Evidence-Based Selection Guidebook

HireReach

For employers working to implement a skills-based hiring model to improve quality-of-hire and diversity.

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Better fit.
Less turnover.
More diversity.
HR

HireReach

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About Metrics Reporting, Inc.

This guidebook is unique among publications by Metrics Reporting, Inc. (MRI). It is branded under the HireReach initiative that is working to expand the adoption of the evidence-based selection process in West Michigan. The HireReach initiative is a collaboration of Talent 2025 and West Michigan Works! funded by WK Kellogg Foundation and the Doug and Maria DeVos Foundation. HireReach has an extensive website at www.hirereach.org.

MRI designs processes and tools for workforce professionals. Our focus is to provide pragmatic tools and guidance for working professionals to help them implement demand-driven, evidence-based talent systems that align with nationally recognized policy and best practices. We share our work via research briefs, guidebooks, and various project specific websites. Please visit www.metricsreporting.com to learn more about our work and to find links to projects and publications.

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The information contained within this handbook should not be construed as legal advice, in any manner and specifically within employment and labor law. The authors of this document are not lawyers. This handbook is meant to assist individuals who interact with job seekers on a regular basis. Practitioners should seek the advice of legal counsel whenever appropriate in order to ensure that activities undertaken as part of this guidebook are consistent with local, state, and federal law.

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Preface

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“Participating in HireReach has been invaluable in transforming our recruiting process. We have been able to centralize our recruiting process and tackle hiring problems with data instead of feelings. Our organization has a better understanding of what makes a hire a good hire, and how to back that up with data.”

– JAMI FARKAS, Director – Human Resource Operations, Cascade Engineering

1 | Preface

This guidebook was written to help employers make better hires and promotions through decisions that are fair, objective and based on evidence.

The content supplements the HireReach Academy, which helps employers implement a structured hiring and promotion process that relies on data-driven decision making.

This approach, called evidence-based selection, has been proven to simultaneously increase quality of hire and diversity.

The majority of the guidebook focuses on two main content areas:
- Why evidence-based selection, and
- How to implement evidence-based selection.

About HireReach

The HireReach team began pioneering evidence-based selection (EBS) practices with Mercy Health in 2010.

Mercy Health serves West Michigan as a member of Trinity Health, the fourth-largest health care system in the country. Mercy implemented an evidence-based selection process to improve talent acquisition. The process evaluated candidates holistically, targeting skills relevant to each job and reducing the potential for unconscious bias. After hiring over 10,000 candidates using the process, Mercy Health reports:
- First-year turnover dropped 23% for those hired using the strategy
- The amount of time it took to hire a candidate was reduced by 16%
- The diversity of the workforce doubled

In 2018, the W.K. Kellogg and Doug & Maria DeVos Foundations provided funding for a three-year pilot to help West Michigan employers adopt an EBS model. HireReach was then launched through partnerships with Talent 2025, a group of over 100 CEOs from the West Michigan region, and West Michigan Works!, the local workforce agency.

By the end of 2020, HireReach had helped 25 employers adopt an EBS process for selection and hiring. These employers cover a wide range of sectors, including manufacturing, service, law, higher education, community college, K-12 and government. They represent a variety of employer sizes, organization types and hiring models.

See what participating employers are saying about HireReach by visiting, HireReach.org/employer-testimonials

After hiring over 10,000 candidates using the evidence-based selection process, Mercy Health reports:

23% Reduction in Turnover

16% Reduction in Time to Fill

2x Workforce Diversity More Than Doubled

About HireReach Academy

Today, employers learn the essential elements of EBS through the HireReach Academy. HireReach Academies consist of a series of courses over a five-month period. Talent acquisition teams from participating employers design, launch, and begin to refine their EBS processes.

The curriculum is delivered virtually through a learning management system. The Academy is designed to accommodate busy employers by combining instruction and application in each session. This allows participants to immediately begin implementing what they learn.

Through the Academy, employers will be trained on:

- Core concepts of using evidence in hiring decisions
- Elements of a typical evidence-based selection process
- Using assessment tools to predict performance
- How to use compensatory scoring
- Customizing compensatory scoring by job family
- Talent acquisition essentials

HireReach Academy

Academy sessions are supplemented with 1:1 consulting sessions where employer project teams and HireReach consultants apply learnings to the development and launch of a custom EBS process.

In addition to the resources found in this guidebook, the HireReach Talent Acquisition Essentials Guidebook (available on amazon.com) provides a robust collection of best practices designed to support the talent acquisition professional.

> "They gave us a method to improve quality and metrics in the critical areas of recruiting and hiring. The process helped us remove barriers and broadened our reach to further diversity our faculty and staff."
>
> – KATHY NATELBORG, Executive Director Human Resources, Davenport University

What is Evidence-Based Selection?

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"The most valuable part of participating in HireReach was learning about the data behind evidence-based selection. This is an innovation that can transform your hiring process. It was incredibly valuable to have a team of experts help us update a hiring process to be consistent, equitable, and legally defensible."

– ALEXANDRIA POLK, Senior Human Resources Analyst, City of Grand Rapids

2 | What is Evidence-Based Selection?

Selecting the right candidate for a job is one of the most important decisions an organization makes. Unfortunately, that decision is often influenced by bias and other variables unrelated to job skills and performance.

Decision making can be enhanced by using a disciplined process, accurate tools, and relevant data. This is what Evidence-Based Selection (EBS) delivers: **a fair, objective, data-driven strategy that helps organizations make better hiring decisions. It is a proven way to make better hires, reduce first-year turnover, and increase workforce diversity.**

Better Decisions

EBS enables better decision making by incorporating predictive evidence into selection decisions, providing recruiters and hiring managers with better data to support increased accuracy. Consistent, reliable and valid measures are designed to assess competencies that are strong predictors of job performance. Using EBS enables employers to mitigate the irrelevant factors that often skew the human judgment process, leading to hiring based on the candidate's foundational and occupational competencies.

Job Analysis

EBS begins with an assessment of an organization's jobs, a process often referred to as job analysis. To effectively conduct an analysis, jobs are placed into families, sets of similar roles grouped by competencies and other characteristics. This grouping allows for better understanding of the competencies required for the position. These competencies are valid criteria for candidate selection, because they are demonstrably or statistically related to job performance.

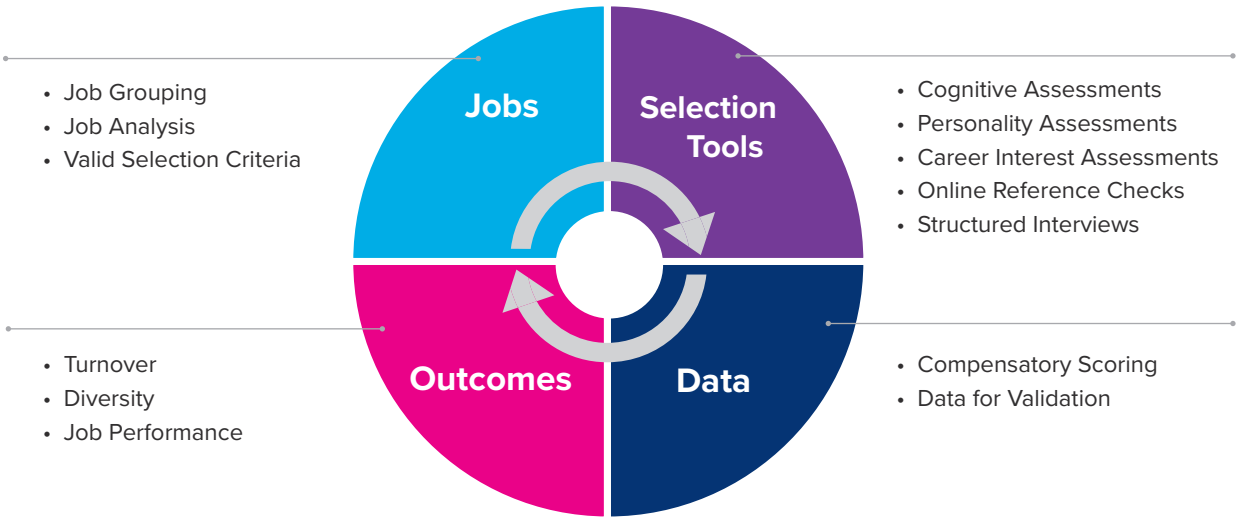
Measuring Competencies

Competencies are measured using highly predictive selection tools developed by the science of Industrial and Organizational Psychology. Scores collected from predictive selection tools are banded as red (not qualified), yellow (may be qualified), or green (qualified) based on job requirements, then averaged, allowing selection teams access to data indicating the "whole person" fit with the job. HireReach calls this approach compensatory scoring.

The Framework

Finally, the above best practices are built into a consistent, structured, standard process. The process is continuously assessed for efficiency and accuracy through the use of metrics and problem solving. The EBS framework is summarized in the graphic on page 6.

Evidence-Based Selection Framework: Better Decision Making



A Summary of Evidence-Based Selection

- A structured, data-driven approach to hiring and promoting talent
- Starts with a structured evaluation of jobs to identify competencies related to job performance
- Adds valid, reliable, and predictive selection tools to measure competencies
- Uses compensatory scoring, banding and averaging data points

The result: Increasing the accuracy of candidate selection by mitigating bias and noise in the selection process, leading to increases in quality of hire, diversity, and reductions in turnover.

Envisioning Your Evidence-Based Selection Process

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“Moving toward evidence-based selection is giving us an avenue to make real change in the way we recruit and hire. HireReach provided a foundation for making our organization diverse and for ensuring our hiring practices give opportunity to all.”

– MEGAN TOTH, Talent Acquisition and Engagement Manager, YMCA of Greater Grand Rapids

3 | Envisioning Your Evidence-Based Selection Process

Let's imagine that you have successfully implemented an evidence-based selection system. What does your talent acquisition process now look like?

Job Grouping

You have taken your hundreds – or thousands – of position descriptions and used data to group them into broad "job families" that have common foundational and occupational competencies. This prepares you for job analysis

Job Analysis

You have conducted a job analysis — prioritizing critical occupations and those for which you are doing the most recruitment and selection. This gives you a detailed description of the competencies required for job success, which you can use to screen and rank your candidates. These competencies have been reviewed and confirmed by Subject Matter Experts – people doing the work in your organization.

Selection Tools

You have chosen a highly predictive and accurate set of tools to guide your decision-making. These will include some combination of cognitive, personality and career interest assessments, including structured interview guides. Combined with other tools, such as job-specific knowledge tests, performance assessments, and online reference checks, these tools will enable your team to make informed and accurate selection decisions.

Compensatory Scoring

You have identified scoring bands for each selection tool score that clearly indicate if a candidate is a good fit for a particular job. These scoring bands have been averaged into a "compensatory scoring system" that allows you to look at the overall quality of a candidate from an integrated point of view, or as a whole person, rather than just looking at the individual scores.

Process Redesign

You have mapped your current talent selection process ("As Is") and the desired EBS process ("To Be") and executed a transition plan to move practices from one condition to another. The EBS process has been documented in a Standard Operating Procedure so that everyone involved understands the sequence of events and their roles. This will assure a smooth handoff between the various steps in the process, including requisition approval and job posting, human resources and hiring manager intake meeting, candidate referrals to hiring managers, candidate interviews, interview debriefs and job offers. If you use a software system such as an Applicant Tracking System (ATS) to manage your hiring process, you have integrated as many of these steps as possible into the platform.

Key Performance Indicators (KPIs)

You have identified KPIs that measure the performance of your selection process (such as quality of hire, turnover rate, time to fill, diversity of hires, return on investment, etc.), established target values, and developed a scoreboard and reporting cadence to keep leadership informed.

Turnover/Quality Root Cause Analysis

You have designed and implemented a root cause analysis system to examine turnover and regrettable hires. Results are documented and lead to improvements.

Core Concepts

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“Training presentations were extremely helpful to understand the foundation of evidence-based selection. … Hearing from a credible third-party organization convinced us we needed a change within our organization.”

– SHANNON KING, Talent Acquisition Manager, Gordon Food Service

4 | Core Concepts

This section focuses on six core concepts:

1. Mitigating Noise and Bias in Decision Making
2. Fair and Objective Decision Making
3. Predictive Validity
4. Competencies and the O*NET
5. Willingness and Ability
6. Utility – Why Job Performance Matters

When launching a journey toward implementing an EBS process, it is important to understand what makes a process "evidence-based." This section explores these concepts and how they impact the development and maintenance of an EBS process. These can be viewed as the six main concepts of an evidence-based selection process:

CONCEPT 1:

Mitigate noise and bias to enable more accurate selection decisions.

Humans tend to be poor intuitive decision-makers – in particular when it comes to the judgment of other humans (Highhouse, 333). One goal of EBS is to reduce or eliminate unstructured and subjective evaluations of candidates, replacing them with objective, data-driven decision-making using valid and reliable quantitative data.

CONCEPT 2:

Standardize processes to support fairness and objectivity. Audit compliance.

Process standardization allows data-driven decision-making to occur within a structured, measurable, and auditable process. The goal is to enable consistent and accurate decision-making that is accountable and can be evaluated.

CONCEPT 3:

Use reliable, valid and highly predictive selection tools. Learn from the science of Industrial and Organizational Psychology.

Consider what data will drive decisions. Industrial Psychology (the study of individual human behavior in the workplace) recommends using selection tools that are reliable, valid and highly predictive of performance. Understand predictive validity as a concept, and consider how to maximize the predictive validity of the selection and promotion processes.

CONCEPT 4:

Measure valid selection criteria. Analyze which competencies are related to performance. Focus selection tools on measuring these criteria.

Since we are not able to "see" potential job performance, competencies are measured to predict job performance. Rigorous job grouping and analysis supports a clear understanding of which competencies are required for each job. This supports the identification of valid selection criteria – competencies that are demonstrably or statistically related to job performance.

CONCEPT 5:

Assess the whole candidate.

Each individual has different domains that can be assessed to predict job performance. Measure as many domains as possible to get the most accurate prediction of performance – personality, behavior, cognitive ability, career interests, job knowledge, and evaluations of past behavior.

CONCEPT 6:

Understand why having an EBS process matters to your organization.

What are the metrics or goals the organization wants to achieve by implementing an EBS process? How will these metrics be measured and reported? How will the team use metrics to drive action and improve processes?

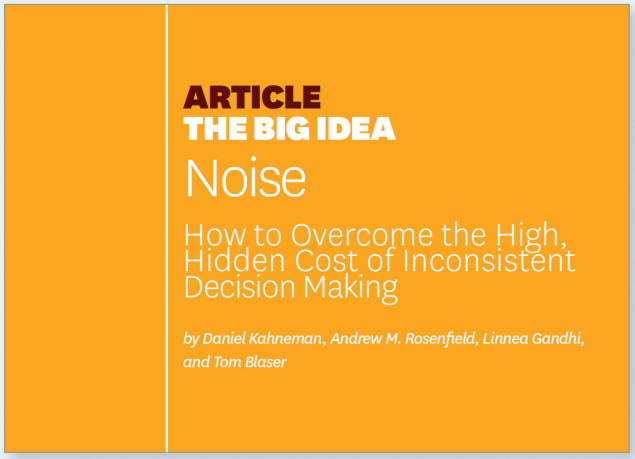
Section 4.1: Mitigating Noise and Bias in Decision Making

Foundational Understandings: Types of Bias

Bias is defined as prejudice in favor of or against one thing, person, or group compared with another, usually in a way considered to be unfair. "Unconscious" or "implicit" are the most common terms used to describe workplace bias. However, more than 30 types of cognitive bias can influence decision-making. Bias can appear in many forms and across all organizational levels, departments, and practices. Understanding the different types of bias makes it easier to recognize when they occur and to develop mitigation strategies. (Wood, 2015)

Common Cognitive Biases				
Affinity	Clustering Illusion	In-group	Outcome	Salience
Anchoring	Competence vs. Likeability	Information	Performance Attribution	Selective Perception
Authority	Confirmation	Loss Aversion	Performance	Self-enhancement (or overconfidence)
Availability Heuristic	Conservatism	Maternal	Placebo Effect	Stereotyping
Bandwagon Effect	Default Effect	Negativity	Pro Innovation	Survivorship
Blind-spot	Distance	Ostrich Effect	Recency Illusion	Zero-risk
Choice Supportive	Halo/Horn Effect			

"Bias reduces our ability to make decisions based on fairness, merit, and objectivity. … Bias doesn't just affect the way we see others – it affects the way we view ourselves and our aptitude in supporting diversity and inclusion." – (Brown, 2019, p. 38)



The Harvard Business Review article *Noise: How to Overcome the High, Hidden Cost of Inconsistent Decision Making* (https://hbr.org/2016/10/noise) illustrates why EBS is so effective. Daniel Kahneman and co-authors explain the concepts of "noise" and "bias" in decision making and provide examples of the unnecessary expenses associated with inconsistent decisions. They assert that "Where there is judgment, there is noise – and usually more of it than you think." This is especially true in hiring decisions. The authors recommend the construction of "reasoned rules" to guide decision making. They report that "studies have shown that while humans can provide useful input, algorithms do better in the role of final decision maker." The article concludes by recommending that organizations utilize a set of reasoned rules in combination with trained professionals to guide decision making.

Adopting an Evidence-Based Selection process involves developing reasoned rules to guide our hiring decisions so we overcome the high, hidden cost of inconsistent decision making in hiring.

Section 4.2:
Fair and Objective Decision Making

Too often talent selection decisions are fraught with subjectivity. This results in poor outcomes for organizations: costly turnover; lower employee performance, productivity, and satisfaction; limited workforce diversity. It negatively affects the wellbeing of employees placed in the wrong seat, or denied access to the right seat, by bias. Evidence-Based Selection (EBS) begins with an unwavering focus on being fair and objective in talent acquisition. Fairness and objectivity increase the frequency of accurate decisions. For talent acquisition, increased accuracy leads to positive outcomes for organizations – reduced turnover; increased employee performance, productivity, and satisfaction; increased workforce diversity; and wellbeing for employees and job seekers.

4.2.1: What is a fair and objective process?

Fair is defined as in accordance with the rules or standards. One can obtain fairness in a selection process by establishing valid selection criteria which are used to develop rules guiding screening and selection.

Objective means that a person's judgment is not influenced by personal feelings or opinions in considering and representing facts.

Process standardization describes the establishment of a set of rules governing how to complete a given task or sequence of tasks. The processes should be mapped, documented, and, when possible, built into software to maintain consistency and compliance.

Compliance is a state of being in accordance with established guidelines or specifications. Organizations should measure, track, and report on process compliance.

Section 4.3: Predictive Validity

Validity in the general sense is the quality of being logically or factually sound.

Predictive validity is the extent to which a score on a test predicts scores on some measurable criterion such as a job performance rating. For example, the predictive validity of a cognitive test for job performance is the correlation between test scores and supervisor performance ratings.

Data-driven decision-making is a foundational concept in EBS, with the goal of maximizing predictive validity. This requires consistent, reliable, and valid information on which competencies are predictors of job performance.

Validity is an important concept that can be confusing, as the word means different things depending on the context. In talent selection, when referring to employment tests, validity can be defined as the extent to which assessment tools predict job performance. When talking to educators or professional credentialing organizations about an occupational credential or licensing exam, validity can be defined as the extent to which the tool assesses mastery of the training content.

Reliability in statistics and psychometrics is the overall consistency of a measure. A measure has high reliability if it produces similar results under consistent conditions. All selection tools or measures in an evidence-based process must be reliable. For example, when an assessment is administered to the same candidate two days apart, it should provide similar results each time. An interview delivered to two different candidates applying for the same job should use the same questions and scoring. Interviews conducted by two interviewers yield similar scores.

In typical hiring processes, talent acquisition professionals take time to meet with hiring managers to gather job requirements. Generally, this is a discussion of competencies important to performing the role. This information is then used to prescreen candidates prior to routing the best candidates to the hiring managers. What is lacking in this traditional model is the test of validity of those competencies for predicting job performance. What the hiring managers really desire are high-performing individuals. That requires identifying competencies that are demonstrably and/or statistically related to job performance. For example:

Competencies Predict Performance

Competency Predictors

- Cognitive Scores
- Personality – Overall Score
- References – Overall Score
- Structured Interview Scores
- Job Knowledge Test Scores

Job Performance

- Task Performance
- Trouble (lack of)
- Teamwork (org citizenship)
- Tenure

Best Practices from Industrial and Organizational Psychology

In 1998, Schmidt and Hunter published *The Validity and Utility of Selection Methods in Personnel Psychology: Practical and Theoretical Implications of 85 Years of Research Findings.* This research, the most cited study in the history of industrial and organizational psychology, summarizes a meta-analysis of predictors of job performance. General Mental Ability (GMA), or cognitive ability, is the top predictor. Teams often use the phrases critical thinking and/or problem-solving skills to describe cognitive ability. In the adaptation below, the chart also shows the incremental validity by adding a second predictor to GMA. The top predictors to add to GMA are: structured interview guides, job knowledge tests, integrity tests, conscientiousness tests, and reference checks. Although commonly used, selection measures such as job experience (years) and years of education have a much lower predictive validity.

Hunter Schmidt Research Findings

Predictive Validity Overall Job Performance of GMA Scores with Second Predictor

Personal Measure	Validity (r)	Multiple R*	Additional Validity from Adding Second Predictor	Percent Increase in Validity	RANK
GMA Tests	.51	-	-	-	1
Interview (structured)	.51	.63	.12	24%	3
Job Knowledge Tests	.48	.58	.07	14%	5
Integrity Tests	.41	.65	.14	27%	2
Interview (unstructured)	.38	.55	.04	8%	
Assessment Centers	.37	.53	.02	4%	
Biographical Data	.35	.52	.01	2%	
Conscientiousness Tests	.31	.60	.09	18%	4
Reference Checks	.26	.57	.06	12%	6
Job Experience (years)	.18	.54	.03	6%	
Years of Education	.10	.52	.01	2%	
Interests	.10	.52	.01	2%	
Graphology	.02	.51	0	0%	
Age	-.01	.51	0	0%	

Source: Schmidt and Hunter (1998, p 265) *The Validity and Utility of Selection Methods in Personnel Psychology: Practical and Theoretical Implications of 85 Years of Research Findings.*

* Multiple R values show the Predictive Validity of GMA combined with a second predictor.

The pink circles are around the most predictive selection tools. These are the tools we will explore in HireReach. The numbers are ranking the selection tools, with GMA as the strongest predictor of job performance, then the predictors that add the most incremental validity in order. So in this example, GMA is the highest predictor of job performance. Adding to GMA, integrity tests will add the most predictive validity, followed by structured interviews, conscientiousness assessments, job knowledge tests, and reference checks.

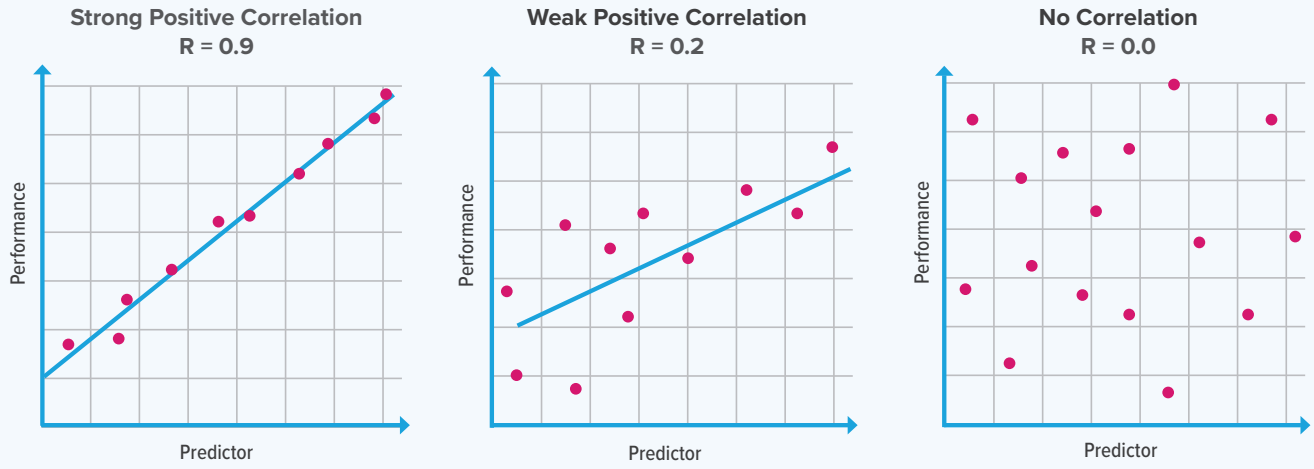
Incremental Validity

When an assessment is used with the purpose of predicting an outcome (perhaps another test score or some other behavioral measure), a new instrument must show that it is able to increase our knowledge or prediction of the outcome variable beyond what is already known based on existing instruments.

Understanding Predictive Validity: Correlations

A correlation indicates a relationship between two data sets, in our case, the score of the predictor and the job performance scores. Predictors may be cognitive test scores, personality test scores, structured interview scores, or reference checking scores. Since no one element is a perfect predictor, one generally sees correlation coefficients in the 0.2 to 0.4 range for individual predictors. When combined, the overall correlation for a set of predictors could be in the 0.7 to 0.8 range. Generally, correlations in the range of 0.20 to 0.35 are considered a weak correlation, 0.35 to 0.50 are a moderate correlation, and 0.50 and above are a strong correlation.

Relationship Between Predictor & Job Performance Scores



Section 4.4: Competencies and the O*NET®

Competencies are what we measure to predict job performance. Competencies are the things one needs to know and be able to do to perform a set of work — the "building blocks" of a job. In this guidebook we will explore two types of competencies: foundational and occupational.

Occupational competencies are the generalized tasks performed in the job, the things individuals need to know and do to perform core functions. Foundational competencies are the cognitive skills and character traits that enable someone to do the work well. Foundational competencies reflect an ability to perform job functions (cognitive and physical competencies) and willingness to perform (character competencies). Research shows that foundational competencies are highly predictive of job performance (Hunter and Schmidt, p. 265).

Occupational competencies are often assessed through selection measures such as: minimal qualifications, credentials (certificates, licenses and degrees), job knowledge tests, and hiring manager or expert evaluations. While these elements are important, EBS focuses on the measurement of foundational competencies through the use of highly reliable and predictive selection tools such as assessments and structured interviews.

Comprehensive Competency Model			
Occupational Competencies	**Foundational Competencies**		
Job specific competencies are work activities also known as tasks or work behaviors	**Cognitive** • Listening • Speaking • Reading • Writing • Judgment & Decision-Making • Reasoning • Math • Information Skills • Leadership Skills	**Character** • Achievement Orientation • Teamwork • Adaptability • Responsibility • Integrity • Decisive	**Physical** • Fine Manipulation • Control Movements • Reaction & Speed • Strength • Endurance • Flexibility, Balance & Coordination • Vision

4.4.1: Competency Models

It is recommended that employers utilize the O*NET content model and competency framework to support EBS implementations. O*NET is the largest jobs database in the world. It is open source, publicly available and a highly reliable and valid data source.

The O*NET was created by U.S. Department of Labor (USDOL) to provide reliable information on every job in the U.S. economy. The data is sourced from nationwide surveys of workers. The EBS process uses the O*NET database to create families of jobs and then compiles and analyzes the data to understand the characteristics of the job family.

4.4.2: Why O*NET is Important

Valid data are essential to understanding the rapidly changing nature of work and how it impacts the workforce and U.S. economy. The O*NET database contains hundreds of standardized and occupation-specific data elements on almost 1,100 occupations covering the entire U.S. economy. The database is continually updated from input by a broad range of workers in each occupation.

O*NET information is used by millions of people every year, including those taking advantage of O*NET Online, My Next Move, and other publicly and privately developed applications. The system is a vital connection for people seeking training and jobs, and for organizations looking for skilled workers.

Occupations require a different mix of knowledge, skills, and abilities, and are performed using a variety of activities and tasks. These distinguishing characteristics of an occupation are described by the O*NET Content Model.

4.4.3: Using the O*NET Content Model

EBS utilizes the O*NET content model to define an occupation's valid selection criteria — competencies that are demonstrably related to job performance. Occupations are defined through a comprehensive job analysis process (described in the next section) that focuses on the competencies that are the strongest predictors of job performance, such as skills, abilities, knowledge elements, work styles and work activities.

Job analysis produces a portrait of an occupation; it details the competencies that are most important to the job and therefore should be measured in the selection process. O*NET data is used as a starting point, then reviewed and confirmed by local Subject Matter Experts (SMEs). Additionally, O*NET provides the skill level required to perform the competency effectively in the role. This allows organizations to score the available selection tools based on skill level requirements.

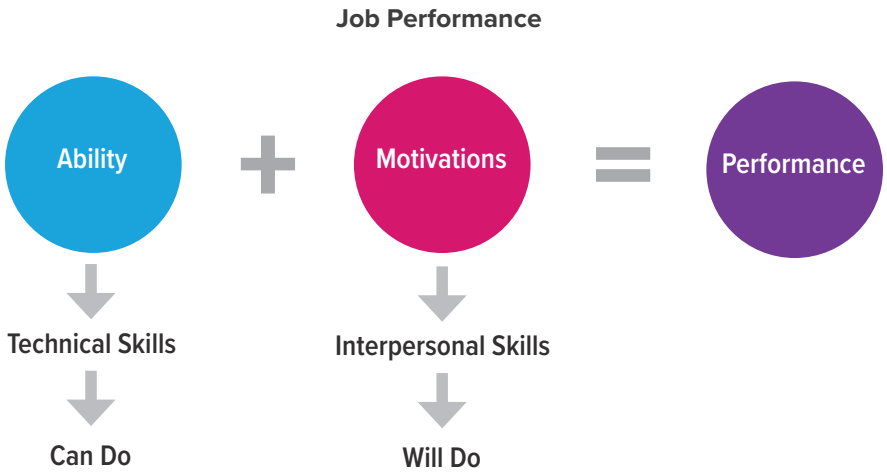
O*NET is an online skills-based system that describes job requirements, worker attributes, as well as work content and context using more than 400 variables. It uses a framework of standard occupational classification (SOC) codes to organize this data and allow users to create job families for analysis and comparison.

onetonline.org

Section 4.5: Willingness and Ability

Performance is highest from an individual who is both willing and able to do the work. An EBS measures both willingness and ability to perform the role for which they are applying.

- **Willingness:** Generally associated with character, behavioral skills or personality elements.
- **Ability:** Generally associated with cognitive and physical capabilities.

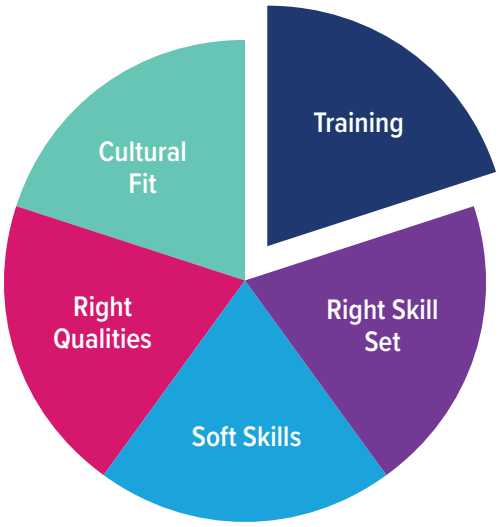


4.5.1: Screening In

Organizations can "screen in" candidates by reaching into pools of typically undervalued candidates and measuring their competencies related to job performance. Focus on reasons TO hire candidates, instead of reasons NOT to hire a candidate.

Another way to view this concept is through the lens of the 80/20 rule. Rarely will organizations find a perfect candidate. Instead of looking for perfection, focus on foundational attributes and competencies, such as interests, personality, and cognitive ability. Although hiring managers often value experience over assessments of foundation competencies, research shows that experience is not a strong predictor of performance (Van Iddekinge, 2019).

The 80/20 Rule



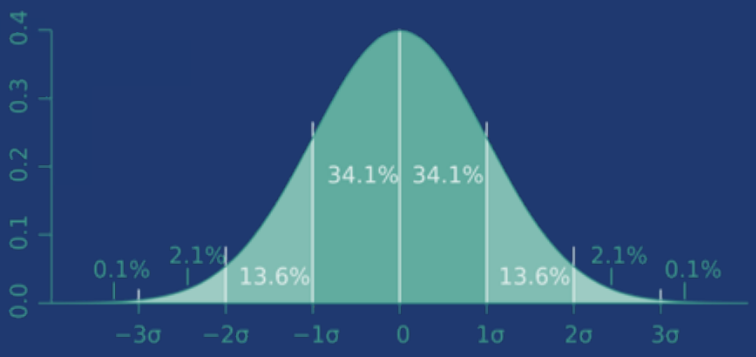
If they can do 80% of the job you can train the other 20%

Section 4.6: Utility – Why Job Performance Matters

EBS helps predict candidates' potential job performance. Why do we care so much about job performance? Is it worth the effort and expense of a robust selection system? The answer is yes. And the concept of utility demonstrates why.

Also included in the Schmidt & Hunter paper (pp. 262-264) is data on utility, the measure of the usefulness of something – in this case, predicting job performance. The average low job performer produces 40% less output than the normal performer. The average high performer produces 40% more output than the normal performer. This is an 80% variation. Based on a $40,000 per year worker, the low performer produces $16,000 less than the average while the high performer produces $16,000 more than the average for a total variation of $32,000.

Job Performance and Utility



Example variation for an employee earning $40,000 annually:

-1σ	Mean	+1σ	Variation
-40%	100%	+40%	80%
-$16,000	Mean	+$16,000	$32,000

Source: Schmidt and Hunter (1998, pp. 262-264) *The Validity and Utility of Selection Methods in Personnel Psychology: Practical and Theoretical Implications of 85 Years of Research Findings.*

Building Your Evidence-Based Selection Process

5

"We appreciated the opportunity to take a step back, look at our processes objectively and realign what we wanted to accomplish with what we were actually accomplishing. We're using a process that everyone within our organization buys into and clearly sees the value of, because hiring the right people is the *most* important thing we do."

– ELLEN WINTERBURN, HR Director, Project Bar Fly, LLC

5 | Building Your Evidence-Based Selection Process

This section focuses on six major implementation steps:

1. Job Grouping
2. Job Analysis
3. Identify Selection Tools
4. Build Compensatory Scoring
5. Build your EBS Process
6. Consider Legal Defensibility

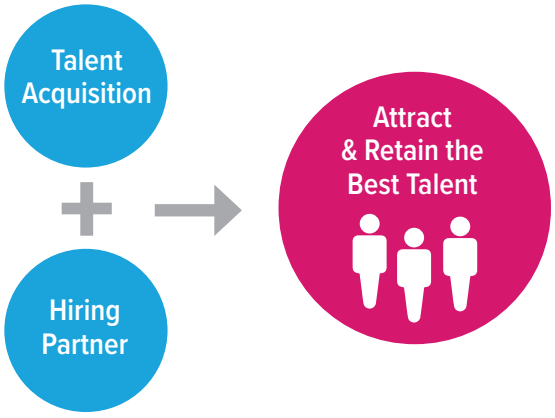
Activities involved in implementing an evidence-based selection process are outlined in this chapter. Additional content, activities, expert guidance and working session supports are provided through the HireReach Academy.

Once the organization is ready for change, it is time to launch the organization's work to implement an EBS process.

That work begins by understanding the jobs within the organization, mapping those jobs to O*NET codes, and grouping them with similar roles to form job families. Data is gathered and analyzed on these job families, and employer teams finalize decisions about which jobs will be used to pilot their EBS processes.

Meanwhile, teams begin to learn about highly predictive selection tools including cognitive, personality, and career interest assessments; virtual reference checks; and structured interviews.

Finally, teams pull the pieces together by documenting their EBS processes in a Standard Operating Procedure, and by developing their compensatory scoring system for each pilot job family.



Introducing EBS to Talent Selection Partners

There are a variety of ways to introduce EBS to talent selection partners such as hiring managers and human resource business partners.

An EBS system works best when built on the foundation of a strong and trusting partnership between the hiring manager and talent acquisition team. While the use of a standard process is recommended, it is useful to remember that flexibility is also important – people are not widgets! Unique and new circumstances will occur, which will require the team to review, update, and enhance their standard procedures. Respecting and supporting the professionalism of the human resources team as well as the hiring manager and leadership will result in higher satisfaction for candidates and hiring managers alike.

Early Informational Events
Schedule workshops or information sessions. Having these events early in the change process can help managers feel informed and included. Include working time to explore how these leaders feel about the current selection process. What ideas do they have?

Job Analysis Subject Matter Expert (SME) Sessions
Asking leaders to select high-performing individuals for SME sessions and to attend as observers. This can increase buy-in.

Stakeholder Prep Meetings
Once the organization's EBS processes are defined, schedule group or 1:1 meetings with leaders to review why the organization is transitioning to EBS and what this means for the talent selection processes. It can be helpful to create a visual showing what is changing for each step of the process.

Web Pages, Blogs or E-news
Make information easily accessible. Promote blogs with key leaders discussing the change and how its supports organizational goals.

Communication Events
Share information about your project team's journey. Use standard communication channels, in leadership meetings/events, and in 1:1 conversations. Remember to share both empirical and anecdotal data. Communications should continue as pilots launch and short-term wins are realized.

Videos
Create a video explaining the transition to an EBS process and what this means for talent selection.

Intake Meetings
Schedule 1:1 intake meetings between the recruiter and hiring manager as each position opens. This will allow time to discuss each position's requirements, support accuracy in recruiting, and build buy-in from the hiring manager. Develop a form to standardize these conversations (see the HireReach Talent Acquisition Essentials Guidebook for examples).

Section 5.1: Job Grouping

To accurately assess a candidate's potential job performance, organizations must understand the job he or she will be performing. To support effective and efficient analysis of the competencies required to perform a particular job, in the EBS process we first group similar jobs into job families. A job family is a set of jobs that are logically grouped by similar characteristics such as knowledge, skills, abilities, behavioral skills, training requirements, education level, compensation and other factors. In EBS, job families are groups of related O*NET (SOC) codes.

5.1.1: Why Job Grouping?

In most organizations, each job is identified by a job title, job description, and a job code. Large organizations have hundreds or even thousands of job codes and job descriptions. As mergers occur, codes and descriptions proliferate in ways that can make distinctions confusing and unhelpful.

For example, think of the extreme variety of jobs that fall under a vague title like "Coordinator" or "Team Leader". Titles like these tend to make sense within the department where they were created but they are not clear to anyone else. Some large organizations may even have dozens of titles and job descriptions for what is essentially the same job. Licensing and credentialing requirements add another dimension. Finally, multiple employers in each region have their own unique job titles, job codes, and job descriptions. All of this makes regional collaboration among employers challenging.

Grouping jobs into job families can be useful for organizations internally and in regional sector initiative projects with workforce professionals, education and training partners, and other community partners. Well-designed job families are organized for each organization so that each job code occurs in only one job family and is never placed in multiple job families. A single job family, however, may sometimes include job codes from different departments within an organization.

5.1.2: O*NET, the Standard Occupational Classification Framework and Job Zones

Before reviewing the job grouping process, it is helpful to review the structure of the O*NET.

The O*NET is organized using the Standard Occupational Classification (SOC) framework. The SOC framework covers all occupations in which work is performed for pay or profit. Occupations are classified based on work performed and, in some cases, on the skills, education and/or training needed to perform the work. The table below shows the major groups of the SOC framework:

SOC Major Groups	
Code	**Title**
11-0000	Management Occupations
13-0000	Business and Financial Operations Occupations
15-0000	Computer and Mathematical Occupations
17-0000	Architecture and Engineering Occupations
19-0000	Life, Physical, and Social Science Occupations
21-0000	Community and Social Service Occupations
23-0000	Legal Occupations
25-0000	Educational Instruction and Library Occupations
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations
29-0000	Healthcare Practitioners and Technical Occupations
31-0000	Healthcare Support Occupations
33-0000	Protective Service Occupations
35-0000	Food Preparation and Serving Related Occupations
37-0000	Building and Grounds Cleaning and Maintenance Occupations
39-0000	Personal Care and Service Occupations
41-0000	Sales and Related Occupations
43-0000	Office and Administrative Support Occupations
45-0000	Farming, Fishing, and Forestry Occupations
47-0000	Construction and Extraction Occupations
49-0000	Installation, Maintenance, and Repair Occupations
51-0000	Production Occupations
53-0000	Transportation and Material Moving Occupations

The O*NET provides job zone data for each code. A job zone is a group of occupations that are similar in the amount of education, related experience and on-the-job training needed to do the work. (O*NET, 2020). The O*NET places codes into one of five job zones:

O*NET Job Zones					
Job Zone	**Name**	**Experience**	**Education**	**Job Training**	**Examples**
1	**Job Zone One:** Little or No Preparation Needed	Little or no previous work-related skill, knowledge, or experience is needed for these occupations. For example, a person can become a waiter or waitress even if he/she has never worked before.	Some of these occupations may require a high school diploma or GED certificate.	Employees in these occupations need anywhere from a few days to a few months of training. Usually an experienced worker could show you how to do the job.	These occupations involve following instructions and helping others. Examples include taxi drivers, amusement and recreation attendants, counter and rental clerks, non-farm animal caretakers, continuous mining machine operators, and waiters/waitresses.
2	**Job Zone Two:** Some Preparation Needed	Some previous work-related skill, knowledge, or experience is usually needed. For example, a teller would benefit from experience working directly with the public.	These occupations usually require a high school diploma.	Employees in these occupations need anywhere from a few months to one year of working with experienced employees. A recognized apprenticeship program may be associated with these occupations.	These occupations often involve using your knowledge and skills to help others. Examples include sheet metal workers, forest fire fighters, customer service representatives, physical therapist aides, salespersons (retail), and tellers.
3	**Job Zone Three:** Medium Preparation Needed	Previous work-related skill, knowledge, or experience is required for these occupations. For example, an electrician must have completed three or four years of apprenticeship or several years of vocational training, and often must have passed a licensing exam, in order to perform the job.	Most occupations in this zone require training in vocational schools, related on-the-job experience, or an associate's degree.	Employees in these occupations usually need one or two years of training involving both on-the-job experience and informal training with experienced workers. A recognized apprenticeship program may be associated with these occupations.	These occupations usually involve using communication and organizational skills to coordinate, supervise, manage, or train others to accomplish goals. Examples include food service managers, electricians, agricultural technicians, legal secretaries, occupational therapy assistants, and medical assistants.
4	**Job Zone Four:** Considerable Preparation Needed	A considerable amount of work-related skill, knowledge, or experience is needed for these occupations. For example, an accountant must complete four years of college and work for several years in accounting to be considered qualified.	Most of these occupations require a four-year bachelor's degree, but some do not.	Employees in these occupations usually need several years of work-related experience, on-the-job training, and/or vocational training.	Many of these occupations involve coordinating, supervising, managing, or training others. Examples include accountants, sales managers, database administrators, teachers, chemists, art directors, and cost estimators.
5	**Job Zone Five:** Extensive Preparation Needed	Extensive skill, knowledge, and experience are needed for these occupations. Many require more than five years of experience. For example, surgeons must complete four years of college and an additional five to seven years of specialized medical training to be able to do their job.	Most of these occupations require graduate school. For example, they may require a master's degree, and some require a Ph.D., M.D., or J.D. (law degree).	Employees may need some on-the-job training, but most of these occupations assume that the person will already have the required skills, knowledge, work-related experience, and/or training.	These occupations often involve coordinating, training, supervising, or managing the activities of others to accomplish goals. Very advanced communication and organizational skills are required. Examples include librarians, lawyers, sports medicine physicians, wildlife biologists, school psychologists, surgeons, treasurers, and controllers.

5.1.3: Job Grouping Process

Major steps in job grouping:

1. Gather the organization's list of job codes and titles, along with information on the jobs, including job descriptions, hiring requirements, performance assessments, and other job artifacts.
2. Align those job codes to O*NET using the Standard Occupational Classification (SOC) system by searching job titles in the O*NET site and identifying the best fit code.
3. Group O*NET codes into job families based on the SOC major group and job zone.
4. Refine and improve job families through use of job analysis and validation studies.

The HireReach Academy will provide additional training, tools and support to complete tasks like job grouping.

HireReachAcademy

5.1.3.1: Gather Organizational Job Information

The first step of job grouping is to organize data about the job classifications. Start with a list of job titles, job codes, EEO classification, and the number of incumbent employees. Gather job descriptions and other job artifacts to support identifying job requirements and core activities to support the next step, aligning organizational roles to O*NET codes.

5.1.3.2: Aligning Roles to the O*NET

Once an organization's jobs data has been compiled, the next step is to align these roles to an O*NET occupation or code. Try to align each job classification to one O*NET code that best represents the job.

First, navigate to www.onetonline.org and do an occupation search. Things to consider when selecting an O*NET code:

- **Management**
  Workers primarily engaged in planning and the directing of resources are classified in management occupations in Major Group 11–0000. Duties of these workers may include supervision.
- **Supervisors**
  Supervisors of workers in Major Groups 13–0000 through 29–0000 usually have work experience and perform activities similar to those of the workers they supervise, and therefore are classified with the workers they supervise.
- **Healthcare Support Workers**
  Workers in Major Group 31–0000 Healthcare Support Occupations assist and are usually supervised by workers in Major Group 29–0000 Healthcare Practitioners and Technical Occupations. Therefore, there are no first-line supervisor occupations in Major Group 31–0000.

- Workers in Major Groups 33–0000 through 53–0000 whose primary duty is supervising are classified in the appropriate first-line supervisor category because their work activities are distinct from those of the workers they supervise.
- When workers in a single job could be coded in more than one occupation, they should be coded in the occupation that requires the highest level of skill. If there is no measurable difference in skill requirements, workers should be coded in the occupation in which they spend the most time. Workers whose job is to teach at different levels (e.g., elementary, middle, or secondary) should be coded in the occupation corresponding to the highest educational level they teach.
- Workers in Major Groups 33–0000 through 53–0000 who spend 80 percent or more of their time performing supervisory activities are coded in the appropriate first-line supervisor category in the SOC. In these same Major Groups (33–0000 through 53–0000), persons with supervisory duties who spend less than 80 percent of their time supervising are coded with the workers they supervise.

The O*NET Code Connector

Use this tool to search for occupations similar to the job being mapped. Type in key words, or search by a variety of criteria. Key items to review when determining whether a particular SOC code is the best match: sample of reported job titles, KSAs (knowledge, skills and abilities), job zone (O*NET's classification of jobs by preparation required), and detailed work activities. Additionally, search for similar jobs by clicking "Find occupations related to multiple detailed work activities" when one expands the list of detailed work activities presented for any occupation.

https://www.onetcodeconnector.org/

5.1.3.3: Build Job Families

Combine similar O*NET codes into job families. A job family is a set of jobs that are logically grouped by similar job characteristics.

HireReach uses the JOFI® Job Family framework to support employers in grouping jobs into families. Our technology partner, JOFI / Metrics Reporting concluded that the most practical method for establishing job families was to group similar jobs based on the two O*NET characteristics explored earlier in this guidebook – occupational category (SOC category) and preparation level (ONET Job Zone). See the list of JOFI Job Families on the next page. HireReach will support your organization in mapping job codes to JOFI Job Families.

5.1.3.4: Job Analysis and Validation Studies

Strengthen and refine job family data by engaging in job analysis and validation studies. Job analysis is explored in Section 5.2, page 36, and validation studies are discussed in Section 6.

JOFI Job Families			
Code	**Job Family Name**	**Code**	**Job Family Name**
JOFI-112	Management Zone 2	JOFI-313	Healthcare Support Zone 3
JOFI-113	Management Zone 3	JOFI-332	Protective Services Zone 2
JOFI-114	Management Zone 4	JOFI-333	Protective Services Zone 3
JOFI-115	Management Zone 5	JOFI-334	Protective Services Zone 4
JOFI-133	Business and Financial Zones 2 & 3	JOFI-351	Food Preparation and Serving Related Zone 1
JOFI-134	Business and Financial Zone 4	JOFI-352	Food Preparation and Serving Related Zone 2
JOFI-135	Business and Financial Zone 5	JOFI-353	Food Preparation and Serving Related Zone 3
JOFI-153	Computer and Mathematical Zone 3	JOFI-371	Building and Grounds Cleaning Zone 1
JOFI-154	Computer and Mathematical Zone 4	JOFI-372	Building and Grounds Cleaning Zones 2 & 3
JOFI-155	Computer and Mathematical Zone 5	JOFI-392	Personal Care Services Zones 1 & 2
JOFI-173	Architecture and Engineering Zones 2 & 3	JOFI-393	Personal Care Services Zone 3 & 4
JOFI-174	Architecture and Engineering Zone 4	JOFI-411	Sales Related Zone 1
JOFI-175	Environmental Engineers Zone 5	JOFI-412	Sales Related Zone 2
JOFI-193	Life Physical and Social Sciences Zone 3	JOFI-413	Sales Related Zone 3
JOFI-194	Life Physical and Social Sciences Zone 4	JOFI-414	Sales Related Zone 4
JOFI-195	Life Physical and Social Sciences Zone 5	JOFI-432	Office Administrative Support Zone 2
JOFI-214	Community and Social Service Zone 4	JOFI-433	Office Administrative Support Zone 3
JOFI-215	Community and Social Service Zone 5	JOFI-434	Office Administrative Support Zone 4
JOFI-233	Legal Zones 2 & 3	JOFI-451	Farming Fishing and Forestry Zone 1
JOFI-235	Legal Zone 5	JOFI-452	Farming Fishing and Forestry Zone 2 & 3
JOFI-253	Educational Instruction and Library Zone 3	JOFI-471	Construction and Extraction Zone 1
JOFI-254	Educational Instruction and Library Zone 4	JOFI-472	Construction and Extraction Zone 2
JOFI-255	Educational Instruction and Library Zone 5	JOFI-473	Construction and Extraction Zone 3
JOFI-272	Arts Design Entertainment Sports & Media Zone 2	JOFI-492	Installation Maintenance and Repair Zones 1 & 2
JOFI-273	Arts Design Entertainment Sports & Media Zone 3	JOFI-493	Installation Maintenance and Repair Zone 3
JOFI-274	Arts Design Entertainment Sports & Media Zones 4 & 5	JOFI-511	Production Zone 1
JOFI-293	Healthcare Practitioners and Technical Zones 2 & 3	JOFI-512	Production Zone 2
JOFI-294	Healthcare Practitioners and Technical Zone 4	JOFI-513	Production Zone 3
JOFI-295	Healthcare Practitioners and Technical Zone 5	JOFI-532	Transportation and Material Moving Zone 2
JOFI-312	Healthcare Support Zone 2	JOFI-533	Transportation and Material Moving Zone 3 & 4

Section 5.2: Job Analysis

Job analysis and validation studies are two tools that demonstrate the relationship between the competency and performance targets described in Predictive Validity chart on page 18.

What is Job Analysis?

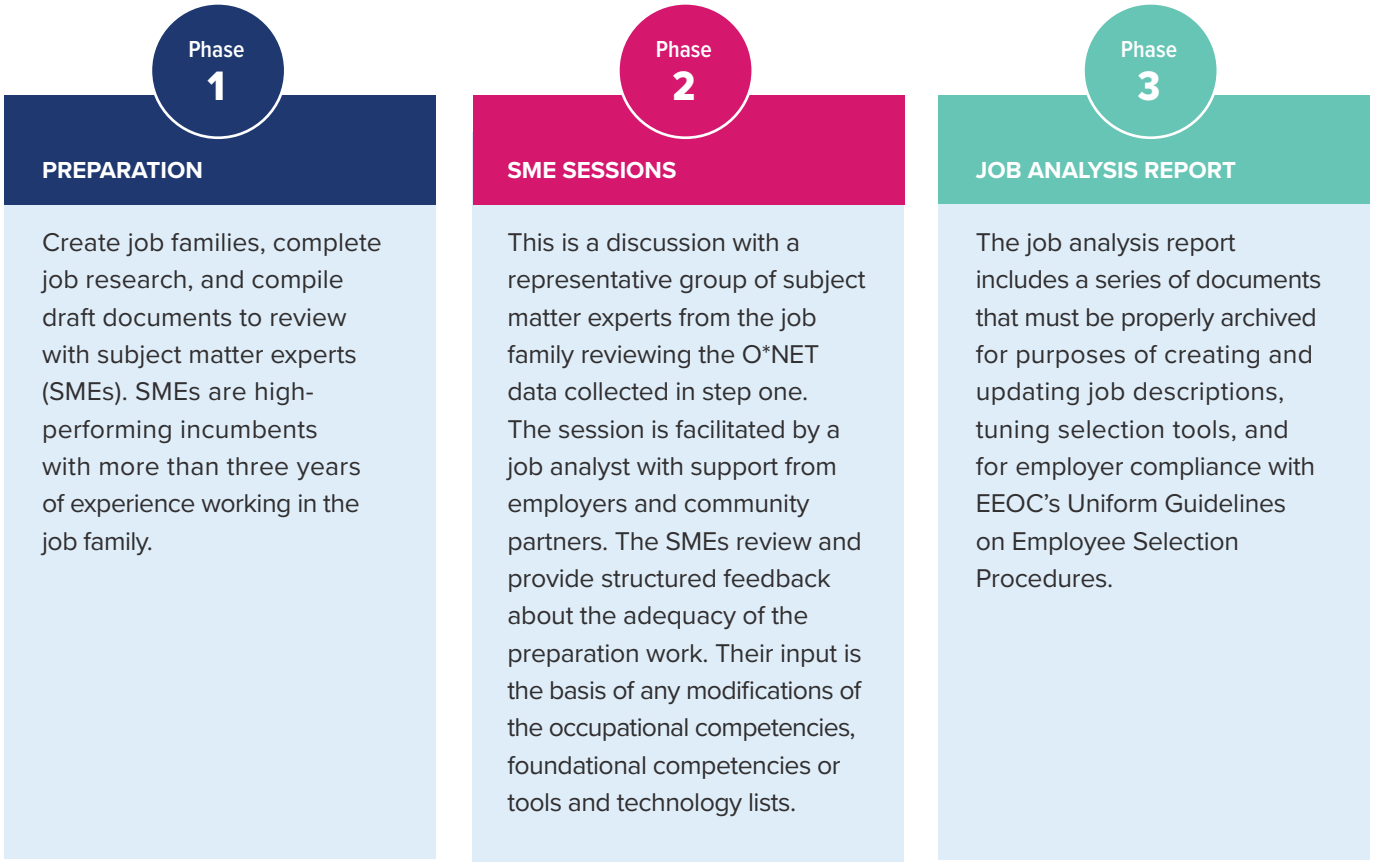
Job analysis is a set of procedures used to identify the content of a job by the activities involved in the work, the competencies or attributes of the individuals who do the job, or the job requirements needed to perform the work activities. Job analysis provides detailed information to organizations that helps to determine which potential or incumbent employees are the best fit.

A job analyst is someone who plans and conducts employer-specific or regional consortia-style job analyses and supports validation studies. The role of the job analyst is to collect and examine the information necessary to define and validate competencies that can be measurably related to job performance. Through job analysis, the job analyst discerns the important tasks of the job, how these tasks are carried out (occupational competencies), and the personal skills and work behaviors needed to perform the job successfully (foundational competencies). The process requires the analyst to describe the duties of the employee, the nature and conditions of the work, and finally some basic qualifications.

5.2.1: O*NET Confirmatory Job Analysis Process

EBS utilizes the O*NET-Based Confirmatory Job Analysis process. The process uses O*NET data gathered and organized to clarify occupational and foundational competencies that define the things individuals need to know and be able to do at work.

O*NET Confirmatory Job Analysis Process



To understand more about O*NET Confirmatory Job Analysis, see Guest, Bill & Guest, James (February 2019). Job Analysis and Validation. Talxcellenz® Research Brief. Metrics Reporting, Inc. Published at www.metricsreporting.com.

Section 5.3: Identify Selection Tools

Organizations need valid and reliable tools to guide selection decisions so they are not distorted by noise and bias. Industrial and organizational psychology provides guidance on which tools are the most effective predictors of job performance.

5.3.1: Hunter & Schmidt

These previously cited research findings can be used in combination with job analysis data to determine which selection tools will be the most effective for an organization's custom EBS process.

The next section focuses on four core selection tools that are the high predictors of job performance: **cognitive assessments** (measures of general mental ability), **personality assessments** (measures of conscientiousness and integrity), **career interest assessments,** and **structured interviews.** It also includes a brief review of other selection tools such as job knowledge tests.

This chart shows the outcomes of Hunter and Schmidt's meta-analysis selection tools. General mental ability (GMA), or cognitive ability, is the top predictor. The top predictors to add to GMA are: structured interview guides, job knowledge tests, integrity tests, conscientiousness tests, and reference checks.

Hunter Schmidt Research Findings

Predictive Validity Overall Job Performance of GMA Scores with Second Predictor

Personal Measure	Validity (r)	Multiple R*	Additional Validity from Adding Second Predictor	Percent Increase in Validity	RANK
GMA Tests	.51	-	-	-	1
Interview (structured)	.51	.63	.12	24%	3
Job Knowledge Tests	.48	.58	.07	14%	5
Integrity Tests	.41	.65	.14	27%	2
Interview (unstructured)	.38	.55	.04	8%	
Assessment Centers	.37	.53	.02	4%	
Biographical Data	.35	.52	.01	2%	
Conscientiousness Tests	.31	.60	.09	18%	4
Reference Checks	.26	.57	.06	12%	6
Job Experience (years)	.18	.54	.03	6%	
Years of Education	.10	.52	.01	2%	
Interests	.10	.52	.01	2%	
Graphology	.02	.51	0	0%	
Age	-.01	.51	0	0%	

Source: Schmidt and Hunter (1998, p 265) *The Validity and Utility of Selection Methods in Personnel Psychology: Practical and Theoretical Implications of 85 Years of Research Findings.*

5.3.2: Cognitive Assessments

Tests of cognitive ability assess general intelligence and correlate very highly with overall job performance. Individuals with higher levels of cognitive ability tend to perform better. This is especially true for jobs that are intellectually demanding.

Cognitive assessments are good indicators of critical thinking and problem solving. Cognitive skills tend to rise and fall together. Therefore, multiple measures of cognitive ability will generally vary together. This is called covariance. The covariance among cognitive measures is so high that it is safe to say that any three reliable cognitive measures are a good measure of general mental ability (GMA). For example, measures of reading prose, reading charts and documents, and quantitative skills, generally referred as cognitive skills, can be used to estimate critical thinking and problem solving.

5.3.3: Personality Assessments

Character matters. Personality is the combination of characteristics or qualities that form an individual's distinctive character. Personality and behavior are related, but not the same thing. Personality influences behavior; behavior affects performance. Personality is well understood and defined by the Five Factor Model of Personality.

Big Five Traits	What This Includes
Openness to Experience: *inventive/curious vs. consistent/cautious*	Appreciation for art, emotion, adventure, unusual ideas, curiosity, and variety of experience; reflects the degree of intellectual curiosity, creativity, and preference for novelty and variety a person has. Disagreement remains about how to interpret the openness factor, which is sometimes called "intellect" rather than openness to experience
Conscientious: *efficient/organized vs. easygoing/careless*	A tendency to show self-discipline, act dutifully, and aim for achievement; planned rather than spontaneous behavior; organized, and dependable
Extraversion: *outgoing/energetic vs. solitary/reserved*	Energy, positive emotions, surgency (cheerfulness and responsiveness), assertiveness, sociability, the tendency to seek stimulation in the company of others, and talkativeness
Agreeableness: *friendly/compassionate vs. analytical/detached*	A tendency to be compassionate and cooperative rather than suspicious and antagonistic toward others. This also is a measure of one's trusting and helpful nature, and whether a person is generally well-tempered or not
Emotional Stability: *secure/confident vs. sensitive/nervous*	The tendency to maintain poise and restraint to cope with pressure, stress, criticism, and setbacks. The opposite of emotional stability is neuroticism, the tendency to experience unpleasant emotions easily, such as anger, anxiety, depression, or vulnerability

Most relevant to EBS is the general understanding of the personality characteristics related to job performance. In the most general sense, Conscientiousness, Agreeableness, and Emotional Stability are factors related to job performance.

Personality tests or assessments are tools can be used to evaluate personality characteristics and are highly effective in predicting job performance when combined with a cognitive assessment.

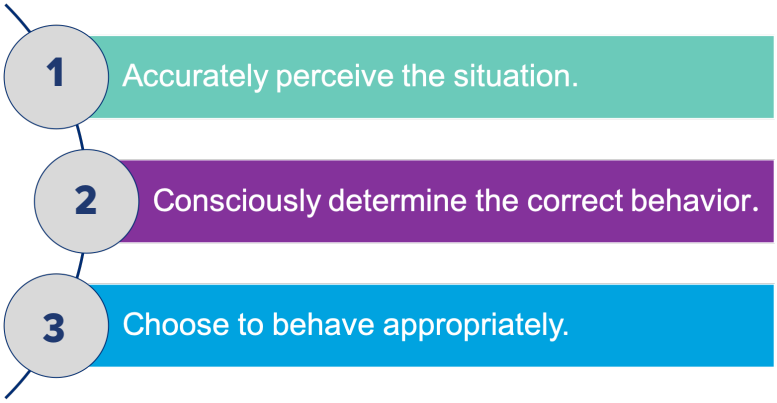
It can be helpful to think of personality as behavioral DNA. Personality is quite stable over time. It is who you are. Personality influences behavior but does not dictate behavior. People make choices. As they mature and develop, they improve their ability to recognize the situation and choose the appropriate behavior. Consider an adult and a teenager in a similar situation. They may have similar personalities and display significantly different behaviors.

Personality & Behavior

Personality
The combination of characteristics or qualities that form an individual's distinctive character.

Behavior
The way in which one acts or conducts oneself, especially toward others.

Behavior Choices



5.3.4: Career Interest Assessments

The Holland Codes or the Holland Occupational Themes (**RIASEC**) refers to a theory of careers and vocational choice (based upon personality types) that was initially developed by American psychologist John L. Holland.

Recent research has indicated that when using congruence of the RIASEC elements of the John Holland model, the predictive validity of interests increases to around 0.27. This model has been adopted as the standard for measuring interests, much as the Big Five Model has been adopted for the psychology of personality.

Measures of interests using Holland's RIASEC model rate individuals on six interest areas:

R: Realistic (Doers)

People who like to work with "things." They tend to be "assertive and competitive, and are interested in activities requiring motor coordination, skill and strength." They approach problem solving "by doing something, rather than talking about it, or sitting and thinking about it." They also prefer "concrete approaches to problem-solving, rather than abstract theory." Finally, their interests tend to focus on "scientific or mechanical rather than cultural and aesthetic areas."

I: Investigative (Thinkers)

People who prefer to work with "data." They like to "think and observe rather than act, to organize and understand information rather than to persuade." They also prefer "individual rather than people-oriented activities."

A: Artistic (Creators)

People who like to work with "ideas and things." They tend to be "creative, open, inventive, original, perceptive, sensitive, independent and emotional." They rebel against "structure and rules," but enjoy "tasks involving people or physical skills." They tend to be more emotional than the other types.

S: Social (Helpers)

People who like to work with "people" and who "seem to satisfy their needs in teaching or helping situations." They tend to be "drawn more to seek close relationships with other people and are less apt to want to be really intellectual or physical."

E: Enterprising (Persuaders)

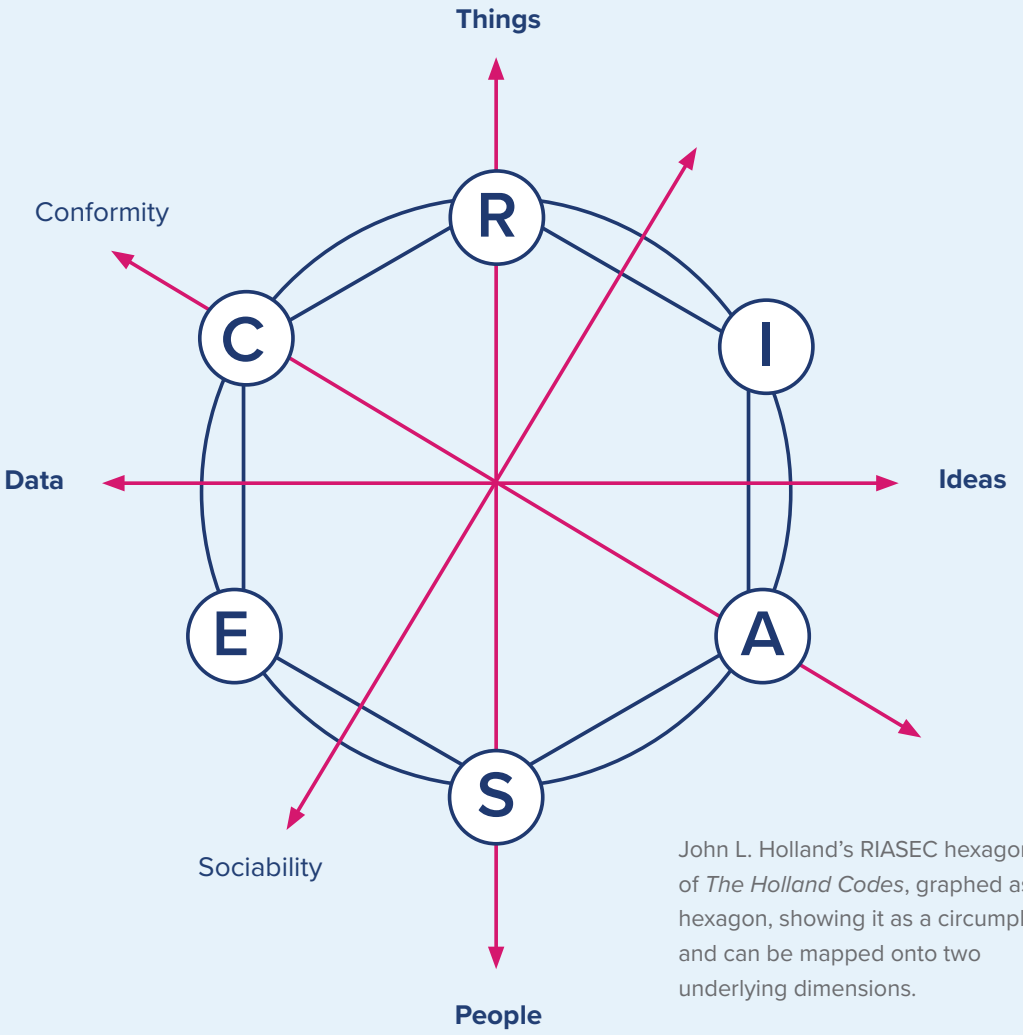
People who like to work with "people and data." They tend to be "good talkers and use this skill to lead or persuade others." They "also value reputation, power, money and status."

C: Conventional (Organizers)

People who prefer to work with "data" and who "like rules and regulations and emphasize self-control … they like structure and order, and dislike unstructured or unclear work and interpersonal situations." They also "place value on reputation, power, or status."

RIASEC Elements of the John Holland Model

In the Holland model all jobs are driven by either things, ideas, people or data. The model rates individuals on six interest areas.



John L. Holland's RIASEC hexagon of *The Holland Codes*, graphed as a hexagon, showing it as a circumplex, and can be mapped onto two underlying dimensions.

Use interests to identify candidates who are innately aligned to the job for which they are applying. When an employee's interests are well aligned with their role, they are able to tap their motivation to increase their energy for setting and attaining goals. For example, if a candidate and the job both have the first, second, and third RIASEC profile of SCR (Social, Conventional, Realistic) the congruence has a predictive validity of 0.27 (Nye and Rounds, 2019).

5.3.5: Structured Interviews Utilizing Behavioral Based Interview Questions

Behavioral interviewing focuses on past experiences by asking candidates to provide specific examples of how they have demonstrated certain behaviors, knowledge, skills, and abilities. Answers to behavioral interview questions should provide verifiable, concrete evidence as to how a candidate has dealt with issues in the past. This information often reveals a candidate's actual level of experience and his or her potential to handle similar situations in your organization. Behavioral interview questions tend to be pointed, probing and specific. Because behavioral interviews are based on an analysis of job duties and requirements of the job, bias and ambiguity are reduced. Candidates are evaluated on job-related questions. In addition, job-relatedness and consistency of the interview process may increase the perception of fairness. The job-related questions may also help candidates obtain a realistic perspective of the job.

A structured interview guide which utilizes behavioral interview questions is a helpful tool to evaluate candidate's past behaviors.

Common Selection Mistakes
Untrained interviewers tend to get caught in common errors associated with unstructured and structured interviews.

The Structured Interview Guide

The Structured Interview Guide (SIG) question is the opportunity for the interviewer to understand how well the candidate has learned to observe a situation and choose the appropriate behaviors. The best SIGs also have Behaviorally Anchored Rating Scales (BARS) to score the questions. Scores enable more consistent decision making and enable the SIGs to be evaluated for predictive validity via a validation study. Following is an example of BARS.

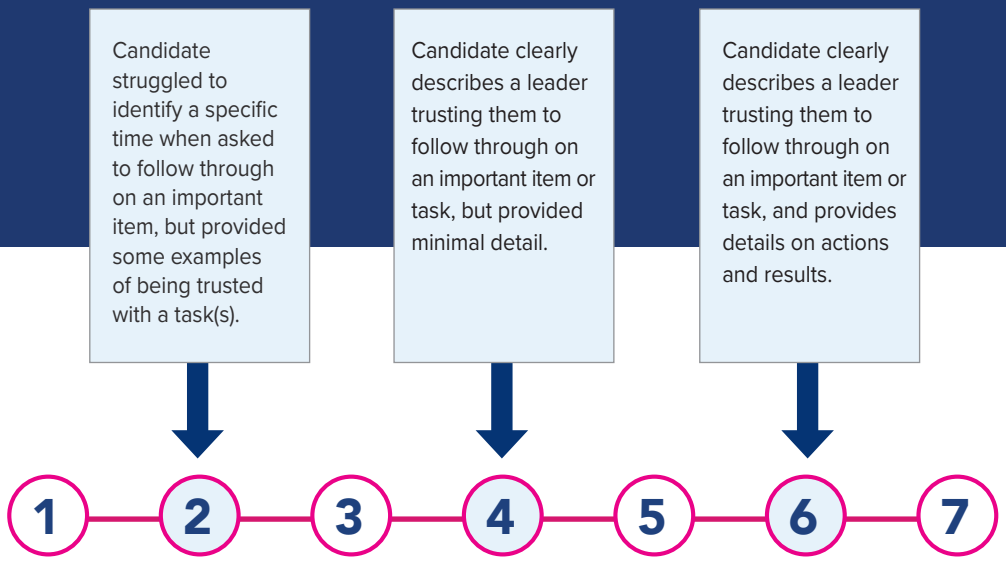
Behaviorally Anchored Rating Scales (BARS)

RESPONSIBILITY

Question: Tell me about a time when your leader trusted you to follow through on something important.

Optional Probes:

- Situation: What job were you doing? Were you working with a team or alone? Why was your supervisor depending on you?
- Task: What was the goal of the task? Why was the task important?
- Action: What actions did you take to ensure you completed the task?
- Result: What was the outcome? What did you learn?



5.3.6: Online Reference Checks

Automated, online reference checking tools are becoming popular – and when delivered in a structured fashion are proving to provide much improved predictive validity over historical methods of reference checking.

Research has found that structured online reference checks have acceptable levels of reliability (internal consistency, inter-rater, and test-retest) and levels of criterion-related validity that rival that of other traditional noncognitive predictors such as personality tests, assessment centers, and biodata (Schmidt & Hunter, 1998). (Hendricks, 2019).

5.3.7: Job Knowledge Tests, Performance Assessments and Other Tools

Along with the selection measures highlighted above, several other predictive tools can add value and increase the predictive validity of an organization's selection process.

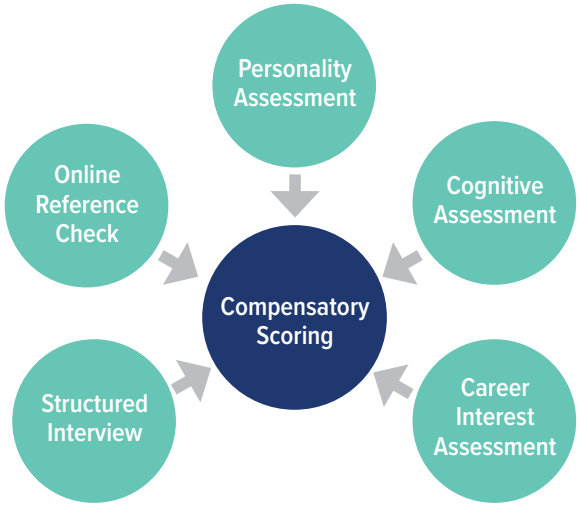
Job Knowledge Tests
These tests are particularly useful when applicants must have specialized or technical knowledge that can only be acquired through extensive experience or training. Job-knowledge tests are commonly used in fields such as computer programming, law, financial management, and electrical or mechanical maintenance.

Licensing exams and certification programs are also types of job-knowledge tests. Passing such exams indicates competence in the subject area.

Performance Assessments
Performance-based assessment testing is a process to find out if applicants can do the job for which they are applying. Tests are directly administered and judged by human resources and hiring managers who will be supervising the potential hire. They reflect real business tasks that candidates have to perform, should they be selected for the role. The tests cover open-ended, time-bound, business-related questions.

Section 5.4: Build Compensatory Scoring

EBS includes the use of a compensatory scoring system. In a compensatory system, multiple aspects of a candidate's fit are measured, using predictive selection tools such as cognitive and personality assessments. This allows organizations to assess the candidate as a whole person, rather than just a few aspects. In this system, scores are first banded and normed, then averaged to produce a compensatory score for each candidate. No cut-scores are utilized.



A compensatory scoring system enables a candidate's high scores to compensate for low scores. The average of the scores is viewed as the best indicator of overall skills, taking into consideration multiple elements such as cognitive skills, personality, and behaviors. There are several advantages to compensatory scoring, most notably increasing the overall predictive validity of the selection system while mitigating adverse impact.

5.4.1: Banding

Banding refers to the method of categorizing scores into broad bands and treating all scores within a band as the same. Organizations generally divide scores into three bands: red, yellow, and green. Each band is assigned a value (usually red = 1, yellow = 2, green = 3), standardizing and averaging the scores across selection measures to support compensatory rating (described below).

Bands are set for selection measures to translate a set of raw scores into one clear band that represents the scores' predicted relationship to job performance. In the typical three-band system, red would indicate not qualified for or not aligned with the job. Yellow would indicate "may be" qualified or aligned. Green would indicate qualified or aligned with the job.

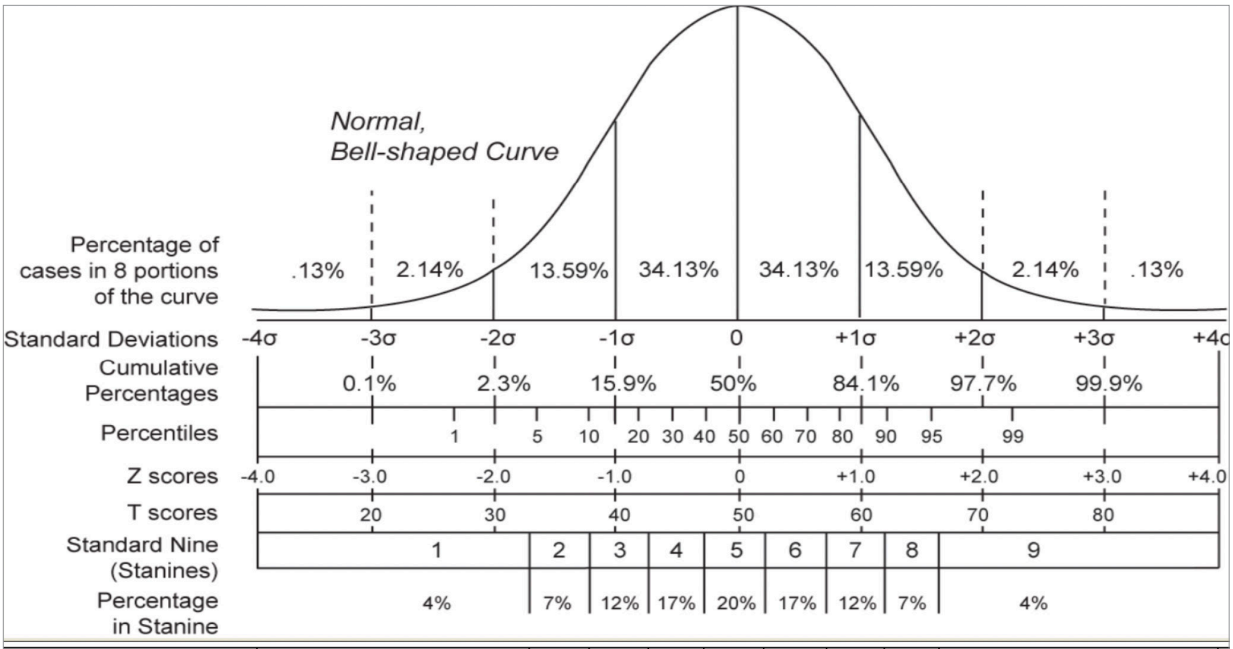
To set bands, one must identify score thresholds for the red/yellow bands and yellow/green bands. Thresholds are set by reviewing how selection measure scores are distributed across the bell curve for the normed population. Teams then review the skill levels required by foundational competencies and expected candidate pool skill level and size to determine where to set band thresholds. EBS often uses Stanines (STAndard NINE) to scale test scores on a nine-point standard scale with a mean of five and a standard deviation of two.

Banding Options Using Stanines (STAndard NINE)

The chart below demonstrates a scenario where an organization uses thresholds at Stanines 3, 4, and 5 to establish three banding levels — light, moderate and aggressive. The results are as follows:

- **Light banding** places approximately 11% of the average candidate population in the red band; 12% in the yellow band; and 77% in the green band;
- **Moderate banding** places approximately 23% of the average candidate population in the red band; 17% in the yellow band; and 60% in the green band, and
- **Aggressive banding** places approximately 40% of the average candidate population in the red band; 20% in the yellow band; and 40% in the green band.

Once initial thresholds values are determined, monitor the percentage of applicants being rated red, yellow or green for each selection measure and adjust band thresholds as needed. Bands can be adjusted for a selection measure(s) in a job family if they are not effective in screening actual candidate populations. Documentation describing and justifying the adjustment is strongly recommended.



Percentage in Each Band	4%	7%	12%	17%	20%	17%	12%	7%	4%
Thresholds at Stanine 2	4%	7%	89%						
Thresholds at Stanine 3	11%	12%	77%						
Thresholds at Stanine 4	23%	17%	60%						
Thresholds at Stanine 5	40%	20%	40%						
Thresholds at Stanine 6	60%	17%	23%						
Thresholds at Stanine 7	77%	12%	11%						
Thresholds at Stanine 8	89%	7%	4%						

5.4.2 Average Banded Scores

Average the banded values for all selection measures completed to date, where:

Red = 1 Yellow = 2 Green = 3

This allows bands to be averaged into a compensatory overall score.

Example of a Compensatory Rating System

Selection Measure	Candidate Score	Band / Value
Cognitive - Reading	8	3
Cognitive - Forms	7	2
Cognitive - Math	9	3
Personality - Consciousness	7	2
Personality - Agreeableness	8	3
Personality – Emotional Stability	4	1
Career Interest Congruence	2	2
HR Structured Interview	6	2
Online Reference Check	8	3
Candidate Average Rating		2.33 out of 3

5.4.3: Scaling and Sustaining Compensatory Scoring Systems

Scaling and tuning an evidence-based selection process will require organizations to adjust banding and compensatory rating calculations over time.

As EBS is developed and maintained, some selection measures may be found to be more effective than others for different job families. Activities such as validation studies may provide new insight into organization-specific correlation trends involving job competences and performance. These activities may drive a change in the selection measures. Updates to compensatory scoring systems may require updates or changes to banding as described above, as well as the adding and removing of selection measures.

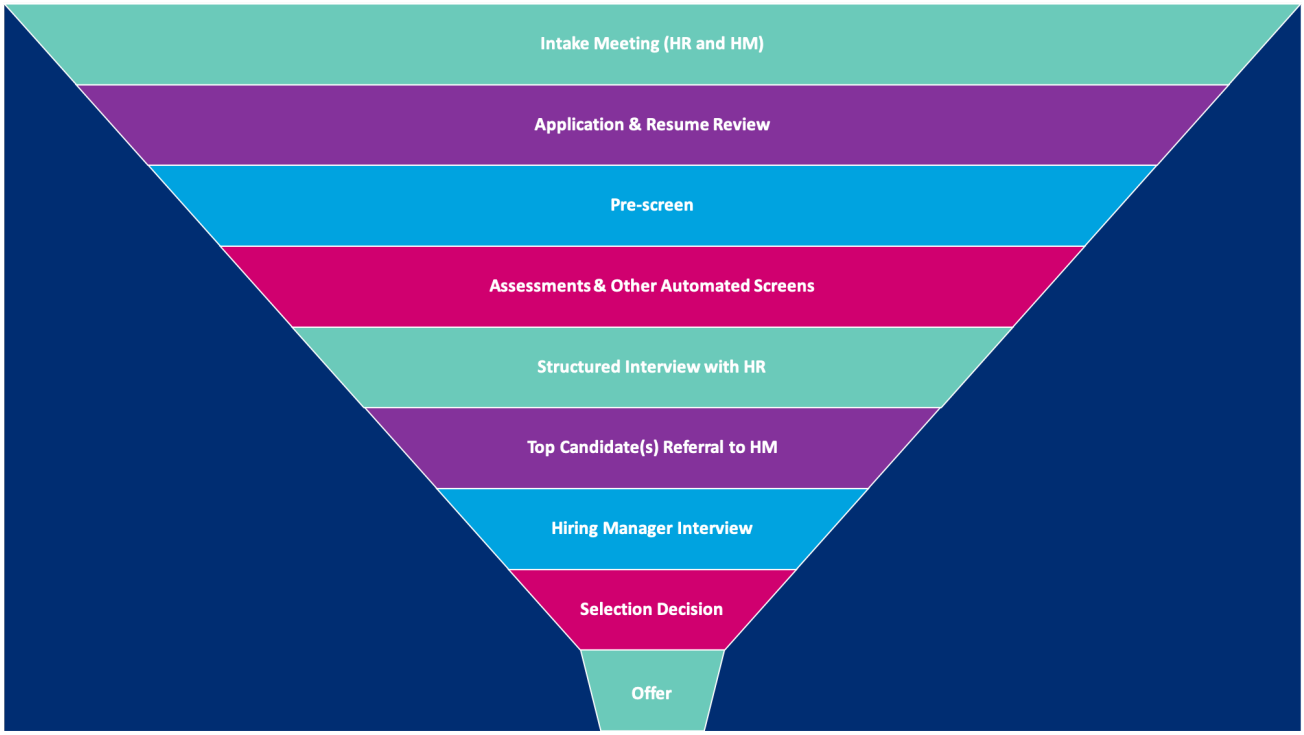
Section 5.5: Build Your EBS Process

Once organizations determine the type of selection tools for use in their EBS process (EBSP), and implement a compensatory scoring system, it is time to define the details of the process. To start, create a simple process map for the organization's current state process "As Is" and future state process "To Be." This will allow teams to think deeply about which order to use the selection tools, and what other screens, touch points, and activities will be involved in the process.

To support organizations as they map their EBSP, a typical process is outlined below. Note that an organization may use multiple EBSPs, for different types of job families.

5.5.1: Standard Process Steps

The following section reviews the common steps associated with an EBS process:



A few themes are worth noting about the typical EBS process, including: 1) Talent acquisition as a center of excellence. 2) Talent acquisition partners with the hiring manager to understand minimal and preferred qualifications. 3) Talent acquisition is responsible for completing the up-front screening of candidates for minimal and preferred qualifications and foundational competencies. 4) Use predictive selection tools like assessments as early in the process as possible. 5) Utilize compensatory scoring to determine which candidates are referred to the hiring manager. 6) Support hiring managers in interviewing and selecting final candidates.

Defining Standard Process Steps

1. Intake Meeting

This is a meeting between the human resources team member who will be recruiting and screening for the position and the hiring manager who will ultimately make the selection decision and manage the candidate. The goal of this event is to allow human resources and the hiring manager to clearly document the minimal qualifications for a position; preferred qualifications for the position; review the job description and verify accuracy; set timing expectations for the recruitment, possibly identifying when the hiring manager interviews are planned to occur and projecting time to fill; discuss how human resources will keep the hiring manager informed throughout the process; and other relevant details. It is recommended that human resources teams develop and maintain an intake form to collect and review the items listed above. The outcome of this activity is a clear understanding of the criteria for pre-screening candidates.

2. Application and Resume Reviews

Most selection processes begin with a resume review. For organizations with a smaller candidate pool, it is often possible to narrow down the pool of applicants simply by screening for minimal qualifications.

3. Pre-screen

If the candidate pool is too large to pre-screen or assess all qualified candidates, organizations can utilize personality based pre-screen assessments to identity top candidates without introducing adverse impact.

4. Assessments and Automated Screens

Once a pool of qualified candidates has been identified, teams can leverage the use of predictive selection tools such as cognitive and personality assessments to identify the most qualified candidates.

5. Human Resources Interview

A structured interview focused on foundational competencies.

6. Referral to the Hiring Manager

Once candidates have completed the selection tools and have a compensatory score, the top candidates are ready to be referred to the hiring manager. There are a variety of ways organizations can define the top candidates. Employers can utilize a system that sends all top candidates (for example all 4- and 5-star candidates are referred to the hiring manager). Other employers send a standard number of top candidates (for example, always refer the top three candidates). However referral is determined, it is recommended that a referral form (see the Talent Acquisition Essentials Guidebook for example referral forms) be used to share key information regarding the candidate (strengths and weaknesses, areas to review in the final interview).

Candidate Experience

Transparency and clarity about an applicant's chance of obtaining a position is important. Inform candidates where they are in the process, touch base with them at each step to let them know if they are moving on. Automated communications from the Applicant Tracking System can be helpful in operationalizing these communications.

7. Hiring Manager Interview
It is recommended that human resources attend this interview whenever possible. The hiring manager interview allows hiring managers to screen candidates with strong foundational competencies and organizational fit for occupational competencies, technical skills and team fit. For more information on hiring manager and other stakeholder interviews see the Talent Acquisition Essentials Guidebook.

8. Interview Debrief
Human resources facilitates a debrief meeting with one or more interviewers to review results and identify the top candidate.

5.5.2: Common Process Variations

EBS processes vary between employers and job families. Employers may have a different EBS for entry-level roles vs executive roles. Below are some typical variations. When deciding on variations, be sure to refer to the core concepts.

Pre-screens
Some organizations use a pre-screen step prior to administering assessments or interviews. Sometimes the pre-screen is an assessment designed to winnow down a large application pool. At other times it is a quick phone screen to establish a relationship and engage with the candidate.

Assessment Tools and Automated Screens
Tools can vary but in EBS include one or more of the following: cognitive assessments, personality assessments, career interest assessments, online reference checks, or job knowledge tests. It is not recommended that teams use only cognitive assessments at any step in the process due to the potential for adverse impact.

HR Interview
When staffing allows, there is great value in having a structured interview between human resource staff and top candidates, with a focus on foundational competencies. However, some teams do not have the staffing to support this step and instead use data gathered in the Assessments and Automated screens step to calculate compensatory scores.

Hiring Manager Interviews
The process for hiring manager and other stakeholder interviews can vary significantly between employers, and within organizations between job families. Reference the HireReach Talent Acquisition Essentials Guidebook for information on Hiring Manager and stakeholder interviews.

Section 5.6: Consider Legal Defensibility

The Uniform Guidelines and Legal Defensibility

Under the Civil Rights Act of 1964 and decisions of the Equal Employment Opportunity Commission (EEOC) employers have a legal responsibility to establish that their employment selection procedures are job related and consistent with business necessity. The requirements for demonstrating compliance are articulated in the EEOC's 1978 Uniform Guidelines on Employment Selection Procedures, jointly issued with the Civil Rights Division of the Department of Justice, the Office of Federal Contract Compliance Programs (OFCCP) of the Department of Labor, and the Office of Personnel Management (OPM). A lack of compliance with the Uniform Guidelines creates the risk of legal and financial liability on the part of the employer. The risk of this liability has been a historic barrier to the more widespread use of competency assessments in the talent selection process.

The EEOC's Uniform Guidelines were adopted to provide a government-wide set of guidelines to be used by employers, labor organizations, employment agencies, and licensing and certification boards on the use of employment selection procedures meeting Federal laws prohibiting discrimination on the basis of race, color, religion, sex and national origin. They detail the employer's "measuring job capability" burden in terms of acceptable evidence of validity (i.e., "job relatedness"). If a selection procedure results in "adverse impact" when comparing covered groups, the employer is burdened to demonstrate that the procedure has been validated in accordance with the guidelines. In the 1970s, both the Uniform Guidelines and the generally accepted principles and practices of industrial psychology describe three distinct strategies for demonstrating the validity of employment decisions:

- **Content validity** studies use data to show the content of the selection procedure (the components used to select candidates) is representative of important aspects of performance on the job.
- **Criterion-related validity** studies use empirical data to demonstrate that the selection measure is predictive or significantly correlated with important elements of job performance.
- **Construct validity** studies consist of data showing that the procedure measures the degree to which the candidates have identifiable characteristics that have been determined to be important in successful performance in the job for which the candidate is being evaluated.

The Metrics Reporting competency validation process (O*NET Confirmatory Job Analysis) is designed to comply with these strategies for legal defensibility. The process has been advised by Dr. Jim Sharf. Sharf is an industrial psychologist and expert witness who specializes in employment and human resources. He helped develop, implement and defend employment selection and performance appraisal procedures that minimize the risk of employment litigation under Title VII of the Civil Rights Act of 1964 and the Age Discrimination in Employment Act.

The job grouping and analysis work referenced earlier in this guide outlines the Metrics Reporting competency validation process through the use of O*NET Confirmatory Job Analysis.

Supplemental Topics 6

“Participating in HireReach provided a great opportunity to connect, as a Talent Acquisition Team, to establish a consistent and efficient process to hire the best talent for our open positions. The time that we had to focus has been great. So often, we get ‘too busy’ and don’t make the time to learn. The tools and knowledge will enhance our process and will prove to be valuable now and in the future.”

– JOHNNA STAAT, AVP, Talent Acquisition Manager, Mercantile Bank

6 | Supplemental Topics

This section addresses a number of important topics related to the implementation of an EBS system:

1. Return on Investment Analyses
2. Measuring Quality of Hire
3. Validation Studies
4. Problem Solving

Section 6.1: Return on Investment Analyses

When implementing an EBS system, financial costs may require teams to calculate their projected return on investment. Stated a different way, the organization's financial leaders may ask: "How will spending organization dollars to implement and support an Evidence-Based Selection process benefit our business? How will we offset any operational cost increases? How long will it take to see the benefits?"

Costs associated with implementing an EBS system generally fall into one of four categories:

1. **Staffing**
   Increased staffing can be required to manage a robust selection process, and to support reporting and analytics.
2. **Tools**
   Purchasing assessments or other automated/software-based tools such as job knowledge tests or reference checks.
3. **Systems**
   Changes to applicant tracking systems and/or human resource information systems, with potential investment in interim systems during transition. Finally, systems work may be required to support tracking and reporting on metrics.
4. **Training and Development**
   Training in the areas of interviewing, using selection tools, and organization culture to support excellence in the selection and promotion of talent.

There are a variety of ways to calculate the return on investment. EBS metrics have been proven to support:

- Decreasing first year turnover
- Decreasing time to fill
- Increasing hiring diversity

We recommend that each organization connect with their financial leaders and explore what process the organization uses for calculating returns on investments, and discuss how best to demonstrate the ROI of implementing an EBS system.

As a reminder, plan to integrate your ROI-related calculations into regular reporting to support demonstrating progress towards goals. Tools such as problem-solving using root cause analysis can help example the "why" if metrics are not trending in the expected direction. Many variables will affect any of your organization's "people" metrics and it is important to be ready with a structured and consistent way of reviewing failures to ensure proper corrective actions are taken.

Metrics definitions and formulas can be found in the complete SHRM guide located at HireReach.org.

Section 6.2: Measuring Quality of Hire

One of the top reasons organizations adopt an EBS model is to increase the quality of hire. Quality of hire can be difficult to measure accurately but doing so is important to assess the effectiveness of the selection process. Research shows that there are four key elements to measure when considering quality of hire (Ilgen and Pulakos, 1999).

Task Performance
Job-specific and non-job specific task proficiency. Behaviors that (directly or indirectly) contribute to the production of a good or service.

Teamwork
Often referred to as organizational citizenship, these are behaviors that contribute to the goals of the organization by contributing to the social and psychological environment.

Trouble
Often referred to as counterproductive work behaviors, these are voluntary behaviors that harm the well-being of the organization.

Tenure
Length of the employee's service with the organization and in the role.

It is recommended that organizations assess quality of hire through surveys administered several times in the first 12 months of employment, and annually thereafter. Maintain data in a format that can be queried to support analysis such as validation studies.

Section 6.3: Validation Studies

Validation studies provide evidence to support the effectiveness of a selection tool in the form of a correlation between the predictor scores and job performance measures. Organizations are encouraged to run longitudinal validation studies to measure the efficacy of an EBSP. Regression analyses comparing selection measures and compensatory rating data to job performance outcome data (such as performance evaluations, disciplinary and attendance records, and quality of hire surveys) are performed to evaluate the predictive validity of specific selection tools, as well as the selection system as a whole. This data can then be leveraged to make improvements to tools, processes and/or scoring systems. Organizations generally work with assessment vendors to complete validation studies.

Section 6.4: Problem Solving

A well-built and executed EBSP will generate significant data for analysis — data on candidate selection measure results, new hire performance, retention, time to fill, and other measures that an organization tracks. This data can be utilized in a variety of ways, such as validation studies, continuous improvement, benchmarking, team and organization scorecards, and focused problem solving. Identify talent-related key performance metrics (KPIs) for recruiting teams, human resource departments, and the organization; set goals; and track outcomes.

References

7

"We are truly excited and eager to see how this initiative will help us hire the best talent out there by using data and ratings to reduce bias in the selection process. We are grateful for all the resources, training, networking and outstanding support. We have gained a way to reduce bias in our hiring by using evidence-based selection process."

– BERNY JOSE, Employment Specialist, Mary Free Bed Rehabilitation Hospital

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Appendix A:
Glossary of Key Terms

8

“We appreciated the intellectual and practical introduction to tools and techniques to reduce hiring bias. We also valued the partnership with other employers in our cohort, along with the guidance we received from the HireReach team. This has been incredibly helpful as we navigate implementing what we learned.”

– KATHY NATELBORG, Executive Director Human Resources, Davenport University

8 | Appendix A: Glossary of Key Terms

Definitions marked with an asterisk are taken from the DOL Career Pathways Toolkit (DOL 2011); definitions marked with a double asterisk are taken from Shared Vision, Strong Systems (CLASP/AQCP 2014).

Abilities
Enduring attributes of the individual that influence performance. O*NET ability statements refer to the power to perform an observable activity at the present time. This means that abilities have been evidenced through activities or behaviors that are similar to those required on the job, e.g., ability to plan and organize work.

Adverse Impact
In the employment context, refers to employment practices that appear neutral but have a discriminatory effect on a protected group. Adverse impact may occur in hiring, promotion, training and development, transfer, layoff, and even performance appraisals.

***Assessment**
The use of standardized instruments, interviews, or other means to determine factors that may contribute to the success of students in career and technology programs. These factors may include interest, aptitude, academic achievement, work experience, learning style, work values, and other traits. Assessment may also be administered to determine progress attained by students during training or areas of need to address through remediation.

Bell Curve
A graph of a normal (Gaussian) distribution, with a large rounded peak tapering away at each end. In probability theory, the normal distribution is a very common continuous probability distribution. Normal distributions are important in statistics and are often used in the natural and social sciences to represent real-valued random variables whose distributions are not known.

Character Competencies
Soft skills, behavioral skills, personality factors.

Cognitive Competencies
Mental processing skills.

Competency
A set of defined behaviors that provide a structured guide enabling the identification, evaluation, and development of the behaviors in individual employees. Competencies describe the capability to apply or use a set of related knowledge, skills, and abilities required to successfully perform critical work functions or tasks in a defined work setting.

Competency-Based
Indicates that the decision is based on or has integrated the assessment of competency rather than some other method. Example: Competency-based education (CBE) awards credits based on mastery of competencies rather than time-in-seats.

Competency Validation
The process of defining competencies that are measurably related to job performance as well as gathering, organizing, and documenting evidence to substantiate the relationships.

Compensatory Scoring
In a compensatory system, multiple aspects of a candidate's fit with a job are measured, such as cognitive skills, personality, behavior, and physical abilities, banded and averaged into an overall score that is then used in selection decisions.

Correlation
A relationship between two data sets. Generally, correlations in the range of 0.20 to 0.35 are considered a weak correlation, 0.35 to 0.50 are a moderate correlation, and 0.50 and above are a strong correlation.

****Credential**
An attestation of qualification or competence issued to an individual by a third party (such as an educational institution or an industry or occupational certifying organization) with the relevant authority or assumed competence to issue

such a credential. A credential is awarded in recognition of an individual's attainment of measurable technical or occupational skills. These technical or occupational skills are generally based on standards developed or endorsed by employers. Credentials include degrees, diplomas, certificates, certifications, and licenses.

***Credentials**
There are many different types of credentials offered or awarded by various types of organizations. Within the context of education, workforce development, and employment and training for the labor market, the term credential refers to a verification of qualification or competence issued to an individual by a third party with the relevant authority or jurisdiction to issue such credentials (such as an accredited educational institution, an industry-recognized association, or an occupational association or professional society). The range of different types of credentials includes:

- Educational diplomas, certificates, and degrees;
- Registered apprenticeship certificates;
- Occupational licenses (typically awarded by state government agencies);
- Personnel certifications from industry or professional associations; and
- Other skill certificates for specific skill sets or competencies within one or more industries or occupations (e.g., writing, leadership, etc.).

Evidence-Based Selection (EBS)
A fair, objective, data-driven strategy that helps organizations make better hiring decisions.

****Evidence-based Practices or Processes**
Practices or processes of demonstrated effectiveness as shown by theoretical knowledge, practice data, program evaluation results, implementation data, and/or synthesis research.

Evidence Based Selection Process (EBSP)
Evidence-based selection processes use data on candidate competencies to manage the talent acquisition "pipeline" from a large pool of potential candidates to final hires. Key steps in this pipeline are sourcing, screening, selection, hiring and on-boarding. Competencies that have been determined to correlate to job performance through job analysis and validation studies are measured via cognitive assessments, character assessments, reference checks, and structured interview guides (SIGs) with behaviorally anchored rating scales (BARS).

Foundational Competencies
Cognitive, Character and Physical competencies.

Industry
A specific grouping of companies with highly similar business activities within a sector. For example, the financial sector can be broken down into industries such as asset management, life insurance, and banking. Despite their differences in scope, the terms industry and sector are often incorrectly used interchangeably.

Job Analysis
The process of grouping jobs into a job family; analyzing the knowledge, skills, abilities, and work styles required to perform tasks in the job family; observing job functions via job shadows; and working with SMEs to evaluate the importance level of each competency related to performing the job.

Job Family
A group of jobs defined by a set of similar O*NET occupation codes that perform similar tasks and require similar competencies (knowledge, skills abilities and work-styles).

Job Grouping
The grouping of similar jobs into job families.

Job Taxonomy
Specific jobs can be organized in a taxonomy. The Bureau of Labor Statistics (BLS) utilizes the Standard Occupational Classification (SOC) System to organize jobs into a four-level taxonomy of: major groups, minor groups, broad occupations, and detailed occupations. The O*NET begins with SOC codes and adds a 5th layer in the taxonomy by adding two decimal digits to the end of the SOC code. Employers can use the job taxonomy to organize job codes into coherent groups for validation studies.

JOFI
JOFI, short for Job Fit, is a trademark of Metrics Reporting, Inc. The JOFI foundational competency framework was developed for Metrics Reporting's job fit product (www.jofiscore.com).

Knowledge
Organized sets of principles and facts applying in general domains. O*NET Knowledge statements refer to an organized body of information (usually of a factual or procedural nature) which, if applied, makes adequate performance on the job possible. Each knowledge statement discusses a separate body of information applied directly to the performance of a function.

Key Performance Indicators
A measurable value that demonstrates how effectively an organization is achieving key business objectives. Organizations can use KPIs at multiple levels to evaluate their success at reaching targets.

Occupational Competencies
Specific job tasks and work activities that are specific to particular job families.

O*NET
The O*NET program is the U.S. Department of Labor's primary source of occupational information. The O*NET database contains information on hundreds of standardized and occupation-specific descriptors.

Predictive Validity
The extent to which a score on a test predicts scores on some criterion measure (i.e. job performance rating). When an assessment is used with the purpose of predicting an outcome (perhaps another test score or some other behavioral measure), a new instrument must show that it is able to increase our knowledge or prediction of the outcome variable beyond what is already known based on existing instruments. This is called incremental validity.

Psychometrics
The science of measuring mental capacities and processes.

Regression Analysis
In statistical modeling, regression analysis is a set of statistical processes for estimating the relationships between a dependent variable and one or more independent variables.

Reliability
(In statistics and psychometrics) the overall consistency of a research study or measuring test.

***Return on Investment (ROI)**
The ROI considers all the costs associated with design and implementation of a program, including costs to the participant, and compares the sum of those costs to the economic benefits achieved by all participants upon exiting the program and/or over time.

Skills
Developed capacities that facilitate learning or the more rapid acquisition of knowledge. O*NET Skill statements refer to the proficient manual, verbal or mental manipulation of data or things. Skills can be readily measured by a performance test where quantity and quality of performance are tested, usually within an established time limit.

Standard Occupational Classification (SOC)
The system of job codes developed by the Bureau of Labor Statistics.

Subject Matter Expert (SME)
An incumbent working in the job family or a manager with extensive job knowledge whose role is to help facilitators identify and prioritize tasks, knowledge, skills, abilities, and work styles important to performance in the job family.

Tasks
Work behaviors; elements of a job. The things an individual does to perform a job.

Task Families
Groups of related tasks used for job analysis.

Validation
Defining competencies, and demonstrating that they are measurably related to job performance in accordance with industrial and organizational psychology professional principles and standards.

Validity Generalization
An application of meta-analysis to the correlations between an employment test and a criterion, typically job or workplace training performance.

Valid Selection Criteria
Competencies that are demonstrably related to job performance.

Appendix B:
Sources & Recommendations

9

“All of the resources were excellent. We learned from model examples but were encouraged to create a system that would fit our organization.”

– CATHY KUBIAK, Executive Director of Human Resources, Grand Rapids Community College

9 | Appendix B: Sources & Recommendations

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