

HR statistics: Interesting statistics from the field

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One of the top questions on Google that is related to HR statistics is ‘Does HR require a lot of math?’ Well, it does not. However, in order to be excellent, one needs to understand statistics relevant in the field. It's interesting how statistics has become important in HR processes. Upon completing studies, most HR professionals would have thought that the only numbers that would be important to them would be employee salaries, overtime, leave days and so on. But the emphasis of the use of data analytics in HR processes has made the knowledge of basic statistics to become a requirement for success in the HR space.

What is statistics?

Statistics can be defined as a discipline that is concerned with collecting, organizing, analysing, interpreting and presenting data.

The key issue dealt with here is data. There is always a lot of data collected in HR. Instead of just reporting what is observed from the data, we can answer other questions such as “What can happen in future?” and “What decision can we make based on the observations and possible future events?”

Why statistics?

Statistics helps to make informed decisions and evidence-based conclusions. We can divide statistical analysis into descriptive, predictive and prescriptive analytics.

Descriptive Analytics

Descriptive Analytics answers the “**What happened?**” question. Using historical data, this is the stage where we can give descriptions of observations from the data. Examples of descriptions are:

- Employee headcount
- Absenteeism rate
- Employee retention
- Employee satisfaction

At this stage, these are only just descriptions, no conclusions and no decisions to be made yet. This stage gives a summary of the historical data that we have in a way that is easy to understand.

Predictive Analytics

This stage answers the, “**What could happen?**” question. It allows us to make predictions based on the

historical data that we have. Most HR processes skip this stage and move to the prescription stage. It works sometimes, however, it is best to understand likely future situations so as to be prepared for the outcomes. This does not mean that the result of prediction is always correct, but most good models will be useful for making decisions for the future.

Prescriptive analytics

This stage answers the question, “**What to do?**” Based on what the analysis on the data is saying, what decision can we make? It helps us to make good decisions that are backed by evidence.

These three stages of the analytics process are important for an HR professional’s success in their field. However, it is important to note that we should not strictly rely on data when making our decisions. We should make use of our human intuition to make sure that the data is not biased and that it is useful for making predictions for the future. Analytics software cannot tell when there is a presence of bias, so we should always check. Read a previous article on data bias [here](#).

So, what statistical metrics are interesting in HR?

The main points of interest in any statistical HR data analysis are the organizations’ key performance indicators. Traditionally, KPIs included the following:

- Employee headcount
- Absenteeism rate
- Employee retention and so on.

Most of these could be easily obtained from the employee data. But nowadays, there are interesting questions that HR needs to provide answers for, using the three stages mentioned in this article. Nowadays, important KPIs include

- Absence cost
- Career path statistics
- Benefits satisfaction
- Employee productivity rate
- Employee satisfaction index
- Employee engagement index
- Employee innovation index
- Internal promotion rate
- Quality of hire
- Training effectiveness and so on.

In order for these KPIs to be interesting to company stakeholders, we need to give a description of what the data is saying about the variables that affect them, make predictions where possible and then suggest decisions that could be made for the future. This will distinguish a good HR professional from an

ordinary HR professional.

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