DATA ANALYSTS: A CRITICAL, UNDERUTILIZED RESOURCE
A Global Survey of Data and Analytics Professionals
June 2020
Nearly every company (98%) is using business intelligence today. Participants say that value is delivered via supporting key decisions, informing executives and driving profit. These benefits are recognized, prompting 7 out of 10 companies to add new teams that can leverage BI and driving plans to hire more analysts. These analysts are recognized as instrumental to the benefits BI provides.

A majority (68%) of analysts shared that they have ideas for driving more company profit but, unfortunately, lack the time to implement them. In fact, only half their time is spent actually doing analytics, while over a third of their time is wasted simply trying to access data. 90% shared that numerous data sources were unavailable, leading to delays, or they needed to use data that was out of date, often months old. A majority of those taking the survey indicated they use 11 or more data sources and nearly everyone (96%) now has data sources located in the cloud.
60% of participants state that data schemas were changing monthly, requiring more work and delays. Compounding this waste, more than 6 out of 10 analysts indicate engineering resources are unavailable several times each month, forcing them to take on tasks outside their role to keep projects moving. Thus, it is no surprise that when asked, analysts indicated their top challenges were data integrity, quality and access. For companies looking to drive more value and profit, it is clear that enabling their analysts to spend more time ‘analyzing’ and less time finding, fixing data or stabilizing and building out data transit infrastructure will drive better decisions and increased profits.
KEY FINDINGS

Analytics Delivers Significant Business Value
- 98% of companies are using BI today
- 71% of companies plan to hire more data analysts based on growing BI users over the next 12 months

Data Analyst Time Is Being Siphoned Away
- 68% of analysts have ideas to make their company more profitable but don’t have the time to implement them
- 62% report waiting on engineering resources numerous times each month
- 92% state they have needed to perform tasks outside their role

Data Challenges Inhibit Analysts and the Benefits They Deliver
- Data integrity, quality and access top list of analyst challenges
- 90% say numerous data sources were unreliable over the last 12 months
- 86% use data that is out of date
DETAILED FINDINGS
98% OF COMPANIES ARE USING BI TODAY

Which teams in your company use business intelligence (BI) solutions today?

- Marketing: 64%
- Finance: 63%
- Sales: 60%
- Executives: 59%
- Research and development (includes engineering, product development): 51%
- Support: 43%
- Security: 32%
- HR/People-Ops: 29%
- Compliance: 29%
- Legal: 17%
- None of our teams use BI today: 2%
At your company, how is success measured for data analytics?

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use for making decisions</td>
<td>66%</td>
</tr>
<tr>
<td>Stakeholder satisfaction (other teams, exec, etc.)</td>
<td>62%</td>
</tr>
<tr>
<td>Number of users on data driven tools (BI solutions, dashboards, etc.)</td>
<td>33%</td>
</tr>
<tr>
<td>Company profit</td>
<td>30%</td>
</tr>
<tr>
<td>Executive users</td>
<td>29%</td>
</tr>
<tr>
<td>Quantity of reports</td>
<td>26%</td>
</tr>
<tr>
<td>We don’t measure success for data analytics</td>
<td>8%</td>
</tr>
</tbody>
</table>
### 74% of Companies Will Add BI Support for New Teams Over the Next 12 Months

**Which new teams will be given access to business intelligence (BI) solutions in the next 12 months?**

<table>
<thead>
<tr>
<th>Team</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing</td>
<td>24%</td>
</tr>
<tr>
<td>Finance</td>
<td>24%</td>
</tr>
<tr>
<td>HR/People-Ops</td>
<td>23%</td>
</tr>
<tr>
<td>Research and development</td>
<td>22%</td>
</tr>
<tr>
<td>Security</td>
<td>20%</td>
</tr>
<tr>
<td>Sales</td>
<td>20%</td>
</tr>
<tr>
<td>Support</td>
<td>19%</td>
</tr>
<tr>
<td>Compliance</td>
<td>17%</td>
</tr>
<tr>
<td>Legal</td>
<td>14%</td>
</tr>
</tbody>
</table>

No new teams will use BI over the next 12 months: 26%
71% of companies indicate plans to hire more data analysts.

How many data analysts does your company plan to hire over the next 12 months?

- None: 29%
- 1: 14%
- 2: 11%
- 3-5: 19%
- 5-10: 14%
- 10-20: 5%
- More than 20: 8%
68% of analysts have ideas to make their company more profitable but don’t have the time to implement them.

Do you have ideas to make your company more profitable but are unable to find the time to implement them?

- Yes: 68%
- No: 32%

34% Time wasted trying to access needed data

50% Time spent actually analyzing data
Approximately, how frequently do you find yourself waiting for engineering resources to become available?

- Every day: 5%
- A few times a week: 23%
- A few times a month: 34%
- Once a month: 15%
- Less than once a month: 15%
- Never, engineering resources are always available: 8%

62% report waiting on engineering resources numerous times each month.
Which of the following actions have you done because engineering resources were not available?

- Built a report in Excel (instead of BI tool, proper dashboard, etc.) - 61%
- Coded a script to ingest data - 40%
- Built a connector - 35%
- Created a data schema - 33%
- Built a data pipeline - 32%
- Established a new source database - 31%
- Created a destination database (data lake, warehouse, etc.) - 28%
- Built something outside of an IT approved environment - 26%
- Wrote a lambda function - 14%
- I haven’t performed any engineering related actions - 8%
In general, how frequently do source data schemas change (e.g., a new data type gets added, a column is recreated, etc.)?

- Daily: 10%
- Weekly: 20%
- Monthly: 30%
- About once every 3 months: 18%
- About once every 6 months: 11%
- About once a year: 6%
- Less than once a year: 4%
- Never: 1%

60% REVEAL DATA SCHEMAS CHANGE MONTHLY OR EVEN MORE FREQUENTLY
90% SHARE NUMEROUS DATA SOURCES WERE UNRELIABLE OVER THE LAST 12 MONTHS

Over the past 12 months, how many data sources have been unreliable (unavailable, broken, intermittent, etc.)?

- None: 10%
- 1 - 3: 46%
- 4 - 10: 33%
- 11 - 20: 7%
- 21 - 40: 2%
- More than 40: 2%
- None: 0%
86% MUST USE DATA THAT IS OUT OF DATE, WITH 41% USING DATA 2 MONTHS OLD OR OLDER

Have you ever had to use data that was out of date?

- Yes: 86%
- No: 11%
- I don't know: 3%

When you had to use data that was out of date, on average how old was it?

- A few hours old: 4%
- 1 - 3 days old: 21%
- 4 - 7 days old: 13%
- 2 - 4 weeks old: 21%
- 2 - 3 months old: 12%
- More than 3 months old: 29%
### DATA INTEGRITY, QUALITY, AND ACCESS TOP LIST OF ANALYST CHALLENGES

In your experience, what are the top challenges in working with data that is used for business analytics?

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Data quality issues (missing info, blank fields, incorrect values, etc.)</td>
<td>60%</td>
</tr>
<tr>
<td>Source of truth (conflicting data, etc.)</td>
<td>54%</td>
</tr>
<tr>
<td>Training business users on how to use data or BI</td>
<td>42%</td>
</tr>
<tr>
<td>Too much time is spent trying to access needed data</td>
<td>40%</td>
</tr>
<tr>
<td>Business stakeholders (unsatisfied, hard to work with, etc.)</td>
<td>35%</td>
</tr>
<tr>
<td>Waiting for new data sources to be available</td>
<td>29%</td>
</tr>
<tr>
<td>Schema issues (complicated join tables, brittle, etc.)</td>
<td>28%</td>
</tr>
<tr>
<td>Key resources unavailable (developer for coding, IT for infrastructure, etc.)</td>
<td>28%</td>
</tr>
<tr>
<td>Application changes (force schema updates, new process, etc.)</td>
<td>25%</td>
</tr>
<tr>
<td>Data pipelines break often</td>
<td>24%</td>
</tr>
<tr>
<td>Data is frequently too old</td>
<td>19%</td>
</tr>
<tr>
<td>There are no challenges working with business analytics data</td>
<td>1%</td>
</tr>
</tbody>
</table>
52% OF COMPANIES USE 11 OR MORE DATA SOURCES

Approximately, how many data sources are used for your company’s business analysis?

- Less than 5: 15%
- 6 – 10: 33%
- 11 – 20: 23%
- 21 – 50: 13%
- More than 50: 16%
96% OF COMPANIES ARE USING CLOUD-BASED DATA SOURCES

Approximately, how many data sources are cloud-based?

- Less than 5: 37%
- 6 – 10: 28%
- 11 – 20: 18%
- 21 – 50: 6%
- More than 50: 7%
- We don’t have any cloud-based data sources: 4%
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About Fivetran
Fivetran is the leader in automated data integration, delivering ready-to-use connectors, transformations and analytics templates that adapt as schemas and APIs change to ensure reliable data access. Fivetran enables businesses to quickly adopt new SaaS apps and keep up with continual app changes. Fivetran is ready to go, with prebuilt connectors and customizable templates that accelerate analytics. Data is ready to access with continuous data synchronization from source to warehouse.

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METHODOLOGY AND PARTICIPANTS
GOALS AND METHODOLOGY

Research Goal
The primary research goal was to understand the value delivered by BI and company utilization trends. The research also focused on the role of the data analysts, their tasks, data sources, quality and stability of data, opportunities, and challenges.

Methodology
Data professionals and analysts at companies ranging from small to large enterprises representing all seniority levels were invited to participate in a survey on their company’s use of BI and data processing.

The survey was administered electronically, and participants were offered a token compensation for their participation.

Participants
A total of 486 qualified participants completed the survey. All participants were actively involved in or responsible for BI processes and analytics. Participants were from all 5 continents.
COMPANIES REPRESENTED

Company Size
(Number of Employees)

- Less than 100
  - 6%
- 100 - 1,000
  - 38%
- 1,000 - 5,000
  - 30%
- More than 5,000
  - 27%
INDIVIDUALS REPRESENTED

### Data Role
- Enterprise data management: 26%
- Data analytics: 63%
- Data science: 11%

### Seniority
- Front-line professional: 48%
- Manager: 39%
- Executive: 13%