

Stratification and Attainment in a Large Japanese Firm

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This paper investigate the attainment process in a large Japanese financial service company. Unlike firms in the U.S., hires into the "permanent" category of workers in a Japanese company tend to be homogeneous with regard to age of entry, (lack of) prior experience, education, and gender. This raises an issue of how, in such circumstances, a firm selects employees for advancement and what is the structure of the promotion process.

It has been suggested that a formal description of the attainment process is conveyed by Rosenbaum's "tournament model of careers." We investigate whether this imagery is consistent with the data on careers in the firm. we conclude that such a model is not descriptive of the attainment process; rather advancement is more properly characterized as a "gatekeeping" operation (at an early career stage), followed by delayed selection of the eventual corporate elite.

STRATIFICATION AND ATTAINMENT IN A LARGE JAPANESE FIRM¹

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I. INTRODUCTION

Japanese management policy has been a source of keen fascination to social scientists in the United States. Many issues relating to the organization of efficient, high quality production and delivery of services have been resolved in a manner that is believed to be quite different from U.S. formulations. Japanese industry, for example, has instituted practices such as quality control circles, just-in-time delivery, affiliated satellite firms, and contracting out arrangements-- administrative structures that have few precedents in the United States.

The human resource systems of large companies in Japan are also characterized by practices quite different from those in U.S. firms, both in the assumed employment relation and in the approach taken to career development. Notions of life-time employment, hiring "permanent" workers directly from school, the rarity of lateral entry, the seniority reward system (nenko), and salary compression are some of the features that are distinctive to personnel management in Japan (Cole 1979; Koike 1988). This is not to suggest that these practices are entirely absent from U.S. firms, but it is rare for several to appear in the same company, though IBM in past decades may have been an exception (Foy 1975). In large Japanese companies² these features tend to be components of an integrated personnel system, possibly reinforced by cultural norms that stress social harmony, primacy of corporate goals over individual aspirations,

and deference to elders (Dore 1973, pp. 51-52, 297-298; Koike 1988, pp. 4-7; Roland 1988, pp. 72-75; but also see Lincoln and Kalleberg 1990).

When examining the human resource system of a Japanese firm one can readily observe how some of the component features are knit together and work in tandem, as well as identify strains in an otherwise coherent set of personnel practices. Contracting-out arrangements, for example, facilitate a policy of lifetime employment by permitting fluctuations in product demand to be passed on to an affiliated satellite firm (Dore 1973, p. 39). An early mandatory retirement age--55 to 60 is the common range--often followed by rehiring the superannuated worker (at a lower wage) provides additional flexibility to a firm in adjusting to the economic cycle, since the rehired worker is no longer protected by the "lifetime" commitment.

A decision to offer lifetime employment carries several implications. First, personnel selection must be done with great care since a strategy of disposing of workers who later reveal themselves to be poor performers is not available to management. Second, where lifetime employment is coupled with a linkage of salary to seniority, worker motivation and wage cost containment can become problems since management is denied the use of some potent behavioral reinforcers. Third, although lateral entry is not formally foreclosed by a policy of lifetime employment, when many firms follow this practice few mid-level job changers are likely to be available for recruitment. These considerations heighten the importance of training and socialization. The skills that will be required by a company have to be developed internally; moreover, future corporate leaders must be selected and groomed from the young recruits (Peck and Tamura 1976; OECD 1973; Cole

1979, pp. 40-42). This circumstance helps explain the long-term relationships with particular schools that are often sought by employers, since the educational institutions can evaluate students on the basis of several years of observation (Rosenbaum and Kariya 1989).

Tensions arise because some personnel practices do not mesh well with others. For example, the socialization of managerial recruits is intended to instill commitment to the firm and reinforce cohort bonding (Dore 1973, pp. 46-54). Identification with the firm, rather than with a subunit, is promoted by a policy of rotating employees among occupational tasks and organizational units; in practice, encouraging a "generalist" orientation (Hirono 1969, pp. 260-61). According to Ballon (1969a, p. 26), job rotation is essential for advancement to senior management. Yet, large firms must also develop specialists, and economic rationality suggests that such individuals be encouraged to work within the domain of their expertise. We know little about how specialization is motivated or rewarded in a work context that is largely geared to promoting a generalist orientation, though see Koike (1991) and Pucik (1964a) for some insights into the career implications of specialization.³

Similarly, the selection of employees for advancement to senior positions entails a process of differentiation among cohort members--a problematic activity in a context in which cohesion is prized. There is some consensus to the effect that these conflicting objectives are managed by segregating them in time. Solidarity is emphasized during the first decade or so of employment, facilitated by a policy of automatic promotion through the junior ranks. Only afterwards does differentiation begin in earnest, with some employees earmarked for high administrative ranks (Clark 1979, p. 112-119; Yoshino and Lifson 1986, pp. 146-147).

How this process unfolds is not clearly understood. Following Rosenbaum (1984), Pucik (1985, p.77) contends that after the first decade of employment attainment can be described by a "tournament model," in which employees who have advanced rapidly from one rank have sharply higher prospects for swift promotion in the subsequent rank (see Hanada 1987 for a similar assessment). In Rosenbaum's formulation (1984, pp. 61-62), early winners--measured by rapid promotion in the initial ranks--have an opportunity to compete for high statuses, while losers can compete only for lesser jobs. A derivative feature of the tournament model of careers is its weakness in accommodating "errors of exclusion." It lacks a mechanism for bringing early losers back into the competition for senior positions (Rosenbaum 1984, p. 288).

Ballon has suggested a very different decision calculus, one in which productivity in the early ranks is not a dominating consideration in later promotion decisions. The question for Ballon is what is meant by productivity? "[I]n Japan economic performance is not so much a matter of individual employees as [it is] of an entire organization" (Ballon 1969a, p.26). Promotion, in turn, is less tied to the details of work performance than to "proper organizational values." These are expected to mature with age and tend to reveal themselves only in late career stages. Assuming, then, that rapid advancement in the early ranks reflects individual productivity, one prediction from Ballon's thesis is that slow initial mobility may not be a handicap in later promotion decisions.⁴

There is also the related issue of the consequence of advancement and how the effects of loss in the career competition are managed. This is a serious issue in a context of "lifetime employment" because a worker

who has been passed over for promotion must still be motivated to perform effectively in lower ranked positions. The fact that the seniority component of salary is often large in Japanese firms (Cole 1979, p.41; Okochi, et. al. 1974, pp. 499-500) operates to mitigate the problem, since this arrangement limits the material effects of loss. Clark (1979, p. 122) also describes a set of titles accorded to employees on the basis of seniority--"honorable consolation prizes"--but which lack the authority that derives from high rank in the principal status hierarchy of the firm.

In this paper we examine the related themes of status advancement and compensation level in a large Japanese company in the mid-1990's. We organize the analysis around the following specific issues: (a) What are the determinants of promotion and how do they vary by rank in the firm? (b) What is the consequence of status attainment (relative to the effect of seniority) for remuneration level? (c) What kind of conceptual imagery--e.g., Rosenbaum's tournament model; Ballon's formulation--best describes the way that opportunity and advancement are structured for employees?

The information for this study comes from the employee data base of one of the ten largest financial service companies in Japan. Our data set is unusually rich in that we have complete work histories of employees current as of 1993, which permits personnel issues to be addressed in some detail using the methods of survival analysis. Moreover, while we have emphasized career features that are fairly distinctive to Japan, there have been suggestions of change and a trend toward adoption of practices common in western countries--in both salary determination and promotion policy (Marsh and Mannari 1976, p. 120;

Yoshino and Lifson 1986, pp. 152-155; Wolferen and Murphy 1994, p. IV-13). Because the firm we have studied is considered by its officers to be fairly typical of large companies (in the financial service sector) in its human resource practices, by examining the extent to which our findings deviate from earlier accounts of Japanese work systems we can also assess the evidence for change and convergence to western arrangements.

II. THE STRATIFICATION SYSTEM FOR MANAGERIAL EMPLOYEES

Before turning to the analysis of rank advancement and salary determination, it is useful to outline the main features of the stratification system of the Japanese firm. Also, for a reference standard, we compare the Japanese company with a large financial service organization in the U.S., which has been studied in some detail (Spilerman and Lunde 1992; Petersen and Spilerman 1990).

Analogous to the U.S. firm, the Japanese company is divided into clerical and managerial specialties. However, (1) all clerical workers are women and almost all managerial employees are men.⁵ In the U.S. firm, by comparison, women constitute 91% of clerical workers and 46% of administrative employees. (2) In the Japanese company there is no mobility across the clerical/managerial divide; recruits to the managerial ranks come directly from college. In the U.S. firm, in contrast, there are extensive "posting and bidding" provisions to facilitate job transfers, and these have resulted in approximately half of managerial entrants coming from the clerical ranks of the company.

Regarding entrants from the external labor market into the managerial ranks, in the U.S. firm some 55% have had prior work

experience,⁶ a background that is rare in the Japanese company. In the U.S., new managerial hires exhibit differences in level of educational attainment, which is not the case in Japan where all entrants have a college degree. (3) In Japan, there is a distinction between "non-permanent" and "permanent" workers, which is virtually coterminous with the clerical/managerial dichotomy. Only permanent employees are promised lifetime employment.

To summarize, in the Japanese firm managerial employees are male; they have been recruited directly from college; they comprise an entering cohort that is homogeneous in age and in education; and most expect to spend their full working lives within the company. Clerical employees, in comparison, are female, usually without a college degree. They are not recruited into the managerial ranks and their tenure with the firm normally ends with marriage or childbirth. The significance of this distinction in the personnel categories is conveyed by the fact that the employee data base of the Japanese company contains work histories of only managerial employees. Hence, our investigation is restricted to managerial employees and to men.

It should also be emphasized that the sort of analysis a student of careers can do with the Japanese materials is less rich than what is commonly undertaken with U.S. data. In the study of the U.S. financial service company, for example, much of the research effort was devoted to examining the effects on attainment of gender, years of schooling, entry age, and entry portal (promotion from the clerical grades versus entry by a new hire directly into the managerial ranks). In the Japanese company, however, there is little variation on any of these variables. Indeed, this tendency to homogeneity of an entry cohort--a frustration to the

researcher--combined with the practice of encouraging a "generalist orientation," facilitates the common corporate policy of rewarding employees principally on the basis of seniority. If there is little differentiation on other human capital variables, the significance of seniority as a determinant of productivity and performance is heightened.

The structure of rewards. In large work places in the U.S. the reward structure is commonly based on the principles of modern compensation design (e.g., Wallace and Fay 1983; Sibson 1981). The essential features of such human resource systems are a set of ranked salary grades (there are 20 in the U.S. company), the slotting of job titles into the grade levels on the basis of a job evaluation procedure, and a definition of promotion as an upward movement in the salary grade structure, rather than in terms of a change in job title. As remarked elsewhere (Spilerman and Petersen 1994), the attractiveness of this arrangement is that it frees management from the tyranny of a technologically determined occupational distribution that constrains promotion allocations to the presence of "vacancies." In the salary grade formulation management can more easily award promotions on the basis of merit. Lacking a vacancy, a job title can either be reclassified into a higher grade or the number of grades associated with the position can be increased.

In comparison, the reward structure in the Japanese company has three distinct dimensions. First, there is a system of status ranks (often referred to as "standard ranks" [e.g., Clark 1979, p. 104]), a hierarchy which lacks a counterpart in U.S. industry. The standard ranks--titles such as department head, section head, sub-section head--adhere to the individual and are not necessarily descriptive of the job

he does. The standard ranks are fairly universal in Japan; as a result the titles convey meaning throughout the society about an individual's status and provide a basis for social comparisons among employees of different firms. In the U.S. the closest parallel is status in the military, in which rank conveys authority and patterns deference relationships but is not indicative of an officer's job assignment.

The second dimension relates to functional responsibility in the company--one's managerial authority. While there is a correspondence between this dimension and standard rank, they are not formally identical. Clark (1979, pp. 111-115), for example, describes an organizational setting in which senior level supervisory positions are sometimes left unfilled, in order to permit capable junior employees to take on duties normally associated with high standard rank, which they lack the tenure to acquire. As Dore (1973, p. 68) notes, "[t]he advantage of this flexible system is that it allows faithful service by men of mediocre ability to be rewarded by an increase in rank without the disadvantage of dysfunctionally promoting them to positions of greater authority."

The third dimension concerns salary grade. The U.S. financial service company utilizes a set of 20 grades, essentially a system of overlapping salary ranges. In the Japanese company which we examined there are 34 grades, each of which specifies a base salary rate that is adjusted for seniority. More consequential is the different significance of the salary grade hierarchy in the two countries. As noted earlier, in the U.S. company salary grade constitutes a unified reward dimension. There are no "personal" status ranks; also, the job titles--which convey

functional responsibilities--are mapped onto the salary grades.

Promotion, in turn, is defined as movement in this grade hierarchy.

In contrast, in the tripartite division of the Japanese company, standard rank constitutes the central factor in the allocation of status, authority, and career rewards (Rohlen 1974; p. 25). Also, promotion is defined in terms of movement within this hierarchy. While salary grade is correlated with standard rank, the former is often tied to seniority, especially at the beginning of the career (Dore 1973, p. 68; Rohlen 1974, p.156). Indeed, this emphasis on seniority in the setting of salary--rather than job assignment--is rational in an environment in which job rotation is encouraged and employment is long-term. While a worker's wages might not reflect his specific job duties at a given time point, the compensation model--as well as notions of equity and employee expectations--is formulated in terms of lifetime career rewards, not statically (Yoshino and Lifson 1986, p. 152; Koike 1988, p. 134).

Since the system of standard ranks is the principal dimension of stratification in the Japanese firm, we have focused our investigation on mobility within this status hierarchy. Because of the complex relation between compensation and status rank--high remuneration is both a reward for attainment and, possibly, a consolation prize as well for passed-over employees--we also examine the consequence of rank attainment for compensation level.

III. THE ATTAINMENT PROCESS IN THE FIRM

In Table 1 we present cross-sectional information on the distribution of personnel in the management ranks in 1993 (column 1). From the duration figures (column 3) it is evident that a long period is spent in the "non-management" or "trainee"⁶ status and that there is little variation in duration in this rank (column 4, row 1). This finding is consistent with the reports of other investigators (e.g., Yoshino and Lifson 1986, 146; Pucik 1985, p. 74), who have noted that the trainee period lasts from 10-15 years and that promotion is automatic after a fixed interval in this status. (We shall, however, have more to say about this assessment.) The figures in column (5) provide rough evidence for the stability of the organization in size and in status distribution, indicating that turnover in ranks 20 to 40 has been fairly constant at about 110 persons/year. In ranks 20 and 30 this turnover consists largely of promotions; however, many of the exits from rank 40 are retirements and hence the decline in turnover in the highest positions.

Table 1 about here

Which variables predict to promotion? This issue is addressed in Table 2 using Cox's proportional hazard model (Blossfeld, Hamerle and Mayer 1989, chap. 3) with career history data from the 1961-82 entry cohorts. The Cox model specifies that

$$h(t|\underline{X}) = h_0(t) \exp(\underline{X}'\underline{B}) \quad (1)$$

where \underline{X}' is a vector of covariates, \underline{B} is the vector of respective regression coefficients, t is the waiting time to promotion, and $h_0(t)$ is

an unspecified base rate that is the same for all individuals. To permit the possibility that the determinants vary with level in the organization, we examined promotions from ranks 20, 30, and 40 separately. Thus, the regressions in each panel are based on spells in the particular rank. An employee can contribute only one spell to a panel; however, if he has progressed through several ranks he can contribute a spell to more than one panel. In each model, the regressors predict to the rate of promotion from the noted rank; incomplete spells as of July 1993--the data collection date--are treated as censored observations.

Table 2 about here

For reasons outlined earlier--the homogeneity of managerial recruits in terms of educational attainment, gender, and (absence of) prior work experience--the available regressors are few. Nonetheless, some distinctive patterns emerge. With respect to advancement from the "non-management" status (Panel A), neither age at hire (on which there is a range of some 3 years) nor college major predicts to promotion. However, the models in columns (3) and (4) indicate a negative association between size of an entry cohort and the promotion rate, which would suggest a corporate policy of insulating the higher ranks from annual variations in magnitude of the intake. This finding would seem at variance with the contention that promotion from rank 20 is "automatic;" however, we will shortly make clear that even at this early career point the company has begun to make distinctions among employees as well as to fine-tune the advancement regime.

In the analysis of promotion from rank 30 (Panel B), we introduce a regressor for duration in the prior rank. This term is intended to assess whether individuals who have previously advanced rapidly are advantaged with respect to current promotion prospects. The significant negative coefficient that we find--long prior duration reduces the promotion rate--supports this possibility (column 1). One explanation for the finding would emphasize the sorting of workers on the basis of either tournament success or ability (unmeasured in our data set); however, these initial results are also consistent with a tracking or gate-keeping explanation.

Further insight into the mechanics of the attainment process can be obtained from an analysis of promotion in rank 40 (Panel C). These results provide support for a "tracking" type of explanation. In particular, while we continue to find a significant negative coefficient for time in rank 20, there is no effect of duration in rank 30, the prior status level (column 1).⁷ This result is not consistent with an "ability sorting" thesis or with a "tournament" model; both would suggest that recent job performance--indexed here by duration in prior rank--should have greater impact on promotion chances than less proximate performance measures. Instead, our results suggest a process in which a critical evaluation is made early in an employee's career and it is this decision, rather than later job performance, which determines the worker's subsequent promotion prospects.

Finally, we note from columns (3) and (4) of the several panels that entry cohort size has no impact on the promotion rate after the trainee years (rank 20). In contrast, college major, which has little effect during the trainee years--possibly because new recruits follow a

generalist career path--attains significance at higher organizational levels, where specialization is more common (Suzuki 1981), with a business/law major predicting to early advancement. Thus, what can be said from these data is that trainee assessments--as indexed by duration in rank 20--have a profound effect on advancement prospects over the career course and that, in the higher corporate ranks, college major also predicts to promotion. As to the individual-level variables which discriminate among employees during the trainee period--surely an interesting question--we have no information. Because of the homogeneity of new recruits on most observable human capital measures and the absence of a work history during the trainee period, we lack variables that might differentiate among employees in this early career stage.

Compensation level. The second dimension in our description of the stratification process concerns the determinants of monthly salary. There is some consensus that, at least in past decades, seniority has constituted the principal consideration in the calculation of salary level in large Japanese firms (Marsh and Mannari 1976, pp. 154-156; Yoshino and Lifson 1986, pp. 152-153). Moreover, we have argued that such an arrangement meshes well with several distinctive features of industrial organization in Japan: little differentiation among workers on human capital measures; a practice of rotating employees among jobs; and a need to mitigate the consequence of failure in the promotion competition. A policy that pegs compensation to seniority would appear consistent with these organizational practices. At the same time, other researchers (e.g., Cole 1971, pp. 81-84; Clark 1979, pp. 154-155) have suggested that Japanese firms have been moving away from a largely

seniority based reward structure to job specific payments and performance wages.

In a large Japanese firm an employee's compensation level is the sum of several components: base salary, rank supplements, family and commuting allowances, and a bonus payment. In the following analysis, we limit our consideration to the base salary component (which includes additions for seniority) and the rank supplements.⁸ OLS regressions of monthly compensation (in July 1993) are reported in Table 3.

Table 3 about here

The coefficients in column (1) show the effects of seniority and status rank on log monthly salary. In this semi-log specification, exponentials of the rank coefficients can be interpreted as multiplier terms. Thus, holding seniority constant, the cumulative salary returns to rank--relative to the base category (rank 30)--are: an 8.5% increase in rank 40 (i.e., a 1.085 multiplier), a 15.8% increase in rank 50, and a 23.6% increment in rank 60. In comparison, holding rank constant, the cumulative salary returns to tenure at the 10, 20, and 30 year points are, respectively, increments of 77%, 145%, and 168% over entry salary.

Columns (2) and (3) report more complex models of the salary determination process. In column (3) terms have been added for duration in rank and for interactions between this variable and the rank dummies. Because of the high correlation between duration and (duration)², a linear specification of this variable is used.⁹

Because the rank effects are now function of duration, in order to compare the returns to seniority with the returns to status level one must assess the latter at different duration times. At the 20 year

point, the return to seniority is a 170% increase over entry salary; at the 30 year point it is little different: a 182% increment. The additional salary return to rank, as duration ranges for instance from zero to five years, is the following: In rank 40, relative to the omitted category (rank 30), it varies from 5.1% for recent rank entrants to 9.6% at the five year point. In rank 50, the range is 14.8% to 26.2%, and in rank 60 it is 22.1% to 38.3%. While these returns to status rank are hardly inconsequential, they are small in comparison with the increase tied to tenure, especially over the first 20 years of employment.

To summarize, our results are consistent with the reports of other investigators in several key respects: We find that (a) seniority plays a dominant role in compensation determination, especially during the first two decades of employment (Pucik 1984b, p. 92); (b) promotion and rank differentials become important for salary growth after this tenure point (Yoshino and Lifson 1986, p. 154); and (c) there is evidence of salary compression, in comparison with western compensation practices (Pucik 1984a, p. 272; 1974b, p. 92). In particular, the most highly paid rank 60 manager in our data set received 2.3 times the salary of a beginning rank 30 employee;¹⁰ in the U.S. financial service company the comparable multiplier is approximately 5.0.

The salary practices we have observed in 1993 are not very different from descriptions published several decades ago (e.g., Ballon 1969a, chap.6; Cole 1971, chap. 3), despite suggestions of an impending shift to a more western mode of compensation (e.g., Clark 1979, p. 155; Yoshino and Lifson 1986, pp. 152-155).¹¹ This stability is not surprising to us because the compensation strategy of a firm cannot be

isolated from other deeply rooted personnel practices. Rather, it is a key element in a system whose components include a low variance in human capital variables at employment entry, a generalist orientation during the training period, an emphasis on solidarity, and lifetime employment. Seniority-based compensation by a firm is economically rational in the early years of a cohort's tenure because there is little employee differentiation; it is also a reasonable policy in the later years, after differentiation has taken place, as it limits the consequence of "failure." In a context of lifetime employment this has to be a critical consideration since commitment and performance must be motivated for the less successful employee.

IV. FORMULATIONS OF RANK ADVANCEMENT

What sort of conceptual imagery best describes the attainment process in the Japanese company? Should it be viewed as (a) a tournament model, (b) a process of cumulative advantage, (c) an example of "sponsored mobility," (d) a gatekeeping operation, or (e) as an instance of "contest mobility," in which the criteria for promotion to a senior position could be quite different from judgments about performance in low ranks? Our data set is not sufficiently rich to distinguish definitively among these alternative explanations, though we are in a position to rule out some. Moreover, while the conceptual imageries may appear distinct when characterized by terse descriptions, once the explanations are operationalized the predictions from several of the formulations tend to overlap. In particular, models (a) and (b) are difficult to disentangle; the same is true for models (c) and (d).

In its simplest form, the tournament model describes a sequence of contests in which only winners advance to the next round. According to Rosenbaum (1984, p. 243): "This leads to a system in which selections are continually occurring [to decide who will be promoted and who will be] eliminated from the tournament and moved into the category of loser, from which there is limited opportunity to advance." In Rosenbaum's tournament model of careers, "winners" are operationalized by time in rank--they are the employees who have been promoted early. Also, in place of strict elimination, the careers model posits a slower rate of promotion for "losers" and consequentially a lower peak rank at retirement. There are three implications of the model which can be examined with our data: (a) careers are structured in terms of a sequence of selections, (b) individuals with a short time-duration at one level are likely to be promoted rapidly from the next rank, and (c) there is little opportunity for "losers" to recover. Support for the tournament imagery in a large Japanese firm has been reported by Pucik (1985).

Unfortunately, many of the implications of the tournament model also follow from a process of cumulative advantage, such as would occur from the sorting of employees in each corporate rank on the basis of ability or performance. Even without a notion of structured competition and the elimination of "losers," some workers will advance rapidly while others fall behind. In both formulations we should find that senior level employees progressively pulled ahead of their peers, having spent shorter durations in a rank and consequently having arrived at each successive status with less seniority. Rosenbaum (1984, pp. 265-267) attempted to disentangle the two models by associating the tournament formulation with a "labeling" process--rapid prior mobility signals an

employee's high potential, in contrast with reliance by management upon contemporaneous evaluations of performance--but this embellishment does not help to distinguish between the formulations with the personnel data available to us.

A sponsorship model (Turner 1960; also see Rosenbaum 1984, p. 17), entails an early selection decision and the assignment of employees to two or more tracks. The selection determines an individual's prospects of eventually achieving a senior administrative rank. Contingent on the track assignment, an employee's subsequent performance--and his rate of promotion from mid-level ranks--is relatively unimportant. What counts is the early sorting decision, which may be followed by special job assignments and "grooming" for elite status. A gatekeeping operation suggests an analogous filtering process early in the career course. A minor distinction between the models is that "sponsorship" is usually associated with elite selection whereas "gatekeeping" suggests an objective of insuring minimum competence. Both models, however, involve a tracking decision at an initial career point.

Turner (1960) also introduced the notion of contest mobility, in which decisions about elite status are delayed well into the career course, permitting employees an opportunity to overcome poor early evaluations or otherwise "grow with experience." Ballon's (1969a, pp. 25-26) description of career dynamics in a large Japanese firm echoes this formulation, with his emphasis on time-in-rank prerequisites for advancement and his stress on the nuances of socialization ("proper organizational values"), in place of narrow work performance. The conclusion by Spilerman and Lunde (1991), from data on the U.S. firm, to

the effect that different talents become relevant to promotion decisions as one rises in the corporate hierarchy also supports this formulation.

The above alternative models, or competing imageries, provide a framework for assessing the structure of the attainment process in the Japanese firm. In Table 4 we examine the effects of duration spells in prior ranks on the promotion rate. Column (1), a repeat of Table 2, Panel B, column (1), is presented for continuity with the earlier analysis and reports a significant negative effect of duration in rank 20 (the trainee status) on the promotion rate in rank 30. Because the linear specification of the duration variable might be masking non-linear returns to different interval lengths, which would be revealing of the consequence of "early" and "late" promotions, we divided the duration variable into four categorical terms: early promotion, on-time promotion, late promotion, and very late promotion.¹³ "On-time," which is defined as the modal category, is the reference term. The results are reported in column (2).

Table 4 about here

Relative to "on-time" promotion, the tournament model would predict rapid advancement from rank 30 for employees who were promoted early from the prior rank ("winners"), and slow promotion for laggards. Our results make clear that laggards do, indeed, have poor advancement prospects, but they fail to show an advantage for early movers. It is also worth noting that the two laggard categories sum to only 15% of personnel (see note 13); in short, rather than a process of gleaning the very best employees and preparing them for elite positions, the selection mechanism appears

to be oriented to eliminating the chaff--the small proportion of "recruitment errors."

Columns (3) to (5) refer to promotion from rank 40. From column (3) we observe the effect of duration in rank 30--the prior status--to have no impact on the promotion rate. In column (4) we introduce a term for duration in rank 20, a repetition of the model in column (1), Panel C of Table 2. As explained in regard to that table, the present formulation is identical to a model containing variables for seniority and duration in the prior rank, though for reasons that have been noted the present representation is preferred. Even in the presence of this control we find no effect of duration in rank 30. This model does indicate, however, a continued negative effect of duration in the trainee status. In column (5) a model is reported in which the duration terms have been divided into categorical variables to ascertain whether the linear specifications have masked distinctive non-linear returns to particular duration intervals.¹³ Again, we fail to find an effect of duration in the prior grade.

Taken together, these results do not support a tournament formulation or a cumulative advantage model as a description of the attainment process in the Japanese company. There is no evidence of sequential selections among "winners," as Rosenbaum (1984, p. 243) requires for the tournament model, nor an accumulation of rapid promotions by the presumably more able employees. Moreover, we fail to find any indication of a return to "winners," in that rapid mobility in the prior rank provides no discernable advantage over the modal rate of advancement.

If our results do not support a tournament model, they are consistent with a selection process in which an early tracking decision, based on evaluations during the trainee period, influences an employee's attainment prospects over the career course. Yet this selection mechanism does not appear to be one of anointing the most promising employees, rather it operates as a gatekeeping process that weeds out the least capable trainees. Contingent on this tracking decision, the promotion rate in the middle ranks does not appear consequential as a determinant of an employee's eventual peak status in the firm.

The negative coefficients of early promotion in the prior status, which we observe in the dummy variable formulations of both the rank 30 and rank 40 regressions, do not reach significance (columns 2 and 5). Nonetheless, if the data are organized somewhat differently we can observe that these are not chance effects, but arise from the very specification of promotion criteria in the company.

In Table 5 we present a cross-tabulation of duration in rank 30 by duration in rank 20 (seniority at entrance into rank 30). Note first the diagonal in the upper left corner. It makes clear that there is a minimum requirement of 14 years seniority (duration in ranks 20 plus 30) before one can be considered for advancement to rank 40. As a consequence, employees promoted early from rank 20 (10 years duration) must wait four years before advancement, whereas slow movers from rank 20 can be promoted again within a year. It is this seniority requirement which produces the negative effect of early promotion in the prior grade, noted in columns (2) and (5) of Table 4, and which undermines the possibility of a tournament/cumulative advantage process describing attainment in the firm.

Table 5 about here

The rows and columns in Table 5 can be interpreted as deviations from their respective medians. In particular, the entries in the first four columns represent early promotions from grade 30. Thus, among employees who served 10 years in rank 20 (row 1), 33% (9/27) were promoted early from rank 30. Among employees with 11 years duration in rank 20, 47% were promoted early from grade 30. For 12 years service the early promotion rate is also 47%; and for 13 or more years in rank 20 it is 72%. To emphasize that these results are not idiosyncratic of the particular rank, we report in Table 6 an analogous cross-tabulation between seniority at entrance into rank 40 and duration in rank 40. The effects are almost identical to those reported in Table 5.¹⁴

Table 6 about here

To summarize, these findings run counter to a contention that rapid advancement from one rank increases an employee's prospects of early promotion in the next rank--an imagery that underlies both the tournament model and the cumulative advantage process. Instead, as a consequence of the firm's promotion rules, we find a tendency for short durations to be coupled with long stays in the succeeding rank. Pucik (1985) concluded that a tournament model adequately fits career evolution in the Japanese company he studied, however we do not find support for this imagery. Moreover, the specification of a seniority minimum for rank entrance (sometimes, an age minimum) has been reported by other investigators of

Japanese industrial practices (e.g., Yoshino and Lifson 1986, p.147; Marsh and Mannari 1976, chap. 7; also see Koike 1988, pp. 210-215 for a comparison between Japan and European countries). Thus, even though our assessment is based on data from a single firm, it is unlikely that a tournament/cumulative advantage model is widely applicable in the Japanese industrial context.

Advancement to senior ranks. What more can be said about the attainment process? In particular, what can be ascertained about the selection of senior personnel--the rank 60 managers? Table 7 speaks to this question, as well as providing summary information about career dynamics. These data examine current (1993) status for employees hired during the time interval 1962-67--the entry cohorts that are approaching retirement age. Since we do not have data on personnel who have left employment, this sample provides our best insight into the achievement of high level position. Table 7 describes current status, contingent on seniority at entrance into lower ranks.

Table 7 about here

With respect to seniority at entrance into rank 30 (duration in rank 20), there is a clear division in terms of prospects for reaching status 60 (Panel A). On-time entrants (specified by median seniority) and early entrants are twice as likely as late arrivals to achieve this level. However, there is no advantage to rapid prior advancement--"winners" in Rosenbaum's formulation--nor is there a special disadvantage to laggards, the very slowest category. In this specification of the seniority categories, some 65% of employees are in the two groups that show superior prospects for reaching rank 60.¹⁵

Panel B reports the likelihood of reaching the different 1993 ranks, contingent on seniority at entrance into status 40. Focusing on status 60, we again see evidence of a step function effect: little apparent difference in the attainment prospects of "early," "on-time," or "moderately tardy" employees, as measured by prior rate of advancement, but a clear disadvantage to "laggards" (15% of the sample), who exhibit less than half the rate of reaching status 60 than in the other categories.

Thus, in ranks 30 and 40, the advancement regime appears to operate as a gatekeeping process which does not differentiate between rapid and average movers, nor (in rank 40) between these groups and modestly tardy employees, with respect to prospects for achieving elite status. A minority of employees are penalized, namely those with very slow rates of prior mobility, yet, even here, there is substantial opportunity for recovery, which is not a feature of the tournament imagery (Rosenbaum 1984, p.42). Some 20 - 30 percent of the "laggard" category do succeed in reaching the highest status.

Promotion from status 50 exhibits a different pattern. Whereas, in lower ranks, the advancement regime appears to operate by curtailing the attainments of a minority of laggards (a gatekeeping operation), we now see evidence of progressive differentiation in terms of prior service (or age¹⁶). In particular, employees who have progressed the most rapidly to rank 50 have the best prospects of reaching rank 60; the slower the prior progression, the poorer an individual's chances.

In regard to conceptual imagery, these findings add up to what can be considered a two-step process. First, a screening or gate-keeping decision is made in lower grades to weed out poor performers, as indexed

by very slow rates of prior mobility. The remaining employees--perhaps 80% of an entry cohort--are not differentiated with respect to prospects for attaining the senior status, as they move through the middle ranks of the organization. Possibly, this is intended to maintain morale by avoiding an early labeling of employees as "winners" and "losers"--an understandable strategy in an organization in which demoralized workers cannot be dismissed. Possibly, as Ballon (1969a, pp. 25-26) has contended, elite selection is delayed because the ability to perform senior tasks effectively is only revealed late in the career course. At any rate, it is only at the second stage, promotion from rank 50, where there is clear evidence of a graduated return to prior mobility and where length of service is an effective indicator of prospects for attaining the highest status.

V. CONCLUSIONS

In contrast with Pucik's (1984b; 1985) assessment of the attainment process, we find little evidence to support the imagery of a tournament model of careers in the Japanese financial service company. As we have noted, in a context of lifetime employment it makes sense for a firm to delay revealing (and perhaps deciding) who will be permitted to reach the highest ranks. Other elements of the reward structure--such as seniority based compensation, with only small additions to salary for achieved rank--also contribute to the cohesion and morale of the workforce.

There have been suggestions of impending change in the structure of career rewards in Japanese industry, such as hiring experienced workers and increasing salary payments for achieved rank (e.g., Cole 1971, chaps. 3,4; Marsh and Mannari 1976, pp. 307-314). However, in the firm we have studied there is little evidence to suggest much movement away from the

kind of reward structure that was described some 25 years ago (e.g., Ballon 1969b). Moreover, because of the interrelation of the component features of the reward structure, we suspect that when change does come it will not be gradual or piecemeal.

Finally, what can be said about who achieves elite status? Actually very little. There is markedly little differentiation among employees through rank 40, in part because the entry cohorts are homogeneous with respect to education, age, gender, and (lack of) prior experience. In the later career stages, where differentiation does take place, it appears to reflect subtle considerations of "suitability" and values (Ballon 1969a, chapter 1) in addition to job performance--measures that are not usually present in the personnel records made available to researchers. Interestingly, there is also evidence from the U.S. financial service company (Spilerman and Lunde 1991) that the role of education in promotion decisions is weaker in high corporate ranks than in the middle levels. There, too, it was argued that the criteria for effective performance are quite different for elite managers than for mid-level employees, that considerations of social style and personality play a greater role in the senior ranks than do assessments of cognitive ability.

NOTES

1. This research was supported by a grant from the U.S. Israel Binational Foundation (to Spilerman) and by an Abe Fellowship from the Social Science Research Council (to Ishida). We would like to thank Kuo-Hsien Su for assistance with the computations.

2. In Japan, size of firm is a key differentiating variable in the stratification system. Both the status characteristics of workers (educational attainment, household wealth) and the rewards of employment (occupational prestige, income) are more favorable for employees of large companies (Ishida 1993, pp. 208-226).

3. Koike (1991), in one of the few studies which addressed the issue of specialization and skill formation in Japanese companies, documents the practice of specialization among white-collar workers but also shows that employees tend to experience a broad range of jobs within a specialty.

4. We note that there is a counterpart literature with respect to attainment in western firms which argues that the personality demands of jobs at different organizational levels can be quite distinct. Moreover, the character type and coping style of an employee that is effective in low organizational ranks may be dysfunctional in higher grades (Silver and Spilerman 1991).

5. Since enactment of the Equal Employment Opportunity Law in 1986 women have moved into the managerial ranks in Japan, although they are still very few in number. Only one percent of career-track employees in the financial service company are women.

6. We lack data on employment history prior to entry into the U.S. firm. This estimate is based on the proportion of hires who are age 25 and older.

7. The Japanese company uses the term "non-management employees" and these workers are placed in the lifetime queue from the time of employment. We prefer the term "trainees" because this is the better fitting description in the American context. These workers are not promoted from lesser positions based on performance but are hired directly into this fixed-duration status from which most will progress to management positions.

8. It is more common to introduce "seniority" and "duration in prior rank" as the temporal variables. In a model with exactly two prior ranks, as in the Panel C regressions, this specification can be obtained by a simple transformation of the reported covariates, since "seniority" = "duration in rank 20" + "duration in rank 30". In particular, the model equivalent to column (1) has coefficients for seniority and duration in rank 30 equal to $-.0397^{**}$ and $.0350^{**}$, respectively. The negative effect of seniority on the promotion rate makes sense in terms of the reports of other researchers (e.g., Rosenbaum 1984, pp. 169-170); the positive effect of duration in the prior grade is less comprehensible until one observes that, with seniority held constant, a positive duration in rank 30 is equivalent to a negative duration in rank 20-- which is the effect we report. Our presentation of the two duration terms as covariates, in place of seniority and duration in prior rank, permits a more direct interpretation of the findings.

9. Entertainment allowances are omitted from this investigation. Since they increase with rank, our results somewhat underestimate the true rank effects on monthly salary.

10. Despite the small increase in R^2 in moving from equation (2) to equation (3), the set of added terms is highly significant based on a conventional F-test.

11. This value is calculated from the monthly salary data and is somewhat smaller than the regression-based multipliers reported in the preceding paragraph. Note, also, that while Pucik (1984a, 1984b) applies the term "salary compression" to the small salary dispersion found when seniority is held constant, our comparison refers to unadjusted salary figures.

12. Part of the reason for the stability in compensation practices derives from the fact that the Japanese company is in the financial service sector. The seniority component of compensation has been traditionally high in this industry (Higuchi 1991).

13. The duration in rank 20 terms are defined as follows: "early promotion" (10 years in rank) contains 18% of observations, "on-time promotion" (11 years) contains 66% of observations, "late promotion" (12 years) contains 12% of observations, and "very late promotion" (13 or more years in rank) contains 3% of observations. There were no promotions before 10 years in rank.

14. The duration in rank 30 categories are defined as follows: "early promotion" (1-3 years in rank) contains 14% of observations, "on-time promotion" (4 years) contains 36% of observations, "late promotion" (5 years) contains 35% of observations, and "very late promotion" (6 or more years in rank) contains 16% of observations. "On-time" promotion,

which is defined as the modal category, is the reference term in the regressions.

15. How material is the exclusion of incomplete spells from Tables 5 and 6? This has no consequence with respect to the diagonal pattern in the upper left corner of the tables because the diagonals derive from short durations in the adjacent grades. The exclusion of long spells is potentially more serious, but an examination of incomplete spells (durations in current state) reveals no major disparities from the results we have presented.

16. There is much lumpiness in the data, which permits little flexibility in the assignment to seniority categories. In particular, 148 employees were promoted exactly 11 years after entrance into the company. Similarly, about 95% of employees in the next category were promoted at exactly the 144 month point. Thus, there is no possibility for exploring the sensitivity of the reported findings to the seniority category boundaries. Note, also, that no employee was promoted to rank 30 with less than 10 years service.

17. Because of the small age variance in each entry cohort, the argument of this section, which stresses seniority, can be formulated equivalently in terms of employee age.

TABLE 1. DISTRIBUTION OF PERSONNEL BY STATUS RANK IN THE JAPANESE FINANCIAL SERVICE COMPANY, 1993^a

Status Rank ^b	Name	(1) N	(2) Mean Age of Entry into Rank (years)	(3) Mean Duration in Rank ^c (years)	(4) C.V. ^d of Duration	(5) N/ Mean Duration
20	Trainee/Non- Management	1,106	23.05	11.03	.067	100
30	Sub-Section Chief	542	34.04	4.65	.260	117
40	Section Chief	921	38.89	8.46	.225	109
50	Sub-Dept. Head	110	47.71	2.85	.421	39
60	Dept. Head	146	49.61	1.75 ^e	--- ^f	--- ^f
70	Director	5	---	---	---	---
<hr/> N		<hr/> 2830				

- a. Omitted from the study are female employees, lateral transfers from other companies, and employees without a college education. Exclusions for these reasons amount to less than 5% of the firm's labor force.
- b. Some minor ranks (in 20's) and ranks with small N's (45, 80, 90) have been grouped with an appropriate major rank.
- c. Based on completed durations.
- d. Coefficient of variation = s.d. of duration/mean duration.
- e. Mean duration in rank 60 is based on current incumbants, not completed spells.
- f. Value is not comparable to others in the column. See note e.

TABLE 2. PROMOTION REGRESSIONS, BY STATUS RANK IN THE COMPANY^a

PANEL A. PROMOTION FROM RANK 20

Variable ^b	(1)	(2)	(3) ^e	(4)
Age ^c (years)	.0114	.0020	.0726	.0130
College Major: ^d				
Business/Law		-.0126		
Science		.1353		
Cohort Size			-.0012*	-.0061**
<hr/>				
-2LL =	19296.60	19278.37	19827.53	19287.47
N =	1486	1485	1486	1486
Percent censored =	0.5%	0.5%	0.5%	0.5%
*p<.05, **p<.01				

PANEL B. PROMOTION FROM RANK 30

Variable ^b	(1)	(2)	(3) ^e	(4)
Age ^c (years)	.0013	.0233	.0046	.0001
Duration in Rank 20 (years)	-.1679*	-.1925**	-.1667*	-.1681*
College Major: ^d				
Business/Law		.3697*		
Science		.1405		
Cohort Size			.0005	.0010
<hr/>				
-2LL =	12397.41	12373.84	12415.88	12397.18
N =	1119	1118	1119	1119
Percent censored =	11%	11%	11%	11%
*p<.05, **p<.01				

PANEL C. PROMOTION FROM RANK 40

Variable ^b	(1)	(2)	(3) ^e	(4)
Age ^c (years)	.1605	.1959	.1392	.1632
Duration in Rank 20 (years)	-.4770**	-.5114**	-.4981**	-.4890**
Duration in Rank 30 (years)	-.0567	-.0552	-.0344	-.0610
College Major: ^f Business/Law		.6714*		
Cohort Size			-.0006	-.0081
<hr/>				
-2LL =	1830.74	1812.10	1834.75	1830.23
N =	300	299	300	300
Percent censored =	37%	37%	37%	37%

*p<.05, **p<.01

-
- a. Regressions are Cox proportional hazard models. Clock for the models is duration in rank. Data are from 1961-82 entry cohorts for rank 20 employees, 1961-78 cohorts for rank 30 workers, and for 1961-70 cohorts for rank 40 employees.
 - b. Dummy terms for entry year are included in each equation.
 - c. Age at entry into the rank.
 - d. Humanities major is the omitted category.
 - e. Entry year dummies omitted from this model.
 - f. Humanities and Science major is the omitted category.

TABLE 3. DETERMINANTS OF MONTHLY SALARY IN 1993, OLS REGRESSIONS^a

Variable	(1)	(2)	(3)
Constant	12.3580**	12.4114**	12.2845**
Current Rank ^b :			
40	.0818**	.1057**	.0501**
50	.1470**	.2211**	.1384**
60	.2121**	.2926**	.1998**
Seniority (years)	.0689**	.0634**	.0796**
(Seniority) ²	-.0012**	-.0012**	-.0015**
Duration in Current Rank x10 ⁻² (years)		.6259**	-.3428**
Rank 40 x Duration (x10 ⁻²)			.8258**
Rank 50 x Duration (x10 ⁻²)			1.8912**
Rank 60 x Duration (x10 ⁻²)			2.4828**
<hr/>			
R ² =	.962	.964	.967
N =	1723	1681	1681
*p<.05, **p<.01			

a. Dependent variable is log of monthly base salary plus rank supplements. Mean (yen) = 587,200.

b. Excluded category is Rank 30.

TABLE 4. PROMOTION REGRESSIONS: EFFECTS OF DURATION IN PRIOR RANKS^a

Variable ^b	Promotion from Rank 30		Promotion from Rank 40		
	(1)	(2)	(3)	(4)	(5)
Age ^c (years)	.0013	.0171	-.0467	.1605	.1074
Duration in Rank 20:					
Continuous (years)	-.1679**		-.4770**		
Early Promotion ^d	-.1872		-.1472		
Late Promotion	-.2245*		-.6813**		
Very Late Promotion	-.6098**		... ^e		
Duration in Rank 30:					
Continuous (years)			.1742	-.0567	
Early Promotion ^d					-.1540
Late Promotion					-.0961
Very Late Promotion					-.0049
-2LL =	12397.41	12391.86	1840.31	1830.74	1826.05
N =	1119	1119	300	300	300
Percent censored =	11%	11%	37%	37%	37%
*p<.05, **p<.01					

- a. Regressions are Cox proportional hazard models. Clock for the models is duration in rank. Data cover 1961-82 entry cohorts.
- b. Dummy variables for entry year are present in each equation.
- c. Age at entry into current rank (30 or 40).
- d. Set of four dummy variables for duration in rank. Deleted term in regressions is "On-Time Promotion," which is defined as the mode waiting time (11 years for duration in rank 20; 4 years for duration in rank 30).
- e. Because of small N, "Very Late Promotion" is combined with "Late Promotion" in the the rank 40 regressions.

TABLE 5. DISTRIBUTION OF SPELL DURATIONS IN RANK 30 BY SENIORITY AT ENTRANCE INTO RANK 30^a

	<u>Duration in Rank 30 (years)</u> ^b									N
	1	2	3	4	5	6	7	8	9 or more	
Seniority at Entrance to Rank 30 (years) ^c 10				9	14	3	1			27
11			80	298	294	89	23	9	5	798
12		5	27	38	43	18	10	6	2	149
13	1	4	3	6	3		2		1	20
14	1	3			1					5
15	3				1					4
N	5	12	110	351	356	110	36	15	8	1003

a. Data are for completed spells that ended in a promotion.

b. Mean duration in rank 30 = 4.6 years, median = 5.0 years.

c. Seniority at entrance into rank 30 (= mean duration in rank 20) = 11.2 years, median = 11.0 years.

TABLE 6. DISTRIBUTION OF SPELL DURATIONS IN RANK 40 BY SENIORITY AT ENTRANCE INTO RANK 40^a

Seniority at Entrance to Rank 40 (years) ^c	Duration in Rank 40 (Years) ^b									N
	4	5	6	7	8	9	10	11	12 or more	
14					3	3	1	2	2	11
15				1	12	11	6	2	4	36
16			3	15	22	12	9	5	8	74
17	1		6	13	6	5			1	32
18			2	2	2	1	1		1	9
19		1	1	1	1		2			5
20	1									1
N	2	1	12	32	45	32	19	9	16	168

a. Data are for completed spells that ended in a promotion.

b. Mean duration in rank 40 = 8.4 years, median = 8.0 years.

c. Mean seniority at entrance to rank 40 = 16.1 years, median = 16.0 years.

TABLE 7. STATUS RANK IN 1993 BY SENIORITY AT ENTRY INTO PRIOR RANKS,
1962-67 ENTRY COHORT

Panel A. Rank in 1993, by Seniority at Entry into Rank 30^a

<u>Seniority</u> (mos.)	Rank in 1993				(N)
	60	50	40	30	
<132	.64	.18	.18	.00	1.00 (11)
132	.61	.27	.11	.01	1.00 (148)
133-144	.32	.26	.38	.04	1.00 (77)
>144	.30	.20	.40	.10	1.00 (10)
All	.51	.26	.21	.02	1.00 (246)

Panel B. Rank in 1993, by Seniority at Entry into Rank 40^a

<u>Seniority</u> (mos.)	Rank in 1993				(N)
	60	50	40		
<192	.58	.31	.12	1.00	(52)
192-203	.60	.27	.12	1.00	(81)
204-215	.50	.17	.33	1.00	(48)
>215	.21	.24	.55	1.00	(33)
All	.51	.25	.23	1.00	(214)

Panel C. Rank in 1993, by Seniority at Entry into Rank 50^a

<u>Seniority</u> (mos.)	Rank in 1993			(N)
	60	50		
<277	.96	.04	1.00	(26)
277-288	.82	.18	1.00	(39)
289-300	.70	.30	1.00	(30)
301-312	.47	.53	1.00	(19)
>312	.19	.81	1.00	(26)
All	.66	.34	1.00	(140)

a. Entries are percentages of the seniority group.

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