



## ACTUARIES An actuary is a business professional who deals with the measurement and management of risk and uncertainty... The profession has consistently ranked as one of the most desirable. In various studies, being an actuary was ranked number one or two multiple times since 2010

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DATA SCIENTISTS	
A data scientist is a high-ranking professional with the training and curiosity to make discoveries in the world of big data.	
2012 HBR article calls data scientist "the sexiest job of	
the 21st century" and identifies a severe shortage of data scientists.	
DATA MINING	
Data mining is the computational process of discovering patterns in large data sets ("big data") involving methods at the intersection of artificial intelligence, machine learning, statistics, and database systems. The overall goal of the data mining process is to extract information from a data set and transform it into an understandable structure for further use.	
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PREDICTIVE ANALYTICS	
Predictive analytics encompasses a variety of statistical techniques from modeling, machine learning, and data mining that analyze current and historical facts to make predictions about future, or otherwise unknown, events.	

## **FUNDAMENTAL PREMISES**

- Data science is a relatively new and growing discipline across multiple industry segments
- Actuarial science is an established and growing discipline within the insurance industry predominately
- Data scientists tend to follow the data wherever it leads, identifying patterns and insights from large unstructured data sources
- Actuaries tend to study data within the confines of defined hypotheses, structured analyses and standards of practice
- Working together, actuaries and data scientists can develop and leverage insights more effectively than working separately



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