

Operations Research Analyst

MAJOR DUTIES:

DUTIES:*(The duties described reflect the full performance level of this position)*

Participates in, coordinates, and/or manages agency programs and projects. Monitors plans, data, and activities related to projects and programs.

Manages, leads, or performs scientific work in applying statistical theories, techniques, and methods for gathering, studying, analyzing, interpreting, and reporting on statistically quantified information.

Designs and develops mathematical statistical models, methods, and/or techniques, such as sample and survey designs for related data collection. Evaluates the resulting data to assess the effectiveness of the mathematical statistical tools, models, methods, and techniques.

Identifies methods and procedures to conduct operations research studies, making adjustments in methods and procedures as appropriate. Selects specific studies and determines data sources. Recommends or determines appropriate study methods and procedures.

Prepares a variety of analytical reports, memoranda, and written materials on public policy issues within the employee's area of professional knowledge to support congressional decision-making.

Performs statistical data collection requirements activities, such as preparing, processing, and coordinating ad hoc and standing collection requirements. Ensures the collection of statistical data and use of collection systems to satisfy immediate, mid-range, and long-term statistical data collection requirements. Identifies methods and procedures to conduct operations research studies, making adjustments in methods and procedures as appropriate. Selects specific studies and determines data sources. Recommends or determines appropriate study methods and procedures.

QUALIFICATIONS REQUIRED:

KNOWLEDGE, SKILLS, AND ABILITIES:*(The KSAs below may not apply at all grades)*

Ability to prepare written analyses based on quantitative and/or qualitative evaluation findings of complex business operations issues.

Ability to communicate orally findings, recommendations, and solutions following evaluation of complex social and behavioral phenomena.

Skill in conducting operations and business process evaluation to include establishing/developing projects requiring the application of advanced statistical and analytical techniques and methods to quantitative and qualitative data.

Skill in applying statistical methods to quantitative and qualitative data.

Ability to design and apply operations research methods and techniques to complex business efficiency and optimization problems.

MINIMUM FEDERAL QUALIFICATION REQUIREMENTS:

Grade 09: BASIC REQUIREMENTS

Applicants must show successful completion of a full four-year course of study in an accredited college or university leading to a bachelor's or higher degree in operations research; or at least 24 semester/36 quarter hours in a combination of operations research, mathematics, probability, statistics, mathematical logic, science, or subject matter courses requiring substantial competence in college-level mathematics or statistics. At least 3 of the 24 semester/36 quarter hours must have been in calculus.

ADDITIONAL EXPERIENCE AND EDUCATION REQUIREMENTS

In addition to meeting the basic entry qualification requirements, applicants must have had either specialized experience and/or directly related education in the amounts shown below. Education and experience may be combined to meet the total experience requirements.

1. The applicant must have completed two (2) years of progressively higher level graduate education leading to a master's or equivalent graduate degree when it provided the applicant with the knowledge, skills, and abilities necessary to do the work of the position.

OR

2. One (1) year of specialized experience equivalent to at least GS-7.

Specialized experience is experience which is in or related to the line of work of the position to be filled and which has equipped the applicant with the specific knowledge, skills, and abilities to successfully perform the duties of the position. Examples of specialized experience include experience assisting in the following areas: conducting portions of analysis or studies of programs and operations; recommending alternative methods to solve routine research problems; preparing brief analytical reports that are part of a larger project.

Grade 11: BASIC REQUIREMENTS

Applicants must show successful completion of a full four-year course of study in an

accredited college or university leading to a bachelor's or higher degree in operations research; or at least 24 semester/36 quarter hours in a combination of operations research, mathematics, probability, statistics, mathematical logic, science, or subject matter courses requiring substantial competence in college-level mathematics or statistics. At least 3 of the 24 semester/36 quarter hours must have been in calculus.

ADDITIONAL EXPERIENCE AND EDUCATION REQUIREMENTS FOR NON-RESEARCH POSITIONS

In addition to meeting the basic entry qualification requirements, applicants must have had either specialized experience and/or directly related education in the amounts shown below. Education and experience may be combined to meet the total experience requirements.

1. The applicant must have completed three (3) years of progressively higher level graduate education leading to a Ph.D. degree or Ph.D. or equivalent doctoral degree when it provided the applicant with the knowledge, skills, and abilities necessary to do the work of the position.

OR

2. The applicant must have one (1) year of specialized experience equivalent to at least GS-9.

Specialized experience is experience which is in or related to the line of work of the position to be filled and which has equipped the applicant with the specific knowledge, skills, and abilities to successfully perform the duties of the position.

ADDITIONAL EXPERIENCE AND EDUCATION REQUIREMENTS FOR RESEARCH POSITIONS

In addition to meeting the basic entry qualification requirements, applicants must have had either specialized experience and/or directly related education in the amounts shown below. Education and experience may be combined to meet the total experience requirements.

1. The applicant must have completed a master's or equivalent graduate degree when the position involves primarily scientific inquiry or investigation, or research-type exploratory development of a creative or advanced scientific nature, where the knowledge required to perform the work successfully is typically and primarily acquired through graduate study.

OR

2. The applicant must have one (1) year of specialized experience equivalent to at least GS-9.

Specialized experience is experience which is in or related to the line of work of the

position to be filled and which has equipped the applicant with the specific knowledge, skills, and abilities to successfully perform the duties of the position. Examples of specialized experience include experience assisting in the following areas: conducting analysis or studies of programs and operations; designing and developing operations research methods and techniques; preparing related reports.

Grade 12: BASIC REQUIREMENTS

Applicants must show successful completion of a full four-year course of study in an accredited college or university leading to a bachelor's or higher degree in operations research; or at least 24 semester/36 quarter hours in a combination of operations research, mathematics, probability, statistics, mathematical logic, science, or subject matter courses requiring substantial competence in college-level mathematics or statistics. At least 3 of the 24 semester/36 quarter hours must have been in calculus.

ADDITIONAL EXPERIENCE REQUIREMENTS FOR NON-RESEARCH POSITIONS

In addition to meeting the basic entry qualification requirements, applicants must have one (1) year of specialized experience equivalent to at least GS-11.

Specialized experience is experience which is in or related to the line of work of the position to be filled and which has equipped the applicant with the specific knowledge, skills, and abilities to successfully perform the duties of the position.

ADDITIONAL EXPERIENCE AND EDUCATION REQUIREMENTS FOR RESEARCH POSITIONS

In addition to meeting the basic entry qualification requirements, applicants must have had either specialized experience and/or directly related education in the amounts shown below. Education and experience may be combined to meet the total experience requirements.

1. The applicant must have completed a Ph.D. or equivalent doctoral degree when the position involves primarily scientific inquiry or investigation, or research-type exploratory development of a creative or advanced scientific nature, where the knowledge required to perform the work successfully is typically and primarily acquired through graduate study.

OR

2. The applicant must have one (1) year of specialized experience equivalent to at least GS-11.

Specialized experience is experience which is in or related to the line of work of the position to be filled and which has equipped the applicant with the specific knowledge, skills, and abilities to successfully perform the duties of the position. Specialized experience is experience conducting analysis or studies of a portion of programs and operations; designing and developing operations research methods and techniques; preparing related reports briefs of varied technical issues.

Grade 13: BASIC REQUIREMENTS

Applicants must show successful completion of a full four-year course of study in an accredited college or university leading to a bachelor's or higher degree in operations research; or at least 24 semester/36 quarter hours in a combination of operations research, mathematics, probability, statistics, mathematical logic, science, or subject matter courses requiring substantial competence in college-level mathematics or statistics. At least 3 of the 24 semester/36 quarter hours must have been in calculus.

ADDITIONAL EXPERIENCE REQUIREMENTS

In addition to meeting the basic entry qualification requirements, applicants must have had one (1) year of specialized experience equivalent to at least GS-12.

Specialized experience is experience which is in or related to the line of work of the position to be filled and which has equipped the applicant with the specific knowledge, skills, and abilities to successfully perform the duties of the position. Specialized experience is experience conducting analysis or studies of programs and operations; designing and developing operations research methods and techniques; preparing related reports briefs and technical documents.

