a process itself but describes the degree in which data is fit-for-purpose for a given business process or operation. It is a set of capabilities to define data profiling, DQ measurement, defect management, root cause analysis and data remediation. These capabilities allow the organization to execute processes across the data control environment ensuring that data is fit for its intended purpose.
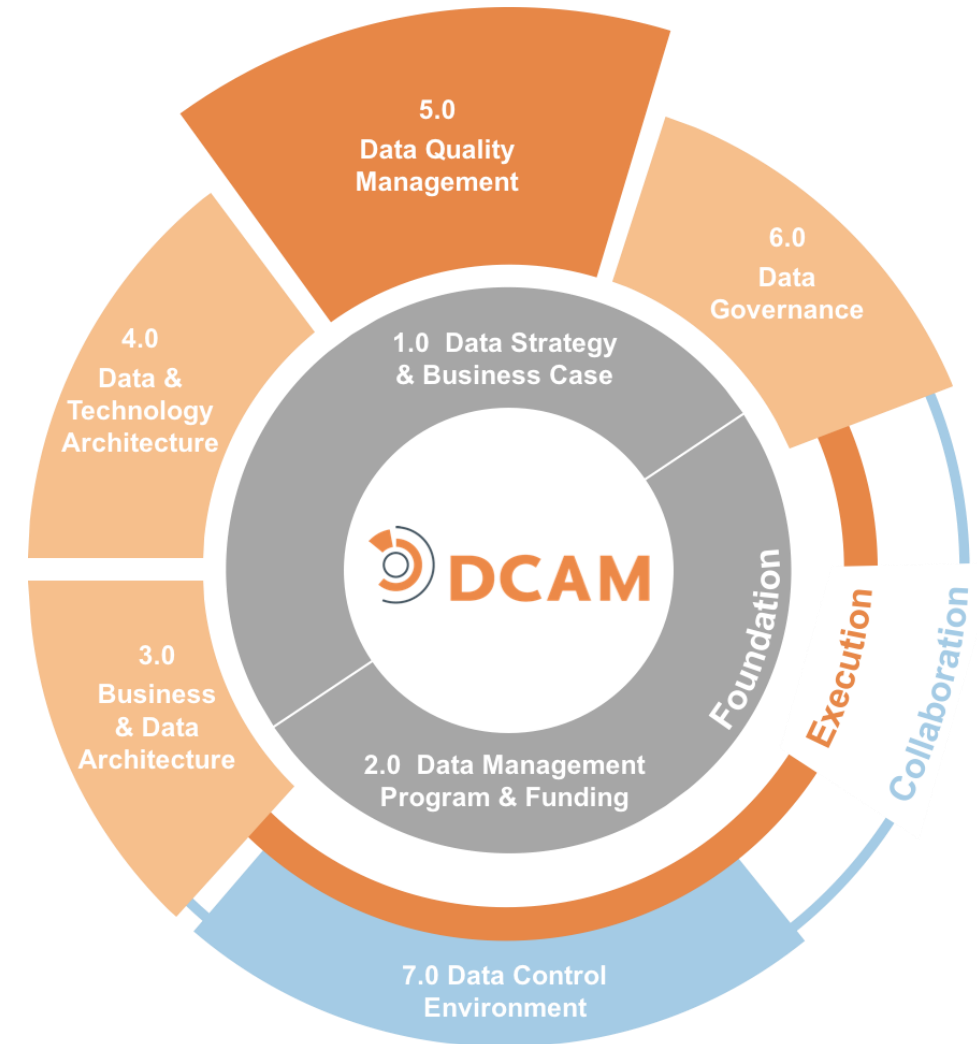
Question 15 : A Data Quality Management Program is formalized and established.

The *Data Quality Management Program* must be defined and approved by stakeholders. Roles and responsibilities across the stakeholders must be established with operational processes in place and all processes must be auditable. Once established, it must be formally empowered by senior management and its role communicated to all stakeholders.

DCAM

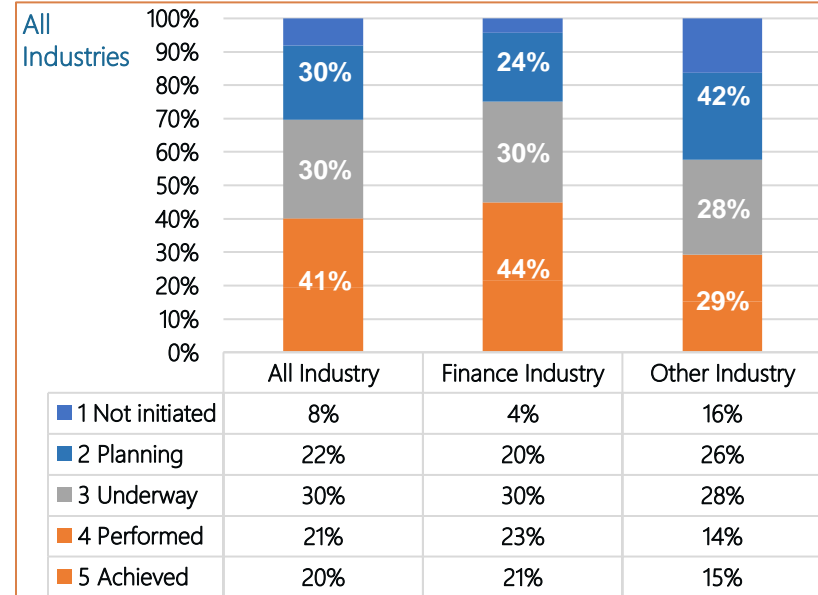| Industry	Avg DCAM	% Achieved
All Industry	3.23	20%
Finance Industry	3.39	21%
Other Industry	2.88	15%

- Finance Industry increased in 2020 to 21% *Achieved* vs. 13% in 2017
- Other Industry scored 15% *Achieved*
- 44% of Finance Industry and 29% of Other Industry reported *Achieved/Performed* in building out their Data Quality Program

All Industries

	All Industry	Finance Industry	Other Industry
1 Not initiated	8%	4%	16%
2 Planning	22%	20%	26%
3 Underway	30%	30%	28%
4 Performed	21%	23%	14%
5 Achieved	20%	21%	15%

Analysis

Establishing and formalizing a Data Quality Management Program is a vital operation. Formalization of the DQ function demonstrates a commitment from Senior Management and from the entire organization to shift DQ from the work done by individual 'heroes', to an overarching enterprise function, where everyone who touches data along the data supply chain is engaged.

While the 2020 Global Benchmark shows improvement, the overall *Achieved* scores remained low. Firms are investing significant time and money towards improving data quality, and are making progress, but DQ remains a challenge for many. Successful data quality "takes a village".

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	5%	4%	0%	5%	0%	7%	0%
2 Planning	14%	35%	0%	11%	40%	14%	50%
3 Underway	24%	35%	50%	30%	10%	43%	50%
4 Performed	27%	15%	38%	27%	40%	14%	0%
5 Achieved	29%	11%	13%	27%	10%	21%	0%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	15%	0%	14%	11%	22%	38%	25%
2 Planning	15%	38%	29%	18%	56%	38%	17%
3 Underway	54%	50%	21%	21%	11%	25%	25%
4 Performed	15%	0%	0%	32%	0%	0%	17%
5 Achieved	0%	13%	36%	18%	11%	0%	17%

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Question 16: Data is Profiled, Measured, Monitored and Maintained.

Profiling and Measuring the data includes prioritizing the data in scope based on criticality and materiality, defining and testing data quality rules based on business rules, and measuring that the data is fit-for-purpose. Monitoring and maintaining the data includes implementing DQ control points, capturing DQ metrics and performing continuous monitoring.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	3.05	15%
Finance Industry	3.21	17%
Other Industry	2.71	10%

- Finance Sector significantly increased in 2020 to 17% *Achieved* vs. 5% in 2017
- Other Industries sector *Achieved* tracking at 10%
- 40% of Finance Industry and 30% of Other Industry reported *Achieved/Performed* in effectively performing data profiling and ongoing measuring and monitoring.

All Industries

	All Industry	Finance Industry	Other Industry
1 Not initiated	13%	9%	22%
2 Planning	22%	20%	25%
3 Underway	29%	31%	24%
4 Performed	22%	23%	20%
5 Achieved	15%	17%	10%
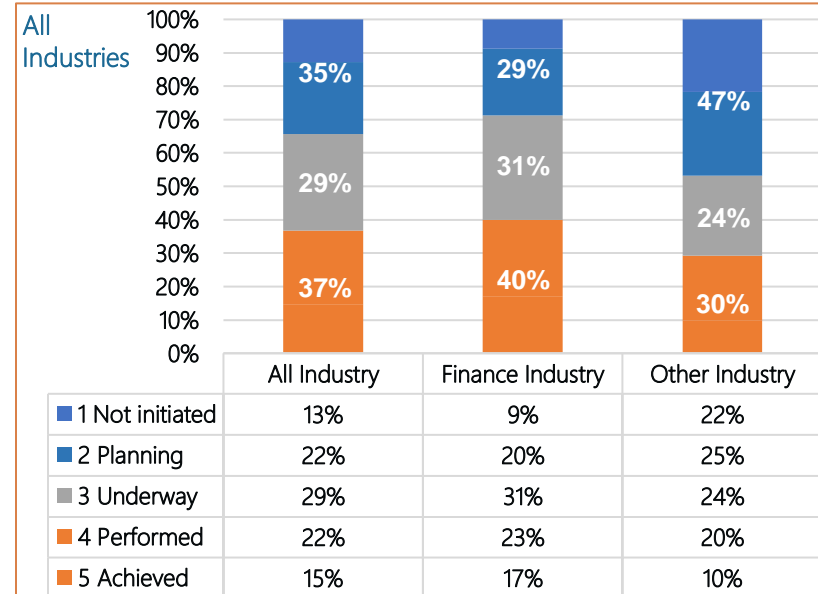
Analysis

The ability to effectively profile data resulting in robust measurement of data quality and identification of defective data is paramount to trusting the data for business decision making.

In alignment to Survey Question#15, lower than expected scores in achieving a formalized data quality program could be one of the reasons for the low scores in achieving successful data profiling. More than 60% of those surveyed stated that they have *Not Initiated*, are *Planning*, or just *Underway* towards establishing formalized data profiling and continuous monitoring of data quality.

In general, firms still depend on manual data remediation by downstream systems vs. ensuring data is fit for purpose at the source. But the industry is shifting focus. More work is ahead.

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	8%	17%	0%	5%	0%	0%	25%
2 Planning	17%	22%	50%	11%	20%	43%	0%
3 Underway	26%	41%	25%	35%	40%	7%	50%
4 Performed	26%	9%	13%	30%	30%	43%	25%
5 Achieved	24%	11%	13%	19%	10%	7%	0%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	15%	25%	14%	14%	33%	63%	17%
2 Planning	38%	25%	43%	11%	33%	13%	25%
3 Underway	31%	25%	21%	29%	11%	13%	25%
4 Performed	15%	13%	0%	39%	11%	0%	25%
5 Achieved	0%	13%	21%	7%	11%	13%	8%
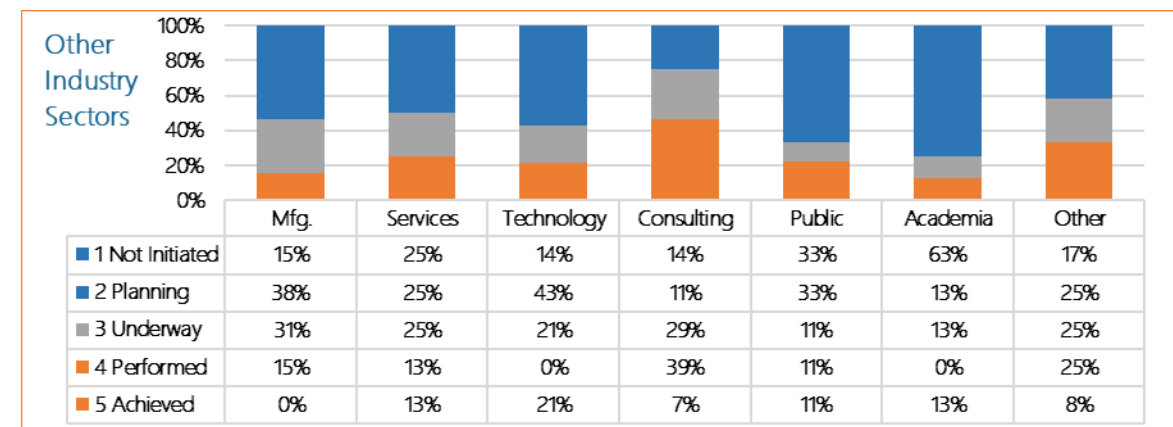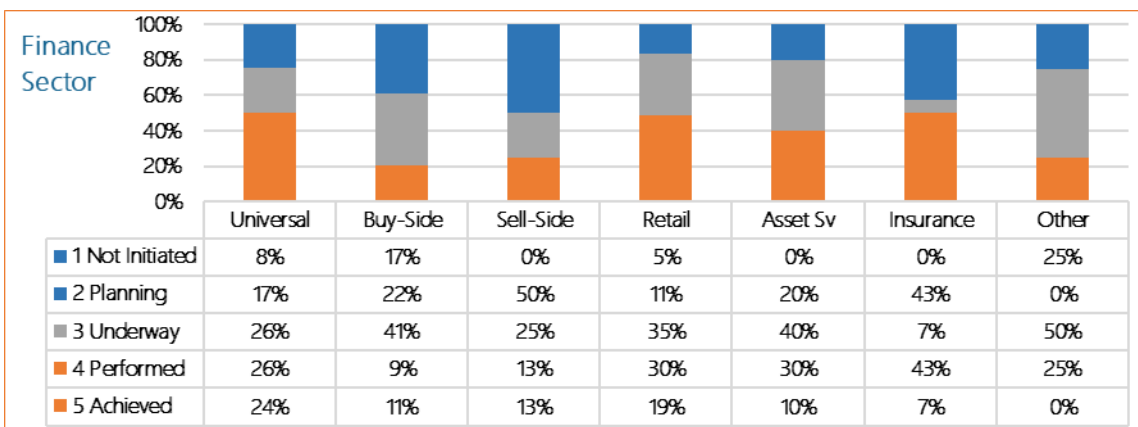
Question 17: Data Quality Root Cause Analysis is routinely performed.

Data remediation includes correcting the defective data and determining the *Root Cause* of the DQ deterioration to avoid the reoccurrence of defective data in the future. Data defects may have a people, process, data or technical source. Having the right subject matter expertise from each of these areas will be important to the analysis of the root-cause.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	3.03	14%
Finance Industry	3.15	16%
Other Industry	2.76	11%

- Finance Industry had a modest gain in 2020 to 16% *Achieved* vs. 14% in 2017

- Other Industry *Achieved* tracking at 11%

- 40% of Finance Industry and 32% of Other Industry reported *Achieved/Performed* in establishing data quality root-cause analysis and remediation

All Industries

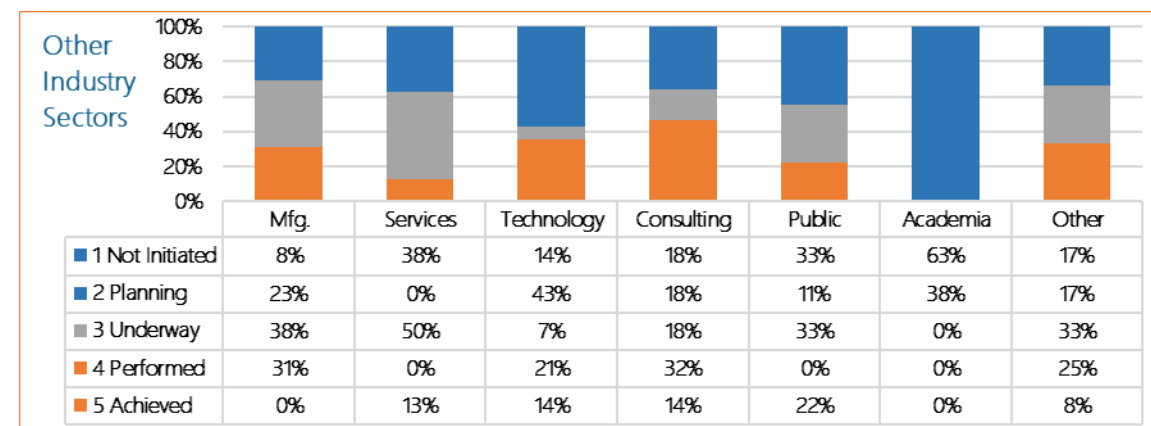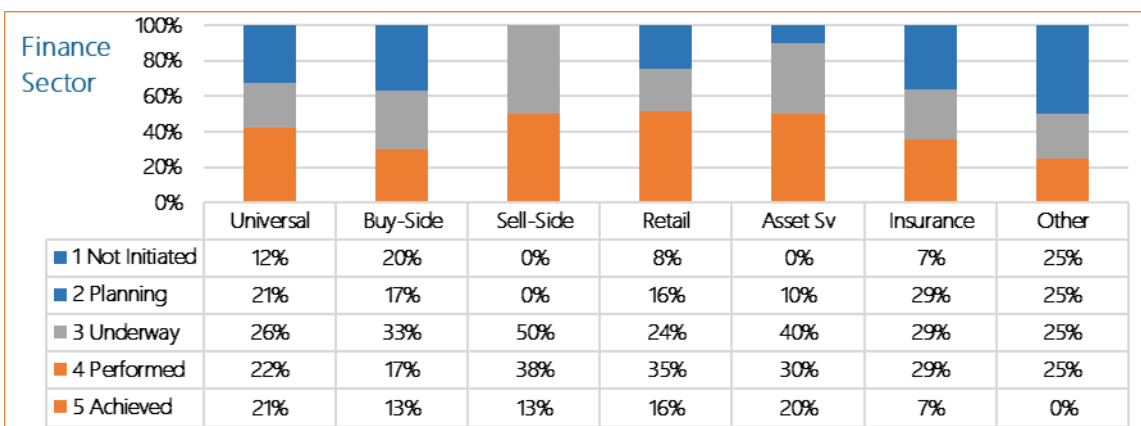|	All Industry	Finance Industry	Other Industry
1 Not initiated	15%	12%	23%
2 Planning	19%	18%	22%
3 Underway	28%	29%	24%
4 Performed	23%	24%	21%
5 Achieved	14%	16%	11%
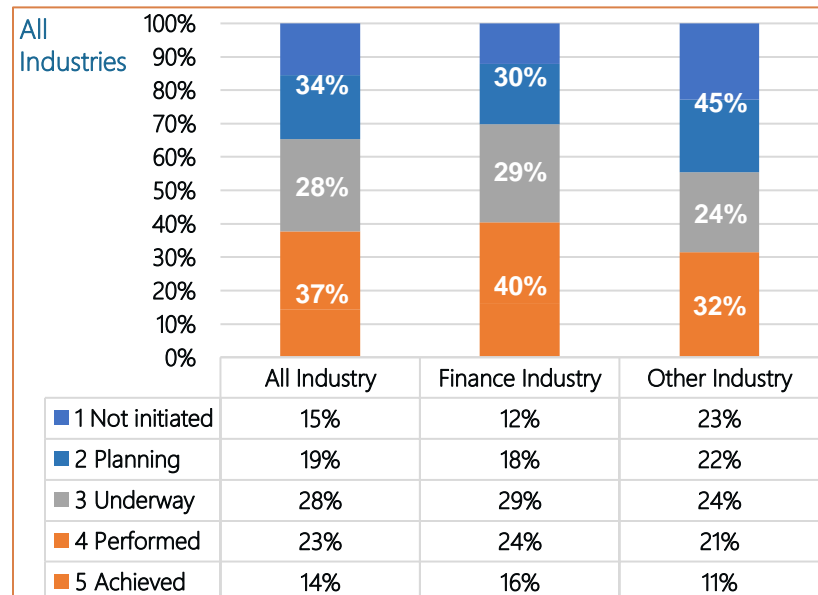
Analysis

Establishing the discipline of performing root-cause analysis is an earmark of a mature data quality and data management program. Processes are needed across the entire data supply chain to identify, report, analyze and remediate defects at source.

The scores for root cause parallel the scores for establishing a formal data quality program and profiling and monitoring data. Not surprisingly, since they are intrinsically connected.

With more the 60% of those surveyed saying they have not *Achieved/Performed* in addressing root cause analysis and remediation, one would conclude that manual, downstream "data scrubbing" is still prevalent across the industry. Again, a great deal of effort is going into addressing this challenge, but more work is needed.

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	12%	20%	0%	8%	0%	7%	25%
2 Planning	21%	17%	0%	16%	10%	29%	25%
3 Underway	26%	33%	50%	24%	40%	29%	25%
4 Performed	22%	17%	38%	35%	30%	29%	25%
5 Achieved	21%	13%	13%	16%	20%	7%	0%

Other Industry Sectors

|	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	8%	38%	14%	18%	33%	63%	17%
2 Planning	23%	0%	43%	18%	11%	38%	17%
3 Underway	38%	50%	7%	18%	33%	0%	33%
4 Performed	31%	0%	21%	32%	0%	0%	25%
5 Achieved	0%	13%	14%	14%	22%	0%	8%

6.0 Data Governance

Data governance function is the backbone of a successful data management (DM) initiative. Data governance is the process of setting standards, defining rules, establishing policy and implementing oversight. It is these steps that ensure adherence to DM best practices. Governance formalizes and empowers the DM initiative to ensure propagation and sustainability throughout the organization.

The purpose of data governance is to formalize DM as an established business function. Data governance establishes the rules of engagement, drives the prioritization of funding and enforces compliance. Data governance delineates the guidelines for data movement. These movement guidelines prescribe how data will be acquired, persisted, distributed, appropriately used, archived and/or defensibly destroyed.

Data governance formalizes oversight by establishing control guidelines, approval processes and evaluation of adherence to policies and procedures. It identifies stakeholders and empowers them. Data governance ensures that DM principles are fully detailed, and adoption is achieved. Business, data and technology functions are held responsible for the maintenance, quality and proper use of data throughout the organization as part of the Data governance function.
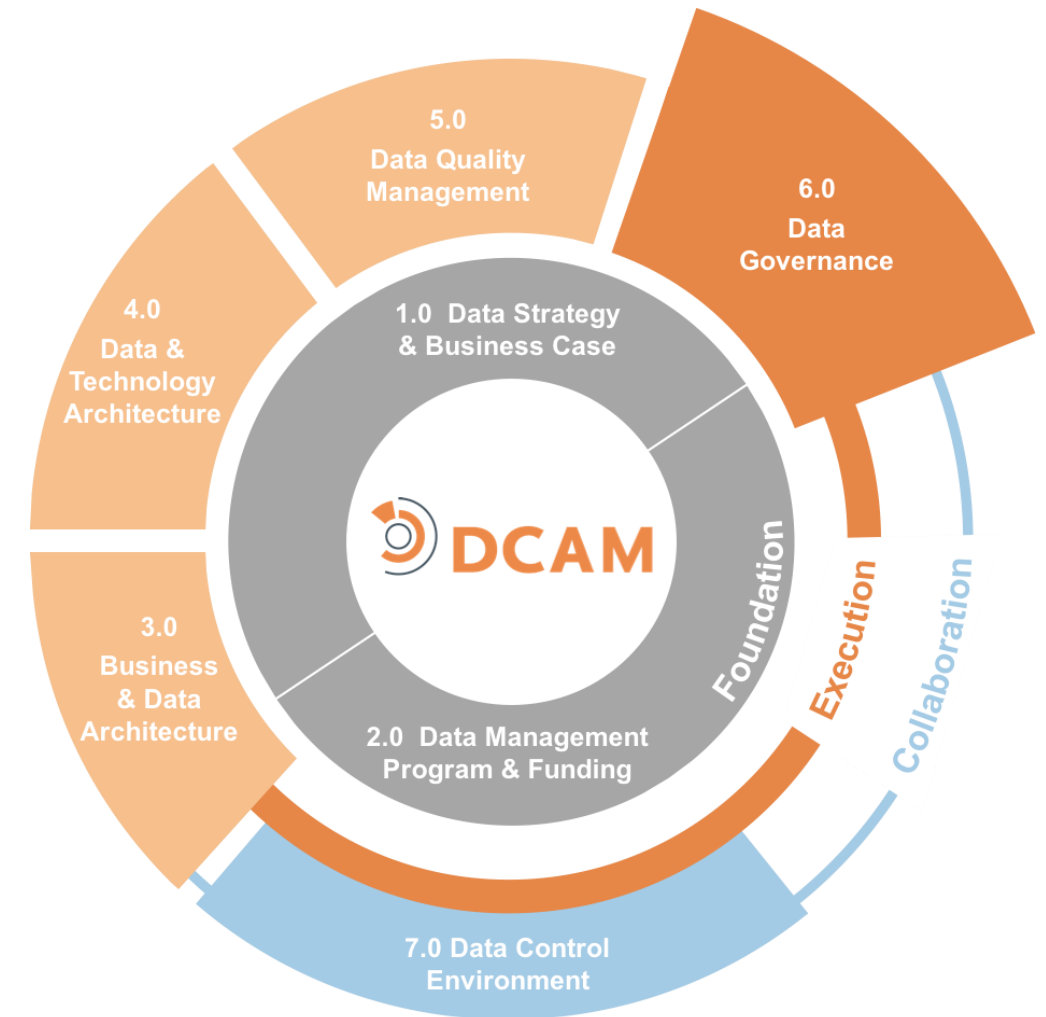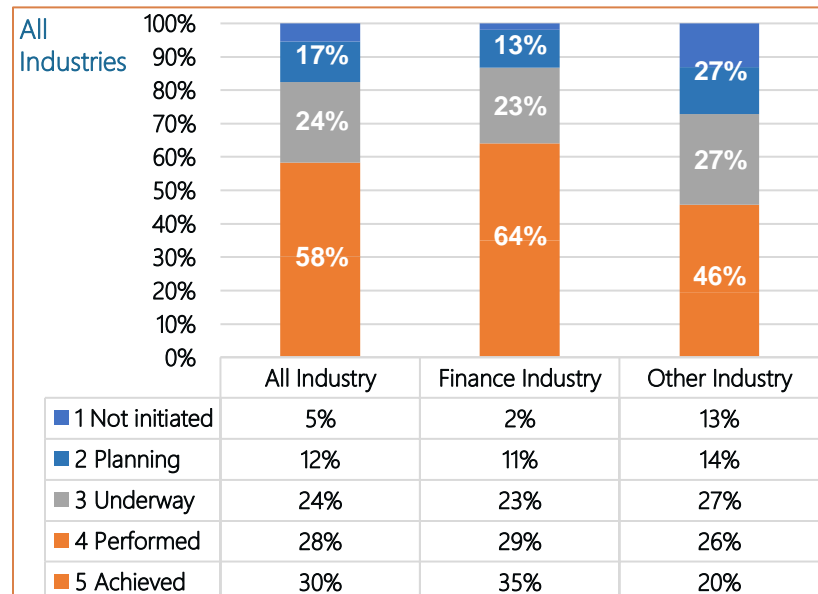
Question 18: Data Governance Function is formally established and operational.

Data Governance strategy and approach must be defined and reflect the related vision and objectives of the Data Management Strategy. Once established, it must be formally empowered by senior management and its role communicated to all stakeholders.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	3.68	30%
Finance Industry	3.87	35%
Other Industry	3.26	20%

- Finance Sector increased in 2020 to 35% *Achieved* vs. 25% in 2017
- Other Industries sector *Achieved* tracking at 20%
- 64% of Finance Industry and 46% of Other Industry scored *Achieved/Performed* in building out their Data Quality Program
- Sell-side and Universal had the highest *Achieved/Performed*: 88%; 80% respectively

All Industries

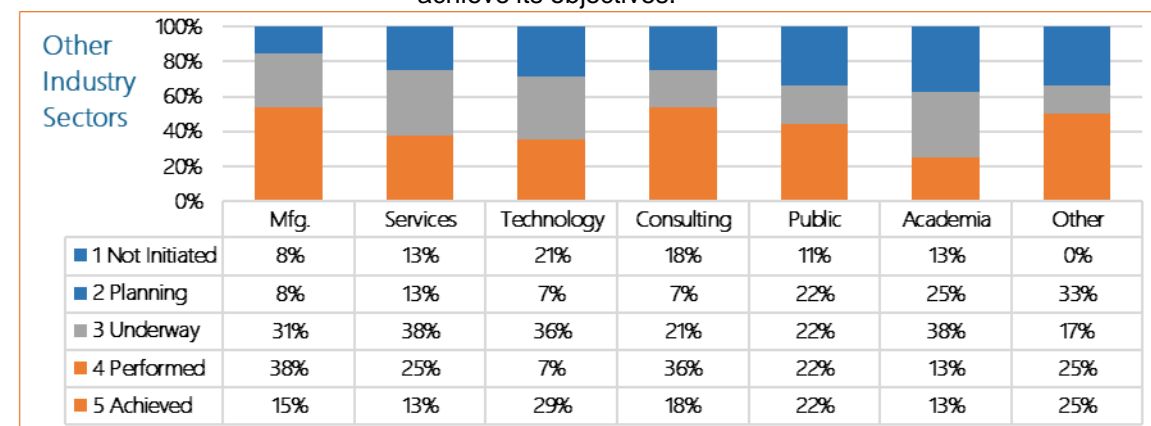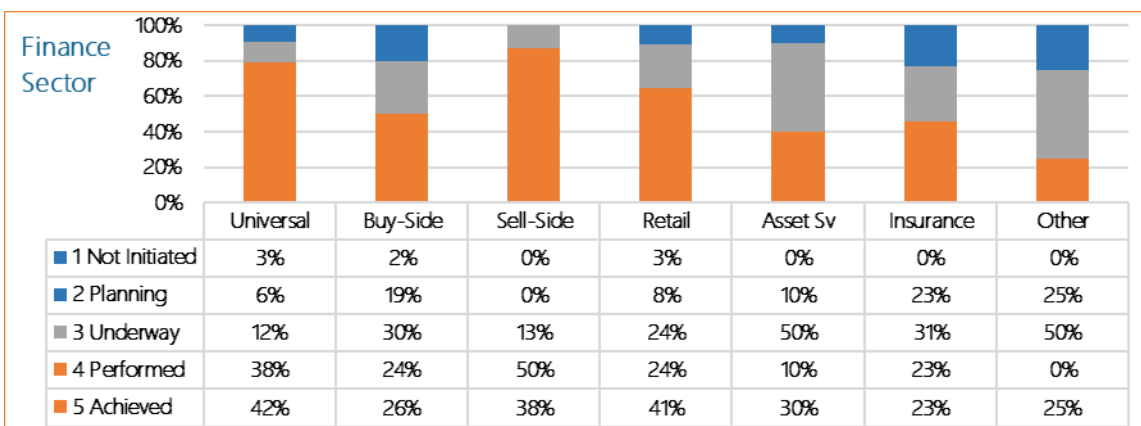|	All Industry	Finance Industry	Other Industry
1 Not initiated	5%	2%	13%
2 Planning	12%	11%	14%
3 Underway	24%	23%	27%
4 Performed	28%	29%	26%
5 Achieved	30%	35%	20%

Analysis

At its core, the Data Governance function must establish the organization's ability to make an authoritative decision about data and data management. The goal of governance should be to empower the organization, not restrict it.

In general, very good scores across all industries (highest in the survey). Finance Industry's higher *Achieved* scores may be attributed to the pressure applied by the Regulatory Community following the Financial Crisis, to establish a governance program to better manage and oversee a firm's data assets.

It is important to note, for a Data Governance Program to be successful, it must be preceded with clear communication of a data strategy, and it must align to achieving the business priorities and understand what data is required and what level of controls on the data are needed to help the business achieve its objectives.

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	3%	2%	0%	3%	0%	0%	0%
2 Planning	6%	19%	0%	8%	10%	23%	25%
3 Underway	12%	30%	13%	24%	50%	31%	50%
4 Performed	38%	24%	50%	24%	10%	23%	0%
5 Achieved	42%	26%	38%	41%	30%	23%	25%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	8%	13%	21%	18%	11%	13%	0%
2 Planning	8%	13%	7%	7%	22%	25%	33%
3 Underway	31%	38%	36%	21%	22%	38%	17%
4 Performed	38%	25%	7%	36%	22%	13%	25%
5 Achieved	15%	13%	29%	18%	22%	13%	25%

EDM Council

Question 19: Policy and Standards have been written, approved and implemented.

Policy and standards must be established and approved by stakeholders and executive governing bodies and must reflect the basic principles of how business, technology and operation functions manage and control data. Policy and standards must be shared and reviewed by stakeholders and must be supported by audit.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	3.62	28%
Finance Industry	3.89	34%
Other Industry	3.02	14%

- Finance Industry increased in 2020 to 34% *Achieved* vs. 26% in 2017
- Other Industries *Achieved* tracking to 14%
- 65% of Finance Industry and 37% Other Industry attained *Achieved/Performed* in establishing policy and standards for their data management initiative
- Sell-side reported 100% *Achieved/Performed*

All Industries

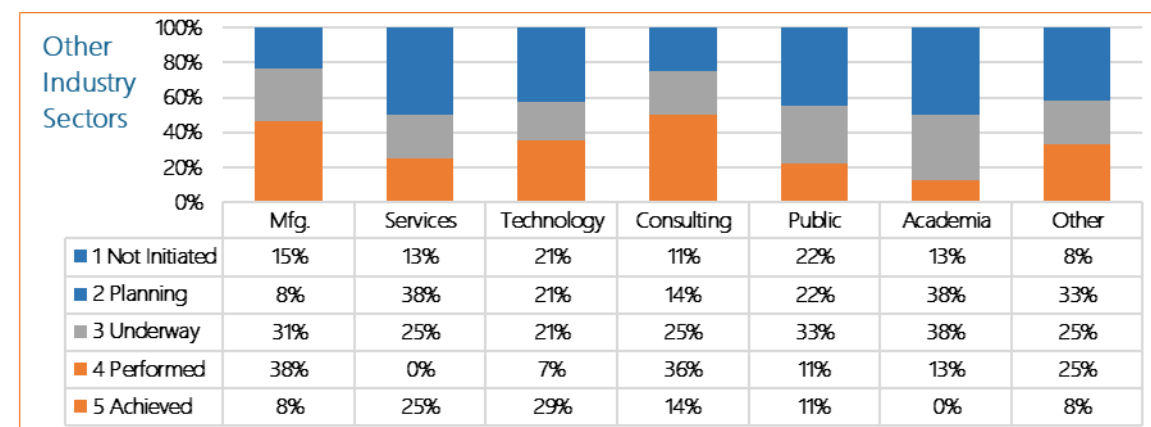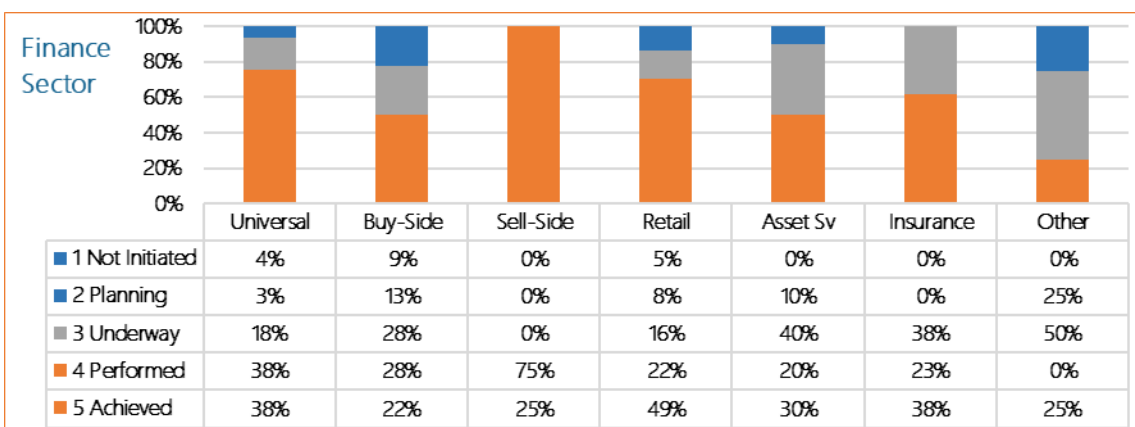|	All Industry	Finance Industry	Other Industry
1 Not initiated	8%	5%	14%
2 Planning	12%	7%	22%
3 Underway	24%	23%	27%
4 Performed	28%	31%	23%
5 Achieved	28%	34%	14%
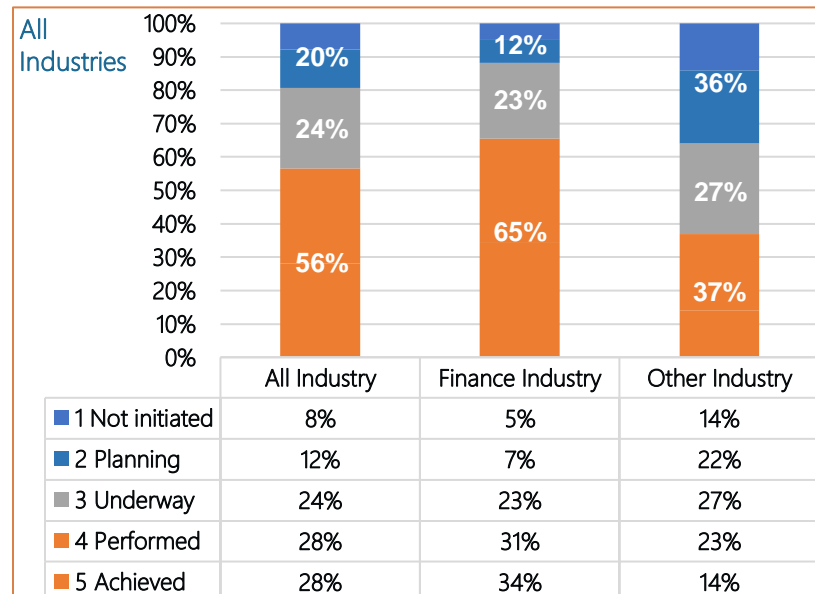
Analysis

A data governance program is driven by policy. Policy provides the guidelines and guardrails for an effective data management program.

This capability is one of the highest scoring capabilities in the 2020 Global Benchmark survey. Bolstered by the regulatory push, Finance Industry has moved the ball along rapidly, and have had good success in implementing Data Policy across their organizations.

We see a significant score in Other Industry in the 2020 Survey as well. Not surprisingly, given the opportunities (and challenges) of AI, ML, Data Privacy and Data Ethics, a well-designed data governance program with effectively communicated and adopted policy and standards, is a cornerstone to a successful data management program. We anticipate these scores to continue to increase.

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	4%	9%	0%	5%	0%	0%	0%
2 Planning	3%	13%	0%	8%	10%	0%	25%
3 Underway	18%	28%	0%	16%	40%	38%	50%
4 Performed	38%	28%	75%	22%	20%	23%	0%
5 Achieved	38%	22%	25%	49%	30%	38%	25%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	15%	13%	21%	11%	22%	13%	8%
2 Planning	8%	38%	21%	14%	22%	38%	33%
3 Underway	31%	25%	21%	25%	33%	38%	25%
4 Performed	38%	0%	7%	36%	11%	13%	25%
5 Achieved	8%	25%	29%	14%	11%	0%	8%

NEW!

Question 20: Governance and Maintenance of Authorized Data Domains, structures, models, definitions, glossaries, is established and operational.

Once established, authorized domains, models and definitions must be the resources used in future application development. Governance must be in place to ensure the proper use of these resources, to ensure data consistency across the organization.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	3.25	14%
Finance Industry	3.41	16%
Other Industry	2.88	10%

- 53% of Finance Industry and 66% of Other Industry are either *Underway/Planning or Not Initiated*
- 37% of Other Industry reported domain/model governance were *Not Initiated* or *Planning.* In contrast, 17% of Finance Industry reported *Not Initiated* or *Planning*
- 100% of Asset Servicing reported *Underway/Achieve/Performed*

All Industries

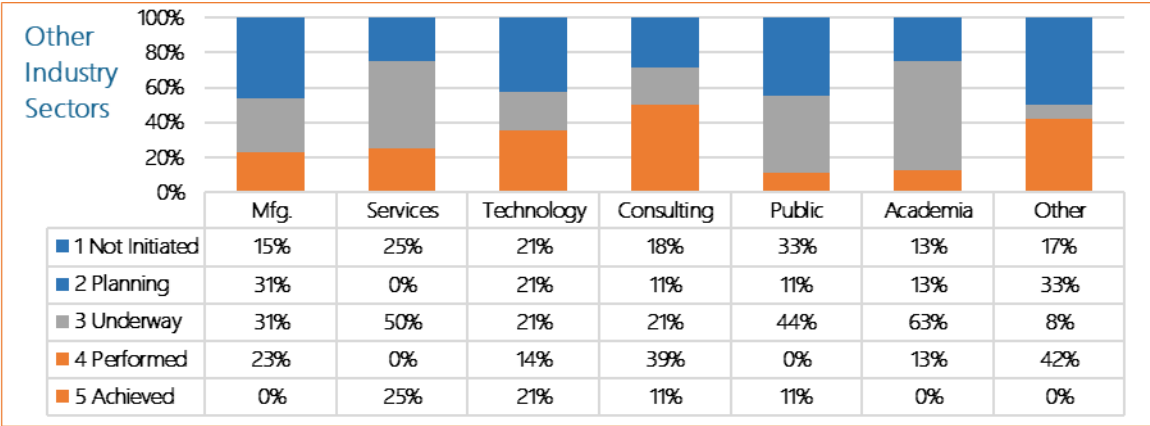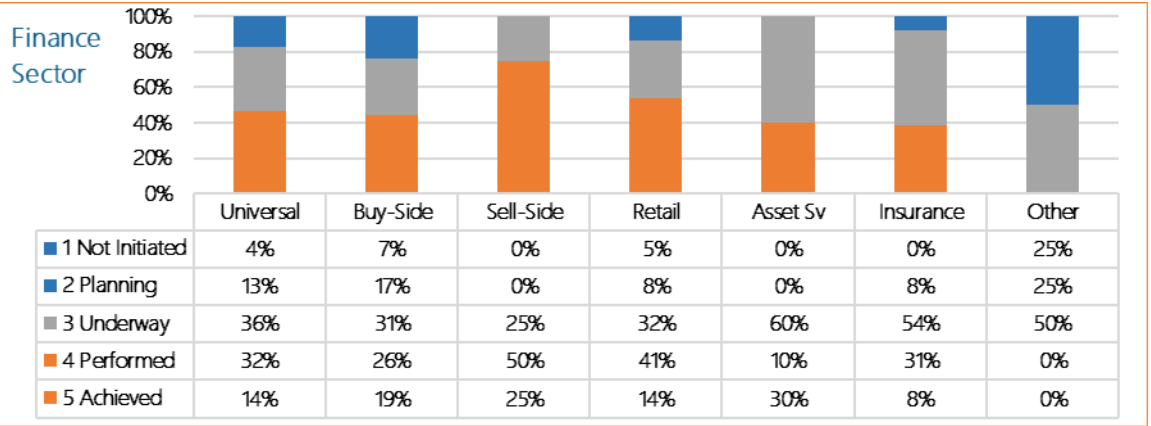|	All Industry	Finance Industry	Other Industry
1 Not initiated	9%	5%	20%
2 Planning	14%	12%	17%
3 Underway	34%	36%	29%
4 Performed	29%	31%	24%
5 Achieved	14%	16%	10%
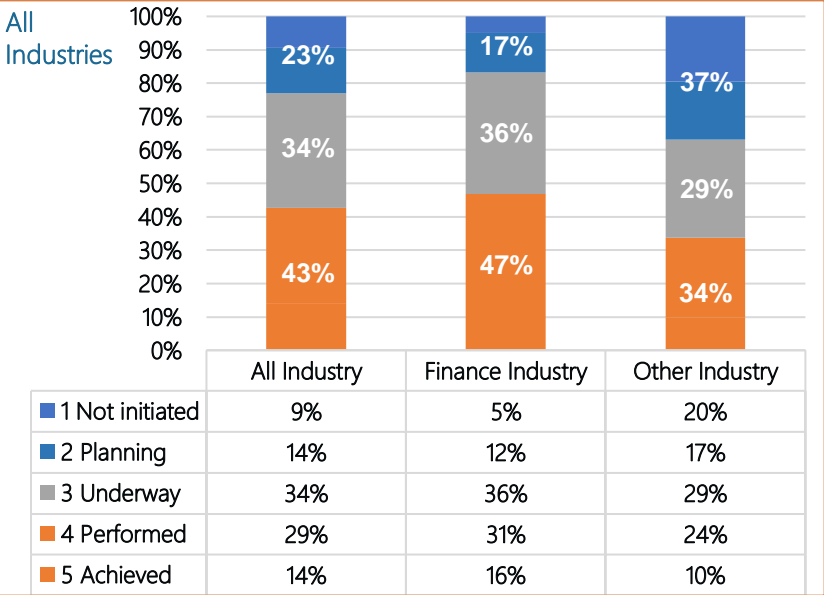
Analysis

One of the key functions of data architecture is to define and document the structure and meaning of the data assets across the organization.

Data domain designations, data models, structures, definitions and glossaries must be defined and catalogued, and policy must be written and implemented to ensure that these structures are being used and appropriately applied to the specific business needs.

In general, scores for this capability were relatively low. The 2020 Benchmark marks the first time this question was included in the survey. Results indicate that more than 50% of the industry has not established formal governance over these data assets. In order to achieve enterprise-level accurate and consistent data, adherence to enterprise data standards is critical.

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	4%	7%	0%	5%	0%	0%	25%
2 Planning	13%	17%	0%	8%	0%	8%	25%
3 Underway	36%	31%	25%	32%	60%	54%	50%
4 Performed	32%	26%	50%	41%	10%	31%	0%
5 Achieved	14%	19%	25%	14%	30%	8%	0%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	15%	25%	21%	18%	33%	13%	17%
2 Planning	31%	0%	21%	11%	11%	13%	33%
3 Underway	31%	50%	21%	21%	44%	63%	8%
4 Performed	23%	0%	14%	39%	0%	13%	42%
5 Achieved	0%	25%	21%	11%	11%	0%	0%

EDM Council

NEW!

Question 21: The access and Use of Data, driven by access controls, data-sharing agreements and contractual use of [market] data, is governed.

Governance processes must be established to ensure control over the identification, definition, and usage of data. Governance over data includes policies related to controlling access and use; enforcing contractual restrictions of 3rd party data and establishing and monitoring adherence to Data Sharing Agreements.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	3.23	17%
Finance Industry	3.36	19%
Other Industry	2.92	13%

- Less than 20% of the Industry reported having *Achieved* compliance to access control governance
- Public Sector *Achieved* 33% compliance, outperforming the Finance Industry

All Industries

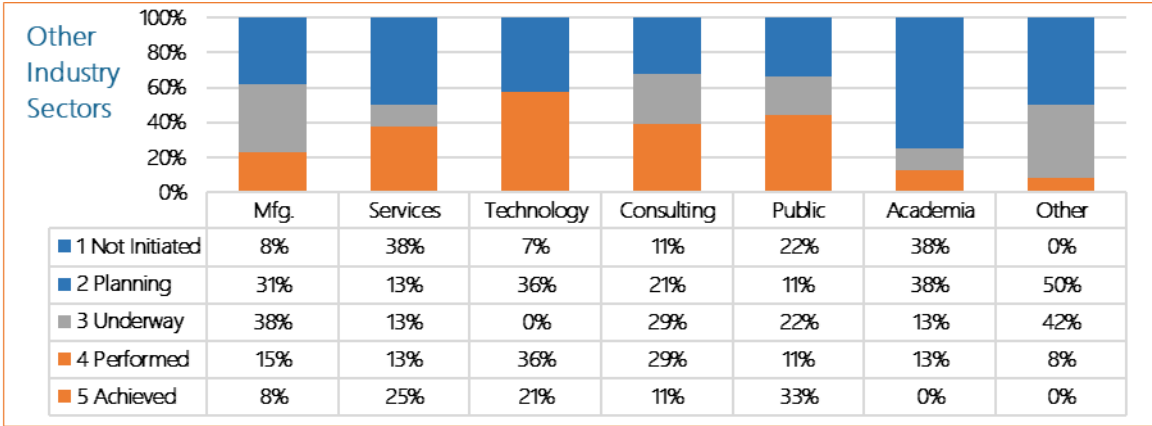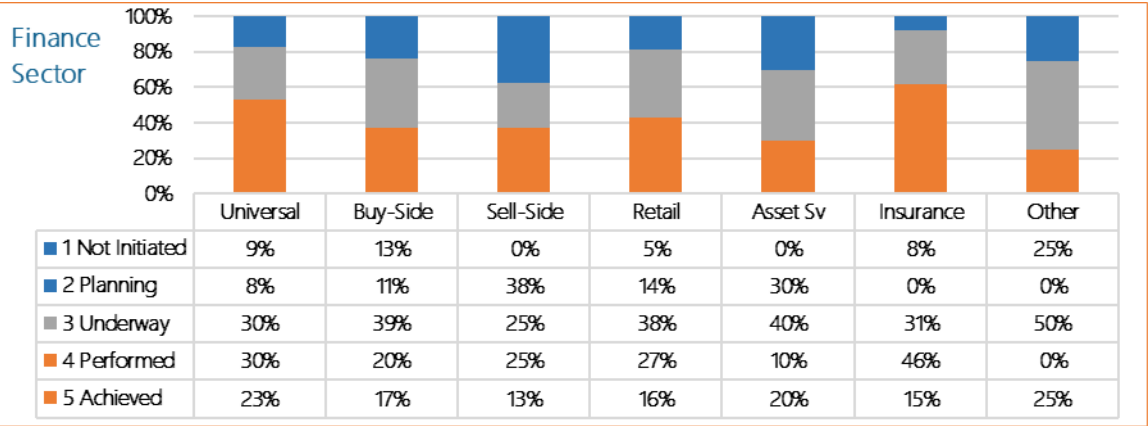|	All Industry	Finance Industry	Other Industry
1 Not initiated	11%	9%	14%
2 Planning	17%	11%	28%
3 Underway	31%	34%	24%
4 Performed	24%	26%	21%
5 Achieved	17%	19%	13%
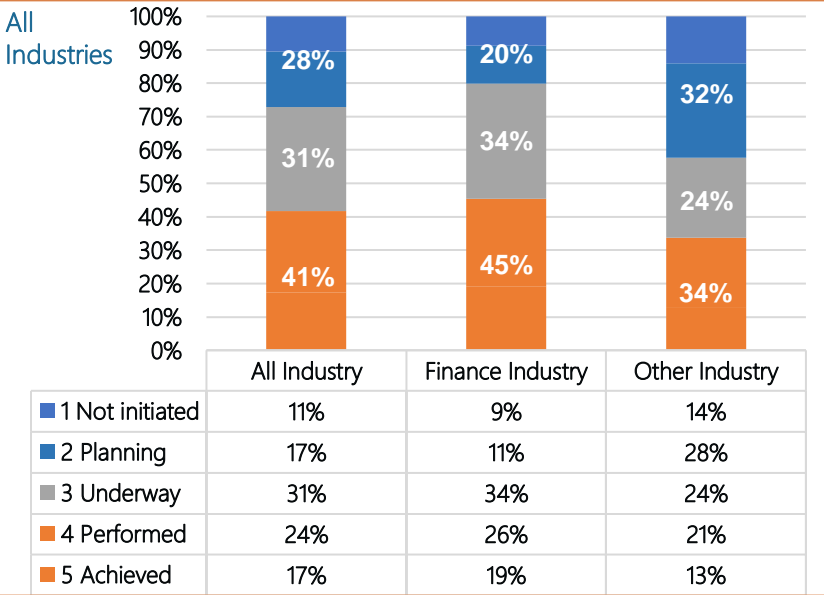
Analysis

Overall, scores in the 2020 Survey were relatively low, given the importance of protecting a firm's information assets. 40% of those surveyed from Other Industry reported they were either in *Planning* or had *Not Initiated*.

Less than 50% scored themselves *Achieved* or *Performed*

Control over the access and appropriate use of data is a foundational concept of a well implemented data governance program. Privacy laws are mandating control over customer data. Data licensing (digital rights) are being enforced. Data sharing agreements between provider and consumer are being mandated to ensure an understanding of the data being accessed and used.

As more legislation emerges, firms will have to rapidly mature their access monitoring and controls over their data.

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	9%	13%	0%	5%	0%	8%	25%
2 Planning	8%	11%	38%	14%	30%	0%	0%
3 Underway	30%	39%	25%	38%	40%	31%	50%
4 Performed	30%	20%	25%	27%	10%	46%	0%
5 Achieved	23%	17%	13%	16%	20%	15%	25%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	8%	38%	7%	11%	22%	38%	0%
2 Planning	31%	13%	36%	21%	11%	38%	50%
3 Underway	38%	13%	0%	29%	22%	13%	42%
4 Performed	15%	13%	36%	29%	11%	13%	8%
5 Achieved	8%	25%	21%	11%	33%	0%	0%

EDMCouncil

NEW!

Question 22: The Ethical Access, Use and Outcomes of data are considered, reviewed and governed.

Governing D*ata Ethics* includes establishing a formal data ethics oversight function, adhering to the ethical access and appropriate use of data, and monitoring whether the outcomes of data use adhere to established ethical standards.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	**2.59**	**7%**
Finance Industry	**2.49**	**5%**
Other Industry	**2.80**	**12%**

- Only 7% of All Industry reported *Achieved* compliance to ethical data governance
- Public Sector *Achieved* 22% compliance. Technology scored 21%. Both significantly outperforming the Finance Industry (5% *Achieved*)

All Industries

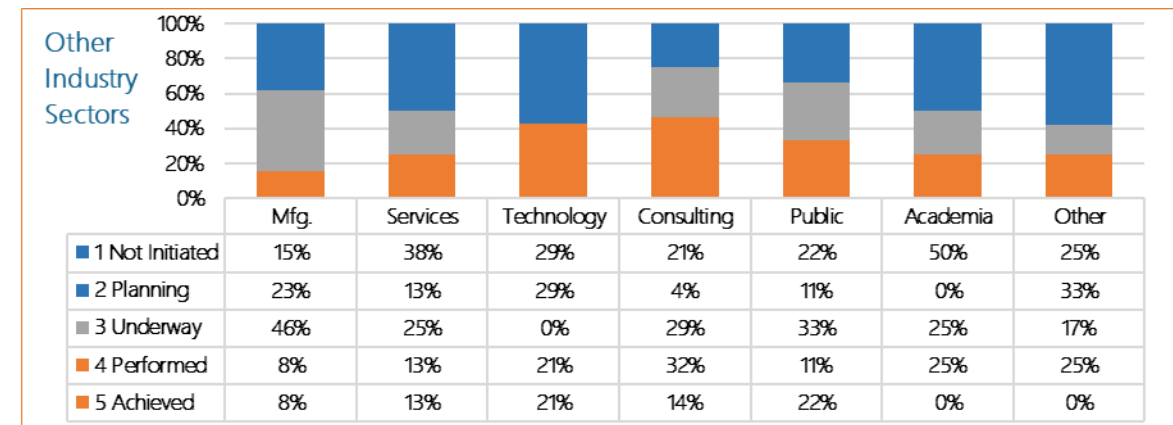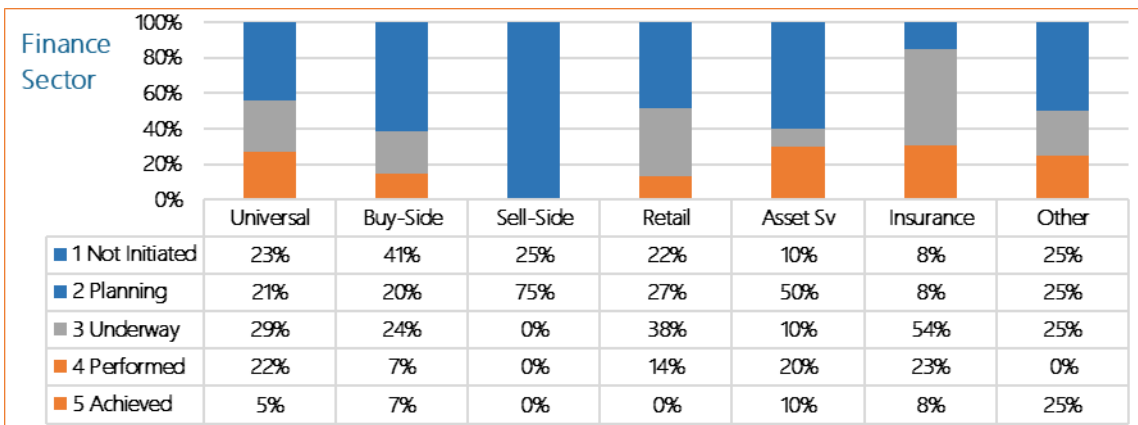|	All Industry	Finance Industry	Other Industry
■ 1 Not initiated	26%	26%	26%
■ 2 Planning	22%	25%	15%
■ 3 Underway	27%	29%	25%
■ 4 Performed	17%	15%	22%
■ 5 Achieved	7%	5%	12%
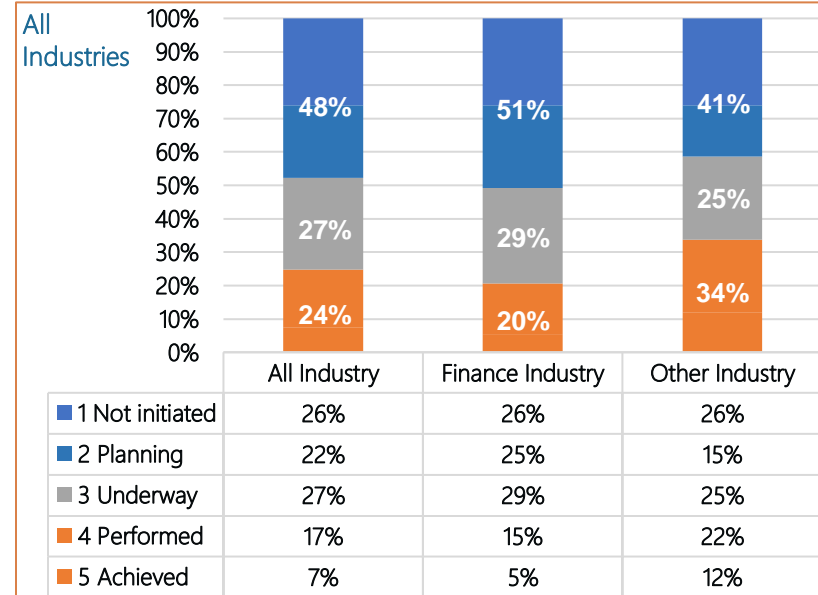
Analysis

The attention to ethical access, use, and outcome of data emerged and increased rapidly over the past two years. This is a new question introduced in the 2020 Global Benchmark survey.

There are two main drivers for the rise of data ethics.

1. Highly publicized ethical misuse of data catches the attention of consumers and politicians which leads to regulation.

2. With the increased use of AI/ML and advanced analytics, even the smallest bias in data and/or the models can be exaggerated, causing ethical concerns.

There is an early trend that the remit for data ethics is falling to the Data Management organizations. However, it is too early to predict whether it will be the universal standard.

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
■ 1 Not Initiated	23%	41%	25%	22%	10%	8%	25%
■ 2 Planning	21%	20%	75%	27%	50%	8%	25%
■ 3 Underway	29%	24%	0%	38%	10%	54%	25%
■ 4 Performed	22%	7%	0%	14%	20%	23%	0%
■ 5 Achieved	5%	7%	0%	0%	10%	8%	25%

Other Industry Sectors

|	Mfg.	Services	Technology	Consulting	Public	Academia	Other
■ 1 Not Initiated	15%	38%	29%	21%	22%	50%	25%
■ 2 Planning	23%	13%	29%	4%	11%	0%	33%
■ 3 Underway	46%	25%	0%	29%	33%	25%	17%
■ 4 Performed	8%	13%	21%	32%	11%	25%	25%
■ 5 Achieved	8%	13%	21%	14%	22%	0%	0%

7.0 Data Control Environment

The Data Control Environment refers to the state of operation in which the data assets of an organization are holistically managed throughout the organization. There are three elements of a successful data control environment.

1. The data management (DM) objectives and capabilities described within this document have been embraced and adopted throughout the organization.

2. The data lifecycle is fully supported by all stakeholders. These stakeholders ensure understanding, awareness and control of data throughout the data supply chain–from source to consumption to disposition.

3. DM is part of the organization's data ecosystem. It is integrated and coordinated with all other control functions organization-wide.

The purpose of the data control environment is to coordinate the people, process and technology of DM into a cohesive operational model. The data control environment defines the mechanisms used to capture data requirements, unravel data flows and linked processes and determine how data is to be delivered to the data consumer. The data control environment supports the data lifecycle. It ensures that proper resources and controls are in place as data moves throughout its journey. Also, the data control environment ensures collaboration and alignment to cross-organizational control functions. Areas such as Information Security, Data Privacy and Change Management must operate in sync with DM to ensure data is properly managed across all business functions.

To the extent that the data control environment is not achieved it results in potential data risk. Data risk should be managed in alignment with the overall risk management framework of the organization. Data risk scope includes areas such as data architecture risks, metadata risks, data quality risks, data governance risks and Master Data risks.
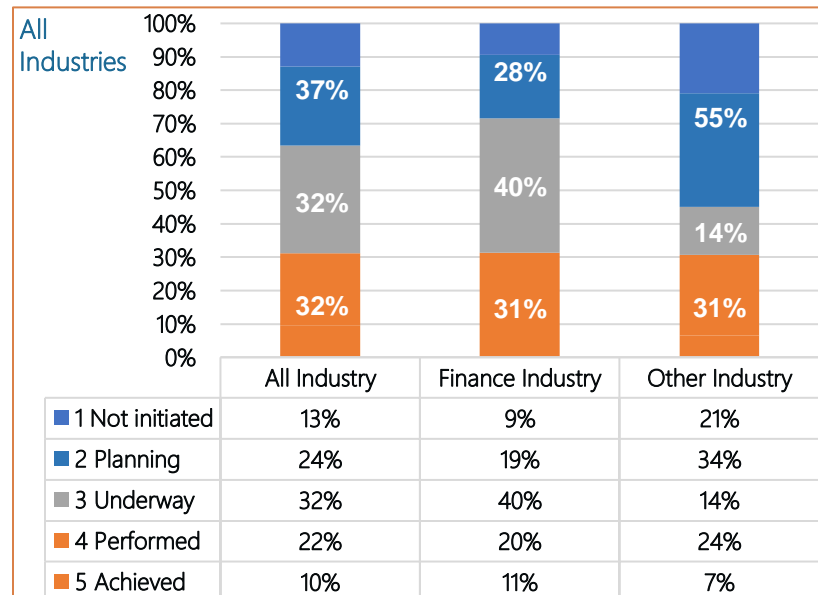
EDM Council
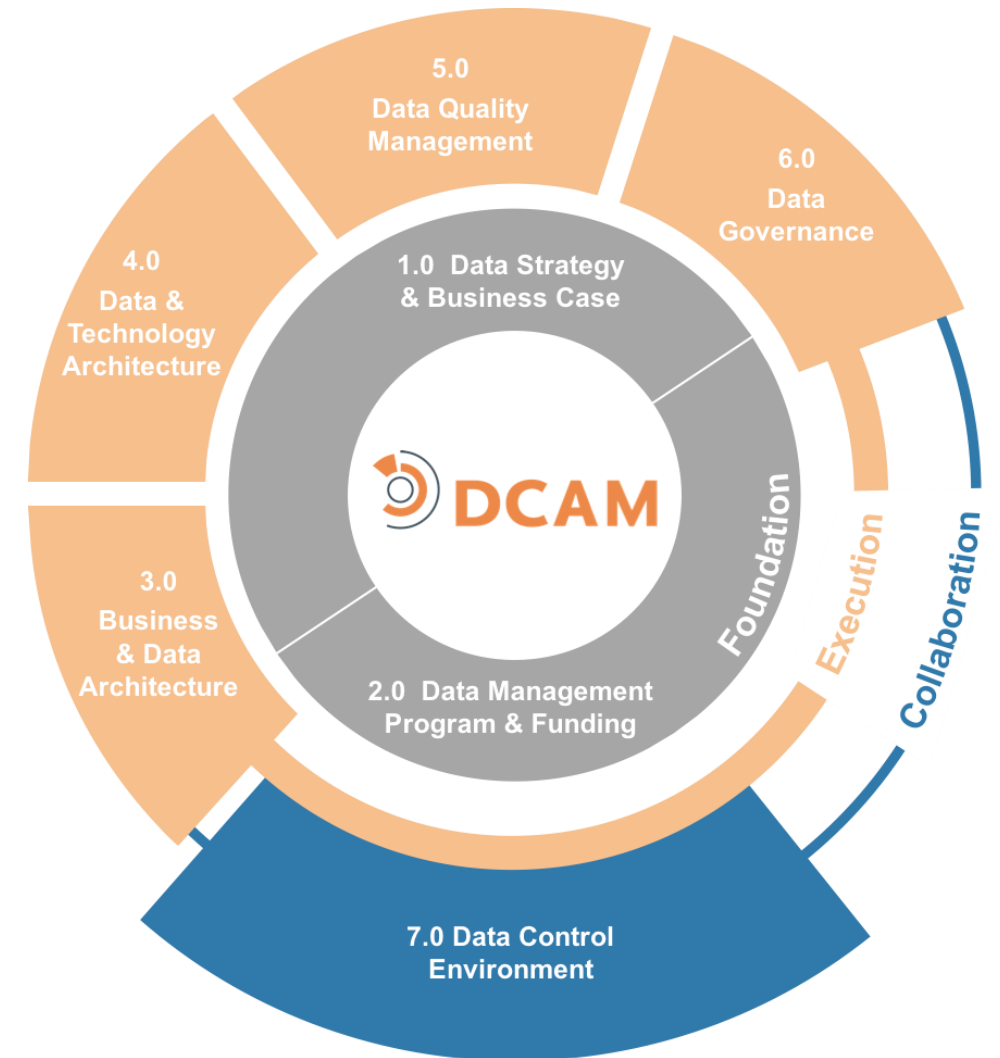
Question 23: A data control environment, and collaboration with cross-organizational control groups, is evidenced and operational.

Evidence of the *Data Control Environment* is the result of effectively integrating the capabilities of data strategy, program, architecture, data quality and data governance across the organization. Active engagement by stakeholders and cross-organizational control functions is required to ensure the success of the data program.

DCAM

Industry	Avg DCAM	% Achieved
All Industry	2.91	10%
Finance Industry	3.05	11%
Other Industry	2.62	7%

- *Achieved* scores in Finance Industry decreased in the 2020 Global Benchmark to 11% vs 18% in 2017
- Other Industry *Achieved* at 7%
- Finance Industry and Other Industry both attained 31% *Achieved/Performed* in establishing a data control environment
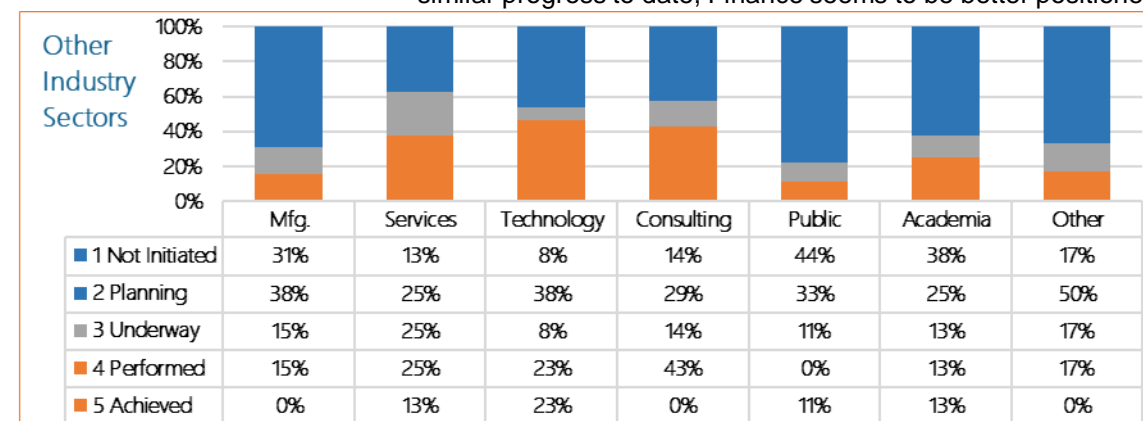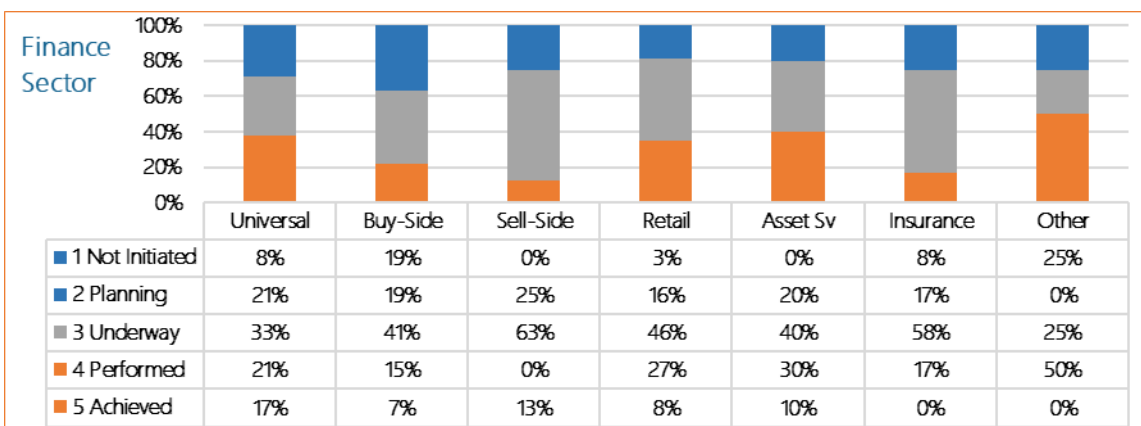- Public Sector had the highest of *Not Initiated* at 44%

All Industries

	All Industry	Finance Industry	Other Industry
1 Not initiated	13%	9%	21%
2 Planning	24%	19%	34%
3 Underway	32%	40%	14%
4 Performed	22%	20%	24%
5 Achieved	10%	11%	7%

Analysis

Achieving a control environment for data is the "north star" of data programs. In this environment, data is curated, stewarded and governed across the entire lifecycle, from creation and/or acquisition to consumption and/or defensible destruction.

Scored overall, were lower in 2020 than in previous surveys. This could be attributed to the continued expansion of data responsibility, coupled with new requirements imposed on the data programs - i.e.: alternative data management (e.g.: unstructured; signal; satellite; weather; social media); new business and regulatory demands (e.g.: Artificial Intelligence; Machine Learning; Privacy and Ethics concerns)

Interesting note: Finance Industry and Other Industry had similar *Achieved/Performed* scores. However, Finance Industry has a significantly higher *Underway* score (40% vs 14%), leading to the conclusion that although both industry segments have made similar progress to date, Finance seems to be better positioned

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	8%	19%	0%	3%	0%	8%	25%
2 Planning	21%	19%	25%	16%	20%	17%	0%
3 Underway	33%	41%	63%	46%	40%	58%	25%
4 Performed	21%	15%	0%	27%	30%	17%	50%
5 Achieved	17%	7%	13%	8%	10%	0%	0%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	31%	13%	8%	14%	44%	38%	17%
2 Planning	38%	25%	38%	29%	33%	25%	50%
3 Underway	15%	25%	8%	14%	11%	13%	17%
4 Performed	15%	25%	23%	43%	0%	13%	17%
5 Achieved	0%	13%	23%	0%	11%	13%	0%

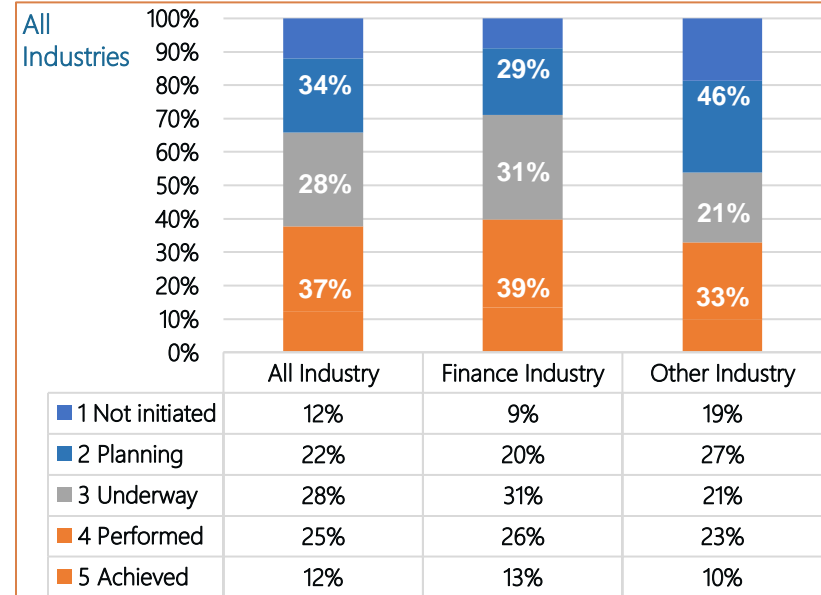# RESULTS & OBSERVATIONS – DATA CONTROL ENVIRONMENT

NEW!

Question 24: Risks associated with the access and use of data are being tracked, prioritized and mitigated.

The formal process of identifying data risk must be integrated into the data management initiative. *Risks* must be tracked, prioritized, mitigated and integrated into the overall risk management framework of the organization (e.g.: three lines of defense; risk; audit).

DCAM

Industry	Avg DCAM	% Achieved
All Industry	3.06	12%
Finance Industry	3.17	13%
Other Industry	2.81	10%

- 39% of Finance Industry and 33% of Other Industry attained *Achieved/Performed* managing data risk in their organization
- Insurance Sector had no *Achieved* scores, however, when considering the top-three ratings including *Performed/Underway,* Insurance reported 84%, higher than all other industry sector.
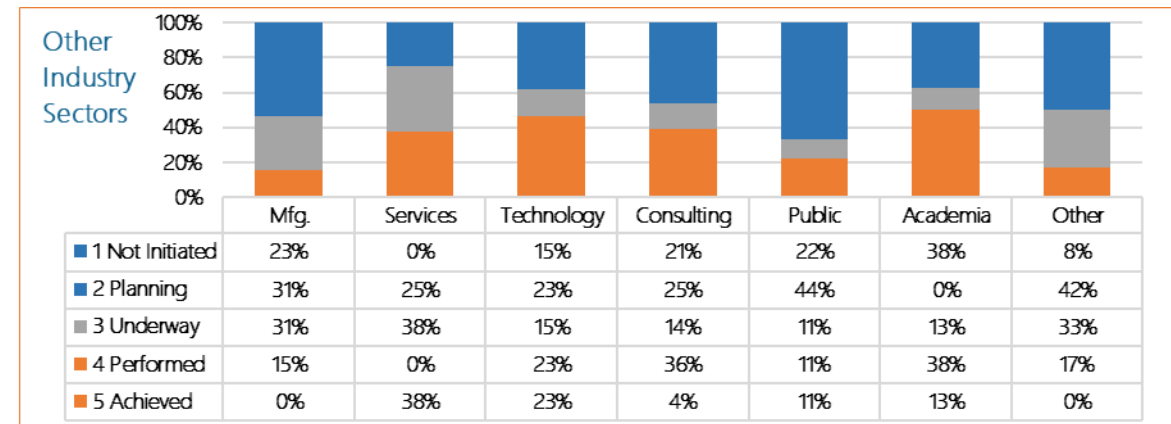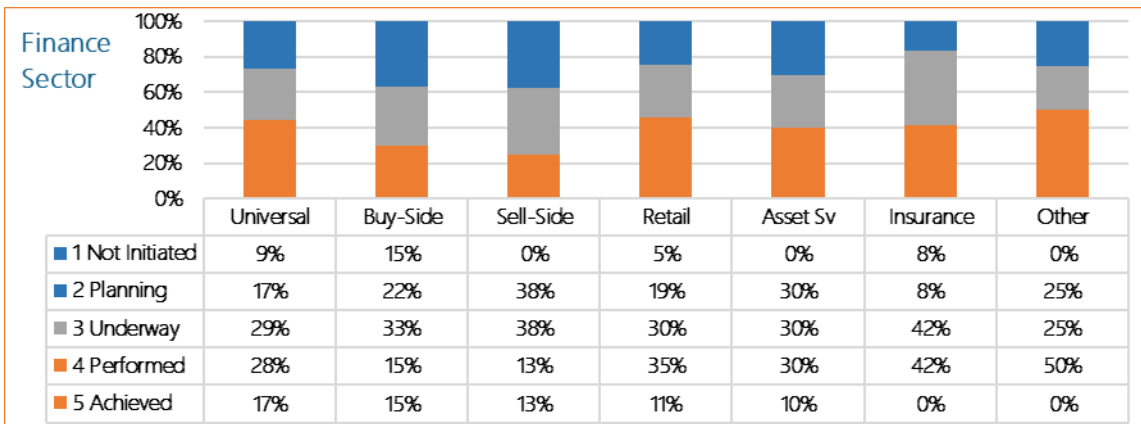
All Industries

	All Industry	Finance Industry	Other Industry
1 Not initiated	12%	9%	19%
2 Planning	22%	20%	27%
3 Underway	28%	31%	21%
4 Performed	25%	26%	23%
5 Achieved	12%	13%	10%

Analysis

The concept of "data risk" is relatively new, and as such, was a new question introduced into the 2020 Benchmark Survey.

Data Risks recognize that these risks are not technology issues alone, but span business, data and technology. Data risks must be identified, and root-cause analysis determined to fully understand where along the supply chain and where across the community of stakeholders has a weakness occurred, and how quickly can these risks be remediated.

Both Finance Industry and Other Industry reported similar scores for *Achieved/Performed*: 39% vs 33%. Financial Sector scores seem to be equally distributed, while Other Industry Sector scores were wide ranging.

As newer and newer data and capabilities are introduced, managing risks becomes even more important in the future.

Finance Sector

	Universal	Buy-Side	Sell-Side	Retail	Asset Sv	Insurance	Other
1 Not Initiated	9%	15%	0%	5%	0%	8%	0%
2 Planning	17%	22%	38%	19%	30%	8%	25%
3 Underway	29%	33%	38%	30%	30%	42%	25%
4 Performed	28%	15%	13%	35%	30%	42%	50%
5 Achieved	17%	15%	13%	11%	10%	0%	0%

Other Industry Sectors

	Mfg.	Services	Technology	Consulting	Public	Academia	Other
1 Not Initiated	23%	0%	15%	21%	22%	38%	8%
2 Planning	31%	25%	23%	25%	44%	0%	42%
3 Underway	31%	38%	15%	14%	11%	13%	33%
4 Performed	15%	0%	23%	36%	11%	38%	17%
5 Achieved	0%	38%	23%	4%	11%	13%	0%

2020 Global Data Management Benchmark Report

Composite Views & Analysis

DCAM Composite Scores

All Industry; Finance; Other

DCAM Component	Questions	All Industry	Finance Industry	Other Industry
Data Strategy & Business Case	Question 1: DM Strategy has been developed and communicated Question 2: Business Case is developed and communicated	3.34	3.52	2.94
The Data Management Program and Funding Model	Question 3: The Data Program is formally established Question 4: Formal Roadmaps are defined Question 5: Process Excellence is established Question 6: Stakeholder Engagement is confirmed Question 7: Communication & Training Programs have been implemented Question 8: Metrics are defined, captured and applied	3.15	3.33	2.76
Business and Data Architecture	Question 9: Data Architecture Program is formally established Question 10: Business Architecture is integrated into the data program Question 11: Logical data domains are identified, documented	3.09	3.20	2.84
Technology Architecture	Question 12: Technology vision and strategy is developed Question 13: Required tools are identified and implemented Question 14: Data Management Operational Risk is in place	3.12	3.30	2.74
Data Quality Management	Question 15: A Data Quality Program is formally established Question 16: Data is being profiled, measured, monitored and maintained Question 17: Root-cause analysis is being performed	3.10	3.25	2.78
Data Governance	Question 18: Data Governance program is formally established Question 19: Policy & Standards are written and approved Question 20: Authorized data domains, models, glossaries are governed Question 21: Data Access Controls and Contract governance in place Question 22: Ethical access, use and outcomes of data are governed	3.27	3.40	2.98
Data Control Environment	Question 23: Data Control Environment is established Question 24: Data risks are being tracked, prioritized and remediated	2.99	3.11	2.71

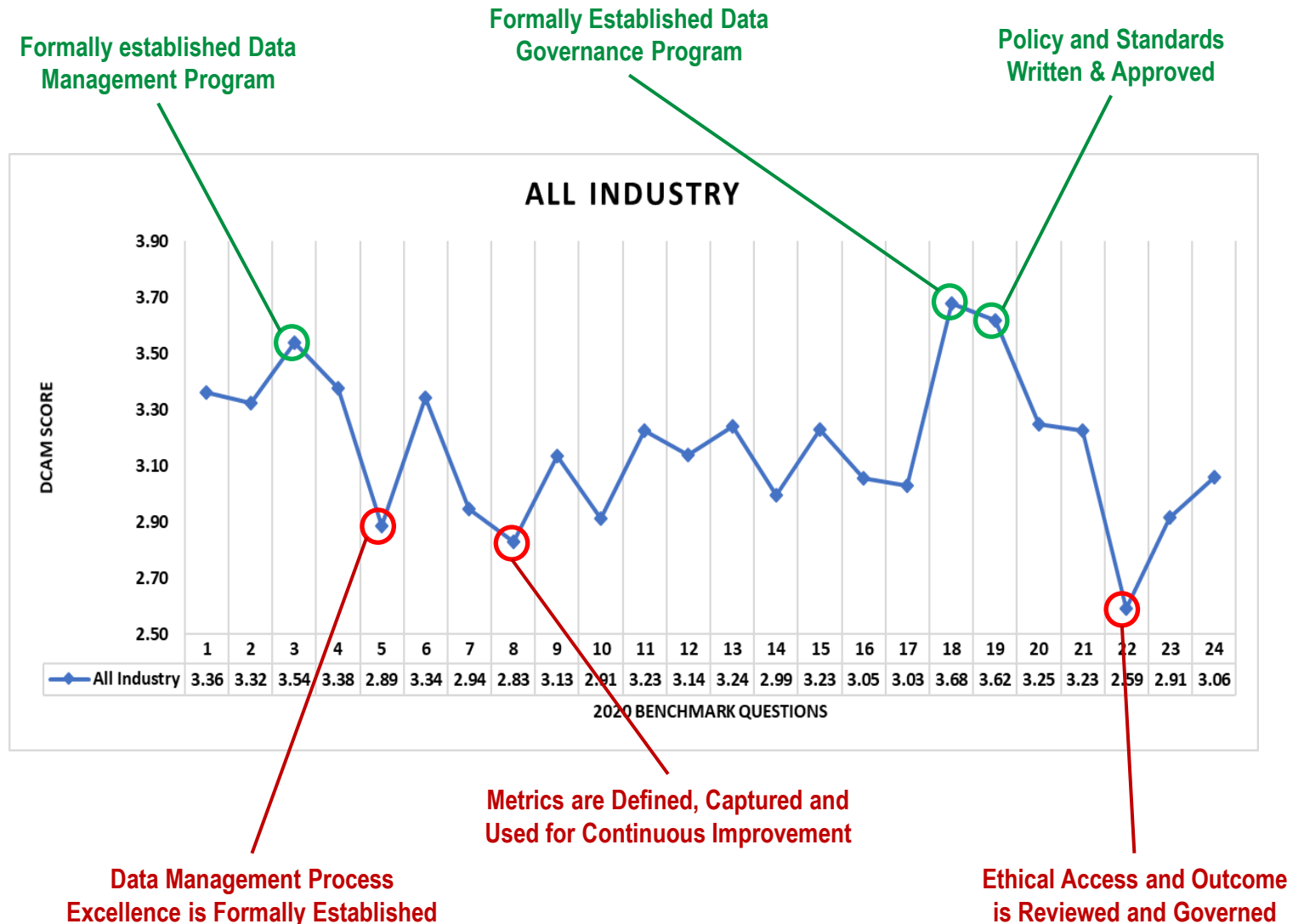# DCAM Composite Scores

All Industry

ANALYSIS

Overall, the Industry showed continued improvement in the basic foundational capabilities of a data management program.

- Establishing the program, Standing up a governance program, and Supporting the Governance Program with formalized Policies and Standards scored the highest in the 2020 Benchmark

For the 3rd survey in a row, Metrics capture and use were among the lowest scores. The systemic nature of data management often makes it difficult to identify the true impact of improving a data management program, given benefits are often realized far from the point where the investment is made.

New to this year's survey are the questions of Data Ethics and Data Management Process Excellence.

- Data Ethics is a new, but fast-moving challenge for all organizations as Artificial Intelligence and Machine Learning consume large data sets that are sometimes incomplete or represent unknown bias. Building processes to address this challenge is still new

- Process Excellence in data management is a discipline to continuously revisit processes and outcomes to ensure quality and integrity of the factors of input and the analytics being used. We anticipate this methodology will continue to mature as the breadth and depth of data continues to expand

Formally established Data Management Program

Formally Established Data Governance Program

Policy and Standards Written & Approved

Data Management Process Excellence is Formally Established

Metrics are Defined, Captured and Used for Continuous Improvement

Ethical Access and Outcome is Reviewed and Governed

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
All Industry	3.36	3.32	3.54	3.38	2.89	3.34	2.94	2.83	3.13	2.91	3.23	3.14	3.24	2.99	3.23	3.05	3.03	3.68	3.62	3.25	3.23	2.59	2.91	3.06

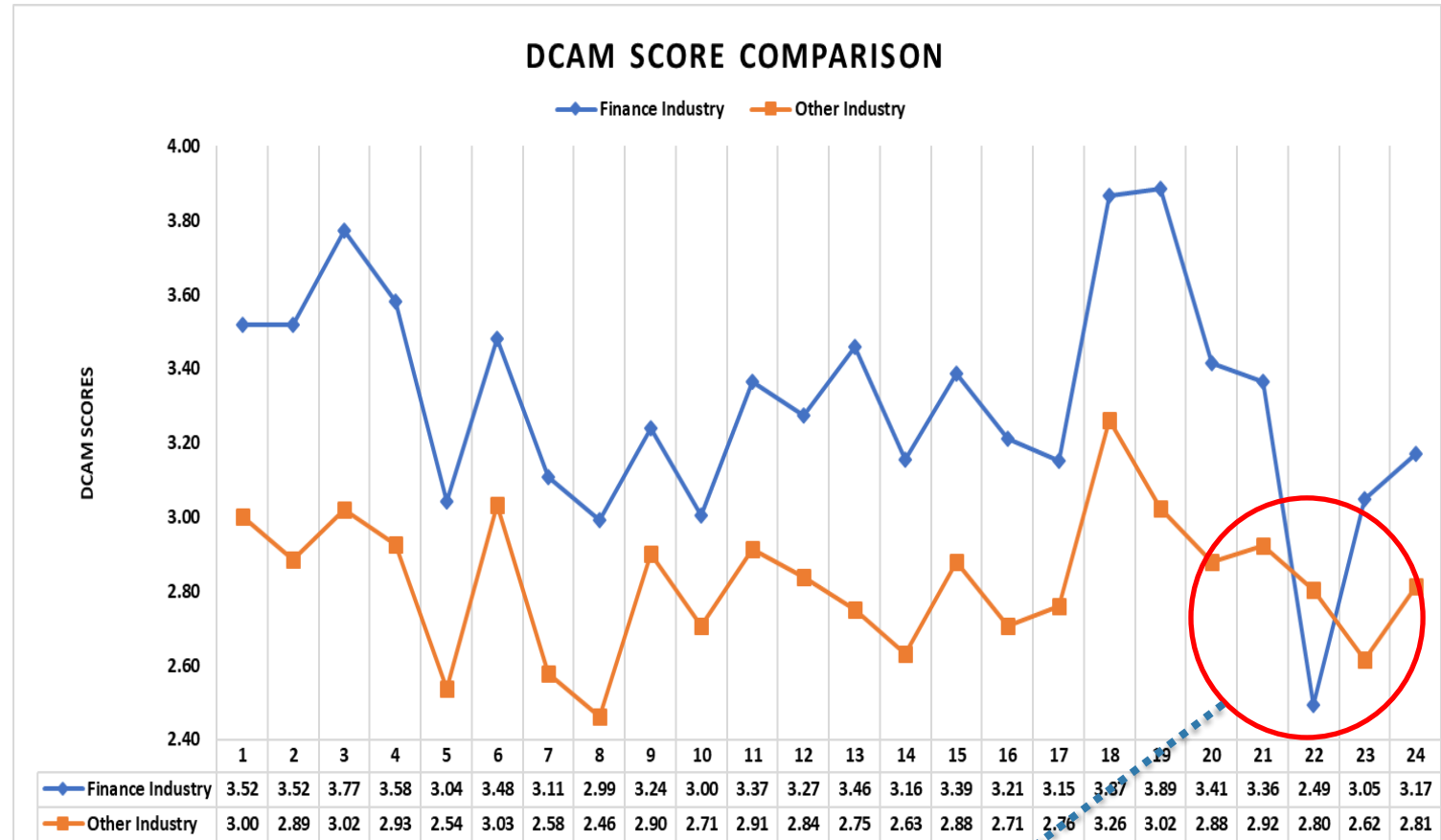# DCAM COMPOSITE SCORES

FINANCE; OTHER

ANALYSIS

In general, Other Industry sectors track to Finance Industry sectors, lagging primarily due to the focus and pressure the global regulatory community imposed on Financial Institutions following the financial crisis a decade ago. But we are seeing continued improvement across all industries as more firms embrace the challenges (and benefits) that a formalized and sustainable data management program can present.

The one interesting anomaly to this mirroring of scores was Question 22 – Ethical Access and Outcome [of data] is Reviewed and Governed. Here, Other Industry outscored Finance.

Possible reasoning…

- Early implementations of AI/ML seems prevalent in retail and marketing. Understanding customer buying patterns and behaviors were early Use Cases for the application of AI/ML.

- As earlier adopters of these technologies, challenges associated with the ethical acquisition and use of data came to light sooner, thus giving Other Industry Sectors a jump on addressing these challenges

DCAM SCORE COMPARISON

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
Finance Industry	3.52	3.52	3.77	3.58	3.04	3.48	3.11	2.99	3.24	3.00	3.37	3.27	3.46	3.16	3.39	3.21	3.15	3.87	3.89	3.41	3.36	2.49	3.05	3.17
Other Industry	3.00	2.89	3.02	2.93	2.54	3.03	2.58	2.46	2.90	2.71	2.91	2.84	2.75	2.63	2.88	2.71	2.76	3.26	3.02	2.88	2.92	2.80	2.62	2.81

Other Industry scoring higher when addressing Ethical Access, Use and Outcome of Data

DCAM Composite Scores

Financial Sector Breakdown

DCAM Component	Questions	Universal Bank	Buy-Side	Sell-Side	Retail	Asset Servicing	Insurance	Other
Data Strategy & Business Case	Question 1: DM Strategy has been developed and communicated Question 2: Business Case is developed and communicated	3.63	3.30	3.88	3.66	3.68	3.19	2.88
The Data Management Program and Funding Model	Question 3: The Data Program is formally established Question 4: Formal Roadmaps are defined Question 5: Process Excellence is established Question 6: Stakeholder Engagement is confirmed Question 7: Communication & Training Programs have been implemented Question 8: Metrics are defined, captured and applied	3.53	2.95	3.83	3.41	3.33	3.29	2.83
Business and Data Architecture	Question 9: Data Architecture Program is formally established Question 10: Business Architecture is integrated into the data program Question 11: Logical data domains are identified, documented	3.20	3.09	3.67	3.18	3.47	3.31	3.08
Technology Architecture	Question 12: Technology vision and strategy is developed Question 13: Required tools are identified and implemented Question 14: Data Management Operational Risk is in place	3.43	2.98	3.25	3.53	3.37	3.31	2.75
Data Quality Management	Question 15: A Data Quality Program is formally established Question 16: Data is being profiled, measured, monitored and maintained Question 17: Root-cause analysis is being performed	3.43	2.85	3.38	3.50	3.37	3.14	2.58
Data Governance	Question 18: Data Governance program is formally established Question 19: Policy & Standards are written and approved Question 20: Authorized data domains, models, glossaries are governed Question 21: Data Access Controls and Contract governance in place Question 22: Ethical access, use and outcomes of data are governed	3.57	3.13	3.50	3.48	3.38	3.52	2.90
Data Control Environment	Question 23: Data Control Environment is established Question 24: Data risks are being tracked, prioritized and remediated	3.24	2.83	3.00	3.26	3.25	3.00	3.13

DCAM Composite Scores

Financial Sector Breakdown

ANALYSIS

In previous surveys, Universal Banks & Sell-Side firms always dominated the scoring. Under the pressure, post the financial crisis and from the global regulatory community, the largest financial institutions demonstrated the greater advances in their data programs.

In the 2020 Benchmark Survey, we now see significant improvement in Retail, Asset Servicing and Insurance elements of the market.
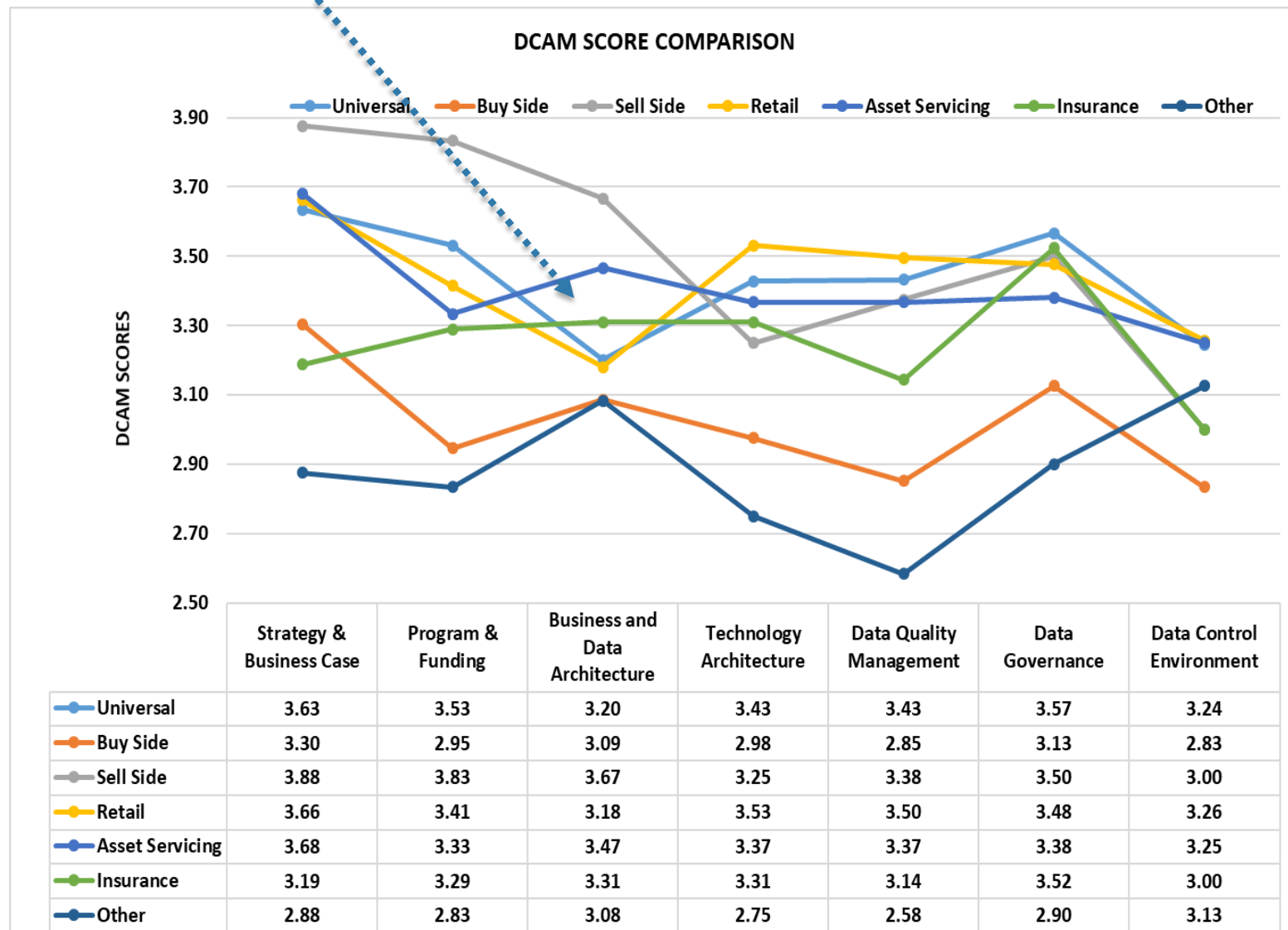
Possible reasoning…

Advances in data management in the Universal Banks and Sell-Side firms was primarily driven by the 'defensive' business case - large financial firms responding to risk, compliance and regulatory pressure.

As these issues have been addressed, the industry is shifting to a more 'offensive' business case. As the 2020 Benchmark Survey has demonstrated, the industry seems more focused on how to 'monetize' their information assets. How can their data help them improve customer service, better understand their markets and their customers and develop more innovative products and services to build brand loyalty and increase sales and revenue.

As customer-facing businesses, Retail, Insurance and Asset Servicing firms have improved their data management capabilities over previous surveys as they seek to better serve their customers.

Clustering of Retail, Asset Servicing and Insurance along with Universal Banks and Sell-side firms not seen in previous surveys

DCAM SCORE COMPARISON

	Strategy & Business Case	Program & Funding	Business and Data Architecture	Technology Architecture	Data Quality Management	Data Governance	Data Control Environment
Universal	3.63	3.53	3.20	3.43	3.43	3.57	3.24
Buy Side	3.30	2.95	3.09	2.98	2.85	3.13	2.83
Sell Side	3.88	3.83	3.67	3.25	3.38	3.50	3.00
Retail	3.66	3.41	3.18	3.53	3.50	3.48	3.26
Asset Servicing	3.68	3.33	3.47	3.37	3.37	3.38	3.25
Insurance	3.19	3.29	3.31	3.31	3.14	3.52	3.00
Other	2.88	2.83	3.08	2.75	2.58	2.90	3.13

DCAM COMPOSITE SCORES

OTHER INDUSTRY SECTOR BREAKDOWN

DCAM Component	Questions	Mfg.	Services	Technology	Consulting	Public	Academia	Other
Data Strategy & Business Case	Question 1: DM Strategy has been developed and communicated Question 2: Business Case is developed and communicated	2.93	3.25	2.90	2.98	2.61	2.31	3.38
The Data Management Program and Funding Model	Question 3: The Data Program is formally established Question 4: Formal Roadmaps are defined Question 5: Process Excellence is established Question 6: Stakeholder Engagement is confirmed Question 7: Communication & Training Programs have been implemented Question 8: Metrics are defined, captured and applied	2.75	3.08	2.96	2.78	2.31	2.40	2.83
Business and Data Architecture	Question 9: Data Architecture Program is formally established Question 10: Business Architecture is integrated into the data program Question 11: Logical data domains are identified, documented	2.74	3.00	2.93	3.08	2.52	2.25	2.81
Technology Architecture	Question 12: Technology vision and strategy is developed Question 13: Required tools are identified and implemented Question 14: Data Management Operational Risk is in place	2.38	2.96	3.14	2.90	2.48	2.08	2.75
Data Quality Management	Question 15: A Data Quality Program is formally established Question 16: Data is being profiled, measured, monitored and maintained Question 17: Root-cause analysis is being performed	2.69	2.67	2.95	3.17	2.41	1.71	2.86
Data Governance	Question 18: Data Governance program is formally established Question 19: Policy & Standards are written and approved Question 20: Authorized data domains, models, glossaries are governed Question 21: Data Access Controls and Contract governance in place Question 22: Ethical access, use and outcomes of data are governed	2.95	2.98	3.06	3.19	2.91	2.48	2.82
Data Control Environment	Question 23: Data Control Environment is established Question 24: Data risks are being tracked, prioritized and remediated	2.27	3.31	3.19	2.80	2.22	2.69	2.46

DCAM COMPOSITE SCORES

OTHER INDUSTRY SECTOR BREAKDOWN

ANALYSIS

In general, lower scores were reported from the Other Industry Sector Breakdown as compared to Financial Sector Breakdown.

- Service Industry; Technology and Consulting had the highest total average scores.

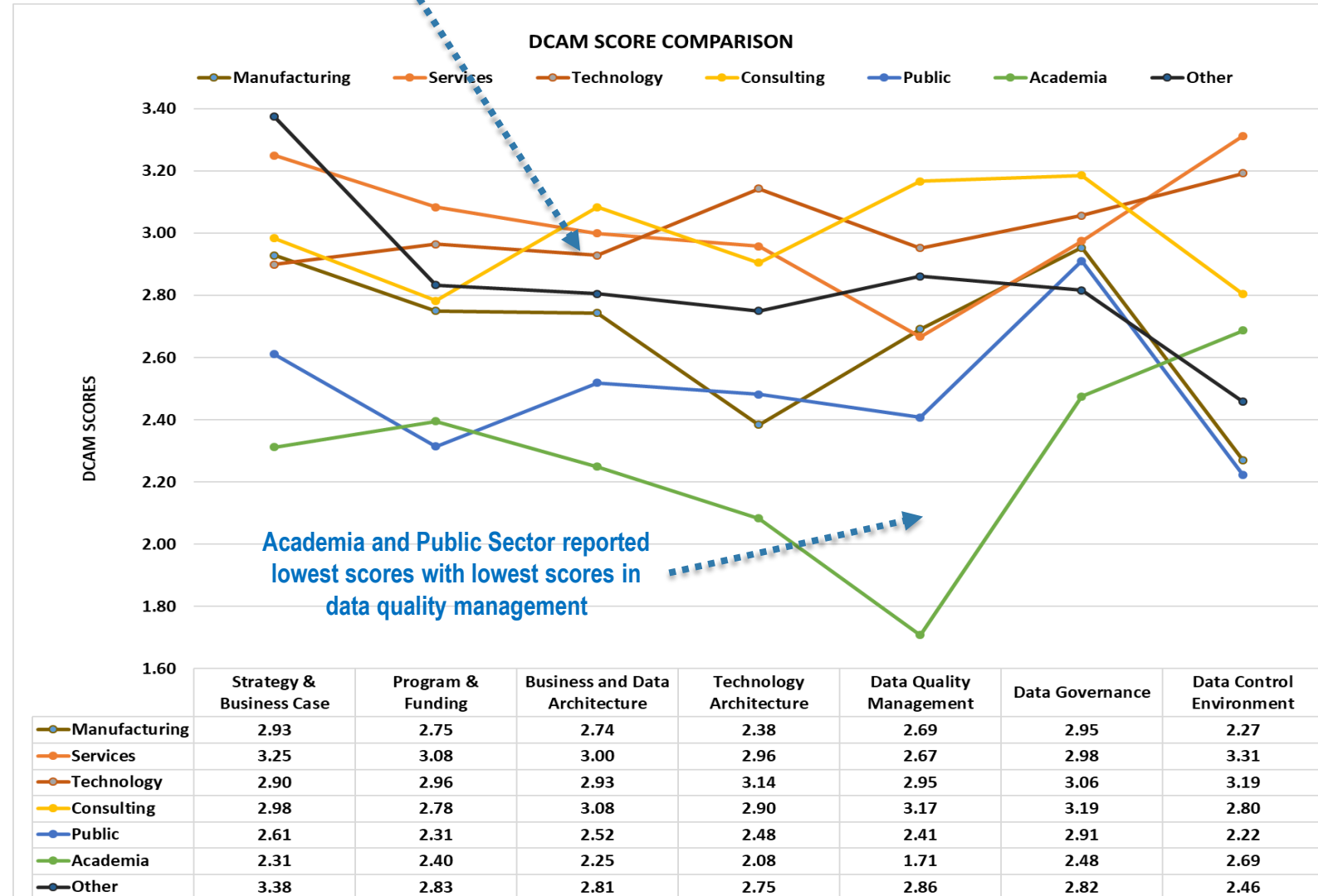- Public Sector and Academia reported the lowest scores by comparison

The range of scores varied between the groups

- Finance Industry were tighter : (Max: 3.88 Min: 2.58)
- Other Industry where wider (Max: 3.38 Min: 1.71)

Wider variations in data management maturity in the Finance Industry were seen following the financial crisis but have softened as the industry has worked to address the data challenges.

As these challenges are relatively new to Other Industries, we see a wider spread of maturity as organizations increase their focus on data.

Service Industry, Technology and Consulting reported the highest scores

DCAM SCORE COMPARISON

Academia and Public Sector reported lowest scores with lowest scores in data quality management

	Strategy & Business Case	Program & Funding	Business and Data Architecture	Technology Architecture	Data Quality Management	Data Governance	Data Control Environment
Manufacturing	2.93	2.75	2.74	2.38	2.69	2.95	2.27
Services	3.25	3.08	3.00	2.96	2.67	2.98	3.31
Technology	2.90	2.96	2.93	3.14	2.95	3.06	3.19
Consulting	2.98	2.78	3.08	2.90	3.17	3.19	2.80
Public	2.61	2.31	2.52	2.48	2.41	2.91	2.22
Academia	2.31	2.40	2.25	2.08	1.71	2.48	2.69
Other	3.38	2.83	2.81	2.75	2.86	2.82	2.46

2020 Global Data Management Benchmark Report

2020 Benchmark Team
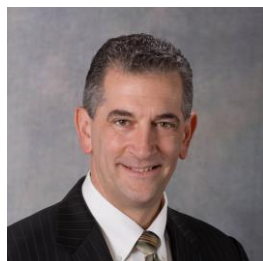
EDM Council Team

John Bottega
President
EDM Council

In 2006, John became one of the first Chief Data Officers in finance with his appointment as CDO at Citibank. He went on to hold the role of CDO in both the public and private sectors, serving as CDO for Bank of America, and holding dual post of CDO, Federal Reserve Bank of New York and Head of Data, Office of Financial Research (OFR), US Department of the Treasury.

He is currently a member of the Financial Transparency Task Force (a bipartisan proposal in Congress to transform U.S. financial regulatory reporting from disconnected documents into open, searchable data).

John is a member of the Rutgers University Big Data Advisory Board, Incisive Media North American and European Financial Information Summit Advisory Boards, and the ACTUS Board of Directors, a non-profit association focused on the improvement of systemic risk monitoring and financial market transparency.

Mike Meriton
Co-founder & COO
EDM Council

Mike is a Co-Founder of the EDM Council and served as the first Chairman and active Board member since inception in 2005. Mike joined in 2015 as a Senior Advisor, promoted to COO in 2020, to lead Industry Engagement strategy, new member services and Council Operations.

Previously, Mike was the CEO of GoldenSource and held key executive roles at CheckFree (Fiserv), D&B and Oracle.

Mark McQueen
Sr. Advisor, Best Practice & Process Management
EDM Council

Mark McQueen is the best practice and process management expert for the EDM Council. He joined the Council in 2016 and now leads the Best Practice Program to develop Data Management industry standard processes for executing the DCAM® Capability Framework.

Mark has over 20 years with a Fortune 25 GSIB where he was the business Data Management Executive for the Wholesale Bank. In addition to Best Practice Program facilitation, he provides training and EDMC Advisory Services related to adoption and execution of the DCAM® Data Capability Assessment Framework, in member organizations.

Mark is DCAM Foundations and Applied accredited, Six Sigma Black Belt Certified, and Strategic Foresight Certified - University of Houston.

EDM Council Partner Affiliates

Jeffrey Zibluk
Group Vice President,
Financial Services
Publicis Sapient

Jeff is a senior technologist with 20+ years experience working at top tier investment banks. He is an expert in data management, regulatory processing, trading/order management systems, straight through processing, valuation reporting, PnL explanation and risk management.

He has the proven ability to lead both large teams and large-scale projects from the design phase all the way through to the end-user implementation. These large-scale designs included multiple integrations of entities as part of mergers and the design of functional architectures for new business trading ventures/funds. He maintains a strong focus on business requirements and using the latest proven technologies to solve complex business problems.
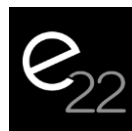
Maryana Lazaridi
Technology Associate
element22

Maryana is a Senior Technology Associate at Element22 and a Product Manager of Pellustro®. She specializes in complex data analysis techniques, such as Data Mining, Machine Learning, Big Data.

Peter Youngs
Managing Partner
Ortecha

Peter is a Managing Partner of Ortecha in the United Kingdom. He oversees all aspects of Ortecha operations in the UK whilst supporting the USA operations. As a firm of data practitioners, Peter also delivers consulting services to clients, across the spectrum of data management services, including performing data advisory consulting, DCAM assessments, DCAM certified training, and supporting clients on data capability uplift.

Alongside the Ortecha oversight and client delivery duties, Peter participates in the development of data management best practice by supporting the EDM Council's Best Practice initiatives, including co-leading the DCAM working group in 2019 to deliver the latest version of DCAM.

SOLVE DATA MANAGEMENT CHALLENGES, TODAY AND TOMORROW

EDMCouncil

DCAM
Data Management Capability Assessment Model

FIBO
Financial Industry Business Ontology

From regulation to automation, big data to advanced analytics and data ethics, there is no shortage of challenges for data management professionals to move their firms forward. Through best practices and data standards, the EDM Council collaborates with its members to progress cross-industry data management programs and increase the business value of data assets.

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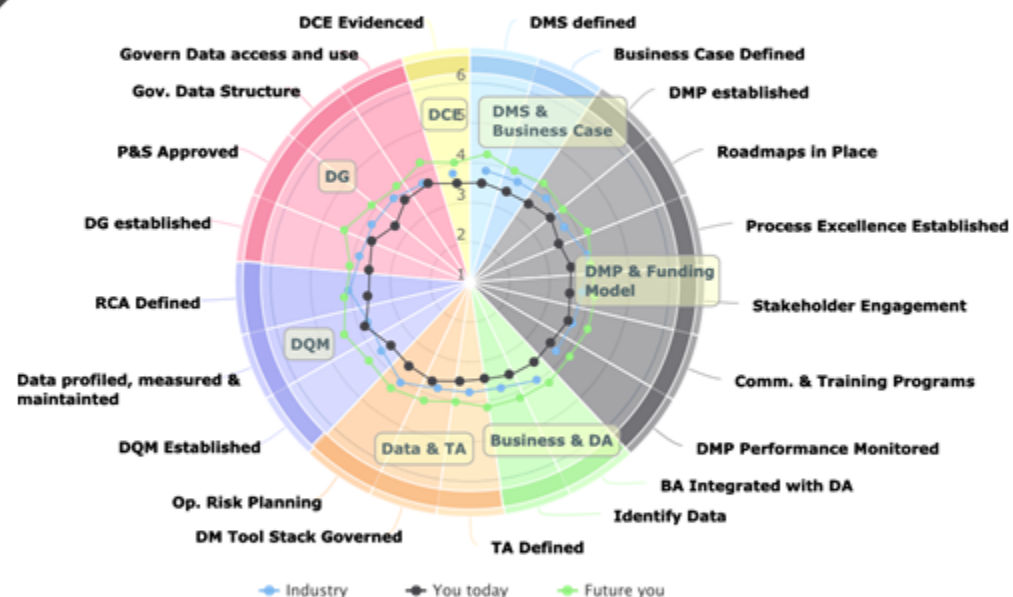
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the DCAM experts

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Do you have data management capabilities but are unsure of the value they provide and the direction they should take?

Our 5 step guide will help you learn how to understand your data landscape, establish sustainable capabilities and unlock value from your data

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Contacts & Links

For questions, comments or additional information, please email or visit our website:

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Login to the website to join the discussion with the DCAM User Group on EDMConnect

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