SCALING OCCUPATIONAL FIELDS AND ENTERPRISES[1]

James L. Bothwell[2]

Horace Mann-Lincoln Institute of School Experimentation
Teachers College, Columbia University

In evaluating job changes taking place in a person's career, it is common practice to note the continuity or lack of it revealed by the succession of positions held. One wants to know, usually, whether these jobs are a chaotic assortment or whether they reveal trends such as the development of specialized skills and the increase in responsibility which are associated with career development. When an attempt is made to extract meaning of this sort from job moves, one at once encounters the need to select dimensions by which to compare jobs and to describe changes.

In this project it was believed that use could be made of three dimensions of Level, Field, and Enterprise. Level and field were defined as in Roe (1956). In Roe's classification level is a hierarchy proceeding from the unskilled jobs at the lower end to the professional and managerial jobs at the top. This is a composite scale reflecting intelligence, education, responsibility, prestige, and income, the use of which as a scale is well established.

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[1]Report of preliminary results of U.S. Office of Education Cooperative Research Project No. 1393. Presented at meeting of American Psychological Association, Philadelphia, August 30, 1963.

[2]Marian Leibowitz was responsible for the analysis of frequency of job change reported in this paper, and contributed to the planning of the study.

Roe's second dimension consists of eight fields such as Service, Business Contact, and Technology, the distinguishing elements for the most part being the functions, interests, and skills associated with each of the eight areas.

The third dimension, enterprise, often called Industry, is the primary economic activity of the employing organization. The enterprise categories consist of the nine groupings of the U. S. Standard Industrial Classification. Illustrative groups are Mining, Construction, and Finance.

These three dimensions of field, level, and enterprise, it has been suggested (Super, 1957), permit the best description of a job, by defining degree of ability, type of function, and purpose for which these are put to work.

These dimensions were employed to classify jobs held by the subjects of the Career Pattern Study. Project staff members with a little orientation to the use of this three-dimensional scheme reached a fair level of agreement in classifying sample jobs. Interjudge percentage of agreement ranged from 60 to 75.

As a result, this appeared to be a meaningful and fairly reliable way to describe jobs. The next question was that of the use of this classification as a set of scales to express job changes numerically. Visualized at this point was something comparable to Sheldon's coding of somatotypes. The stable career such as that of a professional school graduate, the conventional career of a liberal arts graduate, and the multiple-trial career pattern made up of a haphazard sequence

of jobs such as characterizes many high school graduates, would thus have quite different codes. The need was to find a way to express these differences in stability or change of level, field, and enterprise numerically.

Two approaches to scaling job changes appeared possible. One was to have judges rate the amount of change involved in a sequence of two jobs. The other was to see how often people do in actuality move from one kind of job to another.

Accordingly, eight trained and experienced employment counselors were asked to rate, on a scale ranging from 1 to 5, the change involved when a person changed fields only, at the various levels of responsibility. They were then asked to rate changes in enterprise only, again at the several levels. To simplify the task somewhat, the six levels were grouped into three larger categories, the top, middle, and lower levels.

The sheets which have been distributed show the types of comparison made in constructing the rating scale, along with some mean values expressing the raters' decisions. An analysis of the dispersion of the ratings showed that raters agreed most often on field, in particular on changes involving middle level jobs. For the ratings to be usable, it was decided, the confidence interval for a set of ratings should not exceed 1.0 on either side of the obtained mean, based on the .05 level of confidence. By that standard, at the top level 95% of the ratings could be used, 96% at the middle level, and only 77% at the lower level. Ratings showed the belief that people at the highest and at the lowest levels can often move easily to another field, whereas

middle level workers, the semi-professional and skilled, find it difficult to transfer to a new field.

The dispersion in the enterprise ratings was greater than for field, although again the agreement of the raters was greatest for the changes involving middle level jobs. At the top level 60% of the ratings were usable, according to the standard described above; at the middle level, 90%; and at the lower level, 81%.

We now had a list of job changes, with a scale of amount of change between any two jobs. However, it had been evident from comments that raters had not always been able to differentiate between field and enterprise. Accordingly it seemed likely that the two scales were not distinct. To ascertain whether the two rating scales were in fact separate measures, a series of job changes made by Career Pattern Study subjects were scored for amount of change of field and of enterprise. A total of 56 persons had made recent changes in both field and enterprise. The correlation of field and enterprise changes was .41, significant at better than the .01 level. Field and enterprise ratings are clearly not distinct and separate. However the correlation of .41 does indicate a substantial amount of independent variance.

Assuming, then, that the two rating scales do in fact reflect amount of change in moving from one job to another, the next step was to apply them to the job moves made by Career Pattern Study subjects during the years since leaving high school. Theoretically, there should be a negative correlation between frequency of occurrence of a given type of job change and the rated degree of difficulty involved in making

these changes. A count of the actual job changes showed that 91 enterprise changes had been made by these subjects during the six-year period covered, as compared with 71 field changes. A correlation of .23 was found between actual frequency and rated difficulty of field changes, not significant as it was in the opposite direction from that hypothesized; inspection of enterprise changes indicated no trend or pattern in the relationship between the two sets of figures, confirmed by a non-significant correlation ($r = -.14$, $p > .05$).

In conclusion, the three-dimensional system employed is composed of so many ill-defined factors that the construction and use of rating scales based upon it is not warranted. This means that this attempt to quantify a career sequence can not be carried forward with the methods we had hoped to use.

However, a three-dimensional scheme for descriptive purposes and for job classification still seems desirable and practical. The Roe scale needs further refinement before it can be used in classifying a great variety of jobs; in particular, the distinction between field and enterprise needs sharpening. If this can be accomplished, it may then be possible to develop, either by ratings or by a frequency count based on a large number of work histories, a reliable and valid set of scales for measuring job changes. A set of scales such as that attempted in this exploratory study would greatly facilitate studies of career development and of occupational mobility.

Bibliography

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