Dynamics of Rural Household Incomes in El Salvador: 1995-1997 Panel Results

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1. Introduction

This paper uses data from two observations (1995 and 1997) in a panel of 494 rural households in El Salvador to explore dimensions of the dynamics of income. Household incomes are compared for the two years, changes are measured, and determinants of these changes are examined. These measurements make it possible to distinguish between the situationally poor (as a consequence of negative shocks in a given year) and the structurally poor.

A descriptive non-parametric discussion is followed by an econometric estimation that attempts to explain determinants of changes in household incomes between the two years. The results reflect household strategies with different degrees of success in managing the risk of income fluctuations. The most successful strategy was the development of household microenterprises oriented to larger markets in peri-urban areas.

A central result is that the notable volatility of incomes is accompanied by substantial mobility across deciles in the distribution of income. Households move above and below the poverty line from one year to the next. These transitory changes in income have not deterred, however, sustained accumulation of private household and productive assets and increased access to public services. As a result, despite income instability, standards of living have improved.

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2. Background

The 1980s were a difficult period for the Salvadoran economy; even rates of GDP growth were negative in real terms for several years. Starting in 1990, however, this unfavorable trend changed, and GDP rates of growth reached over 6 percent per year during four consecutive years. The last year when the economy showed this dynamic behavior was 1995. Since 1996, the Salvadoran economy has been again going through a period of slow growth (Graph 1).

[Graph 1 here]

In turn, during the past decade, the performance of the agricultural sector was very unstable. In particular, as shown in Graph 1, while 1995 was a *good* year and the agricultural sector grew 4.5 percent in real terms, 1997 was a *bad* year and the sector practically stagnated (it grew only 0.5 percent). Similarly, 1995 was a particularly good year for basic grains, the main crop grown by the poorest rural households. The output of basic grains grew more than 20 percent in 1995. In the same way, 1997 was a bad year for basic grains; output declined 4.4 percent (Table 1).

[Table 1 here]

Table 2 shows the evolution of output and yields for the main agricultural products. Table 3 shows average prices for those products. While crop production declined in 1997, this reduction was compensated by higher prices, and farm revenues did not decline as much. This relationship works as an endogenous mechanism that brings about some revenue stabilization.

[Table 2 and Table 3 here]

In general, economic growth and stability are important in the reduction of poverty, but economic growth alone is not sufficient to alleviate poverty. In El Salvador, the higher rates of GDP growth of the 1990s were accompanied by a reduction of almost 15 percentage points in the poverty rate. As shown in Table 4, the largest reductions took place in the urban areas, where the poverty rate fell 16 points. In the rural areas, in contrast, poverty rates fell 9 points and, in El Salvador, poverty continues to be mostly a feature of the rural landscape.

[Table 4 here]

The main source of information about Salvadoran households is the Multiple Purpose Household Survey of the Ministry of Economy. This survey offers good *photographs* of poverty at different points in time. It provides valuable information about the evolution of social indicators, however, only through comparisons of several of these independent photographs. A limitation of these surveys, therefore, is that, although they are good to paint a picture of the situation across households at a given moment, they cannot follow the evolution of a *specific* group of households. For instance, they do not make it possible to answer the question whether the poor are always the same persons or if different persons have fallen into poverty. The latter type of research requires a longitudinal panel study; that is, that the **same** households be studied through time.

This is precisely the main contribution of the BASIS CRSP research program.² The same households have been followed over time with visits in 1996, 1998, and 2000 about their activities during the preceding year. A comparison of the findings for 1995 and 1997 is reported here.

Panel studies in other countries (*e.g.*, Pakistan and Cote d'Ivoire) have found that very few households remain poor or non-poor over time. As a result, poor households can be classified into two groups.³ On the one hand, there are those households that remain poor over time, which may be called the *structurally poor*. On the other hand, there are those households that, in general, generate enough income to cover their needs, but which in some particular period may not manage to do so. This may be due to some shock or negative event (*e.g.*, loss of crops and of animals, death of an income-generating member of the household). This group of households may be called *the situationally or temporarily poor*.

The main purpose of this paper is to compare rural household incomes in 1995 and 1997, to evaluate changes in income, and to identify factors that may have influenced those changes. The study attempts to determine if also in the case of El Salvador there are structurally poor and situationally poor households. Also, the paper tries to describe

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² Collaborative Research Support Program on Broadening Access and Stregthening Input Market Systems, sponsored by the Agency for International Development of the United States (USAID) and implemented in El Salvador by the Rural Finance Program of The Ohio State University and the Salvadoran Foundation for Economic and Social Development (FUSADES).

³ See Alderman and Garcia (1993) for the Pakistan study and Grootaert and Kanbur (1995) for the Cote D'Ivoire study.

key features of these two groups, as the strategies best suited to reach each group are different.

The results are presented in two parts. The first one consists of a descriptive (non-parametric) analysis of the evolution of income and its components between 1995 and 1997. This part also includes a characterization of the various groups of households according to their poverty. The second one presents an econometric analysis of the factors that influence changes in income.

3. The data

The first observation for the panel was undertaken in 1996 by FUSADES, in collaboration with the World Bank's Rural Development Strategy exercise, and with support from USAID (World Bank, 1998). A random sample of 628 households were interviewed throughout the country. The sample was stratified to obtain representation of land cultivators, landless agricultural workers, and landless non-agricultural workers, according to county-level figures from the 1992 Census.

The second observation for the panel was undertaken in 1998 within the BASIS framework. Over two-thirds of the original households interviewed in 1996 were found, for a panel of 494 households. The data used in this paper corresponds to this panel and reflects the situation of those households in 1995 and 1997.

El Salvador is divided into 14 departments, which in turn are divided into municipalities. Each municipality has its own headquarters (*cabecera municipal*) and a number of counties (*cantones*). For the purposes of this study, a *rural* household has its residence in a county that is not a *cabecera municipal* and is not in San Salvador's Metropolitan Area. This is a very strict definition of rural.

In El Salvador, the extreme poverty line is defined as a level of income that is not sufficient to cover the cost of a basic basket of food. A basic basket is supposed to offer 2,300 kilocalories per day. The relative poverty line is defined as the level of income just sufficient to purchase two basic food baskets. In this paper, income is defined as the sum of earnings from crops and livestock products sold in the market or produced for self-consumption, earnings from household non-agricultural enterprises

(microenterprises), wages and salaries earned in agricultural and non-agricultural activities, remittances and other private and public transfers, and earnings from assets.

4. Evolution of household income, 1995-1997

Economic growth generates new productive opportunities for rural households. This was the case in 1995, in contrast to the bad year of 1997. The more rapid GDP and agricultural growth of 1995 were accompanied by higher rural household incomes, while the slower growth of 1997 resulted in lower incomes. This paper explores the causes and consequences of the differential rate of growth in those two years.

With slower aggregate economic growth and lower rural household incomes, the dispersion of incomes increased in 1997. The usual political discourse is that when this dispersion increases, the poorer households become even poorer while the less poor become even less poor. But, is this what happened in El Salvador between 1995 and 1997?

The results reported in this paper suggest that in El Salvador rural household incomes are very vulnerable to exogenous shocks and, as a result, these incomes are extremely volatile. Thus, the poor of 1997 were not necessarily the same poor of 1995. Indeed, the dynamics of income have two components: a situational one (as a result of exogenous shocks) and a structural one (as a result of secular asset accumulation processes). In El Salvador, despite large fluctuations in incomes, the medium-term trend reveals a steady improvement in the quality of life of the rural population, even among the poorest and most vulnerable.

To make them comparable, 1997 incomes were deflated by the average inflation rate between 1995 and 1997. Incomes for the whole household from all sources are therefore expressed in colones of 1995 purchasing power.

[Table 5 here]

On average, the total annual income for the panel of households was fairly stable between 1995 and 1997. If, however, remittances and other outside help are excluded, household income fell 2.5 percent (Table 5). The components of income, nevertheless, do not behave in the same manner. On the one hand, agricultural income suffered an

important reduction. On the other hand, non-agricultural income increased. Remittances and outside help also increased.

In turn, the reduction in agricultural incomes was mostly due to lower incomes from agricultural wages. In contrast, on average, income from crop production in the family plots increased. This deserves further scrutiny. Indeed, 1997 was a bad year for agriculture in El Salvador. It was a bad year also for many households in the panel, as they suffered significant or total losses of their crops due to bad weather, especially due to El Niño. For example, 59 percent of the households that grew corn, 61 of those that grew sorghum, 75 percent of those that grew beans, and 78 percent of those that grew rice experience crop losses due to bad weather. Prices were higher in 1997, however. These price increases compensated, in part, the loss of crops. Nevertheless, for those households with important crop losses, income from this source was substantially reduced.

At the same time, because during 1997 aggregate agricultural output was smaller than in 1995, the demand for labor to handle the crops declined. This effect is also reflected in the data on the households of the panel: the total number of hours that their members worked in agricultural activities, as hired workers, was 24 percent less than in 1995.

[Table 6 here]

At the same time, the total number of hours that household members worked in non-agricultural activities as hired workers also fell, but it fell in a lower proportion. The number of hours worked in non-agricultural activities declined by 15 percent. These figures suggest that many non-agricultural jobs in the rural areas are highly dependent on the level of agricultural activity as well. It is also interesting to note in Table 6 the evolution of real wages in agricultural jobs (which fell) and in non-agricultural jobs (which rose).

Moreover, the panel households increased their incomes from self-employment in non-agricultural activities, mainly those carried out within their homes (microenterprises). These non-traditional sources of income compensated, in part, the loss of agricultural and non-agricultural wages.

Between these two years there was a slight deterioration of income distribution. The Lorenz curve shown in Graph 2 reflects a lower participation in total income by the middle deciles.⁴ Correspondingly, the Gini coefficient increased from 44.6 percent to 48.2 percent.⁵

[Graph 2 here]

This deterioration in income distribution between 1995 and 1997 cannot be attributed to the fact that the poorest households became even poorer and the least poor became even less poor. As shown in Table 7, rural household income is very volatile. As a result, on the one hand, the households that were in the lowest deciles in 1995 (lowest incomes) experienced the largest proportional increases in income. On the other hand, the households that were in the top deciles (highest incomes) on average experienced reductions in their incomes.

[Table 7 here]

In addition to this high *volatility* of incomes, a high *mobility* was observed among the households in the panel. Only about 16 percent of the households remained in the same decile where they had been in 1995. Some households even moved from the first to the tenth decile and vice versa. Graph 3 illustrates the degree of mobility across deciles experienced by the households in the panel between 1995 and 1997.

[Graph 3 here]

In addition to this mobility across the deciles in the income distribution (changes in relative ranking), some households that had been in extreme poverty shifted to relative poverty and some even became non-poor. At the same time, some households that had been above the poverty line reached extreme poverty (Table 8). Of those below the poverty line in 1995, almost one-quarter (23 percent) moved above the line in 1997, while over one-half (53 percent) of the non-poor in 1995 were not able to generate enough income in 1997 to remain above the line.

[Table 8 here]

⁴ The Lorenz curve indicates the cumulative percentage of income received by the accumulated households, starting from the poorest one. A perfectly equitable distribution would result in a diagonal. The further the curve is from the diagonal, the less egalitarian the distribution is.

⁵ The Gini coefficient measures the degree by which the income distribution deviates from a perfectly egalitarian distribution. It is calculated by dividing the value of the area under the Lorenz curve and the area under the diagonal.

It is interesting to note that, during the two years under study, beyond and despite the wide fluctuations in household income, substantial improvements in access to basic services and in the private accumulation of goods were observed. Table 9 shows the favorable evolution experienced by these indicators, even during as short a time as the two years between 1995 and 1997 and despite the reductions in incomes. This rapid improvement in asset accumulation is not commonly observed in other developing countries.

In summary, in El Salvador, the dynamics of rural household income have two components: one situational (due to shocks to income flows) and another one structural. This upward trend, which on the aggregate was observed for the rural population, was also observed for many individual households. Despite the wide fluctuations in their incomes, these households were able to accumulate assets and improve their standards of living.

5. Characteristics of rural households

To better understand the dynamics of poverty and to focus more effectively those policies that attempt to reduce it, better knowledge about those households whose incomes keep them below the poverty line is indispensable. This section describes key characteristics of the rural households in the panel. Significant differences among the different groups considered are shown.

Those households that were below the poverty line both in 1995 and in 1997 will be called the *structurally poor*, those households that were below the poverty line in only one of those two years will be called the *situationally poor*, and those households that were above the poverty line in both years will be called the *non-poor*. Table 10 shows the distribution of households according to this classification: 54 percent are structurally poor, 32 percent are situationally poor, and 14 percent are non-poor.

[Table 10 here]

The 1998 study (World Bank and FUSADES) suggested that factors with the greatest influence on rural household incomes are: the source of income (agricultural or non-agricultural), education, access to markets (distance), and the availability of land.

⁶ Based on total annual income, using the poverty line definition developed by the World Bank.

The three groups of households defined above are markedly different regarding these factors.

Income from agricultural sources, whether from sales and consumption of own production or from wages, represented almost one-half of total income for these rural households in 1995 as well as in 1997, although the relative importance of incomes generated in agriculture declined in 1997.

Agriculture is much more important for the structurally poor, who obtain close to 55 percent of their income from this sector, mainly as wages. The situationally poor and the non-poor, in contrast, obtain between 35 and 50 percent of their income from this source: the former group from wages as well as from own production and the latter through their own production (Table 11). For the situational poor households, the relative importance of income from agricultural sources fluctuates with the weather and other changing conditions of agriculture.

[Table 11 here]

In contrast, income from non-agricultural sources, derived mainly from wages in this sector, is much more important for the non-poor. For this group, non-agricultural income represents almost 60 percent of their total income. The relative importance of this source of income for the situationally poor ranges between 40 a 55 percent, depending on whether it is a good or a bad year for agriculture.

Remittances and assistance received from relatives or friends represented over 8 percent of total household income in 1997, while in 1995 it had represented 7 percent. As shown in Table 11, the increase in the relative importance of this source of income mattered mainly among the structurally poor and the non-poor, for whom, apparently, this assistance compensated in part for the loss of income from agriculture. This assistance, however, is most important for the situationally poor; for whom it represented 10 percent of their total income. Finally, the situationally poor experienced the largest variations in the composition of income during the period, mainly due to the fall in the relative importance of agricultural incomes.

Grouping sources of income between those associated with activities that the households undertake on their own account and those that result from wages, more than

half of total income comes from wages. This shows the great importance of labor markets for rural households, especially the poorest. The reduction in the number of hours worked in 1997 reduced the share of wages from 62 percent in 1995 to 52 percent in 1997 (Table 12). This loss of relative importance was more severe for the structurally poor (from 72 to 50 percent). This suggests that labor market conditions are more critical for the poorest households. The reduction in the share of wages was less pronounced for the non-poor.

[Table 12 here]

Between 1995 and 1997, the proportion of households with access to land increased. Nearly 80 percent of the households had at least a small plot of land, although only 46 percent cultivated it. Among those with land, the average plot size was about 3 manzanas, of which on average only one is cultivated. As shown in Table 13, the structurally and the situationally poor on average possess 2.4 and 3.2 manzanas, respectively, while the non-poor possess 7.5 manzanas. In turn, the area cultivated by the structurally and the situationally poor is close to 1.0 and 1.4 manzanas, respectively, while the non-poor cultivate 2.6 manzanas. Another important difference is the type of products they grow.

[Table 13 here]

The less diversified a household's portfolio of income-generating activities, the greater the risk of income reductions if something goes wrong. Given that 1997 was a year of slower economic growth, knowledge about household diversification strategies is important. The number of sources of income increased (Table 14). On the one hand, the average number of different crops increased; this might be one of the reasons, together with better prices, that allowed average incomes from own production to remain unabated. The increased in the number of crop types was observed for all types of households.

[Table 14 here]

The number of sources of household income does not differ much according to poverty levels; what varies is the type of sources. Again, the structurally poor concentrate their sources of income in the agricultural sector, mainly in the number of household members who earn wages in this sector. Similarly, non-poor households have

a greater number of members employed in non-agricultural activities. While the number of different crops that they cultivate is similar for the three groups, the poorest dedicate more effort to basic grains, while the less poor or the non-poor grow mainly other types of crops.

Self-employment in non-agricultural activities increased in 1997, which again may indicate that one of the strategies that the households adopted to compensate for the fewer hours worked for agricultural wages was to establish small non-agricultural enterprises at home. It should be mentioned that the non-poor developed a larger number of this type of activities.

Few over 8 percent of the households had a female head in 1995, a proportion that increased to 12 percent in 1997 (Table 15). While in 1995 nearly 7 percent of the structurally and situationally poor households had a female head, 14 percent of the non-poor had a female head. For 1997, the proportion of structurally and situationally poor households with a female head had increased to 11 percent and 12 percent, respectively, and for the non-poor it had increased to 17 percent.

[Table 15 here]

The head of the structurally poor households is younger than for the other two groups. Also, there is a significant difference in schooling; the head of the non-poor household has approximately one more year of education (3.5 years) than the head for the other two groups (2.4 years).

On average, rural households have six members. The majority of households are composed, in addition to parents and their children, by other relatives. Table 16 shows the average composition of each group of households. The structurally poor households are a little larger while the non-poor are smaller. The three groups of households have a similar number of persons in the working ages (16 to 64 years old). The difference lies in the number of members 15 years old or younger: while the structurally poor have three youngsters, the situationally poor and the non-poor have 2.0 and 1.2 youngsters, respectively. Between 1995 and 1997, the average number of persons per household increased slightly, from 6.01 to 6.12.

[Table 16 here]

The number of persons working in income-generating activities is similar for the three groups. In 1995, 2.4 members per household worked, while in 1997 the number of working members was 2.7 persons (Table 17). The difference was that among the structurally poor most are working almost exclusively in agricultural activities, the situationally poor work mainly to agricultural activities but have some non-agricultural activities, and the non-poor are engaged mostly in non-agricultural activities.

[Table 17 here]

The rate of dependency is higher for the structurally poor and lower for the non-poor. Household members working in agricultural activities are, on average, almost five years older than those dedicated exclusively to non-agricultural activities. This difference in age is wider for the non-poor and the situationally poor, while there is almost no difference for the structurally poor. Apparently, younger members of the less poor households have been able to find occupatiosn in non-agricultural activities easier than the structurally poor. This possibly reflects the lower levels of education attained by this last group.

Average schooling of employed household members is 3.5 years; those employed only in agricultural activities have three years of education, two years less than those employed exclusively in non-agricultural activities and one year less than those employed both in agricultural and non-agricultural activities. Table No.17 also shows differences in levels of education according to levels of poverty. On average, the schooling of the working members of non-poor households (5.6 years) is almost three years higher than for the structurally poor and two years higher than for the situationally poor.

These differences in schooling may explain differences in mean incomes per hour. On one hand, income per hour earned in non-agricultural activities is considerably higher than income earned in agricultural activities. On the other hand, income per hour is lower for the structurally poor than for the situationally poor, which in turn is lower than for the non-poor (Table 18).

[Table 18 here]

calculated by dividing the number of persons in the household by the number of persons that generate income.

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⁷ Dependency rates are the number of persons that depend on each person that generates income; it is

One of the strategies that the households adopted to face the slower economic growth was for members who did not work before to join the labor market. Table 19 shows that women increased in a higher proportion the number of hours devoted to wage labor, from 19 to 25 percent of the total hours.

[Table 19 here]

The earlier study (World Bank, 1997) found that the distance to the nearest paved road, as a proxy of market access, was one of the variables with the highest influence on household incomes. Table 20 shows an average distance to the nearest paved road of more than five kilometers. Structurally poor households live more than two kilometers further away than the other two groups. This results in high transaction costs. In fact, household members have to travel, on average, more than two kilometers to the nearest bus stop; again, the non-poor and the situationally poor households have a bus stop closer to them compared to the structurally poor.

[Table 20 here]

Despite wide fluctuations in household incomes, the three groups show improvement in their access to public services. Table 21 shows this favorable evolution in access to electricity and potable water, even in such a short time as two years.

[Table 21 here]

Similarly, the three groups of households also show improvements in the accumulation of private goods and assets, especially household appliances (Table 22).

[Table 22 here]

Briones and Andrade-Eekoff (2000) showed that Salvadoran rural communities do not have enough social capital to support economic improvements in the area. Only about 25 percent of the households reported the existence nearby of any kind of productive associations. This is true also for the panel households; the number of households that reported belonging to any association in 1997 was only about 5 percent, even lower than the 7 percent observed two years before (Table 23). Affiliation to associations in general (productive or social) seems to be higher for non-poor households; however, their participation in productive associations is not different from the other two groups.

[Table 23 here]

The importance of transfers received from family and friends and how its relative importance increased from 1995 to 1997 was already discussed. Table 24 shows that one in three households have relatives living in other parts of the country or abroad and that one in five receives transfers from these relatives. The proportion of households that receive assistance from relatives living somewhere else is higher among the non-poor and the situationally poor than among the structurally poor.

[Table 24 here]

Between 1995 and 1997, there was an increase in the number of households with relatives living in other parts of El Salvador. The percentage of households with relatives in other parts of El Salvador is slightly higher among the structurally poor than among the rest. In contrast, the number of households receiving transfers from relatives in other countries is higher for the situationally poor and for the non-poor.

Table No.25 also shows that during 1995 none of the panel households received help from relatives and neighbor friends (non-migrated), while in 1997, possibly because this was a bad year, almost 9 percent of the households received this kind of help.

[Table 25 here]

6. Econometric analysis

This section explores the determinants of the substantial changes in incomes experienced by the rural households in the panel between 1995 and 1997. The central hypothesis is that those changes are strongly related to levels of education, degrees of access to markets, degrees of diversification of household sources of income (particularly toward non-agricultural sources of income), the size of land holdings, and the number of relatives who have migrated beyond El Salvador.

Changes in household income are governed by the household's initial conditions (endowments of human, physical, and social capital, access to basic services, and the number of relatives who have migrated abroad) as well as by changes in those conditions between the initial and the end year. This section explores the influence of variables that the non-parametric analysis suggests as likely determinants of these changes.

The dependent variable in the econometric analysis is the absolute change in income of the rural household between 1995 and 1997. Explanatory variables include the

household's 1995 income as well as the 1995 values of the other variables and their changes between 1995 and 1997. The estimation is undertaken using Ordinary Least Squares.

The following variables were considered:

(1) Human capital.

Several proxies were tested as indicators of human capital formation. The schooling levels of household members between the ages of 16 and 64 years showed a significant influence in the regression. The schooling level of the head of household, however, was not significant.

The number of household members of working ages (16 to 64 years old) was not significant, even after differentiating by gender.

The dependency rate (number of people who work divided by the total number of household members) was not significant.

Gender was not significant.

(2) Physical capital.

The total area of land cultivated was more influential than the total area of land possessed. Levels of household and productive assets were not significant.

(3) Social capital.

The number of memberships in associations was not significant.

(4) Public services.

Access to electricity and to potable water was not significant, but the distance to the closest paved highway was significant, at least until the distance to the closest bus stop was included. The latter turned out to be more influential

(5) Diversification of the household's portfolio of activities.

This variable is very significant. Diversification was proxied by the number of different sources of income. In agriculture, one source was counted for each different crop cultivated (basic grains were considered as one), livestock activity undertaken, or number of household members earning wages in agriculture. For non-agricultural activities, one source was counted for each enterprise undertaken by the household and one for each household member who earned wages in non-agricultural occupations.

(6) Migration

The number of relatives who had migrated inside El Salvador was significant but with a negative sign. This may be expected when the migrant is precisely the household member with the highest level of education: migration leads to lower incomes for those left behind. When combined with the diversification variable, the significance of this variable declined.

The number of relatives who had migrated abroad was very significant.

Two models were estimated: one including remittances and outside help in total income and another one excluding them. The results are reported in Tables 26 and 27. Both regressions have a strong explanatory power. The regression with all sources of income gave an R-square of 0.60, while the regression that excludes remittances gave an R-square of 0.64.

[Tables 26 and 27 here]

The null hypotheses could not be rejected for the influence of the initial levels of schooling as well as changes in schooling, for the size of land holdings and changes in area cultivated, the number of sources of non-agricultural income and the changes in this number, and the number and change in the number of relatives abroad.

7. Conclusion

Rural household incomes are extremely volatile in El Salvador. This results, in turn, in high mobility across the deciles of the income distribution, as the poor become non-poor and the non-poor become poor. Between 1995 and 1997, only 16 percent of the rural households in the panel remained in the same decile of the income distribution. These fluctuations in annual incomes are superimposed, in turn, over a sustained trend of improvements in access to basic services and in the accumulation of household assets.

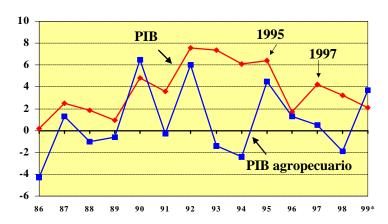
Income instability suggests that mechanisms to manage risk are critical for household welfare. At present, labor markets appear to play a central role in consumption smoothing in this country. Differential degrees of access to labor markets, due to education and location, therefore significantly influence the ability of rural households to operate in this unstable environment.

References

- Alderman, H. y García, M. 1993. "Porverty, Household Food Security, and Nutrition in Rural Pakistan." International Food Policy Research Institute Research Report No. 96. Washington, D.C.
- Banco Mundial, 1998. *El Salvador: Rural Development Study* (preparado por FUSADES), Washington, D.C.
- Briones, C. y Andrade-Eekhoff, K. 2000. Participación en los mercados laborales de los residentes en las áreas rurales. Limitaciones y desafíos. San Salvador: Documento de Investigación BASIS No.2.
- Céspedes, V.H. y Jiménez, R. 1995. *La pobreza en Costa Rica: concepto, medición, evolución*, San José: Academia de Centro América.
- Chen, M. y Dunn E. 1996. "Household Economic Portfolios," documento de AIMS, Washington, D.C.: Agencia para el Desarrollo Internacional.
- Deaton, A., 1997. *The Analysis of Household Surveys. A Microeconometric Approach to Development Policy*, Baltimore: The Johns Hopkins University Press.
- Ministerio de Economía.(1998) Encuesta de Hogares de Propósitos Múltiples, 1997.
- FUSADES, 1997. "Pobreza Rural", *Boletín Económico y Social No. 138*, San Salvador.
- Grootaert C, R. Kanbur, R y G. Oh. 1995. *The Dynamics of Poverty: Why some People Escape from Poverty and others Don't. An African Case Study.* Washington, D.C. The World Bank.
- Grootaert, C. y R. Kanbur. 1995. "The Lucky Few amidst Economic Decline: Distributional Change in Cote d'Ivoire as Seen through Panel Data Sets, 1985-88," *Journal of Development Studies*, vol. 31, No.4.
- Lanjoux, P.1998. "The Rural Non-agricultural Sector and Poverty", *en El Salvador: Rural Development Study*, Washington, D.C.: Banco Mundial.
- López, R. 1998. "Rural Poverty: A Quantitative Analysis", en *El Salvador:* Rural Development Study, Washington, D.C.: Banco Mundial.
- Shi, M. 2000. "Comparación de metodologías utilizadas en la Primera y Segunda Encuestas de Hogares Rurales. FUSADES: en proceso de elaboración.

Tables and Graphs

Graph No. 1 Crecimiento del PIB y PIB ag



* Proyecciones Fuente: Banco Central de Reserva

Table No. 1 Crecimiento del PIB y del PIB agrícola Tasas reales de crecimiento anual

RAMA DE ACTIVIDAD		1992	1993	1994	1995	1996	1997	1998	1999 *
PRODUCTO INTERNO BRUTO - TOTAL	3.60	7.50	7.40	6.10	6.40	1.70	4.20	3.20	2.10
AGRICULTURA,CAZA,SILVICULTURA Y PESCA	-0.28	8.04	-1.40	-2.37	4.52	1.26	0.48	-1.93	3.73
Café oro	0.53	10.97	-8.55	-6.70	-1.18	1.35	-6.34	-11.78	3.54
Algodón	-38.01	8.79	-10.24	-47.77					
Granos Básicos	-3.83	27.65	1.73	-15.00	20.80	-1.26	-4.44	-8.83	9.06
Caña de Azucar	24.12	7.82	3.52	-4.30	-1.40	7.07	23.87	16.96	-2.36
Otros productos agrícolas	4.70	-6.15	9.56	10.70	5.55	4.67	2.52	1.50	3.00
Ganadería	-6.04	-3.04	-6.68	3.01	3.50	0.55	6.26	2.00	2.00
Avicultura	5.98	8.66	-3.65	10.61	6.80	-1.96	6.04	6.14	4.50
Silvicultura	-0.66	-0.72	4.72	-0.70	1.80	2.00	1.21	0.00	1.99
Productos de la caza y pesca	-5.33	3.50	11.94	14.82	1.78	4.01	-10.19	2.99	1.99

(*): Cifras proyectadas por el Banco Central de Reserva. Programa Monetario y Financiero, diciembre 1999

FUENTE: Revistas Trimestrales seleccionadas del Banco Central de Reserva.

Table No. 2 Producción y rendimientos a nivel nacional

	Superficie (Miles de Mz.)			ıcción de QQ.)	Rendimiento (QQ/Mz) *	
Rubros	1995/96	1997/98	1995/96	1997/98	1995/96	1997/98
Maíz	420.9	437.4	14,071.3	11,035.9	33.4	25.2
Sorgo	191.8	177.7	4,369.4	4,340.8	22.8	24.4
Frijol	86.6	118.5	1,111.7	1,467.6	12.8	12.4
Arroz granza	13.7	21.3	1,111.1	1,436.0	81.1	67.4
Café	234.2	234.2	3,033.0	2,739.0	13.0	11.7
Caña*	70.0	118.9	3,866.0	5,973.0	55.2	50.2

^{*} La producción de caña es en miles de toneladas cortas

Fuente: Dirección General de Economía Agropecuaria. DGEA/MAG.

Table No. 3
Precios al productor de los principales productos agrícolas
Colones por quintal

Producto	1995	1997
Maíz	74.3	109.6
Maicillo	61.4	80.0
Frijol	183.1	423.8
Arroz	69.4	86.1
Café	892.2	1,111.1

Fuente: MAG y ABECAFE.

Table No. 4 Evolución de las tasas de pobreza

Período	Total	Urbana	Rural
1991-92	59.7	53.7	66.1
1994	52.4	43.8	64.6
1995	47.5	40.0	58.2
1996	51.7	42.4	64.8
1997	48.0	38.7	61.6
1998	45.1	37.9	56.8

Fuente: Encuesta de Hogares de Propósitos Múltiples. Ministerio de Economía

Table No. 5 Ingreso familiar anual de las familias del panel (Colones de 1995)

	Promedio			Pruebas estadísticas		
Origen del ingreso	1995	1997	Var. (%)	K. Wallis a/	K-Smirnov b/	
I. AGROPECUARIO	9,664	8,254	-14.6	0.040	0.033	
a. Producción	4,730	4,943	4.5	0.975	0.040	
b. Salarios	4,405	3,204	-27.3	0.006	0.005	
c. Otros	529	107	-79.7	0.171	0.520	
II. NO AGROPECUARIO	9,120	10,057	10.3	0.549	0.791	
a. Actividades propias	860	1,858	116.0	0.208	0.109	
b. Salarios	8,048	7,136	-11.3	0.086	0.094	
c. Otros	211	314	49.0	0.026	0.067	
III. AYUDA	1,414	1,689	19.5	0.028	0.028	
a. Remesas del exterior	1,194	1,317	10.2	0.800	0.951	
b. Otra ayuda	219	373	70.0	0.028	0.003	
INGRESO TOTAL	20,197	20,012	-0.9	0.160	0.148	
INGRESO SIN AYUDA	18,784	18,322	-2.5	0.105	0.057	

a/ Prueba de igualdad de promedios. Probabilidad de que los promedios sean iguales

Fuente: Primera Encuesta de Hogares Rurales, 1996 (FUSADES/Banco Mundial) y Segunda Encuesta de Hogares Rurales, 1998 (FUSADES/BASIS).

Table No. 6 Trabajo asalariado realizado por las familias del panel

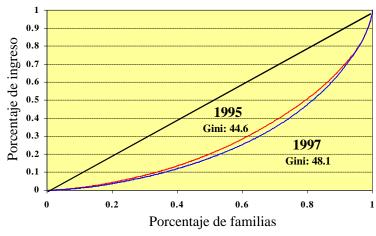
Variable	1995	1997	Variación (%)
Trabajo asalariado agropecuario:			
Horas por persona (miles)	545.3	413.5	-24.2
Ingreso por hora (en colones de 1995)	4.0	3.8	-4.1
Trabajo asalariado no agropecuario:			
Horas por persona (miles)	650.6	554.2	-14.8
Ingreso por hora (en colones de 1995)	6.1	6.4	4.1
Trabajo asalariado en general:			
Horas por persona (miles)	1,196.0	967.7	-19.1
Ingreso por hora (en colones de 1995)	5.1	5.3	2.7

Nota: Incluye solamente las familias del panel.

Fuente: Primera Encuesta de Hogares Rurales, 1996 (FUSADES/Banco Mundial)

y Segunda Encuesta de Hogares Rurales, 1998 (FUSADES/BASIS).

b/ Prueba de igualdad de distribuciones. Probabilidad de que las distribuciones sean iguales.



Nota: Incluye solamente las familias del panel Fuente: Primera Encuesta de Hogares Rurales, 1996 (FUSADES/Banco Mundial) y Segunda Encuesta de Hogares Rurales 1998 (FUSADES/BASIS)

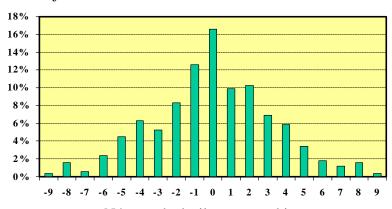
Table No. 7 Ingreso familiar anual (Colones de 1995)

Deciles	Ingresos incluyendo ayuda familiar			Ingresos excluyendo ayuda familiar		
en 1995	1995	1997	Variación %	1995	1997	Variación %
1	2,404	12,508	420.3	2,292	11,001	379.9
2	5,685	15,078	165.2	5,583	13,029	133.3
3	8,001	11,997	49.9	7,546	11,499	52.4
4	10,400	12,025	15.6	9,649	11,404	18.2
5	13,623	17,542	28.8	12,664	16,776	32.5
6	16,832	20,669	22.8	15,834	16,855	6.5
7	20,675	27,386	32.5	18,739	25,768	37.5
8	24,827	24,836	0.0	22,567	23,608	4.6
9	33,073	23,025	-30.4	29,994	19,956	-33.5
10	65,810	34,862	-47.0	62,354	33,089	-46.9
TOTAL	20,197	20,012	-0.9	18,784	18,322	-2.5

Nota: Incluye solamente las familias del panel.

Graph No. 3 Distribución de las familias según cambio de decil

Porcentaje



Número de deciles que cambiaron

Nota: Incluye solamente las familias del panel

Fuente: Primera Encuesta de Hogares Rurales, 1996 (FUSADES/Banco Mundial) y Segunda Encuesta de Hogares Rurales. 1998 (FUSADES/BASIS)

Table No. 8 Niveles de pobreza en 1995 y 1997 $^{1/}$

(Porcentaie de familias del panel)

	<u>viccinaic u</u>	C Iaiiiiias u	CI Danci	
Nivel de pobreza	, Ni			
1995	Extrema	Relativa	No pobre	Totales
Pobreza extrema	19.4	8.9	4.9	33.2
Pobreza relativa	15.0	10.5	11.1	36.6
No pobres	6.5	9.5	14.2	30.2
Porcentajes	40.9	28.9	30.2	100.0

1/ Estos valores difieren de los que se obtienen de la Encuesta de Hogares de Propósitos Múltiples, debido a las diferencias en las definiciones de ingreso que se utilizan. Ver el Anexo 1 para una descripción completa de estas diferencias

Table No. 9 Evolución de indicadores de acceso a servicios básicos (Porcentajes de familias)

INDICADOR	1995	1997
I. Servicios básicos		
Electricidad en la vivienda	54.3	62.7
Acceso a agua por cañería	38.5	44.7
II. Bienes del hogar		
Radio	43.7	48.0
Radiograbadora	45.7	51.8
Televisor	44.7	53.8
Refrigeradora	21.5	25.7
Máquina de coser	12.1	15.2
Plancha eléctrica	36.0	41.9
Cocina eléctrica o de gas	19.0	25.5

Nota: Incluye solamente las familias del panel.

Table No. 10 Resumen de los niveles de pobreza en 1995 y 1997

	Nivel de r	Familias	
Clasificación	1995	1997	%
Pobre estructural	Pobres	Pobres	53.8
Pobre coyuntural	Pobres No pobres	No pobres Pobres	16.0 16.0
No pobres	No pobres	No pobres	14.2

Fuente: 1a. Éncuesta de Hogares Rurales, 1996 (FUSADES/Bco.Mundial)

y 2a. Encuesta de Hogares Rurales, 1998 (FUSADES/BASIS).

Table No. 11 Estructura del ingreso, según sector de origen (Porcentajes)

		Origen de ingreso	Total	Pobres Estructurales	Pobres Coyunturales	No pobres
A.	En	1995				
	I.	AGROPECUARIO	47.8	56.1	49.9	37.8
		a. Producción y actividades propias	26.0	19.7	29.4	30.4
		- Producción	23.4	19.6	23.2	29.6
		- Otros	2.6	0.1	6.1	0.9
		b. Salarios	21.8	36.4	20.5	7.4
	II.	NO AGROPECUARIO	45.2	37.9	39.4	58.7
		a. Producción y actividades propias	5.3	2.0	2.6	7.7
		- Dentro de la casa	1.8	1.6	0.7	3.7
		- Fuera de la casa	1.9	0.4	1.8	4.0
		- Otros	1.6	0.8	2.1	1.8
		b. Salarios	39.8	35.9	36.9	51.0
	III.	AYUDA	7.0	6.0	10.7	3.5
В.	En	1997				
	I.	AGROPECUARIO	41.3	55.0	35.1	36.6
		a. Producción y actividades propias	25.3	20.0	23.2	32.9
		- Producción	24.7	19.2	22.7	32.5
		- Otros	0.5	0.8	0.5	0.3
		b. Salarios	16.0	35.0	11.9	3.8
	II.	NO AGROPECUARIO	50.3	37.2	54.7	56.7
		a. Producción y actividades propias	14.6	8.7	16.5	17.6
		- Dentro de la casa	9.0	6.0	7.4	13.9
		- Fuera de la casa	4.1	1.7	6.9	2.7
		- Otros	1.5	1.0	2.2	1.0
		b. Salarios	35.7	28.5	38.2	39.1
	III.	AYUDA	8.4	7.8	10.2	6.7

Nota: Incluye solamente las familias del panel.

Table No. 12 Estructura del Ingreso, según la fuente (Porcentajes)

-		<u> </u>		
Origen del ingreso	Total	Pobres Estructurales	Pobres Coyunturales	No pobres
A. En 1995				
Producción y actividades propias	31,3	21,7	31,9	38,2
a. Agropecuario	26,0	19,7	29,4	30,4
b. No agropecuaria	5,3	2,0	2,6	7,7
Salarios	61,7	72,3	57,4	58,3
a. Agropecuarios	21,8	36,4	20,5	7,4
b. No agropecuarios	39,8	35,9	36,9	51,0
Ayuda	7,0	6,0	10,7	3,5
B. En 1997				
Producción y actividades propias	39,9	39,7	50,4	39,8
a. Agropecuario	25,3	23,2	32,9	25,2
b. No agropecuaria	14,6	16,5	17,6	14,6
Salarios	51,7	50,1	42,8	51,7
a. Agropecuarios	16,0	11,9	3,8	16,0
b. No agropecuarios	35,7	38,2	39,1	35,7
Ayuda	8,4	10,2	6,7	8,4

Fuente: Primera Encuesta de Hogares Rurales, 1996 (FUSADES/Banco Mundial) y Segunda Encuesta de Hogares Rurales, 1998 (FUSADES/BASIS).

Table No. 13 Familias con tierra (%)

		Pobres	Pobres	
Indicador	Total	estructurales	coyunturales	No pobres
Familias con tierra				
1998	76.5	76.3	79.1	71.4
1997	80.6	81.6	80.4	77.1
a. Sólo familias con tierra				
Tamaño de la tierra (Mz)				
1998	3.2	2.3	3.0	7.5
1997	3.3	2.4	3.2	7.5
Area cultivada (Mz)				
1998	1.1	0.9	0.9	2.2
1997	7 1.3	1.0	1.4	2.6
b. Todas las familias				
Tamaño de la tierra (Mz)				
1998	2.5	1.8	2.4	5.4
1997	2.7	2.0	2.6	5.8
Area cultivada (Mz)				
1998	0.8	0.7	0.7	1.6
1997	7 1.1	0.8	1.1	2.0

Nota: Incluye solamente las familias del panel.

Table No. 14 Número de fuentes de ingreso

	Nivel de pobreza			
Indicador	Pobres estructurales	Pobres coyunturales	No pobres	Total
		Í	·	
Fuentes de ingreso - 1995	2.85	3.06	2.70	2.90
a Agropecuarias	2.22	2.27	1.40	2.12
- Número de rubros agropecuarios	1.10	1.24	1.07	1.14
- Número de asalariados agropecuarios	1.12	1.03	0.33	0.98
b. No agropecuarias	0.63	0.80	1.30	0.78
- Número de actividades dentro de la casa	0.08	0.07	0.11	0.08
- Número de actividades fuera de la casa	0.01	0.05	0.09	0.03
- Número de asalariados no agropecuarios	0.55	0.73	1.17	0.69
Fuentes de ingreso - 1997	3.21	3.24	3.36	3.24
a. Agropecuarias	2.66	2.24	1.94	2.42
- Número de rubros agropecuarios	1.53	1.41	1.57	1.50
- Número de asalariados agropecuarios	1.13	0.83	0.37	0.93
b. No agropecuarias	0.55	1.00	1.41	0.82
- Número de actividades dentro de la casa	0.13	0.20	0.37	0.19
- Número de actividades fuera de la casa	0.02	0.08	0.07	0.05
- Número de asalariados no agropecuarios	0.42	0.72	1.04	0.60

Table No. 15 Características del jefe de las familias del panel

Variable	Total	Pobres estructurales	Pobres coyunturales	No pobres
En 1995				
Sexo del jefe (% hogares)				
- Masculino	91.7	92.5	93.0	85.7
- Femenino	8.3	7.5	7.0	14.3
Edad del jefe (años)	47.2	44.5	50.9	48.7
- Masculino	47.0	44.3	50.6	49.1
- Femenino	49.2	47.9	54.4	46.3
Escolaridad del jefe (años)	2.76	2.67	2.57	3.53
- Masculino	2.71	2.71	2.59	3.48
- Femenino	2.20	2.20	2.27	3.80
En 1997				
Sexo del jefe (% hogares)				
- Masculino	88.0%	89.4%	88.0%	82.9%
- Femenino	12.0%	10.6%	12.0%	17.1%
Edad del jefe (años)	50.05	47.17	54.43	51.06
- Masculino	50.16	47.01	54.58	52.45
- Femenino	49.25	48.57	53.37	44.33
Escolaridad del jefe (años)	2.58	2.38	2.46	3.64
- Masculino	2.62	2.41	2.61	3.52
- Femenino	2.31	2.11	1.37	4.25

Nota: Incluye solamente las familias del panel.
Fuente: Primera Encuesta de Hogares Rurales, 1996 (FUSADES/Banco Mundial)
y Segunda Encuesta de Hogares Rurales, 1998 (FUSADES/BASIS).

Table No. 16 Estructura de las familias del panel

Parentesco	Total	Pobres estructurales	Pobres coyunturales	No pobres
			,	
En 1995				
Número de personas	6.01	6.59	5.59	4.74
a. Por parentesco				
- Jefe	1.00	1.00	1.00	1.00
- Cónyuge	0.82	0.87	0.77	0.74
- Hijos	3.17	3.81	2.58	2.10
- Yernos/nueras	0.05	0.03	0.08	0.10
- Padres	0.13	0.11	0.16	0.13
- Hermanos	0.15	0.15	0.16	0.10
- Nietos	0.47	0.41	0.63	0.33
- Otros familiares	0.20	0.20	0.19	0.20
- Otros no familiares	0.02	0.01	0.03	0.04
b. Por grupo de edad				
- 15 años y menores	2.50	3.20	1.88	1.20
- 16 a 64 años	3.23	3.17	3.35	3.20
Hombres	1.65	1.57	1.78	1.70
Mujeres	1.58	1.60	1.57	1.50
- 65 años y mayores	0.28	0.22	0.36	0.34
En 1997				
Número de personas	6.12	6.66	5.77	4.89
a. Por parentesco				
- Jefe	1.00	1.00	1.00	1.00
- Cónyuge	0.80	0.83	0.73	0.80
- Hijos	3.18	3.79	2.68	2.03
- Yernos/nueras	0.09	0.06	0.13	0.13
- Padres	0.10	0.11	0.08	0.11
- Hermanos	0.10	0.09	0.11	0.09
- Nietos	0.72	0.65	0.92	0.54
- Otros familiares	0.13	0.13	0.10	0.19
- Otros no familiares	0.01	0.00	0.01	-
b. Por grupo de edad			-	
- 15 años y menores	2.57	3.26	2.01	1.24
- 16 a 64 años	3.24	3.17	3.37	3.26
Hombres	1.65	1.57	1.78	1.70
Mujeres	1.58	1.60	1.57	1.50
- 65 años y mayores	0.31	0.24	0.39	0.39

Nota: Incluye solamente las familias del panel.
Fuente: Primera Encuesta de Hogares Rurales, 1996 (FUSADES/Banco Mundial) y Segunda Encuesta de Hogares Rurales, 1998 (FUSADES/BASIS).

Table No. 17 Otras características de las familias

		Pobres	Pobres	
Variable	Total	estructurales	coyunturales	No pobres
En 1995				
Número de personas	6.0	6.6	5.6	4.7
- No trabajan	3.6	4.2	3.1	2.3
- Ocupados	2.4	2.4	2.5	2.4
- Sólo agro	1.6	1.7	1.6	1.1
- Agro y no agro	0.2	0.2	0.2	0.1
- Sólo no agro	0.6	0.4	0.6	1.2
Dependencia económica	2.5	2.8	2.3	1.9
Edad promedio	26.8	23.6	29.7	32.5
- No trabajan	22.0	18.8	25.5	26.9
- Ocupados	36.1	34.3	38.0	38.4
- Sólo agro	37.6	35.0	40.2	45.2
- Agro y no agro	37.5	34.0	39.8	46.2
- Sólo no agro	32.0	32.1	31.8	32.3
Escolaridad promedio	2.8	2.1	3.2	4.6
- No trabajan	2.2	1.7	2.6	3.2
- Ocupados	3.5	2.8	3.8	5.5
- Sólo agro	2.9	2.4	3.2	4.3
- Agro y no agro	4.1	4.2	4.5	2.6
- Sólo no agro	5.1	3.8	5.3	6.9
En 1997				
Número de personas	6.1	6.7	5.8	4.9
- No trabajan	3.4	4.0	2.9	2.3
- Ocupados	2.7	2.7	2.9	2.6
- Sólo agro	1.8	2.1	1.7	1.0
- Agro y no agro	0.3	0.2	0.2	0.4
- Sólo no agro	0.7	0.4	0.9	1.3
Dependencia económica	2.2	2.5	2.0	1.9
Edad promedio	27.7	24.3	30.6	34.1
- No trabajan	21.3	17.7	25.5	26.6
- Ocupados	36.1	34.4	37.4	39.8
- Sólo agro	36.9	34.5	39.3	44.4
- Agro y no agro	38.2	36.4	39.7	40.7
- Sólo no agro	33.4	32.4	32.4	36.5
Escolaridad promedio	3.1	2.4	3.4	4.8
- No trabajan	2.5	1.9	2.8	4.2
- Ocupados	3.6	2.9	4.0	5.6
- Sólo agro	3.0	2.8	3.2	4.1
- Agro y no agro	4.0	3.5	4.1	5.1
- Sólo no agro	4.9	3.2	5.4	6.6

Nota: Incluye solamente las familias del panel. Fuente: Primera Encuesta de Hogares Rurales, 1996 (FUSADES/Banco Mundial) y Segunda Encuesta de Hogares Rurales, 1998 (FUSADES/BASIS).

Table No. 18 Ingreso promedio por hora por trabajo asalariado Colones de 1995

		Pobres	Pobres	No
Indicador	Total	estructurales	coyunturales	pobres
En 1995				
	5.26	4.58	4.91	7.75
Todas las actividades				
Hombres	5.41	4.71	5.06	8.11
Mujeres	4.63	3.98	4.21	6.56
Actividades agropecuarias	4.17	4.27	3.81	5.41
Hombres	4.40	4.31	4.29	5.63
Mujeres	2.48	3.72	1.74	2.98
Actividades no agropecuarias	6.23	5.00	5.94	8.28
Hombres	6.44	5.41	5.76	8.82
Mujeres	5.58	4.31	4.29	5.63
<u>En 1997</u>				
Todas las actividades	5.55	4.31	5.82	8.27
Hombres	5.53	4.40	5.84	8.51
Mujeres	5.62	3.81	5.76	7.73
Actividades agropecuarias	3.83	3.66	4.01	4.87
Hombres	3.87	3.70	4.08	4.97
Mujeres	3.57	3.32	3.68	4.51
Actividades no agropecuarias	6.96	5.49	6.77	8.87
Hombres	7.30	5.95	7.11	9.23
Mujeres	6.28	4.12	6.25	8.12

Nota: Incluye solamente las familias del panel.
Fuente: Primera Encuesta de Hogares Rurales, 1996 (FUSADES/Banco Mundial) y Segunda Encuesta de Hogares Rurales, 1998 (FUSADES/BASIS).

Table No. 19 Horas trabajadas totales como asalariados por todas las personas asalariadas del panel

·				
		Pobres	Pobres	No
Indicador	Total	estructurales	coyunturales	pobres
En 1995				
Horas trabajadas totales	1,164,284	514,634	445,170	204,480
Hombres (%)	81.4	82.4	82.5	76.7
Mujeres (%)	18.6	17.6	17.5	23.3
Horas trabajadas - agropecuarias	545,304	292,350	215,026	37,928
Hombres (%)	87.9	92.3	81.2	91.9
Mujeres (%)	12.1	7.7	18.8	8.1
Horas trabajadas - no agropecuarias	618,980	222,284	230,144	166,552
Hombres (%)	75.7	69.3	83.8	73.2
Mujeres (%)	24.3	30.7	16.2	26.8
_				
En 1997				
Horas trabajadas totales	918,511	417,306	343,328	157,877
Hombres (%)	75.5	84.2	67.8	69.0
Mujeres (%)	24.5	15.8	32.2	31.0
Horas trabajadas - agropecuarias	412,951	271,278	118,172	23,501
Hombres (%)	86.5	89.1	82.3	77.6
Mujeres (%)	13.5	10.9	17.7	22.4
Horas trabajadas - no agropecuarias	505,560	146,028	225,156	134,376
Hombres (%)	66.4	75.1	60.2	67.4
Mujeres (%)	33.6	24.9	39.8	32.6

Fuente: Primera Encuesta de Hogares Rurales, 1996 (FUSADES/Banco Mundial) y Segunda Encuesta de Hogares Rurales, 1998 (FUSADES/BASIS).

Table No. 20 Distancias

	Niv	el de pobreza	a	
	Pobres	Pobres		
Indicador	estructurales	coyunturales	No pobres	Total
Distancia a la				
pavimentada (km)				
1995	6.87	4.69	4.55	5.84
1997	6.43	4.52	4.28	5.52
Distancia a la parada				
de buses (km)				
1995	2.58	1.84	1.53	2.19
1997	2.53	1.75	1.34	2.11

Nota: Incluye solamente las familias del panel.

Fuente: 1a. Encuesta de Hogares Rurales, 1996 (FUSADES/Banco Mundial)

y 2a. Encuesta de Hogares Rurales, 1998 (FUSADES/BASIS).

Table No. 21
Acceso a servicios básicos
por condición de familia
(porcentajes)

Condición de	Electr	icidad	Αç	Agua	
la familia	1995	1997	1995	1997	
Pobres					
estructurales	45.5	52.3	33.5	40.6	
Pobres					
coyunturales	60.1	71.5	39.2	44.9	
No pobres					
coyunturales	74.3	81.4	55.7	60.0	
Totales	54.3	62.6	38.5	44.7	

Fuente: 1a. Encuesta de Hogares Rurales, 1996 (FUSADES/Bco Mundia y 2a. Encuesta de Hogares Rurales, 1998 (FUSADES/BASIS).

Table No. 22 Equipamiento del hogar (Porcentajes)

		Pobres	Pobres	No
Indicador	Total	estructurales	coyunturales	pobres
Radio				
1995	43.7	42.1	44.3	48.6
1997	48.0	45.9	49.4	52.9
Radio grabadora				
1995	45.7	38.7	48.7	65.7
1997	51.8	45.9	55.1	67.1
Televisor				
1995	44.7	30.5	52.5	81.4
1997	53.8	39.8	64.6	82.9
Refrigeradora				
1995	21.5	9.8	27.2	52.9
1997	25.7	12.8	32.9	58.6
Máquina de coser				
1995	12.1	8.3	15.2	20.0
1997	15.2	11.7	16.5	25.7
Plancha eléctrica				
1995	36.0	24.8	43.7	61.4
1997	41.9	31.6	47.5	68.6
Cocina eléctrica				
o de gas				
1995	19.0	8.3	23.4	50.0
1997	25.5	15.4	29.7	54.3

Nota: Incluye solamente las familias del panel.

Fuente: 1a. Encuesta de Hogares Rurales, 1996 (FUSADES/Bco Mundial)

y 2a. Encuesta de Hogares Rurales, 1998 (FUSADES/BASIS).

Table No. 23
Asociaciones a las que pertenecen las familias rurales
(Porcentajes)

Tipo de asociaciones	Total	Pobres estructurales	Pobres coyunturales	No pobres
En 1995				
Total	49	49	46	53
Asociaciones productivas	7	9	4	7
Asociaciones sociales	44	44	44	49
En 1997				
Total	48	47	46	59
Asociaciones productivas	5	6	3	7
Asociaciones sociales	46	44	46	57

Fuente: Primera Encuesta de Hogares Rurales, 1996 (FUSADES/Banco Mundial) y

Segunda Encuesta de Hogares Rurales, 1998 (FUSADES/BASIS).

Table No. 24
Familias con parientes fuera y que reciben remesas
(Porcentajes)

Indicador	Total	Pobres	Pobres	No pobres
		estructurales	coyunturales	
En 1995				
Familias con parientes fuera	33.8	28.9	40.5	37.1
En otra parte de El Salvador	8.5	8.6	9.5	5.7
Fuera de El Salvador	27.1	22.6	32.9	31.4
Familias que reciben ayuda	19.4	14.3	27.2	21.4
De personas que viven cerca	0.00	0.00	0.00	0.00
De parientes en otra parte del país	5.5	6.0	5.1	4.3
De parientes fuera de El Salvador	14.6	9.0	22.2	18.6
En 1997				
Familias con parientes fuera	32.6	29.3	34.2	41.4
En otra parte de El Salvador	14.2	15.4	13.3	11.4
Fuera de El Salvador	19.6	15.0	22.8	30.0
Familias que reciben ayuda	28.5	24.8	33.5	31.4
De personas que viven cerca	8.7	7.9	9.5	10.0
De parientes en otra parte del país	8.5	9.4	8.2	5.7
De parientes fuera de El Salvador	13.6	9.0	19.0	18.6

Nota: Incluye solamente las familias del panel.

Table No. 25 Importancia de la ayuda familiar recibida

Indicador	Total	Pobres estructurales	Pobres coyunturales	No pobres
En 1995				
Ayuda promedio anual (cualquier fuente)	7,275	5,179	9,454	6,339
De personas que viven cerca	-	-	-	-
De parientes en otra parte del país	4,012	3,614	4,988	3,533
De parientes fuera de El Salvador	8,195	5,790	10,475	6,498
Importancia relativa de la ayuda				
(cualquier fuente) -Porcentajes-	28.2	34.0	37.9	11.5
De personas que viven cerca	-	-	=	-
De parientes en otra parte del país	20.3	25.5	17.5	13.6
De parientes fuera de El Salvador	29.6	37.2	43.4	10.9
En 1997				
Ayuda promedio anual (cualquier fuente)	5,919	3,362	7,687	9,329
De personas que viven cerca	1,530	640	2,699	1,693
De parientes en otra parte del país	2,818	2,661	3,188	2,592
De parientes fuera de El Salvador	9,707	5,912	10,849	14,078
Importancia relativa de la ayuda				
(cualquier fuente) -Porcentajes-	28.3	30.4	30.2	23.5
De personas que viven cerca	10.1	6.3	15.1	6.9
De parientes en otra parte del país	16.5	24.3	15.7	5.9
De parientes fuera de El Salvador	35.9	47.5	34.6	31.8

Table No. 26 Modelo I Incluye todas las fuentes de ingreso

Variables	Promedio	Coeficientes	t
Constante (intercepto)		98.8781	0.044
Condición base en 1995			
Ingreso anual familiar, en colones de 1995	20,197	-0.9072	-23.079
Escolaridad de la PET (16 a 64) en años de estudio	3.64	1,160.4520	3.686
Area cultivada (manzanas)	0.82	2,232.8666	5.408
Número de fuentes de ingreso agropecuarias	2.42	910.1170	1.582
Número de fuentes de ingreso no agropecuarias	0.78	9,666.8870	9.955
Distancia de la casa a la parada de buses más cercana, en kilómetros	2.19	-182.7291	-0.843
Número de miembros del hogar que viven fuera de El Salvador	0.51	2,359.3300	2.627
Cambios en las variables entre 1997 y 1995			
Cambio en la escolaridad de la PET, en años de estudio	0.24	1,103.2000	2.790
Cambio en el área cultiva, en manzanas	0.24	3,225.0700	5.447
Cambio en el número de fuentes de ingreso agropecuarias	0.30	1,038.1970	1.987
Cambio en el número de fuentes de ingreso no agropecuarias	0.04	9,909.7710	12.484
Cambio en la distancia de la casa a la parada de buses más cercana	-0.06	-1,789.8760	-1.719
Cambio en el número de miembros del hogar que viven fuera de El Salvador	-0.12	2,341.0070	2.826
Cambio en el ingreso familiar (incluyendo ayuda familiar en ambos años)	-185.68		
Cambio en el ingreso familiar sin incluir ayuda en ninguno de los años	-461.24		
No. de Observaciones		475	
R^2		0.6025	
R ² ajustada		0.5913	
Valor F		57.84	

Table No. 27 Modelo II Excluye la ayuda familiar

Variables	Promedio	Coeficientes	t
Constante (intercepto)		-462.0961	-0.232
Condición base en 1995			
Ingreso anual familiar sin incluir ayuda familiar, en colones de 1995	18,784	-0.8971	-24.959
Escolaridad de la PET (16 a 64) en años de estudio	3.64	1,080.7200	3.841
Area cultivada (manzanas)	0.82	2,129.6650	5.825
Número de fuentes de ingreso agropecuarias	2.42	1,027.7140	2.010
Número de fuentes de ingreso no agropecuarias	0.78	9,470.9640	10.863
Distancia de la casa a la parada de buses más cercana, en kilómetros	2.19	-94.5635	-0.492
Número de miembros del hogar que viven fuera de El Salvador	0.51	-573.4296	-0.726
Cambios en las variables entre 1997 y 1995			2.960
Cambio en la escolaridad de la PET, en años de estudio	0.24	1,038.2870	5.822
Cambio en el área cultiva, en manzanas	0.24	3,071.3040	2.770
Cambio en el número de fuentes de ingreso agropecuarias	0.30	1,284.1140	13.861
Cambio en el número de fuentes de ingreso no agropecuarias	0.04	9,771.2250	-1.447
Cambio en la distancia de la casa a la parada de buses más cercana	-0.06	-1,336.8790	-0.229
Cambio en el número de miembros del hogar que viven fuera de El Salvador	-0.12	-167.9030	
Cambio en el ingreso familiar (incluyendo ayuda familiar en ambos años)	-185.68		
Cambio en el ingreso familiar sin incluir ayuda en ninguno de los años	-461.24		
No. de Observaciones		475	
R^2		0.6438	
R ² ajustada		0.6337	
Valor F		64.09	