



## JOB ANALYSIS



## INTRODUCTION

Nearly all of our employment decisions are, in one way or another, based on our knowledge of the work performed in the organization and the qualities employees must have in order to be successful in their jobs. Job analysis is the systematic process of gathering the information necessary to make informed decisions and develop defensible processes, such as those for selection and promotion. While other terms, such as *job descriptions* and *class specifications*, are often used interchangeably with job analysis, it is important to note that “job analysis” is the process of gathering all important information about a job, and that “job descriptions” and “specifications” are outcomes of that process and contain the specific information from the job analysis for their intended purpose(s).

For example, a job description would typically list the most important tasks and knowledge, skills, abilities and other characteristics (KSAOs) associated with a job, while a thorough job analysis identifies everything that a job may entail, such as the less important tasks and KSAOs, as well as information about the social context, working conditions and physical environment of the job. Without the information gleaned from a thorough review of each job or job family, an employer is vulnerable not only to legal challenges, but also the potential of hiring candidates who do not have the necessary qualifications to perform the job adequately.

A well-executed job analysis can provide the necessary information for many human resources related programs and processes, such as the following:

- *Classification and Compensation*
- *Recruitment*
- *Selection and Promotional Testing and Assessment*
- *Performance Management*
- *Workforce and Succession Planning*
- *Licensure and Certification Testing*

Because a job analysis can support multiple human resources functions, if one is conducted properly, an organization can save time and money conducting one thorough job analysis, as opposed to conducting multiple smaller studies to derive similar outcomes. Oftentimes, too, multiple studies may contradict each other if different people or vendors are involved.

In terms of employee selection, specifically, it is important to remember that employing measures of candidates' KSAOs is much more than merely a means to an end. For most public sector agencies, hiring and promotional decisions are merit-based, in which demonstrating a measure's content validity is absolutely necessary for ensuring the assessment's legal defensibility.



Job analysis is the systematic process of gathering the information necessary to make informed decisions and develop defensible processes, such as those for selection and promotion.

Content validity refers to:

*“the extent to which content on a selection procedure is a representative sample of work related personal characteristics, work performance, or other work activities or outcomes.” (SIOP, 2003)*

In order for a selection tool to be deemed content valid, and thus appropriate for filling employment vacancies, a series of prerequisites must be met. The first, and arguably most important, is the execution of a thorough job analysis.

As organizations are being reshaped by things such as advancements in technology, flatter organizational structures and more team-based work, so too are the ways in which work is carried out. As a result, it is becoming increasingly more common for the basic roles and responsibilities of a job to change drastically over a relatively short period of time. This phenomenon, coupled with a shifting legal atmosphere (e.g., more well-informed and litigious candidates, increased scrutiny of validation efforts), further highlights a primary challenge for human resources professionals – keeping internal employment practices up-to-date and legally defensible. It is critical that fundamental shifts in the essential functions of a role are accompanied by an updated job analysis.

If candidates were to initiate a legal challenge of a selection process, the employer is burdened with demonstrating that its process is, indeed, based on job-related criteria and is fair to all candidates. The standards by which these outcomes are evaluated are specifically detailed in legal and professional sources. The most commonly used sources are the *Uniform Guidelines on Employee Selection Procedures* (1978); the *Standards for Educational and Psychological Testing* (American Educational Research Association, American Psychological Association, and National Council on Measurement in Education, 1999); and the *Principles for the Validation and Use of Personnel Selection Procedures* (Society for Industrial and Organizational Psychologists, 2003). Fortunately, there are many acceptable methods for conducting job analyses, as well as a wealth of resources available to assist in the process.

## WHAT CAN JOB ANALYSIS DO FOR YOU?

As the tasks, duties and responsibilities that ultimately define a given job become ubiquitously more malleable, the more likely they are to change rapidly. Implementing a process to update your organization's job analyses regularly and thoroughly is an excellent starting point for addressing, and even preventing, issues associated with several of the following common considerations:

- *Aging workforce*
- *Diversifying workforce*
- *Technological advances*
- *Supervisor-Subordinate relations*
- *Work-life balance*

Having the most up-to-date information regarding a job will equip your organization with the necessary tools for recruiting, selecting and developing the best candidates for the job, while also providing them with the most realistic expectations within that role. Moreover, by keeping job analyses current, your organization will be better equipped to predict and respond to sudden changes that a particular job may experience due to any of the aforementioned considerations.

## LEGAL CONSIDERATIONS SURROUNDING JOB ANALYSIS

The importance of thoroughly analyzing the core components of a job experienced a meteoric rise after the enactment of the Civil Rights Act of 1964, which set the stage for landmark Supreme Court cases such as *Griggs v. Duke Power* (1971), which coined the term, “analysis of the job,” and *Albemarle Paper Company v. Moody* (1975). While the crux of these cases was the disparate treatment of employees in a protected group in hiring and promotional processes in violation of Title VII of the Civil Rights Act, the overarching theme of the Court’s opinion in both cases was that a selection procedure’s job-relatedness is tantamount to its effectiveness in accurately identifying candidates who are best suited to perform the job being filled, and that the foundation for gathering such evidence is a properly conducted job analysis.

Recent trends, however, have further illustrated the role that job analysis plays in defending selection procedures. While defensibility used to rest on the mere existence of a job analysis, it is becoming more common for the courts, enforcement agencies and civil service commissions to rule against agencies whose job analyses are outdated, were updated without completely adhering to the steps outlined in the professional guidelines or are improperly or inadequately documented (see *Smith et al. v. City of Boston*, 2015; *U.S. v. City of New York*, 2009). In the *U.S. v. City of New York* case, specifically, the City initially brought in a job analysis professional, but later opted to conduct job analyses on its own, ultimately diverging from best practices, which likely contributed to the demonstrated adverse impact and lack of valid evidence in its firefighter exams, and subsequently, a loss in the case.

To Utilize A Content Validity-Based Approach, Section 14 (C) 2 Of The Uniform Guidelines States:

*There should be a job analysis which includes an analysis of the important work behavior(s) required for successful performance and their relative importance and, if the behavior results in work product(s), an analysis of the work product(s). Any job analysis should focus on the work behavior(s) and the tasks associated with them. If work behavior(s) are not observable, the job analysis should identify and analyze those aspects of the behavior(s) that can be observed and the observed work products. The work behavior(s) selected for measurement should be critical work behavior(s) and/or important work behavior(s) constituting most of the job.*

## WHAT ARE THE COMPONENTS OF A PROPER AND EFFECTIVE JOB ANALYSIS?

At its most basic level, a job analysis should comprise the following components:

- **Literature Review** – In order to ensure a comprehensive job analysis, developing an initial understanding of the job’s core components is critical. Job-related literature includes, but is not limited to, previous job analyses, class specifications, job descriptions, standard operating procedures, policy manuals, training manuals and organizational charts.
- **Collect Job Information** – The job analysts need to compile as much job-relevant information as possible. The most valuable resources in the job analysis process are the people who are most familiar with the job being studied (i.e., a sample of incumbents and their supervisors). These subject matter experts (SMEs) should be utilized in the process to ensure that only the most relevant information is being included. There are recommended criteria for SMEs who participate in the process, as it is important that the SMEs represent the total population of employees performing the job under study. Information is typically collected from the SMEs through interviews, job observations and focus groups.

- **Develop Task and KSAO Lists** – In this step, job analysts create a preliminary list of properly operationalized task and KSAO statements. This list will then be reviewed and refined by carefully vetted SMEs to represent the tasks performed on the job more accurately and the KSAOs required for successful job performance. Follow-up review sessions between job analysts and SMEs are often conducted to ensure the accuracy and completeness of the statements. Additionally, task and KSAO statements must be written according to established guidelines. Task statements should describe a single activity with a clear beginning and end, which is a component of a broader duty or function. KSAO statements are based on the following definitions:
  - **Knowledge** is defined as an organized body of information, usually of a factual or procedural nature, which, if applied, makes adequate performance of the job possible.
  - **Skill** is defined as the proficient manual, verbal or mental manipulation of data, people or things. The difference between skill and ability is that skill embodies observable, quantifiable and measurable performance parameters.
  - **Ability** is defined as the power to perform an activity at the present time. Also implied is a lack of discernible barriers, either physical or mental, to performing the activity. Demonstration of an ability implies the possession of any corresponding or prerequisite knowledge area(s).
  - **Other characteristics** generally refer to personal attributes that are not learned, psychomotor or cognitive in nature. Examples include personality traits, motivations and orientations/pronensities, such as customer service orientation.
- **Plan/Assemble the Data Collection Tool** – There are many factors to consider when developing a method for collecting data: online or pencil-and-paper administration, SME time commitment, scaling, etc. At a minimum, the most common types of data collected are as follows:
  - **Task Ratings** – evaluations of the critical components of acceptable performance
    - **Task Frequency** – how often the task is performed
    - **Task Importance** – how necessary the task is for successful performance
  - **KSAO Ratings** – evaluations of the relationships between characteristics and acceptable performance
    - **Importance** – to what degree the KSAO is necessary for job success
    - **When Needed** – whether the KSAO is necessary upon hire or promotion, or learned on the job after hire or promotion
    - **Performance** – whether a higher level of the KSAO typically results in higher performance than a lower level
  - **Additional Job-specific Information** – important information about the working conditions, physical demands and tools and equipment used on the job

- **Collect Data** – Data collection hinges on gathering information that meets the needs of the job analysis study’s intended purpose. For example, gathering data for a job analysis intended for selection purposes will likely look very different from data intended for succession planning. Mismatches between measures and purpose are at risk for resulting in an inaccurate or unusable job analysis. Furthermore, an insufficient or non-representative sample of SMEs threatens the utility of a job analysis effort.
- **Analyze Data** – Once the data has been collected, they should be cleaned of any erroneous or non-purposeful responses. After the data has been cleaned, statistical criteria need to be set to determine the inclusion parameters against which tasks and KSAOs will be retained or excluded.
- **Link Tasks to KSAOs** – The retained tasks and KSAOs needs to be “linked” by identifying which KSAOs are necessary for the completion of each job task. It is important for SMEs to identify the linkages between KSAOs and job tasks to further identify the most critical characteristics necessary for the given job and to ensure that the KSAOs relate directly to the work being performed.
- **Document the Process** – This is arguably the most critical, yet oft overlooked, component of the job analysis. Even a thorough process without proper documentation would be an easy target for an opposing legal team. A well-structured technical report should include, but not be limited to the following: the user(s), location(s) and date(s) of the process, project background information, content of the job, intended uses and applications, contact information and a declaration of accuracy and completeness.

## WHAT ARE THE BENEFITS OF A CPS HR CONSULTING JOB ANALYSIS?

Keeping up-to-date job analyses that are also fully compliant with ever-changing legal standards can be a daunting task for any public agency. If any or all of the steps detailed above sound overwhelming or beyond your agency’s resources, fortunately, we are here to help. Our expert job analysts are ready to guide your process and ensure that it follows all applicable legal standards and best practice. With over a quarter-century of experience providing job analysis-centric human resource solutions for public agencies, we have a wide range of experience with public sector jobs and the people and processes that work best in them. Our job analysis methodology is proven to work in the real world, and our job analysis experts are dedicated specialists. Because CPS HR Consulting (CPS HR) job analysis studies are based on best practice and compliant with federal and state guidelines, they are highly defensible.

A job analysis from CPS HR will help you:

- **Develop selection procedures**
  - We help you identify the qualities that best predict job performance so you can hire the right people for the job
  - Our work serves as the basis for demonstrating that your selection procedures are appropriately job-related. This ensures legal compliance and defensibility.

- **Create a performance evaluation system**
  - We help you establish accurate standards for the job so you will know which competencies and at what level you should measure individuals against.
- **Determine training/development needs**
  - By establishing the right standards up front, we help you develop personalized training and development programs to minimize gaps between performance and expectations.
- **Define job accommodations, such as ADA compliance**
  - By identifying the essential functions of a job, our analysis highlights any accommodations you may need to make.
- **Identify workplace hazards**
  - We often reveal facts of which human resources professionals might not be aware. With the right information (e.g., exposure to hazardous materials, heights or loud noises), you can better define the work environment, comply with safety regulations and keep your employees safe.
- **Identify physical requirements**
  - By documenting the actual job functions, we help you establish the physical demands (e.g., walking, standing, lifting, etc.) of the job.
- **Study compensation**
  - Using our analysis, you will understand a job and the required skills so you can find comparable jobs in the market to set proper pay ranges.
- **Establish and classify jobs**
  - We provide the information you need to identify similarities and differences so you can group different jobs by classifications or families.
- **Formulate job descriptions and specifications**
  - With an on-the-ground assessment of everyday work functions, we give you the information you need to write an accurate description of the work and worker requirements.
- **Develop workforce and succession plans**
  - Job analysis of multiple positions in your organization helps you create development plans and career ladders, preparing employees for new roles and future jobs.

---

## THE EIGHT STEPS OF A PROPER JOB ANALYSIS

1. *Literature Review*
2. *Collect Job Information*
3. *Develop Task and KSAO Lists*
4. *Plan/Assemble Data Collection Tool*
5. *Collect Data*
6. *Analyze Data*
7. *Link Tasks to KSAOs*
8. *Document the Process*

## ABOUT CPS HR CONSULTING

CPS HR Consulting is a self-supporting public agency providing a full range of integrated HR solutions to government and nonprofit clients across the country. Our strategic approach to increasing the effectiveness of human resources results in improved organizational performance for our clients. We have a deep expertise and unmatched perspective in guiding our clients in the areas of organizational strategy, recruitment and selection, classification and compensation and training and development.

To discuss the importance of studying jobs thoroughly or to learn about all of the ways our job analysis expertise can benefit your organization, reach out to us at:

CPS HR Consulting  
241 Lathrop Way  
Sacramento, CA 95815  
1-800-822-4277

## REFERENCES

American Educational Research Association (AERA), American Psychological Association (APA), & National Council on Measurement in Education (NCME). (1999). *Standards for educational and psychological testing*. Washington, D.C.: Author.

Society for Industrial and Organizational Psychology, (2003). *Principles for the Validation and Use of Personnel Selection Procedures*, 2003, SIOP: Bowling Green, OH

U.S. Equal Employment Opportunity Commission, U.S. Civil Service Commission, U.S. Department of Labor, & U.S. Department of Justice. (1978). *Uniform Guidelines on Employee Selection Procedures*, Federal Register, 43 C.F.R. § 38295-38309.

## CASES CITED

Albemarle Paper Company v. Moody. (1975) 422 U.S. 405.

Griggs v. Duke Power Company. (1971) 401 U.S. 424.

Smith et al. v. City of Boston. (2015) 12 CV 10291 WGY.

U.S. v. City of New York. (2009) U.S. Dist. LEXIS 63153.