The State of BI, Data, and Analytics in Financial Services in 2022

Introduction

Heavy Regulatory Pressures

Though the 2008 global financial crisis happened nearly 15 years ago, the financial sector still experiences its wake. In the United States, the 2010 Dodd-Frank Act continues to enforce post-crisis guardrails for financial institutions and strict data reporting and compliance standards for large banks. G-20 nations continue to implement the Basel III regulatory standards.

To meet these compliance demands then and now, the Financial Services sector pioneered strong organizational data leader positions such as the chief data officer (CDO) and chief analytics officer (CAO). Financial Services firms also made heavy investments in analytical data infrastructure (ADI) and business intelligence (BI) tools to meet those standards.

This Research Insight investigates the state of BI in Financial Services, leveraging our survey data and augmented by interviews with a senior vice president (VP) of a small regional bank and an assistant VP with a large global investment firm.

Backed Into a "Compliance Box?"

Despite years of strong data leadership and large BI investments, Financial Services has about equal BI adoption as other sectors but lags in important supporting skills like data literacy. For example, the financial sector still appears to heavily rely on spreadsheets compared to other sectors (which we will address in a future Research Insight on attitudes towards and usage of spreadsheets). And larger organizations seem reluctant to risk the necessary changes to harness the full potential of BI for effective decision-making and operational efficiency.

This is unexpected since Financial Services is completely undergirded by numbers and data analytics; yet the sector trails in using two of the most important data-analysis tools.

Based on our data, the heavy regulatory pressures likely created an "operational gap," where, year after year, organizations made technical and data-culture decisions to optimize for compliance at the expense of other BI needs. Over time, this gap perhaps

backed the firms into a compliance box that inhibits growth in other areas. Even newer firms with smaller IT departments unencumbered by legacy systems may experience this dynamic as they try to scale under the constraints of compliance.

To break out of the compliance box, financial firms first need to take stock of their own situations, along with the relevant operational and cultural gaps they face regarding data analytics. They will need a sustained effort and likely outside help to move other BI needs forward as they meet compliance goals.

Executive Summary

1. Compared to the overall sample, the financial sector has more CDOs and CAOs for longer tenures. However, they have a similar percentage of BI users.

2. The data for Financial Services show a healthy increase in BI budgets and plans for greater BI penetration. However, current data-literacy levels and a general lack of supporting programs could negatively impact the effectiveness of such expansion plans.

3. The data show relatively low user capacity as a whole. This raises the question of whether Financial Services executives aspire for widespread data democracy or tighter control over data. Our interviews reveal a marked difference for self-service BI preferences between a small bank (advocating data democracy) and a large investment bank (preferring a top-down, expert-only approach).

4. Financial Services respondents scored compliance as lowest of expected BI accomplishments but second in actual BI accomplishments. This difference indicates that compliance needs likely crowd out other BI priorities, including data literacy and self-service BI capacities (the compliance-box dynamic).

5. The main BI users in Financial Services more often are executives as opposed to operational staff or middle management.
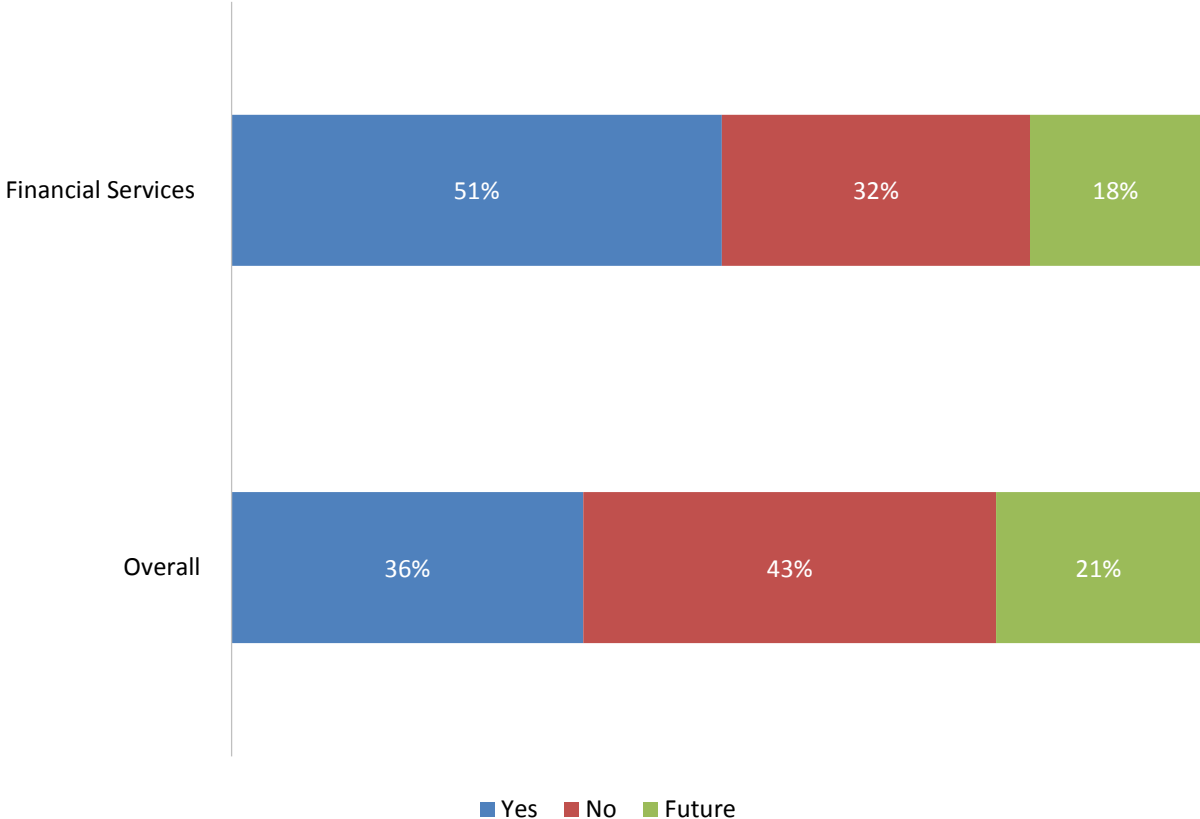
Recommendations

1. Enlist outside help to break out of the compliance box. If heavy regulatory pressures limit the progress by existing teams on compliance, consider bringing in outside resources to form a temporary "skunkworks" R&D team. They more than likely will not have institutional compliance baggage and can potentially help advance a more holistic agenda regarding BI.

2. Turn compliance requirements into opportunities for other BI goals. Instead of a zero-sum game, consider and design compliance *with* other BI goals. Find overlaps in project roadmaps and aim to implement common aspects that move other goals forward. A skunkworks team could offer a fresh set of eyes to see connections between and dependencies among different BI goals.

3. Combine investment in BI technology with data literacy and skills training. Investing in BI tools and technologies without adequately preparing users will reduce return on investment. Lack of data literacy can make users more reluctant to use tools and systems they do not understand, and result in improper use of data and faulty decision-making. Deliberately focusing on data literacy likely will result in more effective use of technologies and greater success in BI goals (see the Research Insight "Make Data Literacy the Foundation of Your Data Culture").

4. Roll out self-service BI with Guided Analytics®. A top-down, expert-only approach to data can reduce error and miscommunication. Yet it also limits the potential of BI to strengthen performance at all levels. To maintain data accuracy while increasing BI access, do not expand beyond current data-governance, data-literacy, and process-automation capacities. Invest in those underlying factors as much as BI technology (see the Research Insights "Data Literacy, Architecture, and Governance are Key to Successful Self-Service BI" and "What is the Future Guided Analytics in Self-Service BI Initiatives?").

5. Investigate migration and integration options with cloud/SaaS to balance risk. Effective BI depends on the quality of underlying data and their ease of integration. Breaking down data silos sets a firm foundation for future growth (see Research Insight "Data Leaders Must Face the Challenge of Fragmentation in Analytic Data Infrastructures"). For large organizations, reaching the full potential for BI will require an eventual migration from legacy systems and architectures.

6. Continue exploring and investing in emerging technologies. Automation technologies such as robotic process automation and AI will continue to reduce daily operational burden. Machine learning can help predict things such as market opportunities, customer preferences, and deposit/withdrawal behavior, as well as improve operational performance in key areas such as risk management, fraud detection, and share of wallet. This would also likely be the domain of the skunkworks R&D team.

Financial Services Has Strong Data Leadership

Last year's data showed almost twice as many CDOs in Financial Services compared to all other sectors, with the majority having tenures of three years or longer. Although 2022 data indicate less of a gap, Financial Services continues to report much higher levels of formal data leadership than other sectors.
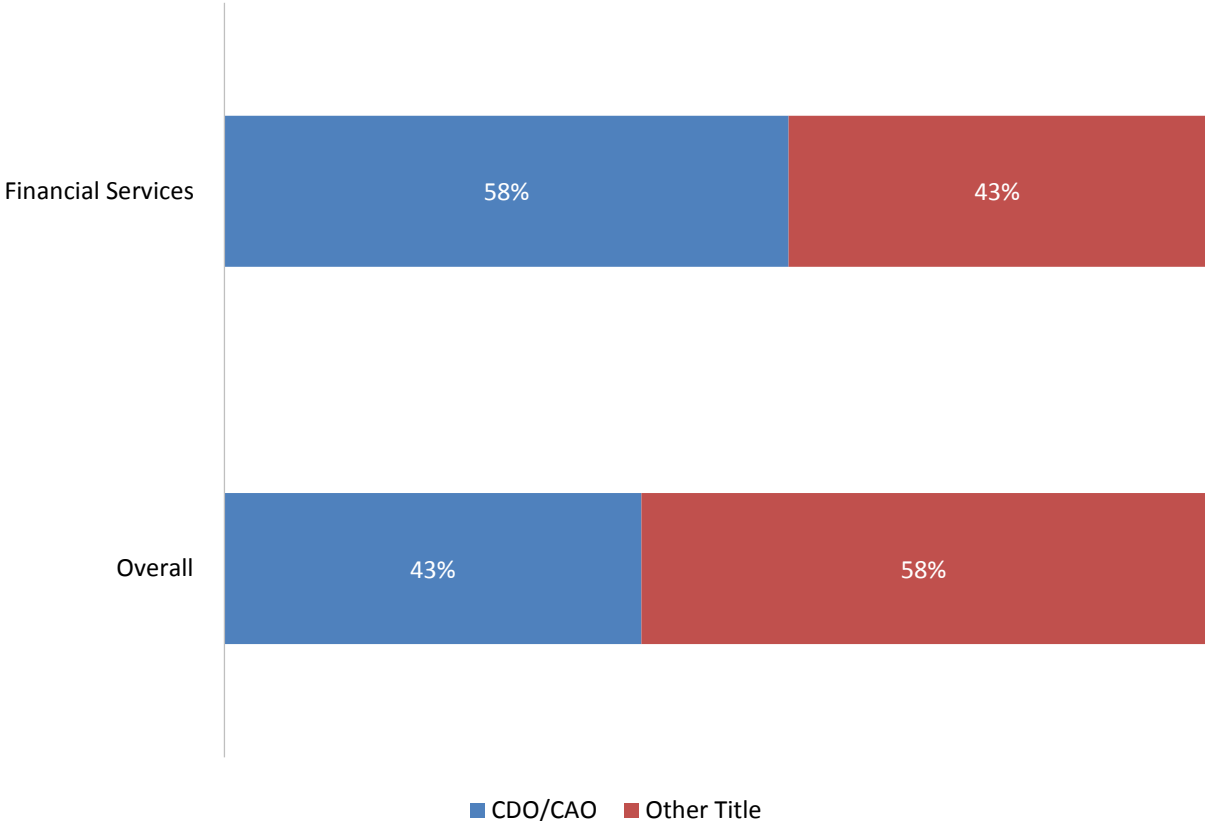
Formal Data Leadership

Category	Yes	No	Future
Financial Services	51%	32%	18%
Overall	36%	43%	21%

Legend: ■ Yes ■ No ■ Future

Source: Dresner Advisory Services

In addition, Financial Services organizations impart their formal data leadership role more often to CDOs and/or CAOs, compared to organizations in other sectors.
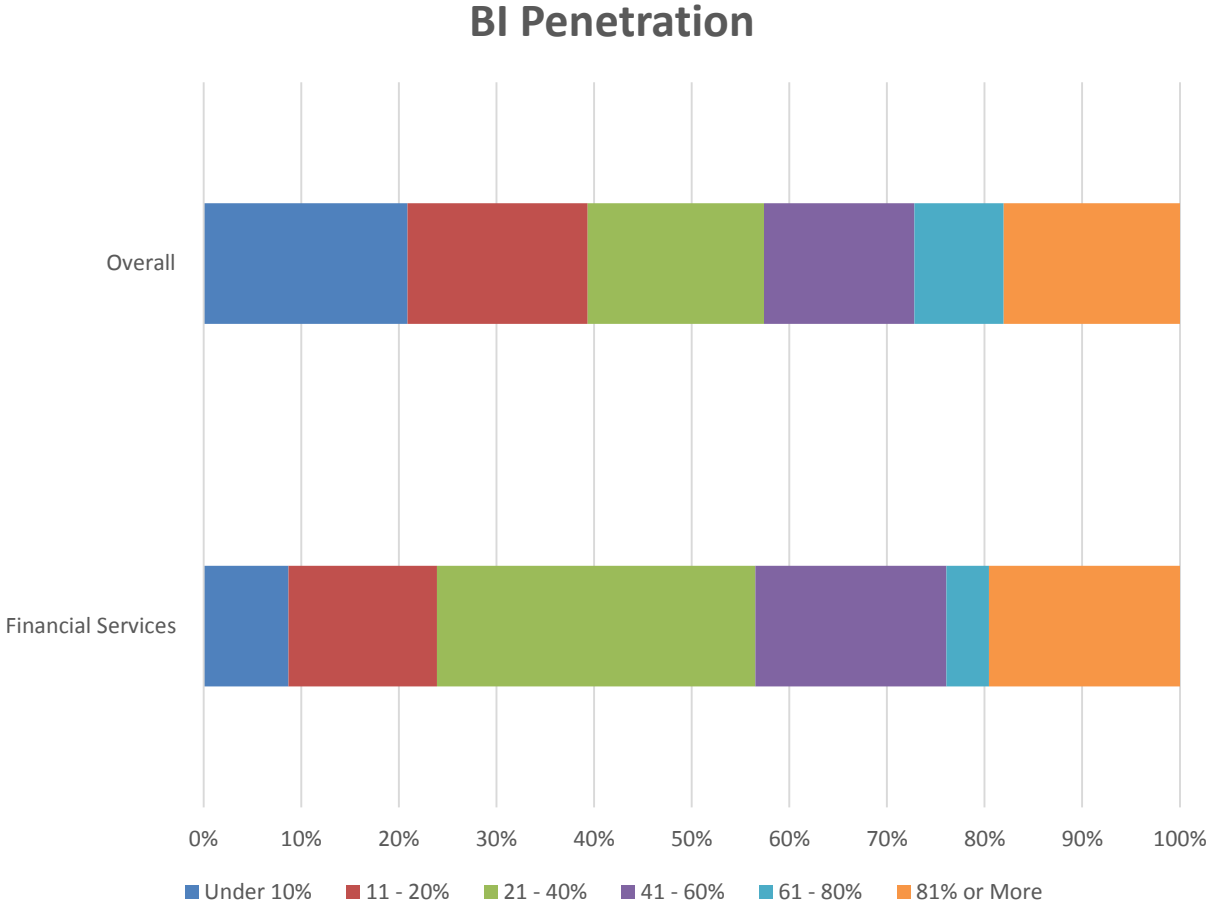
Data Leader Titles

	CDO/CAO	Other Title
Financial Services	58%	43%
Overall	43%	58%

■ CDO/CAO ■ Other Title

Source: Dresner Advisory Services

Relatively Low BI Penetration

Despite the stronger formal data leadership, Financial Services reports almost the same level of BI penetration of 41 percent or higher (44 percent), compared to all other sectors (43 percent).
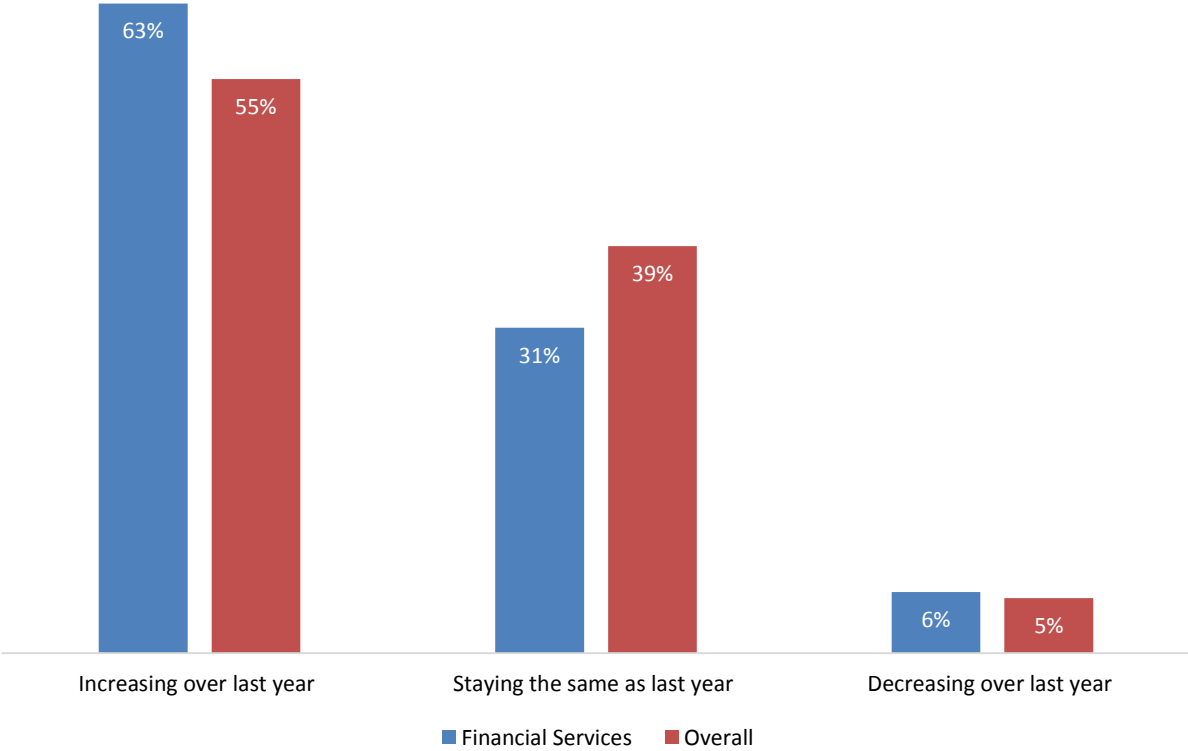
BI Penetration

Legend: Under 10% | 11 - 20% | 21 - 40% | 41 - 60% | 61 - 80% | 81% or More

Source: Dresner Advisory Services

Robust Plans for BI Budgets but Low Data Literacy

Financial Services reports 15 percent more increasing BI budgets and 21 percent fewer flat budgets, indicating strong investment compared to other sectors.
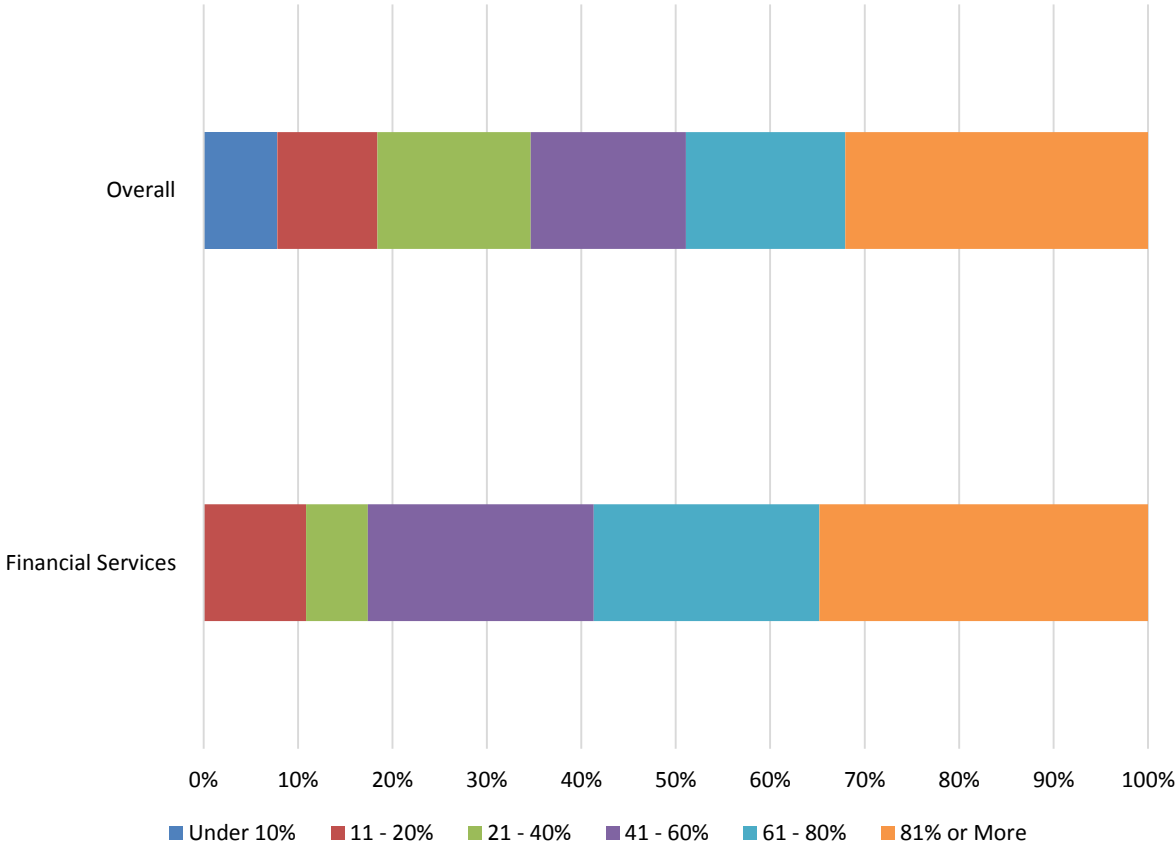
BI Budget Plans

	Financial Services	Overall
Increasing over last year	63%	55%
Staying the same as last year	31%	39%
Decreasing over last year	6%	5%

Source: Dresner Advisory Services

Aligned with Financial Services having more favorable BI budgets than other sectors, future plans point to plans for more BI deployment in Financial Services. By 2025, 83 percent of Financial Services organizations envision exceeding 40 percent BI penetration—significantly higher than the 65 percent of organizations in other sectors for the same level.

Bear in mind that projections three years out tend to have a more positive bias. Achievement of these predictions depend highly on factors such as resources, budgets, skills, business needs, and general business conditions.
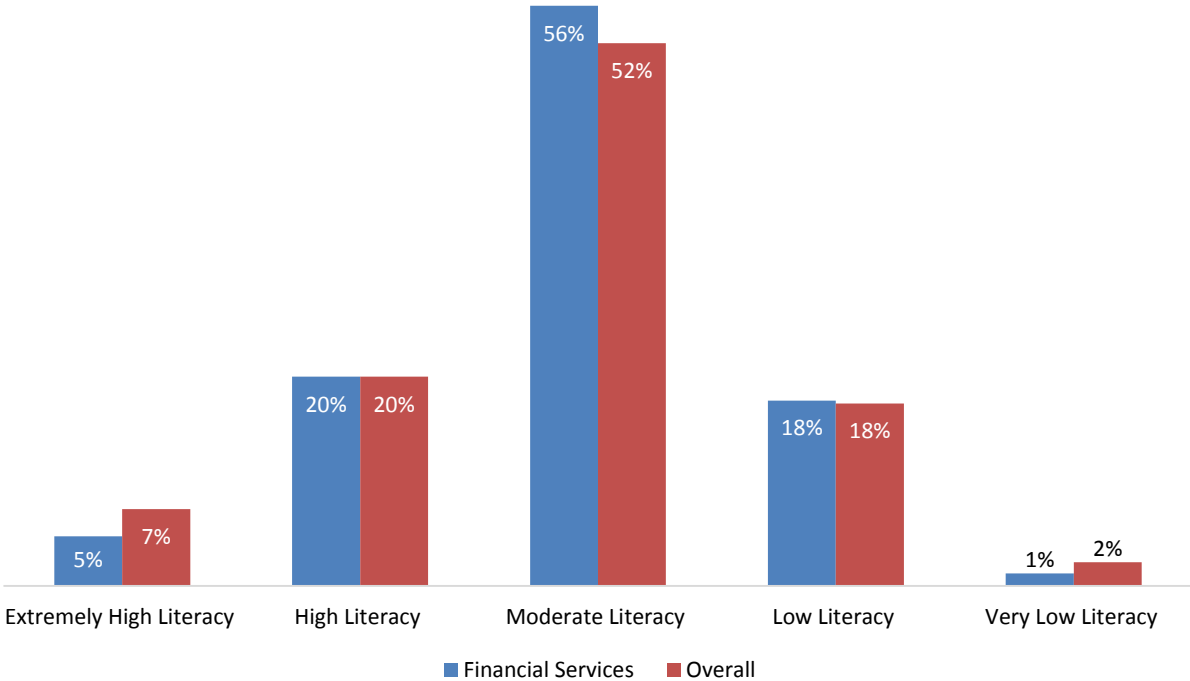
Planned BI Penetration in 2025

Source: Dresner Advisory Services

Generally aligned with the overall sample, a quarter of Financial Services organizations report extremely high or high data literacy (2 percentage points below all other sectors).
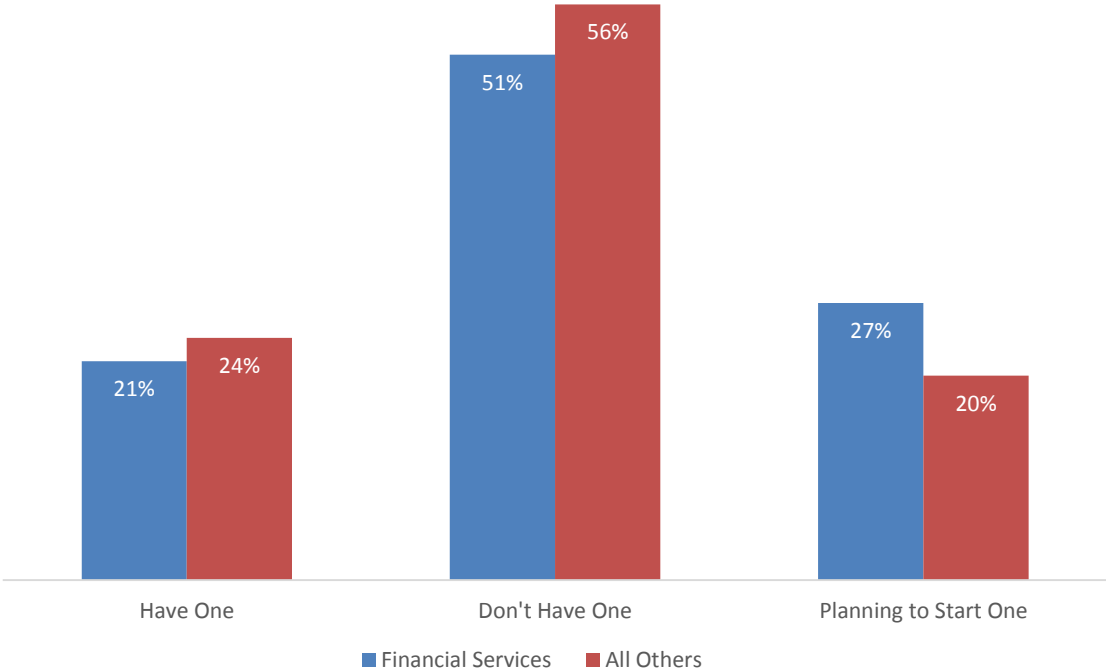
User Community Data Literacy

	Extremely High Literacy	High Literacy	Moderate Literacy	Low Literacy	Very Low Literacy
Financial Services	5%	20%	56%	18%	1%
Overall	7%	20%	52%	18%	2%

■ Financial Services ■ Overall

Source: Dresner Advisory Services

Additionally, 78 percent of Financial Services organizations report they currently lack or are only now planning to implement data-literacy programs. Given current data-literacy levels and a general lack of supporting programs, Financial Services may not reap the expected returns from their higher-than-average BI technology investments, as programs and skills need time to develop. Therefore, beyond simply deploying more BI to new users, Financial Services organizations also should make significant investments in skills development (including data-literacy programs).
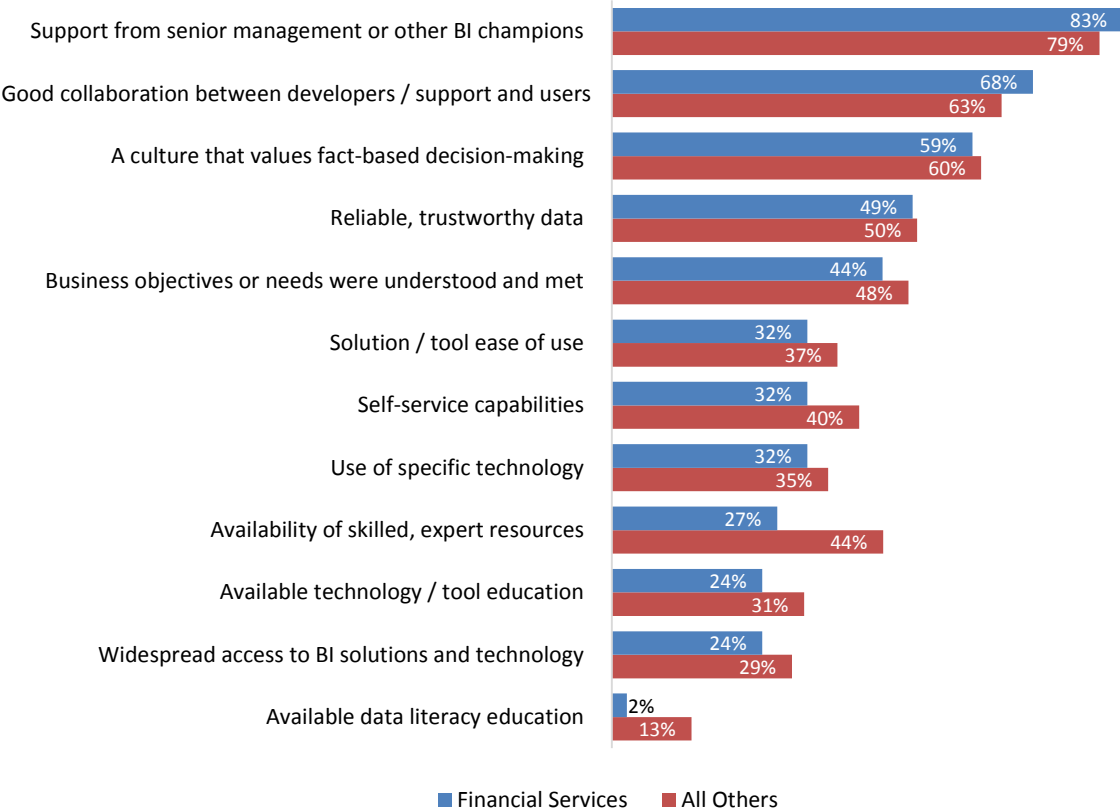
Data-Literacy Programs

Source: Dresner Advisory Services

Low Prioritization of Self-Service Capacity and Data-Literacy Education

Based on differences with all other sectors, Financial Services places the least value on self-service capabilities, skilled resources, and data-literacy education as factors for BI success. Factors that democratize BI within an organization also rank and score lower in Financial Services organizations. Similar to data literacy in Financial Services, these low prioritizations may create additional challenges for Financial Services organizations to overcome as part of their planned expansions of BI.

Factors for BI Success

Factor	Financial Services	All Others
Support from senior management or other BI champions	83%	79%
Good collaboration between developers / support and users	68%	63%
A culture that values fact-based decision-making	59%	60%
Reliable, trustworthy data	49%	50%
Business objectives or needs were understood and met	44%	48%
Solution / tool ease of use	32%	37%
Self-service capabilities	32%	40%
Use of specific technology	32%	35%
Availability of skilled, expert resources	27%	44%
Available technology / tool education	24%	31%
Widespread access to BI solutions and technology	24%	29%
Available data literacy education	2%	13%

■ Financial Services   ■ All Others

Source: Dresner Advisory Services

However, the top three Financial Services priorities—support from senior management, good collaboration between developers and users, and a culture that values fact-based decision-making—indicate that many organizations in this sector are still establishing their cultural foundations for BI. Once they establish those foundations, they may start prioritizing widespread educational programs.

Our interviews revealed that the small bank places a very high value on self-service, but capacity constraints prevent it from effectively utilizing and propagating BI technology. In contrast, the large firm deliberately avoids widespread self-service BI due to the fear of increased user error. This firm prefers to control the users and automate data processes as much as possible.
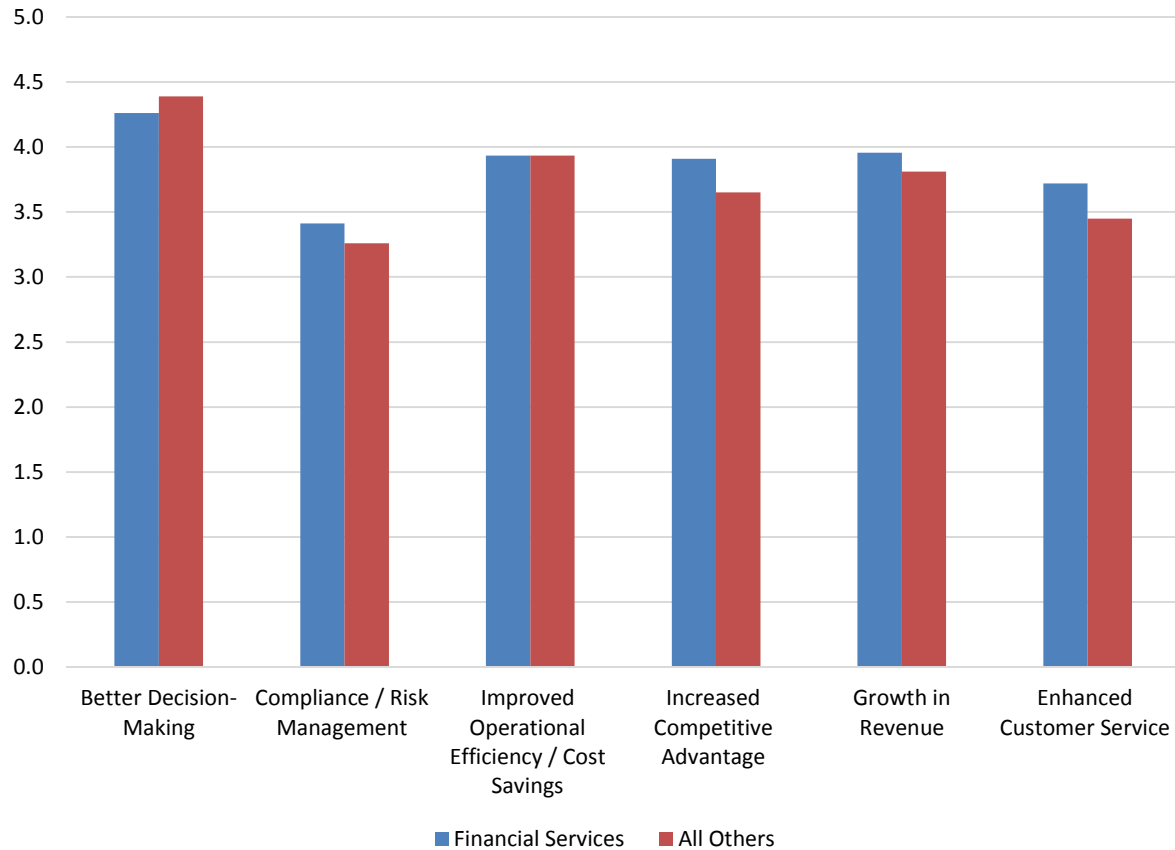
Although the latter approach keeps existing systems running smoothly, it limits future growth and harnessing the full potential for BI to empower business decision-making and improve processes. Investing in "soft" capabilities such as data literacy, data governance, and Guided Analytics will create a path for growth that minimizes risk.

Compliance Last in Expected but Second in Actual BI Accomplishments

Given the importance of compliance in the financial sector, we find it interesting that respondents in 2021 expected the least achievement for that goal.
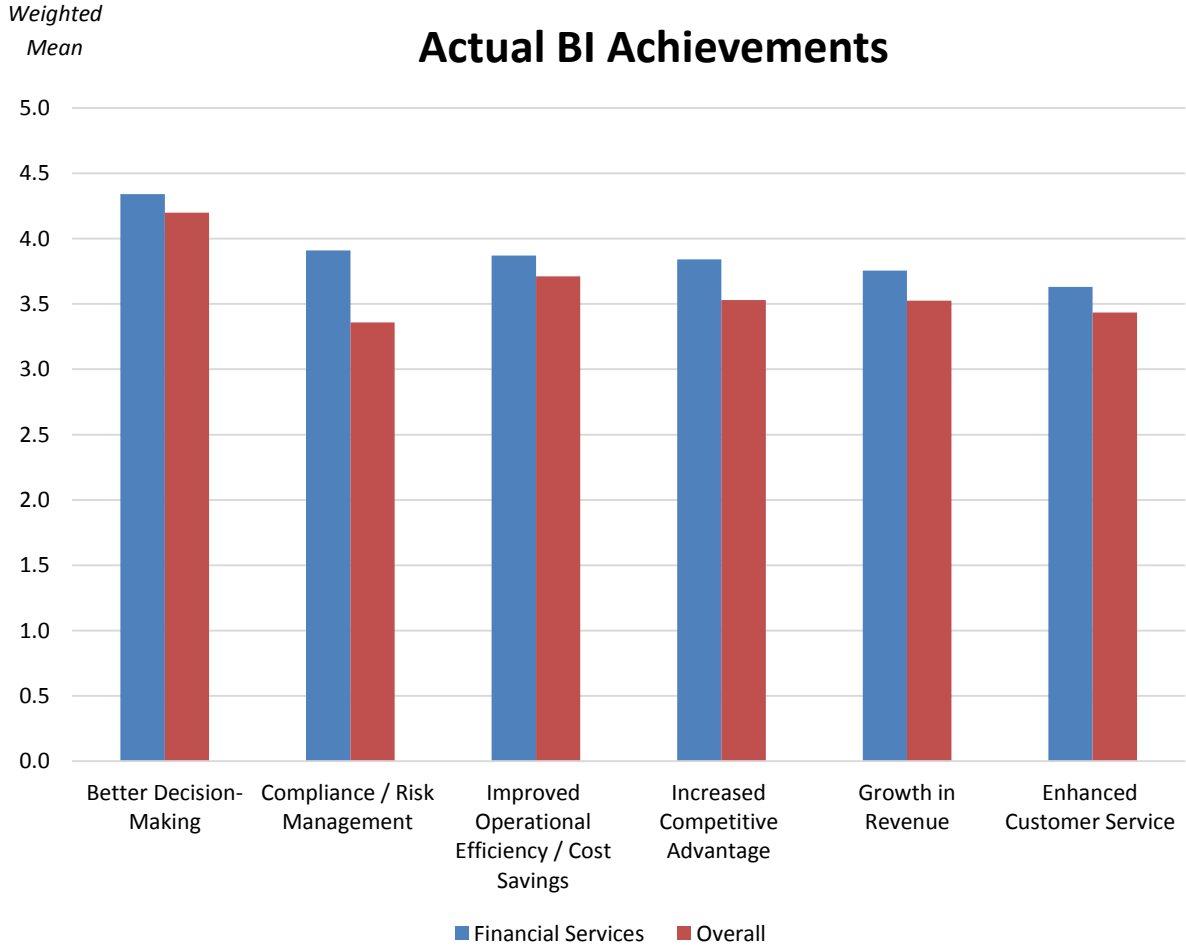
Expected BI Achievements

Weighted Mean

Source: Dresner Advisory Services

However, in actual achievement in 2022, Financial Services rates compliance and risk management second. The level of achievement in this area by Financial Services exceeds all other sectors by 16 percent.
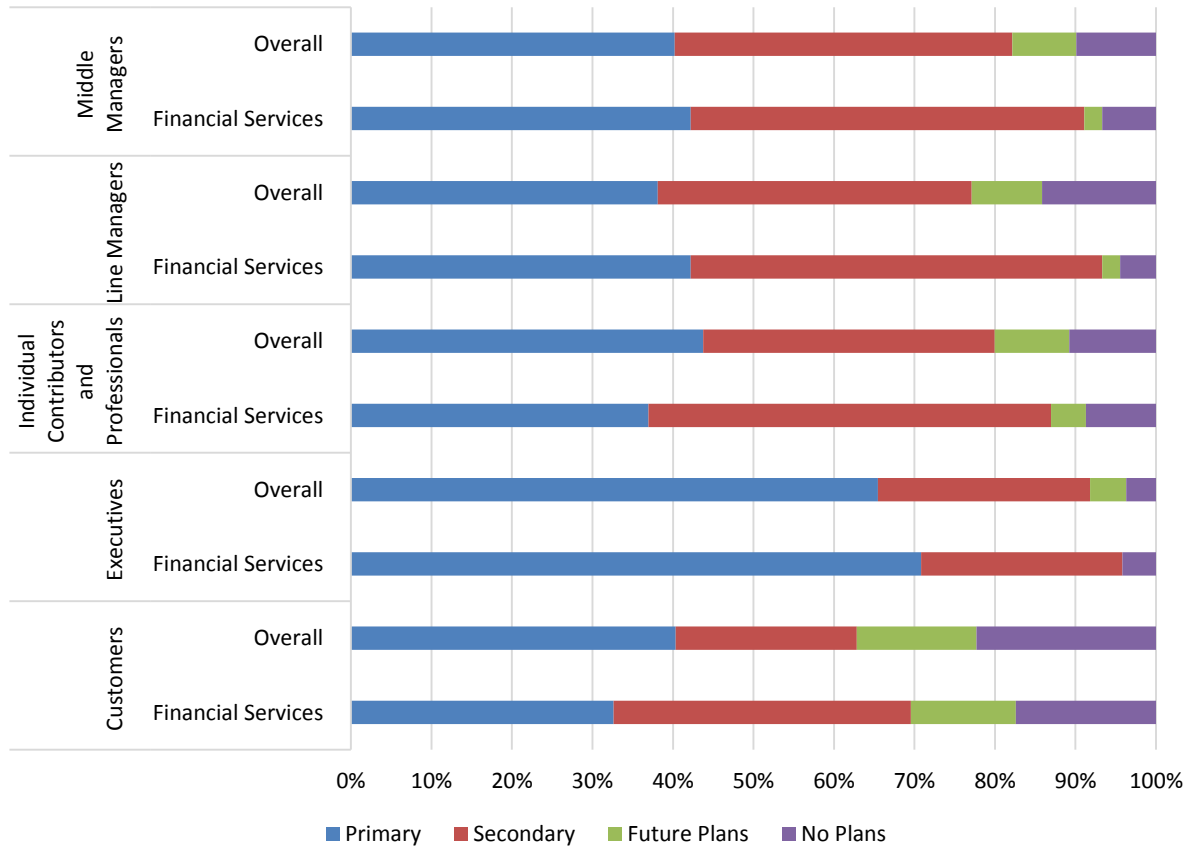
Weighted Mean

Actual BI Achievements

Legend: ■ Financial Services ■ Overall

Source: Dresner Advisory Services

These data indicate that compliance needs in Financial Services tend to push out other BI goals, something that both interviewees corroborated. The large bank also spoke of a reluctance to change upstream legacy systems, many of which are more than 30 years old. New downstream development often requires "creative" workarounds to deal with the limitations of the legacy systems. This dynamic can limit the effectiveness of BI investment and improvement efforts.

BI Users in Financial Services

In most Financial Services organizations, executives rank as the highest primary consumers of BI. Compared to other sectors, all other categories of users in Financial Services are more likely to consume BI data in a secondary capacity.
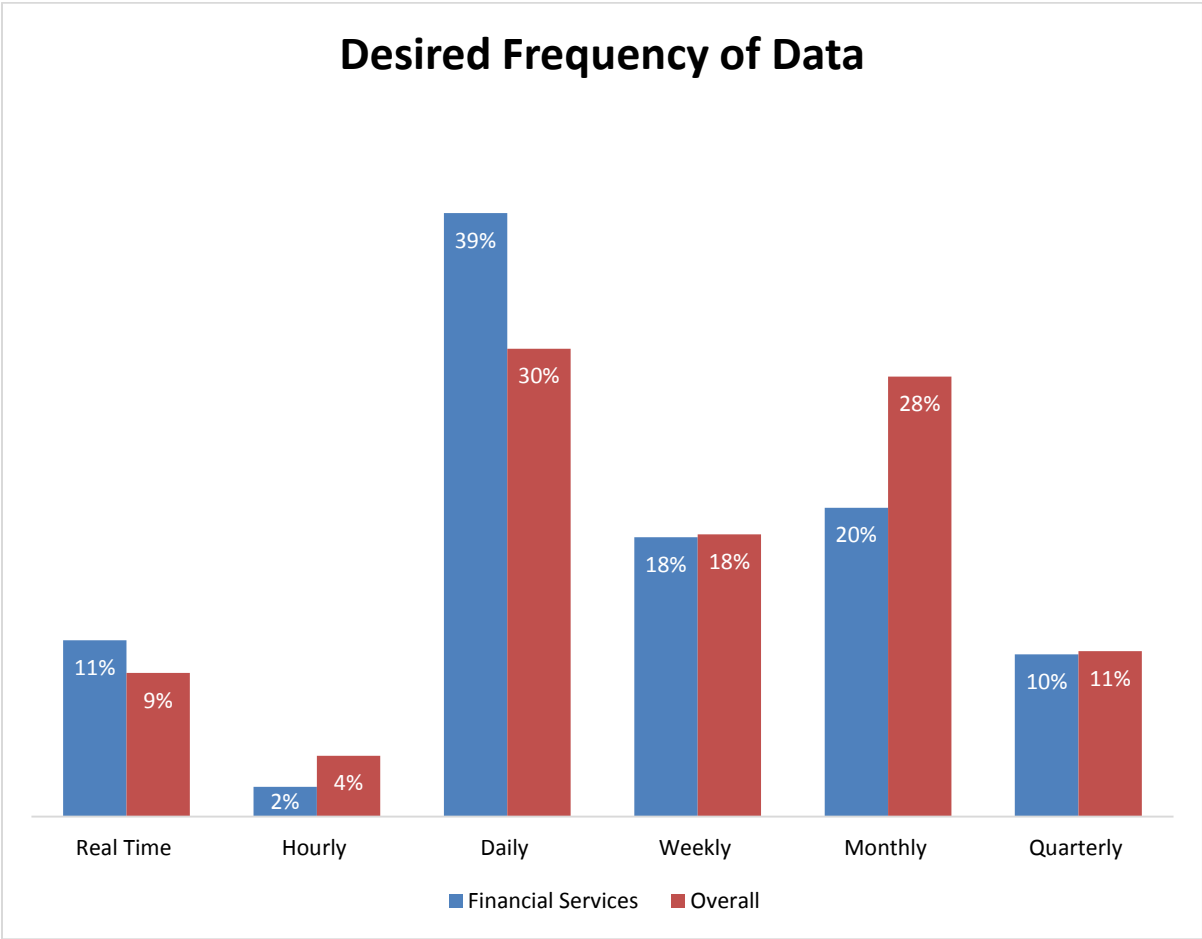
BI Consumers

Source: Dresner Advisory Services

Data Frequency

In Financial Services, users desire daily data 30 percent more often than users in other sectors, real-time data 18 percent more often, and monthly data 29 percent less often. Although their levels remain relatively low, the frequency of users desiring hourly or real-time data grew substantially year over year.

Desired Frequency of Data

Source: Dresner Advisory Services