Generally speaking, a data analyst will retrieve and gather data, organize it and use it to reach meaningful conclusions. “Data analysts’ work varies depending on the type of data that they’re working with (sales, social media, inventory, etc.) as well as the specific client project,” says Stephanie Pham, analyst for [Porter Novelli](http://www.porternovelli.com/).

Companies in nearly every industry can benefit from the work of data analysts, from healthcare providers to retail stores to fast food chains. The insights that data analysts bring to an organization can be valuable to employers who want to know more about the needs of their consumer or end user.

Regardless of which industry they work in, data analysts can expect to spend their time developing systems for collecting data and compiling their findings into reports that can help improve their company.

Analysts can be involved in any part of the analysis process. In a data analyst role, you could be included in everything from setting up an analytics system to providing insights based on the data you collect—you may even be asked to train others in your data-collection system.

## What are some common data analyst responsibilities?

We enlisted some experts to help you get a sneak peek of the daily duties of a typical data analyst.

### 1. Producing reports

“As an analyst, I spend a significant amount of time producing and maintaining both internal and client-facing reports,” says Casey Pearson, marketing analyst at [Delphic Digital](http://www.delphicdigital.com/). Those reports give management insights about new trends on the horizon as well as areas the company may need to improve upon.

Writing up a report isn’t as simple as throwing numbers onto a blank page and sending it to your manager. “Successful data analysts understand how to create narratives with data,” says Jess Kendra, manager of analytics at Porter Novelli. “To remain valuable, the reports, answers and insights that data analysis provides have to be understood by the next decision-maker, who frequently is not an analyst.”

### 2. Spotting patterns

The most effective data analysts are able to use data to tell a story. In order to produce a meaningful report, a data analyst first has to be able to see important patterns in the data. “At the base level, data is used to find trends and insights that we can use to make recommendations to our clients,” Pham says.

Reporting in regular increments, such as weekly, monthly or quarterly, is important since it helps an analyst notice significant patterns. “They all contribute to an overarching time frame where we can see trends over time,” Pham adds.

### 3. Collaborating with others

Surprised to see this on the list? The word “analyst” might make you think of someone working apart from the rest of the company, but that’s far from the truth. The wide variety of data analyst roles and responsibilities means you’ll collaborate across many other departments in your organization including marketers, executives and salespeople. You’ll also likely collaborate closely with those who work in data science like data architects and database developers.

Being able to communicate well is important. “Your success is dependent on your ability to work with people—the people you are gathering the research questions from, peers you collaborate with to execute the work and the people you deliver the final presentation to,” Kendra says.

### 4. Collecting data and setting up infrastructure

Perhaps the most technical aspect of an analyst’s job is collecting the data itself. This often means working together with web developers to optimize data collection, according to Pearson.

Streamlining this data collection is key for data analysts. They work to develop routines that can be automated and easily modified for reuse in other areas. Analysts keep a handful of specialized software and tools in their arsenal to help them accomplish this.

## Data Analyst vs. Data Scientist

With all that in mind, you might be wondering about another prominent data role—the data scientist. While it’s safe to assume there is some overlap in the type of work they do, there are significant differences between data analysts and data scientists.

Since the role of a data scientist is relatively new and sometimes nebulous, those in the field have worked to define and differentiate it from that of the data analyst. Let’s break it down based on skills and job duties.

Data analysts:1

* Have moderate math and statistical skills
* Have a strong business acumen
* Have moderate computer science / coding skills
* Develop key performance indicators
* Create visualizations of the data
* Utilize business intelligence and analytics tools

Data scientists:1

* Have strong math and statistical skills
* Have a strong business acumen
* Have strong computer science / coding skills
* Identify trends with machine learning
* Make predictions based on data trends
* Write code to assist in data analysis

Though data analysts and data scientists have different backgrounds and strengths, keep in mind that these roles can be a little squishy in how they’re defined. This means responsibilities may change depending on the organization.

## What tools do data analysts use?

Data analysts rely on various tools to collect and make sense of their data. Kendra’s team uses specialized tools to efficiently gather data from social media, news sites and magazines as well as tools to sort and categorize data to visualize that data for reports and presentations.

These are some common tools in a data analyst’s tool belt:

* Microsoft Excel®
* SQL
* SAS® software
* Google Analytics ™
* Google Tag Manager
* Tableau™
* Google AdWords™