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**Relative Salary Values for Different Positions and Careers
(Job Evaluation)**

1. Introduction:

Job evaluation has been defined as a generic term covering methods of determining the relative worth of jobs. In this context a job is described as being all the tasks carried out by a worker or a group of workers in the completion of their prescribed duties and grouped together under one title or definition.

The word "job", thus, refers to the trade or calling, and not to just a piece of work or task. It embraces, for instance, the "job" of a carpenter, and not simply the "job" of making a box or hanging a door.

As with all management techniques, job evaluation involves the acceptance of certain basic assumptions: for instance, that the time and trouble involved in such an exercise are worth while in

that the result can be put to good use; that different kinds of work have or should have different values, and that similar jobs are of equal value; that the value of work is affected by the supply of labor and the demand for the results of the work; that the supply and demand can be resolved in terms of the mental and physical demands made by the work and the availability of appropriate labor; that these demands can be roughly quantified and compared; and that any work values so derived are related to and affected by the values of all other work.

There are other assumptions, but these are the fundamental ones on which job evaluation is based, and it is important that they should be specified and understood, otherwise the argument for and against job evaluation will be futile.

2.Objectives of job evaluation

The immediate objective of job evaluation is to find out the value of work, but this is a value which varies from time to time and from place to place under the influence of certain economic pressures, not least of which is the worth of money itself. Nevertheless, the value of work at a specific moment in time and in one place is absolute, governed by supply and demand, and related to the value of all other work. The aim of job evaluation is not create a rate, but to discover what that rate is at that time and in that place. Then any changes in worth (expressed perhaps in wage fluctuations) can be identified, isolated, and quantified.

Work and the wages paid for it are emotional matters about which people easily get upset. Many of the strikes and disputes in industry have to do with wages or working conditions, or at any rate seem to be. So as to avoid the emotional disturbance of values, job evaluation usually measures work in points, ranks or

grades rather than in money, while the work itself is resolved into those physical and mental characteristics which it demands of the worker. These characteristics are then used as the criteria for the evaluation.

Another aim of job evaluation, when it is used to form the foundation of a wage structure, is to supply bases for negotiations founded on facts, rather than on vague indeterminate ideas.

Wages are always under pressure of one kind or another, and some job wages are influenced more than others, a state of things that has inevitably led to anomalies in rates of pay in that some are too high as compared with others and some too low. Another of the objectives is to reveal these anomalies, although it is important to realize that job evaluation does not itself create them. They are already there waiting to be shown up and qualified. Whether or not the anomalies will then be corrected is another matter, but if they are it must then be assumed that their adjustment will in turn affect the values of all other jobs.

When job evaluation is used in the design of a wage structure it helps in rationalizing or simplifying the system by reducing the number of separate and different rates. Many wage systems contain a large number of rates some of which comprise many component parts, and which may vary from each other by insignificant amounts. The administration of complex systems, especially where some form of payment by results is involved, can be very expensive.

Another objective of job evaluation is to show where the money goes when paying for work. If the work is analysed into certain aspects such as skill and responsibility it is possible to determine not only what the job is worth but also the value of

each of the aspects, a piece of information which is useful when trying to improve labour productivity.

There is a popular idea that job evaluation is some kind of superior incentive scheme, a sort of sophisticated alternative to piecework or daywork. Job evaluation is not a wages system, neither has it anything to do with payment by results. If it reduces the amount of time wasted on frustrating arguments about wages - as is often claimed - then it might be regarded as some sort of incentive or encouragement towards improving the industrial climate, but this is not so much an immediate objective as an additional virtue. It is always difficult to persuade people that the evaluation and the wage are not the same thing. Wages are what people are paid. Evaluation is the value of the work that they do, and people are not always paid what the work is worth, even when it is evaluated. People may be worth more, or even less, than the work they do, but how can we know unless we discover what the work itself is worth?

Another of job evaluation's objectives is to determine what work is worth at standard evaluation, rather than by some vague so called productivity deal. Politicians and economists talk about percentage growths, percentage improvements in productivity or in exports, and percentage increments in wages as though the percentages themselves were significant. They do not seem to know or to want to find out what the level of productivity ought to be in a particular case, in order to compare achievements with objectives rather than with past levels. Surely if productivity can be raised it must be because it is lower than it could be: The more it can be raised the worse the previous productivity with which it is compared.

The same remarks apply to wages. What really matters is finding out what the work is worth, and comparing the wages with this

figure rather than with what is used to be paid. In any case wage and productivity are not commensurate, for they are measured in different terms. In the majority of instances, apart from the cessation of restrictive practices, it is not within the bounds of labor to improve its productivity very much, as there are limits to human performance. Most of any improvement is likely to come from better methods, systems or organizations, and they are not designed or introduced by those whose wages are being compared with productivity. Furthermore, if wages and productivity were commensurate the technologists should benefit most from any improvement.

Job evaluation will not solve the problem of determining the competitive wage for a job, neither will it cut out wage negotiations around the table, but the laborer is worthy of his hire, and it will indicate the value of his work as compared with that of other work at a given time and in a given place. Thus by comparison it should be possible to see whether wages claims are reasonable or exorbitant in terms of the accepted criteria.

3.Scope and limitations of job evaluation

Some authorities limit job evaluation to the evaluation of work at its lowest level of quality and quantity. Work below this level is worthless and should not be done at all. As, however, different kinds of work may have different levels of accomplishment, and as the range of accomplishment between the lowest acceptable and the highest attainable is a feature of the work itself, others hold that it is not only within the scope of the technique to evaluate work at various levels of performance, but also desirable and necessary. Particularly, in the case of those occupations that are part of a career structure, it is necessary to indicate the route from one grade in the structure to the next.

The factors that influence different levels of performance are not always the same as those that are used as the criteria for evaluating the work itself. For instance, physical effort may be one such work criterion, and so may skill. More work of the same kind will certainly involve greater physical effort, but it will not necessarily involve more skill. Better work will involve greater skill perhaps, but it may not involve more physical effort. But both more work and better work may well involve extra diligence, which is not the same as effort or skill, yet nevertheless will be a factor which the worker will bring to bear upon his work. Thus it seems better to evaluate the work itself against its own criteria at its lowest acceptable level, and to appraise additional performance against some other criteria.

Some kinds of work can be measured comparatively easily and fairly accurately in terms of the quantity and quality of the product or service. Where there is a tangible result which can be counted and checked for quality against a standard of acceptability such criteria may be used to determine the value of the work over and above the lowest acceptable level. Other kinds of work in which there is no tangible result are more difficult to measure in quality and quantity, and yet it is in just such work that the range between the lowest acceptable and the highest attainable or desirable is greatest.

Whichever point of view prevails, there would seem to be little disagreement that the criteria for evaluating work are not the same as those for evaluating the worker. In job evaluation it is most important to distinguish clearly between the worker and the work, which is another good reason for not using those criteria that tend to confuse them. Work is done by people, and people are paid wages for that work, and wages vary according to all sorts of personal attributes and relationships, the effects of which influence the values of all other wages. Job evaluation however is

concerned with the value of job, not of the people who do it. The technique is cold and clinical, based as it is on factual criteria, and is limited to determining the rate for the job. If this is a limitation it is not a fault. Other techniques exist for measuring the value of the person, and should be used accordingly where appropriate.

All work can be evaluated. It can all be evaluated against the same criteria, and to do so might seem to be desirable. If an objective of job evaluation is to show that justice is done in the determination of job values, then to have the whole range of work judged in similar terms and criteria throughout would seem to help. In practice, however, it would be extremely irksome, and might be a means to the end opposite to that desired. While it might be thought best to measure all jobs by the same yardstick, jobs differ enormously in their demands on many varied human characteristics. They differ also in size, and are done in different locales, and to measure them all in the same terms would be like trying to measure all dimensions with a tape measure.

The criteria to use and the way to use them depend on the nature of the work being evaluated, on the prevailing circumstances, on the purpose of the measurement, on the degree attainable. The problem is that just as there are no permanent values for work neither are any absolute criteria for its evaluation. To spend time considering irrelevant criteria is wasteful, misleading, and it also engenders impatience.

Just as the choice of evaluating criteria needs to suit the establishment, so specific groups, or families, or jobs may require individual treatment within a specialized part of the system.

As it is possible to evaluate all jobs against some criteria or other, the problem is whether to cover the whole range of employees or to stop short at some predetermined point. It will be found that the criteria at the top of the hierarchy may be different from those at the bottom, while the number of references at the higher levels may be too small to be significant. When the components of wages are examined it will be seen that the way the work is done may be more important than the job itself so far as the wage is concerned.

The law does not differentiate between different people, but treats all in a specific group alike. It is their actions which are differentiated under the law, and the same applies in job evaluation.

Thus it may be necessary to have separate and different schemes for different groups of jobs. Perhaps one for production, another for maintenance, yet another for supervision, and another for clerical and administrative grades. When separate schemes are used there is likely to be some common ground between them, and so it may be possible to compare the separate parts of the system. This matter has to do with the so called "Theory of Relative Values".

4. Components of wages

One basic assumption is that the value of work, if it has any value at all, depends among other things on the value of other work, a value which is related to the wages that are paid for work. If, for instance, the wages of a certain job are raised, the remaining jobs will be underpaid compared with what they were before, although their actual wages have not been reduced. Their wages would not have gone down, and so if they were now underpaid compared before, their job values must have risen. Therefore values depend also on wages, and likewise ranges - though for

different reasons - depend on values. If therefore we wish to evaluate work we must take into account the current wages for other work.

Some of the current wages will be higher than they should be when compared with others in the system, and some will be lower. The others will be about right. Job evaluation tries to identify and isolate these that are about right - or "typical" as they are called, since "right" is a comparative term - and use them to evaluate the rest. Then the rest, having been altered in value by the evaluation process, will have affected those that hitherto were typical, and they too may need to be re-evaluated, and so on.

Regardless of the nature of the work, and whether the wages are high, low or typical, each wage will comprise a number of component parts. The distinction between these components may be blurred, and it may not be possible to identify them, let alone quantify them.

The first of the wage components concerns the nature of the work itself, in that some kinds of work are worth either more or less than others according to their natures. The second component has to do with the personal factors, in that some people will do better or more work than their colleagues in the same job. Finally there are the so called fringe factors, which have mainly to do with the particular benefits of the job. So, the total wage is the result of work factors, plus personal factors, plus fringe factors.

Just as the value of work is affected by and depends on the value of other work, so the value of each of these components will be affected by the values of the rest. While they are all important separately and individually, it is the total wage that really matters in the end. Should one factor be low rated, but there is

sufficient compensation in the high rating of another, the total wage may be enough to satisfy the equation of demand and supply. In certain service industries many workers rely on tips to supplement low wages. The tips themselves tend to keep the wages down, as without them the wages would have to be raised in order to attract people to the work.

There are many factors in work. For practical purposes they are often grouped under the broad headings of skill, responsibility, effort, and working conditions. Sometimes effort is divided into mental effort and physical effort. There are also many aspects of each of the factors which manifest themselves in diverse ways, and some systems differentiate between these aspects by having a multitude of factors.

The personal factors have mainly to do with how well and how much of the work is done. These factors have very little to do with the job itself, although different jobs will involve different personal factors in varying degrees. With some kinds of work where there is no tangible product it is difficult to measure either quality or quantity. In this case the worker's approach to his work, rather than how well he does it, may be a criterion under the personal-factor component. Suppose, for instance, that politeness is desirable in a certain kind of work. Then, if the worker is polite, he is working well, as far as this particular factor is concerned. In other jobs there may be a direct relationship between the wage and the amount of good work done.

Sometimes the way the work is done is quite insignificant compared to the value of the work itself. Sometimes it can be done at only one level, and there is no chance of personal discretion. But sometimes the work itself may be less important than the way it is done. Some kinds of jobs provide a lot of scope for personal

greatness, as for instance acting or playing a musical instrument, or specializing in medicine or law.

There is such a wide variety of fringe benefits that it is impossible to list them all. Some of them are financial and can be quantified, but some are financial and cannot. Some of the benefits are tangible even though they are not directly financial, some are positive action, while others are negative. All affect the wage and its value, and they all affect the values of other components too.

At one end of the scale there is the senior executive's expense account, a company car with or without a chauffeur, special holidays, besides complete offices. At the other end, but probably not less important, there are lunch vouchers, subsidized transport, the organization's convalescent home, and a locker to keep personal stuff safe. All of these things affect the supply of and demand for labor, and so affect the wage and its value.

Some fringe benefits work in reverse. Some of them tend to enhance the value of the rest of the wage, although most of them cost less to provide than they are worth to the recipient. A clerical worker in a large department store may purchase goods at ten per cent discount, a discount which is on income that has already been taxed. The store, in arriving at the offered rate for the job, takes into account the discount arrangement, and so offers less than would otherwise have been necessary to attract the worker. The solicitor next door also employs a clerk, but can only offer him cut-price litigation as bait, and so is compelled to pay a higher wage in order to compete in the labor market. This is an example of the way which fringe benefits work in reducing the size of the other components without actually reducing the overall value of the wage.

An example of the negative effect of the fringe component may be seen in the long holidays enjoyed by teachers. When teachers' wages are under critical review they are naturally compared with those of other occupations. When the comparison is unfavorable to teaching the long holidays are put forward as compensation. There is no doubt that long holidays are attractive to some people, and help to resolve the supply and demand problem which could otherwise be met by higher wages. But long holidays in themselves are quite worthless financially unless the time can be put to good use in the form of paid work. Apart from an insignificant amount of private coaching in certain subjects there is no teaching for teachers to do during the holidays. They could of course clean windows or sweep the streets, but then they would no longer be teaching, and it is teaching we are really talking about, rather than teachers. If teachers did take up window cleaning in their spare time it would reduce the wages of window cleaners by increasing the supply.

Whatever the fringe components, cash or kind, they will all have their effect on supply and demand, and hence on the wage for the job. The problem is that a good many other factors will also have their effect, like the mobility of labor, training policies, selective taxes of one sort or another, contracts of employment, national assistance, and so on. If we assume that it is impossible to take all of these into account, we are simply deluding ourselves, for the fact is that we cannot avoid them, as they are part of the context in which the evaluation exists.

Sometimes the effect of the fringe factor is not immediate. Vacancies take time to fill, and although the effect will be felt sooner or later, it may be so much later that other factors will moderate the effect or perhaps cancel it altogether.

5. Relationship of wages and evaluation

The only monetary criteria that are available against which to assess the value of work are the wages that are already paid for work. These wages, as we have seen, comprise several components, each of which contains a number of different features. The values of these component features in all jobs affect each other, and they are also continually influenced by certain economic pressures which have very little to do with either the supply labor or the demand for its product. Changes in the value of money and in the cost and standard of living, group and individual pressures, industrial action, job evaluation itself with its aims at parity, taxation, local, national and industrial wage settlements, all have their effect on the wage and its value. The pressures are continually changing, and their combined and single effects are never the same from one moment to another. If then the current wages are to be used as the criteria for the evaluation of work they can be really appropriate for one fleeting moment only, and then in but one location. This means that all that job evaluation can do is to say that at a given time the value of a certain job was so much, when compared with the other jobs in that location.

Immediately the work has been evaluated, even while the evaluation is proceeding, the pressures will come on, and the wage and its worth will drift away from the evaluated value. Some wages will drift more than others; but if we know what the work is worth, and compare this value with what we are compelled to pay, we shall have some measure of the direction and force of the pressure.

6. Anomalies in wages and their significance

Inevitably, also because of the pressures mentioned previously, but not only, wages contain many anomalies. Some are too high as compared with others, and some too low. So long as the economy

remains fairly stable the high ones just about cancel out the low ones. In spite of popular belief to the contrary there is much that is about right in the levels of wages, at least in so far as they relate to one another. But there are also many that are wrong, for it is the way the wage bill is distributed that causes the problems. Everyone is aware that anomalies exist. The difficulty is to identify them precisely and then to quantify them.

Anomalies can be defined only in terms of assumptions made in the evaluation. If, for instance, it is assumed that all work is of equal value, then any differential in payment will automatically be unacceptable. But, if the assumption is that there should be differentials in rates to match differing job demands, then to pay all alike would be anomalous. Thus, the irregularities that are judged to exist in wages do so only in terms of the assumptions.

One of the common anomalies is apparent when a worker is paid a wage which is not related to the work he does, but is a carry-over from some previous occupation. While this may be a source of dissatisfaction and may appear to be anomalous, it is in fact only anomalous if transference from one job to another is excluded from the criteria. Similarly, the case of the old servant who is retained at a wage in excess of the value of the work he does is not anomalous unless we expressly exclude long service from the criteria. These examples are given to show how important it is that the criteria should be properly defined and understood, lest every difference should be thought to be anomalous.

There is a saying that states that if your face fits, you are all right. Having the right face has affected wages many times in the past and will no doubt continue to do so in the future. Favoritism on the one hand, with victimization on the other, in the company of bribery, pride, prejudice, indifference, and humility, supported

by pleas of poverty and unprofitability, often causes wage irregularity.

The anomalies that attach to individuals require different treatment from those which attach to occupations. If all the sweepers are overpaid, then the sweepers' wage will be anomalous. But it will not necessarily be seen to be so, until some sort of job evaluation exercise is carried out. But if one sweeper, among several others, is overpaid, it will be obvious. If there is only one sweeper, it will not be obvious, again until there is some sort of evaluation. Even underpaid sweepers may go unnoticed too, until there is a crisis or an evaluation.

If the anomaly is in the job itself, it is likely to have been caused by supply and demand, and so really is not an anomaly at all within the terms of the assumptions. It is the natural resultant of the various pressures. If the wages are to be the criteria for an evaluation, then any anomalies in the wages will be built into the evaluation itself, causing consequent distortion of the resulting job values. But if the level of the wage has in fact been affected by supply and demand, then there is no anomaly, and such levels should be included among the criteria. Irrespective of the worker, the rate of wage would apply because it is a feature of the work. It is not really proper to accept the effects of supply and demand when they suit, and to deny them when they do not.

When individual anomalies are considered, the position is different. Here it is not so much the pressures of supply and demand that have created the anomaly, as the personality of the worker. Here it is the person who is being favored or victimized, and not the job, and in job evaluation we are concerned with jobs. And yet the problem remains: to what extent is the job component in the total wage influenced by the anomaly in the personal

component. This is a problem we cannot solve - at least in terms of the accepted criteria - and it means that anomaly will inevitably influence the evaluation itself.

Where there are many such anomalies they will affect the general level of wages within an establishment, but they may not be discovered until the evaluation is completed and the results are compared with the evaluations of other establishments. Only then can their effect on the general level of the evaluation be seen and measured.

Provided that the evaluation is complete, that is to say that it is not confined to an internal comparison of job rates, but that external comparisons with job rates in other contexts are also made, the anomalies will not seriously affect the accuracy of the application.

These external and internal comparisons take time to complete, during which the reference levels will undoubtedly change. Some adjustments will, therefore, have to be made to deal with the shift of the data, caused by the economic and other pressures already mentioned.

7.Wage constraints

Various determinants control both individual and general levels of wages. These determinants reflect fairly accurately the effects of supply and demand. That they do not do so precisely is because they often apply only to minimum rates of pay, and frequently do not involve the personal component in the wage. Thus there are numerous stakeholders, of one sort or another, which establish, by negotiation, certain levels of pay below which employers may not go. All set their own constraints on what must be paid. Sometimes the amount is specific, mostly it is a minimum which employers may

and often do exceed - perhaps by local agreement, perhaps because of supply and demand.

This is the constraint on what must be paid. If it is more than the employer can afford he will ultimately go out of that specific business.

Another of the determinants is the amount the employer can afford to pay. This will depend, among other things, upon the profitability of the firm or organization. Public bodies are particularly subject to a similar constraint, and have to operate within their budgets. Teachers, University dons, firemen and members of the armed services are not in organizations concerned with profit within the ordinary meaning of the term, but all are subject to some sort of accountability, although usually only in overall terms. The real constraint is not so much the amount available for a particular service, as the way in which it should be distributed. Nor is the constraint so much the total wage bill, if compared to the wage paid to various categories and grades of labor.

This determinant of what can be paid cannot long continue to be less than what must be paid.

Finally, there is what ought to be paid, and this is where job evaluation helps. As has already been stressed it will not and cannot define the wage. It can only prescribe what ought to be paid for the work when it is done at a certain level of performance and in terms of the chosen criteria. With other criteria what ought to be paid may well be different.

There are even several aspects of what ought to be paid. There is, for instance, what the worker thinks he ought to be paid, and, in formulating his thoughts, he may do so in terms of criteria which

differ from those used by his employer, who, supposedly, "really knows" what the worker ought to be paid. Different from each of these is the public idea of what ought to be paid. This will probably be the most emotional and least practical view of all, but, as the wage ultimately comes out of the public purse, it cannot be ignored. At times of crisis, such as when there are strikes about wages, the public will either be sympathetic, indifferent or antagonistic, according to the degree of prejudice present, and this attitude will influence the effect of the strike and the level of the wages. Of course some of the criteria used by the people in formulating their opinions may be valid, but, more often than not, they will be distorted by the personal impact. Where a strike causes much public inconvenience, no matter how just it may be, the justice of the cause is likely to be less apparent than the nuisance.

Job evaluation will say what the job is worth, not so much according to the views of the worker, the employer or the public, as in terms of certain accepted criteria, although it is still only a notional worth. The real option lies in the choice of the criteria, and this choice is as wide as work itself, and just varied. If the single criterion for evaluating work were simply the nature of the duties performed, then every different job would have a different evaluation.

What job evaluation will do is to provide a basis for negotiation, and nothing more, for the true value of work is what you can get for it. And what you can get for work will depend on how much the customer is prepared to pay. How much he is prepared to pay will depend on how much he needs the work, and whether he can get his need satisfied more cheaply elsewhere.

8. Basic assumptions in job evaluation

The first assumption is that the work must have some intrinsic worth when judged against certain criteria, but that whatever this worth may be it will not necessarily be the same as the wage. Implicit in this assumption is the next, and this is that these criteria can be identified, specified, and quantified. The usual criteria are (a) those human characteristics or qualities that are required to do the work satisfactorily, and (b) the assumption that these characteristics - or factors, as they are usually called - will be in more or less short supply according to the demand that is put upon them. The usual factors are skill, responsibility, physical effort, mental effort, and working conditions. Working conditions are included on the assumption that those aspects of the environment which are adverse or dangerous make work unattractive and so affect the supply of labor.

There will be many aspects of the above factors, such as different kinds of skill and responsibility, with which we will not concern ourselves. We merely assume that there are certain aspects of work that affect its value, because these aspects are what the work demands and the worker supplies. The actual choice of factors will vary with individual applications.

The next assumption is that it is worthwhile finding out what work is worth, and that the knowledge can be put to some use. Otherwise there is no point in proceeding further. This assumption is in turn based upon two others: First, that those jobs which according to the chosen criteria are similar, are, in fact, of equal value. Second, that those which are not similar are, in consequence, of different values. Another assumption is that these differences can be quantified.

It could be argued that unless there were some tangible advantage to be gained from what is a fairly costly exercise it were better left alone, but it is one thing to derive a benefit from some activity or other, and another to demonstrate that benefit. It is almost impossible to evaluate job evaluation itself in terms of what it costs and what it saves, as it is often a last resort in a crisis of strained relationships the effects of which if allowed to continue might be quite calamitous.

One of the most important assumptions which needs to be made and yet which is often overlooked is that if the correct factors are chosen as the criteria, if these factors are then valued correctly in relation to each other, and if the work is properly assessed and evaluated in terms of these factors, then the job values so determined should be proportional to the current wage rates, anomalies expected. This assumption is quite fundamental to the whole principle of job evaluation.

Another assumption is that when the economic pressures affect the wages, and they have to be altered accordingly, the basic evaluations of the work are not affected. Once the differential has been determined between job and job it remains unchanged for so long as the system itself endures. The evaluation depends upon the criteria, and so long as the criteria do not change neither should the evaluation.

Everything decays, and job evaluation is no exception. It may begin to decay even before it is completed, and can be kept in good order only by careful maintenance. But once a system has begun to collapse the best maintenance possible will not restore it. So this leads to two further assumptions: One, that the system will need to be carefully maintained if it is to serve its intended purpose. Two, that it will have a limited life and will need to be replaced eventually.

9.Theory of relative values

The concept of job evaluation is based on the theory of relative values, a theory which broadly implies that the value of anything depends on and is influenced by the values of other things. Thus the value of work is relative to the value of all other work, and so can be determined only by comparisons between different kinds of work. The effect of this is seen when, if the wage for a job is raised, the value of the wage paid to another job not so treated is lowered. To restore the status quo ante it is necessary to raise the wage of the second job proportionately.

Another part of the theory is that because of the internal and external economic pressures already discussed the wages that are to be used as indicators for finding out what work is worth will contain certain anomalies, some of them being higher than they should be and others lower. Desirably, only those wages that are not anomalous should be used as indicators, otherwise the evaluation will be affected by the anomalies themselves and so be unreliable. If all the job wages in a system could be taken into account the high anomalies would tend to cancel out the low ones, while an inter-establishment comparison - if it were possible - would demonstrate the effects the anomalies were having.

Although it may not be possible to identify precisely which are which, the degree of conformity between job wage and job worth is likely to be distributed about a central tendency. Those in the middle of the range would be typical of the rest, and so should be the ones to be used for the evaluation of the remainder - and indeed all. Even if the distribution were skewed it would not matter very much, provided it were possible to identify those jobs

which were most typical of the rest. Once the atypical jobs had been compared with the typical indicator jobs, and evaluated, they would all be typical so far as the particular organization was concerned.

Unfortunately, any one establishment might not be typical of the rest of the establishments. But establishments, too, would be likely to be distributed over a range according to whether as compared with typical establishments they were paying more or less for the same kind of work. All this means that a particular job which is paid at a certain rate might find itself overpaid as compared with the rest in one establishment, but underpaid as compared with the rest in another.

It would all depend on where the distribution of establishments was situated, in terms of over or underpaying. It will not be possible to determine this until all the jobs in all the establishments have been evaluated, because only then can they be compared with the evaluations in other establishments.

Some authorities hold that the position of an establishment in the range is not very important, and that it is much more desirable that the jobs within an establishment should be properly evaluated one with another. But workers are coming more and more to compare their wages with those obtaining in other firms and establishments, evoking the idea of parity.

The relationships between the job rates in any one establishment are nevertheless much clearer than those in different establishments, so that internal anomalies are more pressing and immediate than the external ones. It is for instance easy to see if a man doing a particular kind of work gets more or less than the next man on the bench doing similar work. It is also easier to see whether there is or there is not just cause for the disparity

when the jobs are done in the same locale, than it is when they are in different establishments, let alone different industries.

Once the jobs in an establishment have been compared and evaluated it will be possible to compare the establishments themselves in order to see which are typical of the rest and which are not, although it will not always be possible to explain the discrepancies, or even to say whether or not they are in fact anomalous. Time and place will affect supply and demand, and so influence the evaluations, so that there may be good reasons why some wage levels differ from others. While supply and demand may be the ultimate determinants of wages, their effects are not immediate neither are they always reflected in wage levels. If the offered price does not attract enough of the right kind of labor a higher bid is not the sole alternative. One can try to do without - at least for a while - or introduce overtime. Overtime not only increases the wage and so attracts more workers, it also reduces the demand for workers themselves. One might even change the product or process.

One of the aims of job evaluation is to redistribute the total wage bill more equitably among the workers. But, because the number of job holders is not necessarily the same as the number of jobs, the evaluation may result in a higher or lower total wages bill should the evaluated rates be applied. This would mean that this particular aim would not be realized, and so it might be necessary to adjust the evaluations proportionally by the difference between the total value of all the job holders at their respective evaluated rates and the total wage bill.

The wide comparison of all organizations, once all the jobs in those establishments had been evaluated in their own contexts, would be essential to a national wage policy based on national job evaluation. While at one time there was a considerable body of

opinion in favor of some such sort of procedure, the tendency seems, at least at the time of this writing, to be directed rather more towards determining wages at local level. Perhaps because of the difficulty of conducting such a large exercise as the national comparisons would entail, and also for the other reasons already presented.

The problems of inter-system comparison will be made more difficult where different criteria are used for the various evaluations, so that here is yet further evidence to show how important it is that criteria should be chosen carefully. This is another reason why local plant level is preferred for wage negotiation, rather than national level.

While then it is unlikely that such a comparison would ever be satisfactorily completed for all organizations, nevertheless it is impossible to evaluate any job in isolation from its immediate fellow jobs, or indeed from jobs in other systems or establishments, because there is no absolute method of measuring the value of work. It may however be found to be quite practicable to make comparisons in one area or location, or perhaps at one time, although even then allowance must be made for the size of the organization.

10. Critical factors in work

The value of work depends on supply and demand - the supply of labor and the demand for the results of the work. There are many different crafts, trades, callings, and professions, the supply of which and the demands for whose works varies from time to time and from place to place. Some crafts and trades are readily and quickly interchangeable, others are not, while in some cases a demand can be stimulated by the alternative production from the same labor. Some labor is mobile, and moves readily from place to

place because it is part of the expectation (e.g. construction workers). Some labor, by virtue of its employment, is local, or partly so, and it is difficult to see the immediate effect of the supply of labor in one area and the demand in another.

Some kinds of labor are dispersed throughout the country, such as railway workers and teachers, while others move around freely while retaining their employment with one (e.g. long-distance drivers).

The demand for labor has been seen to vary, and it varies as much as that for its products. If the equation of supply and demand is to be resolved, both must be expressed in like terms, and in terms which themselves can be defined and do not vary. For this reason supply and demand are expressed in terms of those human attributes that people bring to their work, and those same attributes that the work itself demands.

While there are many factors in work they are usually grouped under the four main heads of skill, responsibility, effort, and working conditions. Sometimes effort is divided into physical and mental aspects, making five factors in all. There are many facets of skill, and indeed of the other factors, and so they are often analysed into sub-factors, some systems containing up to forty-eight. The choice of factors and subfactors will depend on the objectives of the evaluation and also on the nature of the work being evaluated. Nowadays there is a tendency towards the use of fewer rather than more factors. Some schemes employ only one factor, such as the broad outline of the duties, or perhaps the responsibility involved, while others are highly detailed.

The arguments against having a large number of factors or sub-factors in a system are first, that the more there are the less significant each can be. Second, that large number of sub-factors

means in a points system that there will have to be a large number of points. If there is a relatively insignificant factor it must have at least a few points, while an important factor must have enough points available to differentiate between such factors. Inevitably therefore many factors, some of which will be insignificant as compared with others, mean many points.

The use of many points in a system conveys a false impression of accuracy, and yet makes it more difficult to handle properly. As an analogy it is easier to measure within a millimetre than to a micrometre unless special instruments are available. Dividing a metre rule into micrometres does not make measuring any more accurate than say millimetres would. It just makes it harder to use. Finally, the greater the number of individual factor assessments, the more the risk of error.

The arguments against a coarse analysis are first that it is extremely difficult to compare the dissimilarities in work, unless there are the appropriate factors to do so. While it is really impossible to compare whole jobs with whole jobs, it is, however, possible to compare those areas of work which are similar in different jobs, even though the total job differences may be great, while the different aspects may be compared with similar aspects in similar jobs.

The second argument is that work is complex, so complex that even the finest analysis is coarse compared with the complexity of the work itself. Finally, the use of but few factors does not itself ensure that the work is not analysed finely. Even though few factors are specified in the system, assessors tend to make mental analyses and divisions which are purely notional and not founded on fact.

The basis of the evaluation exercise is the job description. Job descriptions will not be discussed in detail in this paper, except to say that each of them comprises a complete statement of the nature of the work and its demands. The job must be described in terms which will enable the assessors to determine the extent or degree to which the selected factors are involved in meeting the demands of the work, so that it is the job description which really analyses the work, not the factor themselves. The assessors will automatically make some sort of mental breakdown of the factors if the physical analysis is inadequate.

Thus while it might be thought that using fewer factors would meet the various points already expressed against using many, the argument does not hold, so that while there may be good reasons for not having too many factors they do not amount to equally good reasons for using too few.

The number and kind of factors to use will depend entirely on the nature of the work to be evaluated, and cannot be settled until the work has been identified and described. This would seem to be a sort of chicken-and-eggs situation in which the choice of factors cannot be made until the jobs have been described, neither can the jobs be described until the factors have been chosen. By way of illustration there are certain classes of work in which the working conditions may be a very important consideration, e.g. coal mining jobs, refuse collecting, demolition, etc, while in other kinds the environment is so congenial as to be insignificant, e.g. a high-class department store. To spend time considering the effect of working conditions in this latter example would be wasteful and could be misleading, but it is dangerous to take such matters for granted in ignorance of the facts.

As it is necessary to show in what respects jobs differ significantly, and also in what respects they are similar, it might be thought that all the job description needed to do was just this. However, the issue is not quite so simple. There are certain aspects in which all the work in the organization will be similar, such as the starting and finishing times, the hours of work, overtime premium, and so on. Such features of the work, which are common to all the jobs in the system, do not need to be included in the job descriptions unless they would influence the inter-organizations comparisons. If such an inter-organization comparison is contemplated it will be important to know if there are any significant features in the work which while they are common to all the jobs in one organization nevertheless vary across the range of the organization themselves. This is to ensure that jobs being compared across the organizations are described in truly comparable terms. For instance if one organization provides the opportunity for its workers to buy the company's goods at discount rates this must be taken into account as a feature common to all the jobs in that organization, but not all organizations.

Just as the wages comprises a number of components, one of which is the nature of the work itself, and the values of these components affect each other, so the work components of factors will have values which affect each other, and, of course, to differing degrees.

Factors should therefore be chosen which differentiate work where differentiation is significant and desirable. Having too many gives a false impression of accuracy. Too few makes differentiation difficult, and may lead to a degree of subjective analysis which is not recorded. About eight to ten factors seem to be the number most widely used, but there is by no means universal agreement.

11. Conclusion

Job evaluation is a process of comparison in which jobs are valued against other jobs in terms of certain criteria. As there are no absolute means of measuring the value of work, and as the value is relative anyway, this is the only way to measure it. It is as though one wished to know the height of a person but had no suitable measuring device. It would not be possible to measure the height accurately, but at least it would be possible to say how the height compared with heights of others. One could, by comparing a number of people, put them in some sort of height order. In the Army, for instance, soldiers are ranked tallest on the right and shortest on the left without recourse to a measure. If several squads were so ranked it would then be possible to see the relationship between them overall.

This kind of comparison may be made directly between job and job in exactly the same way. Jobs can be ranked in their order of importance, either as complete entities or in terms of the various factors. Usually when the work is factorized it is necessary to provide a rough scale so that the values of the factors themselves can be expressed in finite terms. The scale so chosen is designed to suit the particular circumstances of the system, and one could employ the same means in judging the height of people. The scale does not have to conform to any standard unit like a centimetre, but can be quite arbitrary provided it is used within the confines of the system and remains uniform.

The first step to be taken is to advise all concerned of the intention to introduce job evaluation, to draw up a policy statement on the implications of the scheme, and to get agreement. Next it will be necessary to prepare a schedule of all the occupations that are to be included. A careful examination of the schedule will allow the choice of a suitable system.

The next step will be to draw up a job description for each of the jobs in the schedule, possibly modifying the schedule slightly as the jobs are described. Then the appropriate factors will have to be selected and very carefully defined so that there is no doubt as to what they involve. At this stage the relative importance of the factors cannot be determined.

Next the assessment panels will have to be convened and a programme of meetings formulated.

A selection of jobs from the schedule will then be used to test a hypothetical scheme which will need to be adjusted in the light of the experiments.

So far all the work has been preparatory. The actual application consists in assessing the relative importance of all the jobs, with a further test to see that the assessments conform to an acceptable pattern, and possibly some further factor value adjustment.

When all the assessments are complete they can be converted into cash values and presented to all concerned (it may be necessary to adjust the overall value of the jobs to make it conform to the previous total budget, and to rationalize the evaluated rates).

Finally, the policy already determined will have to be applied to all the problems arising from the evaluation, and the system properly maintained to take care of changes in jobs and in economics.

The introduction of a systematic and continuous job evaluation program in the Brazilian Federal Public Administration may bring some resistance. Problems most likely will arise, not least of

which will be the necessity of drawing up an acceptable policy which will meet the difficulties as they appear.