# HOUSEHOLD PROJECTIONS FOR THE PHILIPPINES:

by

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#### I. Introduction

At this stage in the socio-economic development of the Philippines the planners, policy formulators and decision-makers in the public as well as in the private sectors are clamoring for more and more information on various socio-economic indicators to enable them to evaluate with more precision the past performances of the Philippine economy as a whole and of the different sub-sectors thereby providing them with a more solid base on which to decide on the continuance or modification of existing policies and the formulation of new ones to realize new levels of future achievement.

The gross national product (GNP) presented in a time series provides a compact single measure of the rate at which the whole economy is growing. And the relative contributions of the various sources of this product presented in as much detail as possible permit the economic planners to pinpoint those sources that should and could be developed further to attain overall objectives.

But the bulk of the gains in the economy as indicated by the GNP may be eaten up by a rapidly growing population so that there may be only an insignificant improvement in the levels of living of the people in general, if at all. This can be ascertained only after a careful

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analysis of population statistics to precisely determine fertility, mortality and migration rates and, thus, the population growth rate.

In any case those who hold the reins of government plan for the good and welfare of the people and any economic gains must be optimally allocated to provide more and better social services — health, education, housing, recreation and others. In so doing the planners need information on various social indicators to indicate the levels of living and welfare of the people.

In satisfying this need for vital information required in development planning in both the public and private sectors, the National Census and Statistics Office being the major statistical agency of the government assumes a position at center stage. Through its various censuses and surveys, the Census Office supplies the bulk of statistical data needed for compiling the national accounts from which the GNP is derived as well as for compiling series of other economic and social indicators.

And to be able to maintain this posture of a statistical catalyzer the Census Office necessarily has to expand its activities. While it continues to put out information needed in the traditional areas of development planning it cannot now escape to inject a new dimension to its statistical information systems by beginning to derive additional information from its own data bank to meet the need for more information particularly in the non-traditional areas of development planning.

Development planning for human settlements may be classified as belonging to the category of non-traditional development planning areas because of the new emphasis and direction that planners have given to it. Here, one concern of the planners is the provision of standard dwelling units to all households necessary for the health, privacy and the development of normal family living. For this reason the planners need to know the present and future number of households in the country as well as in the various geographical areas, and possibly the distribution of these households according to the number of household members to indicate the sizes of dwelling units to be constructed.

While the Census Office has made several attempts to project the population it has not until this time ventured into the projection of households for the possible reason that there was previously little, if any, demand for such information. In the few instances where this information was needed the planners themselves prepared the projections not as an independent endeavor, but as a part in the estimation of housing needs; hence, the methodology of household projections might have been given only secondary attention.

The projection of households attempted in this paper is one of several manifestations of the Census Office's expanded activities to meet the ever increasing demand for more and readily usuable statistics, and hopefully it will catalyze a reciprocity of action between the users to create more demand for statistics and the Census Office to fill this demand.

### II. Review of Literature

Attempts to project the aggregate number and average size of households and their size distribution have been made in many countries. Among the methods of estimating the future number of households that have been developed may be mentioned the following:

1. Demographic method.' — This requires the cross-classification of the population and the household heads by age, sex, and marital status. For each class, projections are prepared of (a) the total number of persons in the class; and (b) the ratio of household heads to the total number of persons in the class (headship rate). The projected number of households in the entire population is obtained by summing over all classes the product of these figures calculated separately for each class. For each class, projections are made on the assumption that the total number of persons in the class and the headship rate will follow past trends, or they will follow patterns according to anticipated future changes in fer-

<sup>&</sup>lt;sup>1</sup> Robert Parke, Jr., "The Choice of Assumptions in Household and Family Projections," Proceedings of the World Population Conference (Belgrade 1965), p. 78.

tility and mortality rates, marriage rate, average age of marriage, and widowhood rate.

This method has the advantage of taking into account the effects of anticipated changes in the marriage rate, average age of marriage, and incidence of widownood and divorce as factors influencing household formation and dissolution.<sup>2</sup> A valuable by-product of this projection is the projected distribution of household heads by age, sex, and marital status.

The same procedure is followed if the total population and the heads of households are classified by sex and age groups only.

The demographic method cannot be used in the present paper because of the lack of sufficient data in computing the headship rates.

- 2. Use of the average household size. The average household size (e.g. the current observed size) may be assumed to remain unchanged, then extrapolated and applied to the projected total population to obtain an estimate of the number of households comprised in it.3 The average household size may also be projected by assuming the past trend to continue into the future, or a value is assumed at the terminal year of projection and the average household sizes at intervening years are obtained by interpolation. Then the projected average household size is divided into the total population projection for each year of the projection period to obtain the projected number of households. Although this method appears simple, it has certain problems in its use due to the various factors that affect the decrease or increase in the average household size.
- 3. Use of the ratio between number of households and adult population.4 The ratio of the number of

<sup>&</sup>lt;sup>2</sup> United Nations, Population Studies No. 38, "General Principles for National Programmes of Population Projections as Aids to Development Planning," New York, 1965, p. 30.

<sup>&</sup>lt;sup>3</sup> "Report of the Seminar on Housing Statistics and Programmes for Asia and the Far East," (Copenhagen, Denmark 1963), United Nations Sales No.: 65. II. P. 12, New York, 1965, p. 49.

<sup>&</sup>lt;sup>4</sup> United Nations, Population Studies No. 38, op. cti., p. 29.

households to a segment of adult population, such as population over age 15 (or 20) or in age range 15-64 (or 25-64), observed for past censuses is projected by assuming that the past trend will continue into the future or a modification thereof. Then the projected ratio is multiplied by the projected segment of the adult population to give the projected aggregate number of households. This is the method adopted in this paper.

In estimating the future distribution of households by size, the following methods have been described in the literature.

- 1. Use of trends in the per cent distribution of households by size.<sup>5</sup> From the data of a series of past censuses, long-range trends in the per cent distribution of households by size are determined and then projected into the future. The future distribution of households by size is obtained by multiplying the projected number of households previously determined by one of the methods just described by the projected percentages. The results are checked with the projections of total population and adjusted as necessary for consistency. Due to data limitations this procedure is not used in this instance.
- 2. Method developed by Brown.<sup>6</sup> Brown, working with a stationary population model distributed by marital status, developed estimates of families by size from information on number of children ever born by marriage duration and age at marriage, and information on families by number of children in the home. The results were, in turn, used by Glass and Davidson to develop estimates of households by size and composition in a stationary population.<sup>7</sup> Again, the present data bank of the Census Office does not allow the use of such method.

<sup>&</sup>lt;sup>5</sup> Ibid., p. 30.

<sup>&</sup>lt;sup>6</sup> S.P. Brown, "Analysis of a Hypothetical Stationary Population by Family Units: A Note on Some Experimental Calculations," Population Studies, Vol. IV, No. 4 (London, March 1951), pp. 380-394.

<sup>&</sup>lt;sup>7</sup> Ruth Glass and F.G. Davidson, "Household Structure and Housing Needs," Population Studies, Vol. IV, No. 4 (London, March 1951), pp. 395-420.

- 3. Method proposed by Muhsam.<sup>8</sup> This is based on (a) the projected number of families, by age and sex of head; and (b) the assumption that census distributions of families by size, within age and sex groups of family head, will continue unchanged. Data limitations prevent at present the use of a similar procedure which would use the characteristics of the household head instead of the family head.
- 4. Mathematical method used by Dousa. This is a simple mathematical method which has been used by Dousa to project the distribution of households by size for Czeschoslavakia. He first estimated the future mean size of all households. The future size distribution was estimated by an application of the Poisson coefficient to the estimated mean, with adjusted reflecting the very minor deviations of the Poisson prediction from the actual census distribution in 1950. This method is adopted in this paper.

# III. Description of the Methodology

Projecting the number of households. — It was mentioned earlier that the method to be used requires the projection of the ratio of the number of households to an adult segment of the population, in this case, aged 25-64 years old, and then multiplying the results by the projections of the population 25-64 years old. The population 25-64-years of age is chosen because of two reasons: (1) Most of the household heads come from this adult age group, thus, there is a close association between the size of this group and the number of households. (2) The size of this group is not affected by the fertility assumptions made in preparing the population projections except for the year 2000 so that the

J. Dousa, "Problemy Zjistovani Perspektivani Skladby Domacnosti," (Research Problems in the Projection of Household Composition),

Statisticky Obzor, No. 12 (Prague 1959), pp. 536-554.

<sup>8</sup> H.V. Muhsam, "Population Data and Analysis Needed in Assessing Present and Future Housing Requirements," United Nations Seminar on Evaluation and Utilization of Population Census Data in Asia and the Far East (E/CN.9/CONF.2/L.10) (Bombay 1960); Estadistica (June 1963), pp. 301-322.

projection of households is little affected by any errors in these assumptions.

The process starts with the computation of the ratio for the past four censuses. The ratio (per thousand) are as follows:

1939	584.102
1948	555.567
1960	534.902
1970	491.670

It should be noted that these ratios show a decreasing trend. What could have caused such a phenomenon?

According to Muhsam<sup>10</sup> the ratio between the number of households and the population in an adult age group (say, 25-64 years of age) is influenced by the age of marriage and by the frequency of non-marriage, widowhood and divorce. The effect of these factors is most apparent in societies where each nuclear family (husband, wife and unmarried children) customarily occupies. a separate dwelling.

The effect of these factors is now investigated for the Philippines.

The median age at first marriage for 1939, 1948 and 1960 is computed using the age-specific proportions of ever-married.<sup>11</sup>

The results are as follows:

Census Year	Both Sexes	Male	Female
1939	21.6	23.2	19.8
1948	22.1	23.7	20.5
1960	22.3	23.8	30.9

<sup>10</sup> H.V. Muhsam, op. cit., p. 21.

Mortimer Spiegelman, "Introduction to Demography," (Revised Edition), Harvard University Press, Cambridge, Massachusetts. p. 233.

The proportions single, widowed, and separated or divorced in the age group 25-64 years are also computed for the same years and the results are presented below:

Census Year	Single	Widowed	Sep./Div.	Combined Wid. and Sep./Div.
1939	10.6	8.7	0.3	9.0
1948	11.1	8.6	0.4	9.0
1960	10.7	6.0	0.7	6.7

The median age at first marriage for both sexes increased by 0.5 year from 1939 to 1948 with a greater increase for the females than for the males. This indicates that young people postpone marriage during this period. This is reflected in the increase of proportion single from 10.6% to 11.1% for the same period. There was no change in the combined proportion of widowhood and separated or divorced persons which stood at 9.0%. Correlated with the increase in proportion single is a decrease in the proportion married.

Even without the benefit of figures it is admitted that the majority of persons heading households are married. And since there was a decrease in the proportion married due to postponement of marriages during the period 1939-1948 there was also a corresponding decrease in the number of households arising from first marriages. This could have caused the decrease in the ratio from 584.102 per thousand in 1939 to 555.567 per thousand in 1948.

During the period 1948-1960 the median age at first marriage also increased but only by 0.2 year. Unlike in the previous period, the proportion single decreased from 11.1% to 10.7% resulting to an increase in the proportion married. However, the increase in the proportion married was not all due to first marriages but largely contributed by an increased remarriage rate among widowed persons. This is depicted in the decreased combined proportion of widowed and separated or divorced from 9.0% to 6.7% during the period 1948-1960.

Now, when a widowed person who is a household head marries a single person who is not, there is no change in the number of households. When two widowed persons who are both household heads marry, there is a merging of households; consequently, there is a decrease in the number of households.

Thus, from 1948 to 1960 the increased remarriage rate and the possibility of doubling of families due to economic stringencies after the Second World War brought about a decrease in the ratio from 555.567 per thousand in 1948 to 534.902 per thousand in 1960, although this decrease was less than that observed during the 1939-1948 period.

In summary the decreasing trend in the ratio of the number of households to the population at 25-64 years of age under normal conditions generally is associated with an increasing age at marriage, an increasing proportion of single with a concomitant decreasing proportion of married, and a more or less constant combined proportion of widowed and separated or divorced.

These relationship might have been true for the period 1960-1970 when the ratio decreased from 534.902: per thousand in 1960 to 491.670 per thousand in 1970. This cannot yet be confirmed since the 1970 summary data on the marital status distribution of the population by sex and age are not yet available.

The ratio can now be projected by anticipating future changes in the factors that influence this ratio. Looking at the trend in the median age at first marriage it can be seen that there is a slackening in the rate of increase from about 0.06 year per year during the 1939-1948. period to about 0.02 year per year during the 1948-1960 period. If there are not major changes in the trends. regarding the economic and social factors that influence. the age at first marriage, then it can be anticipated that the age at marriage will eventually stabilize and possibly decrease afterwards during the projection period. It can also be anticipated that the proportion single will also increase at a slackening rate and eventually stabilize and then possibly decrease afterwards. Due to mortality there will be minor decreases in the

proportion widowed, but the combined proportion of widowed and separated or divorced will remain fairly constant.

The probable future effect of these factors then will be to decrease the ratio gradually, but at a slackening rate until a minimum is reached, after which it will begin to rise. In describing the net effect of these factors on the ratio, it is convenient to introduce a catch-all variable, say k, so that anticipated changes in this variable will then account for anticipated changes in the factors taken together. Following this approach, three mathematical functions that relate the ratio, R, to the variable, k, were fitted to the four observed ratios by method of least squares. The equations obtained are the following:

- 1) Exponential growth:  $R=R_0$  10<sup>it</sup> = 585.618(10):-0:002283t
- 2) Geometric growth:  $R=R_o (1+k)^t = 585.618(1-0.005244)^t$
- 3) Quadratic:  $R=R_0 + kt^2 = 575.262 - 0.090902t^2$

The exponential and geometric growth rates fit best the observed ratios for 1939 and 1948 while the quadratic function fits best that for 1960 and 1970. In describing the future changes in this ratio, that equation which gives results close to the observed ratios for the years not far removed from the present is chosen, so it is the quadratic equation.

However, this curve goes to zero at some point in time in the future and this cannot possibly happen so it cannot also be used in projecting the ratios. For this reason, the equation may be rewritten as

$$R = R_{1948} + \frac{1}{2}kt^2$$

in view of the anticipated course that the ratio may follow after 1970, that is, to decrease gradually but at a slackening rate until it reaches a minimum and then increase afterwards. The starting point is 1948 since this type of curve gives a good fit for 1960 and 1970. By exact

fitting of the curve, k for 1960 and 1970 are obtained. They are-0.287 and -0.264 for 1960 and 1970, respectively, or an absolute decrease of 0.023. Then based on the change in k from 1960 to 1970, three assumptions of the future changes in k that reflect the influences of the factors are made.

- 1) For the series A projections, the ratio observed in 1970 is made constant throughout the projection period.
- 2) For the series B projections, k is assumed to change from -0.264 in 1970 to -0.080 in 2000, or an absolute decrease of 0.046 every five years from 1970 to 1980 which is twice that observed from 1960 to 1970 and from 1985 to 2000 the decrease is by 0.023 every 5 years which is the same decrease as that observed from 1960 to 1970.
- 3) For the series C projections, k is assumed to decrease by the same amount every 5 years as that observed from 1960 to 1970, that is, 0.023 decrease every 5 years.

Using these assumed values of k, the corresponding projected values of R are computed. The results are shown in Table 1 and Figure 1 in the appendix.

Finally, the projected aggregate number of households is obtained by multiplying the projected R by the projected population 25-64 years of age. The results are shown at the appendix (Table 2 and Figure 2).

With the use of the projected number of households and the projected population, the projected average size of households are also obtained. See Tables 3A to 3C and Figures 3A to 3C.

Projecting the distribution of households by size. — As mentioned earlier the Poisson distribution is used to project the distribution of households by size with some adjustments for possible deviations between the Poisson frequencies and the observed frequencies. The Poisson distribution was so chosen as its calculation only requires the knowledge of the average or mean size which is the only data also available. It is also the most appropriate

for skewed distribution of discrete variables like the distribution of households by size where the distribution increases from the one-member households up to the 4-or 5-member households and then continuously decreases thereafter.

The Poisson probabilities for each household size, x, when the mean size of all households, m, 5.95 in 1970 are obtained by linear interpolation using the formula

$$P(x/m) = (1-d) P(x/m_0) + d (P(x-1/m_0))^{12}$$

where x = the household size  $(1, 2, 3, \ldots, 16 \text{ and over})$ 

m = mean size of all households

 $m_0$  = the nearest tabular argument in the table

d = deviation between the observed mean size and the mean size found in the table  $= m - m_0$ 

The Poisson probabilities for 1970 are presented in col. (2) of Table 4.

Then the expected frequencies are computed by multiplying each of the probabilities by 6,163,142 households counted in 1970. They are found in col. (3) of Table 4. If the observed frequencies are divided by the expected or Poisson frequencies, discrepancy ratios are derived (col. (5) of Table 4).

The same procedure is done for the 1939 distribution and the results are shown in Table 5.

The 1939 observed frequencies are compared with the estimated frequencies computed by applying the 1970 discrepancy ratios to the 1939 Poisson frequencies. The comparison is presented in Table 6. There are deviations in the two variables suggesting to change the discrepancy ratios for the projection period according to the changes observed from 1939 to 1970. If this is performed, the discrepancy ratios to correct for the Poisson frequencies are shown in Table 7. The discrepancy ratio for the 8-member households is assumed to remain the same as in the 1970 throughout the projection period because in-

<sup>&</sup>lt;sup>12</sup> C.R. Rao, S. Mitra, and A. Matthai, Formulas and Tables for Statistical Work, Statistical Publishing Society, Calcutta, 1966, pp. 41-44.

creasing the ratio according to the change from 1939 to 1970 makes the resulting distribution bimodal which seems not quite reasonable. Also, for the 12-and-higher member households it is assumed that there are no changes in the 1970 discrepancy rates.

The Poisson probabilities for the period are also computed utilizing the average household size based on the series B household projections and the medium population projections and, subsequently, the Poisson distribution of households by size are derived (Table 7A) using the series B household projections. By multiplying the entries in Table 7 by the corresponding entries in Table 7A the distribution of households by size for the projection period 1970-2000 is obtained in Table 7B.

Projecting the number of households by province and urban-rural classification. — The series B projections of households are distributed by province according to the formula:

$$R_{i,t} = k_i R'_{i,t}$$

where  $R_{i,t}$  = the ratio of the number of households in the  $i^{th}$  province at the  $t^{th}$  year to the national total at the same year.

R'<sub>i,t</sub> = the ratio of the 25-64 years old population in the i<sup>th</sup> province at the t<sup>th</sup> year to the same segment of the national population at the same year.

 $k_i = R_{i,1970}/R'_{1,1970}$  and is assumed constant throughout the projection period. Table 8 shows the computation of  $k_i$  for each province.

The number of households by province is obtained by multiplying the values of  $R_{i,t}$  obtained from the equation just mentioned by the series B household projections. The results are shown in Table 9.

For each province the number of households is distributed by urban-rural classification according to the formula

(Percent urban) = (Percent urban) population

The percent urban population for each province is obtained from a paper by Director Mijares and Mr. Francisco V. Nazaret.<sup>13</sup> The results are shown in Table 9.

## IV. Analysis of Results and Conclusions

The approaches utilized in preparing the projections of households are dictated by the quantity of available data. One could formulate a model for projection that would take into account many of the demographic variables when the data required feed this model become sufficient.

The reasonableness of these projections may be investigated by looking at the resulting average household size, in relation to the trend that the average size has followed in the past. For instance, if the past trend was one of increasing, one may be confident that under normal conditions it does not suddenly change course. But under conditions of rapidly declining fertility and rapid economic progress the decline in the average household size, although it may lag some years behind the onset of fertility decline and rapid economic progress, may also decline rapidly.

The average size of the Philippine household has been increasing since 1939. During the period that the average size had been observed to increase, the proportion of one- and two-member households had decreased. From 1939 to 1948 the proportion of one-member households decreased from 2.5% to 2.3% while that of two-member households decreased from 12.1% to 3.8%. On the other hand, from 1948 to 1970 the proportion remained constant at 2.3% for the one-member households and decreased slightly from 8.8% to 7.4% for the two-member households.

The increasing average household size implies that the rate of growth of the population has been faster than that of the households. This is partly due to the high

<sup>18</sup> T.A. Mijares and F.V. Nazaret, "The Growth of Urban Population in the Philippines and its Perspective," Bureau of the Census and Statistics, Manila 1973, Table 11.

birth rate and the low death rates which has caused the population to increase faster than the population at 25-64 years of age. There could not have been increased nuclearization of households brought about by internal migration due possibly to housing shortage. Instead of establishing their own households the migrants doubled up with friends or relatives in the areas of destination. Thus, the sex-age specific headship rates have remained fairly constant.

If fertility had began to decline in the early sixties according to the view of some demographers, this was not immediately reflected in a faster increase of the population at 25-64 years of age than in the total population since if mortality also had declined, as in fact it had in the Philippines, the result was an increasing number of surviving children. These children will also become mothers and fathers in the next and succeeding generations who will then produce more children. if fertility decline persisted to the present and continues into the future, then the number of children being born in this and the next generations will be spread out among more households. It is then that the average household. size will begin to decline. If, together with a fertility decline there is also rapid industrialization and economic: progress, then the average household size may begin to decline earlier.

What, then, are the future prospects of the average size of the Philippine household? The answer to this question necessarily involves consideration of the major factors that influence the average household size. These factors include fertility and mortality rates, and changes in the sex-age specific headship rates.

If fertility should remain constant after 1970 with mortality gradually declining as were assumed in the high variant of the population projections of the Census: Office, and there were no spectacular increases in the headship rates, then the average household size would continue to increase. This is so because the rates of growth of the population and households would remain at present levels, and since the population presently increases faster than the households, then the average household size would continue to increase.

If the medium variant of the population projections were to take place where both the fertility and mortality rates were assumed to decrease gradually, and the headship rates remained constant, it might take a few decades from the onset of fertility decline before the average household size would begin to decline. However, if there would be general increases in the headship rates also as a result of rapid industrialization and economic progress, then the average household size would be expected to decline earlier.

The decline in the average household size might be realized in a few years if the low variant of the population projections took place where fertility was assumed to decline rapidly and mortality was to decline gradually, even when the headship rates remained constant.

The next inevitable question refers to the probable course that the average household size may take in the present decade and in the next two decades. It is difficult to predict this course with great accuracy because of uncertainties in the economic and social factors that influence the average size of households.

However, the future trends in this average size as described by the series B projections of households and the medium and low variants of the population projections where the average size will decline after 1985 are well within the realm of the probable. It is quite unlikely that family planning efforts to control the birth rate will have spectacular effects on the average household size in this decade. It is, perhaps, more plausible to assume that family planning efforts together with rapid economic progress that a new social order and discipline can bring about will have their effects in decreasing the average household size in the next decade and thereafter. Concomitant with the decline in the average size after 1985 will be the increasing proportions of one-, two-, and three-member households and decreasing proportions of the 6-or-more member households.

But the projections in this paper are not meant to be forecasts of the future course of events since this is difficult to predict with great accuracy. The changes that will occur on the numerous interrelated socio-economic factors that determine the formation and dissolution of households are difficult to foresee. Any model that incorporates all these factors necessarily requires considerable data input.

Any errors in these projections depend to a large extent on the errors in the assumptions. If the assumptions will hold, then the magnitude of these errors will be considerably small.

As a basis, therefore, for preparing tentative plans in the development planning area of human settlements and for formulating the future demand and consumption of certain commodities and services required by households as a unit it is felt that the projections attempted in this paper would be of some value. While the projections may not be as satisfactory as those resulting from the use of more elaborate models they are quite sufficient under the circumstances.

TABLE 1 Observed and Projected Ratios of the Number of Households to the Population 25-64 Years of Age, Philippines: 1948-2000

•	Year		e number of hou old population (	
		Series A	Series B	Series C
	1948	555.567	555.567	555.567
	1960	534.902	534.902	534.902
	1970	491.670	491.670	491.670
	1975	491.670	476.106	467.722
	1980	do	467.503	443.951
	1985	do	453.576	422.090
	1990	do	444.435	403.863
	1995	do	441.804	390.996
	2000	do	447.407	385.215

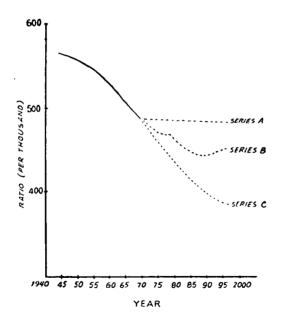


FIGURE 1 Observed and Projected Ratios of the Number of Households to the Population 25-64 Years of Age, Philippines: 1948-2000

TABLE 2
Observed and Projected Population 25-64 Years of Age and
Number of Households, Philippines: 1948-2000

Voor	Population 25-64 Years -	Num	ber of Househol	lds
Year	of Age	Series A	Series B	Series C
1948	6.301.912	3,501,132	3,501,132	3,501,132
1960	8,698,868	4.653,042	4,653.042	4,653,042
1970	12,535,109	6,163,142	6,163,142	6,163,142
1975	14,833,000	7,293,000	7,062,000	6,938,000
1980	17,219,000	8,466,000	8,050,000	7,644,000
1985	20,107,000	9,886,000	9,120,000	8,487,000
1990	23,870,000	11,736,000	10,609,000	9,640,000
1995	27,939,000	13,737,000	12,344,000	10,924,000
2000	32,674,000(H)	16,065,000(H)	14,619,000(H)	12,587,000(H
	32,449,000 (M)	15,954,000 (M)	14,518,000 (M)	12,500,000 (M
	32,399,000(L)	15,930,000(L)	14,496,000(L)	12,481,000(L

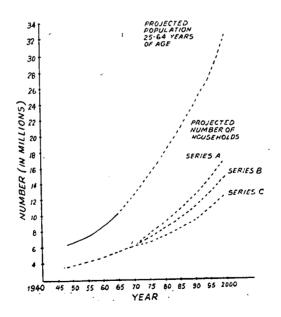


FIGURE 2
Observed and Projected Population 25-64 Years of Age and
Number of Households, Philippines

TABLE 3A
Observed and Projected Average Household Size Based on the Series A Household Projections, Philippines: 1948-2000

Year		hold size based o seholds projection	
1 ear	High	Medium	Low
1948	5.49	5.49	5.49
1960	5.82	5.82	5.82
1970	5.95	5.95	5.95
1975	5.90	5.86	5.82
1980	5.97	5.86	5.75
1985	6.02	5.78	<b>5.55</b>
1990	5.96	5.57	5.18
1995	5.98	<b>5.4</b> 0	4.83
2000	6.01	5.26	4.49

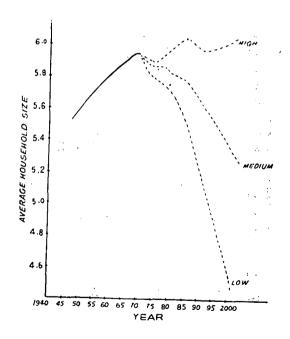


FIGURE 3A
Observed and Projected Average Household Size Based on the
Series A Household Projections, Philippines: 1948-2000

TABLE 3B
Observed and Projected Average Household Size Based on the Series A Household Projections, Philippines: 1948-2000

Year		hold size based o isehold projectio	
ı ear	High	Medium	Low
1948	5.49	5.49	5.49
1960	5.82	5.82	5.82
1970	5.95	5.95	5.95
1975	6.10	6.05	6.01
1980	6.28	6.17	6.05
1985	6.53	6.27	6.01
1990	6.59	6.16	6.73
1995	6.65	6.01	5.38
2000	6.60	5.78	4.94

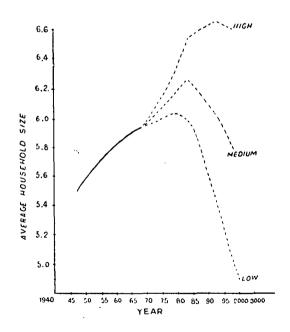


FIGURE 3B
Observed and Projected Average Household Size Based on the
Series B Household Projections, Philippines: 1948-2000

TABLE 3C Observed and Projected Average Household Size Based on the Series C Household Projections, Philippines: 1948-2000

Year	Average household size based on the series C household projections			
ı ear	High	Medium	Low	
1948	5.49	5.49	5.49	
<b>196</b> 0	5.82	5.82	5.82	
1970	5.95	5.95	5.95	
1975	6.20	6.16	6.12	
1980	6.62	6.49	6.37	
1985	7.01	6.74	6.46	
1990	7.26	6.78	6.30	
1995	7.52	6.79	6.07	
2000	7.67	6.71	5.74	

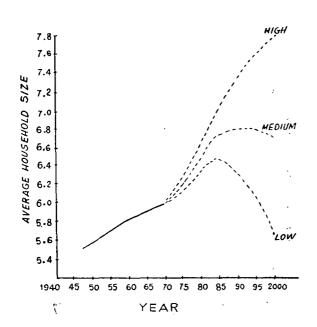


FIGURE 3C Observed and Projected Average Household Size Based on the Series C Household Projections, Philippines: 1948-2000

# HOUSEHOLD PROJECTIONS

Table 4. Computation for the Poisson Distribution, 1970

Household Size, x	Poisson Probabilities (Px /5.95), by linear interpolation	Expected Frequencies	Observed Frequencies	Discrepancy Ratio, (4) (3)
(1)	(2)	(3)	(4)	(5)
1 member 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 and over	.01549270 .04610525 .09146585 .13608390 .16196150 .16062300 .13652970 .10153705 .06711700 .03992625 .02159030 .01070075 .00489575 .00207945 .00082415	95,731 284,888 565,175 840,872 1,000,773 992,501 843,627 627,405 414,721 246,707 133,408 66,121 30,251 12,849 5,092 3,021	140,251 453,797 676,617 798,409 838,459 824,949 733,736 696,249 374,241 266,363 158,609 89,940 46,525 26,259 15,096 23,642	1.465053 1.592896 1.197181 0.949501 0.837811 0.831182 0.869740 1.109728 0.902392 1.079673 1.188902 1.360234 1.537966 2.043661 2.964650 7.825885

Table 5. Computation for the Poisson Distribution, 1939

(1)	(Z)	(3)	(4)	(5)
Household Size, x	Poisson Probabilities P(x/5.09), by linear interpolation	Expected Frequencies	Observed Frequencies	Discrepancy Ratio, (4) = (3)
1 member	.03126432	98,947	79,204	0.800469
2	.07967594	252,162.	380,283	1.508090
3.	.13532050	428,268	494,923	1.155639
4	.17230863	545,331	506,601	0.928979
<b>5</b> · .	.17546700	555,326	470,085	0.846503
6	.14885496	471,103	397,353	0.843452:
7	.10820502	342,452	309,196	0.902889
8.	.06880303	217,751	216,686	0.995109
9	.03887708	123.040	134,516	1.093270
10	.01976497	62.553	75,522	1.207328:
11 12 members	.00913219	28,903	37,868	1.310175
and over	.00570310	18,050	41,649	2.307424

Table 6. Comparison of Estimated Frequencies with the

Observed Frequencies, 1939
(Estimated frequency is obtained by multiplying the Poisson frequency in 1939 by the discrepancy ratio in 1970.)

Household Size	d Observed Frequencies	Estimated Frequencies	Difference	Percent Observed Frequency	Percent Estimated Frequency	Percent Point Difference
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1 memb 2 3 4 5 6 7 8 9	380,283 494,923 506,601 470,085 397,353 309,196 216,686 134,516 75,522	141,652 392,493 501,003 505,965 454,630 382,628 291,041 236,124 108,494 65,994	-62,448 -12,210 -6,080 636 15,455 14,725 18,155 -19,438 26,022 9,528	2.5 12.1 15.7 16.1 15.0 12.6 9.8 6.9 4.3 2.4	4.5 12.5 15.9 16.1 14.5 12.2 9.3 7.5 3.4 2.1	-2.0 -0.4 -0.2 0.0 0.5 0.4 0.5 -0.6 0.9
11 12 memb and or		33,578 30 <b>,2</b> 84	4,290 11,365	1.2 1.3	1.1 1.0	0.1

Table 7. Assumed Discrepancy Ratios to Correct for Poisson Frequencies

Household Siz	e 1975	1980	1985	1990	1995	2000
1 member 2 members 3 members 4 members 5 members 6 members 7 members 8 members 9 members 10 members 11 members 12 members 13 members 14 members	e 1975 1.572244 1.606574 1.203881 0.952811 0.836409 0.829203 0.864393 1.109728 0.871605 1.059083 1.169342 1.360234 1.537966 2.043661 2.964650	1980 1.679435 1.620252 1.210581 0.956121 0.835007 0.827224 0.859046 1.109728 0.840818 1.038493 1.149782 1.360234 1.537966 2.043661 2.964650	1985 1.786626 1.633930 1.217281 0.959431 0.833605 0.825245 0.853699 1.109728 0.810031 1.017903 1.130222 1.360234 1.537966 2.043661 2.964650	1990 1.893817 1.647608 1.223981 0.962741 0.832203 0.823266 0.848352 1.109728 0.779244 0.997313 1.110662 1.360234 1.537966 2.043661 2.964650	1995 2.001008 1.661286 1.230681 0.966051 0.830801 0.821287 0.843005 1.109728 0.748457 0.976723 1.091102 1.360234 1.537966 2.043661 2.964650	2000 2.108199 1.674964 1.237381 0.969361 0.829399 0.819308 0.837658 1.109728 0.717670 0.956133 1.071543 1.360234 1.537966 2.964650
15 members 16 members and over	7.825885	7.825885	7.825885	7.825885	7.825885	7.825885

Table 7A. Poisson Distribution of Households by Size (Series B Household Projections and Medium Population Projections)

		<u>r op</u>	ulation 110,	jections)		
Household Size	1975	1980	1985	1990	1995	2000
Total Households	7,062,000	8,050,000	9,120,000	10,609,000	12,344,000	14,518,000
1 member	100,900	103,000	105,300	137,000	182.500	256,300
2 members	305,300	319,200	334,300	423,800	548.500	744.900
3 members	615,900	658,700	705,300	872,900	1,098,700	1,442.200
4 members	931,800	1,018,600	1,113,000	1,347,200	1,650,800	2,091.900
5 members	1,127,600	1.259,100	1,401,700	1,662,200	1,984,300	2,424,500
6 members	1,137,000	1,295,800	1,467,700	1,707,700	1,987,600	2,338.700
7 members	982,700	1,142,200	1,314,700	1,502,800	1,706,500	1.931,100
8 members	743,100	880.200	1,028,500	1,156,400	1,282,000	1.393.200
9 members	499,500	602,500	714,000	790,400	856.100	892.100
10 members	302,100	371,000	445.400	486,000	514.500	513,200
11 members	166,100	207,500	252,200	271,500	281,100	267,900
12 members	83,700	106,300	130,700	138.900	140 800	127,900
13 members	39,000	50,300	62,500	65.600	65 100	56 300
14 members	16,800	22.000	27.700	28.700	28,000	22,900
15 members 16 members	6,800	9,000	11,400	11,800	11,200	8.700
and over	3,700	4,600	5,600	6,100	6.300	6,200

Table 7B. Distribution of Households by Size, Philippines: 1970-2000 (Figures in thousands except the 1970 figures.)

Household Size	1970	1975	1890	1985	1990	1995	2000
TOTAL	6,163,142	7,062	8,050	9,120	10,609	12,344	14,518
1 member	140,251	159	174	190	262	368	541
2 members	453,797	492	520	552	705	918	1,250
3 members	676.617	743	802	867	1,079	1,363	1.788
4 members	798.409	890	980	1,079	1,310	1,607	2.032
5 members	838,459	945	1.058	1,180	1,397	1.662	2,015
6 members	824.949	945	1.078	1,223	1,420	1.645	1.920
7 members	733,736	852	997	1,134	1,288	1.,450	1.621
8 members	696.249	827	983	1,153	1,296	1.434	1,549
9 members	374.241	436	510	584	622	646	641
10 members	266,363	321	387	458	490	507	491
11 members	158.609	195	240	288	305	309	287
12 members	89.940	114	145	180	191	193	174
13 members	46.525	60	78	97	102	101	87
14 members	26.259	34	45	57	59	58	47
15 members	15.096	20	2.7	34	35	33	26
16 members							
and over	23.642	29	36	44	48	50	49

Table 7C. Percent Distribution of Households by Size, Philippines: 1970-2000

Household Size	1970	1975	1980	1985	1990	1995	2000
TOTAL	100.00	100.00	100 0	100.0	100.0	100.0	100.0
1 member	2.28	2.3	2.2	2.1	2.5	3.0	3.7
2 members	7.36	7.0	6.5	6.1	6.6	7.4	8.6
3 members	10.98	10.5	10.0	9.5	10.2	110	12.3
4 members	12.95	12.6	12 2	11.8	12.3	13.0	14.0
5 members	13.60	13 4	13.1	12.9	13.2	135	13.9
6 members	13.39	13.4	13.4	13.4	134	13.3	13.2
7 members	11.91	12.1	12.3	12.4	12.1	11.7	11.2
8 members	11.30	11.7	12.2	12.6	12.2	11.6	10.7
9 members	6.07	62	6.3	6.4	5.9	5 Z	4.4
10 members	4.32	4.5	48	5.0	46	4.1	3.4
11 members	2.57	28	3.0	3.2	2.9	2.5	2.0
12 members	1.46	1.6	1.8	2.0	1.8	1.6	1.2
13 members	0.75	0.8	19	1.1	1.0	0.8	0.6
14 members	0.43	0.5	0.6	0.6	0.6	0.5	0.3
15 members	0.24	0.3	0.3	0.4	0.3	03	. 0.2
16 members							
and over	0.38	0.4	0.4	0.5	0.5	0.4	0.3
	0.38	0.4	0.4	0.5	0.5	0.4	

Table 8. Computation of the Constant of Proportionality, k<sub>i</sub>, for each Province: 1970

	Hous	eholds	25-64 Years	Old Population	
Province	Number	Ratio of Province total to national total	Number	Ratio of Province total to national total	k <sub>i</sub>
PHILIPPINES	6,163,142		12,535,109		<u></u>
1. Abra 2. Agusan del Norte 3. Agusan del Sur 4. Aklan 5. Albay 6. Antique 7. Bataan 8. Batanes 9. Batangas 10. Benguet 11. Bohol 12. Bukidnon 13. Rulacan 14. Cagayan 15. Camarines Norte 16. Camarines Sur 17. Camiguin 18. Capiz 19. Catanduanes 20. Cavite 21. Cebu 22. Cotabato 23. Davao del Norte 24. Davao del Sur 25. Davao Oriental 26. Eastern Samar 27. Ifugao	25,467 44,147 29,357 46,712 109,857 51,565 33,837 2,241 159,486 46,476 119,409 68,457 140,319 101,077 41,520 151,804 8,637 66,193 26,213 87,743 290,162 189,419 73,349 129,957 40,460 47,028 20,045	.00413215 .00716307 .00476332 .00757925 .01782484 .00836667 .00549022 .00036361 .02587739 .00754096 .01937470 .01110748 .02276745 .01640024 .00673682 .02463094 .00140140 .01074014 .00425319 .01423673 .04708021 .03073416 .01190123 .02108616 .00656483 .00763052 .00763052	52,471 90,942 59,244 92,451 215,350 102,333 67,471 4,328 332,373 91,559 251,175 127,371 297,224 199,202 80,211 299,425 18,050 130,086 52,554 180,851 583,977 384,618 144,148 259,342 81,092 93,811 33,995	.00418592 .00725498 .00472625 .00737536 .01717975 .00816371 .00538256 .00034527 .02651537 .00730420 .02003772 .01016114 .02371132 .01589153 .00639891 .02388691 .00143996 .01037773 .00419254 .01442756 .04658731 .03068326 .01149954 .02068925 .00646919 .00748386 .00271198	0.987155 0.987311 1.007843 1.027645 1.037549 1.024861 1.020002 1.053118 0.975939 1.032414 0.966911 1.052807 1.031148 0.973221 1.034922 1.014466 0.986773 1.010580 1.001659 1.034931 1.019587 1.019597

				100 001			
28.	Ilocos Norte	65,131	.01056782	128,261	.01023214	1.032806	
29.	Ilocos Sur	70,689	.01146964	145,710	.01162415	0.986708	
	Iloilo	194,386	.03154008	418,039	.03334945	0.945745	
	Isabela	116,651	.01892720	203,828	.01626057	1.163994	τ
32.	Kalinga-Apayao	23,981	.00389103	49,815	.00397404	0.979112	
.33.	La Union	63,094	.01023731	130,793	.01043413	0.981137	
34.	Laguna .	63,094 115,839	.01879545	236,978	.01890514	0.994198	- 5
	Lanao del Norte	-60,858	.00987451	117,519	.00937519	1.053260	
36.	Lanao del Sur	- 73,765	.01196873	154,271	.01230711	0.972505	ì
37.	Leyte	196,943	.03195497	371,821	.02966237	1.077290	ì
38.	Manila	215,213	.03491936	496,142	.03958019	0.882243	Č
39.	Marinduque	25,039	.00406270	47,784	.00381201	1.065763	t
	Masbate	83,751	.01358901	151,501	.01208613	1.124347	
41.	Misamis Occidental	52,590	.00853299	107,774	.00859777	0.992465	3
42.	Misamis Oriental	. 76,088	.01234565	155,443	.01240061	0 995568	,
43.	Mountain Province	19,347	.00313915	34,163	.00272539	1.151817	ŀ
44.	Negros Occidental	244,552	.03967976	518,325	.04134986	0.959611	ŗ
45.	Negros Oriental	122.019	.01979818	249,281	.01988662	0.995553	٠
46.	Northern Samar	52,768	.00856187	99,908	.00797025	1 074229	
47.		139,498	.02263423	280,785	.02239988	1.010462	
	Nueva Vizcava	38,595	.00626223	73,195	.00583920	1.072447	2110
49.	Occidental Mindoro	25,286	.00410278	46.451	.00370567	1.107163	5
50.	Oriental Mindoro	56.505	.00916821	107,726	.00859394	1 066823	(
	Palawan	43,470	.00705322	83,092	.00662874	1 064036	ţ
52.	Pampanga	135,517	.02198830	284,860	.02272497	0.967583	(
53.	Pangasinan	234,055	.03797657	468.081	.03734160	1.017004	Ę
54.	Quezon	169,391	.02748452	329.671	.02629981	-1.045046	- 5
55.	Rizal	456,688	.07409987	1,041,114	.08305584	0 892169	
56.	Romblon	29,293	.00475293	56,407	.00449992	1.056225	
57.	Sorsogon	69 297	.01124378	131.783	.01051311	1.069501	۰
58.	South Cotabato	76,297	.01237956	153,683	.01226020	1.009736	
59.	Southern Leyte	43,426	.00704608	85.898	.00685259	1 028236	Ċ
60.		67,619	.01097151	155.180	.01237963	0.886255	7
	Surigao del Norte	40,440	.00656159	81,206	00647828	1.012860	
62.	Surigao del Sur	44,783	.00726626	89,534	.00714266	1.017304	1
63.	Tarlac	92,055	.01493637	. 185.485	.01479724	1 009402	-
64.	Weestern Samar	76,797	.01246069	148:242	.01182614	1.053657	
65.	Zambales	59,366	.00963242	117.105	.00934216	1.033037	
66.	Zamboanga del Norte	68,698	.01114659	133,114	.01061929	1.049655	
67.		172,425	.02797680	339,487	.02708289	1.033006	
-		112,120	.02101000	.000,401	.02100203	1.000000	

HOUSEHOLD PROJECTIONS

Table 9. Observed and Projected Number of Households by Province, by Urban-Rural Classification, by Five-Year Interval for the Philippines: 1970-2000 (Figures in hundreds except 1970 figures)

Province	1970	1975	1980	1985	1990	1995	2000
PHILIPPINES	6,163,142	70620	80500	91200	106090	123440	145180
Urban	1,884,297	21956	25467	28876	33640	39437	46884
Rural	4,278,845.	48664	55033	62324	72450	84003	98296
Abra .	25,467	280:	308.	337	381	425	482
Urban-	4,359	48	51	55 <sup>-</sup>	60	66	73
Rural	21,108	232	257	282	321	359	409
Agusan del Norte	44,147	561	697	845	1048	1233 <sup>.</sup>	1462
Ŭrban.	15,413	205	261	325	413	498	607
Rural	28,734	<b>356</b> .	436	520	635 -	735	855
Agusan del Sur	29,357	367	452	546	676	796	945
Urban	5,341	77	89	100	116	128	141
Rural	24,016	290	363	446	560	668	804
Aklan	46,712	482	497	501	521	576	653
Urban	4,500	48	49	50	51	56	. 63
Rural	42,212	434	448	451	470	520	590
Albay	109,857	1228	1361	1529	1760	2032	2361
Ürban	14,358	163	169	177	192	207	222
Rural	95,499	1065	1192	1352	1568	1825	2139
Antique	51,565	544	569	616	681	770	879
Úrban	6,789	72	75	79	86	97	108
Rural	44,776	472	494	537	595	673	771
Bataan	33,837	421.	518	614	745	867	1022
Urban	7,252	67	64	59	55	49	43
Rural	26,585	354	454	555	690	818	979
Batanes ·	2,241	21	19	19	19	20	23
Urban		_	3	3	3	3	4
Rural	2,241	21	· 16	16	16	17	19

Province	1970	1975	1980	1985	1990	1995	2000	154
Batangas	159,486	1860	2142	2346	2637	3059	3573	*
Ürban	22,114	275	313	338	377	431	497	
Rural	137,372	1585	1829	2008	2260	2628	3076	Z
Benguet	46.476	533	604	690	807	934	1091	$\sim$
Ürban	46,476 13,814	184	221	267	330	403	199	Ö
Rural	32,662	349	383	423	477	531	592	Ē
Bohol	119,409	1243	1288	1336	1423	1574	1758	NICOLAS
Urban	15,684	168	173	176	186	205	227	-
Rural	103,725	1075	1115	1160	1237	1369	1531	D.
Bukidnon	68,457	935	1246	1596	2091	2509	3054	
Urban	8,494	133	166	200	245	273	312	MAT
Rural	59,963	802	1080	1396	1846	2236	2742	P,
Bulacan	140,319	1719	2077	2377	2786	3295	3925	7.7
Urban	66,929	829	1022	1191	1424	1717	2088	À
Rural	73,390	890	1055	1186	1362	1578	1837	JR.
Cagayan	101,077	1123	1235	1403	1633	1863	2140	.20
Urban	13,880	149	154	163	176	188	199	ຍ
Rural	87,197	974	1081	1240	1457	1675	1941	and
Camarines Norte	41,520	483	555	648	774	904	1064	
Urban	10,343	127	143	165	194	222	257	CH
Rural	31,177	356	412	483	580	682	807	ä
Camarines Sur	151,804	1551	1577	1684	1849	2103	2430	ECILIA
Urban	20,645	337	341	364	399	454	522	H
Rural	121,159	1214	1236	1320	1450	1649	1908	$\triangleright$
Camiguin	8,637	99	113	127	147	165	189	<
			$\frac{113}{23}$	25	28	31	34	. `
Urban	1,845	$\frac{21}{79}$	23 90	102	119	134		Ļ
Rural	6,792	78		893			155	LACUATA
Capiz	66,193	736	806		1009	1158	1335	$\Box$
Urban	9.287	110	122	136	153	177	206	J.A
Rural	56,906	626	684	757	856	981	1129	$\Box$
Catanduanes	26,213	226	204	192	196	206	241	$\triangleright$
Urban	4,683	37	31	27	26	26	28	
Rural	21,530	189	173	165	170	180	213	

Province	1970	1975	1980	1985	1990	1995	2000
Cavite	87,743	1033	1197	1359	1579	1836	2150
Urban	43,655	518	600	681	791	922	1079
Rural	44,088	515	597	678	788	914	1071
Cebu	290,162	3173	3429	3726	4132	4718	5410
Urban	107,343	1314	1488	1688	1954	2326	2792
Rural	182,819	1859	1941	2038	2178	2392	2618
Cotabato	189,419	2314	2782	3253	<b>389</b> 6	4610	5518
Urban	26,193	296	317	332	355	373	392
Rural	163,226	2018	2465	2921	3541	4237	5126
Davao del Norte	73,349	928	1150	1391	1720	2024	2402
Urban	14,221	157	172	185	201	208	214
Rural	59,128	771	978	1206	1519	1816	2188
Davao del Sur	129,957	1662	2081	2471	3002	3565	4262
Urban	38,739	470	545	598	666	727	788
Rural	91,218	1192	1536	1873	2336	2838	3474
Davao Oriental	40,460	509	630	766	955	1125	1341
Urban	7,482	101	122	143	174	199	229
_ Rural	32,978	408	508	623	781	926	1112
Eastern Samar	47,028	478	484	507	543	<b>59</b> 9	669
Urban	11,195	119	120	124	132	144	160
Ŗural	35,833	359	364	383	411	455	509
Ifugao	20,045	210	224	256	307	346	403
Urban	1,331	16	16	18	21	24	27
Rural	18,714	194	208	238	286	322	376
Ilocos Norte	65,131	682	711	<b>76</b> 0	833	942	1072
Ùrban	15,480	146	147	153	162	178	196
Rural	49,651	536	564	607	671	764	876
Ilocos Sur	70,689	712	714	728	762	841	939
Urban	11,291	117	115	115	117	127	139
Rural	59,398	595	599	613	645	714	800
Iloilo	194.386	2093	2237	2414	2662	3040	3486
Urban	51,055	590	638	698	777	897	1042
Rural	143,331	1503	1599	1716	1885	2143	2444

- Province	1970	1975	1980	1985	1990	1995	2000	156
Isabela	116,651	1398	1651	1967	2401	2779	3259	
Urban	15,650	166	187	212	245	270	300	Z
Rural	101,001	1232	1464	1755	2156	2509	2959	$\vdash$
Kalinga-Apayac	23,981	262	284	324	381	440	516	NICOLAS
Urban	1.655	17	18	19	22	24	26	Ĕ
Kural	22,326	245	266	305	359	416	490	$\rightarrow$
La Union	63,094	704	774	854	960	1095	1257	
Urban	7,681	92	102	114	129	148	171	D.
Rural	55,413	612	672	740	831	947	1086	
Laguna	115,839	1417	1706	1983	2357	2771	3282	MATA,
Urban	57,455	741	901	1055	1266	1502	1795	P,
Rural	58,384	676	805	928	1091	1269	1487	7.1
Lanao del Norte	60,858	679	744	841	977	1135	1330	
Urban	4,833	54	51	48	46	45	43	JR.
Rural	56,025	625	603	793	931	1090	1287	7.
Lanao del Sui	73,765	$\frac{5-0}{720}$	702	758	860	1013	1244	
Urban	14,703	167	164	179	206	244	304	and
Rural	59,062	553	538	579	654	769	940	
Levte	196,943	2045	2111	2239	2434	2721	3067	CECILIA
Urban	40,598	456	475	510	562	637	727	õ
Rural	156,345	1589	1636	1729	1872	2084	2340	Ξ
Manila	215,213	2222	2268	2491	2798	3292	3943	È
Urban	215,213	2222	2268	2491	2798	3292	3943	
Rural	÷,	_	· <del>-</del>		<del>-</del>	<del></del>		<
Marinduque	25,039	276	301	330	370	420	482	
Urban	3,001	. 33	35	37	41	45	50	LACUATA
Rural	22,038	243	266	293	$3\overline{29}$	375	432	
Masbate	83.751	996	1167	1375	1657	1939	2289	Ċ
Urban	12.190	136	142	150	161	167	172	$\triangleright$
Rural	71,561	860	1025	1225	1496	1772	2117	Ξ,
Misamis Occidental	52,590	589	649	734	849	977	1131	₽
Urban	7,950	90	93	98	105	112	120	
Rural	44,640	499	556	636	744	865	1011	
1401.01	11,010	100	.555	000	,	000		

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Province	1970	1975	1980	1985	1990	1995	2000
Misamis Oriental	76,088	883	1008	1159	1360	1572	1825
Urban	16,036	173	174	175	180	181	179
Rural	60,052	710	834	984	1180	1391	1646
Mountain Province	19,347	206	220	250	292	339	397
Urban	524	- 6	5	5	5	5	5
Rural	18,823	200	215	245	287	334	392
Negros Occidental	244,552	2537	2615	2752	2966	3363	3846
Urban	78,436	827	858	908	985	1123	1296
Rural	166,116	1710	1757	1844	1981	2240	2550
Negros Oriental	122,019	1308	1388	1501	1655	1870	2125
Urban	15,271	174	179	186	199	215	236
Rural	106,748	1134	1209	1315	1456	1655	1889
Northern Samar	52,768	545	564	601	658	736	837
Urban	10,072	101	100	103	109	117	127
Rural	42,696	444	464	498	549	619	710
Nueva Ecija	139,498	1622	1862	2154	2545	2974	3495
Urban	29,982	386	439	504	590	684	797
Rural	109,516	1236	1423	1650	1955	2290	2698
Nueva Vizcaya	38,595	485	602	726	895	1040	1222
Urban	8,375	116	138	158	186	206	229
Rural	30,220	369	464	568	709	834	993
Occidental Mindoro	25,286	315	387	475	596	704	840
Urban	5,986	69	80	94	111	125	141
Rural	19,300	246	307	381	485	579	699
Oriental Mindoro	56,505	671	784	908	1074	1247	1455
Urban	9,616	115	126	138	154	167	182
Rural	46,889	556	658	770	920	1080	1273
Palawan	43,470	497	561	657	789	918	1081
Urban	7,841	92	102	116	135	153	175
Rural	35,629	405	459	541	654	765	906
Pampanga	135,517	1637	1949	2288	2754	3256	3880
Urban	43,720	530	647	780	961	1166	1424
Rural	91.797	1107	1302	1508	1793	2090	2456

Province	1970	1975	1980	1985	1990	1995	2000	Š
Pangasinan	234,055	2549	2756	3025	3396	3887	4474	
Ürban	44,389	505	551	614	696	805	940	
Rural	189,666	2044	2205	2411	2700	3082	3534	
uezon <sup>.</sup>	169,391	2054	2451	2865	3421	3997	4692	(
Urban	47,465	577	674	771	896	1023	1168	
Rural	121,926	1477	1777	2094	2525	2974	3524	
Rizal	456,688	6166	8149	9619	11686	14155	17426	
Urban	433,266	5309	7065	8397	10260	12499	15492	
Rural	23,422	857	1084	1222	1426	1656	1934	
Romblon	29,293	325	360	389	428	479	541	
Urban	3,474	36	37	37	38	39	40	
Rural	25,819	289	323	352	390	440	501	
Sorsogon	69,297	736	775	847	947	1076	1247	
Urban	16,069	174	183	198	221	250	288	•
Rural	53,228	562	592	649	726	826	959	
South Cotabato	76,297	937	1130	1330	1601	1898	2273	
Urban	22,298	311	386	468	580	706	873	
Rural	53,999	626	744	862	1021	1192	1400	
Southern Leyte	43,426	442	448	473	513	574	648	
Urban	6.555	66	65	67	71	77	84	
Rural	36,871	376	383	406	442	497	564	
Sulu	67,619	751	825	917	1044	1198	1396	
Urban	11,143	152	182	221	275	343	437	
Rural	56,476	599	643	696	769	855	959	
Surigao del Norte	40,440	: <b>45</b> 5	: 509	: 587	693	· 800	932	
Urban	8,899	. <del>4</del> 55 . 96	101	111	124	135	148	
Rural	31,541	. 90 359	408	476	569	665	784	
Surigao del Sur	44,783	513	582	666	780	896	1038	
Urban	$\frac{44,765}{11.412}$	513 114	$\begin{array}{c} 382 \\ 122 \end{array}$	129	138	144	152	
Rural	$\frac{11,412}{33,371}$		460	537	642	752	886	
Contoo	92,055	399		1358		1821		
Urban	94,055 14,844	1057	1199		1573		2121	
		151	156	159	167	173	180	
Rural	77;211	·906	1043	1199	1406	1648	1941	

Province	1970	1975	1980	1985	1990	1995	2000
Western Samar Urban Rural Zambales Urban Rural Zamboanga del Norte Urban Rural Zamboanga del Sur Urban Rural Zamboanga del Sur	76,797	792	815	857	924	1036	1182
	8,671	90	89	89	91	98	106
	68,126	702	726	768	833	938	1076
	59,366	762	961	1119	1343	1603	1937
	31,048	374	481	568	694	842	1036
	28,318	388	480	551	649	761	901
	68,698	818	957	1118	1332	1550	1814
	9,322	101	98	94	92	87	82
	59,376	717	859	1024	1240	1463	1732
	172,425	2043	2379	2733	3207	3734	4377
	24,939	243	243	243	237	232	228
	147,486	1800	2136	2495	2970	3502	4149

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#### **ERRATA**

in

## "INDIVIDUAL INCOME DIFFERENCES"

by C. P. PAREL July — December, 1973 Vol. XXII Issue

- 1. P. 4. Delete "Table 3", paragraph 6.
- 2. P. 5. The titles of Tables 2.1 and 1.B should be "Distribution of Individual Incomes of the Labor Force in Q.C. (1970)".
- 3. P. 7. Paragraph 1 (last line)
  Table 4 should be Table 7
  Paragraph 3 (1st line)
  Table 5 should be Table 8
  Paragraph 4 (1st line)
  Table 6 should be Table 9
- 4. P. 3. Table 1.2 One line was omitted in the Table.

To be inserted...

Both Sexes Male Female
College Graduate 31.93 ... 38.92 ... 24.33