RESEARCH IN
SOCIAL STRATIFICATION
AND MOBILITY

A Research Annual

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Bloomington

VOLUME 5 • 1986

JAI PRESS INC.
Greenwich, Connecticut
London, England
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ORGANIZATIONAL RULES AND THE FEATURES OF WORK CAREERS

Seymour Spilerman

ABSTRACT

Although the features of individual careers are influenced by the personnel administrative rules of work organizations, the rules themselves rarely have been examined. Rather, one generally attempts to infer the nature of the attainment process by investigating the results of the process, as seen in the salary and status trajectories of a population sample, and by relating this to individual background characteristics. In this paper, in contrast, we directly examine organizational rules. We investigate administrative specifications with respect to salary advancement and promotion in a variety of work settings; in particular, in police departments, public school systems, the construction industry, and several private-sector organizations. The sources of the organizational rules are union contracts and company data about their human resource systems. Based on this material we introduce the concepts of simple structure, unitary structure, and amalgam structure to summarize the alternate formulations of career evolution that appear in the administrative rules. Finally, we discuss the extent to which the ad-
ministrative prescriptions actually constrain the attainments of individual employees.

INTRODUCTION

In this paper we describe the ways in which the rules of work organizations influence job mobility and salary advancement. Organizational characteristics have received little attention in the status attainment and human capital literatures (e.g., Blau and Duncan, 1967; Featherman and Hauser, 1978; Jencks, et al., 1972; Mincer, 1974), though see Becker (1975; chap. 2) for a provocative discussion, from a human capital perspective, concerning the emergence of personnel structures. More recent studies have addressed the role of institutional factors in the achievement process (e.g., Bielby and Baron, 1983; Daymont, 1980; Grandjean, 1981; Rosenbaum, 1979; Stolzenberg, 1978), although the personnel rules of firms per se have not been a focus of systematic analysis. Rather, these studies have attempted to assess the salience of a variety of organizational features—such as type of technology, firm size, growth rate, and labor market sector—for the attainments of individuals.

These investigations into the consequence of organizational variables have proceeded mainly by analyzing individual work histories, using data sets that contain contextual information about employment settings or to which such data has been added. In comparison, we propose to examine the rules that govern job changing and salary advancement in different firms, instead of observing the results of such rules as evidenced in the achievements of individuals. Personnel regulations convey an organization's design with respect to the work careers of its employees, or its intentions with respect to different categories of workers. The rules specify conditions for employment, prerequisites for advancement, and the rates of salary growth that a firm wishes to associate with particular skill and education groups.

The regulations that govern job changing and salary advancement are specified in union contracts. Where contracts do not exist, many firms, indeed most large corporations, have a codified body of practices that permit personnel decisions to be made in a coherent manner. Sometimes the rules rigidly prescribe the temporal paths of earnings and occupational advancement; we shall view such provisions as templates—molds from which individual careers are fabricated. More commonly, personnel regulations permit a consideration of training and performance at key decision points in the course of employment. At the other extreme, an organization's rules may put considerable emphasis on ability and merit in all salary-
review decisions, thereby promoting a reasonably close association between remuneration and human capital variables. These alternative arrangements reflect the workings of different personnel-management systems; collectively, they refer to the institutional or "demand" side of the achievement process. Our intention is to describe the variety of organizational arrangements in effect, assess their implications for the features of individual careers, and outline some of the determinants of the administrative provisions.

Because there are a number of excellent, comprehensive reviews of the literatures of status attainment, human capital, and institutional formulations of achievement (e.g., Baron and Bielby, 1980; Kalleberg and Sorensen, 1979; Stolzenberg, 1975; Spilerman, 1977), we omit here a detailed appraisal of these literatures. We do, however, wish to comment briefly on the different theoretical perspectives as they relate to the main themes of this paper.

**Status Attainment and Human Capital Formulations**

We suggest that the principal objective in status attainment research has been to explain inequality of achievement. Further, the approach taken in analyzing inequality has stressed the intergenerational transmission of advantage. An emphasis on inequality is evident in the very title of Jencks et al.'s (1972) important monograph; a concern with inequality and with intergenerational processes is also apparent in other publications (e.g., Blau and Duncan, 1967; Duncan, 1969; Sewell and Hauser, 1975; Featherman and Hauser, 1978). This orientation of status attainment research reflects a central theme in stratification theory, namely to decipher the basis of allocation of scarce rewards in society. To be sure, there is considerable interest in identifying the mechanisms that influence achievement over the life course. Yet, we would argue, this has been a subordinate theme. The research issues have not been posed in terms of accounting for an individual's status or earnings at different points along the life course, in relation to proximate causes; if they had, the organization of work settings and institutional rules regarding advancement could hardly be ignored. Rather, the focus has been on the details of the intergenerational process, and the explanatory variables introduced have tended to be ones that elucidate this matter (e.g., respondent's I.Q., parental values, early peer influences, aspirations).

An analysis of inequality presupposes a population of interest. One cannot speak of inequality for an individual, nor is it of compelling concern to analyze inequality within a single firm or industry. The natural population to consider is the national society, and so it is hardly surprising that
the main status attainment investigations have been carried out with representative national or at least regional samples (e.g., OCG I, OCG II, The Wisconsin Study of High School Seniors). However, the use of a representative sample has, in itself, influenced the kinds of causal mechanisms that conveniently can be examined. Because the respondents are employed in many workplaces, and are not reliable informants about the features of their firms, it is difficult to collect detailed firm-level data with which to explore the impact on achievement of organizational characteristics. Thus, both the emphasis on inequality, and the data requirements necessary for this orientation, have contributed to a neglect of institutional variables in status attainment research.

There is a similar emphasis in human capital formulations on individual-level variables, but the reason here is not a preoccupation with inequality. Economists are, indeed, interested in the determinants of earnings over the life course (e.g., Becker, 1975; Hanoch, 1967; Mincer, 1974; Schultz, 1971). A disregard by them of institutional factors can be attributed to the acceptance of a theory of attainment which, in some versions, views institutional effects as negligible or as transitory (e.g., Cain, 1976; Wachter, 1974) and, in other versions, views them as endogenously determined by human capital calculations (e.g., Becker, 1975, chap. 2). In either case, human capital theory is concerned with the returns to variables such as ability, education, training, and experience; institutional factors are downplayed because, in terms of the paradigm, they are considered to play a minor role.

Institutional Formulations

For sociologists, an institutional view can be associated with a shift in the research agenda, from the concerns of stratification theory (inequality and the perpetuation of advantage) to issues in the sociology of work (the mechanics of attainment in different organizational settings). In terms of the latter perspective, it makes sense to inquire into the factors that influence a worker's salary trajectory over the life course, or to describe the ways in which a firm may schedule advancement for employees who have entered via different portals.

In recent years there has been considerable interest in assessing the consequences of institutional factors. However, in contrast with status attainment research, there is no consensus with respect to study design or method of analysis. One approach has been to continue working with representative samples, often national samples, to which contextual variables have been added, such as characteristics of a respondent's industry (e.g., Kalleberg, Wallace, and Althauser, 1981; Daymont, 1980).
Organizationals Rules and the Features of Work Careers

Strategy permits an assessment of the contribution of institutional factors, controlling for the effects of individual-level variables. The attractiveness of this design is that the parameters can be interpreted as “average effects” in society; there is no ambiguity concerning the population to which the findings refer. The drawback is that a researcher usually is limited to adding contextual variables that have been collected for other purposes, and which may not be the variables of choice for analyzing institutional factors in the achievement process.

A second approach has involved dropping all efforts at representativeness and seeking, instead, to understand the determinants of attainment in a single firm. The appeal of this design is that it permits the organizational structure to be described in some detail, and allows the interplay between human capital variables and position in the firm to be investigated. An evident problem exists with respect to generalizing from case studies, but these investigations nonetheless are revealing about institutional arrangements and the consequences of particular organizational structures for individual achievement (see, e.g., Grandjean, 1981; Halaby, 1980; Rosenbaum, 1979; Stewman, 1975; Wise, 1975).

The possibility of comparing results from different case studies is hampered by the fact that company names usually are not disclosed; nor is much industry detail provided, as this might lead to identification. A comparative analysis of attainment by a single investigator, using data from several firms, is also difficult to carry out because the problems of securing access to personnel records are compounded and because a substantial time investment would be necessary to learn about the organizational makeup of each firm. This is one reason for examining corporate rules regarding occupational advancement and salary progression—as we do in this paper—namely, comparable information about many firms is easier to acquire. A more compelling reason relates to the conceptual value of this material. An individual’s work history, typically, consists of a sequence of affiliations with several employers; thus, the specifications of different firms with regard to career development constitute the primitive building blocks from which the work histories of salaried individuals are constructed.

With all this said about personnel rules, a question remains concerning the relation between individual trajectories and organizational prescriptions: To what extent does the evolution of employee careers conform to the specifications of the workplace? To investigate this issue it would be necessary to have available individual work histories for the same firms from which information has been obtained on personnel rules. We do not have such data; however, as will be apparent, in many organizations little deviation is possible from the career specifications.
Becker (1975), Spence (1974), Williamson (1975), Doeringer (1967), and Thurow (1975) have provided accounts of the considerations that motivate work organizations to construct salary schedules and promotion regimes. A key issue for employers, according to Becker, concerns the management of firm-specific training. This refers to techniques or sorts of knowledge that an employer requires, but which he or she cannot purchase in the external labor market; a firm must acquaint its employees with these skills. If a firm pays for this expertise, such as by providing in-house training, it has made an investment in its employees; these sunk costs are lost when workers depart. In Becker’s view, employers attempt to bind trained workers to the firm, in recognition of their superior value, through promises of promotion, salary raises, and employment security. The utility of institutional structures such as job hierarchies and seniority entitlements can be derived from these considerations (see, e.g., Carmichael, 1983). Where employees are asked to underwrite part of the cost of their firm-specific education, such as by accepting a low initial wage while in a training program, then, Becker adds, to recover this investment the workers, themselves, will insist on reasonable advancement prospects and employment security because the skills they have acquired have little market value.

Becker does not consider other motivational factors, besides human capital calculations, that may lead to the same organizational arrangements. In particular, whether or not employees have invested in firm-specific training, they may wish to see barriers instituted against lateral entry and have high-level positions filled through promotion. Workers may also desire to limit the discretion of employers in the realm of promotion and layoff; having these decisions tied to seniority effectively serves this purpose. As a consequence, labor unions may seek contract provisions on these matters, creating a more widespread presence of job hierarchies and barriers to lateral entry than can be explained on the basis of human capital theory. Aside from this observation, Becker’s (1975:chap. 2) discussion of the manner in which the separate interests of workers and employers contribute to the emergence of advancement regimes bears considerable resemblance to the account in Doeringer and Piori (1971:17-34), although the human capital and institutional formulations usually are posed as alternative explanatory paradigms.

The various proposed accounts of the functions of personnel structures represent alternative places from which behavior by employees have been explained. The limitations of these explanations are twofold: They are so evident that the arguments are unnecessary.

Determinants of Wages

From the point of view of personnel or to the market wage.

In many firms, prevailing wages reflect the complexity of experience. In addition, exchange salary schedules may be large and disparities among workers may be considerable. Some firms may collect and circulate insurance parity.
represent attempts to derive some of the institutional features of workplaces from elementary considerations, using a framework of optimizing behavior by employers, workers, or both. The elementary considerations that have been stressed are investments in human capital (Becker, 1975:chap. 2), uncertainty and signaling (Spence, 1974), job competition and job queues (Thurow, 1975:chap. 4), and bounded rationality and complexity (Williamson, 1975:chap. 4). The attractiveness of these accounts is that they provide rationales for institutional structures, based on the functions performed by the structures and the needs of employers or workers, the latter assessments having been derived from a formal theory. The limitations of the accounts stem from their character as single-factor explanations of complex arrangements. Although they provide plausible reasons for the presence of promotion regimes and salary schedules, the arguments are too general to explain the details of any particular structure. They are so encompassing as to be compatible with most kinds of advancement regimes.

Determinants of Firm Differences in Administrative Rules

From the point of view of analyzing the careers of individuals, it is the details of personnel structures that are crucial, and it is the details that will concern us here. A different set of considerations from the ones outlined above relate to the issue of variation among firms in the features of salary schedules and promotion regimes. Following Dunlop (1957), Livershaw (1957), Hildebrand (1963), and Meij (1963), we enumerate several of the factors that influence the details of these institutional arrangements.

The Market Wage

In many firms, the internal wage structure is derived, in part, from prevailing wages in the community for different categories of labor and levels of experience. To obtain information about prevailing rates, large corporations frequently conduct community wage surveys. Firms may even exchange salary data. For instance, in the New York City metropolitan area, the Prudential Middle Management Survey and the LOMA Survey collect and circulate wage information on detailed job titles among participating insurance companies. The objective of this activity is to prevent large disparities from arising between a firm's remuneration scale and the prevailing wage rates, since this would lead either to high turnover of personnel or to excessive salaries, depending on the direction of the disparity.
Union Contracts

Collective bargaining constitutes a different method of wage setting. Indeed, union contracts serve to insulate the internal wage structure from market determination. During the period a contract is in force, the wage rates and advancement criteria tend to be rigidly prescribed; they can be adjusted in response to market trends only to the extent permitted in the agreement. The parameters of the remuneration schedule are renegotiated periodically; the outcome appears to reflect considerations such as the company’s ability to pass on the cost of a settlement to consumers and the union’s ability to inflict sanctions on an employer, as much as an assessment of prevailing wages or the cost of training replacement labor (Hildebrand, 1963:260-271).

The “Rational Analysis” of a Job’s Worth

Job evaluation attempts to replace market determination of wages with a systematic assessment of the skills required by a job and the value of this expertise to the firm. The objective is to calculate a fair rate of pay on the basis of work tasks, not supply and demand considerations. Job evaluation involves the identification of task dimensions, the association of a job with a particular set of weights on the dimensions, and the assignment of a monetary value to each resulting job score. Different strategies for assigning weights and attaching monetary values are reviewed in Lytle (1954), Husband (1976), and Treiman (1979). The use of this schema for investigating sex differentials in wage rates and for constructing sex-neutral remuneration schedules is discussed in Treiman and Hartmann (1981). An analogous, though more subjective, literature takes as its central issue the design of salary progression schedules—the structuring of advancement with the specific intent of motivating performance (Jacques, 1968).

Requirements of an Internal Wage Structure

The wages paid by a firm for different tasks often cannot be understood adequately from an examination of prevailing market rates, the worth of each job on the basis of rational assessment, or the bargaining positions and resources of the unions representing different groups of workers. This is because the analysis of the internal wage structure is not a problem of understanding the setting of individual job rates, but a problem of the determination of a system of rates, in which certain conditions must be satisfied for internal coherence.

Internal coherence refers to the expectations of individual workers with respect to the wage structure, based on societal notions of equity and custom. These performance suffer wage rates for the levels of the dynamics of int... skeleton of the

Job families linked structure of frequent late differentials chi of a firm’s wai... sitions that are task and skill r symbolic impor... differentials am salary of one p... change in the r affecting the r... a job family but to the skeleton i closely with it, a... multiple key po... The preceding terms of salary e taps notions of... example, we hol... and seniority (or... Indeed, union advancement deci... structures, enco... rather than betw... and family size a... (Dore, 1973:98–...
of wage setting, wage structure from in force, the wage prescribed; they can be permitted in the are renegotiated in the are renegotiated in the or the, as much as an replacement labor.

Custom. These expectations cannot be violated without morale and performance suffering. One requirement for internal coherence is that the wage rates for different positions in a job ladder correspond in rank to the levels of the promotion hierarchy. A more general issue relates to the dynamics of internal coherence and involves the notions of job family and skeleton of the wage structure.

Job families (Dunlop, 1957) are collections of positions that either are linked structurally via a promotion sequence or linked informally by virtue of frequent lateral transfers. Dunlop contends that relatively stable wage differentials characterize the positions in these collections. The skeleton of a firm’s wage structure consists of the salaries of all “key jobs,” positions that are visible in the organization and well defined in terms of task and skill requirements. Salary differentials between them take on symbolic importance due to the fact that the workers compare their respective employment situations. As a result, the configuration of wage differentials among key jobs changes only slowly, and an alteration in the salary of one position, whether the result of collective bargaining or a change in the market rate, tends to ripple through the wage structure, affecting the rates of other key jobs. Subsidiary positions, which fill out a job family but are less visible or less well defined, may be loosely linked to the skeleton and exhibit some independence in wage changes, or allied closely with it, which is likely to be the case when a job family contains multiple key positions.

The preceding comments refer to coherence of the wage structure in terms of salary differentials among positions. Another set of considerations taps notions of equity in regard to disparities in individual earnings. For example, we hold expectations concerning the relation between wage level and seniority (or age), when other factors such as education are constant. Indeed, union contracts frequently cite seniority as a crucial item in advancement decisions. The impact of societal values on corporate wage structures, encouraging an emphasis on differentials between individuals, rather than between jobs, is especially evident in Japan where seniority and family size are major determinants of salary level in large companies (Dore, 1973:98–105).

The Status Attainment Model in Relation to Institutional Rules

The salary schedule of a firm, together with regulations governing wage increases and promotions and those pertaining to job transfer, layoff, and recall, comprise the body of administrative rules in reference to which the careers of employees must evolve. These provisions differ by industry and even by firm within an industry, in consideration of technology, organizational structure, custom, and local circumstance. The evolution of
individual careers may be rigidly prescribed by the organization’s rules, a situation that we have termed a “template,” or the rules may serve as norms to guide management in making personnel decisions. These alternative approaches to personnel administration, and what they imply about the development of individual careers, are discussed in the next sections.

As a final point, we emphasize how very different the present formulation is from considerations that are central in status attainment models. Only in passing have we mentioned ability, motivation, family background, and education, although some of these variables may be incorporated in the administrative rules. Likewise, the main studies in the status attainment tradition are mute about the relevance of salary schedules, job ladders, promotion regimes, or other organizational characteristics. In status attainment models, the individual-level variables are viewed as directly affecting current status and earnings. In institutional views, the individual-level variables remain important, but organizational structures are introduced as mediating entities and as exogenous sources of influence on achievement.

By ignoring institutional considerations, status attainment models implicitly treat the labor market as an undifferentiated entity, in which mobility between firms is unhindered by organizational barriers. In this view, it is appropriate to estimate a single set of parameters for the labor market; the values report average effects for the different variables, and the standard errors of the parameters refer to supposedly random variations about the averages. In contrast, institutional formulations postulate very different models of achievement among labor market sectors (defined on the basis of firm, industry, or another organizational unit). In some sectors the returns to education are substantial, in others they are negligible. In some sectors wages are geared to seniority, in others there is no linkage. In this perspective, the use of a single model to explain status or earnings in the population, several years after labor force entry, is misleading because there is no single achievement process. Instead, there are multiple processes, each stable over time and arising from a particular organizational structure and system of rules.

Finally, to put the particular formulation of this paper into perspective among institutional approaches, the organizational variables accorded attention here are the designs and intentions of firms in regard to the career trajectories of their employees, rather than the effects on individual achievement of more basic organizational variables (e.g., size, technology). Because the structural features of organizations influence achievement indirectly, through personnel policies, and are only one determinant of those policies, the present approach is more revealing about the diverse ways in which individual careers are fashioned by firms. However, this
approach is less informative about the important theoretical issue of the relation between organizational structure and individual attainment. (For studies of this question see Bielby and Baron, 1983; Grandjean, 1981; and Stolzenberg, 1978). In the next section we do speculate about this issue, but only in passing, as it is peripheral to the main themes of the paper.

**VARIETIES OF INSTITUTIONAL SPECIFICATIONS OF CAREER FEATURES**

From the point of view of characterizing organizational designs regarding the work careers of employees, it is useful to distinguish between two formulations: *simple structure* and *unitary structure*. In simple structure the essential elements that determine an individual's career course are stated in the firm's administrative rules. In unitary structure the rules are less constraining; they serve as norms to guide management in making personnel decisions, but they are not framed as explicit prescriptions for career evolution.

*Simple structure* refers to an administrative arrangement in which the details associated with salary advancement and promotion are specified in a temporal framework, often in the form of a schedule. The regulations, to be practical, are devised as a function of very few parameters, which, invariably, are objective characteristics of the individual workers (e.g., education, seniority). Instances of pure simple structure leave no discretion for an employer to reward workers differentially and truly constitute *templates* from which the careers of individual employees can be viewed as "stamped." In practice, evaluations of ability and performance often do influence salary growth and occupational advancement, but only at a few decision points in the course of employment, associated with critical promotions that serve a gate-keeping function for the organization. As a general assessment, management discretion is very limited. Indeed, given the details of a firm's template and a few salient items from a worker's biography, the salary and occupational level of most employees can be accurately estimated.

Simple structure is characteristic of workplaces in which one or a very few career lines encompass the main categories of labor (e.g., firefighters in fire departments, teachers in school systems). This administrative system is also found in organizations that have multiple career lines when little opportunity exists for transferring among them, so that individual work histories evolve autonomously for each category of employees (e.g., the various occupational trades in construction or in printing firms).

Simple structure is common in establishments organized along craft lines
SEYMOUR SPILERMAN

(typical) they contain few entry positions and limited options for occupational change), yet it is not exclusive to craft careers. Production workers at Consolidated Diesel Electric and food service workers at ‘Chock Full O’Nuts,’ for example, are employed under contracts that contain extensive scheduling provisions in regard to salary advancement (Chock Full O’Nuts, 1975; Consolidated Diesel Electric, no date). Also, from various accounts of large industrial firms in Japan, it is evident that many elements of simple structure are present in their labor practices, at least in regard to “permanent employees” (Ballon, 1969:123–144; Funahashi, 1973:361–363). In particular, the salary level of a Japanese worker is determined to a greater extent by education and seniority than by considerations of performance (or occupational specialty).7

This personnel system is often a consequence of unionization, because labor unions seek to standardize work arrangements and reduce the discretion of employers (Doherty, 1983:16; Ritzer, 1977:252–253, 279; Wallace and Fay, 1983:108–110). Unions bargain to obtain a precise definition of “insiders” and “outsiders” with respect to contract rights, to reduce distinctions among insiders for the purpose of heightening solidarity, and to tie any remaining differentials in salary, promotion prospects, and job security to a few objective measures, such as education and seniority (Freeman, 1982; Reynolds, 1978:469–477). In line with these goals, labor unions negotiate detailed task specifications and job jurisdictions, provisions to restrict career-line entrance to the lowest rungs, and the order of layoff at times of force reduction.8 Simple structure and career templates can be a by-product of collective bargaining for another reason as well: labor contracts invariably have as their centerpiece an agreement about wages, and a convenient way to state the pertinent provisions is in the form of a salary schedule.

Simple structure, then, refers to a personnel system in which salary advancement and promotion are, to a considerable extent, specified in regulations, rather than an outcome of management evaluations of ability or merit. The rules that are formulated tend to be highly deterministic in their consequences; we view them as a template because the career features of individual workers can be “read” from the provisions. Research questions pertinent to this arrangement concern the manner in which templates are framed and the variation in template designs—the relative weights accorded to individual-level variables versus aspects of an employee’s organizational biography (e.g., entry portal, seniority); the shapes of the returns to the different variables.

Unitary structure refers to a strategy of human resource management in which the organizational rules do not constitute an explicit template for the evolution of individual careers, but a set of norms concerning pro-

Organizational
totypical can consequence cisions, product structure is constituted by an assortment of formalizations it contains in and skill development.

From the perspective of a diversity divisions, the need for flexibility and other organization of different facets of complex moves is a structure.

Another issue lines are presen- pensation schemes, because of a company at the together. Rather, rationalization is an additional facet of this framework where grade levels are associated with titles.

This solution lateral movern- ality among jobs achieved by sin- the latter are empirical. Unitary structure of unitary struc not included in
Organizational Rules and the Features of Work Careers

53

options for occupational workers at 'Chock Full do not contain extensive (Chock Full so, from various at least in regard to hashi, 1973:361—latter is determined by considerations of organization, because reduce the distress, 253, 279; Wallace define definition of facts, to reduce dis-soldarity, and to aspects, and job seniority these goals, labor jurisdictions, pro- and the order career templates r reason as well: agreement about provisions is in the in which salaryDeterminant, specified in situations of ability deterministic in the career features. Research render in which tem-ns—the relative aspects of an em-inity); the shapes source management explicit template is concerning pro-totypical career development to be applied in personnel decisions. As a consequence, management retains flexibility with respect to salary decisions, promotions, and the shifting of workers among jobs. Unitary structure is common in large firms, which have many departments, require an assortment of occupations, and are not unionized. For such organizations it constitutes a formulation for rationalizing manpower planning and skill development.

From the perspective of management in a large company, the presence of a diversity of work tasks, occupational positions, departments, and divisions raises several administrative issues. One matter concerns how to define job ladders and career lines, structures that are essential for motivating performance, encouraging skill acquisition, and permitting responsibility to be assigned in a gradual manner (Wachter, 1974; Williamson, 1975:chap. 4). Coincident with the delineation of these structures is the need for flexibility in the movement of personnel among the career lines and other organizational units, in order to redress imbalances in the distribution of manpower that may develop and to expose employees to different facets of a firm’s operations. To meet these requirements, more complex movement patterns must be permitted than is feasible under simple structure.

Another issue concerns control over compensation. If multiple career lines are present in a firm, linked by diverse transfer opportunities, a compensation system based on simple structures would be difficult to administer, because templates assume that employees who have entered the company at the same time, in the same initial position, will progress together. Rather, given the human resource setting that has been described, rationalization of the compensation structure tends to follow a different formulation, one in which a single framework of rules governs salary advancement and promotion in all organizational units. The technical basis of this framework consists of a hierarchy of some 10–20 nonfunctional grade levels onto which all job titles in the firm are mapped. Salary ranges are associated with the grade levels, and thereby, indirectly, with the job titles.

This solution to the foregoing issues in manpower management facilitates lateral movement within the firm because it establishes salary comparability among jobs in different career lines. Compensation control is achieved by simplifying the process of setting salaries, separating this endeavor from a concern about the details of job ladders and career lines; the latter are constructed using job evaluation procedures (see section on unitary structure). At this point our intention was to introduce the concept of unitary structure, in order to clarify the sorts of work arrangements not included in the following portrayal of career templates.
INDUSTRY AND FIRM DIFFERENCES IN SIMPLE STRUCTURE

In this section we describe some of the ways in which an individual's salary advancement and occupational progression may be specified in organizational rules regarding career development, rather than being an outcome of evaluations of ability and performance. Because the institutional formulations in use vary widely, we examine several specifications from different industries. In particular, we outline the career prescriptions of police departments, public school systems, the construction industry, and a food service corporation. The firms discussed were selected to highlight different template features as well as to depict some representative formulations.

Police Officer, Philadelphia, 1978

The salary schedule for the different ranks is presented in Table 1. The entry level position—patrolman, Step 1—paid $15,115 in 1978. Upon completion of two years service in the department, a salary of $15,769 is reached. Aside from small longevity additions ($127.50 per annum after each 5-year period of service), the salary for a patrolman does not increase after the beginning of the third year of employment. If a patrolman is not promoted to a higher rank, his salary is completely specified by the first row of the schedule. No increment is provided for advanced education (the requirement for employment is a high school degree) or super-

Table 1. Salary Schedule of the Philadelphia Police Department, June 1978.

<table>
<thead>
<tr>
<th>Rank</th>
<th>N</th>
<th>Percent</th>
<th>Annual Salary, by Year in Rank (Step)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Police Officer (Patrolman)</td>
<td>6,746</td>
<td>81</td>
<td>15,115</td>
</tr>
<tr>
<td>Corporal/Detective</td>
<td>749</td>
<td>9</td>
<td>16,342</td>
</tr>
<tr>
<td>Sergeant</td>
<td>502</td>
<td>6</td>
<td>17,230</td>
</tr>
<tr>
<td>Lieutenant</td>
<td>274</td>
<td>3</td>
<td>19,634</td>
</tr>
<tr>
<td>Higher grades</td>
<td>77</td>
<td>1</td>
<td>—</td>
</tr>
<tr>
<td>Totals</td>
<td>8,348</td>
<td>100</td>
<td>—</td>
</tr>
</tbody>
</table>


* * *=

A longevity supplement of $127.50 is added to an employee's annual salary after each five-year period of service in the department, irrespective of rank. This column, therefore, has a different meaning from columns (1) to (3), which refer to years in rank.
in which an individual's specification may be specified in or rather than being an outcome. Because the institutional several specifications from the career prescriptions of the construction industry, and were selected to highlight some representative forms.

1978 presented in Table 1. The $15,115 in 1978. Upon retirement, a salary of $15,769 is $127.50 per annum after patrolman does not increase increment is provided for payment is a high school Police Department,

<table>
<thead>
<tr>
<th>Year, by Year in Rank (Step)</th>
<th>3 or more</th>
<th>30 years(^{2})</th>
</tr>
</thead>
<tbody>
<tr>
<td>40</td>
<td>15,769</td>
<td>16,519</td>
</tr>
<tr>
<td>75</td>
<td>17,030</td>
<td>17,780</td>
</tr>
<tr>
<td>01</td>
<td>17,977</td>
<td>18,727</td>
</tr>
<tr>
<td>66</td>
<td>20,493</td>
<td>21,243</td>
</tr>
</tbody>
</table>


Salary after each five-year period is a different meaning from degree) or superior performance; nor is credit given for prior service in another police department. Thus, all officers in an entry cohort advance together with regard to salary, irrespective of individual differences in age, education, experience, or merit, except that the latter factor is a criterion in promotion decisions and thereby can indirectly influence salary.

Indeed, promotion is the sole avenue by which individual differences in merit can be expressed in the form of remuneration. Yet, how important is this consideration as a determinant of a police officer's salary? Union contracts do not contain information about promotion rates or the distribution of employees over occupational positions. Such data can sometimes be obtained from the personnel departments of employers or from governmental agencies. In the case of the Philadelphia Police Department, 81 percent of the 8,348 sworn officers were patrolmen; an additional 15 percent were in two grades, corporal/detective and sergeant (Philadelphia Police Personnel Office, 1983). The maximum salary for sergeant, the higher of the grades, was $17,977, attained after two years in rank. Thus, in 1978, 96 percent of police officers earned salaries in the range $15,115 to $18,727, irrespective of seniority, education, or performance. (The latter figure assumes 30 years service and includes a longevity supplement of $750.)

To complete an evaluation of the consequences of promotion prospects for annual earnings, it remains to consider how many officers advance to a rank higher than sergeant; that is, how many move out of this salary range. An exact figure for an entry cohort could not be obtained, but a reasonable approximation can be constructed. First, on a cross-sectional basis, only 4 percent of sworn officers are in ranks above sergeant; thus, the figure is likely to be small. Second, in 1978, there were 30 promotions to lieutenant, which translates into a promotion rate of 0.38 percent for the year from all lower ranks. A rough estimate of what this rate means for advancement prospects, over the course of a 30-year police career, is given by the figure \((0.38)\times(30) = 11.4\) percent, as the proportion of an entry cohort that can expect to rise above the rank of sergeant.

In summary, the great majority of police officers in Philadelphia spend their work careers earning salaries in a very narrow band. For those who are never promoted, the range in 1978 was between $15,115 and $16,519; the latter figure assumes 30 years service. A broader criterion of "reasonable career prospects" can be based on the observation that approximately 89 percent of an entry cohort will not advance beyond sergeant; even using this specification, the maximum that an entry-level patrolman can expect after 30 years service is $18,727, an increase of $3,610 or 24 percent over the entry wage (figured on a cross-sectional basis).

Ability and performance do influence remuneration, but they operate only through promotion decisions. Further, the salary returns to the initial
two promotions are modest and, as we have noted, the prospects for advancement to grades with significantly higher earnings are small. Thus, the major part of variation in individual merit is mapped onto a narrow band of salary rewards. Viewed differently, merit does matter, but the threshold at which distinctions begin to affect compensation in a substantial way is set very high.

Police Officer, Chicago, 1978

The entry-level salary is $13,908. After six months it is increased to $14,772. Subsequently, there are four annual raises, to a level of $18,312. The next increments occur after 10 years of service and each 5 years thereafter (see Table 2 for details). The maximum for patrolman is $22,116, achieved after 25 years seniority. Analogous to Philadelphia, there is no salary increment for education, nor is credit given for employment in another police department.

Seventy percent of the 13,504 uniformed police officers in Chicago are patrolmen. The next higher occupational grades are “specialized police officer” (investigator, dispatcher) and sergeant. Salaries for the former are about $1,000 above a patrolman’s earnings at each seniority level; salaries for sergeant average some $3,000 above patrolmen’s earnings. These three occupational categories encompass 96 percent of the workforce; thus the schedules I have described pertain to the full careers of the great majority of police officers.

There are important similarities between the schedules for police officers in the two cities. In each case, salary is a function only of seniority, except indirectly, through promotion. In each city, only two advancement decisions have consequence for the majority of officers, and the salary implications of even becoming a sergeant, the higher of the ranks, are relatively small. Therefore, in both cities the institutional specifications of career evolution provide little room for individual differences in ability, education, or merit to be expressed in terms of wage differentials.

The dissimilarities in the compensation schedules are equally noteworthy, considering that we are discussing workers in a single occupation. In Philadelphia, the schedule for police officers is almost flat with respect to years of service (or any other variable); if one remains a patrolman, the salary difference between a new entrant and a veteran with 30 years service is $1,404, a 9 percent increase over the entry wage. In Chicago, by comparison, there is a steep rise; among patrolmen the increment for 30 years service is $8,208, a 59 percent increase. (Indeed, the salary increment after two years in Chicago—$1,788—exceeds the full 30 years service differential in Philadelphia.) Even if one factors in the consequences of promotion, the assessment remains pretty much the same:
Table 2. Salary Schedule of the Chicago Police Department, June 1978

<table>
<thead>
<tr>
<th>Rank</th>
<th>N</th>
<th>Percent</th>
<th>First 6 mos.</th>
<th>Next 6 mos.</th>
<th>Next 12 mos.</th>
<th>Maximum rate for rank and 10 yrs. service</th>
<th>Maximum rate for rank and 20 yrs. service</th>
<th>Maximum rate for rank and 25 yrs. service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Police Officer (Patrolman)</td>
<td>9,391</td>
<td>70</td>
<td>13,908</td>
<td>14,772</td>
<td>15,696</td>
<td>18,312</td>
<td>19,908</td>
<td>21,324</td>
</tr>
<tr>
<td>Specialized Police Officer</td>
<td>2,213</td>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sergeant</td>
<td>1,391</td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lieutenant</td>
<td>346</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Higher grades</td>
<td>161</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Totals</td>
<td>13,504</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Sources: Chicago Police Department (no date); correspondence with Chicago Police Personnel Office (1983).

Schedule is abbreviated by the omission of several of the annual steps. Full table has 11 steps (columns).
assuming sergeant rank at the completion of a police career, salary growth after 30 years service (computed on a cross-sectional basis) is equal to 24 percent of the entry wage in Philadelphia, versus 76 percent in Chicago.\textsuperscript{15}

A Comparison of Police Department Schedules

In other cities, the compensation schedules\textsuperscript{16} have different features.\textsuperscript{17} In Boston, salary increments are given for education: $950 for 60 semester units of college, $1,300 for a B.A. degree, $1,900 for an M.A. or law degree. These are annual amounts, to be added to each year-in-service step. Oklahoma City also provides salary additions for education, but places a different value on schooling: $264 for 60 semester units, $540 for a B.A. degree, $810 for an M.A. In San Jose, there is no increment to the base wage for education, but schooling can be substituted for experience in the calculation of service steps. Further, in San Jose, a newly hired officer can receive credit for up to three years of prior police work. In the majority of cities, however, neither schooling nor service in another department are deemed compensable factors.

The universal pattern in police departments is that annual salary is principally a function of years of service and rank. However, the generosity of payment for these factors and the manner in which they are allocated over the course of employment differ substantially among cities. This can be seen from Table 3. The first four columns describe the time course of a patrolman’s salary. Oklahoma City and Atlanta aside, the entry-level wages in the various cities do not differ greatly\textsuperscript{18} (column 1); the smaller figures in the two noted cities probably reflect the lower cost of living in the South and Southwest.

From these roughly comparable starting points, the compensation schedules specify very different temporal paths in earnings. At 30 years service for a patrolman, the increment over starting salary ranges from $1,404 in Philadelphia to $8,832 in Washington (column 5). Human capital theorists (e.g., Mincer, 1974:80) suggest that seniority payments are rewards for higher productivity that is associated with experience. Yet, it is difficult to envision that the duties of a police officer in these two cities are so different as to warrant disparate returns to seniority of this magnitude.

The compensation schedules also allocate the tenure increments differently. In Washington, 20 percent of the 30-year-service differential is given in the first 3 years; in New York City, 90 percent is given in this period (column 6). The returns to promotion are equally diverse. In New York City, a sergeant with 30 years service is paid $5,317 more than a patrolman with equal seniority; in Atlanta the differential is $1,833 (column 7). In New York and Philadelphia, promotion to sergeant is worth sub-
Table 3. Summary Features of Police Officer Compensation Schedules, June 1978

<table>
<thead>
<tr>
<th>City</th>
<th>Entry Salary</th>
<th>5 Years</th>
<th>10 Years</th>
<th>15 Years</th>
<th>20 Years</th>
<th>25 Years</th>
<th>30 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philadelphia</td>
<td>$15,115</td>
<td>$17,669</td>
<td>$20,419</td>
<td>$23,449</td>
<td>$26,769</td>
<td>$30,419</td>
<td>$34,449</td>
</tr>
<tr>
<td>Washington D.C.</td>
<td>$10,907</td>
<td>$13,799</td>
<td>$15,824</td>
<td>$17,928</td>
<td>$20,007</td>
<td>$22,224</td>
<td>$24,587</td>
</tr>
<tr>
<td>New York</td>
<td>$13,908</td>
<td>$15,824</td>
<td>$17,928</td>
<td>$20,007</td>
<td>$22,224</td>
<td>$24,587</td>
<td>$27,087</td>
</tr>
<tr>
<td>Chicago</td>
<td>$13,596</td>
<td>$15,200</td>
<td>$17,216</td>
<td>$19,219</td>
<td>$21,238</td>
<td>$23,257</td>
<td>$25,276</td>
</tr>
<tr>
<td>San Francisco</td>
<td>$11,804</td>
<td>$13,314</td>
<td>$15,328</td>
<td>$17,338</td>
<td>$19,349</td>
<td>$21,359</td>
<td>$23,370</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>$13,673</td>
<td>$15,191</td>
<td>$17,219</td>
<td>$19,238</td>
<td>$21,258</td>
<td>$23,278</td>
<td>$25,298</td>
</tr>
<tr>
<td>Denver</td>
<td>$12,724</td>
<td>$14,128</td>
<td>$16,138</td>
<td>$18,149</td>
<td>$20,168</td>
<td>$22,189</td>
<td>$24,209</td>
</tr>
</tbody>
</table>

- **Entry Salary**: The starting salary for a new police officer.
- **5 Years**: Salary after 5 years of service.
- **10 Years**: Salary after 10 years of service.
- **15 Years**: Salary after 15 years of service.
- **20 Years**: Salary after 20 years of service.
- **25 Years**: Salary after 25 years of service.
- **30 Years**: Salary after 30 years of service.

**Notes**:
- Salary increments are given for education: $264 for A.A. degree; $540 for B.A.; $810 for an M.A.
- No salary increment for education, but points are given on the exam for employment.
- Three levels of patrolmen are identified in the Los Angeles schedule: Police Officer I, II, and III. Movement from Officer I to II is automatic, after 18 months of satisfactory service. Movement to Police Officer III is a promotion, in that an exam must be passed and a position must be vacated at this level. Entrees in the table are for Police Officers I and II. In Los Angeles there is no salary supplement for education; however, college training can be substituted for years of service.
stantially more than the 30 year service differential (columns 5 and 7); in Chicago and Washington, however, the seniority differential is twice the size of the promotion increment. Again, it is questionable whether such diverse formulations in the returns to promotion and tenure reflect real differences in duties or responsibilities.

The essential points of this discussion are, first, that the salaries of police officers are rigidly prescribed by administrative rules; only to a minor extent are they influenced by considerations of ability, education, and performance, variables that are central in status attainment and human capital models. Second, the administrative rules specify salary trajectories in diverse ways. In some cities, the bulk of seniority pay is compressed into a few years, in others the payments are spread over many years. In some cities, the eventual returns to seniority are considerable, in others they are quite small. Aside from seniority, compensation is provided in some departments for education and prior police experience, though not in others.

National surveys of attainment show that the earnings of police officers vary over a considerable range, but an attempt to explain the variation in terms of a model of individual achievement would be erroneous. The salary differences do not reflect disparities in individual characteristics, except to the limited extent described above. They arise from community decisions regarding the structure of compensation schedules. In part, the outcomes of such deliberations tap cost-of-living differentials between geographic areas, but to a greater extent the features of a police department’s schedule are rooted in more complex considerations.

To explain individual differences in police officer salaries, a formulation is required that accounts for community differentials in compensation structures, not individual differences directly. An appropriate starting point would be to investigate the determinants of schedule features—entry-level salary, the steepness of the rise with seniority, the number of years of increase—as well as ancillary provisions such as the generosity of payments for education and prior service. Little research has been done on these subjects, though see Lewin and Keith (1976) for an exception. In an analysis of police manpower, they found that schedule minimums and maximums are functions of a number of demographic variables, such as city size, density, and police force size.

As a more general assessment, the compensation structure in a city is a consequence of several intricate processes. One factor is the respective strengths of the negotiating parties—their abilities to mobilize public sentiment and to organize, or absorb, a work slowdown. A second consideration involves the possibility of a tradeoff among schedule features. For example, depending on the age distribution of police officers, their union may be preoccupied with salary maximums and retirement benefits, or with the rate service contract negotiations made between employees of firemen and police departments.

Finally, because there have been significant changes in the salary structures that take place de novo, the earnings of police officers are also affected by the decisions of the community. As a result, the salaries of police officers vary over a considerable range, but an attempt to explain the variation in terms of a model of individual achievement would be erroneous. The salary differences do not reflect disparities in individual characteristics, except to the limited extent described above. They arise from community decisions regarding the structure of compensation schedules. In part, the outcomes of such deliberations tap cost-of-living differentials between geographic areas, but to a greater extent the features of a police department’s schedule are rooted in more complex considerations.

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With the rate of salary growth in the early years of employment. Inter-
service comparisons further complicate the picture. In many cities, con-
tract negotiations with a police union take place in the context of a frame-
work of existing salary differentials with other uniformed services—
firemen and sanitation workers. A recent agreement with another service
will not be ignored; its terms will influence the settlement that can be
made between the city and the police officers’ union. As a result, to un-
derstand the features of police salary schedules, one must also consider
what linkages in contrast provisions, both formal and informal, exist among
employees of different agencies.

Finally, because police officer contracts are negotiated at the local level,
and because the preceding considerations vary in salience from city to city,
there have been very different resolutions to the task of selecting param-
eters for a remuneration schedule. This has made for a variety of salary-
progression schemes among American cities. Also, contract talks do not
take place de novo, but against a backdrop of precedent about schedule
structure that has been built up in a city from the outcomes of prior nego-
tiations. As a result, differentials in schedule features among locales, once
established, tend to persist, providing a relatively stable organizational
basis for the salary differences among police officers in this country.

Public School Teacher, 1978

Analogous to the formulation of earnings trajectories for police officers,
the salaries of school teachers are rigidly prescribed by organizational
rules. These, again, take the form of compensation schedules which, in
most communities, recognize only a very few categories for remuneration
purposes. Also analogous to police department schedules, performance
and merit are not rewarded directly in terms of salary, only to the extent
that promotion prospects may be enhanced. Nonetheless, the majority of
teachers fail to advance even to the initial supervisory rank of department
chair, and, for those who do, the salary consequences are modest. For
these reasons, we focus on the earnings of classroom teachers.

The principal features of the compensation schedules in effect in 1978
in a number of cities are summarized in Table 4. Entry-level salaries can
be seen to vary in a very narrow range, from $9,241 in Oklahoma City to $11,824 in Washington, D.C. (column 1). The increments for 30
years of service, however, are more diverse: in Philadelphia, this level of
experience adds $10,445 to annual earnings, in Los Angeles it is worth
$5,120, and the return to seniority is even less in several other cities (col-
umn 2).

In the preceding section, the structure of police department schedules
was described as primarily dependent on seniority. In contrast, the salaries
Table 4. A Comparison of Public School Compensation Schedules, June 1978

<table>
<thead>
<tr>
<th>City</th>
<th>Salary at entry, B.A. degree</th>
<th>Increment for 30 yrs. service</th>
<th>B.A. + 30 credits</th>
<th>B.A. + 60</th>
<th>M.A. + 98</th>
<th>M.A. + 30</th>
<th>M.A. + 60</th>
<th>Doctorate</th>
<th>Total salary increment for doctorate, relative to B.A., 30 yrs. service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philadelphia</td>
<td>$10,077</td>
<td>10,445</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2,715</td>
<td>1,828</td>
<td>0</td>
<td>1,961</td>
</tr>
<tr>
<td>Boston</td>
<td>10,658</td>
<td>8,225</td>
<td>550</td>
<td>0</td>
<td>0</td>
<td>552</td>
<td>1,103</td>
<td>550</td>
<td>613</td>
</tr>
<tr>
<td>Los Angeles</td>
<td>10,650</td>
<td>5,120</td>
<td>1,500</td>
<td>1,700</td>
<td>2,600</td>
<td>150</td>
<td>0</td>
<td>0</td>
<td>250</td>
</tr>
<tr>
<td>New York</td>
<td>9,700</td>
<td>8,450</td>
<td>500</td>
<td>925</td>
<td>0</td>
<td>425</td>
<td>1,850</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Washington</td>
<td>11,824</td>
<td>7,941</td>
<td>3,300</td>
<td>0</td>
<td>0</td>
<td>697</td>
<td>683</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>San Jose</td>
<td>10,022</td>
<td>4,662</td>
<td>3,885</td>
<td>3,098</td>
<td>0</td>
<td>777</td>
<td>0</td>
<td>0</td>
<td>777</td>
</tr>
<tr>
<td>Chicago</td>
<td>11,400</td>
<td>9,575</td>
<td>1,275</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>975</td>
<td>0</td>
<td>550</td>
</tr>
<tr>
<td>Omaha</td>
<td>9,425</td>
<td>7,163</td>
<td>471</td>
<td>0</td>
<td>0</td>
<td>1,791</td>
<td>943</td>
<td>0</td>
<td>942</td>
</tr>
<tr>
<td>Atlanta</td>
<td>9,456</td>
<td>5,292</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1,476</td>
<td>0</td>
<td>0</td>
<td>2,965</td>
</tr>
<tr>
<td>Oklahoma City</td>
<td>9,241</td>
<td>3,865</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>898</td>
<td>0</td>
<td>0</td>
<td>550</td>
</tr>
</tbody>
</table>

Sources: Agreements with teachers' associations in the respective cities: Philadelphia Teachers (no date), Boston Teachers (no date), Los Angeles Teachers (no date), Chicago Board of Education (1977), Washington, D.C. Public Schools (no date), New York Teachers (no date), San Jose Unified School District (no date), Omaha Public Schools (no date), Atlanta Public Schools (no date), Oklahoma City Public Schools (no date).
<table>
<thead>
<tr>
<th>Source</th>
<th>Doctorate</th>
<th>M.A. + 36 credits</th>
<th>B.A. + 28 credits</th>
<th>B.A. + 56 credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicago</td>
<td>1,275</td>
<td>0</td>
<td>975</td>
<td>550</td>
</tr>
<tr>
<td>Omaha</td>
<td>471</td>
<td>0</td>
<td>1,791</td>
<td>943</td>
</tr>
<tr>
<td>Atlanta</td>
<td>0</td>
<td>0</td>
<td>1,476</td>
<td>0</td>
</tr>
<tr>
<td>Oklahoma City</td>
<td>0</td>
<td>0</td>
<td>898</td>
<td>550</td>
</tr>
</tbody>
</table>

Sources: Agreements with teachers' associations in the respective cities: Philadelphia Teachers (no date), Boston Teachers (no date), Los Angeles Teachers (no date), Chicago Board of Education (1977), Washington, D.C. Public Schools (no date), New York Teachers (no date), San Jose Unified School District (no date), Omaha Public Schools (no date), Atlanta Public Schools (no date), Oklahoma City Public Schools (no date).

Entries in columns (3) to (9) are increments to be added to the value in the prior column, and then to columns (2) and (1) to compute annual earnings. For example, in Los Angeles, 30 credits beyond the B.A. adds $1,500 to the B.A. maximum ($15,770), 60 credits adds $3,200, and 98 credits adds $5,800. In several cities, the education increment varies with years of service; it is therefore reported assuming 30 years in the school system.

For all cities, except Los Angeles and San Jose, an individual's salary (at the 30-year-service point) is computed by summing columns (1) through the highest applicable education column. For Los Angeles and San Jose, sum columns (1) through the appropriate post-B.A. credit level (columns 3, 4, or 5) and then add the entries in columns (6) and (9), if applicable.

Diverse rules apply with respect to credit for prior service in another school system. For example, in Philadelphia, credit is given on a year-for-year equivalency basis, minus one year. In Boston, which has 9 annual steps, a new teacher is given credit for up to 3 years of prior service. In Atlanta, credit is given on the basis of two years of outside service per annual step in the Atlanta schedule.

Entry is the sum of increments in columns (3) to (9). In all cities, except Los Angeles and San Jose, this column conveys the earnings of a doctorate, relative to a B.A. (column 2), assuming 30 years service. In Los Angeles, this interpretation is correct only if the doctoral recipient has also completed 98 credits of post-B.A. work, in San Jose only if he or she has completed 60 credits.

For Los Angeles, the first two post-B.A. credit levels in the table refer to B.A. + 28 and B.A. + 56.

The New York schedule is complicated by the presence of several salary differentials for certain kinds of educational studies. The figures presented here are a representation that is appropriate for comparison with the other cities.

For Chicago, the entry in column (7) refers to M.A. + 36 credits.
of school teachers are a function of two variables: seniority and education. The returns to education are different among the cities, as varied as the rewards for 30 years of service. Moreover, there isn’t even consistency with respect to the method of calculating advanced education. In some cities, compensation is given principally for course credits subsequent to the B.A.—so much for 30 credits, so much for 60, and so forth—whereas the salary schedule in other communities is responsive only to earned degrees.

This lack of a measurement standard, together with the fact that whichever calculation is used, the cities attach different payments to similar levels of advanced education, is responsible for the diverse earnings trajectories of school teachers having identical background characteristics. For example, in Washington, D.C., a B.A. plus 30 credits (without an M.A.) earns $3,300 more annually than a B.A. In Chicago, the value of the 30 credits is $1,275, in New York City it is $500; in Philadelphia, which recognizes only earned degrees, no salary addition is provided for the coursework (column 3). More extreme are the returns to 60 credits beyond the B.A., in the absence of an M.A.: this training is worth $6,983 per year in San Jose, $1,425 in New York City, $550 in Boston and, again, carries no monetary value in Philadelphia (columns 3 and 4).

The salary increments for earned degrees are equally diverse. An M.A. adds $3,300 to annual compensation in Washington, D.C., $1,275 in Chicago, and $898 in Oklahoma City (columns 3–6). The maximum allotment for advanced education, awarded for a doctorate (together, in Los Angeles and San Jose, with the requisite number of post-B.A. credits) ranges from $8,537 in San Jose to $1,448 in Oklahoma City (column 10).

To fully appreciate the diversity in teacher compensation schedules, we point out that although San Jose apparently considers advanced education more pertinent to teaching effectiveness than experience (as judged by the respective salary additions for these two factors), the Chicago school system must have reached a very different assessment. In San Jose, the increment for a doctorate is almost twice the amount for 30 years of service ($8,537 versus $4,662); in Chicago the value of this degree is less than one-third the payment for 30 years service ($2,800 versus $9,575; see columns 2 and 10).

One explanation for such extensive differences in the relative returns to education and experience can be based on a contention that the school systems in different cities are pursuing disparate objectives, or that the duties assigned to teachers are dissimilar. If this were the case, and if education and experience were to contribute differently to productivity under the various schooling objectives, it would be consistent with cost minimization if the payment associated with each of the factors underlying teacher earnings also differed. However, there is no evidence that the
goals of schooling or the responsibilities of teachers vary in a substantial way among American cities. On the contrary, there is a rather pervasive similarity among large communities in the United States in the roles assigned to school teachers, in the attainments expected of students, and in the organizational setup of individual public schools.²⁵

As a more plausible explanation of the diversity in teacher earnings schedules, we suggest it is a combination of the local character of the contract negotiations, together with the absence of a clear relation between teacher effectiveness and either advanced education or experience. The argument for the first point would reiterate the considerations already outlined in connection with city differences in police office salary schedules—the variety of bargaining contexts,²⁶ the accumulation of precedent in a city regarding the structure of the remuneration schedule, and the possible linkage between the compensation of school teachers and that of other city employees.²⁷ The second point refers to the fact that there is no evidence (known to the author) that might suggest what an additional year of service or an advanced degree contributes to any measure of teacher effectiveness. In this circumstance, there is little basis in terms of productivity calculations for deciding to pay one price or another for advanced education or length of service, and the decision in each community becomes a purely local matter of selecting a formula that best compromises the salary interests of teachers and the cost-containment objectives of the school board.

Construction Craftsmen, 1973

If the compensation schedules of police officers are principally a function of a single variable, and the schedules of school teachers can be specified as a function of two variables, the wage rates of craftsmen in the building trades are, with few exceptions, unresponsive to any individual-level factor, whether it be ability, education, experience, seniority, or performance. The wage-setting process in the construction industry has the following features. Contract bargaining takes place between the local of each craft and the contractors' association of the locale. A typical agreement provides for a single wage rate for members of a craft²⁸ and is in force for one to three years (Bureau of Labor Statistics, 1974:4). The primary wage negotiation concerns the hourly rate of journeymen (the principal occupational level). Apprentices are paid a lower wage, but this status is a temporary one, at the beginning of an individual's work career, and lasts two to four years. Upon completion of training, apprentices graduate to journeymen and are paid the applicable wage. Foremen, who are selected by contractors from among the journeymen hired for a project, are paid at a slightly higher rate, typically 10 percent to 15 percent above the jour-
neymen’s scale.\textsuperscript{29} This appointment, however, is for the duration of the job; the worker reverts to the status of journeyman at its completion. Because perhaps 10 percent of craftsmen are employed at any one time as foremen,\textsuperscript{30} and because the wage increment for this position is small, we focus on the earnings of journeymen.

The preceding description refers to wage setting in the unionized sector of the building trades. How prevalent, though, are union rates among construction workers? According to one Department of Labor study, 60 percent to 70 percent of building trades workers are employed in unionized establishments\textsuperscript{31} (Bureau of Labor Statistics, 1970a:9–10). A second study, which examined 17 large metropolitan areas, reported that 75 percent of construction workers were engaged by contractors holding collective bargaining agreements. The percentage is higher outside the South, exceeding 90 percent in several cities, and much lower in the South, where the unionized proportion sometimes falls below 50 percent (Bureau of Labor Statistics, 1976b:3–4). Among craft specialties, the percentage in unions also varies—it is low among carpenters and painters, who can learn their skills outside a formal apprenticeship program and can take on small jobs as independent contractors; it is high among heavy-equipment operators and structural steel workers, who cannot acquire the requisite training informally and require union referrals to work on the large, multiple-craft projects that are the mainstay of these specialties.\textsuperscript{32}

The effect of union scales on the wage rates of construction craftsmen is more pervasive than indicated by the proportion of contractors with collective bargaining agreements. Federal legislation (Davis-Bacon Act) requires that any contractor performing work on a federally funded project must pay the “prevailing” wage rate for each occupation. In a community in which the majority of craftsmen are unionized, the prevailing rates are usually set at the union scales for the various specialties (Bureau of Labor Statistics, 1976b:5). Thus, although accurate figures are not available, it is likely, at any point in time, that somewhat in excess of three-quarters of construction workers are paid the union scales.

With these prefatory remarks on wage determination in the building trades, we report in Table 5 mean hourly wage rates for journeymen employed in firms with collective bargaining agreements. These data are from a 1973 industry wage survey of 17 metropolitan areas (Bureau of Labor Statistics, 1976b), the latest wage survey available for the construction trades.\textsuperscript{33} The entries in the table are not the negotiated union scales, because this would leave open the question of the degree of implementation of union rates, but averages of employee hourly wages. Distributional data on wage rates are also available from the survey for each craft in a city. Although we do not report this information, it is the case that the variances are very small, providing evidence for the contention that the
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percentage in unions
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on small jobs
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struction craftsmen
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(Davis-Bacon Act)
ally funded project
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or journeymen em-
these data are from
(Bureau of Labor
or the construc-
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 for each craft is a
is the case that the
Table 5. Mean Hourly Wage Rates for Unionized Craftsmen in the Building Trades, by SMSA, 1973

<table>
<thead>
<tr>
<th>Craft</th>
<th>Chicago</th>
<th>Cleveland</th>
<th>New York</th>
<th>Newark</th>
<th>Baltimore</th>
<th>Los Angeles</th>
<th>San Francisco</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cement mason</td>
<td>9.69</td>
<td>10.70</td>
<td>9.32</td>
<td>9.33</td>
<td>9.33</td>
<td>8.83</td>
<td>8.79</td>
</tr>
<tr>
<td>Sheet metal</td>
<td>9.24</td>
<td>10.70</td>
<td>10.70</td>
<td>9.10</td>
<td>8.89</td>
<td>8.58</td>
<td>8.28</td>
</tr>
</tbody>
</table>

Source: Bureau of Labor Statistics (1976). Data are from various tables for the different communities.

Note: Wage rates for journeymen employed by contractors with collective bargaining agreements.
negotiated rates are closely followed. In particular, in 33 of the 42 craft-by-metropolitan areas noted in the table, the hourly earnings of at least 90 percent of the craftsmen fall in a 40-cent range. (For instance, in Chicago, 2,428 of 2,479 bricklayers employed by contractors holding collective bargaining agreements earned between $9.40 and $9.80 per hour.)

This lack of variation in a city in the hourly wage of a craft, in a context of the likely presence of individual differences in education, ability, and experience, is one datum that is difficult to explain via a status attainment or human capital formulation of achievement. Equally troublesome is the pattern of variation across locales in the relative wages paid to different crafts. To cite a few examples: In New York City, a sheet metal worker earns $2.01/hour more than a plumber; in Chicago, however, a plumber is paid $0.38/hour more than a sheet metal worker. In Los Angeles, an electrician receives $2.71/hour more than a cement mason, but in Cleveland the hourly difference is $0.38, in favor of the cement mason.

Such disparities cannot be understood in terms of cost-of-living differences among cities. Indeed, even though Newark is a brief commute from New York City, a cement mason earns $1.01/hour more in Newark than across the Hudson River in New York City; a sheet metal worker earns $2.04/hour less in Newark than in New York City. Another way to convey the import of these data is to note that electrician is the highest-paid craft in Los Angeles, but the lowest compensated in San Francisco, but receives the highest wage rate in Cleveland!

Disparities of this type in wage rates cannot be explained by individual differences in human capital. The technology of building construction and the skills required of craftsmen are very similar in all large metropolitan areas; consequently, there is little basis for suggesting that the observed wage-rate differentials correspond to community variations in individual-level characteristics. Rather, the wage differentials appear to arise from considerations of supply and demand, and reflect, in large part, the respective bargaining strengths of the contractors’ association and the various craft locals in a community. In line with this assessment, an appropriate formulation for explaining differentials in the wage rates of individual craftsmen, in a national sample, would utilize variables that tap the level of construction activity in a locale, the mix of crafts required by a particular type of construction, unemployment rates, and the like; in short, community-level variables and measures of the market situation of each craft, not individual-level variables. Few studies of this sort have been done, though see Shulenberger (1981) for an exception.

At the same time, one must be careful not to overstate the case for the irrelevance of human capital variables. Although we have emphasized their lack of salience for understanding the wage rates of individual craftsmen,
in 33 of the 42 craft-earnings of at least $1, $00.80 per hour.)

For instance, in Chicago, a craft, in a context of location, ability, and a status attainment is troublesome is the ages paid to different a sheet metal worker however, a plumber. In Los Angeles, an mason, but in Cleveland at mason. 

The cost-of-living differences a brief commute from nore in Newark than a metal worker earns another way to convey the highest-paid crafticago; cement mason the highest paid craft explained by individual construction and all large metropolitan ing that the observed variations in individual appear to arise from in large part, the reassociation and the varassessment, an approach rates of individual bles that tap the level required by a particular class; in short, comsituation of each craft, sort have been done, restate the case for the have emphasized their individual craftsmen,

the variables may be related to annual earnings. The formal model of a craft emphasizes the equalization of work opportunity among craft members (Caplow, 1954:167–168). Many union locals pursue this objective by requiring contractors to turn to the union for referrals. Internally, craft locals might utilize arrangements such as a hiring hall or an out-of-work list, structures for supplying labor that tend to reduce the variation among individuals in hours worked (Bourdon and Levitt, 1980:61; Strauss, 1960:289). Nonetheless, these institutional arrangements are not used universally, and some association between individual performance (or human capital measures) and hours worked is likely to exist.

Evidence for this contention is indirect, though substantial. In an analysis by the Department of Labor of 769 construction agreements, 50 percent were found to contain clauses that permit an employer to reject applicants referred by the union. Further, although 54 percent of the contracts mandated that hiring be done through union referrals, 46 percent lacked such a provision (Bureau of Labor Statistics, 1974:18–19). In the latter situation, contractors are able to select craftsmen on the basis of reputation or in accordance with their recollections from prior projects (Blumberg, 1983; Bourdon and Levitt, 1980:61–62; O’Donnell, 1983). As a result, it is reasonable to expect some association to be present between education and training on the one hand and annual earnings (through hours worked) on the other, though the magnitude of the effect remains to be established.

In summary, although the details concerning the returns to human capital variables are unclear, some facts are evident. As a consequence of the particular institutional structure of the building trades, human capital variables do not find expression in terms of wage-rate differences, as is common in bureaucratic organizations, but in terms of hours worked in a year. Also noteworthy, in passing, is that the impact of one form of human capital—years of experience—is probably weaker in the building trades than in industrial firms. Because of the physical nature of construction activity, young men are often preferred to middle-aged workers. Such preferences surely exist in other industries as well, but the ongoing nature of the employment relation in bureaucratic organizations protects older employees. In the building trades, however, because construction projects tend to be of short duration, an employer can implement his preference without dismissals, by choosing at the start of a project to engage mainly young craftsmen. The seriousness of this problem is conveyed by the finding that in 22 percent of agreements surveyed by the Department of Labor, clauses were present mandating a contractor to employ older workers (Bureau of Labor Statistics, 1974:21).

An analysis of institutional rules usually provides little information about the evolution of individual work careers when they cross organizational boundaries and involve several employers. In the cases of police officers...
and school teachers, the organizational specifications are especially informative about career evolution because the departure rates from these lines of work are low; consequently, the templates describe long work-history segments. The careers of craftsmen are of a different sort. The occupational model of a craft emphasizes "lifetime affiliation" with the trade (e.g., Hall, 1975:189), yet frequent employer change and many spells of unemployment are a feature of construction work. Further, during times of reduced building activity, craftsmen drift into other industries; they usually maintain their union cards, however, and return to construction once the demand for labor expands. As a result of these considerations, the institutional rules in the building trades do not determine a complete template, from which an individual's salary trajectory can be "read"; they specify only the hourly wage-rate portion of annual earnings for the periods in which a craftsman is engaged in construction work.

Chock Full O'Nuts, 1976–1978

Chock Full O'Nuts is a chain of 65 food service establishments in New York, New Jersey, and Pennsylvania. The labor contract with Local 15500 of the United States Steel Workers (Chock Full O'Nuts, 1975) covers store employees, exclusive of supervisory personnel and clerical workers; the bargaining unit totals some 1,000 members. The formulation of simple structure that appears in the contract embodies features of both a single-rate system and a progression schedule.

During the three-year contract period, November 14, 1975 (= t₀) to November 13, 1978, the starting wage for a newly hired full-time employee was $1.60/hour; after 30 days service the rate was increased to $1.70/hour. Subsequent raises are not determined by a schedule, in reference to seniority or to another individual-level characteristic. Indeed, it is useful to view wage raises in this firm as exogenous "shocks," in the form of occasional across-the-board increments to employees of record at a particular date. During this three-year period, the negotiated raises were 25 cents/hour to individuals employed at t₀, 15 cents/hour to workers on the payroll at t₀ + 12 months, 15 cents/hour at t₀ + 28 months.

This system of wage determination differs from the single-rate formulation of construction workers in that all craftsmen, whether experienced or newly qualified, receive an identical wage. Thus, from the point of view of understanding a craftsman's current wage, one's history of wage raises is irrelevant. In contrast, at Chock Full O'Nuts, a worker's current wage is tied to his or her date of entry—not via a cross-sectional schedule that relates compensation to service length (such as applies to police officers and school teachers)—but by a calculation that sums the entry-wage and the across-the-board salary raises since the hiring date.41
If this wage formulation can be viewed as a single-rate system, modified for each employee by the negotiation record since his or her entrance, the Chock Full O’Nuts contract also contains a progression feature, namely the allocation of longevity payments. In particular, at the beginning of each contract year, employees with 6 months to 1 year of service receive a bonus of $150, employees with 1 to 2 years seniority receive $200, etc. These annual payments range in amount up to $600 for workers with 10 or more years of service at the contract anniversary date.

It should be emphasized that these longevity payments are not incorporated into an employee’s wage rate, but remain separate allocations. Also, they are sizeable payments, in relation to a full-time weekly wage in the neighborhood of $100 (excluding tips) for most workers. A lump-sum formulation has two advantages for a firm. First, it serves to reduce labor turnover during the major part of the year, concentrating voluntary departures into a relatively brief interval (the weeks following payment of the bonus), thereby facilitating manpower planning. Second, departers at other times in the year effectively contribute a cash allotment to the firm—that portion of the longevity bonus accumulated since the last payment date. In an industry sector in which turnover is fairly high, a bonus system can provide a substantial financial return to the firm, in comparison with rewarding longevity by means of wage-rate increases.

Leaving aside these intriguing issues of the motivation and control of workers in a low-wage industry, the essential point for this discussion is that, conditional on date of hire, an employee’s current wage rate is completely specified by the contract provisions. Though the salary calculation is more complex than in the prior examples, it is, nonetheless, a version of simple structure because neither ability nor job performance influence salary growth over the employment course. Moreover, in this firm, there is no opportunity for promotion, which could provide an avenue for indirectly rewarding performance with wage increases. All employees in the bargaining unit are paid according to the same formulation.

Summary

To recapitulate, what we see from the four examples of this section is rather clear evidence for a very different process of salary determination than underlies the status attainment and human capital models. First, in these firms and agencies, management has little opportunity to discriminate among employees, to reward them differently on the basis of merit, except to the limited extent available, in some instances, through promotion decisions.

Second, the parameters of the reward structures are determined through collective bargaining. Although payments sometimes are made for human
capital variables—education and experience—the returns to these terms bear little relevance to an assessment of their contribution to productivity. Our evidence on this point is the highly varied returns to years of service or to level of education across police departments and public school systems. Instead, the payments associated with these variables appear to have their basis in custom and tradition, in the sense that we believe educated and experienced workers should be paid more. There are no norms, however, about how much more; hence the enormous variations in schedule features.

This argument is not intended to suggest that the imagery behind the human capital/status attainment model is deficient. Indeed, formulations of this genre may be appropriate for the majority of workers in the United States economy. Rather, the intent is to indicate that no single model type is universally applicable, and that a consideration of labor market segmentation is necessary for ascertaining the boundaries of applicability of a specific formulation. In the next section, we describe a very different wage-setting process which, although it contains strong institutional elements, has many of the bureaucratic/evaluative features that underly status attainment and human capital models.

UNITARY STRUCTURE AND AMALGAMS OF STRUCTURAL TYPES

The logic of simple structure is fairly elementary. Career features are specified by templates, which are highly determinative in their consequences for individual achievement; further, administrative rules insulate employees subject to different templates, with the result that work careers in separate units of a firm can evolve autonomously. The institutional arrangements associated with simple structure are as follows: it is a frequent concomitant of unionization; it is especially compatible with craft-organized enterprises; and it is common where the majority of employees are engaged in a very few lines of work.

From the point of view of management, simple structure has several drawbacks: the allocation of rewards on the basis of individual merit is hindered; very different salaries may have to be paid for equivalent, even identical, work in parallel career lines; and labor is compartmentalized, with rigid administrative barriers inhibiting the shifting of manpower between organizational units. To emphasize the last point, under simple structure the balancing of labor requirements among organizational specialties can be accomplished only by adjusting the hiring, layoff, and termination rates. As a result of compartmentalization, these rates would have to be tuned so that a firm would work as deman.

Because it was the details of the particular individual's skills, both permits, and provides a variety of work as demands. This gives management a variety of salary structures, (2) this salary job content or sequence or a salary structure, evaluation, le be quite different, and the grade levels.

Turning first to the simple structure, the beginning of salary range the work at e assigned to the job.

To perform the necessary work, not on the basis of the subjective, but on the subjective, by the same salary grade to the firm."

In job fact, dimensions (6) are evaluated...
Organizational Rules and the Features of Work Careers

To these terms in productivity, years of service public school systems appear to that we believe ed, variations in schedules behind the feed, formulations workers in the United single model type labor market segments applicability of be a very different institutional ele- that underly status

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Career features are live in their conservative rules insulate that work careers . The institutional follows: it is a fre-naptile with craft- ory of employees

Structure has several individual merit is or equivalent, even compartmentalized, g of manpower be-point, under simple organizational spe-ring, layoff, and ter-these rates would

have to be tuned separately for each line of work, and it is conceivable that a firm will be actively recruiting for one career line while workers with comparable skills, in another administrative unit, are being laid off.

Because simple structure is often an outcome of collective bargaining, the details of an agreement tend to be idiosyncratic, reflecting the course of the particular negotiation. In contrast, unitary structure represents an intentional plan with respect to human resource management, one that both permits a firm a high degree of control over its compensation process and provides a basis for equity in the remuneration of employees. Also, because unitary structure presupposes an absence of contractual barriers to movement within the firm, workers can be shifted between lines of work as demand necessitates, restricted only by the costs of retraining. This gives management an additional degree of freedom in balancing its manpower requirements.

Unitary compensation is a relatively widespread human resource administrative system, especially among large, nonunion bureaucracies utilizing a variety of occupational skills, organized into multiple career lines. Several formulations are in use; they differ in important design elements yet share in common the following global features: (1) a single (unitary) salary structure encompasses all lines work and all organizational units; (2) this salary structure is formulated separately from a consideration of job content and linkages among jobs, whether on the basis of a progression sequence or a job family; (3) the assignment of job titles to grades in the salary structure is accomplished by means of a systematic process of job evaluation, leading to a notion of equivalence among positions that may be quite different in their concrete tasks; (4) employee salaries are determined on the basis of individual merit, within the range associated with the grade level to which a job title is assigned.

Turning first to job evaluation, two broad approaches are in use: classification methods and job-factor strategies. In a classification system, the beginning point is the construction of a salary schedule, as a hierarchy of salary ranges (grades) and associated task descriptions that characterize the work at each level. Job titles are slotted into the schedule—each is assigned to the grade that is appropriate in terms of the task statement. To perform this operation, jobs are evaluated as comprehensive units, not on the basis of scores on component dimensions. The evaluation is subjective, by a management committee; the intent is to assign to the same salary grade those positions judged equivalent in terms of "worth to the firm."

In job factor strategies, the starting point is a decision about underlying dimensions (e.g., skill, physical difficulty, responsibility). Job titles are then evaluated on each of the dimensions. The more sophisticated methods
use factor analysis to infer dimensions from job ratings on multiple measures and to compute factor scores (e.g., Gomez and Paige, 1979); more commonly, these operations are simulated by committee decisions (e.g., Husband, 1976:chap. 5). In either case the result of a factor approach is a value for each job title, constructed as a linear combination of factor weightings and the factor scores. The job values can be used in various ways to assign salary levels to job titles: the positions may be grouped on the basis of similar values and each category identified with a salary grade (as in a classification procedure), or salaries paid by competing firms for the same job titles can be regressed on the job values to determine the market relation between job values and salaries. The regression strategy is useful for control purposes, in that a firm’s salary structure can be compared with the market relation, expressed by the regression line. A firm can assess whether its salary structure is in line with market wages; indeed, depending on the quality of personnel it wishes to attract and retain at various levels, it may choose to overpay or underpay market rates for a portion of the job value range.

Our interest here is not with the particulars of job evaluation methods, important as they are for the construction of job families, job ladders, and for specifying transfer options between career lines (on these issues see, e.g., Dunn and Rachel [1971], Husband [1976], and Treiman [1979]). Rather, we wish to focus on the implications of unitary compensation structure for individual achievement and for the details of individual careers. In line with this purpose, the essential matters for consideration are the features of salary schedules and the supplementary rules that associate sequences of salary grades with career lines.

Under unitary structure, the salary schedule is formulated as a hierarchy of overlapping salary ranges (grades). In one version, the salary minimums of adjacent grades are linked. For example, let $N = \text{number of grades in the schedule}$, $SS(i) = \text{starting salary in grade } i$, and $r = \text{percentage increase between the salary minimums of successive grades}$. Then the fairly prevalent schedule described by a constant percentage increase between grade minimums is conveyed by the geometric progression,

$$SS(i) = SS(1)(1 + r)^{i-1} \quad \text{for } 1 \leq i \leq N$$  \hspace{1cm} (1)

If the maximum salary in grade $i$, $MS(i)$, is specified as a fixed percentage of $SS(i)$—say $1 + m$—then,

$$MS(i) = (1 + m)SS(1)(1 + r)^{i-1}$$  \hspace{1cm} (2)

These two elementary formulas summarize all the features of schedules characterized by a constant percentage increase in the grade minimums, and a grade range that is a fixed percentage of its minimum.
To make these ideas concrete and provide a context for describing one common approach to associating career lines with sequences of grades, it is convenient to consider a particular firm. We outline the compensation framework of a large insurance company in which the author has access to personnel records. The company employs approximately 16,000 individuals, exclusive of agents who operate on a commission basis. Details of the salary schedule for 1978 are reported in Table 6. The schedule covers all employees, except for a few hundred unionized workers (mainly maintenance men) and a few hundred very senior executives who are above scale in salary.

The structure underlying the schedule reveals its basis in conscious design, though it is not sufficiently "clean" to be neatly summarized by


<table>
<thead>
<tr>
<th>Grade</th>
<th>(1) Minimum</th>
<th>(2) Maximum</th>
<th>(3) Salary</th>
<th>(4) Increase in</th>
<th>(5) Overlap of</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Salary range, as proportion of grade minimum</td>
<td>Increase in</td>
<td>range with</td>
<td>minimum</td>
<td>prior grade,</td>
</tr>
<tr>
<td></td>
<td>over prior grade minimum</td>
<td>prior grade</td>
<td>as a proportion of range</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>7,007</td>
<td>9,007</td>
<td>—</td>
<td>—</td>
<td>—</td>
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<tr>
<td>2</td>
<td>7,000</td>
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<td>.40</td>
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<td>.40</td>
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Minimum varies by organizational unit in the company.
equations (1) and (2). In particular, the salary range for a grade, as a percentage of the grade minimum, varies from .40 to .50; the latter figure applies to grades 6–20 (column 3). The relation between the minimums of successive grades is reported in column 4. These entries differ from grade to grade, though they hover about the value \( r = .090 \). Even though the simple formulas of this section are not exact for the insurance company, they reproduce the features of the schedule with fair accuracy; for example, using \( r = .090 \), \( SS(2) = $7,000 \), and \( m = .50 \), we calculate \( SS(18) = $28,202 \) versus \( $28,351 \) in the table, \( MS(18) = $42,304 \) versus \( $42,550 \) in the table.

In describing unitary structure, we continue to use the term salary schedule. However, this formulation of compensation is quite different from the schedules described under simple structure, in that it lacks a temporal dimension. There is no notion here of salary progression over time, from which an individual’s earnings could be computed as a function of years of service. Rather, this “schedule” is a static classificatory framework for associating wage ranges with job titles. An employee’s salary can vary within the range assigned to his or her job; the periodic determination of an individual’s salary is made on the basis of a merit evaluation by management and presumably includes a consideration of length of service and education, though not in terms of a precise formula.

Implementation of a unitary wage administrative system requires the insertion of job titles into the schedule and the specification of opportunity in different lines of work. Relevant to these issues, the insurance company, along with many corporations that utilize unitary compensation, has developed a set of quasi-occupational categories—job foci—to simplify the classification of its employees. These codes sometimes designate genuine occupations (e.g., secretary, file clerk) and sometimes task areas (e.g., corporate relations, investment functions). Within the company, the careers of employees are tracked, not by job titles (which can be worded by a manager with some freedom), but by the approximately 40 company-wide foci and by salary grade. Individual job titles are assigned a focus code and a grade level via a job evaluation procedure; indeed, because the insurance company allots a sequence of grade levels to each focus code (Table 7), the foci effectively specify opportunity in the different lines of work.

Within a career line, the grade levels provide only a rough indication of individual earnings because of the broad salary range associated with each (Table 6, column 3). However, the grades serve another purpose in the insurance company. They designate status levels within a line of work (e.g., Secretary 1, Secretary 2, etc.). Indeed, it is in terms of salary grades, rather than in reference to job titles, that promotion is defined. A salary increase within a grade can be granted by an employee’s manager; grade
A rough indication of the associated purposes of salary grades, as a per-grade basis, is that of work effort, which each focus area is assigned a specific salary grade. Indeed, because the periodic salary progression is quite different from the minimums in the different task areas (e.g., “salary” for example, applied as a function of opportunity based on a precise formula, an employee’s salary classification is determined as a function of job performance over time). The periodic nature of the minimum figures differs from the latter figure $42,550 versus $45,000. Even though this is quite different from the minimums in different task areas (e.g., “salary” for example, applied as a function of opportunity based on a precise formula, an employee’s salary classification is determined as a function of job performance over time).

<table>
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<th>(13) Secretary/ Steno</th>
<th>(15) Typist</th>
<th>(25) Claims Analysis</th>
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Source: Insurance company’s employee database.

Out-of-range entries not shown for N = 1.
changes require a more formal evaluation and the approval of at least an assistant vice president.

An individual typically will spend several years within a grade, this interval punctuated by several salary raises, permitting him or her to progress over the salary range of the grade. Periodically, the employee may be considered for promotion to a higher grade, within the limited sequence of grades assigned to the job focus. Promotion may be associated with a change in responsibilities or it can be a reward for length of service, without involving an alteration in duties. Upon reaching the ceiling grade of a job focus, further advancement usually requires a shift to a different focus that has a higher ceiling level (job openings are posted and may be "bid for" by qualified employees).

With respect to an individual’s salary trajectory, it should be noted that even if one is never promoted, his or her salary can increase, merely from seniority and continued adequate performance, to the maximum of the grade, a figure commonly 50 percent above the grade minimum (Table 6). However, a few promotions are the norm in most careers. For example, according to personnel records of workers hired by the insurance company during 1973 and still employed at year-end 1978, the median number of grade increases during this interval was three. The average worker entered in Grade 3, at a salary close to the grade minimum ($7,678 in the 1978 schedule); five years later this individual was in Grade 6. Assuming that no further promotion is received, the salary is likely to progress to a figure close to the grade maximum—$15,120 in the 1978 schedule. This represents an increase over the career course of 97 percent, computed on a cross-sectional basis.

This estimate probably understates the true amount of mobility for an average employee. The job foci typically span 4–8 salary grades (Table 7) and posting provisions for open jobs facilitate changing department and job focus, permitting further upward movement. It is not possible, on the basis of examination of a single instance of unitary structure, to draw conclusions about median salary trajectories under this institutional arrangement. Nonetheless, I would speculate that the greater rise in earnings over the career course in the insurance company, compared with the trajectories reported earlier, 47 is characteristic of unitary structure, if only because of the pressure by unions, under simple structure, to narrow salary differentials among workers in a common bargaining unit (Freeman and Medoff, 1984:78–89).

However, if an assessment about average salary trajectories under the two arrangements is speculative, we are on surer ground with respect to the variance of employee earnings. Under simple structure, the lockstep salary progression means a small variance at any point in the career course for workers in the same entering cohort, having identical credentials on the variables from different advancement is structure, both and the greater variation. As grade increases employees ad and 12 percent.

To conclude an institution conceptual in would apply one’s salary i occupational tainment model gaining posti attainment. R the value of the calculation of earnings. Under unitary reflects, first, positions by con (such as in all) over the count model is con with the ass structure.

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the variables recognized in the schedule. What variation does exist arises from differences in the rate of promotion; however, occupational advancement is infrequent under simple structure. In contrast, under unitary structure, both the linkage of salary increases to performance evaluations, and the greater opportunity for promotion, make for considerable earnings variation. As an illustration, in the insurance company, although three grade increases was the norm for the observation interval, 16 percent of employees advanced by four salary grades, 7 percent by 5 or more grades, and 12 percent failed to move from their entering grades.48

To conclude this section, we point out that unitary structure provides an institutional basis for salary determination that is compatible with the conceptual imagery of status attainment, at least as the latter formulation would apply to achievement in a single firm. Under unitary structure, one’s salary is not based on supply-and-demand calculations for different occupational specialties; a consideration also absent from the status attainment model. Nor, for that matter, are calculations of power and bargaining position relevant matters; these factors also are omitted in status attainment. Rather, unitary structure is based on a formal assessment of the value of each job to a firm, an evaluation that is an analogue to the calculation of occupational status or prestige in the wider social system. Under unitary structure, the determination of an individual’s salary reflects, first, his or her job assignment—the matching of workers and positions by comparing individual credentials with stated task requirements (such as in a job posting)—and, second, performance evaluations made over the course of employment. The imagery behind the status attainment model is consistent with this framework, although it is not compatible with the assumptions that underly salary determination under simple structure.

Even if the status attainment formulation provides a reasonable starting point for analyzing career evolution in a firm characterized by unitary structure, the details of a model of individual achievement need to be very different. Considerations of organizational structure must still be assigned a principal role; note, for example, the constraints on upward mobility in the insurance company posed by the restricted job foci ranges (Table 7). Other considerations central to understanding the details of salary advancement in a firm, such as the determinants of promotion and departure, have no clear counterpart in status attainment models.49

To provide some motivation for the importance of organizational structure, I would add that, based on a cursory examination of personnel records from the insurance company, I expect the achievement process to be characterized by extensive nonlinearities; for example, the determinants of promotion from Grade 3 to 4 are likely to be quite different from the factors relevant to advancing from Grade 15 to 16. Viewed from this per-
spective, an issue such as the disadvantages experienced by women in the economy may take the form of barriers to movement between certain grades, rather than the form of a uniformly lower promotion rate. An obvious point of potential blockage for women in the insurance company would be the ceiling grades of the clerical job foci (Table 7).

**Amalgams of Structural Types**

Although simple structure and unitary structure describe real employment settings, these administrative specifications are polar opposites in terms of the authority they permit to management in personnel matters and, as a consequence, in terms of the determinants of individual achievement. The two specifications also differ with respect to the organizational environment in which each is prevalent: one in unionized establishments dominated by a very few career lines, the other in large nonunionized enterprises containing many occupational specialties.

Perhaps more common are amalgam formulations, which draw their provisions from each of the pure types. Large, complex, unionized organizations find simple structure an inadequate model for personnel administration, because of the considerable manpower-coordination problems that stem from the insulation of lines of work and because of the potential for salary inequities between jobs in different career lines with similar tasks and responsibilities. Unitary structure, in turn, is unacceptable to labor unions, without extensive modifications, because of the latitude it permits to management in personnel affairs.

The administrative solution frequently adopted in this employment context is a mixed specification. Many versions exist because each is an outcome of a bargaining process and reflects the conditions particular to that negotiation. What the different versions share are the objectives of (a) rationalizing the wage structure through construction of a firm-wide salary schedule, (b) creating a possibility for worker flows between departments and between lines of work, and (c) within the context of this integrated framework, limiting management discretion in the setting of salaries and in other personnel matters.

Mixed specifications require a particular bargaining environment. They are applicable mainly where a firm (or an individual plant) is organized by a single union. As a less-restrictive setting, the bargaining unit might contain a major category of employees, such as all blue-collar workers, but exclude some occupational group organized around different career lines and having separate entry portals, such as clerical workers. The essential point is that the bargaining unit should be fairly comprehensive, because the movement possibilities of workers, as well as a union's interest in maintaining salary equity between different jobs, is restricted to the positions covered in the labor agreement.
Amalgam specifications, typically, have the following features:

1. The wage rates of jobs covered by the contract are set collectively, as an integrated system of rates. A formal job evaluation procedure is frequently utilized for this purpose (by 54 percent of manufacturing firms in the United States, according to Bureau of National Affairs [1979:105]). United States Steel (1977:56), for example, employs a factor procedure (training, skill, responsibility, effort, and working conditions are the factors); Consolidated Edison uses a hybrid system that approximates a ranking method (Consolidated Edison Industrial Relations Office, 1984). The process of calculating scores for the individual jobs usually is supervised by a joint management-union committee.

2. Either a single wage rate is assigned to each job covered by the contract (e.g., Bethlehem Steel, 1977:92-93) or a salary range is associated with a job (e.g., Consolidated Edison, no date: 81-94; Lockheed Aircraft, no date: 120-139). Where a salary range is used, advancement within the range is commonly scheduled in terms of seniority, rather than dependent on employer evaluations. According to the Bureau of Labor Statistics (1978:46), single rates were assigned in 48 percent of the 1,691 contracts they surveyed; rate ranges were assigned in 36 percent. Where ranges were specified, automatic salary increases based on seniority were responsible for the progression in 52 percent of the contracts; an additional 25 percent of the contracts based progression on length of service, provided that work performance was satisfactory (Bureau of National Affairs, 1979:105-106).

3. “Posting and bidding” designs are employed extensively for filling jobs rated above the entry level. Given the fact that posting and bidding requires the availability of detailed job descriptions, this mechanism for filling vacancies often is instituted when formal job-evaluation methods are adopted for setting wage rates, because job descriptions are a necessary element of that process as well. Posting and bidding arrangements facilitate more-complex job changes than are possible under simple structure, involving shifts of department and career line; further, they limit management discretion in advancement decisions because it is the individual worker who initiates a “bid.” Contract provisions also are explicit about the length of time a vacancy must be posted before management may fill it by recruiting from outside the firm.

4. Although the use of job evaluation, together with posting and bidding, permits the piecing together of complex individual careers from segments in different lines of work, analogous to the possibilities under unitary structure, there are elaborate rules in amalgam structures that specify permissible moves. Indeed, perhaps the most apparent difference between
mixed specifications and instances of pure unitary structure concerns the extensive codification of job-change rules in the union contracts. The following are illustrative of these details:

Promotion. According to Bureau of National Affairs (1979:74), seniority is the sole factor in promotion in only 10 percent of agreements in manufacturing industries. However, it is the “determining factor” in 41 percent of contracts, the provision commonly stating that the most senior employee will be promoted provided he or she meets the minimum qualifications for the job. An additional 25 percent of contracts assign a lesser role to seniority, requiring that it be considered along with other qualifications or invoked where they are equal for competing applicants.

There remains the issue of which “clock” is relevant in the calculation of promotion seniority, a consideration intimately tied to the specification of the promotion district. In some contracts, the pertinent clock is duration in the job classification; in other agreements it is duration in some organizational unit; in still others plant seniority is the applicable factor. Where the last pertains, it usually is combined with a “dead time” provision: upon accepting a promotion the successful applicant is ineligible for further advancement during a certain time interval.

Transfer. According to the Bureau of Labor Statistics (1970b:41), a transfer is a “permanent movement from one job to a different one carrying the same or a lower labor grade or rate of pay.” Transfers are sought in order to enter a department or a line of work with better working conditions or with more favorable advancement opportunities. Contract provisions regarding these moves are stated in terms of seniority, often with the requirement that an applicant be qualified to perform the work. In some cases, the clock for calculating transfer seniority may be the same as the promotion clock; in others, the transfer district—and hence the pertinent clock—may differ from the seniority computation.

Upon transferring to a different department, promotion seniority in the new organizational unit must be determined. Specifications vary, from requiring a transferred employee to enter at the bottom of the seniority list to permitting the employee to carry his or her prior seniority into the new department (Bureau of Labor Statistics, 1970b:46–47). A more intricate calculation relates to the determination of employment security for a transferred employee at a time of layoff or labor force reduction.

Layoff and Bumping. According to the Bureau of National Affairs (1979:51), in 72 percent of contracts seniority was the sole or determining factor in selecting employees to be laid off. Layoff provisions can be quite complex, in that one may be released from an organizational unit or a job classification without being discharged from the firm. Provisions on this subject ordi...
subject ordinarily involve the monitoring of several clocks: At a time of force reduction, the least senior worker in the bumping district will lose his or her job in the unit. Depending on the contract rules, it may be possible to return to the job held prior to a promotion or a transfer and the employee’s seniority in that unit, relative to other workers, would determine his or her subsequent employment status.53

To minimize the disruptions that would be created by “chain bumping,” an agreement may require the bumping employee to have a specified amount of seniority above that of the worker he or she would displace. Also, many contracts prohibit bumping into a higher classification, which serves to limit the security of some transferred employees. Still other clauses may prohibit bumping into designated units, to ensure that certain categories of skilled workers will not be displaced (Bureau of Labor Statistics, 1972:35–40).

To provide a sense of the complexity of the contract provisions and the multiple clocks that must be monitored, we report a prefatory note from one contract: “For the purpose of this agreement employees shall have four types of seniority: . . . (1) Job seniority is defined as the length of service in a job classification . . . (2) Group seniority is defined as the length of service in a group within a department . . . (3) Department seniority is defined as the length of service in a department . . . (4) Plant seniority is defined as the length of continuous service from the most recent date of hire with the company” (Champion Papers, 1969). Such extensive detail is not uncommon in amalgam specifications, because the intent of this administrative structure is to facilitate the movement of employees while limiting management discretion in selecting among the workers.

**CONCLUSIONS: INSTITUTIONAL SPECIFICATIONS OF ATTAINMENT**

Most research on the determinants of achievement has addressed what can be termed an “inverse problem”—given the attainments of a population sample, together with their background characteristics, can the transformation function (i.e., the nature of the attainment process) be inferred? In contrast, in this paper, I have examined an aspect of the achievement process in which the transformation function can be observed directly, in the form of organizational rules about salary and status advancement over the career course.

These rules are diverse. The institutional specifications are framed differently across industries and economic sectors. The rules can be highly determinative of an individual’s career features or weakly so; they can
describe trajectories over the full duration of employment or refer only to constraints and options from one’s current position; they may incorporate employer evaluations of merit or be transparent to such assessments; they may be written as a function of one, several, or even of no background characteristic. To make sense of the different premises that underly organizational designs, I have suggested that the administrative regulations can be profitably grouped into three analytic categories, the basis of the classification being the extent and manner by which the rules prescribe, even constrain, career development.

*Simple structure* refers to a body of regulations that is descriptive of salary and status trajectories over the full duration of employment. The administrative specification usually takes the form of a schedule, in which career rewards are linked to length of service and, possibly, to a few other objective background characteristics. To emphasize the high degree of determination of career rewards, I have associated the term “template” with this formulation.

On the basis of an examination of union contracts from some 60 work organizations, it is evident that there is an industry effect to the diversity of the specifications, especially in regard to the qualitative aspects of a formulation—which human capital variables are associated with financial rewards. Beyond this, there remain considerable differences among firms in an industry, with respect to the compensation amounts assigned to particular levels of a variable (e.g., the returns to education among school systems). The analysis of simple structure is also revealing about the points along the career course at which evaluations of ability and merit (as well as background characteristics not incorporated into the personnel rules) can influence salary advancement. Indeed, for the subset of the labor force employed under simple structures, an analysis of the determinants of earnings, as well as status, should focus on explaining discrete events: choice of initial employment, subsequent promotions, and firm changes. This approach would separate that aspect of career development which is scheduled in organizational rules from the part attributable to merit and performance.

*Unitary structure* constitutes a different administrative framework. Here the salary schedule lacks a temporal dimension; it is an equating mechanism for establishing comparability among jobs in different lines of work. Job ladders are assigned sequences of salary grades, which effectively describe the bounds of opportunity for the majority of workers in a firm. In contrast with simple structure, managers have considerable latitude in evaluating employees and rewarding them on the basis of performance. Indeed the role of human capital variables appears quite different in the two formulations. Under unitary structure it is merit and performance that are remunerated, the returns to education and experience (seniority) arise largely from one’s current position.
Organizational Rules and the Features of Work Careers

Arise largely from their association with performance. Under simple structure, the human capital variables are rewarded directly, irrespective of performance, at least in routine salary advancement.

I have had less to say about unitary structure than about simple structure. Because the former is characteristic of non-unionized firms, the rules, and policy statements from which they derive, are not easily accessible. Further, the implications of unitary structure for long periods of career evolution are difficult to assess. The salary schedule reports broad salary ranges and the regulations prescribe local moves, prospects from one's current position. The fact that there are several options makes it difficult to describe typical career trajectories from an examination of the rules.

For these reasons, on the basis of my data, I can say little about the variation in career trajectories, by firm or industry. However, the internal logic of this formulation makes it evident that much of the total variation among individuals, employed in establishments governed by unitary structures, is within-firm. On the basis of my analysis and these comments, I would suggest that unitary structure is more efficient than simple structure in sorting out workers by ability and productivity, over the career course, and, further, that the effects of firm and industry on attainment are weaker under this rules framework than under simple structure.

Amalgam formulations represent a synthesis of the preceding specifications. As in the case of simple structure, there is a high degree of determination of career features by the administrative rules, but the manner of determination is different. Akin to unitary structure, it is not long-term rewards that are prescribed in the regulations (e.g., salary as a function of years of service), but local rewards and options (e.g., current salary and one's standing in the queues for promotion or transfer, conditional on present position).

With the delineation of these categories, I have sought to begin the development of theory concerning human resource systems and what they mean for individual achievement. The emphasis here has been on the institutional determination of career features, as seen through the particular lenses of organizational rules. A next issue that requires study, but upon which I have only touched, concerns the linkage between organizational rules and the more fundamental structural and contextual characteristics of firms.

Even without the benefit of systematic empirical investigation, it is evident that the analytic categories introduced in this paper correspond to different organizational architectures, institutional requirements, and labor-management arrangements. Simple structure, for instance, is associated with an employment setting in which corporate success does not require great flexibility in shifting employees among lines of work. This could be
because there are few lines of specialization, because workers are hired for short durations, or because the technology is stable and worker reassignments due to technological change are not expected. Adding to the likelihood of simple structure in a firm—and, possibly, a consequence of the preceding organizational features—would be the presence of collective bargaining along occupational lines.

Unitary structure, in comparison, is suited to large, heterogeneous firms that employ an assortment of skills and occupational specialties, especially when the employment relation tends to be of long duration and flexibility is necessary in the reassignment of manpower among lines of work. This characterization covers many white collar bureaucracies and industrial enterprises; indeed, the procedures of job evaluation and compensation design are largely independent of technology. Amalgam structure pertains to much the same sort of organizational context but reflects the rigidities, imposed by collective bargaining agreements.

As a theoretical framework, these categories overlap with those of other investigators. Weber’s (1947:329–336) description of bureaucratic administration—a frequent starting point for studies of work careers in organizational settings (e.g., Maniha 1975; Halaby 1978)—would apply to most firms classified here under unitary structure or amalgam structure, as well as to some cases of simple structure (e.g., police departments and public school systems). For this discussion, the relevant point in Weber’s account is his remark (1947:334) that advancement in a bureaucracy is determined “according to seniority or achievement or both.” In stating this condition he does not address the implications of the particular choice. In the present analysis, in contrast, the categories are based very much on a distinction between the two modes of reward.

Closer in intent to the present formulation are recent reports by Althauser and Kalleberg (1981) and Grandjean (1981). The former develop the notions of “firm labor market” and “occupational labor market,” both subcases of “primary labor market” (in contrast with “secondary labor market”). While this distinction is hardly novel, and echoes similar elaborations by Doeringer and Piore (1971) and Stinchcombe (1959), Althauser and Kalleberg proceeded beyond the earlier studies toward operationalizing the concepts and relating them to issues in career development. Grandjean investigated a “bureaucratic labor market,” a concept rather similar to “firm labor market.” What is consequential about Grandjean’s study of attainment, and foreshadows the present paper, is his sensitivity to the scheduling of advancement by the organization.

Finally, even though the clearest evidence for the influence of organizational rules on individual achievement was found in provisions of contracts that are simple structure, probably the more significant issues for sociologists relate to unitary structure. This administrative framework is...
Workers are hired and worker expectations. Adding to the story, a consequence of presence of collective agreements and rationalization and flexibility in lines of work. This necessitates heterogeneous firms, specialties, especially in promotion and flexibility of organizational structure. This reflects the rigidities, concomitant with those of other forms of bureaucratic administrative, would apply, to most firms, an accompanying standard documentation. This technique is underly the formation of promotion ladders, compensation management, and rules; indeed, for a substantial proportion of the labor force they are major determinants of prospective status and advancement. Moreover, the methodological procedures of unitary structure have been injected into social policy debates. They are instrumental in recent attempts to ascertain equitable pay rates for women in organizations having a high level of sex segregation of jobs (see, e.g., Treiman and Hartmann 1981).

ACKNOWLEDGMENTS

The research reported here was supported by National Science Foundation grant #SES-82-18534, by National Institute on Aging grant #1-R01-AG04367-01A1, and by funds provided by the Center for Research on Careers, Columbia University. I would like to thank Norio Negishi for assistance with the data preparation and programming, and David Lewin, Nachum Sicherman, and Trond Petersen for comments on an earlier draft. The conclusions are the sole responsibility of the author.

NOTES

1. The most prevalent strategy is to add contextual data by utilizing the Census’ industry and occupational codes. Common sources of industry and occupation information are census data, the Department of Labor’s DOT file, and the University of Michigan’s Quality of Employment Survey.

2. For example, Wise (1975:922) analyzed attainment in “a large manufacturing corporation.” Rosenbaum (1979:29) studied promotion chances in “a large, autonomous, investor-owned company having offices in many cities in one region of the United States.” Halaby (1980:15) investigated career trajectories using data from “a California-based utility firm.”

3. In the few investigations that have been carried out using personnel data files from multiple firms or agencies (e.g., Borjas, 1983; Halaby, 1980; Medoff and Abraham, 1980), the apparent objective has been to replicate findings or to estimate a common model, rather than to explore the consequences of organizational differences for individual attainment. Several cross-national studies of work places, however, have attempted truly comparative analyses of institutional structures, and achievement (see, e.g., Cole, 1979; Dore, 1973).
4. This information is from a conversation with Mr. Victor Rodriguez, Assistant Vice President, Equitable Life, June 6, 1984.

5. Wage comparisons and salary linkages, formal and informal, can even transcend work organization boundaries. For example, in New York City, firemen demand salary equity with policemen while sanitation workers negotiate a wage that is 90 percent of the policeman/fireman’s salary (New York Times, 1975:15). These linkages are customary. They reflect neither parity of skills nor a promotion sequence. A report by the Urban Institute (Dickson, Hovey, and Peterson, 1980) indicates that nearly identical salaries are paid to police officers and firemen in many large cities, but that there is considerable variation among cities in refuse collectors’ salaries, as a percentage of the former. Thus the linkage with refuse collectors is either weak or variable.

6. The collective bargaining agreement for 1974–1976 with Consolidated Diesel Electric (no date:92–93) provides for wage progression, enabling an employee to advance from the minimum rate of pay to the maximum rate for his or her job title. Three raises per year, each in the amount of $6.00/week, are scheduled; the raises are automatic for all employees performing satisfactory service.

7. In its traditional formulation, the compensation of Japanese workers in a large corporation can be viewed principally as a function of individual characteristics that are “set” at the time of entry, for example, education and date of hiring (seniority). The compensation of an employee is not very sensitive to variables endogenous to the work career—evaluations of performance or occupational position—though there is evidence that job-related wages are becoming an increasing component of total compensation (Marsh and Mannari, 1976:120–156). The traditional reward structure is consistent with an orientation in which cohesion and cooperation are stressed and in which long-term employment is the norm. Salary and status become obtainable rewards for most employees, rather than being reserved for the meritorious and competitive. One consequence of a seniority-graded reward structure is that employees can be moved among jobs as demand necessitates, without the complexities of salary adjustments or union jurisdictional boundaries (Dore, 1973:38–40; Tsuda, 1974:399–415).

8. Elaborate jurisdictional statements can be found in contracts in the construction, printing, and theatre industries. Such provisions appear to be articulated in great detail where skill differences are small and, therefore, where the right to perform particular tasks must be protected by contract. Restrictions on lateral entry appear in promotion clauses. A common statement is the following: “When a job is to be filled in any department, such job shall [first] be awarded by the company to the employee with greatest seniority in a lower classification in that department” (Bureau of Labor Statistics, 1970b:5). Bumping and layoff provisions tend to have a complex formulation in union contracts, with several “clocks” being evaluated: seniority in the plant, service in the department, and duration in the job; see Bethlehem Steel (1977:35–47) for a typical statement.

9. We use the term job ladder to denote a hierarchy of positions within an organizational unit that are linked by explicit rules governing personnel movements. Career line is a more general term. It includes job ladders but also covers sequences of moves that are common to employees, even though they are not specified formally and involve shifts among department units.

10. In conversations with human resource specialists from a number of large corporations (IBM, General Foods, American Express, Texaco), the principal objection raised to unionization was the prospect of loss of flexibility, both in assigning employees and in rewarding individual performance. Higher labor costs arising from unionization were viewed as a minor item. Indeed, possibly to discourage employee susceptibility to organizing drives, some firms pay salaries that are above union scale and avoid layoffs during periods of moderate economic downturn (Watson, 1963:13–17).
or Rodriguez, Assistant Vice President for Community Affairs of the Urban Institute, believes that the public unions are a major cause of the problem. "They are just as much a problem for the city as they are for the union," he says. "They are totally out of control and they are not doing anything to help the city.

The report by the Urban Institute on wages and benefits of municipal jobs in New York City is a good example of the problem. The report notes that the average salary for a city employee is $25,000, but the average salary for a city employee who works more than 40 hours a week is $30,000. This is due to the fact that the city employees work longer hours than the private sector employees.

The report also notes that the average salary for a city employee who works more than 40 hours a week is $30,000, but the average salary for a city employee who works less than 40 hours a week is $20,000. This is due to the fact that the city employees work longer hours than the private sector employees.

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underestimate average police officer earnings. Boston pays an additional $3.90 per day above the schedule figure for night-shift work. Also, there is a long list of additions to salary for patrolmen who perform various specialty jobs. The entries in Table 2 are base salaries for day-shift work.

19. Uniformity of police standards across cities is promoted, first of all, by the procedural rules that govern information gathering, arrest, and interrogation. These rules derive from constitutional provisions and are codified in federal legislation and in court opinion. Additionally, in recent decades, the education and training activities of the Federal Bureau of Investigation, the Law Enforcement Education Program, and the International Association of Chiefs of Police have served to erode community differences in police conduct and in the organization of police departments. For details, see Law Enforcement Assistance Administration (1978:5-10, 216). As a result, the duties and requirements of police officers would not be expected to vary greatly, especially among large cities.

20. The most common instance of linkage occurs between the salaries of police officers and firefighters. According to Bureau of Labor Statistics, (1976a:30), 6 percent of police officer and firefighter contracts contain language that provides for salary parity between the two uniformed groups. Far more common are practices of linkage based on tradition rather than on explicit clauses. Data presented in Dickson, Hovey, and Peterson (1980:60, 75) reveal that in 9 of the 12 cities they surveyed, the salaries of police officers and firefighters are identical.

21. In Philadelphia, the increment for a subject-area department head in a high school is 17 percent above the salary of a classroom teacher (at M.A. level, maximum seniority). In Boston, the increment is 13 percent; in Los Angeles it is 6 percent. In Chicago and Washington, D.C., no salary addition is provided for this position. With respect to opportunity for advancement, personnel officers in Philadelphia and Boston estimate that about 10 percent of classroom teachers advance to department head or to a higher supervisory position before retirement; for Chicago it was estimated that 4 percent of teachers move to a salary scale higher than that of classroom teacher (Philadelphia Schools Personnel Office [1983], Chicago Schools Personnel Office [1983]).

22. Public school salary schedules were examined for the same 15 cities from which police officer compensation data were obtained. In all of these cities, primary school teachers and high school teachers were paid in accordance with a common schedule.

23. All the school systems provide some salary credit for prior service in another city. The generosity of the lateral entry provisions vary considerably, however. For instance, Philadelphia gives credit on a year-for-year basis, minus one year. Boston provides credit for up to a maximum of three years of outside service (on a nine-annual-step service ladder). Chicago has a more involved credit formula which, in most instances, works out to providing one year's credit for each two years of service in a different school system.

24. With the exceptions of Los Angeles and San Jose, columns 3 to 9 constitute a linear ordering, in the sense that each entry is to be added to all preceding figures in the row. For example, in Philadelphia, an earned M.A. adds $2,715 to salary, 30 credits beyond the M.A. is worth an additional $1,828, and so forth. Where school systems have established equivalencies between credits and degrees, the salary increment is reported in the credits column, because that level of credits is usually a requirement for the degree. Thus, in Washington, D.C., a B.A. + 30 credits or an M.A. adds $3,300 to salary; the increment is reported under the former column. Likewise, in New York City, an M.A. + 30 credits is equated to a Ph.D. for the purpose of allocating increments for advanced education; the addition to salary is reported in column 7.

The preceding interpretation is not correct for Los Angeles and San Jose. In these cities, separate increments are allocated for course credits beyond the B.A. and for earned degrees. Organizational Re...
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Thus, in Los Angeles, an M.A. adds $150 to annual salary irrespective of the number of earned credits, and a B.A. + 60 credits is worth $3,200 annually irrespective of whether or not an advanced degree has been acquired.

25. This uniformity of standards across public school systems is promoted by the competitive nature of college admissions. The better colleges, by setting more or less similar criteria for entrance, encourage public schools throughout the country to develop a relatively standard curriculum for college-bound students (see, e.g., New York Times [1984:45]). Also, the widespread use by colleges of uniform admissions tests has compelled public school systems to standardize the content of course offerings. A sign of the uniformity in teacher training, and in the role of school teachers, is provided by the way that service transfer regulations are written. Although it is the case that cities differ in the amount of credit they will extend for experience in another school system, none of the cities consider the community location of the earlier service (except that a few give preferential treatment for prior teaching in the same state).

26. Some evidence of the impact of union militancy on schedule features, as well as on the level of teacher salaries, is provided by Perry (1974:36–53).

27. Although this linkage usually is informal, there are instances in which a correspondence has been recognized in contract. Until the mid-1960s, a formula was in use in New York City that equated the salary of full professor at the City University (CUNY) with that of high school principal, associate professor with elementary school principal, and the salary of assistant professor with assistant principal in an elementary school (United Federation of College Teachers, 1963).

28. In some instances separate rates are negotiated for subspecialties. Thus, bricklayers and stonemasons frequently are represented by a single union local, though different wage rates may be set for each line of work (Bureau of Labor Statistics, 1981b:1).

29. The wages of foremen are often specified in union contracts. For example, the provisions of two contracts described in Bureau of Labor Statistics (1975:36) report foreman’s pay at 10 percent and 11 percent above the journeyman’s rate. In a conversation with an official of the General Contractors’ Association, New York City, the average increment for foremen was estimated at 10 percent over the journeyman’s wage rate (Regner, 1983). In a conversation with a representative of the International Brotherhood of Painters (Blumberg, 1983), the foreman’s increment was described as “one hour a day extra, so that if he works seven hours he gets paid for eight.”


31. In the building trades, a distinction is made between union membership and working for a contractor holding a collective bargaining agreement. In times of low demand for labor, union members may accept employment at a wage below the union scale with a contractor who has not signed an agreement. In contrast, employers with collective bargaining agreements are required to employ only union members (unless none is available) and to pay the union scale. Wage-rate data collected by the Department of Labor generally notes the collective bargaining status of the contractor, rather than the union membership of the craftsmen.

32. Regarding estimates of craft differences in rates of union membership, see Haber and Levinson (1956:34–37); concerning the relation between contractor size and the existence of a collective bargaining agreement, see Bureau of Labor Statistics (1976b:4).

33. The seven SMSAs reported in Table 5 were selected from among the 17 metropolitan areas with the intent of conveying the variety of community patterns in the wage structure of building craftsmen. As a result, intercity differences are accentuated, though not by much, compared with what a random selection of communities would show.

34. Although we use the term status attainment model, we are referring to the generic
formulation of explaining current labor force characteristics on the basis of individual-level variables. Earnings, rather than status, frequently is the ultimate dependent variable in this sort of model (e.g., Duncan, 1969; Jencks, 1972:Appendix B).

35. Why, then, not seek work in Newark if you are a cement mason in New York City? The reason is that if one is not a member of the union local in the community, he must obtain either transfer papers or a temporary work permit. These cannot always be acquired, especially when work is scarce. Also, a transfer may require passing a trade test and paying entrance fees. Even if these barriers are surmounted, many locals give preference in job referrals to members who have worked in the jurisdiction for a minimum number of years (Bureau of Labor Statistics, 1975:13–14; Manpower Administration, 1975:13, 71–76, 90–95).

36. Direct evidence for this contention can be found in Bourden and Levitt (1980:33–35). In an analysis of the wage rates of craftsmen in the construction industry, using a national sample, they report that education and experience were insignificant as regressors.

37. In 20 percent of 769 agreements surveyed by the Department of Labor, a "first-in, first-out" procedure was used by the local, in which unemployed craftsmen are referred to jobs in the order of their registration on the out-of-work list. In 23 percent of agreements, a "group ranking" method was used. Here, workmen are divided into two or more categories, frequently on the basis of years of local residence. Preference in referrals is given to one group; within the group a first-in, first-out method is followed (Bureau of Labor Statistics, 1975:19; Bureau of Labor Statistics, 1975:12–14).

38. There is empirical support for the contention that hours worked is correlated with human capital variables. In a survey of training in the building trades (Manpower Administration 1975, pp. 151–163), it was concluded that, in many locals, journeymen who have completed an apprenticeship program tend to be employed more hours in a year than journeymen not trained through apprenticeship. Although the two groups of craftsmen differed in other ways that affect hours worked (e.g., the apprenticeship-trained craftsmen were younger), it is recognized that journeymen who complete an apprenticeship have a broader command of skills than craftsmen who enter the union via a different route, such as when the shop in which they are working is organized (Manpower Administration, 1975:45).

39. Typically, union contracts specify that a certain ratio of older workers to total employment must be maintained. Commonly used ratios are 1:4 and 1:5. The term older worker tends to refer either to the age group over 50 or to the cohort over 55 (Bureau of Labor Statistics, 1974:21; Bureau of Labor Statistics, 1975:16).

40. The attrition rate for police officers is very low, probably as a result of the occupational community that exists among policemen and the generous benefits that accrue to seniority, especially the possibility of retiring after 20 years service with a pension equal to half the final year's salary. Police officials in Philadelphia have estimated an average departure rate of 2 percent per year for a beginning cohort, with much of this attrition coming in the initial years of service (Philadelphia Police Personnel Office, 1983). This figure translates into a retention rate of 98 percent at the 20-year-service point. Also, a study of a cohort of 1,915 men who entered the New York City Police Department in 1957 reported a loss rate of one-and-a-half percent per year over the initial 12 years of service (Cohen and Chaiken, 1972). Estimates of the attrition rates of school teachers are somewhat higher—crude turnover rates of 6.1 percent per year in Boston during 1977–81 (Boston Schools Personnel Office, 1983), 3.8 percent in Chicago during 1982–1983 (Chicago Schools Personnel Office, 1983). Yet, these figures are far below assessments of the rate of employer change in the labor force (e.g., based on Bureau of Labor Statistics data for 1975, Mobley [1982:9] calculates an annualized quit rate of 16.8% from manufacturing firms; using PSID data for 1968–1974, Freeman [1980:659] reports annual turnover rates for union and nonunion workers averaging to 12.1 percent).
Organizational Rules and the Features of Work Careers

41. These occasional raises advance the salaries of senior employees above that of new hires, but not by much, because the entry wage is raised in each new contract.

42. It is not the case that this pattern could be summarized more succinctly by a formula different from equation 1. Over the years, the insurance company has made numerous ad hoc adjustments to parts of the schedule to keep its salaries in line with those of competing firms.

43. In note 9 we distinguished between job ladder and career line. Now we have the insurance company using a related term, job focus! This construct overlaps with the preceding, more-structural terms devised by organization researchers. Focus is best thought of as a collection of job ladders from the same type of work, though the individual job ladders may be in different organizational units (e.g., secretarial job ladders, programmer job ladders).

44. With the exception of a few titles, such as vice-president, whose use is restricted by the company, job titles can be assigned by a manager to reflect the tasks particular to his or her organizational unit. Other than the job foci, there are no company-wide occupational categories.

45. A classification system of job evaluation is used for job titles in Grades 1–4; a factor-comparison procedure is employed to rate titles in the higher grades.

46. Company rules require that newly employed workers be paid at a rate that is below the midpoint of the salary grade; further, managers are encouraged to hire at a wage close to the grade minimum.

47. In the 10 police departments—assuming retirement at sergeant rank—the average salary growth, relative to the entry rate, was 61 percent (Table 3). In the 10 public school systems—assuming B.A. at entrance, and B.A. plus 60 advanced credits at retirement—the average salary growth over the career course was 85 percent (Table 4). In the unionized sector of the construction industry there is no appreciation in wage rate, though there may be a modest increase, with experience, in annual salary.

48. The text figures are for entrants in all career lines. The variance remains large even if we restrict attention to salary-grade changes in an occupational specialty. For example, among secretaries, during the same five year interval, 19 percent had advanced by at least four grades while 6 percent had not changed salary grade.

49. The experience of working with the personnel records of a firm makes evident the considerable difficulty of assessing attainment over the life course using a representative population sample. For instance, in the insurance company, secretaries range from Grade 1 to Grade 7 (Table 7). Responsibility, status, and salary in this occupational specialty differ considerably over the grade sequence; indeed, as noted in the text, a grade increase is defined by the company as a promotion. Nonetheless, the occupational coding schemes in general use for analyzing mobility with a representative population sample, such as the Census Bureau’s three-digit classification, provide a single code for secretary. A similar problem exists with the police career ranks: patrolman, detective, sergeant, lieutenant, and captain are mapped onto a single code (964) in the 1970 Census classification. (The 1980 occupational codes are a bit more sensitive to police ranks, allocating two codes (414, 418) to the five titles.) As a consequence, the picture of mobility created by the analysis of data sets such as OCG 1, OCG 2, and the one-in-a-hundred census files is distorted by the very different degrees of occupational detail presented for the individual industries.

50. Bureau of Labor Statistics (1978:48) reports somewhat different figures, namely that automatic progression was specified in 74 percent of labor contracts.

51. An example of typical wording: "When a vacancy exists in a job classification covered by the contract, and the senior applicant for the job can meet the standards and qualifications required to perform that particular job competently...[he] shall be offered the promotion, even though...[he] may not be the most competent applicant for the job" (Long Island Lighting, 1970).
52. Contract clauses on these matters are often phrased in a way that is amenable to formal modeling. The "dead time" provision, for example, closely follows the imagery of a "type 1" counter (Cinlar, 1975:309). Also, a promotion recipe to the effect that the most-senior individual in the organizational unit will be advanced, implies a monotone increasing hazard rate, whereas a provision that the most-senior individual will be advanced, provided he is qualified, can be formulated as a mixture of hazard rates for two types of individuals.

53. In addition to involving multiple clocks, the bumping district can vary with the length of service. An extreme example: "An employee . . . who is notified that, through force reduction, employment cannot be continued in the present job, shall have job transfer rights . . . Employees having one but less than three years seniority may exercise their option within the same district. Employees having three but less than six years seniority may exercise their option within the same division. Employees having six or more years seniority may exercise their option within the collective bargaining unit" (General Telephone Company of Ohio, 1971).

54. It must be emphasized that the categories are based on an examination of personnel rules from some 60 firms, and that these firms are not representative of the labor market. I believe that the classification captures an essential distinction in the way opportunity is structured. However, a larger number of firms, drawn from other industries, might yield different categories; surely subcategories of the rules structures can be expected to emerge as the number of work organizations is increased.

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Variety within the length of that, through force may exercise their option. Seniority may exercise that Telephone Company may have job transfer, have transferred by the organization of personnel at the labor market. The way opportunity is industries, might yield the expected to emerge.

Champion Papers

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