GS-0110 Economist

U.S. Department of the Interior Office of Human Capital

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Economist Competency Model Study Summary

The DOI Office of Human Capital (OHC) conducted a comprehensive study to identify the critical competencies and tasks for successful performance of Economist work across the Department. OHC worked with Economist subject matter experts from across the Department in order to create a thorough and accurate representation of the work performed by DOI ECONOMIST professionals and the knowledge, skills, and abilities required to perform that work.

The study involved a variation of the U.S. Office of Personnel Management's Multipurpose Occupational Systems Analysis Inventory – Closed-Ended (MOSAIC) method for gathering and analyzing information about work. The MOSAIC approach has been utilized to study and describe work performed within the Federal Government for over 25 years. The study included a wide-ranging literature review to build lists of tasks and competencies used to describe Economist work across the Department. Next, focus groups with DOI Economist subject matter experts were held to ensure these lists were complete and accurately represented the job. A trained job analyst also linked each task to competencies to confirm they were required to perform the work. DOI Economist professionals rated the tasks and competencies to demonstrate the importance and utility of each component of the study. Finally, Economist subject matter experts reviewed the results of the study to ensure its accuracy.

The results of this study establish a common set of Economist tasks and competencies across the Department, which can be used to create assessment and selection techniques and tools and establish common practices and terminology for recruitment, performance management, workforce planning, training, and employee development. This work provides DOI with current, validated information that can be used to ensure its Economist workforce has the tools to meet future challenges.

Please reference the Competency Model Interpretive Guidance for assistance in interpreting and applying the results of this study.

Table 1: General Competencies by Grade¹

The following general competencies are valid for assessment and selection, performance management, and other related human capital functions across the Economist occupational series included in this study at the grade levels listed below.

| GS -9 | GS-11 | GS-12 | GS-13 | |
|-------------------------|-------------------|-------------------|-------------------------|--|
| Attention to Detail (2) | Accountability | Accountability | Accountability | |
| Continual Learning (3) | Attention to | Attention to | Attention to Detail (2) | |
| Integrity/Honesty | Detail (2) | Detail (2) | Continual Learning (3) | |
| Interpersonal Skills | Continual | Continual | Creative Thinking (+) | |
| Mathematical Reasoning | Learning | Learning (3) | Decision Making | |
| Reading Comprehension | Decision Making | Creative | External Awareness | |
| Reasoning | Information | Thinking (+) | Information | |
| Writing | Management | Decision Making | Management | |
| Written Communication | Integrity/Honesty | Information | Integrity/Honesty | |
| | Interpersonal | Management | Interpersonal Skills | |
| | Skills | Integrity/Honesty | Mathematical | |
| | Mathematical | Interpersonal | Reasoning | |
| | Reasoning | Skills | Organizational | |
| | Oral | Mathematical | Awareness (2) | |
| | Communication | Reasoning | Oral Communication | |
| | Problem Solving | Oral | Partnering | |
| | (‡) | Communication | Planning and | |
| | Reading | Partnering | Evaluating | |
| | Comprehension | Problem Solving | Problem Solving (‡) | |
| | Reasoning | (\ddagger) | Project Management | |
| | Resilience | Project | (2) | |
| | Self-Management | Management (2) | Reading | |
| | Teamwork (2) | Reading | Comprehension | |
| | Writing | Comprehension | Reasoning | |
| | Written | Reasoning | Resilience | |
| | Communication | Resilience | Self-Management | |
| | | Self- | Teaching Others | |
| | | Management | Teamwork (2) | |
| | | Teamwork (2) | Writing | |
| | | Writing | Written | |
| | | Written | Communication | |
| | | Communication | | |
| | | | | |

¹ Italics represent the lowest grade at which the competency appears.

Economist Competency Model

GS-14

Accountability Attention to Detail (2) Continual Learning (3) Creative Thinking (+) **Decision Making External Awareness** Information Management Integrity/Honesty **Interpersonal Skills** Mathematical Reasoning Organizational Awareness (2) Oral Communication Partnering Planning and Evaluating Problem Solving (‡) Project Management (2) **Reading Comprehension** Reasoning Resilience Self-Management Strategic Advisement Strategic Thinking **Teaching Others** Teamwork(2) Writing Written Communication

GS-15

Accountability Attention to Detail (2) Continual Learning (3) Creative Thinking (+) Decision Making External Awareness Information Management Integrity/Honesty **Interpersonal Skills** Mathematical Reasoning Organizational Awareness (2) Oral Communication Partnering Planning and Evaluating Problem Solving (‡) Project Management (2) **Reading Comprehension** Reasoning Resilience Self-Management Strategic Advisement Strategic Thinking **Teaching Others** Teamwork(2) Writing Written Communication

Table 2: Required Proficiency Levels by Grade Level

| Proficiency Level | General Competencies | Technical Competencies |
|--------------------------|---|--|
| 5 = Expert | Applies the competency in exceptionally difficult situations Serves as a key resource and advises others | Applies the competency in exceptionally difficult situations Serves as a key resource and advises others Demonstrates comprehensive expert understanding of concepts and processes |
| 4 = Advanced | Applies the competency in considerably difficult situations Generally requires little or no guidance | Applies the competency in considerably difficult situations Generally requires little or no guidance Demonstrates understanding of concepts and processes |
| 3 = Intermediate | Applies the competency in difficult situations Requires occasional guidance | Applies the competency in difficult situations Requires occasional guidance Demonstrates understanding of concepts and processes |
| 2 = Basic | Applies the competency in somewhat difficult situations Requires frequent guidance | Applies the competency in somewhat difficult situations Requires frequent guidance Demonstrates familiarity with concepts and processes |
| 1 = Awareness | Applies the competency in simplest situations Requires close and extensive guidance | Applies the competency in simplest situations Requires close and extensive guidance Demonstrates awareness of concepts and processes |

Proficiency Level Scale Definitions

| Table 7: Required Proficiency Levels of General Competencies ³ | | | | | | |
|---|------|-------|-------|-------|-------|-------|
| Competency | GS-9 | GS-11 | GS-12 | GS-13 | GS-14 | GS-15 |
| Accountability | | 2 | 3 | 4 | 5 | 5 |
| Attention to Detail (2) | 2 | 2 | 3 | 4 | 5 | 5 |
| Continual Learning (3) | 3 | 3 | 3 | 3 | 3 | 3 |
| Creative Thinking (+) | | | 2 | 3 | 4 | 5 |
| Decision Making | | 2 | 3 | 4 | 5 | 5 |
| External Awareness | | | | 2 | 3 | 4 |
| Information | | 2 | 3 | 3 | 4 | 5 |
| Management | | | | | | |
| Integrity/Honesty | 2 | 2 | 3 | 4 | 5 | 5 |
| Interpersonal Skills | 2 | 2 | 3 | 4 | 5 | 5 |
| Mathematical | 2 | 3 | 4 | 4 | 5 | 5 |
| Reasoning | | | | | | |
| Organizational | | | | 2 | 3 | 4 |
| Awareness (2) | | | | | | |
| Oral Communication | | 2 | 3 | 4 | 5 | 5 |
| Partnering | | | 2 | 3 | 4 | 5 |
| Planning and | | | | 2 | 4 | 5 |
| Evaluating | | | | | | |
| Problem Solving (‡) | | 2 | 3 | 3 | 4 | 5 |
| Project Management | | | 2 | 3 | 4 | 5 |
| (2) | | | | | | |
| Reading | 2 | 3 | 3 | 4 | 5 | 5 |
| Comprehension | | | | | | |
| Reasoning | 2 | 2 | 3 | 3 | 4 | 4 |
| Resilience | | 2 | 2 | 3 | 4 | 5 |
| Self-Management | | 2 | 2 | 3 | 4 | 5 |
| Strategic Advisement | | | | | 3 | 4 |
| Strategic Thinking | | | | | 3 | 4 |
| Teaching Others | | | | 2 | 3 | 4 |
| Teamwork (2) | | 2 | 3 | 3 | 4 | 5 |
| Writing | 2 | 3 | 3 | 4 | 4 | 5 |
| Written | 2 | 3 | 3 | 4 | 4 | 5 |
| Communication | | | | | | |

Table 3: Required Proficiency Levels of General Competencies²

 ² Bolded competencies are validated for use for assessment and selection purposes.
 ³ Bolded competencies are validated for use for assessment and selection purposes.

| Competency Name | Definitions |
|-------------------------|---|
| Accountability | Holds self and others accountable for measurable high-quality, timely, and cost-effective results. Determines objectives, sets priorities, and delegates work. Accepts responsibility for mistakes. Complies with established control systems and rules. |
| | • Takes responsibility for results and work products |
| | • Ensures work is completed on time and at the level of quality required |
| | • Understands the rules and regulations of the work performed and ensures compliance with them |
| | • Demonstrates responsibility with important materials, critical processes, or confidential information |
| Attention to Detail (2) | Considers all aspects involved in accomplishing a task, no matter how minute. Precisely follows procedures to ensure each element of a task is accurately completed. |
| | • Sets the standards for the quality of the work completed for the organization |
| | • Leads others in attending to detail in difficult and/or high-pressure circumstances |
| | • <i>Reviews and edits work completed by others to ensure that the quality of work meets acceptable work standards</i> |
| | Independently completes thorough and accurate work |
| Continual Learning (3) | Assesses and recognizes own strengths and weaknesses; pursues new knowledge and skill-development. |
| | • Takes honest inventory of own strengths and weaknesses |
| | • Identifies personal skill gaps or areas for development |
| | • Actively identifies and pursues training or developmental opportunities |
| | • Seeks out feedback from others on performance |
| | • Displays a desire to learn new things or new ways of accomplishing tasks |
| Creative Thinking (+) | Uses imagination to develop new insights into situations and applies new solutions to problems; designs new methods where established methods and procedures are not suitable or are unavailable. |
| | • Creates a work environment that encourages creative thinking and innovation |
| | • <i>Explores new ideas, methodologies, and alternatives to reach outcomes</i> |

| | Introduces new concepts or strategies that significantly improve or revise the way work is performed Suggests or proposes alternative ways to view or define problems; is not constrained by conventional thinking and established approaches Combines ideas in unique ways or makes connections between disparate ideas |
|------------------------|---|
| Decision Making | Makes sound, well-informed, and objective decisions; perceives the impact and implications of decisions; commits to action, even in uncertain situations, to accomplish organizational goals; causes change. Decides on the best course of action, even in situations with competing stakeholders or when results of decisions are not |
| | immediately clear Weighs the pros and cons of potential decisions before choosing which actions to take Commits to determining the best alternatives and evaluating their impact on work products |
| External Awareness | Uses sound methodology in reaching conclusions |
| | Identifies and understands economic, political, and social trends that affect the organization. Stays abreast of current events Monitors trends and identifies ways in which they may affect work processes or decisions Understands how the organization is situated within the economic, political, or social landscapes Identifies potential external influences or influencers on the organization Identifies a need for and knows where or how to gather information; |
| Information Management | Identifies a need for and knows where of now to gather information, organizes and maintains information or information management systems. Demonstrates an understanding of where and how data or other information are maintained Shows familiarity with the information management systems of the organization Effectively searches for and finds appropriate information to address the needs of a project Uses discretion when handling sensitive content |
| Integrity/Honesty | Contributes to maintaining the integrity of the organization; displays high standards of ethical conduct and understands the impact of |

| | violating these standards on an organization, self, and others; is trustworthy. |
|------------------------------|--|
| | Takes pride in exhibiting personal and organizational integrity and honesty Acts in a just, fair, and ethical manner and encourages ethical behavior among others, even when risky to do so Inspires trust and confidence among stakeholders through reliability, authenticity, and accountability |
| Interpersonal Skills | Treats others with courtesy, sensitivity, and respect. Considers and responds appropriately to the needs and feelings of different people in different situations. |
| | • Shows respect for the values and ideas of others, even when not agreeing with them |
| | • Empathizes with the concerns of others |
| | • Demonstrates tact and courtesy when interacting with associates |
| | Is proactive in defusing arguments among peers Seeks feedback from others to avoid blind-spots that can cause |
| | • Seeks Jeeaback from others to avoia blina-spois that can cause misunderstandings |
| | • Explores issues with the team; shares information; solicits ideas' |
| | uses participative decision-making processes |
| Mathematical Reasoning | Solves practical problems by choosing appropriately from a variety of mathematical and statistical techniques. |
| | • Demonstrates the solving of problems through the appropriate choosing of mathematical techniques |
| | • Applies mathematical reasoning to solve complex equations |
| | • Identifies and applies appropriate mathematical models or techniques (e.g., linear regression or probability distributions) to moderately complex situations. |
| | • Considers multiple approaches before selecting one and justifies the chosen method. |
| | • Synthesizes knowledge from multiple mathematical domains (e.g., calculus, discrete mathematics) to solve highly complex, multivariable problems. |
| | Designs new approaches or modifies existing techniques when faced with unique or atypical problems. |
| | • Communicates solutions and reasoning clearly to non-technical stakeholders. |
| Organizational Awareness (2) | Knows the organization's mission and functions, and how its social, political, and technological systems work and operates effectively within them; this includes the programs, policies, procedures, rules, and |
| | regulations of the organization. |

| | Demonstrates awareness of the mission, functions, and various levels of the organization Understands how decisions or actions of one organizational component may affect other components Leverages knowledge of organizational components, programs, and directions to improve products, actions, or decisions Shows familiarity with the rules and regulations of the organization |
|--------------------|--|
| Oral Communication | Expresses information (for example, ideas or facts) to individuals or groups effectively, taking into account the audience and nature of the information (for example, technical, sensitive, controversial); makes clear and convincing oral presentations; listens to others, attends to nonverbal cues, and responds appropriately. |
| | Speaks honestly, effectively and with integrity Makes convincing, articulate, and accurate oral presentations using non-verbal and vocal qualities that support the verbal spoken message Effectively uses various communication channels, including meetings, presentations and briefings Actively considers, plans for, and reacts appropriately to the audience and the contextual environment in order to minimize barriers to understanding |
| | Explains complex information clearly and accurately, and seeks feedback to determine that understanding has occurred Acts as an effective facilitator in group or team settings |
| Partnering | Develops networks and builds alliances; collaborates across boundaries to build strategic relationships and achieve common goals. Demonstrates an understanding of interrelationships, roles, and responsibilities within the organization Develops and maintains professional relationships Is aware of organizational and programmatic goals and seeks avenues to mutually enhance goal achievement Identifies opportunities for collaboration across organization units |

| Planning and Evaluating | Organizes work, sets priorities, and determines resource requirements; determines short- or long-term goals and strategies to achieve them; coordinates with other organizations or parts of the organization to accomplish goals; monitors progress and evaluates outcomes. Sets difficult but obtainable goals, benchmarks, or milestones Determines resources required for successful completion of work and works with others to procure these resources Collaborates effectively with other components of the organization Establishes meaningful, observable metrics to track progress or evaluate performance Ensures a clear and appropriate division of labor among team members |
|-------------------------|---|
| Problem Solving (‡) | Identifies and analyzes problems; weighs relevance and accuracy of information; generates and evaluates alternative solutions; makes recommendations. <i>Examines problems and solutions with a long-term perspective</i> <i>Effectively leads others in the effort of developing, identifying, and formulating problem-solving strategies consistent with organizational goals</i> <i>Uses logic to develop and implement innovative tools and techniques to resolve complex, unique, or unusual problems</i> <i>Consistently anticipates challenges that are not obvious to others</i> <i>Determines the relevance of information in reaching effective conclusions</i> <i>Formulates recommendations for the best course of action to address problems</i> |
| Project Management (2) | Coordinating project execution by planning, organizing resources, coordinating tasks, and managing timelines to ensure successful completion and achievement of project goals. Schedules and keeps track of major project milestones and persons responsible 1015 Communicates with various stakeholders to ensure that projects stay on time and on budget Identifies and plans for external and internal barriers to project delivery Delegates work to team members as necessary and ensures completion of work |

| Reading Comprehension | Understands and interprets written material, including technical material, rules, regulations, instructions, reports, charts, graphs, or tables; applies what is learned from written material to specific situations. Demonstrations proper interpretation of written material Applies what is learned from written material to specific situations Can interpret various forms of written text or graphics to include charts, graphs, and tables |
|-----------------------|--|
| Reasoning | Identifies rules, principles, or relationships that explain facts, data, or other information; analyzes information and makes correct inferences or draws accurate conclusions. Determines the relevance of information in reaching effective conclusions Uses logic to determine relationships among information in order to reach conclusions Makes appropriate inferences from data, rules, or other information |
| Resilience | Deals effectively with pressure; remains optimistic and persistent, even under adversity. Recovers quickly from setbacks. Achieves desired results in face of adversity Overcomes barriers to accomplish goals Stays positive in spite of setbacks Works successfully in high pressure environments |
| Self-Management | Sets well-defined and realistic personal goals; displays a high level of initiative, effort, and commitment towards completing assignments in a timely manner; works with minimal supervision; is motivated to achieve; demonstrates responsible behavior. Sets own goals and priorities and coordinates activities and deadlines with others to ensure project goals are met Continually applies significant effort and persistence toward achievement of goals in all situations Takes initiative and seeks out new or additional responsibilities and tasks Completes work and meets objectives with minimal supervisory intervention |
| Strategic Advisement | Advises management, employees, and colleagues on strategic options for organizing, preparing, or implementing programs based on industry best practices. |

| | Provides guidance using common practices within the industry. Offers tailored strategic advice to align programs with broader organizational objectives. Identifies trends within the industry and applies them to improve program outcomes. Collaborates with colleagues to evaluate potential strategies and recommends actionable steps for program preparation. Communicates the implications of specific approaches clearly to stakeholders. Anticipates potential risks or challenges in program implementation and proposes detailed contingency plans. Guides management on strategic decision-making, providing deep insights into competitive advantages and industry benchmarks. |
|--------------------|--|
| Strategic Thinking | Formulates effective strategies consistent with the business and competitive strategy of the organization in a global economy. Examines policy issues and strategic planning with a long-term perspective. Determines objectives and sets priorities; anticipates potential threats or opportunities. Is aware of organizational and programmatic goals and seeks creative avenues to enhance goal achievement Considers overall structures, patterns, and cycles in the organization/systems, and uses assessment, analysis, and evaluation methodologies to define metrics and standards of performance Incorporates new processes and procedures into annual plans Identifies potential opportunities and barriers facing the organization's objectives and priorities Provides advice and guidance to resolve, implement, or manage program or policy issues that involve areas of uncertainty in approach or methodology Streamlines operations for maximum efficiency, automation, and effectiveness where appropriate |
| Teaching Others | Helps others learn through formal or informal methods; identifies training needs; provides constructive feedback; coaches others on how to perform tasks; acts as a mentor. <i>Provides instruction and feedback to others</i> <i>Acts as a mentor to others</i> <i>Determines areas for improvement and training for others</i> <i>Tutors others in the performance of tasks</i> |

| Teamwork (2) | Motivates team members to accomplish group goals. Performs well in team settings and assists others when needed. Develops and maintains effective working relationships with others. |
|-----------------------|--|
| | Volunteers to assist associates with projects Commits to working toward team or group goals Displays team pride and empowers team pride among other group members Works effectively in group settings in order to achieve team objectives |
| Writing | Recognizes or uses correct English grammar, punctuation, and spelling; communicates information (for example, facts, ideas, or messages) in a succinct and organized manner; produces written information, which may include technical material, that is appropriate for the intended audience. |
| | Composes clear, concise, and logical documents or correspondence involving complex technical information Consistently and effectively tailors written products to a wide range of audiences and for diverse purposes in order to achieve a desired outcome Proofreads and edits the writing of others Effectively explains complex technical material to a non-technical audience Uses correct grammar, punctuation, and spelling Writes in an organized fashion that is easy to understand |
| Written Communication | Writes in an organized justion that is easy to understand Writes in a clear, concise, organized, and convincing manner for the intended audience. Avoids unnecessary jargon and uses plain language that suits the audience's level of understanding. Develops well-structured, concise documents (e.g., reports, proposals) with appropriate formatting for the intended purpose. Considers the audience's needs and incorporates relevant details to support key points. Crafts compelling narratives or arguments tailored specifically to engage diverse or complex audiences. Synthesizes complex information into clear, organized, and impactful written materials (e.g., white papers, strategic plans). Adapts tone, style, and content effectively for different communication channels or cultural contexts. |

| Competency | Occupational | Structured | Biodata | Cognitive |
|-------------------------|---------------|------------|---------|--------------|
| | Questionnaire | Interview | | Ability Test |
| Accountability | Low | High | High | Low |
| Attention to Detail (2) | Low | Medium | Low | High |
| Continual Learning (3) | Low | High | High | Low |
| Creative Thinking (+) | Low | High | Medium | Medium |
| Decision Making | Low | High | Medium | Medium |
| External Awareness | Low | High | Low | Low |
| Information | Low | Medium | Medium | Medium |
| Management | | | | |
| Integrity/Honesty | Low | High | Medium | Low |
| Interpersonal Skills | Low | High | Low | Low |
| Mathematical | High | High | Medium | Low |
| Reasoning | C | C | | |
| Organizational | Low | High | Low | Low |
| Awareness (2) | | C | | |
| Oral Communication | Medium | High | Medium | Low |
| Partnering | Low | High | Medium | Low |
| Planning and | Low | High | Medium | Low |
| Evaluating | | C | | |
| Problem Solving (‡) | Low | High | Medium | High |
| Project Management | Medium | High | Medium | Low |
| (2) | | C | | |
| Reading | Low | Medium | Medium | High |
| Comprehension | | | | Ū. |
| Reasoning | Low | Low | Low | High |
| Resilience | Low | High | Medium | Medium |
| Self-Management | Low | High | Medium | Low |
| Strategic Advisement | Medium | High | Medium | Low |
| Strategic Thinking | Low | High | Medium | Low |
| Teaching Others | Low | High | Medium | Low |
| Teamwork (2) | Low | High | Medium | Low |
| Writing | Low | Low | Medium | Low |
| Written | Medium | High | Medium | Low |
| Communication | | c | | |

 Table 5: General Competencies by Assessment Tool

| Competency | Job Knowledge Test | Personality Inventory | Situational Judgment Test | Work Sample |
|---------------------------------|--------------------------|--------------------------|---------------------------------|----------------|
| Accountability | Low | Low | High | Low |
| Attention to Detail (2) | Low | Medium | Low | High |
| Continual Learning (3) | Low | High | High | Low |
| Creative Thinking (+) | Low | Medium | Low | High |
| Decision Making | Low | Low | High | High |
| External Awareness | Medium | Low | Low | Medium |
| Information Management | Medium | Low | Medium | High |
| Integrity/Honesty | Low | Medium | High | Low |
| Interpersonal Skills | Low | Medium | High | Medium |
| Mathematical Reasoning | High | Low | Medium | Medium |
| Organizational Awareness (2) | Low | High | Low | Low |
| Oral Communication | Low | Low | Low | High |
| Partnering | Low | Medium | High | Medium |
| Planning and Evaluating | Medium | Medium | Low | High |
| Problem Solving (‡) | Medium | Medium | Low | High |
| Project Management (2) | Low | Low | Medium | High |
| Reading Comprehension | Low | Low | Medium | High |
| Reasoning | Low | Low | High | Medium |
| Resilience | Low | Medium | Low | Low |
| Self-Management | Low | Medium | Low | Low |
| Strategic Advisement | Medium | Low | High | Medium |
| Strategic Thinking | Low | Low | Medium | Medium |
| Teaching Others | Low | Medium | Medium | High |
| Teamwork (2) | Low | Medium | Medium | Medium |
| Writing | Low | Low | Low | High |
| Written Communication | Medium | Medium | Low | High |

Table 6: Technical Competencies for Assessment and Selection

The following technical competencies are valid for assessment and selection, performance management, and other related human capital functions for the occupational series listed below. (NOTE: While the technical competencies below have been validated for assessment and selection for the series listed below, other technical competencies not listed below may be required depending on the position. Rely on the results of a job analysis and feedback from the hiring manager and subject matter experts to determine the exact technical competencies needed for a particular hire).

Table 6: Technical Competencies for Assessment & Selection by Grade GS-0110 – ECONOMIST

- Compliance (2)
- Contracting/Procurement (2)
- Cost-Benefit Analysis (2)
- Cost Estimation and Analysis (3)
- Data Interpretation (2)
- Data Management (2)
- Data Visualization
- Economics (2)
- Modeling and Simulation (3)

- Organizational Performance Analysis (2)
- Risk Management (2)
- Stakeholder Engagement
- Technology Awareness (2)
- Technical Competence
- Research (2)

| Accountability | Holds self and others accountable for measurable high- quality, timely, and cost-effective results. Determines objectives, sets priorities, and delegates work. Accepts |
|------------------------------|---|
| | responsibility for mistakes. Complies with established control systems and rules. |
| Attention to Detail (2) | Considers all aspects involved in accomplishing a task, |
| | no matter how minute. Precisely follows procedures to |
| | ensure each element of a task is accurately completed. |
| Continual Learning (3) | Assesses and recognizes own strengths and weaknesses; |
| | pursues new knowledge and skill-development. |
| Creative Thinking (+) | Uses imagination to develop new insights into situations |
| | and applies new solutions to problems; designs new |
| | methods where established methods and procedures are |
| | not suitable or are unavailable. |
| Decision Making | Makes sound, well-informed, and objective decisions; |
| | perceives the impact and implications of decisions; |
| | commits to action, even in uncertain situations, to |
| External Assesses | accomplish organizational goals; causes change. |
| External Awareness | Identifies and understands economic, political, and |
| Information Management | social trends that affect the organization. |
| Information Management | Identifies a need for and knows where or how to gather |
| | information; organizes and maintains information or information management systems. |
| Integrity/Honesty | Contributes to maintaining the integrity of the |
| integrity/fionesty | organization; displays high standards of ethical conduct |
| | and understands the impact of violating these standards |
| | on an organization, self, and others; is trustworthy. |
| Interpersonal Skills | Treats others with courtesy, sensitivity, and respect. |
| | Considers and responds appropriately to the needs and |
| | feelings of different people in different situations. |
| Mathematical Reasoning | Solves practical problems by choosing appropriately |
| | from a variety of mathematical and statistical |
| | techniques. |
| Organizational Awareness (2) | Knows the organization's mission and functions, and |
| | how its social, political, and technological systems work |
| | and operates effectively within them; this includes the |
| | programs, policies, procedures, rules, and regulations of |
| | the organization. |
| Oral Communication | Expresses information (for example, ideas or facts) to |
| | individuals or groups effectively, taking into account the |
| | audience and nature of the information (for example, |
| | technical, sensitive, controversial); makes clear and |

Appendix A: Economist General Competencies

| | convincing oral presentations; listens to others, attends |
|-------------------------|---|
| | to nonverbal cues, and responds appropriately. |
| Partnering | Develops networks and builds alliances; collaborates |
| | across boundaries to build strategic relationships and |
| | achieve common goals. |
| Planning and Evaluating | Organizes work, sets priorities, and determines resource |
| | requirements; determines short- or long-term goals and |
| | strategies to achieve them; coordinates with other |
| | organizations or parts of the organization to accomplish |
| | goals; monitors progress and evaluates outcomes. |
| Problem Solving (‡) | Identifies and analyzes problems; weighs relevance and |
| | accuracy of information; generates and evaluates |
| | alternative solutions; makes recommendations. |
| Project Management (2) | Coordinating project execution by planning, organizing |
| J C (/ | resources, coordinating tasks, and managing timelines to |
| | ensure successful completion and achievement of |
| | project goals. |
| Reading Comprehension | Understands and interprets written material, including |
| 8 <u>F</u> | technical material, rules, regulations, instructions, |
| | reports, charts, graphs, or tables; applies what is learned |
| | from written material to specific situations. |
| Reasoning | Identifies rules, principles, or relationships that explain |
| iteusoning | facts, data, or other information; analyzes information |
| | and makes correct inferences or draws accurate |
| | conclusions. |
| Resilience | Deals effectively with pressure; remains optimistic and |
| | persistent, even under adversity. Recovers quickly from |
| | setbacks. |
| Self-Management | Sets well-defined and realistic personal goals; displays a |
| ben Management | high level of initiative, effort, and commitment towards |
| | completing assignments in a timely manner; works with |
| | minimal supervision; is motivated to achieve; |
| | demonstrates responsible behavior. |
| Strategic Advisement | Advises management, employees, and colleagues on |
| Strategie Advisement | strategic options for organizing, preparing, or |
| | implementing programs based on industry best |
| | practices. |
| Strategic Thinking | Formulates effective strategies consistent with the |
| Strategic Hinking | business and competitive strategy of the organization in |
| | a global economy. Examines policy issues and strategic |
| | planning with a long-term perspective. Determines |
| | |
| | objectives and sets priorities; anticipates potential |
| Tapphing Others | threats or opportunities. |
| Teaching Others | Helps others learn through formal or informal methods; |
| | identifies training needs; provides constructive |

| | feedback; coaches others on how to perform tasks; acts |
|-----------------------|--|
| | as a mentor. |
| Teamwork (2) | Motivates team members to accomplish group goals. |
| | Performs well in team settings and assists others when |
| | needed. Develops and maintains effective working |
| | relationships with others. |
| Writing | Recognizes or uses correct English grammar, |
| | punctuation, and spelling; communicates information |
| | (for example, facts, ideas, or messages) in a succinct and |
| | organized manner; produces written information, which |
| | may include technical material, that is appropriate for |
| | the intended audience. |
| Written Communication | Writes in a clear, concise, organized, and convincing |
| | manner for the intended audience. |

| Budget Management | Manage budget by monitoring expenditures, tracking financial performance, and implementing corrective |
|------------------------------------|--|
| | actions to ensure alignment with organizational goals and compliance with financial policies. |
| Compliance (2) | Ensure adherence to regulatory requirements, laws, regulations, industry standards, and agency policies. Ability to identify, manage and mitigate compliance risks while fostering a culture of ethical behavior and |
| | accountability within the organization. |
| Contracting/Procurement (2) | Manage contracting and procurement processes by drafting and/or negotiating contracts, evaluating vendor proposals, and ensuring compliance with procurement policies to secure goods and services efficiently. |
| Cost-Benefit Analysis (2) | Conduct cost-benefit analyses to support informed decision-making using principles and methods including the time value of money, present value concepts, and quantifying tangible and intangible benefits. |
| Cost Estimation and Analysis (3) | Applies principles, practices, and methods to determine, estimate, and analyze costs, including determining life cycle costs, application of cost models. |
| Data Interpretation (2) | Synthesize data to identify trends, derive actionable insights, and support informed decision-making by applying scientific methods and data visualization techniques. |
| Data Management (2) | Application of the principles, procedures, and tools of data management, such as modeling techniques, data backup, data recovery, data dictionaries, data warehousing, data mining, data archiving, data disposal, and data standardization processes. |
| Data Visualization | Utilizes tools, techniques, and software to generate reports or visualizations that convey data analyses, findings, and limitations. |
| Economics (2) | Apply knowledge of economic principles, theories, and practices, evaluate market and non-market values, as well as analyze and report on economic data. |
| Geospatial Information Systems (2) | Application of knowledge and skill in manipulating computer systems designed for capturing, storing, checking, and displaying data related to positions on Earth's surface in order to better understand spatial patterns and relationships. |

Appendix B: Economist Technical Competencies

Economist Competency Model

| Interdisciplinary | Employ principles, theories, and methods from |
|---|---|
| | various disciplines to develop comprehensive |
| | solutions, fostering teamwork and leveraging diverse perspectives to address complex challenges. |
| Machine Learning | Implement advanced machine learning tools, |
| Widelinie Learning | techniques and principles to analyze complex datasets, |
| | enhancing predictive modeling accuracy and driving |
| | data-informed decision-making within the |
| | organization. |
| Modeling and Simulation (3) | Develop and execute models and simulations by |
| | creating accurate representations of data and designs, |
| | analyzing outcomes, and refining processes to support |
| | decision-making and optimize performance. |
| Natural Resource Management (2) | Develop and implement management plans by |
| | assessing resource conditions, evaluate environmental |
| | impacts, ensure environmental compliance |
| | regulations, and coordinate conservation efforts to |
| | ensure sustainable use and protection of natural |
| | resources which can include scenery/visual |
| | management, and the principles and practices |
| | necessary to inventory, assess, and monitor resource |
| | conditions. |
| Organizational Performance Analysis (2) | Evaluate organizational processes and performance |
| | metrics to identify strengths, weaknesses, and |
| | opportunities for improvement, driving strategic |
| | decision-making and enhancing overall effectiveness. |
| Quality Management (2) | Application of the principles, methods, and tools of |
| | |
| | quality assurance, quality control, and reliability used |
| | to ensure that a project, system, or product fulfills |
| Disk Management (2) | to ensure that a project, system, or product fulfills requirements and standards. |
| Risk Management (2) | to ensure that a project, system, or product fulfills requirements and standards. Assess potential risks by systematically identifying, |
| Risk Management (2) | to ensure that a project, system, or product fulfills requirements and standards.Assess potential risks by systematically identifying, analyzing, and evaluating factors that could impact |
| | to ensure that a project, system, or product fulfills requirements and standards. Assess potential risks by systematically identifying, analyzing, and evaluating factors that could impact project outcomes. |
| Risk Management (2) Stakeholder Engagement | to ensure that a project, system, or product fulfills requirements and standards. Assess potential risks by systematically identifying, analyzing, and evaluating factors that could impact project outcomes. Engage stakeholders through regular communication, |
| | to ensure that a project, system, or product fulfills requirements and standards.Assess potential risks by systematically identifying, analyzing, and evaluating factors that could impact project outcomes.Engage stakeholders through regular communication, active listening, and addressing concerns to build |
| | to ensure that a project, system, or product fulfills requirements and standards. Assess potential risks by systematically identifying, analyzing, and evaluating factors that could impact project outcomes. Engage stakeholders through regular communication, active listening, and addressing concerns to build strong relationships, foster collaboration, and ensure |
| Stakeholder Engagement | to ensure that a project, system, or product fulfills requirements and standards. Assess potential risks by systematically identifying, analyzing, and evaluating factors that could impact project outcomes. Engage stakeholders through regular communication, active listening, and addressing concerns to build strong relationships, foster collaboration, and ensure alignment with project and organizational goals. |
| | to ensure that a project, system, or product fulfills requirements and standards. Assess potential risks by systematically identifying, analyzing, and evaluating factors that could impact project outcomes. Engage stakeholders through regular communication, active listening, and addressing concerns to build strong relationships, foster collaboration, and ensure alignment with project and organizational goals. Maintain a current understanding of emerging |
| Stakeholder Engagement | to ensure that a project, system, or product fulfills requirements and standards. Assess potential risks by systematically identifying, analyzing, and evaluating factors that could impact project outcomes. Engage stakeholders through regular communication, active listening, and addressing concerns to build strong relationships, foster collaboration, and ensure alignment with project and organizational goals. Maintain a current understanding of emerging technologies and industry trends, applying this |
| Stakeholder Engagement | to ensure that a project, system, or product fulfills requirements and standards. Assess potential risks by systematically identifying, analyzing, and evaluating factors that could impact project outcomes. Engage stakeholders through regular communication, active listening, and addressing concerns to build strong relationships, foster collaboration, and ensure alignment with project and organizational goals. Maintain a current understanding of emerging technologies and industry trends, applying this knowledge to enhance organizational processes, drive |
| Stakeholder Engagement | to ensure that a project, system, or product fulfills requirements and standards. Assess potential risks by systematically identifying, analyzing, and evaluating factors that could impact project outcomes. Engage stakeholders through regular communication, active listening, and addressing concerns to build strong relationships, foster collaboration, and ensure alignment with project and organizational goals. Maintain a current understanding of emerging technologies and industry trends, applying this knowledge to enhance organizational processes, drive innovation, and inform strategic decision-making in a |
| Stakeholder Engagement Technology Awareness (2) | to ensure that a project, system, or product fulfills requirements and standards. Assess potential risks by systematically identifying, analyzing, and evaluating factors that could impact project outcomes. Engage stakeholders through regular communication, active listening, and addressing concerns to build strong relationships, foster collaboration, and ensure alignment with project and organizational goals. Maintain a current understanding of emerging technologies and industry trends, applying this knowledge to enhance organizational processes, drive innovation, and inform strategic decision-making in a technology-driven environment. |
| Stakeholder Engagement | to ensure that a project, system, or product fulfills requirements and standards. Assess potential risks by systematically identifying, analyzing, and evaluating factors that could impact project outcomes. Engage stakeholders through regular communication, active listening, and addressing concerns to build strong relationships, foster collaboration, and ensure alignment with project and organizational goals. Maintain a current understanding of emerging technologies and industry trends, applying this knowledge to enhance organizational processes, drive innovation, and inform strategic decision-making in a |

| | technical information related to the job; advises others |
|--------------|--|
| | on technical issues. |
| Research (2) | Conducting research to gather, analyze, and interpret |
| | data, contributing to informed decision-making and |
| | advancing knowledge in the field. |

Appendix C: Economist Study Tasks

| | Collects, researches, and compiles data on economic related and other topics using |
|----|---|
| 1 | quantitative and/or qualitative research methods. |
| 2 | Provides analyses of data and makes recommendations. |
| 3 | Identifies trends and patterns in datasets. |
| | Conducts analysis on various topics, such as environmental analysis, natural resource |
| 4 | management, and private sector activities etc. |
| 5 | Identifies areas to conduct future research in relevant to DOI mission. |
| 6 | Performs research using economic theory and data. |
| | Researches available studies and data for environmental compliance (e.g. planning |
| | and National Environmental Protection Act (NEPA) documents). |
| 7 | |
| | Ensures appropriate organization, methods, and procedures for economic questions |
| 8 | within survey instruments as well as other economic primary data collections. |
| 9 | Designs research and research methods to address policy questions. |
| | Designs and conducts surveys to collect primary economic data from a variety of |
| 10 | sources, including households or visitors. |
| | Stays up to date on economic analysis methods and research relevant to |
| 11 | agency/bureau priorities. |
| | Formulates approach to and participates in economic studies throughout the |
| | agency/bureau. |
| 12 | |
| 13 | Formulates, directs, monitors, and evaluates studies to be produced by contractors. |
| | Generates graphics, tables, and other data visualization products to communicate the |
| 14 | results and significance of economic data and analyses. |
| 15 | Prepares drafts and final economic analysis documents. |
| | Conducts technical review of social and economic analyses for planning and National |
| | Environmental Protection Act (NEPA) documents. |
| 16 | |
| 17 | Completes planning reports and associated environmental documents. |
| | Prepares summaries to communicate economic contributions and nonmarket values to |
| | non-technical audiences. |
| 18 | |
| | Integrates technical economics into the work of other disciplines (e.g., biological and |
| 19 | physical science) for reports and briefing statements used for decision makers. |
| | Analyzes and evaluates effectiveness of methodological and technological advances in |
| 20 | relevant subfields of economics. |
| 21 | Reviews and refines economic methodologies. |
| | Applies the latest technology and software for economic assessments. |
| 22 | |
| | Analyzes leasing scenarios in the context of forecasted energy markets to ensure the |
| | costs and benefits are quantified. |
| 23 | |

| | Utilizes discounted cash flow analysis to analyze tradeoffs of activity scenarios or |
|-----|---|
| | policy options on public lands. |
| 24 | policy options on public failds. |
| 24 | Estimates economic impacts and economic contributions originating from actions or |
| 25 | activity on public lands. |
| 23 | Prepares Regulatory Impact analyses subject to Office of Management and Budget |
| 26 | (OMB) and other guidance for both market and nonmarket costs and benefits. |
| 27 | Assesses auction format, fiscal terms, and sale design for fair market value/fair return. |
| 28 | Estimates social benefits and environmental costs of land use decisions. |
| 20 | Identifies program impacts on future energy markets. |
| 29 | identifies program impacts on ruture energy markets. |
| | Develops standards and analytical procedures to accomplish economic analysis |
| 30 | objectives. |
| | Performs nonmarket valuation techniques, including stated preference, revealed |
| 31 | preference, and benefit transfer methods. |
| | Estimates and forecasts public revenues from energy, natural resource, and non- |
| 32 | energy minerals originating from public lands. |
| | Develops econometric models. |
| 33 | r · · · · · |
| | Develops profiles (e.g., visitor spending, trip characteristic) from survey data and |
| 34 | secondary sources. |
| 35 | Develops input-output models for economic impact analyses of planning actions. |
| 36 | Develops travel cost models to estimate consumer surplus values |
| | Develops decision support tools to identify and address economic impacts. |
| 37 | |
| | Conducts economic analyses for damage assessment and restoration activities. |
| 38 | |
| 39 | Conducts cost-benefit analyses. |
| | Generates tools and reference materials for stakeholder use in understanding |
| 40 | economic methods, approaches, analyses and results. |
| | Advises and consults with governmental officials and private organizations on |
| | economic matters. |
| 41 | |
| 42 | Provides economic expertise in internal discussions with other disciplines. |
| 43 | Supervises and directs other economists. |
| A A | Provides economic support and technical assistance to internal and external parties. |
| 44 | |
| 15 | Serves as subject matter expert interface with economic contractors and consultants. |
| 45 | Responds to requests for information from division staff, agencies, and other public |
| | |
| 46 | and private parties in short timeframes. |
| 40 | Communicates and coordinates with tribal and other agencies, including researchers |
| | and educators in public and private universities and colleges, as well as members of |
| 47 | the public. |
| 4/ | |

| | Works with stakeholders at the local, regional, and national levels to gain support for |
|----|---|
| 48 | the use of economic sciences in resource management. |
| | Develops and maintains professional contacts through participation in national and |
| 49 | other organizations and meetings, including departmental and interagency activities. |
| | Represents the organization and presents the organization's position at functions and |
| 50 | meetings with other agencies and organizations. |
| | Develops and presents budgets to support proposed work. |
| 51 | |
| 52 | Advises on the economic soundness of budget and project recommendations |
| | Reviews and implements program policies, standards, methods, controls, and |
| | procedures to ensure the adequacy and consistency of economic analysis and |
| 53 | interpretation. |
| | Reviews legislation and economic studies prepared by others and evaluates their |
| | relevance, quality, and effect on the organization's mission. |
| 54 | |
| | Recommends changes to existing policies, standards, methods, controls, and |
| | procedures. |
| 55 | |
| | Summarizes and evaluates the economic aspects of policy options, including |
| | feasibility and effectiveness, and enumerates benefits and costs needed to support |
| 56 | various policy options. |
| | Analyzes the economic impacts for alternative leasing or land management policies. |
| 57 | |
| | Conducts economic analyses for National Environmental Protection Act (NEPA) |
| | compliance. |
| 58 | |
| 59 | Identifies the need for new legislation. |
| | Reviews and assesses Executive Orders, departmental directives, new legislation, |
| | legislative proposals, and statements of national policy to evaluate the impact on the |
| 60 | agency and agency mission. |
| | Assesses costs and benefits or impacts of policies and discusses their geographical or |
| | demographic distribution. |
| 61 | |
| | Accounts for the costs and benefits of natural resource or environmental policy |
| 62 | alternatives. |
| | Analyzes tradeoffs of different policy alternatives, including opportunity costs of |
| | market and non-market impacts. |
| 63 | 1 |
| | Identifies critical research topics and explains them to others. |
| 64 | |
| | Engages with potentially confrontational personal contacts in both structured and |
| 65 | unstructured settings, including justifying and defending policies against criticism. |
| | Serves as point of contact for employees regarding the type and scale of economic, |
| 66 | socioeconomic, and business analyses needed for projects or applications. |
| | |

| | Provides guidance for the adequacy and consistency of economic analysis and |
|----|---|
| | interpretation. |
| 67 | |
| 68 | Develops overall program objectives and identifies available resources. |
| 69 | Contributes technical information regarding the state of the economy, informed interpretation of observed economic phenomena, and evaluations and forecasts of economic movements. |
| 70 | Provides technical economics expertise related to a variety of topics, such as public use statistics, visitor and non-visitor surveys, socioeconomic monitoring, visitor spending, recreation and tourism trends, among others, to support science-based management actions. |
| 71 | Provides recommendations for methods to refine economic survey questions, data analysis, and engagement and utility of economic data. |
| 72 | Advises project managers and planning teams on business and financial planning, socioeconomic analysis and problem solving, public involvement, environmental compliance, and team budgeting. |
| 73 | Applies appropriate statistical techniques in data analysis and modeling (e.g. econometrics, machine learning, descriptive statistics) |
| | Perform various types of financial analysis (e.g. cash flow analysis, cost allocation, |
| 74 | net present value, life cycle costs, ability to pay, and financial capability) |
| 75 | Manage data sets (e.g. big data) |
| 76 | Presenting economic results in multiple platforms and formats, including oral, written, and data visualization dashboards. |