# Lecture 3: Job Evaluation and Wages Structure

**Learning Objectives**

· To understand the Wage Determination Process
· To understand the job evaluation methods
· To know the Concept of Wage Surveys
· To understand the Preparation of a Wage Structure
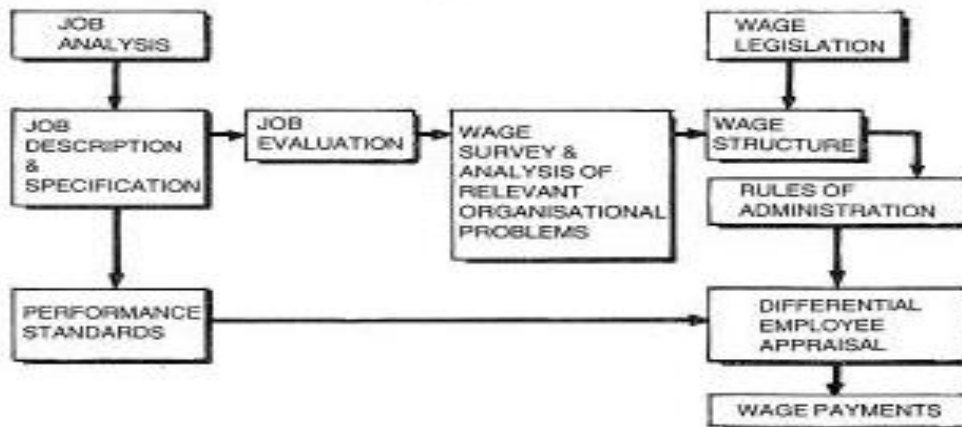
## 1. Wage Determination Process



Fig.1 Steps Involved in Determination of Wage Rate

## 2. Job evaluation

### 2.1. Job evaluation definition

Job evaluation is a systematic process for defining the relative worth or size of jobs within an organization in order to establish internal relativities.

### 2.2. Job Evaluation Process

✓ Job Analysis: it Results in job descriptions which lead to job specifications. A job analysis describes the duties, responsibilities, working conditions and inter-relationships between the job as it is and the other jobs with which it is associated. Job specifications attempts to, record and analyze details concerning the training, skills, required efforts, qualifications, abilities, experience, and responsibilities expected of an employee.

✓ After determining the job specifications, the actual process of grading, rating or evaluating the job occurs.

✓ The next step is that of providing the job with a price. This involves converting the relative job values into specific monetary values or translating the job classes into rate ranges.

### 2.3. TRADITIONAL JOB EVALUATION

The traditional way to value jobs involves a mix of internal organizational factors as well as external market conditions in setting pay rates.

Job evaluation has been accused of being ''a barrier to excellence'' and ''an institutional myth''. Nevertheless, it, too, remains as an essential building block for human resource management.

### 2.3.1. Non-quantitative (non-Analytical) Method

### 2.3.1.1. Ranking Method

Ranking simply involves ordering the job descriptions from highest to lowest based on a predetermined definition of value or contribution. Three ways of ranking are

usually considered: simple ranking, alternation ranking, and paired comparison ranking.

Simple ranking requires that evaluators order or rank jobs according to their overall value to the organization.

Alternation ranking involves ordering the job descriptions alternately at each extreme (e.g., as shown in Figure 2). Agreement is reached among evaluators on which job is the most valuable, then the least valuable.

Job evaluators alternate between the next most valued and next-least valued, and so on, until all the jobs have been ordered. For example, evaluators agreed that the job of master welder was the most valued of the six jobs listed and receiving clerk was the least valued. Then they selected most and least valued jobs from the four remaining titles on the list. After this, a final determination would be made between the last two jobs.

| Jobs | | Rank |
|---|---|---|
| Number | Title | Most valued |
| 1 | Shear operator | Master welder |
| 2 | Electrician | Electrician |
| 3 | Punch press operator | |
| 4 | Master welder | |
| 5 | Grinder | |
| 6 | Receiving clerk | Receiving clerk |
| | | Least valued |

**Figure 2 Alternation Ranking**

The paired comparison method involves comparing all possible pairs of jobs under study. A simple way to do paired comparison is to set up a matrix, as shown in Figure 3. The higher-ranked job is entered in the cell. For example, of the shear operator and the electrician, the electrician is ranked higher. Of the shear operator and the punch press operator, the shear operator is ranked higher. When all comparisons have been completed, the job with the highest tally of ''most valuable'' rankings (the biggest winner) becomes the highest-ranked job, and so on. Some evidence suggests that the alternation ranking and paired comparison methods are more reliable (produce similar results more consistently) than simple ranking.
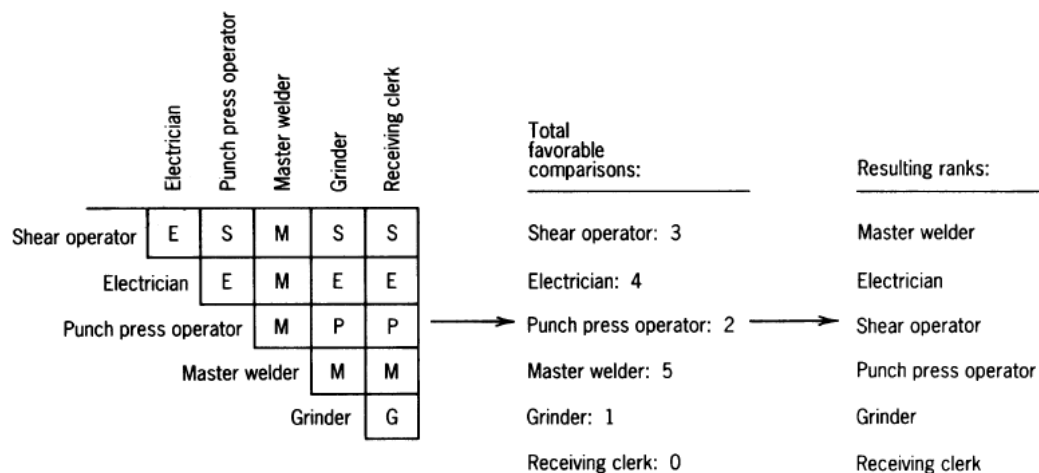


**Figure 3** Paired Comparison Ranking.

Caution is required if ranking is chosen. The criteria or factors on which the jobs are ranked are usually so poorly defined (if they are specified at all) that the evaluations become subjective opinions that are difficult, if not impossible, to explain and justify in work-related terms. Further, evaluators using this method must be knowledgeable about every single job under study. And as the organization changes, it is difficult to retain command of all this job information. Even if such a person exists, the sheer number of rankings to complete becomes onerous, if not impossible. For example, using the paired comparison process where 50 jobs are involved requires $(n)(n - 1)/2 = 1225$ comparisons.

Some organizations try to overcome these difficulties by ranking jobs within single departments and merging the results. However, without greater specification of the factors on which the rankings are based, merging ranks is a major problem.

### 2.3.1.2. Classification Method

It originated as a technique to reform abuses in hiring and paying government workers. Variations of the classification method are still widely used by public-sector employers. The basic procedure is simple: create a set of job categories and sort jobs into them. The categories should be conceived such that jobs that fall into the same category are more similar to each other than to any jobs in other categories. Then, for pay purposes, jobs are treated equally within each category and are treated differently across categories.

Each category is defined by a *class description*. For example, the federal government classification method describes grade 1 as all classes of positions the duties of which are to be performed under immediate supervision, with little or no latitude for the exercise of independent judgment, (1) the simplest routine work in office, business, or fiscal operations, or (2) elementary work of a subordinate technical character in a professional, scientific, or technical field. These class descriptions should be detailed enough to differentiate jobs but general enough to make it fairly easy to slot jobs. While detailed class descriptions make some evaluations more consistent, they can limit the variety of jobs that can readily be classified. It would be difficult, for example, to slot clerical jobs into classes created with sales jobs in mind.

Job classes can be made more concrete by anchoring them with benchmark jobs. For a job to be used as a benchmark, it must be commonly known, relatively stable in content, and perceived to be paid fairly. Where feasible, there should be at least one benchmark job for each job class.

The appropriate number of job classes depends on the diversity of jobs and on promotion paths.

A common rule of thumb is 7 to 14 classes (Belcher 1974). Some argue for having many classes, saying that employees favor frequent advancement to higher grades. Today, however, prevailing opinion argues for having fewer classes, saying that it reduces needless bureaucracy.

### 2.3.2. Quantitative (Analytical) Method

### 2.3.2.1. Factor Comparison Method

In the factor comparison method, jobs are evaluated based on two criteria: (1) a set of compensable factors and (2) wages for a select group of benchmark jobs. The two criteria are combined to form a job-comparison scale, which is then applied to nonbenchmark jobs. Unfortunately, the method's complexity often limits its usefulness. A simplified explanation of this method would include the following steps:

### 2.3.2.1.1. *Conduct Job Analysis*

As with all job-evaluation methods, information about the jobs must be collected and job descriptions prepared. The Factor Comparison Method differs, however, in that it requires that jobs be analyzed and described in terms of the compensable factors used in the plan. The originators of the method, Benge et al. (1941), prescribed five factors: mental requirements, skill requirements, physical factors, responsibility, and working conditions. They considered these factors to be universal (applicable to all jobs in all organizations) but allowed some latitude in the specific definition of each factor among organizations.

### 2.3.2.1.2.   Select Benchmark Jobs

The selection of benchmark jobs is critical because the entire method is based on them. Benchmark jobs (also called key jobs) serve as reference points.

### 2.3.2.1.3.   Rank Benchmark Jobs on Each Factor

Each benchmark job is ranked on each compensable factor. In Table 1, a job family consisting of six jobs is first ranked on mental requirements (rank of 1 is highest), then on experience / skills, and so on.

This approach differs from the straight ranking plan in that each job is ranked on each factor rather than as a whole job.

**TABLE 1 Factor Comparison Method: Ranking Benchmark Jobs by Compensable Factors [a]**

| Benchmark Jobs | Mental Requirements | Experience/ Skills | Physical Factors | Supervision | Other Responsibilities |
|---|---|---|---|---|---|
| A. Punch press operator | 6 | 5 | 2 | 4 | 4 |
| B. Parts attendant | 5 | 3 | 3 | 6 | 1 |
| C. Riveter | 4 | 6 | 1 | 1 | 3 |
| D. Truck operator | 3 | 1 | 6 | 5 | 6 |
| E. Machine operator | 2 | 2 | 4 | 2 | 5 |
| F. Parts inspector | 1 | 3 | 5 | 3 | 2 |

[a] Rank of 1 is high.

### 2.3.2.1.4.   Allocate Benchmark Wages across Factors

Once each benchmark job is ranked on each factor, the next step is to allocate the current wages paid for each benchmark job among the compensable factors. Essentially, this is done by deciding how much of the wage rate for each benchmark job is associated with mental demands, how much with physical requirements, and so on, across all the compensable factors. This is done for each benchmark job and is usually based on the judgment of a compensation committee. For example, in

Table 2, of the $5.80 per hour paid to the punch press operator, the committee had decided that $0.80 of it is attributable to the job's mental requirements, another $0.80 is attributable to the job's experience / skill requirements, $2.40 is attributable to the job's physical requirements, $1.10 is attributable to the job's supervisory requirements, and $0.70 is attributable to the job's other responsibilities.

The total $5.80 is thus allocated among the compensable factors. This process is repeated for each of the benchmark jobs.

**TABLE 2 Factor Comparison Method: Allocation of Benchmark Job Wages across Factors**

| Benchmark jobs | Current wage rate ($ / hr) | Mental Requirements $ | Experience/Skills $ | Physical Factors $ | Supervision $ | Other Responsibilities $ |
|---|---|---|---|---|---|---|
| A. Punch press operator | 5.80 = | 0.80 + | 0.80 + | 2.40 + | 1.10 + | 0.70 |
| B. Parts attendant | 9.60 = | 2.15 + | 2.35 + | 1.90 + | 0.60 + | 2.60 |
| C. Riveter | 13.30 = | 2.50 + | 3.10 + | 2.45 + | 4.50 + | 0.75 |

| | | | | | | |
|---|---|---|---|---|---|---|
| D. Truck operator | 8.50 = | 3.40 + | 3.20 + | 0.60 + | 0.80 + | 0.50 |
| E. Machine operator | 11.80 = | 3.60 + | 2.90 + | 1.75 + | 2.90 + | 0.65 |
| F. Parts inspector | 11.40 = | 4.50 + | 2.20 + | 1.20 + | 2.50 + | 1.10 |

After the wage for each job is allocated among that job's compensable factors, the dollar amounts for each factor are ranked. The job that has the highest wage allocation for mental requirements is ranked 1 on that factor, next highest is 2, and so on. Separate rankings are done for the wage allocated to each compensable factor. In Table 3, the parts-inspector position has more of its wages allocated to mental demands than does any other job and so it receives the highest rank for that factor.

There are now two sets of rankings. The first ranking is based on comparisons of each benchmark job on each compensable factor. It reflects the relative presence of each factor among the benchmark jobs. The second ranking is based on the proportion of each job's wages that is attributed to each factor. The next step is to see how well the two rankings agree.

**TABLE 3 Factor Comparison Method: Rankings the wage allocated to each compensable factor.**

| Ranking Wage Allocations | Factors | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | Mental Requirements $ | | Experience /Skills $ | | Physical Factors $ | | Supervision $ | | Other Responsibilities $ | |
| Benchmark jobs | $ | Rank | $ | Rank | $ | Rank | $ | Rank | $ | Rank |
| A. Punch press operator | 0.80 | 6 | 0.80 | 6 | 2.40 | 2 | 1.10 | 4 | 0.70 | 4 |
| B. Parts attendant | 2.15 | 5 | 2.35 | 4 | 1.90 | 3 | 0.60 | 6 | 2.60 | 1 |
| C. Riveter | 2.50 | 4 | 3.10 | 2 | 2.45 | 1 | 0.80 | 5 | 0.75 | 3 |
| D. Truck operator | 3.40 | 3 | 3.20 | 1 | 0.60 | 6 | 4.50 | 1 | 0.50 | 6 |
| E. Machine operator | 3.60 | 2 | 2.90 | 3 | 1.75 | 4 | 2.90 | 2 | 0.65 | 5 |
| F. Parts inspector | 4.50 | 1 | 2.20 | 5 | 1.20 | 5 | 2.50 | 3 | 1.50 | 2 |

#### *2.3.2.1.5.  Compare Factor and Wage-Allocation Ranks*

The two rankings are judgments based on comparisons of compensable factors and wage distributions. They agree when each benchmark is assigned the same location in both ranks. If there is disagreement, the rationale for the wage allocations and factor rankings is reexamined. Both are judgments, so some slight tuning or adjustments may bring the rankings into line. The comparison of the two rankings is simply a cross-checking of judgments. If agreement cannot be achieved, then the job is no longer considered a benchmark and is removed.

#### *2.3.2.1.6.  Construct Job Comparison Scale*

Constructing a job-comparison scale involves slotting benchmark jobs into a scale for each factor based on the amount of pay assigned to each factor. Such a scale is illustrated in Figure 3. Under mental requirements, the punch press operator is slotted at $0.80, the parts attendant at $2.15, and so on. These slottings correspond to the wage allocations shown in Figure 4.

| $ Value | Mental requirements | Experience/ skills | Physical demands | Supervision | Other responsibilities |
|---|---|---|---|---|---|
| .00 | | | | | |
| .20 | | | | | Truck operator / Machine operator |
| .40 | | | Truck operator | Parts attendant | |
| .60 | | | | | Punch press operator |
| .80 | Punch press operator | Punch press operator | | Truck operator | Riveter |
| 1.00 | | | — STOCKER — | | — STOCKER — |
| .20 | STOCKER | | Parts inspector | Punch press operator | Parts inspector |
| .40 | | | | STOCKER | |
| .60 | | | | Parts inspector | |
| .80 | | | Machine operator | | |
| 2.00 | | | Parts attendant | | |
| .20 | Parts attendant | Parts inspector / Parts attendant | | | |
| .40 | | | Punch press operator | | |
| .60 | Riveter | | Riveter | | Parts attendant |
| .80 | | STOCKER / Machine operator | | Machine operator | |
| 3.00 | | — Riveter — | | | |
| .20 | Truck operator | Truck operator | | | |
| .40 | Machine operator | | | | |
| .60 | | | | | |
| .80 | | | | | |
| 4.00 | | | | | |
| .20 | | | | | |
| .40 | Parts inspector | | | Riveter | |
| .60 | | | | | |
| .80 | | | | | |
| 5.00 | | | | | |

**Figure 4 Job Comparison Scale.**

### 2.3.2.1.7. Apply the Scale

The job-comparison scale is the mechanism used to evaluate the remaining jobs. All the nonbenchmark jobs are now slotted into the scales under each factor at the dollar value thought to be appropriate. This is done by comparing the factors in the job descriptions of nonbenchmark jobs with the factors in the reference points. Consider the position of parts stocker, a nonbenchmark job. The evaluator reads the stocker job description, examines the first compensable factor on the job comparison scale (mental requirements), and locates two benchmark jobs between which the mental requirements of the stocker job rank. After examining the job descriptions for punch press operator and parts attendant the stocker job might be judged to require greater mental demands than those required for the punch press operator but less than those for the parts attendant and might be slotted at a rate of $1.40 for mental requirements. The final worth of each job is derived from a summation of the dollars allocated to the job across all compensable factors.

The method is complex and difficult to explain, particularly to employees who are dissatisfied with the final ranking their job achieves. In addition, as the agreed-upon wage rates of the benchmark jobs change, the relationships among the jobs may change, and the allocation of the wages among the factors must be readjusted. So continuous updating is required.

### 2.3.2.2. Point Method

Like factor comparison, designing a point system is rather complex and often requires outside assistance by consultants. But once designed, the plan is relatively simple to understand and administer, which accounts for its widespread use. Indeed, it is the system used by the vast majority of companies (Milkovich and Newman 1993).

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Point methods have three common characteristics: (1) compensable factors, with (2) numerically scaled factor degrees to distinguish different levels within a factor, and (3) weights reflecting the relative importance of each factor. With the point method, as with all job-evaluation plans, the first step is job analysis. The next steps are to choose the factors, scale them, establish the factor weights, and then evaluate jobs.

### 2.3.2.2.1.  Conduct Job Analysis

Information about the jobs to be evaluated is the cornerstone of all job evaluation. While ideally, all jobs will be analyzed, the relevant work content—the behaviors, tasks performed, abilities / skills required, and so on—of a representative sample of jobs forms the basis for deriving compensable factors.

### 2.3.2.2.2.  Choose Compensable Factors

Compensable factors play a pivotal role in the point method. In choosing factors, an organization must decide: ''What factors are valued in our jobs? What factors will be paid for in the work we do?'' Compensable factors should possess the following characteristics:

*Work Related* They must be demonstrably derived from the actual work performed in the organization. Some form of documentation (i.e., job descriptions, job analysis, employee and/or supervisory interviews) must support the factors. Factors that are embedded in a work-related logic can help withstand a variety of challenges to the pay structure. For example, managers often argue that the salaries of their subordinates are too low in comparison to other employees or that the salary offered to a job candidate is too low for the job. Union members may question their leaders about why one job is paid differently from another. Allegations of illegal pay discrimination may be raised. Line managers, union leaders, and compensation specialists must be able to explain differences in pay among jobs. Differences in factors that are work related help provide that rationale. Properly selected factors may even diminish the likelihood of these challenges arising.

*Business Related* Compensable factors need to be consistent with the organization's culture and values, its business directions, and the nature of the work. Changes in the organization or its business strategies may necessitate changing factors. While major changes in organizations are not daily occurrences, when they do occur, the factors need to be reexamined to ensure that they are consistent with the new circumstances.

*Acceptable to the Parties* Acceptance of the pay structure by managers and employees is critical. This is also true for the compensable factors used to slot jobs into the pay structure. To achieve acceptance of the factors, all the relevant parties' viewpoints need to be considered.

*Discriminable* In addition to being work related, business related, and acceptable, compensable factors should have the ability to differentiate among jobs. As part of differentiating among jobs, each factor must be unique from other factors. If two factors overlap in what they assess in jobs, then that area of overlap will contribute disproportionately to total job points, which may bias the results. Factor definitions must also possess clarity of terminology so that all concerned can understand and relate to them.

There are two basic ways to select and define factors: Adapt factors from an existing standard plan or custom design a plan. In practice, most applications fall between these two. Standard plans often are adjusted to meet the unique needs of a particular organization, and many custom-designed plans rely heavily on existing factors. Although a wide variety of factors are used in conventional, standard plans, they tend to fall into four generic groups: skills required, effort required, responsibility, and working conditions. These four were used originally in the National Electrical

Manufacturers Association (NEMA) plan in the 1930s and are also included in the Equal Pay Act (1963) to define equal work (Gomberg 1947).

Adapting factors from existing plans usually involves relying on the judgment of a task force or job evaluation committee. More often than not, the committee is made up of key decision makers (or their representatives) from various functions (or units, such as finance, operations, engineering, and marketing).

To identify compensable factors involves getting answers to one central question: Based on our operating and strategic objectives, what should we value and pay for in our jobs? Obviously, custom designing factors is time consuming and expensive. The argument in favor of it rests on the premise that these factors are more likely to be work related, business related, and acceptable to the employees involved.

In terms of the optimal number of factors, it is generally recommended to stay below 10 in order to avoid dilution of effect, information overload, and factor redundancy. Five to 7 factors are usually a manageable number to capture the essence of jobs in an organization. With regard to the number of total points to be allocated across the factors, most firms choose either 500 or 1000 points.

### 2.3.2.2.3. Establish Factor Scales

Once the factors to be included in the plan are chosen, scales reflecting the different degrees within each factor are constructed. Each degree may also be anchored by the typical skills, tasks, and behaviors taken from benchmark jobs that illustrate each factor degree. Table 4 shows the National Metal Trade Association's scaling for the factor of knowledge. Belcher (1974) suggests the following criteria for determining degrees:

**1.** Limit to the number necessary to distinguish among jobs.
**2.** Use understandable terminology.
**3.** Anchor degree definition with benchmark job titles.
**4.** Make it apparent how the degree applies to the job.

Using too many degrees makes it difficult for evaluators to accurately choose the appropriate degree and may result in a wide variance in total points assigned by different evaluators. The threat this poses to acceptance of the system is all too apparent.

Some plans employ 2D grids to define degrees. For example, in the Hay plan, degrees of the factor know-how are described by four levels of managerial know-how (limited, related, diverse, and comprehensive) and eight levels of technical know-how (ranging from professional mastery through elementary vocational). An evaluator may select among at least 32 (4 * 8) different combinations of managerial and technical know-how to evaluate a job.

**TABLE 4 Illustration of a Compensable Factor Scheme**

| **I. Knowledge** |
|---|
| This factor measures the knowledge or equivalent training required to perform the position duties. |
| *First Degree* |
| Use of reading and writing, adding and subtracting of whole numbers; following of instructions; use of fixed gauges, direct reading instruments and similar devices; where interpretation is not required. |
| *Second Degree* |
| Use of addition, subtraction, multiplication, and division of numbers including decimals and fractions; simple use of formulas, charts, tables, drawings, specifications, schedules, wiring diagrams; use of adjustable measuring instruments; checking of reports, forms, records and comparable data; where interpretation is |

| |
|---|
| required. |
| *Third Degree* |
| Use of mathematics together with the use of complicated drawings, specifications, charts, tables; various types of precision measuring instruments. Equivalent to 1 to 3 years applied trades training in a particular or specialized occupation. |
| *Fourth Degree* |
| Use of advanced trades mathematics, together with the use of complicated drawings, specifications, charts, tables, handbook formulas; all varieties of precision measuring instruments. Equivalent to complete accredited apprenticeship in a recognized trade, craft, or occupation; or equivalent to a 2- year technical college education. |
| *Fifth Degree* |
| Use of higher mathematics involved in the application of engineering principles and the performance of related practical operations, together with a comprehensive knowledge of the theories and practices of mechanical, electrical, chemical, civil or like engineering field. Equivalent to complete 4 years of technical college or university education |

### 2.3.2.2.4.    *Establish Factor Weights*

Once the degrees have been assigned, the factor weights must be determined. Factor weights are important because different weights reflect differences in importance attached to each factor by the employer. There are two basic methods used to establish factor weights: committee judgment and statistical analysis. In the first, a standing compensation committee or a team of employees is asked to allocate 100% of value among the factors. Some structured decision process such as Delphi or other nominal group technique may be used to facilitate consensus. For the statistical method, which typically utilizes multiple regression analysis, the weights are empirically derived in such a way as to correlate as closely as possible to a set of pay rates that is agreed upon by the parties involved. The criterion is usually the pay rate for benchmark jobs, and the predictors are the jobs' degree levels on each of the factors.

Initial results of either the committee judgment or statistical approach for deriving factor weights may not lead to completely satisfactory results. The correspondence between internal value (the job evaluation results) and the external value (what the market says you should be paying) may not be sufficiently high. Several procedures are commonly used to strengthen this relationship. First, the sample of benchmark jobs may be changed through adding or deleting jobs. Second, the factor degree levels assigned to each benchmark job may be adjusted. Third, the pay structure serving as the criterion may be revised. And finally, the factor-weighting scheme may be modified. Thus, a task force beginning with exactly the same factors and degrees could end up with very different job evaluation plans, depending on the benchmark jobs used, the pay rates chosen as the criterion, and the method employed to establish the weights.

### 2.3.2.2.5.    *Evaluate Jobs*

To translate weights and factor scales into actual job points, the maximum number of points to be used in the system is first divided among the factors according to their weights. The points for each factor are then attached to that factor's scale. For example, if a factor is weighted 20% in a 500- point system, then a total of 100 points is assigned to this factor; and if there are five degrees on the factor, then each degree is worth 20 points.

In the point method, each job's relative value, and hence its location in the pay structure, is determined by the total points assigned to it. A job's total point value is

the sum of the numerical values for each degree of compensable factor that the job possesses. In Table 5, the point plan has four factors: skills required, effort required, responsibility, and working conditions. There are five degrees for each factor.

**TABLE 5   The Point Method of Job Evaluation: Factors, Weights, and Degrees**

| (3) Weights | (1) Factors | (2) Degrees | | | | |
|---|---|---|---|---|---|---|
| 40% | Skills required | 1 | 2 | 3 | 4 | 5 |
| 30% | Effort required | 1 | 2 | 3 | 4 | 5 |
| 20% | Responsibility | 1 | 2 | 3 | 4 | 5 |
| 10% | Working conditions | 1 | 2 | 3 | 4 | 5 |

In addition to factor definitions, the evaluator will be guided by benchmark jobs and written descriptions that illustrate each degree for each respective factor. Thus, the evaluator chooses a degree for each factor according to the correspondence between the job being evaluated and the benchmark jobs or descriptions for each factor scale. Then the ratings are multiplied by the factor weights and the products are summed. In the above example, skills required carries a greater weight (40% of the total points) for this employer than does working conditions (10% of the total points). Thus, a job's 240 total points may result from two degrees of skills required (2 * 40 = 80), three each of effort required (3 * 30 = 90) and responsibility (3 * 20 = 60), and one of working conditions (1 *10 = 10); (80 + 90 + 60 + 10 = 240).

Once the total points for all jobs are computed and a hierarchy based on points established, then jobs are compared to each other to ensure that their relative locations in the hierarchy are acceptable. Almost without fail, certain naturally occurring clusters of jobs will emerge.

## 2.4. OTHER METHODS OF VALUING JOBS

### 2.4.1. Market-Based Pay Systems

For every organization, prevailing wages in the labor market will affect compensation. For some jobs and some organizations, market wage levels and ability to pay are virtually the only determinants of compensation levels. An organization in a highly competitive industry may, by necessity, merely price jobs according to what the market dictates. For most companies, however, to take all their jobs (which may number in the hundreds or thousands) and compare them to the market is not realistic.

One can only imagine the effort required for a company to conduct and/or participate in wage surveys for thousands of jobs every year. Alternatively, one computer company was able to slot thousands of jobs into 20 pay grades using a version of the point factor method.

Market pricing basically involves setting pay structures almost exclusively through reliance on rates paid in the external market. Employers following such an approach typically match a large percentage of their jobs with market data and collect as much summarized market data as possible.

Opting for market pricing usually reflects more of an emphasis on external competitiveness and less of a focus on internal consistency (the relationships among jobs within the firm).

Market prices often use the ranking method to determine the pay for jobs unique to their firms.

Often called rank to market, it involves first determining the competitive rates for positions for which external market data is available and then slotting the remaining (nonbenchmark) jobs into the pay hierarchy.

### 2.4.2. Knowledge-Based Pay Systems

Some organizations consider individual employee characteristics, in accordance with internal organizational factors and external market conditions, in setting pay rates.

Increasing foreign and domestic competition and rapid technological change have inspired innovative individual and team pay-for-performance and knowledge- and skill-based pay systems. Such systems are posited to engender (1) greater mutual commitment between individuals and organizations, and (2) stronger linkages between the rewards given to employees and the performance of the organization. Technically, knowledge-based pay systems do not involve job evaluation. Instead, they are an alternative to systems that do involve job evaluation. Knowledge-based pay systems pay employees based on what they *know* rather than what particular job they are doing (Gupta., et al 1986).

Generally, such systems base pay on the depth of knowledge in a particular field (e.g., scientists and teachers) (Luthans and Fox 1989). For instance, all else equal, a sixth-grade teacher with a Master's degree will be paid more than a sixth-grade teacher with a Bachelor's degree under this system.

### 2.4.3. Skill-Based Pay Systems

Similarly, skill-based pay systems reward employees for their breadth of knowledge pertaining to different jobs (e.g., proficiency in a number of various production jobs). For instance, if one person could operate machines A, B, and C, she may be paid $15 per hour (even if she only works on machine A all year). Her colleague may be qualified to work on machines A and C, and therefore he would only make $13 per hour (even if he worked on both machines over the course of the year).

As can be seen, pay is driven by the quantity of tasks a person is qualified to perform. The chief advantages of knowledge- and skill-based pay systems are leaner staffs and greater flexibility in scheduling. Advocates claim they benefit employees: job satisfaction increases because employees get a sense of having an impact on the organization, and motivation increases because pay and performance are closely linked. Potential disadvantages include higher pay rates and increased training costs, the administrative burden of maintaining records, the erosion of knowledge/ skills if not used, and the challenge of managing an equitable job rotation. These disadvantages may or may not be offset by having a leaner workforce and greater productivity.

### 3. Wage Surveys

Once the relative worth of jobs has been determined by job evaluation, the actual amounts to be paid must be determined. This is done by making wage or salary surveys in the area concerned.

Such surveys seek to answer questions like what are other firms paying?

What are they doing by way of social insurance?

What is the level of pay offered by other firms for similar occupations? etc, by gathering information about 'benchmark jobs', which are usually known as good indicators. There are various ways to make such a survey. Most firms either use the results of "packaged surveys" available from the research bodies, employer's associations, Government Labour Bureaus, etc., or they participate in wage surveys and receive copies of results, or else they conduct their own.

These surveys may be carried out by Mailed questionnaire, telephone, or personal interviews with other managers and personnel Agencies.

✓ **A wage survey to be useful, must satisfy these points**

**a.Frequency**

Affected by rapidity of changes, current and contemplated. Once per year is common.

**b.Scope (number of firms)**

Influenced by the geographic area from which people are drawn, the number of units competing for this labor, accuracy requirements, and willingness of organizations to share information.

**c. Accuracy**

The diversity in job titles and specific job duties is staggering. The greater the accuracy and detail needed, the greater the requirements for careful description and specification and surveyor's reliance on person-to-person 'interviewing rather than mailed questionnaires. Such wage surveys provide many kinds of useful information about differences in wage levels for particular kinds of occupations. This can have a great influence on an organization's compensation policy.

## 4. Relevant Organizational Problems

In addition to the results of job analysis and wage surveys, several other variables have to be given due consideration in establishing wage structure. For example, whether there exists well-established and well-accepted relationships among certain jobs which can upset job evaluation, whether the organization would recruit new employees after revised wage structure; are the prevailing rates in industry or community inconsistent with the results of job evaluation? What will be the result of paying lower or higher compensation; and what should be the relationship between the wage structure and the fringe benefit structure? Belcher has listed 108 variables which can affect levels of compensation and the wage structure

## 5. Preparation of Wage Structure

## 5.1. Preparation of Wage Structure considerations

The next step is to determine the wage structure. For this, several decisions need be taken, such as:

a. whether the organization wishes, or is able, to pay amounts above, below, or equal to the average in the community or industry;

b. whether wage ranges should provide for merit increases or whether there should be single rates;

c. the number and width of the 'pay grades' and the extent of overlap;

d. which jobs are to be placed in each of the pay grades;

e. the actual money value to be assigned to various pay grades surveyor's reliance on person-to-person 'interviewing rather than mailed questionnaires.

f. differentials between pay plans; and

g. what to do with salaries that are out of line once these decisions have been made.

There are though no hard and fast rules for making such decisions, and procedure commonly used is the two dimensional graph on which job evaluation points for key jobs are plotted against actual amounts paid or against desired levels.

## 5.2. The wage curve

In the following figure, wage rates are shown on the vertical axis while pay grades (in points) along the horizontal axis. The **'wage curve'** shows the relationship between:

i. the "value" of the job; and

ii. the "average wage rates" of these grades (or jobs).
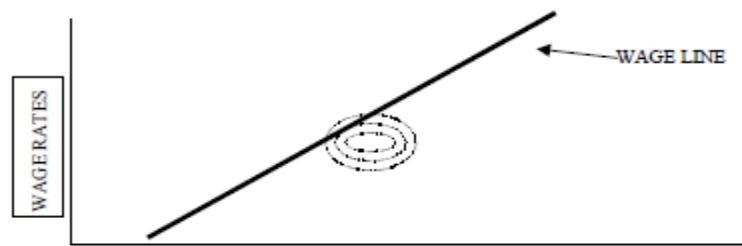
**Figure 5 The wage curve**

✓ **The following steps are involved in drawing a wage curve**

1. Finding out the average pay rate for each pay grade, for each pay grade may have several jobs and chances are that each of these jobs is currently being paid a different rate.

2. Plotting the wage rate for each pay grade.

3. Drawing "Wage Lines" through the points plotted. These lines may be straight or curved; if the pay grade comprise a single job cluster, a straight line is usually employed.

4. **Pricing jobs:** Wages along the "wage line" are target wages or salary rates for the jobs in each pay grade. It is possible that some of the plotted points may fall off the wage line. This will mean that average for that grade is too high (or too low), given the pay rates for other grade.

If the plot falls below the line, raises for jobs in this pay grade may be required. Such a raise may be given either immediately or in one or two steps.

If the plot falls above the wage line, that indicates rates are high and the over paid employees are often called "red circle," "flagged," or "overrates." This will necessitate either:

i. To freeze the rate paid until general salary increases bring the other jobs into line with it, or

ii. To transfer or promote the employee to a job where -he can legitimately be paid his current rate; or

iii. To cut to the maximum in the pay grade.

**5.3.Setting of Rate Ranges**

A rate range consists of a minimum pay rate (the beginning hire rate), a midpoint (the market or job rate), and a maximum (the highest rate the organization is willing to pay for the job).

When examining pay ranges we can determine the total wage structure with the help of three characteristics: the breadth of the rate range, the number of pay grades and the overlap (see figure 6).

**a. Breadth of the rate range**

The breadth of the rate range is the distance from the top to the bottom of the range a to b in figure 16-2. It is the vertical dimension of the range. The breadth of the range should vary with the criteria for movement within the range.

In practice, hourly jobs have ranges of 10 to 20 percent, office jobs 15 to 35 percent, and managerial jobs 25 to 100 percent.

**b. Number of pay grades**

The number of pay grades is reflected in the horizontal dimension of **figure 6 (a to c)**. Not surprisingly, number of pay grades is associated with size and number of levels in the organization. It also seems reasonable that organizations with a fluid, organic

structure would have a minimum of pay grades whereas more structured and bureaucratic ones would have more.

In practice, the number of pay grades varies from as few as 4 to as many as 60. But 10 to 16 seem to be most common.

Several points need consideration when deciding the number of grades. They are mentioned below:

1. Size of the organization.
2. Broadness of the grades.
3. Job homogeneity.

### c. Overlap

The final pay range determinant is the degree of overlap between any one pay grade and the adjacent grade (c to d in figure 6). Overlap allows people in a lower pay grade to be paid the same as or more than those at a higher grade. This reasoning seems to work: seldom are there complaints about overlap.

Overlap will work well where there are many wide pay grades. Some overlap is desirable, but there are problems. The main one comes about in promotions.
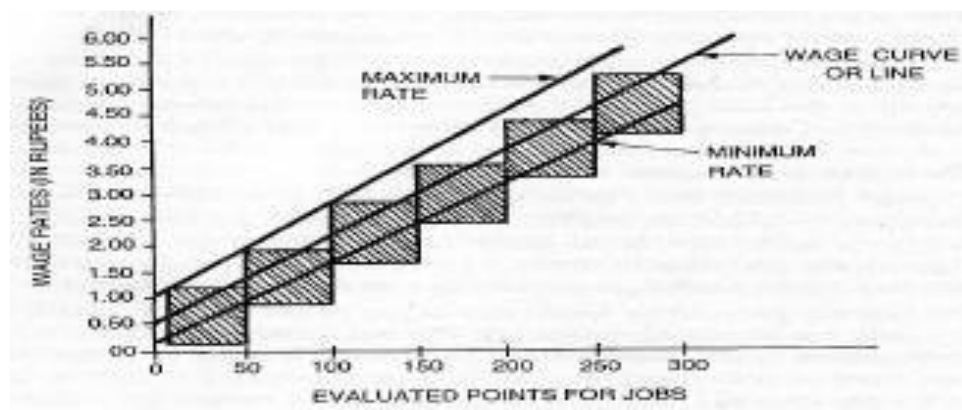


**Figure 6 Parts of a wage structure**

**References:**
1. COMPENSATION MANAGEMENT, Eiilm University, www.eiilmuniversity.ac.in
2. *Adamus*, W. (2009),A NEW METHOD OF JOB EVALUATION, Jagiellonian University.
3. HANNON, J.M, NEWMAN, J.M, MILKOVICH, G.T, & BRAKEFIELD, J.T, (2001),Job Evaluation in Organizations (Chapter 34), *Handbook of Industrial Engineering: Technology and Operations Management, Third Edition.* Edited by Gavriel Salvendy, John Wiley & Sons, Inc.