

What is a data analyst?

A data analyst's fundamental job is to [tell compelling stories with data](#) that empower organizational leaders to make better, more informed decisions.

The [responsibilities of a data analyst](#) often include:

- Designing and maintaining data systems and databases, including troubleshooting potential issues
- Mining and cleaning data in preparation for analysis
- Preparing reports which effectively communicate their findings to organizational leadership and key stakeholders

To be effective in their roles, data analysts must possess the technical skills necessary for data mining, hygiene, and analysis, along with strong interpersonal skills to [communicate their findings](#) to decision-makers.

Some of the most essential [skills for data analysts](#) include data visualization and presentation skills, Microsoft Excel, [Structured Query Language \(SQL\)](#), and [R](#) or Python programming knowledge.

A bachelor's degree in a related field is typically required for entry-level data analysts. For senior positions, hiring managers often require or strongly prefer a graduate degree such as a [master's degree in analytics](#).

What is a business analyst?

Business analysts are responsible for using data to inform strategic business decisions.

A business analyst might also hold job titles such as [operations research analyst](#), management analyst, or business data analyst.

The [duties of a business analyst](#) typically include:

- Evaluating business processes for efficiency, cost, and other valuable metrics
- Communicating insights with business teams and key stakeholders
- Preparing strategic recommendations for process adjustments, procedures, and performance improvements

Some of the primary skills needed to become a successful business analyst include critical thinking, problem-solving, communication, and process improvement. These professionals must have a firm understanding of their organization's objectives and procedures so that they can analyze performance, identify inefficiencies, and propose and implement solutions.

Business analysts must have at least a working knowledge of the technology involved in analytics, though the need for hard technical skills is generally lower than for data analysts. For those looking for career advancement opportunities, however, developing an advanced knowledge of mathematics, computer science, and analytics can act as a significant differentiator in the job market.

Entry-level business analyst positions usually require a bachelor's degree in business administration or a related area of study. As the need for professionals with expert data skills increases, though, advanced degrees like a [master's in analytics](#) or a [master's in business analytics](#) are becoming more popular among job applicants.

What's the difference?

While data analysts and business analysts both work with data, the main difference lies in what they do with it. Business analysts use data to help organizations make more effective business decisions. In contrast, data analysts are more interested in gathering and analyzing data for the business to evaluate and use to make decisions on their own.

"In the simplest terms, data is a means to the end for business analysts, while data is the end for data analysts," says [Martin Schedlbauer](#), associate clinical professor and director of North eastern University's information and data sciences programs.