

ROI Whitepaper

Government Industry Summary

Key Insights

- More than 70 <u>Validity Generalization</u> studies show Hogan's breadth of industry experience, from <u>Foresters</u> to <u>Firefighters and Paramedics</u>.
- Over 20 ROI studies demonstrate the impact Hogan has on improved performance and greater advancement potential.

About Hogan

Our Tools

The Hogan Archive

Industry Background

Hogan Job Families

Validity Generalization Studies

ROI Validity Studies

About Hogan

Hogan has decades of experience providing cutting-edge assessment and consulting solutions. Our assessments can be used for a variety of talent management initiatives, from pre-hire selection to executive-level development. Our tools:

- Predict job performance hire better people by measuring basic employability, work style, safety consciousness, and organizational fit.
- Evaluate career derailers identify and mitigate performance risks that can degrade leadership success, erode relationships, and damage professional reputation.
- Identify potential find and develop your organization's next generation of top talent.
- Develop leaders leverage the strategic self-awareness gained through Hogan's assessment process with executive development and coaching.
- Pair with 360° data and other performance indices reveal the underlying characteristics and values that drive the behaviors identified in the 360° process. In progressive development programs, 360s provide the what; Hogan provides the why.

Our Tools

Hogan's assessment offerings measure normal personality characteristics, career derailment risks, core value drivers, and cognitive style. Hogan's selection and development solutions are driven by a targeted mix of the following assessments:

- HPI the Hogan Personality Inventory measures normal personality characteristics necessary for job fit, effective relationships, and career success.
- HDS the Hogan Development Survey is the industry standard for measuring career-derailing personality characteristics.
- MVPI the Motives, Values, Preferences Inventory reveals a person's core values, goals, and interests, which impact organizational fit and indicate environments in which individuals will be motivated and satisfied.
- HBRI the Hogan Business Reasoning Inventory describes a person's ability to evaluate sets of data, make decisions, solve problems, and avoid repeating past mistakes.

The Hogan Archive

Hogan maintains the industry's largest and most well-developed archive of original research, affording access to hundreds of real-world validity studies demonstrating the extent to which our assessments predict performance.

- Our research department, composed of masters- and doctorate-level I-O psychologists, regularly conducts return-on-investment (ROI) studies establishing the impact of personality-based selection and development activities on real-world performance outcomes.
- The Hogan archive contains case studies demonstrating ROI across virtually every industry for nearly all job titles listed in the U.S. Department of Labor's Occupational Information Network (O*NET).
- Performance data are available for more than 375 jobs ranging from clerks to executives, including government-related jobs such as transportation mechanics, correctional officers, and auditors.

Industry Background

Within the Hogan archive, we have categorized companies that share a common purpose (or similar business activities) into broad categories that allow us to summarize our assessment experience within a particular industry.

The Government industry represents municipal companies and government agencies who provide community services and support to area residents. These organizations perform a wide range of activities, including (a) law enforcement, (b) transportation, (c) parks and recreation, and (d) administrative support. Although the bulk of Hogan's work in the Government industry focuses on service professionals (e.g., transportation security screeners, foresters, military personnel), our breadth in the field extends to clerks, chemists, and engineers.

Hogan Job Families

Hogan's archive now contains over 1,000 research studies with over 100 studies focused on the Government industry. We have categorized occupations that share common underlying characteristics into broad categories that allow us to examine the utility of our assessments in measuring these shared competencies. Hogan classified these Government jobs into one of our seven job families, as described in the table below and used later to classify our ROI studies.

Hogan Job Family	Definition	
Managers & Executives	Employees assigned to positions of administrative or managerial authority over the human, physical, and financial resources of the organization.	
Professionals	Employees with little legitimate authority, but high status within the organization because of the knowledge and/or skills they possess.	
Technicians & Specialists	Employees who rely on the application of highly specific knowledge in skilled manipulation (e.g., operation, repair, cleaning, and/or preparation) of specialized technology, tools, and/or machinery.	
Sales & Customer Support	Employees who use appropriate interpersonal style and communication techniques to establish relationships, sell products or services that fulfill customers' needs, and provide courteous and helpful service to customers after the sale.	
Operations & Trades	Employees who are craft workers (skilled), operatives (semi-skilled), and laborers (unskilled) whose job knowledge and skills are primarily gained through on-the-job training and experience; little prerequisite knowledge or skill is needed.	
Service & Support	Employees that perform protective services for individuals and communities (e.g., police, fire fighters, guards) and non-protective services for individuals that require little to no formal training but a high degree of personal interaction (e.g., food service, recreation).	
Administrative & Clerical	Employees who plan, direct, or coordinate supportive services of an organization. These employees engage in variety of non-manual activities (e.g., recordkeeping, mail distribution, handling information requests, telephone operator/receptionist).	

Validity Generalization Studies

Given the vast number of local validation studies stored in the Hogan archive, we can use these criterion-related validity studies as the foundation for generalizing validity. Validity generalization methods are supported by a large body of empirical literature. We use the following methods in our research design:

- Meta-Analytic Validity Generalization which uses meta-analytic procedures for determining the relationship between the Hogan scales and job performance at a broad, job family level.
- Transportability of Validity which involves using validity evidence from one or more criterionrelated validity studies found to be similar to the target job under study.
- Synthetic Validity which establishes the validity of a set of measures for predicting specific job components (i.e., competencies) considered important for a job.

As seen in the following table, multiple clients have used our validity generalization approach to predict success in Government jobs.

success in dovernment jobs.				
Job Type Job Title (Study #)				
Management	Civil Engineer Manager (215.2) Highway Maintenance Superintendent (215.7) Equipment Repair Manager (237) Transportation Planner (237.1)	Park Manager (238) Supervising Rangers (238.2) Team Leaders (469) Area Leaders (469.1) Manager (563, 693)		
Service & Support	Transportation Security Screeners (355, 356, 357, 358, 359) Foresters (412)	Deputy Conservation Warden (551) Child Support Officer (768) Immigration Officer (868) Fire Fighters and Paramedics (901)		
Professionals	Engineer (186.3) Aircraft Pilot (215.1) Tunnel Operator (215.4) Programmer (215.6) Systems Specialist (237.12) Programmer Analyst I (237.14) Senior Programmer (237.15) Auditor (186.2, 237.3) Chemist (237.4)	Real Property Valuation Analyst (237.7) Park Ranger (238.1) Accountant I (215, 237.2, 266) Geologist I (281) Federal Flight Deck Officers (360) Process Site Specialists (379) Field Case Officer (632) Analyst (633) Investigator (898.2) Correctional Officers (899)		
Technicians	Mechanic (186.1, 237.9) Maintenance Assistant (187) Traffic Signal Technician (215.3) Planning Specialist (215.5) Highway Maintenance Tech (215.8) Mechanic Assistant (237.13)	Traffic Sign Painter (237.16) Welder (237.17) Tunnel Maintenance Specialist (237.8) Electronic Technicians (250.1, 295) Graphic Arts Operators (279) Community Development Technician (423)		
Administrative	Administrative Support (186) Personnel Assistants (215.11) Account Clerk (237.18) Clerk (215.9, 237.19) Civil Engineer Administrator (237.11) Data Processing Specialist I (237.21) Dept. Procurement Officer I (237.22) Mechanical Stock Clerk (237.23)	Stock Clerk I (237.24) Stock Clerk II (237.25) Cultural Resources Administrator (237.5) Equal Employment Officer (237.6) Personnel Assistants (250) Permit Counter Representative (269) Central Office Specialists (469.2) Job Corps Center (540)		

ROI Studies

Hogan conducts criterion-related validity studies using a three-step process: (1) collecting Hogan assessment data, (2) collecting job performance data (i.e., supervisor performance ratings and objective performance metrics), and (3) conducting analyses examining the relationships between the assessment and performance data.

When conducting criterion-related validity research, we find it useful to demonstrate what a selection system based on the Hogan profile means in practical terms, or ROI. The following case studies were excerpted from the Hogan archive to show how using our assessments translates into measurable results when companies hire candidates into Government jobs. More detailed information for each study can be found in the job title hyperlinks below.

Professionals

- <u>Recreation Leaders</u> (168) A municipal agency asked Hogan to help improve its selection process for Recreation Leaders using the Hogan Advantage (HA) report.
 - Research discovered that successful Recreation Leaders are composed under stress (HPI Adjustment), team-oriented (HPI Sociability), and remain process focused (HPI Prudence).
 - Individuals who understand and communicate well with customers (higher HA Customer Focus) were over six times more likely to be rated as a strong performer than those who tend to be less skilled when interacting with customers (lower HA Customer Focus).

Service & Support

- <u>Sheriff's Deputies</u> (166) A law enforcement agency used the HPI to identify and select high performing Sheriff's Deputies.
 - Hogan found that higher performing Sheriff's Deputies are stress resistant and resilient (HPI Adjustment), appear diplomatic, warm, and friendly (HPI Interpersonal Sensitivity), and remain dependable and organized (HPI Prudence).
 - \circ HPI Interpersonal Sensitivity significantly predicted several key performance outcomes, including overall performance (r = .42) and testifies well in court (r = .24).
- Mechanics (169) A municipal company used the HPI to select high performing Mechanics.
 - Hogan found that higher rated Mechanics remain calm under pressure (HPI Adjustment), are comfortable interacting with others (HPI Sociability), and are dependable and conscientious (HPI Prudence).
 - Applying the HPI profile screened out 83% of poor performers and yielded a 69% overall success rate.
- <u>Emergency Communications Officers</u> (170) A city municipality used the HPI to identify and develop high performing Emergency Communications Officers.
 - Hogan discovered that Emergency Communications Officers are optimistic (HPI Adjustment), proactive in social situations (HPI Sociability), and remain process-focused (HPI Prudence).
 - Applying the HPI profile screened out 71% of poor performers and yielded a 56% overall success rate.

- <u>Foresters/Forester Rangers</u> (464) A state agency wanted to improve its hiring practices for Foresters and Forester Rangers by implementing the HPI.
 - Hogan revealed that successful Foresters/Forester Rangers are stress resistant and calm under pressure (HPI Adjustment), warm, friendly, and diplomatic (HPI Interpersonal Sensitivity), and dependable, organized, and process-focused (HPI Prudence).
 - Foresters/Forester Rangers who fit the Hogan profile were nearly 5 times more likely to be rated as a strong performer compared to those not passing the profile.
- <u>Forestry Technicians</u> (962) A state agency used the HPI, HDS, and MVPI to select Forestry Technicians.
 - Hogan showed that effective Forestry Technicians can handle stress at work and persevere through challenges (HPI Adjustment), are willing to take decisive action to achieve goals (HPI Ambition), and are structured and task-focused (HPI Prudence).
 - Forestry Technicians who passed the Hogan profile were 4 times more likely to be rated as employees that supervisors would make a significant effort to keep compared to those not meeting the profile.

Administrative & Clerical

- <u>Naval Students</u> (32) A national defense agency used the HPI to evaluate the usefulness of cognitive and non-cognitive measures (in combination) for predicting training success for Naval Students.
 - Hogan demonstrated that the best Naval Students are competitive, driven, and goaloriented (HPI Ambition), as well as curious and resourceful problem solvers (HPI Inquisitive).
 - Regression analyses demonstrated that the Hogan scales added incremental validity, in that the Hogan profile explained nearly 10% more in military citizenship, above and beyond what cognitive ability predicted in the study.
- <u>Military Attaché</u> (55) A U.S. government agency wanted to improve its practices for identifying and developing Military Attaché personnel using the HPI.
 - Hogan revealed that the best Military Attachés are stress resistant and resilient (HPI Adjustment), and hardworking and confident (HPI Ambition).
 - Military Attaché's who fit the Hogan profile are more likely to be effective in their daily jobs and least likely to require disciplinary action.
- General Employability (1069) A government agency used the HPI, HDS, and MVPI to screen for General Employability across the organization.
 - Hogan found that the best employees remain composed under pressure (HPI Adjustment), appear cooperative and genuinely helpful (HDS Leisurely), and stay task-focused (lower MVPI Affiliation).
 - Employees who passed the Hogan profile were 8 times more likely to be rated as strong performers compared to those not meeting the profile.

Additional Validity Studies

The Hogan Archive contains several additional criterion-related validity studies within the Government industry. These jobs range from clerical workers to attorneys to firefighters. This breadth of job titles demonstrates Hogan's history and experience within the Government industry.

Job Title (Study #)	Job Family
Clerical Workers (167)	Administrative & Clerical
Entry-Level Positions (137)	Administrative & Clerical
Entry-Level Positions (184)	Administrative & Clerical
Attorney (898)	Professionals
Naval Explosive Ordnance Disposal Personnel (3)	Service & Support
Naval Explosive Ordnance Disposal Technicians (9)	Service & Support
Police Communication Operators (72)	Service & Support
Police Officers (81, 194)	Service & Support
Firefighters (132, 220)	Service & Support
Naval Personnel (221)	Service & Support
Forester (962.1)	Service & Support