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HOME-BASED RESTAURANTS, SNACK BARS, AND RETAIL STORES:
THEIR CONTRIBUTION TO INCOME AND EMPLOYMENT IN LIMA, PERU

DATA FROM A RANDOM SAMPLE OF 908 ENTERPRISES IN 1983

by

W. Paul Strassmann
Professor of Economics
Michigan State University
East Lansing, Michigan

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Introduction

Familiarity with economics tends to encourage a more abstract view of what is worthy and unworthy in production.¹ Those least familiar or sympathetic with the neoclassical approach tend to emphasize only what is tangible -- wheat, cloth, oil, steel -- to a point where in some centrally planned economies nothing else is counted at all. Not GNP, but GMP or "Gross Material Product" is their name for the game. Among policy-makers in the West and many Third World countries, traces of such thinking can be found in the preference for supporting farmers and factories rather than services, especially retail stores, refreshment stands, and lunch counters. The rationale seems to be that stores and cafes are easily set up in one's home and that their marginal product must therefore be low. Any resources devoted to them are believed to add no value to the basic product. Retailing or serving food from homes is at best somewhat redistributive and at worst parasitic.

This paper presents evidence from a 1983 survey of home businesses in Lima, Peru, that partly contradicts that rationale and partly suggests that the issue should be posed differently. First, we show that home-based retail stores, restaurants, cafes, bars, and the like, generate as much or more output with about the same amount of input as home businesses that produce manufactured goods or other services. All types of business

¹Thanks are due to Chris Gerry, Alan Gilbert, Michael Lipton, Donald Mead, Michael Shepperdson, Peter Ward, and E. J. Wells for helpful comments. Remaining errors and shortcomings are my responsibility.

proliferate to the point where returns to the average worker diminish to a low of about fifty dollars or less. Second, we suggest a redefinition of the issue by showing that the stores-cafes that do badly (yielding a low income), like other unproductive home workshops, often are those operated by women and selling only in the neighborhood. The explanation for low productivity must, therefore, not be sought in the inherent nature of the product or service, but in the isolation of some neighborhoods and the inferior job opportunities for women.

Comparison of Stores and Restaurants with Other Home Businesses

A survey of 1,706 randomly selected home businesses throughout the Metropolitan Area of Lima, Peru, was carried out in late 1983,² and found that 53.2 percent of them were stores, restaurants, cafes, snack counters, and bars. If that proportion holds for the city, no fewer than 52,000 households had such store-cafes, as we shall call them. In terms of sheer numbers they were three times as prevalent as the next most numerous home business, garment making, with 15,000 enterprises.

The average monthly net earnings of store-cafes were the equivalent of \$73.5 US dollars, which compares with \$66.7 for other home businesses. Store-cafes and others all employed an average of 1.4 workers, but per worker income was \$52.5 monthly in the store-cafes, nearly 10 percent more than the \$47.6 of other home workers. Garment makers earned \$46.2 monthly.

²See Appendix.

As a whole, restaurants and the like did better than retail stores, earning a net of \$89.6 monthly (\$54.6 per worker), compared with \$71.9 monthly (\$51.4 per worker) (see Table 1). The least successful enterprises of all types earned less than three dollars monthly. The median income of \$60.1 monthly of restaurants was higher than the \$45 median for both stores and other enterprises. With this income the restaurants contributed somewhat more than half of the household income, while stores and other enterprises contributed about forty percent.

Total net household income for all three categories (stores, restaurants, and others) averaged around \$175. The average household had one other worker besides those in the home business. The monthly earnings of that non-home worker averaged \$99.8 monthly, less than the \$112.6 monthly earned by the outside workers in households with home businesses other than store-cafes. Non-home workers throughout the city (including their property and pension income) received an average \$95.3 monthly. The main conclusion so far is that monthly earnings of workers in home businesses were about half of earnings of outside workers. Whether the home business was a store, cafe, or something else did not make an obvious difference.

Other characteristics of the store-cafes were also close to the average of home businesses, as may be seen in the last three lines of Tables 2 and 3. Thus, households consisted of 6.3 members and were headed by someone in his or her mid-forties. Like home businesses in general, 65 percent were operated by female household heads or the wife of the male head.

Table 1. Income Characteristics of Home-based Stores and Restaurants in Lima, Peru, 1983

	(1) Number in sample ^{a/} (percentage)	(2) Monthly home business income (standard error)	(3) Home business workers	(4) Monthly income per home worker \$	(5) Total monthly household income \$	(6) Share of home business income in total - %	(7) Median business income (minimum)
Stores, retail trade							
A. Female operated							
1. Neighborhood market	585 (64.4)	48.4 (2.6)	1.3	38.3	158.4	30.6	35.0 (0.0)
2. City-wide market	90 (9.9)	118.1 (28.9)	1.5	66.6	215.7	54.8	45.0 (6.0)
B. Male operated							
3. Neighborhood market	116 (12.8)	96.0 (8.6)	1.6	65.4	169.9	56.5	75.0 (2.5)
4. City-wide market	26 (2.9)	325.4 (202.3)	1.7	191.7	379.1	85.8	123.6 (5.0)
C. Female or Male operated							
5. Sell to businesses	10 (1.1)	90.9 (16.5)	1.8	58.3	155.4	58.5	73.9 (5.0)
Restaurants, cafes, bars, etc.							
A. Female operated							
6.1. Neighborhood market	42 (4.6)	64.8 (8.5)	1.7	41.7	147.2	44.0	49.8 (4.0)
7.2. City-wide market	25 (2.8)	87.6 (20.3)	1.2	70.1	183.5	47.7	60.2 (15.0)
B. Male operated							
8. Neighborhood market	11 (1.2)	168.2 (56.7)	2.0	73.0	248.9	67.6	81.3 (2.5)
9. City-wide market	3 (0.3)	175.0 (34.9)	3.3	63.1	215.0	81.4	150.0 (75.0)
Totals							
10. All stores, etc.	827 (91.1)	71.9 (10.8)	1.4	51.4	173.2	41.5	44.8 (0)
11. All restaurants, etc.	81 (8.9)	89.6 (10.4)	1.6	54.6	174.2	51.4	60.1 (2.5)
Home businesses							
12. All types (including stores and restaurants)	1706	70.3 (3.9)	1.4	50.2	176.1	39.9	44.9 (0)

ce: Survey of 1,706 home businesses, October 27 - December 10, 1983.

te: ^{a/}Percentage of 908 store-cafes.

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Table 2. Household Characteristics of Those with Stores or Restaurants in Dwellings, Lima, Peru, 1983

	(1) Years of occupation of present dwelling	(2) Age of household head, years	(3) Household Size	(4) Total number of employed household members	(5) Home business workers	(6) Years of education of business operator
I. Stores, retail trade						
A. Female operated						
1. Neighborhood market	11.6	44.5	6.4	2.5	1.3	6.0
2. City-wide market	10.9	44.3	6.2	2.5	1.5	5.3
B. Male operated						
3. Neighborhood market	12.8	48.1	5.8	2.2	1.6	6.8
4. City-wide market	11.8	43.7	5.1	2.0	1.7	6.9
C. Female or male operated						
5. Sell to businesses	15.3	45.6	6.5	2.6	1.8	6.0
II. Restaurants, cafes, bars, etc.						
A. Female operated						
6.1. Neighborhood market	13.2	47.5	6.0	2.5	1.7	5.4
7.2. City-wide market	13.3	47.6	5.9	2.4	1.2	6.9
B. Male operated						
8. Neighborhood market	10.9	53.6	7.8	3.1	2.0	7.7
9. City-wide market	10.3	40.3	7.3	2.5	3.3	7.3
III. Totals						
10. All stores, etc.	11.7	44.9	6.3	2.5	1.4	6.1
11. All restaurants, etc.	12.7	48.0	6.3	2.5	1.6	6.2
IV. Home Businesses						
12. All types	12.7	46.2	6.2	2.4	1.4	6.8

Source: Survey of 1,706 home businesses, October 27 - December 10, 1983.

Table 3. Dwelling Characteristics of Those with a Store or Restaurant on the Premise in Lima, Peru, 1983

	(1) Site area, m ²	(2) Floorspace, m ²	(3) Value, \$	(4) Rent per month, \$	(5) Interest rate expect- ed to pay, %	(6) Space of home business, m ²
I. Stores, retail trade						
A. Female operated						
1. Neighborhood market	154.4	115.9	4,213	10.2	40.3	25.1
2. City-wide market	125.0	100.5	5,900	3.5	40.6	44.0
B. Male operated						
3. Neighborhood market	151.0	119.4	5,350	25.8	48.8	27.1
4. City-wide market	112.8	124.2	8,300	9.7	68.6	43.3
C. Female or Male operated						
5. Sell to businesses	132.7	115.7	2,719	13.7	59.0	34.7
II. Restaurants, cafes, bars, etc.						
A. Female operated						
6.1. Neighborhood market	139.4	110.9	5,450	15.4	40.7	38.2
7.2. City-wide market	103.5	127.7	2,550	7.5	55.2	40.2
B. Male operated						
8. Neighborhood market	171.5	156.6	1,435	25.0	59.6	31.0
9. City-wide market	322.5	191.3	4,267	---	91.7	137.0
III. Totals						
10. All stores, etc.	149.1	115.0	4,592	11.0	42.7	27.2
11. All restaurants, etc.	143.9	124.8	4,207	13.0	52.0	43.5
IV. Home businesses						
12. All types	148.8	115.6	5,600	10.5	43.2	35.4

Source: Survey of 1,706 home businesses, October 27 - December 10, 1983.

For store-cafes the average education of the operator of 6.1 years was less than the 7.6 years of other home business operators. Like other households, store-cafe operators had lived in their dwellings a dozen years and had operated the enterprise for four or five years. On something less than a 150 m² site, the dwelling had a bit more than 115 m² of floorspace. Of this, 27.2 m² was used for stores and 43.5 m² for restaurants or cafes, close to the 43.0 m² average for other home businesses. The value of the store-cafe dwellings, however, was less, as estimated by owner occupants: \$4,600 for those with stores, \$4,200 for those with restaurants, but \$6,800 for all others, making an average of \$5,600. In both more and less developed countries such estimates have been remarkably close to those of appraisers and of averages of actual sales. In Lima, store-cafes probably had a lower value because they were more likely to be located in squatter settlements, as we shall see.

As usual, these averages obscure diversity within categories, but they show that, as a whole, stores and cafes as home businesses were not remarkably different. The trick is to identify those with the most potential for raising incomes, employment, and savings in support of national economic development.

Gender and Markets

In stores and restaurants, as with other businesses, higher earnings are associated with operation by the male head of the household and by having customers from the entire city, or at least the broad district where

the firm is located. Low earnings go with operation by a woman and sales "mainly to neighbors in this building, this block, and in nearby streets."

The other market category is called "city-wide" even though few or no customers might come from remote districts. For manufacturing shops, sales to other businesses were considered a separate market category. To attract a city-wide or business clientele, quality of product or service had to be higher, which implies the use of more skills and usually more capital. For stores, operation by the male head doubled earnings. City-wide sales tripled earnings. In combination, earnings sextupled, from less than \$50 monthly for a female-operated neighborhood store to over \$300 for a male-head-operated store with city-wide sales. Earnings per worker in these stores were better than those of any other home business type, \$191.7 monthly (see Table 1, columns 2 and 4). But there were only about 1,500 of them in the Lima Metropolitan Area, compared with 33,500 female-run neighborhood shops, the most widespread home business. A third of home businesses (34.3%) were in that category.

In the case of eating and drinking establishments, similar differences prevailed but were smaller. As can be seen in Table 1, column 2, gender of the operator, if male, still doubled earnings, but the extent of the market had a smaller effect. Since restaurants with a city-wide clientele employed one or two extra workers, their earnings per worker were actually comparatively low at \$63.1 monthly.

The low monthly incomes per worker of \$38.3 for a female-operated neighborhood store or \$41.7 for running a neighborhood cafe, should be compared with other neighborhood-oriented, female-run businesses. If they

produced textiles, garments, or food products, monthly net earnings were \$30.1; and if they were laundresses, they earned \$26.4. In terms of alternative opportunities, therefore, the stores and cafes were not that bad. Moreover, the alternative of commuting and dressing for a formal sector job if hypothetically available, did not seem all that attractive. More than half (54.2%) of cafe-store operators said home work was "much better" than a formal sector job, compared with 30.3 percent of laundresses and 48.1 percent of women who wove, sewed, or prepared food for the neighborhood.

If a male household head operated a store for the neighborhood, he earned \$65.4 monthly; and if it was a restaurant or cafe, net earnings were \$73.0 monthly per worker. If the man produced garments, textiles, or food products for the neighborhood, earnings were only \$59.8; and for metal, wood, or leather goods, earnings per worker were \$56.7. For city-wide markets, these two categories gave higher earnings of \$78.9 and \$63.1 respectively. These earnings match incomes in restaurants but fall short of the \$191.7 for the male-run stores with city-wide markets. These store-cafes also had the highest median income (\$123.6) that was statistically significant. In this set was the most lucrative home business of all, a store with \$2,500 of monthly earnings. To some extent the higher incomes of store-cafes in general had to offset the higher cost and inconvenience of the sharper separation of business space from domestic space that such businesses entail. Compared with manufacturing, customers appear more often and stay longer so that any privacy requires at least separation -- extra rooms and often additional space.

Income is not, however, the same as contentment. The proportion of operators who said a cafe-store with a city-wide clientele was "much better" than a formal sector job was 48.4 percent. This preference was less than that of metal products makers (63.6%), furniture makers (58.0%), shoemakers (68.6%); but more than that of men producing garments, textiles, or food products for a city clientele (41.3%). All these percentages show, nevertheless, a strong preference for being self-employed, considering that average incomes were only half as much as earnings from outside work. The male-run businesses contributed 55-85 percent of household income, while the female-run store-cafes yielded 30-55 percent. This difference in percentages contributed reflects the earnings differential between men and women, hence access to training, capital, and other opportunities.

Differences in household characteristics that lie behind these earning patterns are worth noting. Male-operated eating and drinking establishments had the largest average household size, 7.7 members, and generated the most employment per business. Only three had a city-wide clientele, and these were run by household heads with an average age of only 40.3 years (compared with the average of 46.2 years). They had the largest premises, 191 m² of floorspace on 323 m² lots, with 72 percent of the floorspace used for the establishment. The expectation of 91.7 percent interest rates on loans showed a more realistic business sense than the 43.2 percent rate expected by the average operator, given the current and expected rate of inflation of perhaps 125 percent. Any interest rate below this percentage, of course, means that in real value terms, less would be repaid than was lent.

The three restaurants for a city-wide clientele may be ambitious projects that will either expand out of the home or fail and may in any case stop being part of the home business population. Male-operated restaurants with a neighborhood clientele, by contrast, were run by the oldest heads, 53.6 years of age. Both types were the only store-cafe operators with an average of over seven years of education.

Women who operated the vast number of small stores and cafes for the neighborhood had less than the average amount of education of home business operators, between five and six years of schooling. Though earning less, they did not use significantly less space for the business. Their many neighborhood stores averaged 25 m², and their restaurants averaged 38.9 m². Given their education and their location, there was no better way to use that space. A disproportionate number of neighborhood-oriented stores and cafes were in the Pueblos Jovenes (squatter settlements) around Lima. If evenly distributed in proportion to population, one might have expected some 18,000; but actually over 23,000 existed, as extrapolated from our random sample. We found 53.5 percent located there, and they were 57.4 percent of home businesses in these areas.

Raising the productivity of these women workers is not simply a matter of switching occupations but of providing training and of overcoming the drawbacks of poor location, meaning cheaper access to the rest of the urban economy. To encourage women to be seamstresses or laundresses at the same location, or to expect them to commute for a quarter of the day from that place and back is of little help. With respect to training, however, women in light manufacturing were ready to pay reasonable fees for 30-50 hours of

instruction, while the owners of stores and restaurants thought two hours were the limit.

Major Problems of Home-based Stores and Cafes

Like other home-based enterprises the stores and cafes are problem-solvers more than problem-raisers. They help to provide both income and space. Among occupants with stores, 73.1 percent said they could not have built, bought, or rented the dwelling without the home business income. For all other households, including the restaurant operators, this view was held by 63.0 percent. For cafes and stores with city-wide markets, however, the need for the business to support the cost of dwelling space approached eighty percent (79.7%).

Conversely, of course, the businesses could not have started without the space that the dwellings provided. That was true for 65.8 percent of eating and drinking establishments and for 74.8 percent of stores. The average for all other home businesses was 66.1 percent.

The viability of the stores and cafes is shown by the high proportion, ninety percent, that was not considering closing up shop although the year 1983 had been economically depressed. A fall in business during the 1980's was reported by 43.2 percent. Some 31.2 percent, however, expected business to recover during the coming year. Economic conditions might be poor, but competition from larger stores, restaurants, cafes and bars, those outside of dwellings, was not feared by 85 percent of respondents, either those with a neighborhood or with a city-wide clientele.

As was the case with other home businesses, the main problem perceived by store and cafe operators was credit. It was listed first by 17.4 percent. Better access to piped water and the sewer system was listed as more important by store-cafe operators than by any others except the laundresses. It was listed first by 5.7 percent and as necessary before expansion by 17.2 percent. The high ranking for water and sewerage access is partly explained by the high number of store-cafes located in Pueblos Jovenes that are inadequately supplied with such service. Only one percent considered inspections, regulations, taxes, and other payments to government a problem.

If the cafe or store were to sell more, its primary need would be more space, as stated by 24.0 percent of the neighborhood-oriented and by 29.2 percent of those with city-wide customers. Acquiring space, together with the need for more furniture, equipment, and inventory, explains the need for additional credit before expansion.

Altogether, 60.3 percent of store-cafe operators said credit or access to loans were necessary for the business, and these are the ones who used it. Among home businesses other than store-cafes, credit was considered indispensable by 66.1 percent; and the share exceeded 85 percent in the case of male-operated workshops that made textiles, garments, food, or metal products.

When loans were needed, two-thirds (67.5%) of the store-cafe operators sought them from friends and relatives. Only 7.3 percent mainly sought them from banks, and the rest went to pawnbrokers, money lenders, credit clubs, and other sources. Table 3, column 6, shows that willingness to pay

a realistic amount of interest was more common among male-operated enterprises with a city-wide clientele, and especially among the restaurant, bar, etc., operators.

The reluctance to use formal credit is underscored by the relatively high unwillingness or inability of these enterprises to offer any guarantee of repayment. Nothing was offered by 27.8 percent, a share exceeded only by the laundresses. The dwelling itself was offered as collateral by 30.0 percent; and equipment or furniture by 19.0 percent. The rest thought they could produce an adequate counter-signature by someone, payroll deductions of a family member working elsewhere, and the like. Two-thirds were unwilling to take responsibility for a joint loan together with other small neighborhood businesses.

Initiating home businesses into the world of formal credit is the task of the government affiliated Banco Industrial del Peru. In our sample we found 37 enterprises that had received loans from that institution. Half were in manufacturing, but over a third were stores, and two were restaurants. Since manufacturing does not invariably have a greater potential for generating income, savings, and employment, it would have been a mistake to concentrate all lending on that category of business.

Is the Contribution Trivial?

The 52,000 retail stores and eating establishments that operated in dwellings in Lima were not too many. That one in seventeen dwellings had such a business was not a waste. In fifty years when real income per capita may well triple or perhaps quintuple, the proportion with store-

cafes will be much lower. At that time there will also be fewer small farms, small artisan shops, and fewer of many other types of small business. Economic development goes with capital accumulation and economies of scale.

In the meantime, however, the 73,000 jobs provided by the store-cafes were important for 3.9 percent of the Metropolitan labor force. They generated net income equivalent to US \$46 million per year at a rate of \$73.5 dollars monthly per business or \$52.5 per worker. Outside work paid nearly twice as well but was less dependable, less satisfying, and often involved travel time and related costs.

From the point of view of the customers of the stores and restaurants, the ubiquity of the enterprises meant that the possibility of a purchase, meal, snack, or drink was nearby. Customers thus saved time and often money for other productive use, necessities, or pleasures. The consumers' benefit from access to these establishments was not essentially different from benefits due to other goods and services. Just like manufactured products, the store-cafes had to provide enough convenience, pleasure, and perhaps status to buyers or business could not continue. No one was forced to patronize these stores and restaurants, and quite a few closed. The survivors provided good value for money.

In our sample a few of the businesses had a negligible monthly income of \$5 or less because they were just starting, about to give up, or in transition. Others earned over \$500 monthly, and one reported \$2,500. These enterprises sometimes employed as many as half a dozen workers, and one had eight. Such enterprises are not only expanding but may relocate on

other nearby premises. Alternatively, it is the household that may move out.

In one case a woman inherited a large, old, but rundown, dwelling with a store at a good location. She spruced up the house and converted the shop to a small cafeteria which flourished so well that a second room was shifted to the enterprise. Income during the first year was about \$3,000. It became a popular restaurant. Eventually the woman, her husband, and children decided to move out of this house; and she planned to convert the newly vacated rooms to a bakery. Books began to be kept formally by an accountant, and bank loans were being taken out and repaid. The case suggests once again that what matters is entrepreneurship, sensitivity to markets, and capital accumulation in general, not their particular incarnation in manufacturing instead of services, or vice versa.

Conclusion

To sum up, the survey showed that home-based stores and restaurants in general were not very different from other home businesses with respect to space used, employment generated, net income produced, and so forth. Perhaps as interesting is that variations in profitability within the category were also due to the same factors that caused variations elsewhere. Specifically, enterprises were less profitable if they were at inferior locations and operated by women. Regression analysis showed that, all other things being equal, a store or restaurant earned \$10 more per worker than home-based manufacturing of wood, leather, metal, textile, clothing, or food products. But other things were not equal, and income per worker

actually turned out to average only about the same amount. The a priori advantage was lost because the greater proportion of stores and restaurants were located inconveniently, sold mainly to neighbors, and were operated by women.

Some ways to offset inconvenient location is to provide water, sewers, lighting, and good access roads. All of these are likely to bring competition in, but at the same time they allow those with the most potential to expand and to compete elsewhere. Either way, workers have the opportunity to find more productive employment in better enterprises, whether operated from dwellings or not.

The lower productivity of female-operated enterprises was, of course, not inevitable. No doubt, some women in Lima as elsewhere (just like some men) preferred a convenient part-time or flexible activity that could blend with household responsibilities. Lower earnings were the trade-off for that convenience. Other women had a different perspective and earned less only because of less education, difficult access to credit, legal disabilities, and other types of discrimination. Those who overcame these handicaps were often widows who took over a husband's business or daughters who were especially favored with education and inheritance. The woman, cited above, who turned an inherited house into a restaurant is a good example. Few development policies have more potential than giving talented people access to training and credit.

Finally, a paradox of development is that the more home-based stores and restaurants with potential are encouraged, the faster will they be displaced by more productive, large-scale enterprises. Needless to say,

that principle applies equally to other types of home business, to most small scale enterprises, and to the bulk of the informal sector. Whatever raises incomes, savings, and (yes!) the tax base, encourages capital formation and sooner or later, mass production. But that process takes decades. Meanwhile, the special benefit of home-based enterprises is that they promote better housing, allow that part of the capital stock to be used more intensively, and hearten those who like working close to their families. Commuting is the cost of progress.

AppendixThe Surveys of 1980 and 1983

For both the 1980 and 1983 surveys, households were selected from those in 203 clusters with over a hundred houses that had previously been selected as a general sampling frame by the Directorate of Employment and Migration Studies (DEEM, formerly the Technical Office of Manpower Studies), General Bureau of Employment, Ministry of Labor and Social Progress of Peru. The 1980 survey was carried out during June 10 to July 3, 1980. To obtain a final sample of close to 1,200 households, 1,380 addresses were initially selected at random. Added later were 53 households next to those selected when these represented increased density of settlement and rising population growth. A total of 266 interviews did not materialize because dwellings had been demolished, were unoccupied, were used entirely for non-residential purposes, or had occupants that refused to be interviewed or that could not be located ever after four return visits. The number of households finally interviewed was 1,167. Interviewing began early on Saturdays and Sundays and after 2 p.m. on week-days. Only the head of the household or other competent adults were questioned. Repeat visits were made to some households if information later appeared to be incomplete or contradictory.

Sample selection and interviewing proceeded in a similar manner for the 1,706 households with home businesses in the survey carried out during October 27 to December 10, 1983. To identify these households, however, 15,107 dwellings had to be surveyed first to determine the presence or absence of a home business, including the renting of rooms. Since 193 households had two businesses and 7 households had three businesses, the total number found was 1,913. To reduce the cost of search for home businesses, two strata of higher

income districts were undersampled, so that 242 observations had to be weighted upward. Lower income districts were oversampled somewhat, and 1,464 observations had to be weighted downwards.

Where observations from subsamples have to be weighted, the standard errors of means cannot be calculated in the usual manner. Instead, one has to estimate the standard errors for the means of each subsample separately and then take their average, weighted in accordance with the known or assumed distribution of the population among the strata from which the subsamples come. For this insight, I am indebted to Professor James H. Stapleton, Department of Statistics, Michigan State University.

Sample selection and interviewing in Lima were under the direction of Abel Centurión and Jorge Bernedo of the DEEM, Ministry of Labor. Their contribution and that of their associates is gratefully acknowledged. The accuracy of their work can be seen from the following comparisons with the 1981 National Census of Population and Housing.

	1980 Household <u>Survey</u>	1981 <u>Census</u>
1. Number of observations	1,167	9,06,367
2. Occupants per dwelling	5.53	5.40
3. Walls made of inferior materials (adobe, straw, etc.), percentage of dwellings	25.8	26.4
4. Sewer system connection and piped water, percentage of dwellings	62.5	61.1
5. Renters, percentage of households	29.2	29.8