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## ABSTRACT

Occupational categories are defined by the technical division of labor; classes, within the Marxist tradition, are defined by the social relations of production. This paper explores the empirical relationship between these two aspects of social structure. Three basic conclusions are drawn from the research: first, that many white collar occupations are fully proletarianized; second, that within given occupational categories, women tend to be more proletarianized than men; and third, that occupations and classes are qualitatively distinct ways of looking at social structure.

## CLASS STRUCTURE AND OCCUPATION: A Research Note

In a recent paper on the occupational composition of American classes, Reeve Vanneman (1977) demonstrated, using cluster analysis, that approximately 20-25% of nonmanual employees are "closer" to traditional blue collar working class occupations in terms of residential integration and intergenerational mobility patterns than they are to other white collar occupations. Vanneman's research is an important step towards undermining the simple identification of white collar occupations with the "middle class" so common in the sociological literature. However, as Vanneman freely admits towards the end of his paper, his analysis has merely demonstrated a statistical clustering of occupations along certain dimensions; it has not explored the relationship between analytically defined classes and occupations:

Certainly the clusters reported in this paper are not classes in the traditional sense of that construct, that is, the clusters are empirical groupings, not analytical classes. That distinction is important to maintain. None of this research has, or could have, established the divisions around which interests are organized into conflicting groups. (Vanneman, 1977:805)

This paper will begin where Vanneman's analysis leaves off, by systematically investigating the relationship between occupational categories and classes defined analytically within a Marxist perspective.<sup>1</sup>

### 1. DEFINING CLASS RELATIONS

The first step in exploring the relationship between class and occupation is to develop a rigorous theoretical definition of classes in contemporary

American society. Within Marxist theory, this means rooting the definition of classes in an analysis of the social relations of production which characterize the capitalist mode of production<sup>2</sup> Classes will then be identified as common positions within those social relations of production.

Capitalist social relations of production can be broken down into three interdependent dimensions or processes:

- (a) Social relations of control over money capital, i.e., control over the flow of investments and the capital accumulation process.
- (b) Social relations of control over physical capital, i.e., control over the use of the physical means of production.
- (c) Social relations of control over labor, i.e., control over supervision and discipline within the labor process.<sup>3</sup>

The word "control" in each of these dimensions must be understood in terms of social relations of control. Control is not, strictly speaking, an attribute of a position per se, but a dimension of a relationship between positions. Thus, the claim that a given position within the social relations of production involves control over money capital is a statement about its relationship to other social positions (those which are excluded from such control), not simply its relationship to a thing (money).

The fundamental class antagonism between workers and capitalists can be viewed as a polarization on each of these three underlying processes or dimensions: capitalists control the accumulation process, decide how the physical means of production are to be used, and control the authority structure within the labor process. Workers, in contrast, are excluded from the control over authority relations, the physical means of production,

and the investment process. These two combinations of the three processes of class relations constitute the two basic antagonistic class locations within the capitalist mode of production.

When the capitalist system is analysed at the highest level of abstraction--the level of the pure capitalist mode of production--these are the only class positions defined by capitalist relations of production. When we move to the next lower level of abstraction--what is generally called the level of the "social formation"--other class positions appear.

They appear, first of all, because real capitalist societies always contain subordinate modes of production other than the capitalist mode of production itself. In particular, simple commodity production (i.e., production organized for the market by independent self-employed producers who employ no workers) has always existed within capitalist societies. Within simple commodity production, the petty bourgeoisie is defined as having economic ownership and possession of the means of production, but having no control over labor power (since no labor power is employed).

A second way in which additional class positions appear when we leave the abstraction of the pure capitalist mode of production is that the three processes which constitute capitalist social relations of production do not always perfectly coincide. This will be the key to our understanding the class position of the social categories that are labeled "middle class" (or more exactly "new middle class" to distinguish them from the traditional petty bourgeoisie). The new middle class can be defined as social categories that occupy contradictory locations within class relations. These are illustrated graphically in Chart 1.

Three such contradictory locations can be identified:

(a) Managers and supervisors occupy a contradictory location between the bourgeoisie and the proletariat. Like the proletariat, managers/supervisors sell their labor power and are excluded from control over the accumulation process; but, unlike workers, they participate in the control of physical capital and the supervision of labor within production. Within this contradictory location, foremen constitute the position closest to the working class. In general, foremen have at most minimal control over physical capital, and often their control over the labor of workers is highly circumscribed. In cases where supervision over the labor of others becomes purely formal and a supervisor lacks any capacity to invoke sanctions, such positions effectively merge with the working class. This would be the case, for example, of a head of a work team who serves as a conduit for information from above but who does not genuinely dominate the labor of other workers. At the other extreme of this contradictory location, top managers constitute the position closest to the bourgeoisie. In the limiting case when top managerial positions actually begin to participate in the control over the accumulation process as a whole, such positions merge with the bourgeoisie.

(b) Semi-autonomous employees occupy a contradictory location between the working class and the petty bourgeoisie. Unlike the petty bourgeoisie, they do not own their own means of production and thus must, like workers, sell their labor power to capitalists. But, like the petty bourgeoisie, they do maintain relatively high levels of control over their immediate labor process, over how they do their work, and perhaps even over what they concretely produce. Such positions can in a sense be thought of as islands

of simple commodity relations of production within capitalist production itself. Perhaps the clearest example would be an assistant professor in an elite university. Such positions generally do not involve any significant control over the apparatus of educational production as a whole, but most assistant professors have a fair amount of control over what they teach, how they teach it, what kind of research they do, etc.

(c) Small employers occupy a contradictory location between the bourgeoisie and the petty bourgeoisie. Unlike the petty bourgeoisie, small employers do employ labor within production, and thus they are involved in relations of exploitation. But they do so in sufficiently limited quantities that much of their income is still generated by their own labor (as in simple commodity production) rather than by the labor of their employees. As a result, very little accumulation of capital (surplus value) is likely to take place within such production.

It is important to understand why these positions are called "contradictory locations" within class relations. They are contradictory in the precise sense that they simultaneously share class interests with two other classes in capitalist society. Managers/supervisors have one foot in the bourgeoisie and one in the working class, and this means that their class interests are objectively torn between these two classes. In a more complex way, semi-autonomous employees share class interests with the petty bourgeoisie and the working class, and small employers share interests with the petty bourgeoisie and the capitalist class. The contradictory quality of the class location of such positions implies that they will play an especially ambiguous role in class struggle, at times siding with the working class, at times with the bourgeoisie. In these terms, the analysis of "proletarianization" revolves



around understanding the ways in which contradictory locations between the working class and both the bourgeoisie and the petty bourgeoisie are being drawn closer to the working class--i.e., analyzing the structural changes in capitalist society which lead to a preponderance of proletarian class interests over nonproletarian interests within such contradictory locations. It is of considerable importance both for socialist theory and practice to ascertain whether such contradictory class locations are increasing or decreasing. While this paper will not be able to investigate changes in contradictory locations over time, it will make a preliminary assessment of the relationship between occupational categories and contradictory locations within class relations.<sup>4</sup>

## 2. OPERATIONALIZING CLASS RELATIONS

It is one thing to elaborate a definition of classes; it is quite another to develop an adequate operationalization of that definition. Two problems are immediately apparent. First, it should be clear from the above discussion of contradictory class locations that the precise boundary criteria between contradictory locations and the polarized class locations of capitalist society are rather ambiguous. For example, how much "autonomy" is necessary to define a worker as semi-autonomous, as occupying a contradictory location between the working class and the petty bourgeoisie? Surely the criterion of absolutely any autonomy is too broad. While historical data on the labor process are rather meager, it is unlikely that more than a small fraction of the working class was ever characterized by the classic image of the fully proletarianized worker, totally under the

control of the capitalist through a minutely subdivided labor process governed by principles of scientific management. Most workers, most of the time, have been able to maintain at least some residual control over their immediate labor process. Similarly, it would be inappropriate to restrict the concept of "semi-autonomy" to positions which, like university professors, have extremely high levels of control over the pace of work, the scheduling of work, the content of work, etc. The difficulty is that there is no absolute criterion which defines how much control is sufficient to exclude a position from the proletariat. A certain arbitrariness, therefore, will inevitably enter into any attempt to measure this semi-autonomous class location. Similar problems occur in specifying the boundaries of the other contradictory locations. While this does not imply that it is impossible to measure such class locations--any more than it is impossible to measure baldness simply because there are gradations between the hairless head and the full head of hair--it does mean that any estimate of the size of a given class location will involve upper and lower bounds rather than a single figure.

Apart from the problem of the arbitrariness of formal criteria for boundaries, a second problem in operationalizing class relations centers on the difficulty of getting any data on the relevant dimensions of social relations of production. The United States census asks virtually no questions which tap social relations of production other than the formal criterion of being self-employed or not. Certainly no explicit questions are asked about autonomy, control over the labor process, control over physical means of production, etc. Beyond the census, I am aware of no data sets based on national random samples which include systematic, objective

data on all the dimensions of social relations of production needed to define class locations.

In order to investigate the relationship between class locations and occupation, therefore, it will be necessary to rely on data which only approximates the theoretical schema laid out above. One such data set is the 1969 Institute of Social Research Survey of Working Conditions, a national random sample of 1,533 adults active in the labor force. The central purpose of this survey was to investigate such questions as job satisfaction, job stress, and other quality of life issues. The questionnaire, however, contained a number of items which make possible a rough operationalization of the classes in Chart 1. The criteria used in this operationalization are indicated in Table 1. Several comments on these criteria are necessary:

(a) Employers. Nearly 80% of the employers in the sample employed less than 10 workers. In effect, nearly all of these employers fall within the contradictory location between the bourgeoisie and the petty bourgeoisie. Throughout the rest of this analysis, therefore, I will refer to them as "small employers."

(b) Managers/supervisors. This category is operationalized by the simple question: "Do you supervise anybody as part of your job?" This is clearly an extremely vague supervision criterion, and will certainly include at least some people who are mere supervisors with essentially no genuine authority. One of the difficulties with this question is that a majority of teachers respond "yes" to the question. From the point of view of Marxist theory, the supervision of students and the supervision of labor

are qualitatively different kinds of social relationships, and teachers should not be placed in the same position as managers.<sup>5</sup> As a result, I have placed all teachers in the nonsupervisory category. While this will undoubtedly result in the misclassification of some teachers who are genuine managers/supervisors it is unavoidable with the available data.

(c) Semi-autonomous employees. Respondents were given a list of descriptions of jobs, and asked to indicate whether the description was "a lot," "somewhat," "a little," or "not at all" like their job. Two of these job descriptions will be used to define the semi-autonomous class location:

"a job that allows you a lot of freedom as to how you do your work"

"a job that allows you to make a lot of decisions on your own."

These questions are obviously extremely subjective, since it is up to each respondent to define what "a lot" means, what "freedom" means, what "decisions" means, and so on. The fact that 46% of the respondents say that having a lot of freedom characterizes their job "a lot," and 49% say that making a lot of decisions describes their job "a lot" reflects the subjective quality of the questions. There appears to be a tendency for people to answer such questions relative to the range of possible freedom and decision-making for their type of job, rather than relative to all jobs. For purposes of the present analysis, I will assume that individuals within positions which are genuinely semi-autonomous, will answer "a lot" to both of these subjective job descriptions. If anything, given the vagueness of these autonomy questions, this will probably overestimate the number of people in the semi-autonomous category.

### 3. THE SIZE OF CLASS LOCATIONS

Before turning to the occupational class distributions, it will be useful to examine the overall shape of the American class structure. Chart 2 presents estimates of the size of different class locations within the economically active population.<sup>6</sup> Table 2 indicates the criteria used for the high and low estimates in Chart 2. These data indicate that even when the most restrictive definition of the working class is adopted--i.e., a definition which excludes from the working class all employees who indicate that they have any real autonomy on the job or that they in any way supervise someone else on the job--over 40% of the economically active population still falls within the working class. If this definition is slightly relaxed, this proportion increases to around 50%. Contrary to the claims of many post-industrial theorists, the working class, when understood in terms of common positions within the social relations of production, remains by far the largest class within the United States, and in all probability constitutes an absolute majority of the population.<sup>7</sup>

### 4. CLASS AND OCCUPATION

Table 3 presents the distributions of occupations within class categories and the distributions of classes within occupational categories. Table 4 presents the same results for men taken separately, and Table 5 presents them for women.

Several general conclusions can be drawn from these tables. First, the results strongly confirm the observations made by Vanneman using cluster

analysis. Just as Vanneman found that lower white collar occupations tend to cluster statistically with blue collar occupations in terms of residence and mobility, so in the present analysis we see that lower white collar occupations, like most blue collar occupations, are concentrated in the working class. Whereas only 16.5% of people holding upper white collar occupations fall into the working class, 54.5% of those holding lower white collar jobs and 63.1% of those holding lower blue collar jobs are in the working class. These results add strong support to the thesis that many lower white collar jobs, especially clerical jobs, have assumed a proletarian character and should be classified within the working class.

A number of other results also conform to Vanneman's findings. Vanneman found that clerical occupations clustered much more closely to the working class than did sales occupations, for both mobility and residential clusters. In Table 3, nearly 60% of all people in clerical occupations fall into the working class, compared to only 39% of people in sales occupations. Vanneman also found that in the residential clustering, technicians were right at the boundary between his working class cluster and his middle class cluster. In the present study, nearly 39% of technicians fall into the working class, 45% into the managerial category, and 13% into the semi-autonomous category, indicating that this occupational category is marginal between the working class and various contradictory locations.

These results differ from Vanneman's cluster analysis in one respect. In both of Vanneman's clusters, craftspeople were placed firmly within the working class clusters. Table 3 indicates that 15% of all people in crafts occupations belong in the semi-autonomous class location and 38%

in the managerial/supervisory category. Crafts occupations are thus clearly much less proletarianized than other blue collar occupations or than clerical white collar occupations. In fact, the class distribution within crafts occupations and within technical occupations are very similar-- the main difference being that there are no petty bourgeois technicians, while 5% of all craftspeople are petty bourgeois.

A second general conclusion from these tables centers on the differences between men and women: in every occupational category, women are more proletarianized than men. Whereas only 26% of all salesmen fall into the working class, 63% of all saleswomen are workers. Similarly, 53% of all male operatives compared to nearly 80% of female operatives fall into the working class. Much of this sex difference in proletarianization centers on the managerial/supervisory category. While approximately 11% of all men and 11% of all women fall into the semi-autonomous employee category, 38% of all men compared to only 26% of all women fall into the managerial/supervisory class location. This same result generally holds within each broad occupational category (with the exception of the managerial occupation, in which 42% of both men and women are in managerial class locations). These results suggest that much of the greater proletarianization of women in the labor force is a consequence of sexist patterns in recruitment into and promotion up authority structures within the social relations of production.

A third general conclusion from these tables concerns the theoretical and empirical relationship between "occupation" as a way of studying social structure, and "class." Typically in the sociological literature, occupation and class are viewed as very closely linked concepts. Indeed, the

most common definition of the working class identifies the working class exclusively with blue collar occupations. Within a Marxist perspective, however, occupation and class are entirely different ways of looking at social structure, and while there may be a certain correlation between the two dimensions of social structure, they are theoretically quite distinct.

The concept of "occupation" designates positions within the technical division of labor, i.e., an occupation represents a set of activities which fulfill certain technically defined functions.<sup>8</sup> "Class," on the other hand, designates positions within the social relations of production, i.e., it designates a social relationship between actors within which those technical operations are performed. For example, knowing that an individual is a skilled craftsperson tells you that in the technical division of labor that individual physically transforms nature into products through the application of skilled labor power. But it tells you nothing about the social relations within which that activity takes place. As can be seen from Table 1, a craftsperson could very easily fall into almost any class position: 39% are workers, 38% managers/supervisors, 15% semi-autonomous employees, 5% petty bourgeois and 3% are actually employers.

This is not to say that the relationship between occupational position and class position is random. Table 3 clearly indicates that there are very different occupational distributions within classes. Whereas only 11% of all workers are in upper white collar occupations, this proportion increases to 31% for semi-autonomous employees, 35.5% for managers/supervisors, 40% for the petty bourgeoisie and 76% for employers. At the other end, only 1.8% of all employers are in lower blue collar occupations, compared to



5% of the petty bourgeoisie, 26% of the managerial/supervisory category, 22% of semi-autonomous employees, and 36% of all workers. The critical point is that this empirical relationship between the technical division of labor and the social division of labor can only be investigated if the theoretical specificity of each dimension is recognized.

## 5. CONCLUSION

Many of the central debates in social theory over the past 40 years have revolved either explicitly or implicitly around the question of the relationship of occupation to class relations. Two controversies are especially bound up with this issue: the debate over the "managerial revolution," and the debate over "post-industrialism."

The essential core of the managerial revolution thesis is that, with the development of the modern corporation, the real control over the production process has progressively shifted from the legal owners of property (stockholders), to professional managers. The occupational category of manager has thus replaced the class category of capitalist as the power elite in contemporary American society. Marxists have criticized this position on both theoretical and empirical grounds. As De Vroey (1974), Poulantzas (1975), and others have argued, the whole issue of the "separation" of ownership and control misunderstands the logic of the Marxist concept of class, which is rooted in the real relations of control over the means of production rather than in the formal legal title of ownership in the first place. But even apart from this conceptual criticism, the factual claims, as Zeitlin (1975) and others have shown, are generally greatly exaggerated,

and there is little reason to believe that legal owners have been effectively transcended by a professional managerial elite in the overall control of production.

The debates over the theory of post-industrialism also revolve, in part, around the relationship of class to occupation. One of the central claims of post-industrial theorists has been that post-industrial technology requires much less routinization of the labor process than industrial technology and that, as a result, with the transition from industrialism to post-industrialism there should emerge much greater freedom and autonomy on the job. Frequently the tremendous growth of professional, technical, and service occupations is taken as an indicator of this process. Marxists have generally replied that while it is undoubtedly true that such tertiary sector jobs are increasing, and while it is also true that advanced technologies may contain the potential for a radical increase in job freedom, nevertheless the development of such technologies and jobs under capitalist conditions will tend to minimize the qualitative changes in working conditions. More concretely, as Braverman (1974) has argued, there will be a constant tendency within capitalism for white collar jobs--and even professional jobs--to be progressively "degraded" or proletarianized, as capital attempts to maintain its control over the labor process.

In order to push forward the debate on both of these issues--the relationship of managerial occupations to the capitalist class, and the relationship of white collar and professional occupations to the working class--it is crucial that data be generated which explicitly measure social relations of production. While the present study has in a very preliminary

way demonstrated that a great deal of white collar labor is proletarianized, it remains to be shown whether this proletarianization is increasing or decreasing. And it remains to be demonstrated how pervasive this proletarianization is if objective rather than subjective criteria for proletarianization are adopted. Needless to say, the present research has not even been able to address the problem of the relationship of the capitalist class to managerial occupations, due to the small sample size and the limited nature of the data about real relations of control over the means of production. Until social surveys and censuses are conducted which systematically measure the complex objective dimensions of social relations of production, it will be difficult to deepen our understanding of these problems.

## NOTES

<sup>1</sup>This paper will investigate the relationship between occupational categories and class, not between occupational status and class. For an analysis of the relationship of occupational status to class see Wright and Perrone (1977:43-44) and Wright (1976a:chapter 5).

<sup>2</sup>There has been considerable debate in recent years over whether or not classes can be defined exclusively in terms of social relations of production. Poulantzas (1973, 1975) has persuasively argued that political and ideological relations impinge on the very definition of classes, not simply in the transformation of a class-in-itself into a class-for-itself. Others (e.g., Freedman, 1975) have insisted that classes should be defined strictly at the economic level. For the purposes of this paper I will limit the analysis to classes defined within production relations. For a review of the broader issues involved in the Marxist definition of class, see Wright (1976b; 1978).

<sup>3</sup>These three dimensions correspond very closely to the elements in the traditional Marxian value equations, where the value of the social product is seen as the sum of Constant Capital, Variable Capital, and Surplus Value. Control over money capital is equivalent to control over surplus value; control over physical capital, to control over constant capital; and control over labor within the labor process, to control over variable capital. This conceptualization emphasizes the fact that the elements in the traditional value equation are not merely "things," but reflect a complex structure of social relations of domination and subordination within capitalist production. (The relationship between these dimensions of social relations of production and Marxist value categories was suggested in a personal communication by Michael Soref.)

<sup>4</sup>For a fuller discussion of "contradictory locations" within class relations, see Wright (1976a:chapter 2; 1976b:26-42).

<sup>5</sup>The central issue here is that teachers (in most circumstances) are not engaged in the exploitation of labor power. While they do control the activity of students, they do not control the labor of direct producers (workers).

<sup>6</sup>Since this chart is based on data limited to the economically active population, it cannot be considered a complete class map of the American population. Unemployed people, students, retired people, and nonworking housewives are not included in the data. It is, of course, an important theoretical and empirical problem to understand the relationship of such positions outside the market to class relations in capitalist society. The data available for the present study, however, do not allow such questions to be investigated.

<sup>7</sup>Since so-called "discouraged workers" as well as temporarily unemployed workers are not included in the Survey of Working Conditions, and since most such people would be drawn from the working class, these estimates almost certainly underestimate the size of the American working class, even if we assume that all of the other criteria are adequate.

<sup>8</sup>The term "occupation" is often used in extremely vague and atheoretical ways to globally designate what a person "does." Since, for a few occupational categories, what a person "does" is control workers (e.g., foremen)-- or directly own the means of production (e.g., small businessmen), there some occupational labels which coincide with positions within class relations.

Nevertheless, the logic of occupation and the logic of class are quite different, and the two should not be collapsed into a single dimension of social structure.

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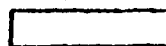
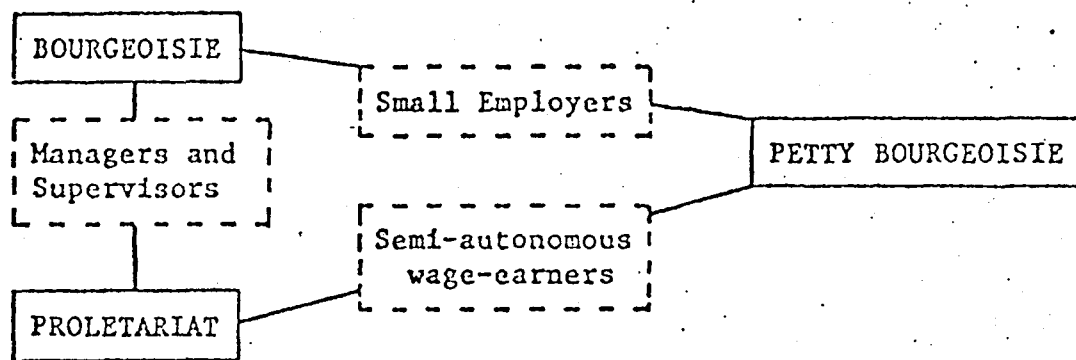
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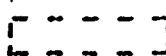
Chart 1. The Basic Class Relations of  
Capitalist Society

CAPITALIST MODE OF  
PRODUCTION

SIMPLE COMMODITY  
PRODUCTION

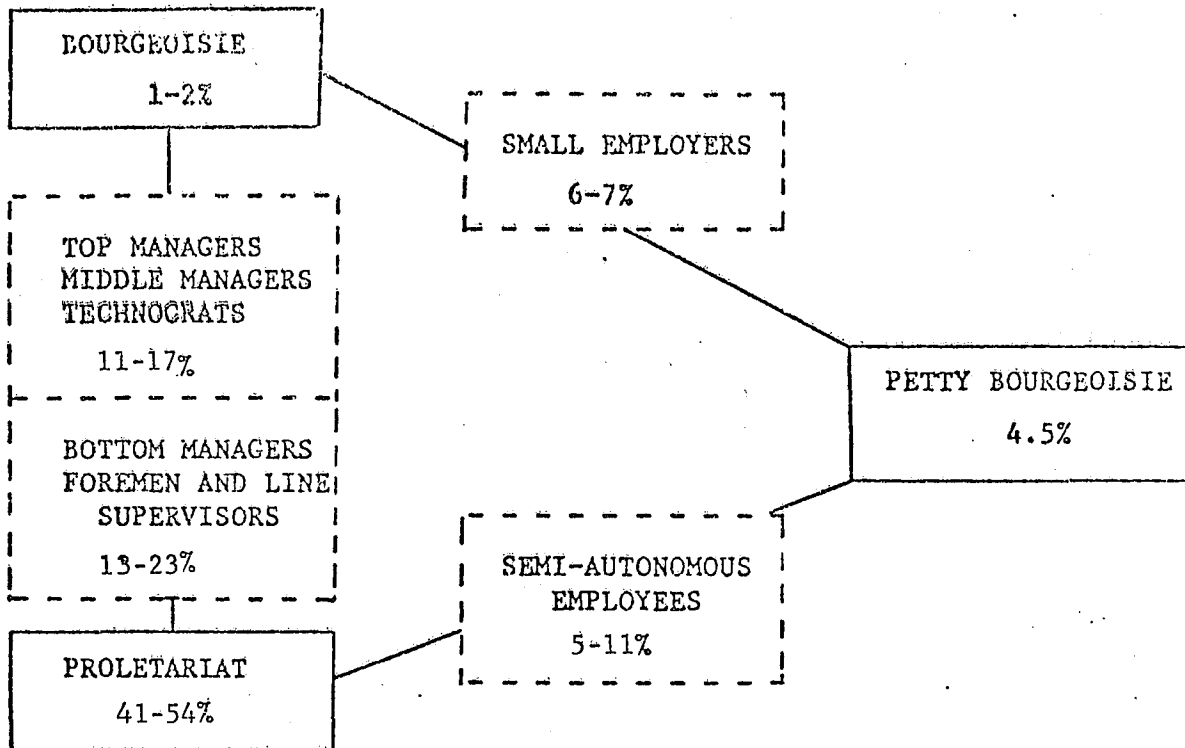


Classes



Contradictory Locations  
within Class Relations

Chart 2. Distribution of the Economically Active Population into Contradictory Class Locations (1969)



Data Source: Survey of Working Conditions (1969)

Note: See table 2 for explanations of high and low estimates.

Table 1  
Operational Criteria for Class Locations

	Self- Employed	Have Employees	Have Subordinates <sup>b</sup>	Job Characterized by a Lot of Freedom and Decisions <sup>c</sup>
Employers <sup>a</sup>	yes	yes		
Petty bourgeoisie	yes	no		
Managers/supervisors	no	no	yes	
Workers	no	no	no	no
Semi-autonomous employees	no	no	no	yes

<sup>a</sup>Since 80% of all employers in the sample employed less than ten workers, it was not possible to study a proper capitalist class location. Throughout most of the analysis which follows, therefore, I will treat all employers as occupying a contradictory location between the petty bourgeoisie and the capitalist class.

<sup>b</sup>All teachers were classified as nonsupervisors regardless of their response to this criterion (see text for explanation).

<sup>c</sup>Jobs which the respondent claims are characterized "a lot" by both of the following descriptions:

- a) "a job that allows a lot of freedom as to how you do your work"
- b) "a job that allows you to make a lot of decisions on your own"

Criteria Used in High and Low Estimates for Sizes of Classes

	HIGH ESTIMATE	LOW ESTIMATE
Semi-autonomous Employees	All nonsupervisory employees who score high on both questions concerning subjective autonomy.	Those nonsupervisory employees who score high on the subjective autonomy questions and whose occupation is classified as having a complex relation to data and things by the Dictionary of Occupational Titles (DOT) job classification scheme. <sup>a</sup>
Small Employers	Less than 50 workers.	Less than 10 workers.
Managers/Supervisors		
Top/middle managers	All supervisors who also report that they have some "say in the pay and promotions" of their subordinates. <sup>b</sup>	Supervisors with say in pay and promotions whose occupation is classified as professional, technical, managerial, or official.
Bottom managers/supervisors	All supervisors who do not have a say in pay and promotions, plus those with say in pay and promotions who are not in upper white collar occupations.	Supervisors without say in pay and promotions except for those whose occupation is laborer, or operative.
Workers	All nonsupervisory employees plus semi-autonomous employees whose occupations are classified as noncomplex by the DOT plus supervisors whose occupations are operatives or laborers.	Nonsupervisory employees who score low on either subjective autonomy question.

<sup>a</sup>The Dictionary of Occupational Titles codes occupations in terms of their relationship to data and to things in the following way:

relationship to things: 0. setting up; 1. precision working; 2. operating-controlling; 3. driving-operating; 4. manipulating; 5. tending; 6. feeding-offbearing; 7. handling; 8. no significant relationship to things.

relationship to data: 0. synthesizing; 1. coordinating; 2. analysing; 3. compiling; 4. computing; 5. copying; 6. comparing; 7-8. no significant relationship to data.

An individual whose occupation scored 0-2 on data and 0-2 or 8 on things, or who scored 0-2 on things and 7-8 on data, was classified as having a "complex" job.

<sup>b</sup>The division between top and middle managers on the one hand, and bottom managers and supervisors on the other was made on the basis of data from the I.S.R. Panel Study of Income Dynamics (1975 wave of the panel). In that study, all respondents who stated that they had subordinates were asked whether or not they had any say in the pay or promotions of their subordinates. Middle/top managers are defined as those supervisors who have some say in pay and promotions; bottom-managers/supervisors are defined as those who do not. The ratio between top-middle managers and bottom-managers supervisors in the Panel Study of Income Dynamics within occupational categories was used to make these estimates for the Survey of Working Conditions data.

Table 3

Class-Occupation Distribution  
for Economically Active Population

A. Distribution of Occupations Within Classes (Percentages Sum Vertically)							
	Employers	Petty Bourgeoisie	Managers/ Supervisors	Semi- Autonomous Employees	Workers	All	(N)
<b>Upper white collar</b>							
Professionals	4.5	9.8	16.2	4.7	2.7	8.1	(124)
Technicians	0.9	0.0	2.7	2.4	1.9	2.1	(33)
Managers, proprietors, and officials	70.5	30.4	16.6	3.6	0.9	13.4	(206)
Teachers <sup>a</sup>	0.0	0.0	0.0	20.2	5.7	4.6	(70)
<b>Total</b>	<b>75.9</b>	<b>40.2</b>	<b>35.5</b>	<b>30.9</b>	<b>11.2</b>	<b>28.2</b>	<b>(433)</b>
<b>Lower white collar</b>							
Clerical	0.0	2.2	15.3	10.1	22.9	16.0	(245)
Sales	2.7	5.4	4.4	10.7	4.9	5.2	(80)
<b>Total</b>	<b>2.7</b>	<b>7.6</b>	<b>19.7</b>	<b>20.8</b>	<b>27.9</b>	<b>21.2</b>	<b>(325)</b>
<b>Upper blue collar</b>							
Craftspeople	5.4	9.8	13.4	16.7	11.3	12.1	(185)
Foremen	0.9	0.0	7.3	0.0	0.0	2.5	(39)
<b>Total</b>	<b>6.3</b>	<b>9.8</b>	<b>20.7</b>	<b>16.7</b>	<b>11.3</b>	<b>14.6</b>	<b>(224)</b>
<b>Lower blue collar</b>							
Operatives	0.9	8.7	13.6	18.5	28.7	19.2	(294)
Laborers <sup>b</sup>	0.9	2.2	2.2	3.0	7.4	4.3	(66)
<b>Total</b>	<b>1.8</b>	<b>10.9</b>	<b>15.8</b>	<b>21.5</b>	<b>36.1</b>	<b>23.5</b>	<b>(360)</b>
Services	1.8	3.3	7.8	9.6	13.5	9.6	(147)
Farmers <sup>c</sup>	11.6	28.3	0.6	0.6	0.2	2.9	(44)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	
<b>(N)</b>	<b>(112)</b>	<b>(92)</b>	<b>(524)</b>	<b>(168)</b>	<b>(637)</b>		<b>(1533)</b>

Table 3--Continued

B. Distribution of Classes Within Occupations (Percentages Sum Horizontally)						
	Employers	Petty Bourgeoisie	Managers/ Supervisors	Semi- Autonomous Employees	Workers	Total
Upper white collar						
Professionals	4.0	7.3	68.5	6.5	13.7	100.0
Technicians	3.0	0.0	45.4	12.2	39.3	100.0
and officials	38.5	13.6	42.2	2.9	2.9	100.0
Teachers <sup>a</sup>	0.0	0.0	0.0	48.6	51.5	100.0
Total	19.7	8.6	43.2	12.1	16.5	100.0
Lower white collar						
Clerical	0.0	0.8	32.7	6.9	59.5	100.0
Sales	3.8	6.3	28.8	22.5	38.8	100.0
Total	0.9	2.2	31.7	10.7	54.5	100.0
Upper blue collar						
	3.2	4.9	37.8	15.1	38.9	100.0
Foremen	2.6	0.0	97.4	0.0	0.0	100.0
Total	3.1	4.0	48.2	12.5	32.1	100.0
Lower blue collar						
Operatives	0.3	2.7	24.2	10.5	62.2	100.0
Laborers <sup>b</sup>	1.5	3.0	16.7	7.6	71.2	100.0
Total	.5	2.8	22.8	10.0	63.9	100.0
Services	1.4	2.0	27.9	10.9	57.8	100.0
Farmers <sup>c</sup>	29.5	59.1	6.8	2.3	2.3	100.0
All	7.3	6.0	34.2	11.0	41.6	100.0

<sup>a</sup>All teachers were classified as nonsupervisors regardless of their response to the supervision question (see text for explanation).

<sup>b</sup>Includes farm laborers.

<sup>c</sup>Includes farm managers and farm owners.

Table 4

Class-Occupation Distribution for  
Economically Active Population, Men Only

A. Distribution of Occupations Within Classes (Percentages Sum Vertically)							
	Employers	Petty Bourgeoisie	Managers/ Supervisors	Semi- Autonomous Employees	Workers	All	(N)
Upper white collar							
Professionals	4.0	6.7	16.8	3.6	3.1	8.8	(87)
Technicians	1.0	0.0	2.9	3.6	2.8	2.5	(25)
Managers, proprietors, and officials	69.0	0.0	18.3	2.7	1.2	16.7	(166)
Teachers <sup>a</sup>	0.0	26.7	0.0	15.5	4.6	3.2	(32)
<b>Total</b>	<b>74.0</b>	<b>33.3</b>	<b>38.0</b>	<b>25.4</b>	<b>11.7</b>	<b>31.2</b>	<b>(303)</b>
Lower white collar							
Clerical	0.0	0.0	6.5	1.8	8.9	5.6	(56)
Sales	3.0	6.7	30.2	13.6	4.3	5.3	(53)
<b>Total</b>	<b>3.0</b>	<b>6.7</b>	<b>36.7</b>	<b>15.4</b>	<b>13.2</b>	<b>11.0</b>	<b>(109)</b>
Upper blue collar							
Craftspeople	6.0	12.0	18.3	25.5	21.5	18.4	(183)
Foremen	1.0	0.0	9.7	0.0	0.0	3.8	(38)
<b>Total</b>	<b>7.0</b>	<b>12.0</b>	<b>28.0</b>	<b>25.5</b>	<b>21.5</b>	<b>22.3</b>	<b>(221)</b>
Lower blue collar							
Operatives	1.0	9.3	15.2	23.6	33.7	20.3	(202)
Laborers <sup>b</sup>	1.0	2.7	2.9	4.6	13.2	6.2	(62)
<b>Total</b>	<b>2.0</b>	<b>12.0</b>	<b>18.1</b>	<b>28.2</b>	<b>46.9</b>	<b>26.5</b>	<b>(264)</b>
Services	1.0	1.3	4.5	4.6	6.7	4.6	(46)
Farmers <sup>c</sup>	13.0	34.7	0.8	0.9	0.0	4.3	(43)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	
(N)	(100)	(75)	(382)	(110)	(326)		(993)

Table 4--Continued

B. Distribution of Classes Within Occupations (Percentages Sum Horizontally)						
	Employers	Petty Bourgeoisie	Managers/ Supervisors	Semi- Autonomous Employees	Workers	Total
Upper white collar						
Professionals	4.6	5.7	73.6	4.6	11.5	100.0
Technicians	4.0	0.0	44.0	16.0	36.0	100.0
Managers, proprietors, and officials	41.6	12.1	42.2	1.8	2.4	100.0
Teachers <sup>a</sup>	0.0	0.0	0.0	53.1	46.9	100.0
Total	23.9	8.1	46.8	9.0	12.3	100.0
Lower white collar						
Clerical	0.0	0.0	44.6	3.6	51.8	100.0
Sales	5.7	9.4	30.2	28.3	26.4	100.0
Total	2.8	4.6	38.6	15.6	39.4	100.0
Upper blue collar						
Craftspeople	3.3	4.9	38.3	15.3	38.3	100.0
Foremen	2.6	0.0	97.4	0.0	0.0	100.0
Total	3.2	4.1	48.4	12.7	31.7	100.0
Lower blue collar						
Operatives	0.5	3.5	28.7	12.9	54.5	100.0
Laborers <sup>b</sup>	1.6	3.2	17.7	8.0	69.4	100.0
Total	0.8	3.4	26.1	11.7	58.0	100.0
Services	2.2	2.2	37.0	10.9	47.8	100.0
Farmers <sup>c</sup>	30.2	60.5	7.0	0.0	2.3	100.0
All	10.1	7.6	38.5	11.1	32.8	100.0

<sup>a</sup>All teachers were classified as nonsupervisors regardless of their response to the supervision question (see test for explanation).

<sup>b</sup>Includes farm laborers.

<sup>c</sup>Includes farm managers and farm owners.



Table 5

Class-Occupation Distribution for  
Economically Active Population, Women Only

A. Distribution of Occupations Within Classes (Percentages Sum Vertically)						
	Employers	Petty Bourgeoisie	Managers/ Supervisors	Semi- Autonomous Employees	Workers	All (N)
Upper white collar						
Professionals	8.3	23.5	14.8	6.9	2.3	6.9 (37)
Technicians	0.0	0.0	2.8	0.0	1.3	1.5 (8)
Managers, proprietors, and officials	83.3	47.1	12.0	5.2	.6	7.4 (40)
Teachers <sup>a</sup>	0.0	0.0	0.0	29.3	6.8	7.0 (38)
<b>Total</b>	<b>91.6</b>	<b>70.6</b>	<b>29.6</b>	<b>41.4</b>	<b>11.0</b>	<b>22.8 (123)</b>
Lower white collar						
Clerical	0.0	11.8	38.7	25.9	37.9	35.0 (189)
Salcs	0.0	0.0	4.9	5.2	5.5	5.0 (27)
<b>Total</b>	<b>0.0</b>	<b>11.8</b>	<b>43.6</b>	<b>31.1</b>	<b>43.4</b>	<b>40.0 (216)</b>
Upper blue collar	0.0	0.0	0.7	0.0	0.6	0.6 (3)
Lower blue collar						
Operatives	0.0	5.9	9.2	8.6	23.5	17.0 (92)
Laborers <sup>b</sup>	0.0	0.0	0.0	0.0	1.3	0.7 (4)
<b>Total</b>	<b>0.0</b>	<b>5.9</b>	<b>9.2</b>	<b>8.6</b>	<b>24.8</b>	<b>17.7 (96)</b>
Services	8.3	11.8	16.9	19.0	20.4	18.5 (101)
Farm Managers	0.0	0.0	0.0	0.0	0.3	0.2 (1)
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
(N)	(12)	(17)	(142)	(58)	(311)	(540)

Table 5--Continued

B. Distribution of Classes Within Occupations (Percentages Sum Horizontally)						
	Employers	Petty Bourgeoisie	Managers/ Supervisors	Semi- Autonomous Employees	Workers	Total
Upper white collar						
Professionals	2.7	10.8	56.8	10.8	18.9	100.0
Technicians	0.0	0.0	50.0	0.0	50.0	100.0
Managers, proprietors, and officials	25.0	20.0	42.5	7.5	5.0	100.0
Teachers <sup>a</sup>	0.0	0.0	0.0	44.7	55.3	100.0
Total	8.9	9.8	34.1	19.5	27.6	100.0
Lower white collar						
Clerical	0.0	1.1	29.1	7.9	61.9	100.0
Sales	0.0	0.0	25.9	11.1	63.0	100.0
Total	0.0	0.9	28.7	8.3	62.0	100.0
Upper blue collar						
	0.0	0.0	33.3	0.0	66.7	100.0
Lower blue collar						
Operatives	0.0	1.1	14.1	5.4	79.4	100.0
Laborers	0.0	0.0	0.0	0.0	100.0	100.0
Total	0.0	1.0	13.5	5.2	80.2	100.0
Services	1.0	2.0	23.8	10.9	62.4	100.0
Managers	0.0	0.0	0.0	0.0	100.0	100.0
All	2.2	3.2	26.3	10.7	57.6	100.0

<sup>a</sup>All teachers were classified as nonsupervisors regardless of their responses to the supervision question (see text for explanation).

<sup>b</sup>Includes farm laborers.

## APPENDIX

Survey Questionnaire Items for Measuring Objective Class Relations

The following questions are designed to generate the data necessary to deal in a sophisticated way with the problem of the relationship between occupational position and class relations. The epistemological premise underlying the questions is that it is possible to ask individuals questions which yield information about their objective position within production relations, not simply their subjective experience of their position. Especially for some of the questions on autonomy, this assumption may not be correct. Nevertheless, these questions should provide a basis for measuring objective class structure. Following the questionnaire, a brief discussion of the rationale behind each item is presented.

1. On your main job, are you self-employed or do you work for someone else?

1. work for someone else [go to 3]  
 2. self-employed

2. Do you employ other people?

1. yes. How many approximately? \_\_\_\_\_  
 2. no

3. During the past year, approximately how much total income did you receive from each of the following sources:

1. wages and salaries \_\_\_\_\_  
 2. investments or profits from your own business \_\_\_\_\_  
 3. rents from property \_\_\_\_\_  
 4. interest on savings \_\_\_\_\_  
 5. government payments (social security, welfare checks, etc.) \_\_\_\_\_  
 6. other pensions \_\_\_\_\_  
 7. other (specify) \_\_\_\_\_

[go to 10 if self-employed]

4. On your main job at the present, do you supervise the work of others, or tell other employees what work to do?

1. yes [go to 5]  
 2. no [go to 8]

5. Which of the following do you yourself decide for your subordinates, which are decided by one of your superiors and which is left up to the subordinate? If more than one person decides a given item, check more than one box, but indicate who has the greatest influence by circling the appropriate box.

	I decide this	My superiors decide this	My subordinates decide this	other (specify)
1. the pace at which work is performed by my subordinates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
2. the tools and/or work procedures used by my subordinates	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____
3. when a subordinate can take a short break (5-10 minutes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	_____

	I decide this	My superiors decide this	My subordinates decide this	other (specify)
4. when a subordinate can take a long break (over 30 minutes)	[ ]	[ ]	[ ]	_____
5. what is actually produced by my subordinates	[ ]	[ ]	[ ]	_____

6. Do you have any say or influence in the pay, promotions or disciplining of your subordinates?

[ ] 1. yes [go to 7]

[ ] 2. no [go to 8]

7. In what exact ways can you influence the pay, promotions or disciplining of your subordinates?

	I can do this on my own authority without con- sultation of a superior	I can do this, but I need to consult one of my superiors	I cannot do this on my own authority, but I can recommend it to a superior	I am not involved in this activity
1. grant a pay raise to a sub- ordinate	[ ]	[ ]	[ ]	[ ]
2. grant a pro- motion to a subordinate	[ ]	[ ]	[ ]	[ ]
3. prevent a subordinate from getting a normal pay raise or promo- tion because of poor work or misbehavior	[ ]	[ ]	[ ]	[ ]
4. fire a sub- ordinate	[ ]	[ ]	[ ]	[ ]

I can do this on my own authority without consultation of a superior	I can do this, but I need to consult one of my superiors	I cannot do this on my own authority, but I can recommend it to a superior	I am not involved in this activity
--	--	--	------------------------------------

- |   |                          |                          |                          |                          |
|---|--------------------------|--------------------------|--------------------------|--------------------------|
| 5. temporarily lay off a subordinate                    | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. discipline a subordinate in some other way (specify) | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| _____   |                          |                          |                          |                          |
| _____   |                          |                          |                          |                          |
| _____   |                          |                          |                          |                          |

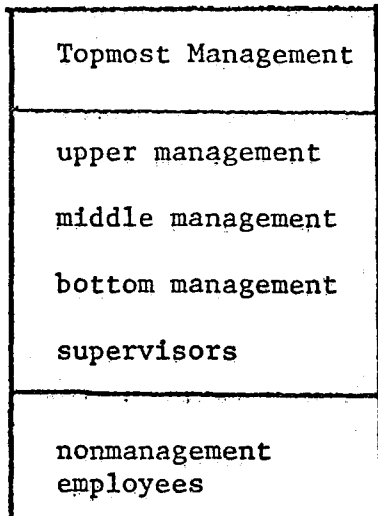
8. Do you have a supervisor to whom you must report at least once a week or who checks in on your work at least once a week?

- 1. yes [go to 9]
- 2. no [go to 10]

9. How frequently does your supervisor inspect your work?.

- 1. approximately once a week
- 2. more than once a week but less than once a day
- 3. approximately once a day
- 4. more than once a day

10. Where would you place yourself in the following chart of positions within a business or organization:



11. We are interested in the different ways people participate in various decisions where they work. In what ways do you participate in decisions about new investments in the place where you work? (Check as many as appropriate):
- 1. not at all
  - 2. provide information or advice to those who actually make investment decisions
  - 3. directly participate in making investment decisions
  - 4. other (specify) \_\_\_\_\_
12. Aside from basic decisions over investments, in what ways do you participate in decisions about the actual allocation of existing funds and resources among different uses in the place where you work? (Check as many as are appropriate):
- 1. not at all
  - 2. provide information or advice to those who actually make decisions about allocation of funds and resources
  - 3. directly participate in decisions about allocating funds and resources for: (check as many as appropriate)
    - a. machines and equipment
    - b. research and development
    - c. personnel
    - d. buildings, land
    - e. supplies
    - f. other \_\_\_\_\_
13. In what ways do you participate in decisions about what is produced or what is sold in the place where you work?
- 1. not at all
  - 2. provide information or advice to those who actually decide what is produced or sold
  - 3. directly participate in making decisions about what is produced or sold
  - 4. other (specify) \_\_\_\_\_
14. Even if you do not participate in general decisions about what is produced in the place where you work, how much say do you have in what you yourself produce?
- 1. no say at all
  - 2. some say
  - 3. a great deal of say

15. In what ways do you participate in decisions about the overall organization of work or production in the place where you work?

1. not at all  
 2. provide information or advice to those who actually make decisions about the organization of work and production  
 3. directly participate in making decisions about the overall organization of work or production  
 4. other \_\_\_\_\_

16. For each of the following activities indicate which you can do without either informing or asking permission of a superior, which you can do if you inform you superior, and which you can do only by asking permission.

	Can do without asking permission or informing superior	Must inform superior	Must ask permission of superior	Cannot do
1. Take short breaks (5-10 minutes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Take longer breaks (over 30 minutes)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. Leave the place of work to do an errand	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. Take a day off from work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. Decide when to come to work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6. Choose the people with whom I work	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>



17. Which of the following best describes your job:

1. Machines directly affect the pace at which I work

No [ ]

Yes [ ]

a. I completely control the pace of the machines I use on the job

Yes [ ] No [ ]

b. I and other employees in the same position together control the pace of the machines we use

Yes [ ] No [ ]

c. The pace of the machines I use is controlled by my superiors

Yes [ ] No [ ]

2. The pace at which I work is decided by my superiors

Yes [ ] No [ ]

3. The pace at which I work is decided jointly by me and others in the same position

Yes [ ] No [ ]

4. I decide the pace at which I do my work

Yes [ ] No [ ]

Index for items on questionnaire

<u>Conceptual issue/dimension</u>	<u>Items which tap this dimension</u>
criteria for the bourgeoisie	1, 2, 3, 11
criteria for the petty bourgeoisie	1, 2
criteria for managers	1, 4-7, 10-13, 15
differentiation of executive bourgeois from mere managers	3, 10, 11
differentiation of top managers from middle managers	10-13, 15
differentiation of bottom managers from nonbottom managers	10-13, 15
differentiation of mere supervisors from managers	4-7, 10
criteria for semi-autonomous employees	8, 9, 14, 16, 17, 24-25, 30, 32, 33

Rationale for Questionnaire Items.

1-2. These two questions provide the basic criteria for defining the petty bourgeoisie (self-employed nonemployers) and the bourgeoisie-employer locations (self-employed employers).

3. This item is designed to deal with the problem of "rentier" capitalists, i.e., people who earn most of their income from capital of various forms without directly participating in the organization of production. It is recognized that the actual figures which will be reported in this question will be highly inaccurate, but they should at least enable us to identify individuals who receive a substantial portion of their income from investments, property, profits, etc.

4-7. These items are designed to differentiate managers from nonmanagerial employees (i.e., from both workers and semi-autonomous employees). Item 4 identifies all supervisory employees. Item 5 measures the dimensions of the supervisor's control over the activity of subordinates. And items 6 and 7 indicate the extent to which a supervisor can invoke positive and negative sanctions.

8-9. Autonomy on the job has two objective dimensions: the extent to which one is closely monitored by superiors, and the extent to which one has discretion over various aspects of one's immediate labor process. High autonomy implies both having discretion and not being closely monitored. Items 8 and 9 roughly tap the extent to which one is closely supervised.

10. While subjective responses to a question about one's position within a hierarchy will undoubtedly be rather haphazard, the hope is that this

question will provide a check on some of the more objective items later in the questionnaire. In particular, it might help to specify top levels of management more precisely.

11. This question is primarily designed to differentiate executives who properly belong in the bourgeoisie from mere top managers. The executive bourgeoisie is defined as those who directly make investment decisions but are not self-employed employers, whereas top managers may give advice on such decisions, but do not actually make them. This is thus the core operationalization of "economic ownership."

12. The distinction in this question is between control over resources within a firm vs. control over the flow of resources into the firm (i.e., allocations vs. investments). The latter is the central content of economic ownership; the former is largely a matter of "possession," although economic ownership is clearly implicated since the question does involve funds. While 11 was mainly designed to differentiate executives from mere managers, 12 mainly helps to differentiate top managers from other managers.

13. Like 12, this item involves both possession and economic ownership relations, and mainly serves to differentiate top from nontop managers.

14. This item is one of the basic criteria for the semi-autonomous employee category. It is meant to identify positions which have no control over the overall production in a firm, but nevertheless maintain some real control over what is produced by the individual in that position. This is typically the case of an assistant professor in an elite university, for example.

15. This item directly taps relations of possession, i.e., control over the organization of production given the basic investments within an organization/business.

16. This question is designed to measure more precisely the extent to which a worker controls certain aspects of the labor process, in particular scheduling, breaks, and the choice of coworkers.

17. An important dimension of autonomy on the job is control over the pace of work. One difficulty in measuring this aspect of autonomy is that in many jobs the pace of work is directly affected by machines, and the issue then becomes how the pace of the machinery itself is determined. This item attempts to tap the extent to which the respondent controls the pace of work either directly, or indirectly through the control of machinery.