

Pay and Responsibility

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Work, payment, responsibility and individual capacity are studied. Also discussed are manpower planning, maintaining continuity, succession and promotion planning.

A PERSON carries responsibility when he has to seek and choose between alternative possibilities, that is, when he has to make decisions. The making of a decision commits the organization's resources to the extent of the discretion and judgment authorized, in fact, to the extent of the responsibility carried by the person making the decision. Status and payment are closely related to responsibility, that is, they are related largely to the use of discretion and judgment; such factors as title, number of subordinates or formal qualifications possessed are not of much account.

A measure of the responsibility carried by a person is the maximum length of time, called the maximum time-span, during which a decision made on his own initiative commits the resources of the company, that is, during which he is authorized to make his own decisions without direct or indirect review of the decisions made.

PROFESSIONAL REMUNERATION

Jaques¹ has thrown considerable light on just what it is that determines remuneration of professional employees. They are paid according to the responsibility carried and a relation thus should exist between responsibility, measured in terms of time-span, and remuneration. Jaques gives the data but does not correlate it. However, it may be represented, using objective scales, as shown in Fig. 1. It is not really possible to draw a reliable smooth curve through his data, there being a distinct break at a time-span of between 1 month and 1 year.

Jaques did not differentiate between manual and managerial employees. Managerial employees are professional employees. Their ability to judge and decide increases with experience while they remain in the same grade.² The manual employee, concerned with low levels of responsibility, once fully trained, does not increase his usefulness in the same way. He is paid the negotiated rate for his grade. And herein lies the difference between them which explains the discontinuity in Jaques' data. The manual employee's rate is fixed at any particular time in accordance with his grade. Should he be able to carry more responsibility then he may, by promotion, advance to a higher grade and be paid at a higher rate, fixed irrespective of age. The professional employee, on the other hand, absorbs and applies experience and the level at which he works increases continually, that is, the responsibility which he carries increases continually, up to a point, and he is paid according to the level at which he is employed. This applies to any one particular grade. His grade is determined by his ability to judge, that is, his ability to carry responsibility, and by the positions open to him.

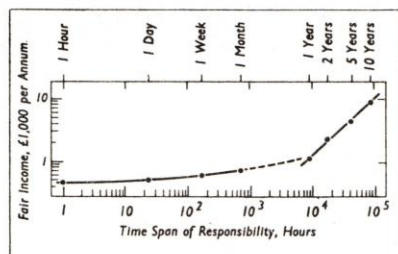


Fig. 1 Relation between earnings and responsibility (Jaques 1955 data).

Remuneration, at any particular time, is determined by the volume and by the level of the work being done. The greater the amount of work done or the hours worked, the greater is the remuneration received by a manual employee who may be placed at one end of an arbitrary scale of responsibility. At the other end, remuneration depends on level of work, which means it depends on the responsibility carried. The factor

$$F = e^{-(X-x_0)/b} \dots (1)$$

indicates² how remuneration, and thus how responsibility being carried, varies with age for a person in a particular grade, where X is the age of the individual, x_0 is the age at which remuneration is a maximum for his grade, and b is a constant for each profession.

A measure of comparative responsibility carried is given by career and mean career earnings, for one or more professions, respectively, between grades. For a single profession the y_0 distribution² can serve to compare responsibility carried by the varying grades. Here y_0 is the maximum remuneration for each grade.

For the trained manual employee who receives his maximum remuneration from the point of view of responsibility at whatever age he happens to be, the factor F is unity. In between manual and professional employees there is the complete range of employees. The overall scale ranges from manual employees, through professional employees, to those with unearned income.

REMUNERATION AND RESPONSIBILITY

Jaques' data give what was felt to be fair remuneration for responsibility carried. Allowing that at one end of the scale there are manual employees and at the other professional employees, his data may be correlated further, as illustrated by Fig. 2, for professional employees. His data may be represented by the equations:

$$Y_{1954} = 425 + 740R \dots (2)$$

$$Y_{1955} = 450 + 830R \dots (3)$$

where

Y = remuneration (£ per annum), and
 R = responsibility (time-span of) (years).

These may be interpreted by assuming that remuneration consists essentially of a basic minimum, paid when responsibility carried is negligible, plus additional reward in proportion to responsibility carried. The data relate to April of the year.

The basic subsistence remuneration is that given by Jaques for a time-span of one hour and between April, 1954, and April, 1955, those working at that level considered as fair an increase of 6 per cent. The rate of remuneration for responsibility which was considered fair in April, 1954, was £740 pa per year of time-span, and about £830 pa per time-span year in April, 1955, so that an increase of about 12 per cent was considered fair. A judgment of what is fair is based on status, both with respect to one's equals and respect to others.

Basic rates of remuneration for responsibility, that is the rates of £740 pa and £830 pa for April of 1954 and 1955, respectively, per time-span year, may be used to obtain an estimate of "fair" responsibility to be carried by any particular individual, grade or position, utilizing the National Remuneration Scale. Let "B" represent the basic rate of remuneration per time-span unit of responsibility, for example, in units of £ pa per time-span year, noting that the basic rates derived from Jaques' data are estimates of this. Then Y/B is the responsibility carried in terms of time-span and this change of scale converts the National Remuneration Scale²

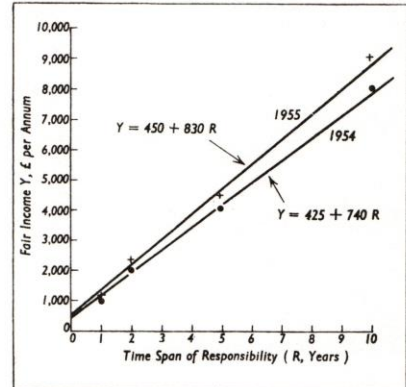


Fig. 2 Correlation of Jaques' data on time-span.

into a National Responsibility Scale. y_0/B gives the maximum amount of responsibility carried by any particular individual or grade at age x_0 .

STATUS AND RESPONSIBILITY

One would not expect the responsibility carried by individuals of a given grade and age to vary with time and hence the National Responsibility Scale should remain constant, the sole variable being the remuneration per unit responsibility, that is "B." However, if this is so, then as status is reduced so B must be reduced also. For example, we have seen² that the higher grades of chemists receive smaller percentage increases in remuneration than the lower grades so that they are losing status, and if the responsibility carried by them remains unaltered, then they are paid at a rate which is lower than that which they ought to receive had they maintained their position. Hence it would appear that the more successful professional employee's rate of remuneration (that is "B") is being reduced when compared with his less successful colleagues, unless, of course, one could show that the responsibility being carried by them is being reduced proportionately, which, however, appears unlikely. From this point of view also it is seen that incentive to succeed as measured by rate of remuneration per unit of responsibility is being eroded, apart from the actual level of remuneration received. As this process continues, so the professional employee, as he grows older, accepts greater responsibility which is paid for at a lower rate. Jaques' data, however, are not in agreement with the above facts.

Jaques considered that maximum time-span was related to what was felt to be fair payment for the work that was being done, at the general rates then obtaining, and as this relationship appeared to apply irrespective of level or occupation, it thus gave a "differential," that is a status, which was felt to be fair. Time-span, however, is a measure only of responsibility and not of status. The remuneration per time-span unit alters with time, but status changes in accordance with rates of change of remuneration. When remuneration per year of time-span for a professional employee increases more slowly than remuneration of a manual employee, then status is lost. The payment that was felt by individuals to be a fair reward seems to have been, on the whole, an estimate of the increase in remuneration they felt was required to maintain their status relative to their equals (for manual employees), and relative also to manual employees (for professional employees), based on changes felt to have taken place.

Jaques noted that there is a considerable difference between individuals in their ability to carry responsibility, that is, in their time-span capacity and that, in addition, the time-span capacity of an individual varies with age. He analysed the biggest jobs individuals had done at various stages in their career in terms of maximum time-span and obtained time-span versus age curves which are similar to the curves which make up the National Remuneration or Responsibility Scale. But he measured not an individual's capacity to carry responsibility, but the responsibility he carried. Only when the individual is unable to carry greater responsibility are the two the same.

It may be concluded that although Jaques' measure of responsibility is an objective measure, the rate of remuneration per unit of responsibility cannot be evaluated from subjective determinations of what is felt to be fair payment, but from the objective National Remuneration Scales as determined from remuneration surveys.

RESPONSIBILITY AND ABILITY

It is the grade which has to be used to compare positions, titles being no help. An engineer in a small organization may carry the title "chief engineer," whereas in a larger organization the engineer of the same grade and remuneration, age for age, may be a "senior engineer." Indeed, a senior engineer in one organization may thus carry more responsibility and receive correspondingly higher remuneration than the "chief engineer" in another. It is the grade as obtained from the National Remuneration Scale, however, which clearly defines their relative position.

Noting the difference between time-span capacity and responsibility carried as a source of frustration or anxiety, Jaques defines "current time-span capacity" of an individual as his time-span capacity at his current age, and considers that "individuals who work full-time, and who elect to work in industry, will press towards finding work at a level corresponding to their current time-span capacity."

A person who carries responsibility in accordance with his ability to carry it, and whose responsibility varies as his ability to carry it varies, will be content as far as his work is concerned and will not be considered by his manager to be pushing or slacking. If he carries either more or less responsibility he will take steps to decrease or increase it, respectively. He may, for example, press for promotion, change his job, or off-load responsibility on to his manager or on to his colleagues.

MAINTAINING CONTINUITY

Consider now a particular level of position in an industrial organization, such as that of "senior engineer," as illustrated by Fig. 3, for the year 1955/56, it being assumed that responsibility is being paid for at rate of £830 pa per year of time-span. In the particular year being considered, this particular position demands carrying responsibility at a minimum and maximum time-span level of about 1 year 5 months and about 1 year 10 months, respectively, the

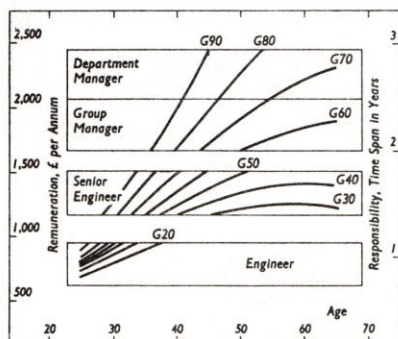


Fig. 3 Salary scale of chemical plant contracting organization (1955/56).

corresponding remuneration consisting of a salary ranging from a minimum of £1,160 pa to a maximum of £1,500 pa. Individuals of all grades from about G30 upwards may now hold this position, as indicated by Table I.

TABLE I Residence Times for Position of Senior Engineer (1955)

Grade	Lower Age	Upper Age	Years Position Held
30	44	65*	21
40	40	65*	25
50	37	51	14
60	35	44	9
80	31	37	6
90	28	33	5

* Retiring age

The individual of grade G90 may start in such a position at age 28 at a salary of £1,160 pa, but at age 33 he will take on work at the highest level of responsibility available, then perhaps earning £1,500 pa. From then on he will seek promotion or another position with another organization. The individual of grade G30 would not start in a position such as this until 44 years of age and would stay in such a position until retiring age. However, he would not work at the higher levels of responsibility.

The problem now arises of providing continuity as individuals holding the position come and go, while at the same time enabling the individuals to accept responsibility to the maximum of their ability. In any particular work unit made up of positions at this level, it appears that continuity should be provided by individuals of grade G30 to G50, the various grades being balanced to cover the work that requires to be done. It follows that individuals have to be trained for promotion to this position while they are in the next lower position, the training programme being based on the scale so that they progress smoothly to the next higher position in accordance with their grade. Fig. 3 further illustrates that not too much continuity can be expected where this level of position is held by a number of young, but high grade, individuals. On the other hand Jaques pointed out that expansion, stability or contraction of the work of a work unit depends on the difference between responsibility carried and the ability of its manager to carry it. Hence staffing may be carefully carried out considering these points.

TEST OF POSITION

Individuals have to find their grade and, unless both his executive superior and the person himself agree on the grade of the person, the individual concerned cannot be judged to have been placed correctly. Hence a judgement of grade should not rely on the judgement of only one executive superior unsupported by that of the subordinate and there should not be any hesitation in increasing an individual's grade and the level of the work he does where his ability to carry responsibility has increased. Any failure in this respect may only lead to frustration on the part of the individual and to his leaving the work unit concerned in due course, both of which are detrimental to the performance of the work unit. However, the progress of any professional employee may now be checked by his employer as well as by himself by means of the equations and data given in reference 2.

The same considerations made above on staffing and continuity apply to all levels of position, that is to levels such as those illustrated by Fig. 3.

It is undoubtedly the responsibility of management, as represented by any executive superior, that those employed should be engaged in working at the highest level of responsibility which can be carried by them during any particular period. Hence it would seem to follow that professional employees should be engaged on the basis of grade rather than by title or level of position, and that they should be engaged, under contract, their remuneration being

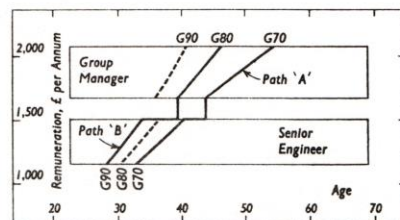


Fig. 4 Promotion and demotion.

determined by means of equation 33 of reference 2. To maintain the status of the professional employee, I_p , the relevant index for professional employees, should be based on an index of earnings (equation 48 of ref. 2) rather than on an index of wage rates, of manual employees.

In addition, the considerations made here should assist in planning the staffing of work units, to provide necessary replacements and for promotion. Excessive turnover may be caused by too many young and high grade individuals being engaged on tasks which quickly fail to come up to their ability.

PROMOTION AND DEMOTION

Industrial and government work units such as companies or departments have certain scales of remuneration, either known or kept confidential. An example of such a scale is given in Fig. 3. The titles of position are given purely for illustration to indicate the kind of level of each position, for a medium sized industrial (chemical plant contracting) organization. As remuneration varies with responsibility carried, the remuneration of an executive superior should be higher than that of his subordinates, in all cases, and irrespective of the ages or grades concerned, unless difficulties are positively being invited.

It is seen that there may or may not be gaps in remuneration between successive levels of position. When a gap exists, the change from the one level to the next higher is called "promotion" and such changes are illustrated by Fig. 4. An individual may be promoted as soon as he reaches his maximum for the position he holds. But then he is not likely to have been employed at his full capacity, before promotion. He may thus have been frustrated to some considerable extent before promotion or else the possibility exists that he is now tackling work at a level which is beyond his capacity. On the other hand, any movement away and to the right of his grade line is demotion and the individual who remains at the maximum for his position for any length of time is being demoted and, although subsequent advance to the higher level of position may restore his grade (path A), the overall outcome may still be demotion, as illustrated by path B, Fig. 4, the example showing overall demotion from grade G90 to G80. The gap in the scale is thus an effective means of promotion and demotion, where these refer to grade. Should an individual follow path B it is possible that he would be frustrated also in his new position, assuming he was correctly graded initially. The gap further ensures that the remuneration of an individual in the next higher position is higher than that of an individual in the lower position, irrespective of age. Where such a gap is not present, the individual either remains in his grade, or else, remaining at his maximum, is continually demoted with respect to grade.

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- 1 Jaques, E., *Measurement of Responsibility: A Study of Work, Payment, and Individual Capacity*, Tavistock Publications, Ltd., 1956.
- 2 Davidmann, M., "The Status and Remuneration of the Professional Man in Industry." Social Organisation Limited report, 1961, available.