

# Operations Research Analyst



The duties of an operations research analyst encompass tasks that span all aspects of an organization, such as generating sales and revenue and working with production schedules and deadlines. These analysts are also involved in managing the supply chain, where they identify issues as they relate to production and logistics. They employ the use of sophisticated computer software, such as databases and statistical modeling packages, to solve complex problems. Opportunities to solve problems in a myriad of ways require operations research analysts to possess an element of ingenuity in how they approach their work. At the core of problem-solving, an analyst needs to consider the cost to benefit ratio while exploring alternative solutions when presenting recommendations to managers. Problem-solving skills aid analysts in examining information to determine the best way to analyze it. They employ a multidisciplinary approach in finding solutions to complex problems. This cross-platform approach allows most analysts to work on teams, thus building interpersonal skills. Upon the advice of these analysts, a manager is able to make sound decisions.

Typically, operational research analysts spend most of their work hours in the office. Sometimes they work in the field where they gather data and analyze information through direct observation. Often they work full time with some required travel. The multifaceted nature of an operational research analyst's analysis transcends the boundaries of large corporations. As such, many of these analysts are highly recruited by agencies within the federal government, such as the

Department of Defense. This job is quite intricate and demanding in nature. For that reason, most employers prefer applicants to have at least a master's degree, although a bachelor's degree is commonly accepted for entry-level positions. Quantitative analysis is the essence of this job. In order to be aptly prepared, students need extensive coursework in mathematics, specifically statistics, calculus and linear algebra. The completion of coursework in computer science is both necessary and important because analysts rely heavily on advanced statistical and database software to carry out their tasks. Some analysts who enter this profession have pursued courses outside the boundaries of mathematics with coursework in engineering, economics and political science. This background is useful as the nature of operations research is multidisciplinary.

There are about 670 analysts employed in Utah making an average hourly wage of \$30.16. Annual growth rate is projected at 2.8 percent through 2013 and 2.9 percent through 2020. Establishments in the public administration and professional, scientific and technical services industries house the bulk of operations research analyst employment in Utah.

Equipped with an ability to solve complex problems using analytical software, operations research analysts will continue to play a crucial part in the implementation of policies within a variety of organizations. As technology advances, organizations are finding it easier to get data. As such, these analysts are expected to become more visible in companies that need help turning their data into valuable information, in order for managers to make better decisions in their businesses. 

Percent total  
*Operation Research Analyst*  
Employment by Industry in Utah

Industry	Percent of Operation Research Analyst Employment in Utah
Public Administration	26.6%
Professional, Scientific and Technical Services	23.4%
Finance and Insurance	17.2%
Manufacturing	12.5%
Management	7.8%
Wholesale Trade	6.3%
Information	4.7%
Education Services	1.6%

Labor Statistics for  
*Operation Research Analysts*  
in Utah

Employment	670
Mean Hourly Wage	\$30.16
Projected Annual Growth Rate through 2013	2.8%
Projected Annual Growth Rate through 2020	2.9%
Location Quotient	1.05

Source: Utah Department of Workforce Services and Bureau of Labor Statistics (2012)

*Opportunities to solve problems*  
in a myriad of ways require operations research analysts to possess an element of ingenuity in how they approach their work.

