

Characteristic Indexes of the Household Level and Standard of Living of Agregado and Parcelero Families¹

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INTRODUCTION

The social relationships between land owners and agregados³ in Puerto Rico before 1941 were of a feudal pattern wherein the former exerted almost complete control over the agregado. Under this classic social system, the agregado had little recourse from demands and restrictions imposed by the land owner. This situation imposed constraints on motivations and narrowed the range of experience of this population group. As a result, their potential adjustment at the individual, family, group, and community level was seriously restricted, causing a negative effect in the social and economic development of our society.

A prime characteristic of the traditional agregado social system was that the dwelling of the agregado was located in relation to distinctive requirements of specific crops such as coffee, sugarcane, and tobacco rather than convenience of location with regard to roads, schools, running water, electric power, and other important physical resources and services. This ecological isolation adversely affected public efforts to improve the level of living of this population group. Families with 20 children or more, living in uncomfortable dwellings which lacked even the most basic elements of home conveniences and below the minimum requirements for a "decent living" were found among the agregados (6).

To deal with this and related problems in Puerto Rico, Title V of the Land Law was approved in 1941. This title of the act provided that every agregado on the Island should be entitled to hold at least 0.25 cuerda⁴ of land, free of charge and on a permanent tenure basis, on which he may erect his permanent home (2).⁵ This provision of the Land Law has been

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³ According to the Land Law of Puerto Rico an agregado is any head of a family residing in the rural zone whose home is established in a house and on land belonging to another person, or in his own house erected on land belonging to another person, and whose only means of livelihood is his labor for a wage earned from agricultural tasks.

⁴ Spanish unit of land measurement equivalent to 0.9712 of an acre.

⁵ Legislation approved by the Puerto Rican Legislature in 1969 provides title of

considered as the starting point for the rehabilitation of this population group, since it opened an avenue for providing services and social programs for improving their living conditions. About 75,000 of these families have been resettled in rural communities, but there are still thousands of *agregado* families living on farms (5).⁶

The SPA (Social Programs Administration), a public agency entrusted with the relocation of *agregados*, frequently needs to evaluate the effectiveness of its programs aimed at improving the living conditions of this population group. The main purpose of this study was to measure changes in the level and standard of living, specially in housing, of the *agregados* and *parceleros*.

APPROACH TO THE PROBLEM

Level of living is defined as the position an individual or family occupies as to material cultural possessions. It may be viewed in the theory of social stratification as the material style of life, and is thus affected by the consumption and expenditure behavior of the family. Standard of living refers to those conditions sought or desired and used as a reference to assess actual conditions (1). The crux of this paper is that there are intermediate stages in level-of-living adjustments (4). When families in depressed social and economic circumstances (e.g. *agregados* and *parceleros*) are able to achieve upward level-of-living mobility through income increases or by other means, they first tend to consume items from intermediate categories of expenditures and then, as conditions continue to improve, from higher categories. Improvement of economic circumstances are thus translated in a stepwise way into higher levels of living. This process contributes to the material well-being and comfort of family life to the extent that consumption of more desirable items provide more satisfaction.

Household operations such as cooking, house cleaning, washing clothes, and recreation require physical space and material items for their performance. Although there are many ways of doing the same tasks, certain equipment or material items enable ordinary tasks to be performed more easily or efficiently than others and are therefore considered superior. For instance, other things being equal, it is less difficult to cook on an electric or gas range than on a kerosene stove, or on a kerosene stove than on a wood hearth or over a fire within three stones on the ground. These variations in the quality of material items available for a specific household purpose provide tangible information for measuring the level of living.

property of land given on a permanent tenure basis under Title V of the Land Law. These plots of land range from 0.25 to 3.0 *cuerdas*.

⁶ When an *agregado* is resettled in a rural community, his social status of *agregado* changes to that of a *parcelero* (a parcel-holder) by virtue of the parcel or lot of land given to him on a permanent tenure basis to erect his home.

Within this framework, data collected from a sample of 305 *agregado* families and 487 *parcelero* families were arranged into 25 groups of material and cultural items. Each group embraced those material items used to perform a given basic household function or area, such as lighting. Functionally similar items were then classified, within each area, into 5-graded categories in descending order of material comfort, as judged by a panel of sociologists. Items within the 5-graded categories were initially weighted by the simple scoring method: 4, 3, 2, 1, 0, with the highest value placed on the item providing the greatest material comfort or satisfaction and the lowest on the item contributing the least. Of the 25 initial areas,

TABLE 1.—*Intercorrelations among 10 selected areas of the household level of living of the agregado and parcelero families, Puerto Rico*¹

Areas	x_1	x_2	x_3	x_4	x_5	x_6	x_7	x_8	x_9	x_{10}
X_1 Walls of the dwelling	1.000	0.394	0.361	0.440	0.369	0.358	0.351	0.385	0.314	0.244
X_2 Lighting facilities		1.000	.340	.426	.313	.356	.339	.297	.283	.274
X_3 Number of bedrooms			1.000	.510	.333	.266	.291	.253	.304	.433
X_4 Cooking facilities				1.000	.441	.470	.429	.402	.360	.500
X_5 Bathing facilities					1.000	.430	.373	.343	.378	.282
X_6 Disposal of human wastes						1.000	.434	.317	.370	.381
X_7 Dishwashing facilities							1.000	.259	.382	.313
X_8 Facilities to preserve perishable foods								1.000	.257	.297
X_9 Washing clothes facilities									1.000	.321
X_{10} Recreation facilities in the dwelling										1.000

¹ Correlations between all possible pairs of areas are significant at the 1-percent level of probability.

10 were retained for analysis. Each of them was correlated to every other in the sample (table 1).

The discriminate function technique was used to compute characteristic indexes that position *agregado* or *parcelero* families on the level and standard-of-living scale.

THE DATA

Rural people are increasingly influenced in their goals and aspirations by cosmopolitan forces, particularly in a socio-cultural setting such as Puerto Rico, where most rural localities lie at close distances from some major urban areas. Table 2 shows some of the more pervasive changes in level of living that have occurred among the *agregado* and *parcelero* families, and

TABLE 2.—*Distribution of the responses of both agregados and parceleros to some selected areas of the household consumption pattern*

Areas and categories	Multivariate distribution of the responses									
	Parceleros						Agregados			
	Immediately before they were resettled		At the time of the interview		Aspirations		At the time of the interview		Aspirations	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
A. Walls of dwelling										
a. Concrete or blocks	6	1.2	382	78.4	480	98.6	18	5.9	248	81.3
b. Painted wood	54	11.1	62	12.8	5	1.0	86	28.2	48	15.7
c. Unpainted wood	330	67.8	41	8.4	2	0.4	179	58.7	9	3.0
d. Zinc	21	4.3	2	0.4	0	0.0	19	6.2	0	0.0
e. Tarpaper, straw or palm leaves	76	15.6	0	0.0	0	0.0	3	1.0	0	0.0
Total	487	100.0	487	100.0	487	100.0	305	100.0	305	100.0
B. Lighting facilities in living room										
a. Wall or ceiling electric lamps	2	0.4	232	47.6	415	85.2	45	14.8	211	69.2
b. Electric bulb	150	30.8	247	50.7	72	14.8	229	75.1	93	30.5
c. Kerosene burner lamps and lanterns	8	1.6	0	0.0	0	0.0	0	0.0	0	0.0
d. Lanterns	278	57.1	7	1.5	0	0.0	21	6.8	1	0.3
e. Kerosene lamp or candles	49	10.1	1	0.2	0	0.0	10	3.3	0	0.0
Total	487	100.0	487	100.0	487	100.0	305	100.0	305	100.0
C. Number of bedrooms										
a. Four or more	1	0.2	70	14.4	294	60.4	16	5.3	120	39.3
b. Three	37	7.6	202	41.5	149	30.6	61	20.0	125	40.9
c. Two	213	43.7	197	40.4	43	8.8	141	46.2	55	18.3
d. One	227	46.6	17	3.5	1	0.2	82	26.9	5	1.5
e. None	9	1.9	1	0.2	0	0.0	5	1.6	0	0.0
Total	487	100.0	487	100.0	487	100.0	305	100.0	305	100.0
D. Cooking facilities										
a. Electric or gas range stove	9	1.9	326	66.9	441	90.6	136	44.6	257	84.2
b. Kerosene stove	164	33.7	149	30.6	45	9.2	110	36.1	44	14.4
c. Charcoal hearth	61	12.5	1	0.2	1	0.2	4	1.3	2	0.7
d. Wood hearth	248	50.9	11	2.3	0	0.0	53	17.4	2	0.7
e. Three stones on floor	5	1.0	0	0.0	0	0.0	2	0.6	0	0.0
Total	487	100.0	487	100.0	487	100.0	305	100.0	305	100.0

TABLE 2.—Continued

Areas and categories	Multivariate distribution of the responses									
	Parceleros						Agregados			
	Immediately before they were resettled		At the time of the interview		Aspirations		At the time of the interview		Aspirations	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
E. Bathing facilities										
a. Bathroom with washstand, bathtub and shower	0	0	25	5.1	328	67.4	2	0.7	138	45.3
b. Bathroom with washstand and shower only	1	0.2	48	9.9	109	22.4	9	3.0	74	24.3
c. Bathroom with shower only	41	8.4	291	59.8	45	9.2	79	25.9	90	29.5
d. Punch bowls, washbowls or bombs of zinc	334	68.6	116	23.8	4	0.8	177	58.0	2	0.6
e. Tin vessels, "higüeras," etc.	111	22.8	7	1.4	1	0.2	38	12.4	1	0.3
Total	487	100.0	487	100.0	487	100.0	305	100.0	305	100.0
F. Disposal of human wastes										
a. Toilet inside house	0	0.0	63	12.9	431	88.5	17	5.6	237	77.8
b. Toilet outside house	3	0.6	23	4.7	24	4.9	1	0.3	20	6.5
c. Concrete or block latrine or commercial wood and zinc latrine	181	37.2	390	80.1	32	6.6	202	66.2	48	15.7
d. Latrine made with pieces of card board or pieces of zinc, etc.	284	58.3	10	2.1	0	0.0	64	21.0	0	0.0
e. None	19	3.9	1	0.2	0	0.0	21	6.9	0	0.0
Total	487	100.0	487	100.0	487	100.0	305	100.0	305	100.0
G. Dish-washing facilities										
a. Electrical dishwasher	0	0.0	4	0.8	36	7.4	0	0.0	5	1.7
b. Sink with hot and cold running water	0	0.0	17	3.5	249	51.1	3	1.0	69	22.6
c. Sink with cold running water only	45	9.2	330	67.8	200	41.1	109	35.7	219	71.8
d. Sink without running water	107	22.0	98	20.1	2	0.4	113	37.1	11	3.6
e. Washes in vessels, pails, cans, etc.	335	68.8	38	7.8	0	0.0	80	26.2	1	0.3

H. Facilities to preserve perishable foods										
a. Freezer	0	0.0	4	0.8	40	8.2	9	2.9	24	7.9
b. Electric or gas refrigerator	58	11.9	445	91.4	446	91.6	205	67.2	278	91.1
c. Ice box	4	0.8	0	0.0	1	0.0	0	0.0	0	0.0
d. Shelves to keep them fresh	169	34.7	25	5.1	0	0.0	31	10.2	2	0.7
e. Tin, cans, sacks, etc.	256	52.6	13	2.7	0	0.0	60	19.7	0	0.3
Total	487	100.0	487	100.0	487	100.0	305	100.0	305	100.0
I. Washing clothes, facilities										
a. Automatic washing machine	0	0.0	42	8.6	213	43.7	10	3.3	92	30.2
b. Semi-automatic washing machine	6	1.2	86	17.7	191	39.2	16	5.3	100	32.8
c. Basin with running water faucets	4	0.8	70	14.4	57	11.8	11	3.6	65	21.3
d. Trough or zinc bowl	334	68.6	279	57.3	26	5.3	202	66.2	44	14.4
e. Trough made of petiole of the palm tree	143	29.4	10	2.0	0	0.0	66	21.6	4	1.3
Total	487	100.0	487	100.0	487	100.0	305	100.0	305	100.0
J. Recreation facilities in house										
a. Television, radio and phonograph	2	0.4	65	13.3	233	47.8	29	9.5	173	56.7
b. Television and radio or television and phonograph	16	3.3	265	54.5	236	48.5	121	39.7	100	36.1
c. Television only	1	0.2	12	2.5	10	2.0	12	3.9	6	1.9
d. Radio or phonograph	114	23.4	131	26.9	7	1.4	118	38.7	16	5.3
e. None	354	72.7	14	2.9	1	0.3	25	8.2	0	0.0
Total	487	100.0	487	100.0	487	100.0	305	100.0	305	100.0

¹ Bailer or drinking utensil made from the hard-shell fruit of the calabash tree.

focuses attention to the norms or standards of living sought after by these rural residents. Items in the table are classified within 5-graded categories in 10 functional areas of household material and cultural possessions. An examination of the frequency distributions within each category indicates, as one moves from previous to present to aspired conditions, that the values are increasingly oriented toward those items judged superior in convenience or satisfaction. These trends are evident for both *agregados* and *parceleros*, but changes taking place are more pronounced among the latter.

Housing is one of the more visible factors contributing to level of living. It is noteworthy that as the *agregados* move from farms to SPA communities, unpainted wood units are left behind for concrete or block housing newly constructed with the help of neighbors.⁷ For instance, of the 487 *parceleros* interviewed, 67.8 percent reported living in houses with unpainted walls prior to resettlement. During the analysis year, 78.4 percent of the *parceleros* were living in concrete or block wall units. By way of contrast, only 5.9 percent of the *agregado* families reported living in housing with concrete or wood walls, 58.7 percent were living in homes with unpainted wood walls, 28.2 percent in painted wood dwellings, and 7.2 percent in housing with wall construction of zinc, tarpaper, or other materials.

The homes of the *parceleros* are now larger than before resettlement, as are those now occupied by *agregados*. Over 90 percent of the *parceleros* lived in homes of only one or two bedrooms before resettlement; 55.9 percent now have homes with either 3 or 4 bedrooms. Among the *agregados*, 73.1 percent were living in 1- or 2-bedroom homes and 20.0 percent in 3-bedroom homes, during the study year. Over 90 percent of the *parceleros* and 80 percent of the *agregados* aspired to live in 3- or 4-bedroom homes.

Availability of electric power in rural areas is of major importance to quality of life, for its access makes possible a large number of services and material items that provide convenience and comfort. For instance, 57.1 percent of the *parceleros* reported the use of kerosene lamps and 97.1 percent the use of kerosene, charcoal, or wood stoves prior to moving to SPA communities. With increased availability of electricity following resettlement, nearly all the *parceleros* had some form of electric lighting, and about two-thirds had electric refrigerators during the analysis year.

Improvements in facilities for bathing, washing dishes and clothes, recreation and the like are also closely associated with life in *parcelero* communities.

⁷ An interesting dimension of the program was the construction of low-cost housing in these rural communities on a mutual-help basis. This program, known as the "Low-Cost Housing Through Own Efforts and Mutual Help," provided a mechanism for solving housing needs of relocated *agregados*.

THE MODEL

For a quantitative interpretation of the stages by which families move toward a definite standard of living, it was considered that the process might be expressed by a linear rather than a non-linear model. The different stages could then be characterized by the set of linear functions that might successfully distinguish among these stages on the basis of the graded-item categories of the different areas of the household consumption pattern, as shown in table 2.

These considerations suggested that a linear discriminant function might be used to provide an index useful for the classification of individuals on the basis of their relative position within the area, as determined by the weights assigned to the material or culture items they possessed or aspire to. The characteristic indexes provided by the function might be used for a direct statistical comparison of the groups at the same or different time periods. Should the discriminant function technique be useful in this connection, a model then might be available to study the level of living as a process in both social settings. Visualize the model on the temporal-spacial scheme below:

Y_{10} = previous household level of living of the parceleros immediately before they were resettled in rural communities by the SPA

Y_{11} = household level of living of the parceleros at time of interview

Y_{12} = household standard of living of the parceleros

Y_{21} = household level of living of the agregados at time of interview

Y_{22} = household standard of living of the agregados

Hence, the basic linear discriminant function used to estimate the characteristic index corresponding to each point of time and location would be:

$$Y_{ij} = M + AX_a + BX_b + CX_c + DX_d + EX_e \dots ,$$

where M is the regression constant and $A, B, C, D,$ and E denote the weights (regression coefficients) estimated for each of the areas on which the household level of living depends: walls of the dwellings, lighting facilities, number of bedrooms, etc. The X 's refer to the scores corresponding to the various areas. The procedure for estimating the regression constant and the weights given to the levels in estimating the indexes was developed by Capó and used by Moscoso and Capó (3) in objectively discriminating among orange, grapefruit, and chironja on the basis of certain measured characters.

The first step in this fitting is to bring to a similar scale the 5-graded item category scores of the household consumption pattern. To do this, the area score of each individual was divided by the general mean area score for all individuals. In the method developed by Capó, the mean of these ratios for an individual is regarded as a tentative characteristic index of

the individual. The mean of these tentative characteristic indexes for all the individuals of a group is then assumed to be the characteristic index of the group and is used to represent the initial level-of-living value of each and every individual of the group in the first fitting of the regression or discriminant function.

After estimating the values of the constants of the equation by the method of least squares, the fitted equation is used to calculate a corrected characteristic index for each group by substituting in the equation the mean area level of the group. The equation is then fitted again to the data using these corrected indexes as values of the dependent factor, and the process is repeated until the values of the constants become stable. Thus, the best fit is reached by iteration, that is, a series of successive approximations. The resulting weighted coefficients are shown in table 3.

Walls of the dwelling (A) obtained the highest coefficient, 0.20336, showing that quality of housing is of major significance as an indicator of level of living.

The mean scores for specified categories of material and cultural possessions at a given time, or desired by the agregados and parceleros, are shown in table 4. These computations provide a measure of changes in quality of possessions for each subarea, and provide the basis for calculating the value of the discriminant functions corresponding to agregados and parceleros in different spacial and temporal settings.⁸

RESULTS

The fitted discriminant function explained 97 percent of the variation among the individual estimated levels of living. The hypothesis that there are no differences in level of living among the parcelero and agregado groups in time and space is therefore rejected at the 1-percent level of probability.

The following tabulation shows the value of the discriminant functions corresponding to agregados and parceleros in different spatial and temporal settings:

<i>Factor</i>	<i>Value of discriminant function</i>
Level of living, agregados	0.142266
Level of living, parceleros	.193180

⁸ Computation of the value for living conditions of the parceleros prior to re-settlement provides an example of the calculation. Substituting the corresponding coefficient from table 3 and the mean scores from table 4 in the formula:

$$X_{10} = M + AX_1 + BX_2 \cdots JX_{10} \text{ we have}$$

$$Y_{10} = 0.001566 + 0.020336(1.7793) + 0.008629(1.5463) + 0.006192(1.5773) + 0.008261(1.8474) + 0.004219(0.8577) + 0.012843(1.3483) - 0.001401(0.4061) + 0.001598(0.7195) - 0.00339(0.7381) + 0.000520(0.3546) = 0.097582$$

TABLE 3.—*A metric of the household level and standard of living of the agregado and parcelero families, Puerto Rico*

Variables	Mea- sure- ment	Discriminant function coefficients weights	Weights for the item categories within each subarea	System of weights adopted
	(<i>W</i> ₁)	(<i>W</i> ₂)	(<i>W</i> ₁) (<i>W</i> ₂)	(<i>W</i> ₁) (<i>W</i> ₂) 100
A. Walls of dwelling		0.020336		
a. Concrete or blocks	4		0.081344	8.1
b. Painted wood	3		0.061008	6.1
c. Unpainted wood	2		0.040672	4.1
d. Zinc	1		0.020336	2.0
e. Tarpaper, straw or palm leaves	0		0.000000	0.0
B. Lighting facilities in living room		0.008629		
a. Wall or ceiling electric lamps	4		0.034516	3.5
b. Electric bulb	3		0.025887	2.6
c. Kerosene burner lamps and lanterns	2		0.017258	1.7
d. Lanterns	1		0.008629	0.9
e. Kerosene lamp or candles	0		0.000000	0.0
C. Number of bedrooms:		0.006192		
a. Four or more	4		0.024768	2.5
b. Three	3		0.018576	1.9
c. Two	2		0.012384	1.2
d. One	1		0.006192	0.6
e. None	0		0.000000	0.0
D. Cooking facilities		0.008261		
a. Electric or gas range stove	4		0.033044	3.3
b. Kerosene stove	3		0.024783	2.5
c. Charcoal hearth stove	2		0.016522	1.7
d. Wood hearth stove	1		0.008261	0.8
e. Three stones on ground	0		0.000000	0.0
E. Bathing facilities		0.004219		
a. Bathroom with washstand, bathtub and shower	4		0.016876	1.7
b. Bathroom with washstand and shower only	3		0.012657	1.3
c. Bathroom with shower only	2		0.008438	0.8
d. Punch bowls, wash bowls, or bombs of zinc	1		0.004219	0.4
e. Tin vessels, "higüeras", ¹ etc.	0		0.000000	0.0
F. Disposal of human wastes		0.012843		
a. Toilet inside house	4		0.051372	5.1
b. Toilet outside house	3		0.038529	3.9
c. Concrete or block latrine, or commercial wood and zinc latrine	2		0.025686	2.6
d. Latrine made with pieces of cardboard, zinc, etc.	1		0.012843	1.3
e. None	0		0.000000	0.0

TABLE 3—Continued

Variables	Mea- sure- ment	Discriminant function coefficients weights	Weights for the item categories within each subarea		System of weights accepted	
			(W ₁)	(W ₂)	(W ₁) (W ₂)	(W ₁) (W ₂) 100
G. Dishwashing facilities		-0.001401				
a. Electric dishwasher	4			-0.005604		-0.6
b. Sink with hot and cold run- ning water	3			-0.004203		-0.4
c. Sink with cold running water only	2			-0.002802		-0.3
d. Sink without running water	1			-0.001401		-0.1
e. Washes in vessels, pails, cans, etc.	0			0.000000		0.0
H. Facilities to preserve perishable foods		0.001598				
a. Freezer	4			0.006392		0.6
b. Electric or gas refrigerator	3			0.004794		0.5
c. Ice box	2			0.003196		0.3
d. Shelves to keep them fresh	1			0.001598		0.2
e. Tins, cans, sacks, etc.	0			0.000000		0.0
I. Washing clothes facilities		-0.000339				
a. Automatic washing machine	4			-0.001356		-0.1
b. Semi-automatic washing ma- chine	3			-0.001017		-0.1
c. Basin with running water faucets	2			-0.000678		-0.1
d. Trough or zinc bowl	1			-0.000339		-0.0
e. Trough made of petiole of palm tree	0			0.000000		0.0
J. Recreation facilities in house		0.000520				
a. Television, radio and phono- graph	4			0.002080		0.2
b. Television and radio or televi- sion and phonograph	3			0.001560		0.2
c. Television	2			0.001040		0.1
d. Radio or phonograph	1			0.000520		0.1
e. None	0			0.000000		0.0

¹ See footnote 1, table 2.

<i>Factor</i>	<i>Value of discriminant function</i>
Previous level of living, parceleros	.097582
Standard of living, agregados	.223391
Standard of living, parceleros	.235747

The implications of these discriminant function applications may in general be stated as follows: The highest computed value 0.235747 cor-

responds to the standard of living of the parcelero families and the lowest value, 0.097582, to their living conditions prior to resettlement. The value 0.193180, for the linear combination that characterizes their existing level of living is in between, indicating an intermediate stage in this process. The differences between previous living conditions on farms and existing conditions in rural communities are highly significant. The same conclusion holds with respect to the difference between the standard of living or conditions of life to which parceleros aspire and the level of living already attained in rural communities.

Parallel but less marked changes are observed among the agregado

TABLE 4.—Mean household area levels of living of the parcelero and agregado families, Puerto Rico, 1970

Selected areas (variables)	Group means				
	Parceleros			Agregados	
	Immedi- ately before resettle- ment	At time of interview	Aspira- tions	At time of interview	Aspirations
X ₁ Walls of the dwelling	1.7793	3.6907	3.9814	2.3245	3.7704
X ₂ Lighting facilities	1.5463	3.4412	3.8515	2.9147	3.6721
X ₃ Number of bedrooms	1.5773	2.6618	3.5113	2.0032	3.1704
X ₄ Cooking facilities	1.8474	3.6226	3.9030	3.0655	3.8098
X ₅ Bathing facilities	.8577	1.9340	3.5525	1.2131	3.1344
X ₆ Disposal of human wastes	1.3483	2.2927	3.8226	1.7672	3.6196
X ₇ Dishwashing facilities	.4061	1.6927	2.6536	1.1147	2.2163
X ₈ Facilities to preserve per- ishable foods	.7195	2.8206	3.0804	2.2360	3.0557
X ₉ Washing clothes facilities	.7381	1.7340	3.2103	1.0229	2.7606
X ₁₀ Recreation facilities	.3546	2.4824	3.4247	2.0360	3.4426

families. For instance, the value in the discriminant function for their standard of living is 0.223391 and the value for their level of living is 0.142266. Thus, if the value 0.097582 corresponding to previous living conditions on the farms is also taken as a starting point for level-of-living changes among this group, the agregados clearly appear to be progressing through a less advanced phase in the process than parceleros. The differences between previous and existing levels of living of the agregados, as well as the discrepancies between their standard and level of living, are also significant at the 1-percent level of probability.

An important conclusion from this analysis is that the SPA can point to some success in raising levels of living among parceleros. Although the current level of living of the agregados, as well as that of the parceleros, differ

significantly from their previous living conditions, changes taking place in both social settings are more favorable among the parceleros. The differences between them with respect to the level of living achieved are highly significant.

The ratio of deprivation (discrepancies between the standard and level of living as a ratio of the standard of living of each group) is also more pronounced among agregados than parceleros, particularly as they do not differ significantly with respect to aspirations to improve the level of living. In contrast to their existing level of living, the null hypothesis could not be rejected when both groups were compared with respect to their standard of living.

SUMMARY

This paper presents changes in the level and standards of living of agregado and parcelero families in Puerto Rico. The discriminant function technique was used to compute characteristic indexes of the material style of life attained at a given time or desired by both groups under study. The analyses showed that important changes have occurred in the levels of living of the agregado and the parcelero families, but the changes are more marked among the parcelero families.

The analyses also identified intermediate stages in the level-of-living process. The agregados also appeared to be progressing through a less-advanced phase in this process than the parceleros.

An important conclusion from the study is that the SPA can point to some success in establishing conditions wherein levels of living have been raised among the parceleros.

RESUMEN

En este estudio se presentan los cambios que han ocurrido en el nivel y estándar de vida de las familias de agregados y parceleros. Para computar los índices característicos del estilo material de vida deseado o logrado por ambos grupos en un período determinado, se utilizaron técnicas de la función discriminadora. Los análisis demostraron que se han registrado cambios importantes en sus niveles de vida, pero las mejoras que se evidencian son más pronunciadas en las familias de parceleros que en las de agregados.

Los análisis también identificaron etapas intermedias en el proceso del nivel de vida y demostraron que la etapa en que se encuentran los agregados está en una fase más atrasada que la de los parceleros.

Una conclusión importante que se desprende de este estudio es que la Administración de Programas Sociales ha tenido éxito en establecer condiciones propicias al mejoramiento de los niveles de vida de los parceleros.

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