Abstract:
Enterprise Big Data, Business Intelligence, and Analytics Trends

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Introduction

Research Objectives

There is much confusion in the market about the current state of data initiatives, especially when it comes to the potential impact of big data on traditional business intelligence and analytics practices. Customers and vendors alike sense a sea-change in the industry as new approaches, technologies, and best practices are rapidly evolving today, but few can accurately assess the motivations, impacts, and implications of the shifts. ESG undertook a broad study to establish a baseline on various data initiatives and their relative maturity.

In order to assess the overall status of data initiatives in public and private organizations, ESG surveyed 375 IT and business professionals representing large midmarket (500 to 999 employees) and enterprise-class (1,000 employees or more) organizations in North America. All respondents were personally responsible for or familiar with their organizations’ current database, business intelligence (BI), and/or analytics solutions.

The survey was designed to answer the following questions:

- What platforms and solution types do organizations currently use for BI/analytics purposes? What do organizations identify as their primary BI/analytics platform?
- How do organizations describe their satisfaction level with—and subsequent loyalty to—their primary BI/analytics vendor?
- On average, approximately how much total data is processed as part of a typical BI/analytics exercise?
- What data analytics challenges have organizations experienced, if any?
- How many unique data sources do organizations need to integrate in order to support a typical data analytics operation?
- Do organizations have plans to deploy a new BI/analytics solution in the next 12-18 months? If so, what type(s) of BI/analytics solutions?
- What requirements are most responsible for driving the evaluation/consideration of new BI/analytics solutions?
- In terms of net-new BI/analytics deployments, what best describes the primary deployment strategy organizations expect to leverage?
- For those organizations using—or planning to use—Hadoop-based solutions, what drove—or is driving—that decision?

Survey participants represented a wide range of industries including manufacturing, financial services, health care, communications and media, retail, government, and business services. For more details, please see the Research Methodology and Respondent Demographics sections of this report.
Research Methodology

To gather data for this report, ESG conducted a comprehensive online survey of IT and business professionals from private- and public-sector organizations in North America (United States and Canada) between February 7, 2014 and February 19, 2014. To qualify for this survey, respondents were required to be an IT or business professional familiar with or responsible for their organization’s current database and/or business intelligence (BI)/analytics solution, as well as forward-looking strategies pertaining to these technology areas. All respondents were provided an incentive to complete the survey in the form of cash awards and/or cash equivalents.

After filtering out unqualified respondents, removing duplicate responses, and screening the remaining completed responses (on a number of criteria) for data integrity, we were left with a final total sample of 375 IT and business professionals.

Please see the Respondent Demographics section of this report for more information on these respondents.

Note: Totals in figures and tables throughout this report may not add up to 100% due to rounding.
Respondent Demographics

The data presented in this report is based on a survey of 375 qualified respondents. The following figures detail the demographics of the respondent base, including individual respondents’ current job and technology responsibilities, and age group, as well as respondent organizations’ total number of employees, primary industry, and annual revenue.

Respondents by Job Responsibility

Respondents’ current job responsibility is shown in Figure 1.

![Figure 1. Survey Respondents, by Job Responsibility](source: Enterprise Strategy Group, 2015)

Which of the following best describes your current responsibility within your organization? (Percent of respondents, N=375)

- Non-IT personnel (i.e., business manager, business analyst, data analyst, data scientist, etc.), 2%
- IT staff, 3%
- IT management/senior IT professional (e.g., Senior DBA, Architect, Data Scientist), 26%
- Senior IT management (e.g., CIO, VP of IT, Director of IT, etc.), 68%


Respondents by Technology Responsibility

Respondents’ current technology responsibility is shown in Figure 2.

![Figure 2. Survey Respondents, by Technology Responsibility](source: Enterprise Strategy Group, 2015)

Which of the following best describes your primary area of responsibility? (Percent of respondents, N=375)

- Database administrator, 22%
- Manager of development or developer of business intelligence/analytics solutions, 31%
- Data warehouse/business intelligence/analytics manager, 11%
- Data scientist, 6%
- Business analyst, 6%
- Data analyst, 8%
- Enterprise or data architect, 17%
Respondents by Age Group

Respondents’ age group is shown in Figure 3.

Figure 3. Survey Respondents, by Age Group

Please select your age group. (Percent of respondents, N=375)

- Over 55, 6%
- 46 to 55, 11%
- 26 to 35, 34%
- 36 to 45, 49%


Respondents by Number of Employees

The number of employees in respondents’ organizations is shown in Figure 4.

Figure 4. Survey Respondents, by Number of Employees

How many total employees does your organization have worldwide? (Percent of respondents, N=375)

- 5,000 to 9,999, 17%
- 2,500 to 4,999, 19%
- 1,000 to 2,499, 14%
- 20,000 or more, 13%
- 10,000 to 19,999, 24%
- 500 to 999, 13%

Respondents by Industry

Respondents were asked to identify their organization’s primary industry. In total, ESG received completed, qualified respondents from individuals in 20 distinct vertical industries, plus an “Other” category. Respondents were then grouped into the broader categories shown in Figure 5.

**Figure 5. Survey Respondents, by Industry**

![Graph showing primary industries of respondents]

**What is your organization’s primary industry? (Percent of respondents, N=375)**

- Manufacturing, 22%
- Communications & Media, 18%
- Financial (banking, securities, insurance), 15%
- Business Services (accounting, consulting, legal, etc.), 7%
- Health Care, 6%
- Retail/Wholesale, 6%
- Government (Federal/National, State/Province/Local), 2%
- Other, 23%


Respondents by Annual Revenue

Respondent organizations’ annual revenue is shown in Figure 6.

**Figure 6. Survey Respondents, by Annual Revenue**

![Bar chart showing annual revenue]

**What is your organization’s total annual revenue ($US)? (Percent of respondents, N=375)**

- Less than $100 million, 5%
- $100 million to $499,999 million, 10%
- $500 million to $999,999 million, 12%
- $1 billion to $4.999 billion, 19%
- $5 billion to $9.999 billion, 18%
- $10 billion to $19.999 billion, 24%
- $20 billion or more, 11%
- Not applicable (e.g., public sector, non-profit), 1%

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