



ROI Whitepaper

Construction Industry Summary

Key Insights

- Hogan demonstrates how competencies like [Problem Solving](#) and [Self Development](#) drive success across the Construction industry.
 - More than 15 [Validity Generalization](#) studies show Hogan’s breadth of industry experience, from [Site Engineers](#) to [Project Managers](#).
 - Over 20 [ROI](#) studies demonstrate the impact Hogan has on [increased sales](#), [improved performance](#), and [greater advancement potential](#).
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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 400 jobs ranging from clerk to CEO, including construction-related jobs such as Site Engineers, Project Managers, and Bid Estimators.

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 an industry.

The Construction industry comprises a wide range of activities involving construction, alteration, and/or repair. Examples include residential construction, bridge erection, roadway paving, excavations, demolitions, and the supply of the tools and materials needed to complete these activities. Although Hogan's work in the Construction industry focuses heavily in the Managers & Executives job family (e.g., managers and superintendents), our breadth in the field extends to professionals and specialized job types such as electrical engineers and bid estimators.

Hogan Job Families

Hogan's archive contains over 1,000 research studies with nearly 50 studies focused on the Construction 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 the Construction industry jobs into one of our seven job families, as described in the table below.

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).

Competency Studies

Organizations often use competency models to provide a common framework for aligning human capital initiatives such as recruitment, selection, training, and promotion. Hogan offers a variety of competency-related solutions that allow organizations to incorporate personality assessments into these programs.

Each approach begins by mapping client competencies to those from the Hogan Competency Model (HCM). We then rely on synthetic and content validity evidence to align assessment scales from the HPI, HDS, and MVPI with each competency. This helps us determine which personality characteristics drive performance related to the specific competency. As seen in the following table, several Construction industry clients have used our tools to predict key competencies specific to their organization:

Job Title (Study #)	Competency	Key Scales
Senior Leaders (690)	Getting Things Done	HPI Ambition, HDS Dutiful, MVPI Power
Supervisors (754)	Planning & Organizing	HPI Prudence, HDS Imaginative, HDS Excitable
Rotational Candidates (919)	Adaptability	HPI Adjustment, HDS Excitable, MVPI Security
Leaders (956)	Avoiding Risk	HPI Ambition, HPI Inquisitive, HDS Dutiful

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 three 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 criterion-related 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 across a variety of Construction jobs.

Job Type	Job Title (Study #)
Administrative and Clerical	Project Accountants (547)
Managers & Executives	Project Managers (908) Midlevel Leaders (468) International Supervisors (436)
Operations & Trades	Plant Operators (496, 513)
Professionals	Site Engineers (922) Senior Buyers (792) Financial Division Managers (548) Electrical Engineers (546) Entry-Level Engineers (489)
Sales & Customer Support	Living Consultants (612) Sales Engineers (561) Sales Counselors (543, 541) Sales Associates (455)

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 Construction industry jobs. More detailed information for each study can be found in the job title hyperlinks below.

Managers & Executives

- [High Potential Leaders](#) (778) – A national engineering company used the HPI, HDS, and MVPI to predict Leader potential and success.
 - Hogan demonstrated that Leaders who remain calm under pressure (HPI Adjustment), stay organized and attentive to details (HPI Prudence), and encourage cooperation and teamwork (HPI Interpersonal Sensitivity) are the best performers.
 - Candidates who fit the Hogan profile are more likely to be better performers and have greater potential for advancement.
- [General Managers](#) (666) – A U.S. based building supply company used the HPI, HDS, and MVPI to predict General Manager performance.
 - Hogan found that General Managers who are driven (HPI Ambition), more likely to adhere to tried and true methods (HDS Colorful), and are most concerned with financial matters (MVPI Commercial) are the strongest performers.
 - Candidates who fit the Hogan profile managed locations with greater overall sales and profit margins in comparison to locations with General Managers who did not meet the Hogan profile.
- [Managers](#) (606) – A national lumber and construction supply company used the HPI, HDS, and MVPI to predict Manager success.
 - Hogan revealed that the most successful Managers are calm under pressure, but still responsive to employees (moderate HPI Adjustment); willing to listen to others and work as a team (low HDS Leisurely); and achievement driven (high MVPI Power).
 - Candidates who fit the Hogan profile are more likely to be higher performers and a better fit with the culture of the organization.
- [Assistant Project Managers](#) (320) – An architecture and construction company used the HPI and MVPI to select Assistant Project Managers.
 - Hogan showed that high performing Assistant Project Managers appear tactful and sensitive when interacting with others (HPI Interpersonal Sensitivity) and they care about the welfare of their employees (MVPI Altruistic).
 - We found significant correlations between Assistant Project Manager overall job performance and the HPI Interpersonal Sensitivity ($r = .35$) and MVPI Altruistic ($r = .33$) scales.

- [Supervisors and Dispatchers](#) (291) – A building supply company used the HPI, HDS, and MVPI to select Supervisors and Dispatchers.
 - Hogan found that the most successful Supervisors and Dispatchers are even-tempered (HPI Adjustment), trusting and loyal (HDS Skeptical), achievement-oriented (MVPI Power), and prefer stable work environments (MVPI Tradition).
 - We found significant correlations between overall job performance and the HPI Adjustment ($r = .36$), HDS Skeptical ($r = -.39$), MVPI Power ($r = .36$), and MVPI Tradition ($r = .38$) scales.
- [Superintendents](#) (182) – A global provider of professional construction services used the HPI to predict Superintendent performance.
 - Hogan demonstrated that the most successful Superintendents easily adjust to fast-paced environments (HPI Adjustment), are assertive, and are results-driven (HPI Ambition).
 - Candidates who fit the Hogan profile were 20% more likely to “Go the Extra Mile” compared to those not fitting the profile.
- [General Managers](#) (158) – A lumber supply company used the HPI, HDS, and the MVPI to predict General Manager success.
 - Hogan found that the most successful General Managers are calm and composed under pressure (HPI Adjustment) and friendly and approachable (HPI Interpersonal Sensitivity).
 - We found significant correlations between leadership ability for General Managers and the HPI Adjustment scale ($r = .25$) as well as with effective communication skills for General Managers and the HPI Interpersonal Sensitivity scale ($r = .54$).

Professionals

- [Engineers](#) (100) – A national engineering company used the HPI and MVPI to predict Engineer performance.
 - Hogan showed that successful Engineers are driven to succeed (HPI Ambition), interested in finding continuous learning opportunities (HPI Learning Approach), and generally more concerned with tasks than relationships (MVPI Affiliation).
 - We found significant correlations between Engineer overall job performance and the HPI Ambition ($r = .13$) and HPI Learning Approach ($r = .33$) scales.

Sales and Customer Support

- [Account Manager](#) (775) – A global product manufacturer for the construction and building maintenance industry used the HPI, HDS, and MVPI to select Account Managers.
 - Hogan revealed that successful Account Managers are comfortable engaging in social interactions (HPI Sociability), confident and competitive (HDS Bold), and value achievement and influence (MVPI Power).
 - Candidates who fit the Hogan profile had higher average sales bonuses than those who did not meet the profile.
- [Sales Associates](#) (179) – A building supply company used the HPI, HDS, and MVPI to predict Sales Associate performance.
 - Hogan showed that successful Sales Associates are friendly (HPI Sociability), open to feedback (HDS Bold), and driven by financial success (MVPI Commerce).

- Candidates who fit the Hogan profile were more likely to be high-performers and to fit with the overall culture of the organization.
- [Sales Job Family](#) (152) – A construction supplier used the HPI, HDS, and MVPI to select workers for their Sales Job Family.
 - Hogan found that successful Sales Job Family employees are driven and self-confident (HPI Ambition), socially skilled (HPI Sociability), and are motivated by financial success (MVPI Commercial).
 - We found significant correlations between overall job performance for the Sales Job Family and the HPI Ambition ($r = .21$), HPI Sociability ($r = .19$), and MVPI Commerce ($r = .21$) scales.

Technicians and Specialists

- [Offshore Anchor Handlers](#) (126) – An offshore mooring company used the HPI to select Offshore Anchor Handlers.
 - Hogan found that successful Offshore Anchor Handlers easily get along well with others (HPI Interpersonal Sensitivity), are detail-oriented (HPI Prudence), and are creative problem solvers (HPI Inquisitive).
 - Candidates who met the Hogan profile were five times more likely to be rated as strong performers by their supervisors compared to those who did not meet the profile.

Additional Validity Studies

The Hogan Archive contains several additional criterion-related validity studies within the Construction industry. These jobs range from bid estimators to superintendents. This breadth of job titles demonstrates Hogan’s history and experience within the Construction industry.

Job Title (Study #)	Job Family
Project Managers (446.2)	Managers & Executives
Bid Estimator (446.1)	Managers & Executives
Superintendents (446)	Managers & Executives
Project Engineers (376.3)	Managers & Executives
Project Managers (376)	Managers & Executives
Estimators (376.2)	Professionals
Superintendents (376.1)	Technicians & Specialists
Offshore Anchor Handlers (153)	Technicians & Specialists