

THE CONSUMPTION OF PUBLIC GOODS
AND THE STRATIFICATION OF
OCCUPATION IN RURAL BRAZIL *

F. D. WARNER III
Assistant Professor of Economics
The University of Connecticut
and
Visiting Professor of Economics
Universidade Federal do Ceará

Social stratification, which distributes roles among various groups in society, is an important element in the structure of society. Where there has been little change in the structure and organization of society the stratification of roles becomes more rigid and movement between social strata becomes more difficult. Economic development requires changes in the structure of production and, since class and social strata depend largely upon occupation, the development process means changing social class relationships. Indeed, this is one of the main goals of economic development, and no development plan has much chance of success if it ignores its impact on occupational, and therefore class, relationships. The difficulty has always been that occupational relationships are hard to define.

This paper examines the structure of occupations in several rural Brazilian communities and proposes a method by which they can be ordered in a hierarchical ranking. The analysis is based on the correlation of the consumption of monetary and non-monetary goods and services with a given occupational prestige hierar-

* The author wishes to acknowledge the help of several colleagues. In traditional fashion, however, he alone is responsible for any errors which remain.

chy. The data support the conclusion that occupational hierarchies in developed (industrialized) and underdeveloped (agrarian) societies are similar, and provide a provisional benchmark against which social progress can be measured when economic development occurs.

Class is usually defined according to the role the individual plays in the production of goods and services, while status is associated with the consumption of goods and services. Sociologists have long observed that the higher an individual's rank or status in the community, the more likely he is to consume the goods and services available. His consumption pattern is sometimes linked to his ability to pay for goods and services, as in the case of health and medical care. But the consumption of goods and services in the community such as education, recreation and religious services, goes beyond the income dimension and reflects the attitude of both the consumer (and the community) toward these goods. Attitudes toward consumption reflect differences in status such that those in higher strata consume a different "bundle" of commodities than those in lower strata. Further accentuating differences in consumption patterns is the fact that members of higher strata have greater access to community services, and play a greater part in community affairs.

An important, although not exclusive, role in the determination of status is the individual's position in the occupational hierarchy. An occupational hierarchy is based not only upon real, but perceived differences in work roles. It is in the design of an occupational hierarchy that the concepts of both class and status interact. This makes it possible to discern changes in the economy and society by looking at the changes in the occupational hierarchy. As a result, it should be possible to observe the impact of economic development on individual groups in the society in a way which takes into account more than simple changes in per capita income.

The difficulty has been that there is no objective and/or quantifiable way to measure changes in occupational hierarchy in non-western, non industrial societies. There has been, of course, much research effort directed toward ranking the prestige of occupations in rural-agrarian societies. These studies have shown substantial similarities between the ordering of occupational roles in the stratification systems of diverse societies. There are several factors which account for these similarities.

The first reason for the marked similarity between the ranking of occupational roles in differing societies is that the procedure used in ranking occupations necessitates the use of terms which are easily translatable. This means that the roles performed by individuals in a given occupation in different societies are similar. The

greater the difference between the two societies, however, the smaller the number of occupations which will be similar. Research directed at correlating the occupational prestige hierarchy in diverse societies necessarily over-estimates the similarities since dissimilar occupations are difficult to translate and are therefore excluded.

A more fundamental problem arises because of the way in which the occupations to be compared are chosen. If the occupations chosen are at the extreme ends of roughly similar occupational hierarchies, one would expect a high degree of positive correlation between the ranking systems of the two societies. Most studies have oversampled the extremes and undersampled the middle range. This technique biases the estimates of the correlation between occupational prestige hierarchies of various societies (1). This bias tends to make conclusions regarding the similarity of occupational prestige hierarchies somewhat suspect.

This paper proposes a means by which Euro-American, translatable, occupational prestige ranking may be tested for fit in the context of rural-agrarian societies in emerging nations. The technique is to rank-order the occupational titles according to the levels of consumption of specific goods (health, education, religion, and recreation), and to average the ranks thus obtained to arrange the occupations in a hierarchy.

There are two distinct advantages to this method. First, it permits an objective evaluation of status within a given social system. This avoids the problem of self-perception of class by the individual. The individual's perspective, while highly desirable for some purposes, complicates sociological research in this case. Second, this method permits an evaluation of status ranking of occupations which are seldom observed in Western societies but are prevalent in Latin American and Asian societies. Several of these occupations are evaluated here; for example, the relative status of share croppers, rural (day laborers, and street vendors which are categories not often observed in modern society are considered.) (2)

The consumption of services were observed for ten occupational categories: rural laborer; share cropper; owner of small business or street hawker; common laborer in industry, sales or services; owner of very small farm; farm manager; manager in industry, commerce, or services; owner of industry (usually small) or business; renter of farm; farmer or owner. The occupational categories were defined as follows:

1. *Rural workers* — Anyone employed without any specification of function of service, whether in agriculture or any other occupation; the owner of less than 0.5 alqueires. (3)

2. *Share croppers* — All who work the land on a parcel system.
3. *Owners of small business or street hawkers* — All owners of small stands or push-cart type businesses.
4. *Common labor in industry, commerce, or service* — Included in this category were bricklayers, carpenters, brickmakers (potters), charcoal workers, government workers, small businessmen, bank clerks, laborers, jack-of-all trades (biscateiros), railroad or highway laborers, and chauffeurs; except when this work is done on the farm. In the latter case the worker is referred to as a "rural worker" (farm hand).
5. *Owner of very small farm* — Owner of more than 0.5 alqueires of land up to 5 alqueires. If he owns less than this, he is classified as "rural worker". If he owns more than 5 alqueires, he is classified as "farmer or farm owner".
6. *Farm manager* — Included here is everyone who is a manager of land, without considering the amount of land managed.
7. *Manager in industry, commerce, or service* — Included here are managers and department heads etc.
8. *Owners of industry or business* — This category is differentiated from the very small business simply by size and permanence of the installation.
9. *Renter of farm* — All land renters are included without regard to the amount of land rented.
10. *Farmer or farm owner* — Those who own more than 5 alqueires of land.

The consumption of services was divided into two groups: public services consisting of health and education; and private service consisting of religion and recreation. A ranking of the indices of responses to selected questions for each type of consumption good by occupation category is presented in Table 1. The ranking is based on a ten point scale where an index of 1 indicates a high degree of consumption of services (and indicates, according to our assumption, top ranking in the occupational prestige hierarchy), and an index number of 10 indicates very low consumption of services (and a correspondingly low rank in the occupational hierarchy). The rankings are summed for each group of services (education etc.) as well as for all four groups of services. The results show a marked degree of positive correlation with the preliminary occupational ranking based on Euro-American experience (see Table 1).

Same care is necessary in interpreting the responses to the questions asked. Some questions pertaining to health care, for example, the percentages of "yes" answers were ranked highest in the consumption/hierarchy scale, while for others, (e. g. "Do you

take your children to the health center?"), the highest ranking was given to the lowest percentage of "no" answers. This is due to the observed fact that those groups who ranked lowest in the "yes" category of this question ranked highest in the "yes" category of another ("When illness occurs do you contact a doctor, pharmacist etc. . . . or not?"). Those who take their children to the health center to see a doctor, while those who do not take their children to the health center may not do so because a doctor comes to their house when illness occurs. This is most likely to be the case where "Farm Owners", "Owners of Business", and "Managers of Business" are concerned.

Similarly, when respect to the question "Do you send your children to school?", a high index number given to a low percentage of "no" answers gives a better indication of the consumption of educational services than a high index number given a high percentage of "yes" answers. This is because the "yes" answer excludes those who would normally be expected to send their children to school (i. e. "Farm Owners"), but have no school age children.

With the questions on recreation (e. g. "How often do you listen to your favorite radio program?"), a problem of a slightly different nature arises. In this case a purely arbitrary decision had to be made as to what was to be considered as "consumption" of the radio as a recreational service. Here it was felt that anyone listening to his favorite radio program less than 10 times per year was not really "consuming" radio broadcasts. Therefore, the rank ordering was based on that percentage who listened to their favorite radio program more than 10 times per year.

And finally a semantic problem was implied by the question ("Does your family have *visitas*?"). The word "*visita*" represents a cultural holdover from the post-colonial period in Brazil when musicians travelled from house to house and sang for payment in either goods or coin. Interviewers were instructed to tell the respondents that this was the meaning intended. But "*visitas*" in common usage means a visit of any kind by anyone, and some confusion probably occurred.

Spearman rank correlation analyses were run for each of the variables against one another and against the average (final) ranking. The results point to some interesting conclusions. Spearman correlations show in this case that there is a much higher degree of correlation between recreation (.93) and religion (.85) and the final ranking than between education (.47) and health (.66) and the final ranking. There are two possible explanations for these results.

1) The number of questions used for each variable in this analysis differs. In education, for example, only two questions were

used since, as noted above, all of the other questions involved an opinion on the part of the respondent. In the case of recreation, on the other hand, six questions were used, reflecting the fact that this is a broad category as opposed to education, which explains the relatively high degree of correlation obtained.

2) It is quite possible that the consumption of private goods would give a better indication of position in the prestige hierarchy, if only because of institutional regulations. Educational requirements come immediately to mind; as, for example, the fact that in some parts of the world children are required to complete six years of schooling. Similarly, minimal health requirements such as a yearly check up for tuberculosis etc., tend to limit correlation with total rank.

It must be observed, however, that in spite of these difficulties, significant results were obtained even though the data were obtained from research designed for quite another purpose. A research design directed specifically at the problem of occupational positioning is sure to yield positive results. It is hoped that this paper will provide the basis for future research in intercultural stratification systems, since an understanding of the impact of economic development on local society is an important social phenomenon.

NOTES

1. See A. O. Haller, David M. Lewis, and Iwao Ishino, "The Hypothesis of Intersocietal Similarity in Occupational Prestige Hierarchies", presented at the 1964 meetings of the American Sociological Association, Montreal, September 1964, and A. O. Haller "Changes in the Structure of Status Systems", *Rural Sociology*, Vol. 35 (Dec. 1970) pp. 465-487.

2. The data were collected as part of a study of social stratification in four rural communities, under sponsorship of the Rural University of Brazil and Michigan State University. There were two sets of interviews, in 1953 and 1962, to determine changes in the contacts of rural families with mass welfare services in the State of Rio de Janeiro. The interviews were conducted in four municipalities or counties; Paraiba do Sul, Cachoeira de Macaco, Itaboraí, and Itaquai, all some distance from the state capital Niterói (and the city of Rio de Janeiro). The data for this paper was taken from the 1962 study conducted by A. O. Haller of Michigan State University, and Francisco Escobar and João Bosco Pinto of the Rural University in Brazil. Out of a universe of 584, 576 responses were relevant and eight of the schedules contained insufficient information.

3. An alqueire is equal to 48,400m², 4.84 hectares, or 11.96 acres.

TABLE I

The Ranking of Occupational Classifications by Consumption of Public and Private Services in Rural Brazil.

Occupational Classification	HEALTH		RELIGION		EDUCATION		RECREATION		TOTAL	
	Sub- total	Rank- ing	Sub- total	Rank- ing	Sub- total	Rank- ing	Sub- total	Rank- ing	Sub- total	Rank- ing
Rural Laborers	38	10	30	9	18	9	48	10	134	10
Share Croppers	37	9	20	6	12	6	47	9	116	9
Very Small Businessmen	21.5	3	39.5	10	7	3	35.5	5	106.5	7
Common Laborers	28	5	26	8	15	7	41	8	110	8
Owners of Very Small Farms	32	7	25	7	7	3	38	6	102	6
Farm Managers	34	8	18	3	8	5	39	7	99	5
Managers of Businesses	30.5	6	13.5	2	6	2	16	1	66	2
Owners of Businesses	17.5	2	19	4	19	10	26.5	3	82	4
Ranters of Farms	20	4	19	4	15	7	27	4	81	3
Owners of Farms	15.5	1	10	1	3	1	17	2	49.5	1