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THE IMPACT OF MIGRATION ON THE SOCIO-ECONOMIC LEVEL OF HOUSEHOLDS IN FISHING COMMUNITIES: A PILOT STUDY *

By
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INTRODUCTION

Migration is the change of residence from one place to another. Among others, the expectation of higher monetary reward in the place of destination relative to the place of origin induces spatial mobility.

Where do migrants go? Based on the 1973 National Demographic Survey conducted by the National Census and Statistics Office (NCSO), the dominant stream of migration is from rural to urban. Hence, the cities and their peripheries (which compose the urban sector) are the places of choice. Wages in these areas are comparatively higher than in rural areas due to the presence of high-paying jobs in the manufacturing and services sectors of the economy whose places of business are concentrated in these areas.

Migrants enter the cities to stake a gamble for better life. However, the capacity of cities to provide amenities like good housing, adequate water supply, medical care, transportation, light, and employment is limited to a certain number of people. Thus, the massive entry of migrants poses problems on housing, sanitation and competition for livelihood.

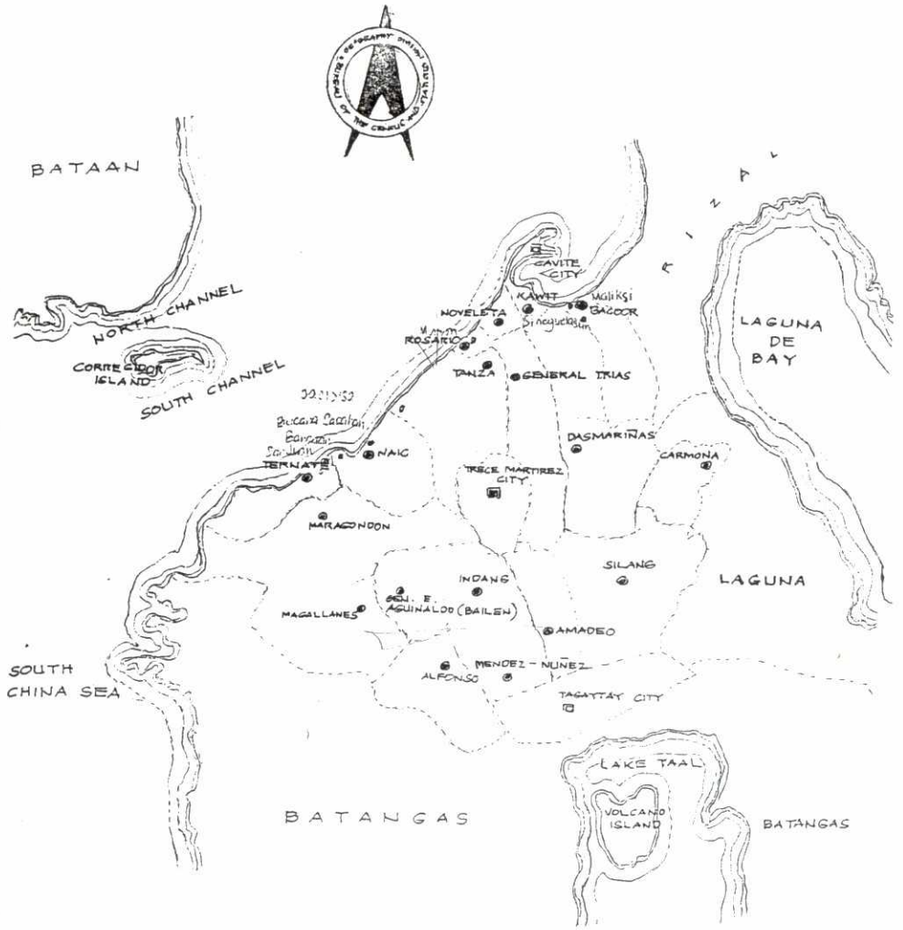
The cost of migration is high. It includes the loss of opportunities to earn from previous employment, the long period of waiting for new employment, the high index of city living, transport cost and the risks of uncertainties in a new settlement.

Migrants seek alternative settlements in the city peripheries extending even to nearby municipalities. Based on the NCSO report, the National Capital Region (NCR) is a source of outmigrants to outlaying provinces.[1/] As recipients of city-ward migration spillover effects, rural towns of migrant-recipient provinces soon grow to urban size but simultaneously find themselves recipients of backwash effects in terms of overcrowding, pollution, inadequacy of amenities and unemployment.

Cavite is an example of a province that increases its population through migration. It is a recipient of outmigrants from the National Capital Region and other provinces. Based on the 1980 Census of Population and Housing by the NCSO, Cavite's population is already almost 60 percent urban. The

* A survey conducted by the Fishery Economics Section.

1/ NCSO, "Interregional Migration in the Philippines", *Journal of Philippine Statistics*, Vol. 32, No. 3 July-September 1981, p. viii.



LEGEND

* ***Sample Fishing Barangay***
* ***Sample Fishing Municipality***

MAP OF CAVITE

rural population has steadily declined over the last three censal years – from 49.82 percent in 1970 to 45.49 percent in 1975, moving down to 40.21 percent in 1984. This could be partially attributed to migration rather than to just natural increases alone. [2/]

The growth of Cavite's coastal municipalities may also be partly due to in-migration. The proximity of this province to the country's prime urban center (Metropolitan Manila) and the richness of Manila Bay as a fishery resource could have provided lures for fishermen to come and settle in the coastal areas of the province.

Migration brought about a change in the size and composition of the population. As an agent of change, how did migration affect the economic development of the coastal municipalities of this province in general and the socio-economic level of fishery households in particular?

OBJECTIVES OF THE STUDY

In view of the preceding, this paper adopted the following objectives:

1. To estimate and compare the socio-economic level of fishing households to non-fishing households;
2. To determine the effect of migration on the level of income of fishing households in comparison to non-fishing households; and
3. To analyze the factors that affect the level of labor income among fishing and non-fishing households.

SAMPLING PROCEDURE

A two-stage sampling was used in this study. The first stage involved the selection of sample fishing barangays. The targetted number of samples was 20 percent. To prepare the sampling frame, each of the identified fishing barangays in Cavite was assigned a unique number from which samples were drawn through the use of a random number table.

The second stage involved the selection of household samples in the drawn barangays. This was carried out by taking a census of households in each of the barangay samples. From the listings, households were stratified into six (6) groups, namely; (1) Agriculture, (2) Fishery, (3) Industry, (4) Services, (5) Foreign, and (6) Others. A 10 percent simple random sampling was applied in each stratum. The respondents were the household heads assisted by their wives. The reference year is 1984.

CLASSIFICATION OF HOUSEHOLDS

In this paper, households were classified by type of economic activity as primary, secondary or tertiary. The sectors and occupations falling under them follow:

2/ NCSO, The Growth of Urban Population in the Philippines, 1975-1980, *"Journal of Philippine Statistics,* Vol. 33, No. 3, July-September, 1981 p. xii.

General Classification	Sector	Occupation
Primary	Agriculture	farming, fishing, forestry, mining
Secondary	Industry	manufacturing, construction, electricity, gas and water
Tertiary	Services	transport, communication and storage, commerce, professions and government service

Aside from those above, three more types of households were set up for reasons explained below. They are:

Fishery households – those engaged in fish catching cr culturing, shell gathering or culturing, and fry gathering
Foreign households – those with household heads employed abroad
Others – the pensioners and the jobless.

The "Fishery" sector was separated from the "Agriculture" in order to get comparative statistics vis-a-vis the rest of the types of households. To allow for the effects of an open economy, the "Foreign" sector was added. Also, household heads not falling under any of the five types of households were grouped under "Others".

DEFINITION OF TERMS

Socio-economic level (SEL) is the aggregate of consumption, investments and savings at a point in time.

Consumption refers to expenditures on durable and non-durable goods. When not specified, *consumption* in this paper refers to non-durables.

Durable goods are goods that may be enjoyed for more than a year (*e.g.,* T.V. set).

Non-durable goods are goods that are currently consumed (e.g. food).

Investments refer to purchases of productive and non-productive goods.

Productive goods refer to items that are used in the furtherance of production (*e.g.,* fishing banca)

Non-productive goods refer to items that do not enhance production (*e.g.,* homelot)

Savings include payroll deductions (GSIS, SSS, MEDICARE, PAG-IBIG Fund), bonds, loans to individuals and/or business establishments, and year-end residual of gross income minus expenses including direct personal taxes.

Household income (gross) refers to labor income, property income, and

transfer payments

Labor income refers to earnings from one's occupation

Property income refers to earnings in the form of rent and interest

Transfer payments refer to pensions and grants from institutions or individuals

Migrant refers to a person not born in his/her place of residence during the reference year

Native resident refers to a person born in his/her place of residence during the reference year.

Standard of living is synonymous to socio-economic level

THEORETICAL CONSIDERATIONS

The income of households is assumed to be caused by several factors. These factors may be classified as personal (age, experience and years of schooling), type of residency (migrant or native resident), number of working hours, sex, sector of employment, type of worker (employed or self-employed) and category of the locality (rural or urban), among others.

In this paper, the factors chosen to explain the variations in income of households are: years of schooling, years of experience, and number of weeks worked. An attempt was made to include sector of employment.

Years of training is a form of investment in human capital. It is assumed that the rate of return from schooling increases as a person enhances his trainable skills.

Income is determined by wage rate and hours devoted to work. As a person's time may be spent either for work or for leisure, the greater time spent for work is presumed to improve the size of income received.

In a developing country, most of the people find employment in the primary sector of the economy. Due to surplus labor, the marginal productivity is said to be low if not nil. The wokers are also unorganized. Comparatively, within the secondary and tertiary sectors, there exist labor unions. The organized labor is able to extract better wages through collective bargaining agreements. Hence, disparities in levels of income may be attributed to sector of employment.

Due to the skewness of the income distribution in absolute amount, the natural logarithm of income was adopted. The variables enumerated above are assumed to have positive effects on the logarithm of income. The statistical model adopted assumes linear association among the dependent and independent variables. The ordinary least squares (OLS) method was used.

STATISTICAL MODEL

The statistical model used in this paper was drawn mainly from the works of Mincer (1974) and Chiswick (1974) on their studies in human capital in relation to personal distribution of income. The concept is that the human being is a form of capital. The expenditures in an individual are partly consumption and partly investment. Those considered forms of investment are expenditures on training, health care, search for job information and migration. Each individual invests in himself to advance his ability to produce goods and services. Thus, the observed differences in individual earnings may be explained by differences in the amount spent in enhancing human productivity (Schultz, 1968).

Training is the most popular variable used in explaining variations in income. It may be decomposed into formal schooling and postschooling or on-the-job training. Since data are not available in peso amount, training is measured in time equivalents. As the relative inequality in income is acknowledged to be more important than the absolute value and because time equivalents of training shall be adopted, it is required that income be in its logarithmic form.

The simple earnings (E) function takes the years of schooling (S) as the lone independent variable or E = f(S). In regression form,

(1) $\ln E = Y_o + bS + u_i$

where ln = natural log
E = earnings of an individual in 1984 in thousand pesos
Y_o = the intercept
b = slope coefficient; interpreted as rate of return from schooling
u_i = residual

The expanded human capital model included the variables experience or postschool training (X) and level of employment of the individual represented by number of weeks worked (W) or symbolically E = f(S,X,W). Investment in postschooling is represented by years of experience. This alternative is due to the unavailability of data from direct inquiry. The addition of level of employment as explanatory variable may serve to approximate seasonality of employment which is observed in fishing and agricultural activities. Proceeding similarly as in (1), the expanded human capital model becomes,

(2) $\ln E = Y_o + b_1S + b_2X + e\ln W + u_i$

where ln W = level of employment measured in log of weeks worked
X = years of experience computed as present age minus 5, minus number of years of schooling
b_2, e = slope coefficients.

By definition, elasticity is different from slope. But when the dependent and independent variables are converted to their logarithms, elasticity is the slope. Hence, *e* may be interpreted as the elasticity of earnings to the fraction of the log of weeks worked in a year. As in (1), b_2 may be interpreted as the rate of return to postschool training.

The approximation of experience is due to the assumption that the respondents entered the labor force right after schooling and continue to be in the labor force uninterruptedly. The reduction of 5 years from age is due to the non-inclusion of the initial investments in the human being.

The respondents in all the specified cases were all males, with income derived solely from their respective occupations.

RESULTS

Structure of Barangay Samples

The province of Cavite lies at the entrance of Manila Bay. It is bounded in the east by the provinces of Rizal and Laguna, in the southeast by Batangas, in the west by the China Sea, and in the North by Manila Bay and the National Capital Region. The province has 19 municipalities and three cities. Eight municipalities and one city lie along the coast of Manila Bay. They are Bacoor, Kawit, Noveleta, Rosario, Tanza, Naic, Ternate, Maragondon and Cavite City.

There are 44 fishing barangays in the province. Out of these, seven barangays (or 16 percent) were drawn as samples. They are Maliksi and Sineguelasan in Bacoor; Muzon in Rosario; Capipisa in Tanza; Bucana Sasahan and Bancaan in Naic; and San Juan in Ternate (Figure 1).

Structure of Fishing Barangay Samples

Based on the household samples the following are the economic activities included under each sectoral grouping:

Sector	Economic Activity
Agriculture	farming, salt making and hog raising
Fishery	fishing or fish culturing, shell gathering or shell culturing and fry gathering
Industry	manufacturing, construction, welding, tailoring and dressmaking
Services	bus, car, jeepney and tricycle driving; merchandising, various professions, and government service
Foreign	contract workers, merchant marine and others employed abroad
Others	pensioners and jobless

Table 1 shows the distribution of households by sector and barangay. As can be gleaned from Figure 1, barangays Maliksi, Sineguelasan and Muzon are nearer to the city of Manila while barangays Capipisa, Bancaan, Bucana Sasahan and San Juan are farther. Structurally, those nearer Manila are less dependent on fishery and agriculture while those farther away are more dependent on these two sectors.

Most of the households fall under "services" (32 percent) and "fishery" (29 percent). "Industry" has the smallest proportion of households (7.5 percent) next to "Agriculture" (5 percent). This reflects an as yet weak industrial base and thus the importance of fishery as a source of livelihood to many people cannot be disregarded.

Table 1. Distribution of Households by Sector and Sample Barangay, Cavite, 1984

Type of Household	Maliksi	Sinegue-lasan	Muzon	Capi-pisa	Banca-an	B-Sasa-han	San Juan	Total
Agriculture	20	0	2	26	23	1	87	159
Fishery	126	153	157	118	193	54	72	873
Industry	86	29	24	28	36	7	21	227
Services	347	134	151	78	119	35	103	972
Foreign	32	82	46	17	68	14	18	227
Others	126	101	82	37	71	15	60	492
All Types	733	504	462	304	510	126	361	3,000

Spatial Mobility

Spatial mobility appears in Table 2. There are still more native residents in the area (57 percent) but the high proportion of migrants (43 percent) indicates the potential of migration as a force of change in community development. Barangays Capipisa in Tanza and Maliksi in Bacoor have the most migrant households, exceeding even the proportion of native residents.

Table 2. Distribution of Identified Households by Barangay and Type of Residency, Cavite, 1984

Fishing Barangay/ Municipality	Migrant		Native		Total	
	No.	%	No.	%	No.	%
Maliksi, Bacoor	422	58	311	42	733	100
Siniguelasan, Bacoor	238	47	266	53	504	100
Muzon, Rosario	125	27	337	73	462	100
Capipisa, Tanza	179	59	125	41	304	100
Bancaan, Naic	174	34	336	66	510	100
Bucana Sasahan, Naic	55	44	71	56	126	100
San Juan, Ternate	95	26	226	74	361	100
All Barangays	1,288	43	1,712	57	3,000	100

Reasons for migration indicate economic advancement or employment as the major factor, followed by marriage (Table 2a).

DEMOGRAPHIC PROFILE OF HOUSEHOLDS

– *Respondents' Ages*

The respondents' mean [3/] age is 44.46 years. The native residents (NR) are, on the average, about four years older than the migrants (M). The oldest group belongs to "Others" while the youngest group, to "Fishery". Through the median [3/] the age profile was somewhat altered. The youngest group belonged to "Industry" (Table 4). By a z-test at the .01 level of significance, the difference in the mean ages of the migrants and native residents appears not to be due to chance.

[3/] The mean (average) and median were presented in some instances in this paper to fill the need of readers. The mean is the more popular measure of central tendency because of its property of being statistically manipulated. The median, on the other hand, is gaining popular use because, unlike the mean, it is not affected by extreme low (or high) values. Hence, the latter projects a truer picture of a given situation. The simultaneous presentation of the mean and median was intended for readers who may want to get a rough approximation of the skewness of the sample distribution.

Table 2a. Reasons for Migration

Type of Household	1		2		3		4		5		6	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Agriculture	1	25.00	3	75.00	–	–	–	–	–	–	4	100
Fishing	28	65.11	9	20.93	3	6.97	–	–	3	6.97	43	100
Industry	8	53.33	3	20.00	1	6.66	2	13.33	1	6.66	15	100
Services	25	55.55	9	20.00	4	8.89	3	6.66	4	8.89	45	100
Foreign	4	28.57	7	50.00	2	14.28	1	7.14	–	–	14	100
Others	7	50.00	2	14.28	4	28.57	–	–	1	7.14	14	100
ALL	73	54.07	33	24.44	14	10.37	6	4.44	9	6.66	135	100

1 – for economic advancement/employment
2 – got married
3 – has no homelot
4 – with relatives in the area
5 – no answer

Table 6. Average Number of Families and Size of Household by Type of Household and Residency, Cavite, 1984

Type of Household	Average No. of Families			Average Size of Households		
	M	NR	Both	M	NR	Both
Agriculture	1.25	1.23	1.24	6.55	5.87	6.00
Fishery	1.14	1.09	1.11	5.26	5.63	5.51
Industry	1.07	1.13	1.09	5.87	4.38	5.35
Services	1.13	1.11	1.12	5.13	5.72	5.43
Foreign	1.00	1.11	1.06	4.93	6.53	5.85
Others	1.29	1.27	1.27	6.50	5.50	5.82
All Types	1.13	1.14	1.14	5.42	5.62	5.57

bers who are likely candidates for employment than dependents as evidenced by a low dependency ratio (0.63). It is only in the "Industry", "Agriculture" and "Foreign" sectors that dependency exceeds unity. Child dependency is more dominant than adult dependency (Table 8).

Table 7. Age Dependency Ratio by Type of Household and Residency, Cavite, 1984

Type of Household	Age Dependency Ratio		
	Migrant	Native Resident	Both
Agriculture	1.25	0.52	0.64
Fishery	0.82	0.66	0.73
Industry	1.26	0.57	1.01
Services	0.71	0.70	0.70
Foreign	1.09	0.61	0.75
Others	0.46	0.59	0.54
All Types	0.81	0.63	0.70

Economic Dependency Ratio

Economic dependency ratio relates the number of unemployed household members to its employed members. It is also called dependency burden.

Table 8. Decomposition of Age Dependency Ratio by Type of Household and Residency, Cavite, 1984.

Type of Household	Child Dependency Ratio			Adult Dependency Ratio		
	M	NR	Both	M	NR	Both
Agriculture	1.25	0.47	0.60		0.50	0.04
Fishery	0.82	0.65	0.73		0.01	0.01
Industry	1.18	0.48	0.93	0.08	0.09	0.08
Services	0.63	0.59	0.61	0.08	0.10	0.09
Foreign	1.03	0.57	0.70	0.06	0.04	0.05
Others	0.40	0.34	0.36	0.06	0.25	0.13
All Types	0.76	0.54	0.63	0.05	0.09	0.07

Average dependency ratio for all households is 2.99. Households under "Foreign" had the highest number of dependents. An employed household member supports 4.22 dependents on the average. This is understandable as this sector has the highest level of income. Hence, their children can pursue their studies uniterruptedly unlike those in "Industry" (3.24) or "Agriculture" (2.82) whose children may be forced to drop out of school and yet find no employment as alternative. Migrants have a higher dependency burden than native residents (Table 9).

ANNUAL NUMBER OF WORKING HOURS

For all types of households, the average working hours a year was 2,292 or an average of 47.75 weeks a year computed at 48 working hours per week. The migrant households worked longer than the native residents by a week. Those under "Others" work the longest while those under "Agriculture" work the shortest.

The "Fishery" group worked for 2,128 hours or 44.3 weeks a year. The migrants worked longer than the native residents by 7.3 weeks (Table 10).

Table 9. Economic Dependency Ratio by Type of Household and REsidency, Cavite, 1984

Type of Household	Economic Dependency Ratio		
	Migrant	Native Res.	Both
Agriculture	3.50		
Agriculture	3.50	2.67	2.82
Fishery	3.04	2.55	2.76
Industry	3.40	2.89	3.24
Services	2.82	2.60	2.70
Foreign	3.60	4.64	4.22
Others	3.79	3.13	3.24
All Types	3.15	2.87	2.99

Table 10. Average Annual Household Working Hours by Type of Household and Residency, Cavite, 1984

Type of Household	Average Annual Household Working Hours		
	Migrant (hrs.)	Native Residents (hrs.)	Both (hrs.)
Agriculture	1,076	1,124	1,116
Fishery	2,324	1,974	2,128
Industry	2,004	2,186	2,061
Services	2,452	2,586	2,522
Foreign	2,345	2,589	2,490
Others	2,690	3,324	3,107
All Types	2,319	2,272	2,292

DECOMPOSITION OF HOUSEHOLD WORKING HOURS

– *The Respondents*

The respondents showed the highest proportion of working hours, averaging 2,201 hours. The migrants worked for 2,312 hours while the native residents worked for 2,104 hours. The "Foreign" and "Fishery" groups had the highest number of working hours. Those in "Agriculture" showed the lowest (Table 11). Migrant households exerted greater effort than the native resident counterparts.

Table 11. Average Working Hours of Respondents by Type of Household and Residency, Cavite, 1984

Type of Household	Respondents		
	Migrant	Native Res.	Both
Agriculture	618	1,077	990
Fishery	2,513	1,951	2,472
Industry	2,200	1,919	2,102
Services	2,325	2,442	2,384
Foreign	2,363	2,592	2,495
Others	1,546	2,328	2,104
All Types	2,312	2,104	2,201

– *The Wives*

In some households wives had employment. Those who work averaged 2,002 hours a year, equivalent to 41.71 weeks. Those under "Others" averaged the highest (2,703 hours a year), while those in the "Agriculture" and "Fishery" sectors had the lowest average working hours at 1,437 and 1,543 hours, respectively.

The employed migrant wives worked longer than the native residents by nine weeks (Table 12). The migrants and native residents under the "Fishery" sector had equal participation at 1,543 each.

– *The Other Household Members*

The other household members also had labor participation. Those who work averaged 3,058 hours a year – longer by 17.86 weeks than the average

Table 12. Average Working Hours of Wives by Type of Household and Residency, Cavite, 1984

Type of Household	Wives		
	Migrant (hrs.)	Native Res. (hrs.)	Both (hrs.)
Agriculture	1,993	1,313	1,437
Fishery	1,544	1,543	1,543
Industry	1,694	4,320	2,219
Services	2,772	1,902	2,380
Foreign	2,080	2,304	2,192
Others	2,628	2,746	2,703
All Types	2,229	1,848	2,002

made by the respondents and by 22.01 weeks than that of the wives. Those under "Others" had the longest working hours because most of the other household members had already assumed the responsibility of being principal breadwinners (Table 13). Furthermore, the Table presents the working hours of all other household members working in the aggregate instead of individualized working hours.

Table 13. Average Working Hours of Other Household Members by Type of Household and Residency, Cavite, 1984

Type of Household	Other Household Members		
	Migrant (hrs.)	Native Res. (hrs.)	Both (hrs.)
Agriculture	–	898	898
Fishery	1,875	2,959	2,495
Industry	300	–	300
Services	2,998	3,748	3,548
Foreign	–	2,712	2,712
Others	3,007	3,927	3,607
All Types	2,505	3,321	3,058

Ownership of Real Estate Properties

Shelter is one of the basic necessities of man. A rough gauge on the sufficiency of this provision is the ownership of house and homelot. Ownership of agricultural land was intended to serve as a means to get an approximation of income-generating properties.

Table 14 shows that most of the households own the house in which they live. Ownership of homelot, however, is surprisingly low. The residents (rich and poor alike) explained that the residential lots they occupy remain the property of the government.

Also, based on Table 14, it can be inferred that ownership of income-generating agricultural land is negligible. Hence, households in the study area derive their sustenance mainly from labor income.

Ownership of Chattel Properties

Household ownership of chattel properties is an indicator of a better standard of living. Selected items were bed, clothes cabinet, electric fan, radio, stereo cassette, refrigerator, sala set and T.V. set. There are households that own vehicles but they constitute a small minority.

The almost ubiquitous item in every household is the clothes cabinet, followed by bed, sala set, electric fan and T.V. set. Households under "Others" and "Foreign" had the most household chattel properties. Those under "Fishery", "Agriculture" and "Industry" had the least properties owned.

By type of residency, for all households, there seemed to be no significant differences in properties owned. However, the native residents under "Fishery" seemed to have an edge over the migrant "Fishery" households in terms of chattel property ownership (Table 15).

Consumption Patterns

The computed mean annual consumption of non-durables per household for all types was ₱20,037; ₱18,602 for migrants and ₱21,205 for native residents (Table 16). On the other hand the per capita income was ₱3,586 for both; ₱3,713 for native residents and ₱3,421 for migrants (Table 17). The observed unevenness in the distribution of per capita consumption when considered against the annual consumption can be attributed to the size of households. Tables 16 and 17 may be read in conjunction with Table 6.

Consumption of non-durables shows food to be the item of highest expenditure (58.29 percent). Except "Others" (9.52 percent), medicine comes next (5.45 percent) followed by clothing and footwear (4.94 percent). The objects of least expenditure were magazines, books and newspapers (0.16 percent), Table 18.

Table 14. Number and Percentage of Household Ownership and Real Estate Properties by Type of Household and Residency, Cavite, 1984

Type of Household and Residency	House		Home Lot		Agricultural Land	
	No.	%	No.	%	No.	%
Agriculture						
M	4	100	–	–	2	50
NR	16	94.41	–	–	–	–
Both	20	95.24	–	–	2	9.52
Fishery						
M	34	79.07	2	4.65	1	4.02
NR	39	84.78	1	2.17	–	–
Both	73	82.02	3	3.37	1	1.12
Industry						
M	7	46.67	–	–	3	20.00
NR	6	87.50	–	–	–	–
Both	14	60.87	–	–	3	13.04
Services						
M	32	71.11	1	2.22	1	2.22
NR	39	24.78	6	13.04	3	6.25
Both	71	78.02	7	7.69	4	4.40
Foreign						
M	12	85.71	1	7.14	–	–
NR	18	94.74	1	5.26	–	–
Both	30	90.91	2	6.06	–	–
Others						
M	10	71.43	1	7.14	–	–
NR	27	90.00	4	13.33	4	13.33
Both	37	84.09	5	11.36	4	9.09
All Types						
M	99	73.33	5	3.70	7	5.18
NR	146	87.95	12	7.23	7	4.22
Both	245	81.40	17	5.65	14	4.65

Table 15. Ownership of Selected Chattel Properties by Type of Household and Residency, Cavite, 1984 (in percent)

Type of Household and Residency	Bed	Clothes Cabinet	Electric Fan	Radio	Stereo Cassette	Refrigerator	Sala Set	T.V. Set
Agriculture								
M	17.64	64.70	5.88	23.52	29.41	0	52.94	17.64
NR	50.00	100	25	25	0	25	50	25
Both	23.80	71.42	9.52	23.80	23.80	4.76	52.38	19.04
Fishery								
M	36.95	28.26	13.04	30.43	15.21	4.34	17.39	13.04
NR	27.90	60.46	25.58	30.23	13.95	2.32	39.53	18.60
Both	32.58	43.82	19.10	30.33	14.60	3.37	28.08	15.73
Industry								
M	33.3	46.6	20	6.66	26.66	26.66	33.3	26.66
NR	37.5	25	37.5	0	12.5	25	25	37.5
Both	34.78	39.13	26.08	4.34	21.73	26.08	30.43	30.43
Services								
M	51.1	80	51.1	24.	37.7	24.4	46.6	53.3
NR	56.52	73.91	56.52	19.56	34.78	28.26	47.82	54.34
Both	53.84	76.92	53.84	21.97	36.26	26.37	47.25	53.84
Foreign								
M	52.63	52.63	57.89	21.05	31.57	31.57	63.15	57.89
NR	85.71	114.2	85.71	21.42	71.42	50	107.14	85.41
Both	66.6	78.78	69.69	21.21	48.48	39.39	81.81	69.69
Others								
M	85.71	114.28	92.85	35.71	64.28	50	92.85	92.85
NR	63.3	66.6	63.3	16.6	50	36.6	53.3	56.6
Both	70.45	81.81	72.72	22.72	54.54	40.90	65.90	68.18
All Types								
M	51.1	63.70	42.2	26.6	31.85	22.96	45.18	43.70
NR	45.18	65.66	43.37	20.48	31.92	20.48	48.79	40.96
Both	47.84	64.78	42.85	23.25	31.89	21.59	47.17	42.19

Table 16. Average Annual Household Consumption of Non-durables by Type of Household and Residency, Cavite, 1984 (in pesos)

Type of Household	Migrant	Native Resident	Both
Agriculture	12,921	12,109	12,264
Fishery	13,767	14,205	13,993
Industry	17,645	15,384	16,859
Services	21,267	20,324	20,791
Foreign	26,802	37,703	33,078
Others	19,331	29,548	26,297
All Types	18,602	21,205	20.037

Table 17. Per Capita Consumption of Non-durables by Type of Household and Residency, Cavite, 1984 (in pesos)

Type of Household	Migrant	Native Resident	Both
Agriculture	1,914	2,079	2,044
Fishery	2,619	2,523	2,568
Industry	3,008	3,517	3,152
Services	4,107	3,555	3,814
Foreign	5,438	5,777	5,656
Others	2,974	5,276	4,467
All Types	3,421	3,713	3,586

Table 18. Itemized Annual Household Consumption of Non-durables by Type of Household and Residency, Cavite, 1984 (in percent)

Type of Household and Residency	Food	Medicine	Clothing and Footwear	Toiletry	Education	Water and Light	Fuel
Agriculture							
M	67.09	4.06	2.86	4.63	2.62	5.85	0.84
NR	68.26	1.77	4.61	5.43	6.12	4.21	1.58
Both	68.02	2.82	4.26	5.27	5.40	4.54	1.40
Fishery							
M	68.89	1.91	4.66	3.73	2.64	3.87	5.61
NR	65.52	4.02	4.15	5.27	4.69	3.80	4.28
Both	67.13	3.00	4.39	4.54	3.71	3.83	4.91
Industry							
M	56.66	3.78	4.82	4.18	2.58	3.88	4.24
NR	57.57	9.95	7.76	4.76	0.85	4.75	5.00
Both	56.95	5.74	5.75	4.36	2.03	4.16	4.48
Services							
M	55.51	2.87	5.22	5.06	4.13	4.08	4.29
NR	57.75	3.30	4.00	5.75	5.88	4.36	4.95
Both	56.62	3.08	4.62	5.40	5.00	4.22	4.62
Foreign							
M	53.92	8.66	8.62	4.31	5.00	3.57	4.52
NR	56.82	4.08	6.93	4.19	11.16	3.50	3.20
Both	55.80	5.61	7.51	4.23	9.05	3.53	3.65
Others							
M	58.85	3.37	5.63	5.14	1.43	5.64	3.50
NR	50.01	15.20	2.86	4.29	1.69	5.21	3.51
Both	52.12	12.43	3.50	4.87	1.63	5.31	3.25
All Types							
M	59.16	3.62	5.55	4.54	3.42	4.14	4.48
NR	57.68	6.72	4.51	5.05	5.52	4.30	3.83
Both	58.29	5.45	4.94	4.84	4.65	4.23	4.10

Table 18a. Itemized Annual Household Consumption of Non-durables by Type of Household and Residency, Cavite, 1984 (cont'd) (in percent)

Type of Household & Residency	House Repairs	House Rent	Personal Care	Recreation & Sports	Magazines, Books, Newspapers,	Others
Agriculture			0.79			11.37
M	–	–	0.56	0.17	0.17	6.76
NR	0.26	0.14	0.56	0.14	0.14	7.68
Both	0.19	0.14				
Fishery						
M	0.09	1.50	0.41	0.10	0.05	6.54
NR	0.55	0.80	0.46	0.16	0.05	6.24
Both	0.33	1.13	0.43	0.13	0.05	6.38
Industry						
M	1.89	2.72	0.21	1.13	0.63	13.88
NR	5.77	–	0.05	0.05	–	3.48
Both	3.12	1.86	0.16	0.79	0.43	10.17
Services						
M	1.81	2.91	0.49	0.53	0.31	12.79
NR	1.28	0.04	0.27	0.23	0.17	12.01
Both	1.55	1.49	0.38	0.38	0.24	12.40
Foreign						
M	2.66	0.48	0.52	0.88	0.14	6.70
NR	3.21	0.50	0.31	0.92	0.04	5.20
Both	3.02	0.49	0.38	0.90	0.08	5.71
Others						
M	3.70	2.97	0.97	0.40	0.35	8.07
NR	2.14	0.05	1.13	0.40	0.08	13.19
Both	2.51	0.74	1.09	0.42	0.14	11.99
All Types						
M	1.70	2.14	0.50	0.52	0.25	9.92
NR	1.85	0.28	0.54	0.40	0.09	9.24
Both	1.79	1.06	0.52	0.45	0.16	9.52

Consumption and Size of Household Profile

The size of a household's budget on consumption of non-durables according to number of household members is shown in Table 19. The budget rises as the size of household increases. On the average a household of two members spent ₱12,867 and that of three to four members, ₱17,502. A household with 11 members and above required ₱27,740. There was an abrupt rise of 36 percent in consumption as the household size rose from one to two members to three to four members and the rate of increase declined as the household size decreased. This trend is true only up to a household size of seven to eight members.

Table 19. Average Consumption and Size of Household by Type of Household and Residency, Cavite, 1984 (in pesos)

Type of Household	Size of Household					
	1-2	3-4	5-6	7-8	9-10	11-above
Agriculture	6,599	6,500	10,373	16,407	15,710	–
Fishery	7,919	11,736	14,239	16,279	22,208	14,510
Industry	–	14,988	19,647	19,597	18,683	–
Services	14,562	17,548	18,174	28,883	20,432	27,319
Foreign	14,344	21,027	33,437	40,045	44,225	62,972
Others	22,100	31,764	24,373	24,699	15,530	30,179
All Types	12,867	17,502	20,371	22,988	22,796	27,740

Average Food Consumption and Size of Household

Table 20 shows an almost monotically rising pattern of average food consumption as the household grows. However, as the household size grows, the rate of increase in consumption declines.

When the proportion of average food consumption to annual consumption is taken, the pattern of proportion also initially declines, then abruptly rises as the household size goes up to 7 to 8 members.

Consumption of Durables and Non-durables

Only about one-third of the respondents have expenditures on durable items. More migrants (34 percent) bought durable items than native residents (31.92 percent) but the latter spent a greater amount (₱5,633) than the former (₱2,563). The pensioners and those with employment abroad spent the most

Table 20. Average Food Consumption and Size of Household by Type of Household, Cavite, 1984 (in pesos)

Type of Household	Size of Household					
	1-2	3-4	5-6	7-8	9-10	11-above
Agriculture	3,640	5,064	6,304	11,855	9,308	–
Fishery	5,566	7,692	9,067	11,150	14,938	11,135
Industry	–	6,846	11,709	10,538	11,715	–
Services	8,293	9,499	11,227	11,989	12,253	20,075
Foreign	7,200	14,154	15,212	27,900	28,800	36,500
Others	11,853	15,907	12,048	12,940	11,080	16,968
All Types	7,532	9,792	11,186	13,815	14,562	17,702

on those items while the respondents under "Fishery", "Agriculture" and "Industry", in that order, had the least expenses on the same items (Table 21). Total household consumption of durables and non-durables is given in Table 22.

Table 21. Average Household Consumption of Durables by Type of Household, Cavite, 1984 (in pesos)

Type of Household	Migrant (₱)	Native Resident (₱)	Both (₱)
Agriculture	–	995	995
Fishery	939	360	573
Industry	682	1,013	756
Services	3,028	4,998	3,598
Foreign	4,768	10,222	7,768
Others	1,525	14,969	9,592
All Types	2,563	5,633	4,206

Size of Investment

Investment on real estate properties (house and land) is not only the popular form of investment but has also the biggest size of investment. The biggest investors are the "Foreign" households. Those under "Others" did not have investments.

Table 22. Average Household Consumption of Durables and Non-durables by Type of Household and Residency, Cavite, 1984 (in pesos)

Type of Household	Migrant (₱)	Native Resident (₱)	Both (₱)
Agriculture	12,921	9,625	10,132
Fishery	11,950	11,340	11,623
Industry	12,248	12,510	12,330
Services	15,847	16,187	16,016
Foreign	18,773	27,519	23,724
Others	15,374	27,117	23,202
All Types	14,593	17,425	16,144

All types of households (excluding those under "Others") had few investors. Relatively, however, the "Foreign" households had the most number of investors while the "Agriculture" households had the least - - almost nil (Table 25).

Household Savings

About two-thirds of the households had savings. The migrant households had a higher number of savers than the native residents. By sector, "Agriculture" had the lowest number of savers while the "Foreign" sector had the highest (Table 24).

The relatively high rate of savers among households seemed to be complemented by a relatively big size of average savings (₱6,797.00) among households. The native residents had more savings than the migrants had. However, by looking at the median, the size of savings among households is greatly reduced: all households by 5.48 times; native residents by 2.36 times; and the migrants by 3.38 times. These reductions portray a positively skewed distribution that is, many households have a small amount of savings and only a few households have a big amount of savings. The "Fishery" sector had the lowest amount of savings in terms of the average and median (Table 25).

Table 23. Average Household Investment by Type of Household and Residency, Cavite, 1985

Type of Household Enterprise and	Land/House		Others		Total	
	NR	Amount (₱)	NR	Amount (₱)	NR	Amount (₱)
Agriculture						
M	–	–	1	7,500	1	7,500
NR	1	1,700	3	3,333	4	2,925
Both	1	1,700	4	4,375	5	3,980
Fishery						
M	6	3,107	3	6,567	9	4,260
NR	1	20,000	8	4,991	9	6,658
Both	7	5,520	11	5,421	18	5,459
Industry						
M	3	3,500	–	–	3	3,500
NR	–	–	–	–	–	–
Both	3	3,500	–	–	3	3,500
Services						
M	7	8,929	2	2,405	9	7,479
NR	4	8,000	1	5,500	5	7,500
Both	11	8,591	3	3,437	14	7,486
Foreign						
M	4	22,500	–	–	4	22,500
NR	5	28,960	1	17,000	6	26,967
Both	9	16,089	1	17,000	10	25,180
All Types						
M	20	9,082	6	5,335	26	8,217
NR	11	18,045	13	5,571	24	11,289
Both	31	12,263	19	5,497	50	9,692

Table 24. Rate of Household Savers by Type of Household and Residency, Cavite, 1984

Type of Household	Number			Percentage		
	M	NR	Both	M	NR	Both
Agriculture	3	6	9	75	35	43
Fishery	32	27	59	74	59	66
Industry	9	6	15	60	75	65
Services	27	28	55	60	61	60
Foreign	11	17	28	79	89	85
Others	14	20	34	100	67	77
All Types	96	104	200	71	63	66

Table 25. Size of Household Savings by Type of Household and Residency, Cavite, 1984 (in pesos)

Type of Household	Average (₱)			Median (₱)		
	M	NR	Both	M	NR	Both
Agriculture	2,568	7,930	4,355	202	3,435	1,818
Fishery	1,592	1,250	1,335	600	387	494
Industry	2,575	8,077	5,876	2,360	4,582	3,471
Services	6,419	4,157	5,268	1,073	999	1,036
Foreign	17,854	16,392	16,967	4,978	8,740	6,859
Others	3,901	16,400	11,253	1,349	1,047	1,198
All Types	5,956	7,574	6,797	1,760	3,198	1,240

Socio-Economic Level

By aggregating the consumption, investments and savings of households, the computed socio-economic level for the reference period was ₱27,700; ₱25,746 for migrants and ₱29,288 for native residents. The observed gap in socio-economic level between migrants and native residents was computed to be insignificant at the .01 level of significance.

The median incomes were lower -- ₱18,000 for migrants, ₱17,625 for native residents, and ₱17,980 for both M and NR. The median gives a more realistic picture of the situation.

In both measures of central tendency, "Agriculture" and "Fishery" households exhibit the lowest socio-economic level, while the "Foreign" households is on the highest level.

Table 26. Socio-economic level of Households by Type of Household and Residency, Cavite, 1984 (in pesos)

Type of Household	Average (₱)			Median (₱)		
	M	NR	Both	M	NR	Both
Agriculture	20,727	13,940	15,233	19,842	12,035	12,992
Fishery	16,104	16,324	16,218	12,540	13,572	13,333
Industry	25,793	17,944	23,063	18,199	13,657	16,570
Services	28,431	26,426	27,417	21,158	19,930	20,500
Foreign	49,838	66,476	59,417	51,500	67,550	56,080
Others	24,022	41,726	36,093	18,840	21,458	21,020
All Types	25,746	29,288	27,700	18,000	17,625	17,980

Household and Income Profile

Table 27 shows the distribution of income by type of household and residency. The modal income bracket is ₱10,000 to ₱14,999 with slightly more than one-fourth (25.58 percent) of the households falling under it. Less than one-half (47.17 percent) of the households had an income of ₱14,000 and below.

The "Fishery" and "Agriculture" sectors had the most number of households (66.66 percent and 67.42 percent, respectively) with an income of ₱14,000 and less per year. However, more than two-fifths (41.57 percent) of the "Fishery" group were in the modal income bracket (₱10,000 to ₱14,999).

Table 27. Household and Income Profile by Type of Household and Residency, Cavite, 1984 (in pesos)

Household and Residency	2,000-3,999	4,000-5,999	6,000-7,999	8,000-9,999	10,000-14,999	15,000-19,999	20,000-29,999	30,000-39,999	40,000-49,999	50,000 & OVER
Agriculture										
M	–	–	–	–	2	2	–	–	–	–
NR	2	1	1	6	2	1	4	–	–	–
Both	2	1	1	6	4	3	4	–	–	–
Fishery										
M	–	3	2	6	18	6	5	3	–	–
NR	1	2	2	7	19	6	7	1	–	1
Both	1	5	4	13	37	12	12	4	–	1
Industry										
M	–	1	–	2	5	3	2	–	–	2
NR	–	1	–	1	3	–	2	1	–	–
Both	–	2	–	3	8	3	4	1	–	2
Services										
M	1	2	1	5	7	10	12	4	–	3
NR	1	2	1	5	12	3	10	6	2	4
Both	2	4	2	10	19	13	22	10	2	7
Foreign										
M	–	–	–	1	1	3	2	2	–	5
NR	–	–	–	–	–	–	4	4	2	9
Both	–	–	–	1	1	3	6	6	2	14
Others										
M	–	1	–	1	5	2	2	1	1	1
NR	–	3	1	2	3	5	5	4	1	6
Both	–	4	1	3	8	7	7	5	2	7
All Types										
M	1	7	3	15	38	26	23	10	1	11
NR	4	9	5	21	39	15	32	16	5	20
Both	5	16	8	36	77	41	55	26	6	31

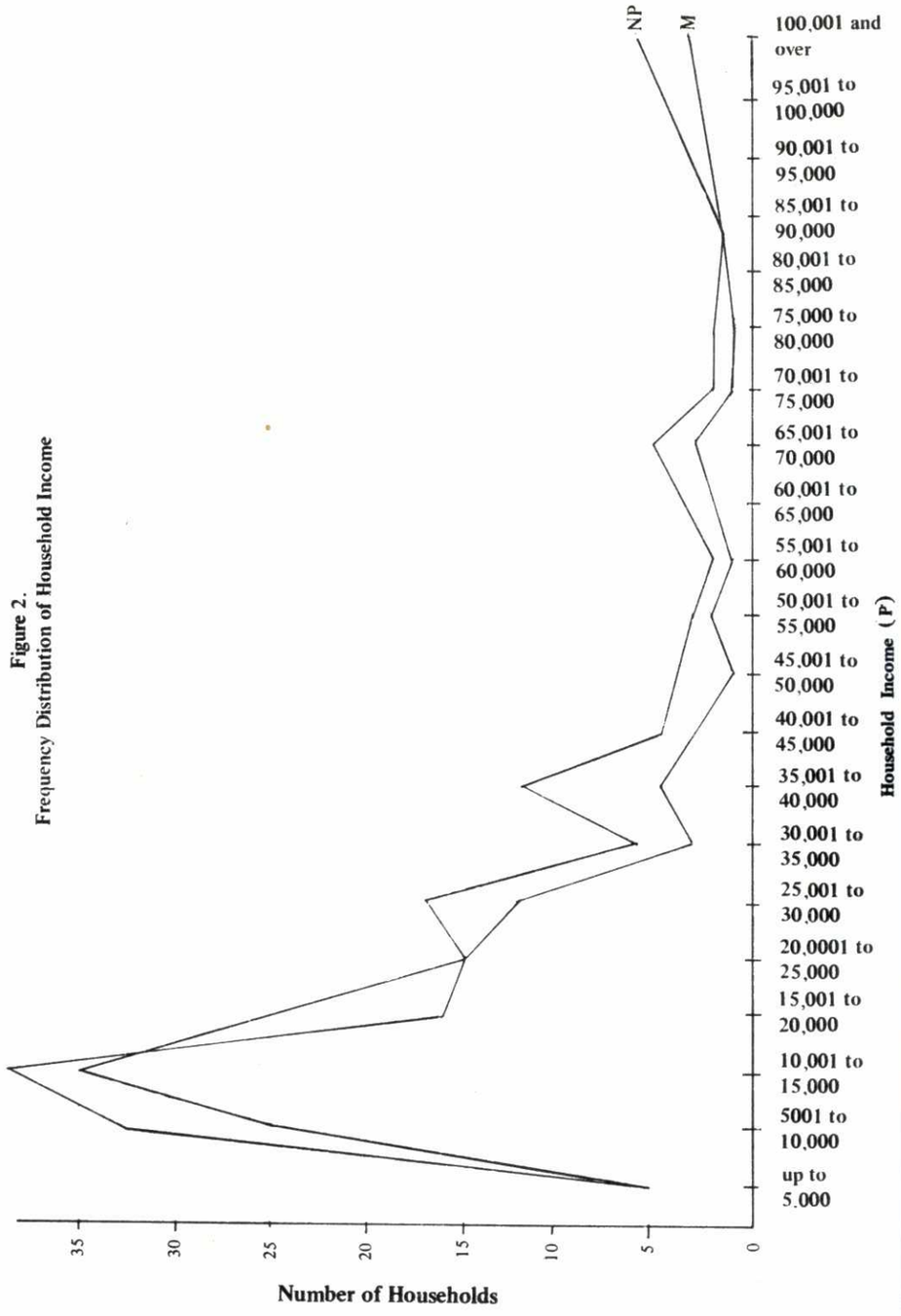


Figure 2.
Frequency Distribution of Household Income

Average and Median Income

Table 28 shows the comparative average and median annual household income by type of household and residency. It shows that on the average, native residents had a higher income (₱26,532) than migrants (₱21,805). They averaged ₱23,411. Computed z-test for migrants and native residents mean incomes show no statistical significance at the .01 level. The same is true with "Fishery" sector.

The median income shows smaller discrepancy in the annual income of migrants versus native residents. The skewness of the income distribution can be seen in Figure 2.

Table 28. **Average and Median Annual Household Income by Type of Household and Residency, Cavite, 1984 (in pesos)**

Type of Household	Annual Income					
	Average (₱)			Median (₱)		
	M	NR	Both	M	NR	Both
Agriculture	13,944	12,526	12,796	14,863	9,600	10,300
Fishery	14,769	14,960	14,868	12,240	12,900	12,450
Industry	19,982	17,508	19,121	12,600	12,600	12,600
Services	25,229	23,281	24,244	18,000	18,355	18,000
Foreign	37,435	57,424	48,944	30,300	45,000	39,600
Others	20,985	40,037	33,975	15,114	21,020	19,691
All Types	21,805	26,532	24,412	15,270	16,775	15,528

Per Capita Income

Per capita income was computed at ₱4,011 for migrants; ₱4,476 for native residents, and ₱4,369 for both. The "Agriculture" and "Fishery" sectors had the lowest per capita income (Table 29).

Table 29. Per Capita Income by Type of Household and Residency, Cavite, 1984 (in pesos)

Type of Household	Per Capita Income (₱)		
	Migrant	Native Resident	Both
Agriculture	2,066	2,151	2,133
Fishery	2,810	2,657	2,728
Industry	3,406	4,002	3,576
Services	4,873	4,072	4,448
Foreign	7,596	8,799	8,369
Others	3,228	7,149	5,772
All Types	4,001	4,476	4,369

Decomposition of Income by Source

The "Services" sector supports most of the households. From Table 30, more than 39 percent of the total income comes from this source. The "Foreign" sector contributed more than one-fourth (20.59 percent) to total household income. Excluding the "Foreign" and "Others" groups, the "Fishery" sector comes next to the "Services" sector in terms of rate of contribution to total household income.

It should be noted that households in the "Agriculture", "Fishery", "Industry" and "Services" sectors do not draw income from the "Foreign" sector. This indicates that no member of the family in any of these households was employed abroad. This may be explained by either the non-existence of international demand for labor in the types of occupation in these sectors or the lack of access to opportunities in the "Foreign" sector due to low levels of income.

Employment Rates

Employment is based on the economically active population of households, i.e., those belonging to the group of 15 years old up to 64 years old. No refinements were made to trim down this group; hence, the computed employment rates appearing in this paper are only rough estimates.

Employment rates and average labor income are presented in Table 31 and Table 31-a, respectively. All households had an employment rate of 41.22 percent with an average labor income of ₱17,577. The native residents had an employment rate of 43.45 percent and an income of ₱18,612, compared with the migrants' 38.66 percent and ₱16,233.

Table 30. Decomposition of Household Income by Source and by Type of Household and Residency, Cavite, 1984 (in pesos)

Type of Household and Residency	Total Household Income	SOURCE					
		Agriculture	Fishery	Industry	Services	Foreign	Others
Agriculture							
M	55,775	80.00	–	–	20.00	–	–
NR	212,942	80.00	4.00	11.00	15.00	–	4.00
Both	268,717	69.00	3.00	9.00	16.00	–	3.00
Fishery							
M	635,060	0.30	83.00	0.60	13.00	–	3.00
NR	688,170	0.18	74.13	3.15	18.31	–	4.23
Both	1,323,230	0.23	78.37	1.91	15.79	–	3.70
Industry							
M	299,727	–	0.20	90.30	8.49	–	1.08
NR	140,060	–	–	66.06	12.85	–	21.09
Both	439,789	–	0.14	82.53	9.88	–	7.45
Services							
M	1,135,301	0.67	0.56	1.06	96.08	–	2.23
NR	1,070,907	2.92	1.02	–	90.05	–	6.01
Both	2,206,208	1.48	0.79	0.54	93.15	–	4.06
Foreign							
M	524,090	–	0.69	–	1.99	95.46	1.86
NR	1,091,065	–	–	–	12.10	86.01	1.89
Both	1,615,155	–	0.22	–	8.82	89.08	1.88
Others							
M	293,789	–	8.49	6.11	35.56	6.13	43.72
NR	1,201,100	0.49	0.23	2.76	24.83	4.70	66.98
Both	1,494,889	0.40	1.85	3.42	26.94	4.98	62.41
All Types							
M	2,943,742	1.62	19.10	10.33	45.01	17.61	6.34
NR	4,404,244	4.10	12.07	3.88	35.65	22.59	21.71
Both	7,347,986	3.11	14.89	6.46	39.40	20.59	15.55

The "Fishery" group, had an employment rate of 43.5 percent; the migrants, 43.41 percent, and the native residents, 43.59 percent. The migrants group, however, had a higher average earnings. The respondents had an employment rate of 95 percent. This excludes the pensioners and the jobless (Table 31-a).

Table 31. Employment Rate by Type of Household and Residency, Cavite, 1984 (in percent)

Type of Household	EMPLOYMENT RATE		
	Migrant	Native Resident	Both
Agriculture	50.00	45.16	32.43
Fishery	43.41	43.59	43.51
Industry	42.55	40.91	42.03
Services	44.12	42.58	43.30
Foreign	45.45	28.57	33.64
Others	20.75	62.90	36.31
All Types	38.66	43.45	41.22

Table 31a. Average Labor Income of All Earning Household Members by Type of Household and Residency, Cavite, 1984 (in pesos)

Type of Household	Migrant		Native Resident		Both	
	SR*	Average (P)	SR*	Average (P)	SR*	Average (P)
Agriculture	6	9,296	28	7,926	24	8,168
Fishery	56	11,287	68	9,732	124	10,434
Industry	20	14,846	9	15,562	29	15,068
Services	60	18,552	66	15,760	126	17,089
Foreign	15	34,489	22	49,594	37	43,470
Others	22	13,218	39	29,823	61	23,834
All Types	179	16,235	232	18,612	411	17,577

The employment rate of the wives (24.82 percent) is lower than that for all earning household members (Table 32). The migrant wives are more home-bound than their native resident counterparts who have a higher employment rate. The same is true with the "Fishery" group.

The high employment rates of wives under "Agriculture" and "Others' seem to indicate that low income levels and advanced age of respondents explain the proportionally greater participation of the wives in these sectors.

Advanced age of the respondents also appears to cause a greater employment rate among other household members under "Others" as shown in Table 33.

Table 32. Employment Rate of Wives by Type of Household and Residency, Cavite, 1984

Type of Household	Migrant		Native Resident		Both	
	No.	%	No.	%	No.	%
Agriculture	2	50	8	47.06	10	47.62
Fishery	7	16.28	16	34.78	23	25.84
Industry	4	28.57	1	12.50	5	22.73
Services	11	26.19	9	24.32	20	25.32
Foreign	1	7.14	1	5.26	2	6.06
Others	4	33.33	5	22.73	9	26.47
All Types	29	22.48	40	26.84	69	24.82

Table 33. Employment Rate of Other Household Members by Type of Household and Residency, Cavite, 1984

Type of Household	Migrant		Native Resident		Both	
	No.	%	No.	%	No.	%
Agriculture	–	–	3	9.68	3	8.57
Fishery	6	15.79	7	10.93	13	12.74
Industry	1	10.00	–	–	1	6.67
Services	4	8.33	11	15.28	15	12.50
Foreign	–	–	2	5.13	2	4.54
Others	9	25.00	14	26.92	23	26.14
All Types	20	14.18	37	14.07	57	14.11

Income by Earning Household Members

As a whole, the respondents were still the main breadwinners. They contributed 77.56 percent to the total income, while the wives shared 11.54 percent and the other household members, 10.90 percent (Tables 34, 35 and 36).

The Tables on employment rates and average earnings were set up primarily to shed light on whether the employment rates of the wives or the size of their earnings can contribute more to household income. As presented previously, the employment rate of the wives was 25 percent while their average earnings was 69 percent of the average household earnings. Therefore, the question on whether or not to improve the employment rate or the earnings of the wives may be answered by Tables 32 and 35. The findings of this study favor the improvement of the employment rate. Also, a look at Table 36 suggests that the participation of the other household members can be another way of improving household income.

Table 34. Average Earnings of Respondents by Type of Household and Residency, Cavite, 1984

Type of Household	Migrant		Native Resident		Both	
	SR	Average (₱)	SR	Average (₱)	SR	Average (₱)
Agriculture	4	9,706	17	8,799	21	8,972
Fishery	43	12,626	45	10,454	88	11,544
Industry	15	18,123	8	15,258	23	17,126
Services	45	20,404	46	16,076	91	18,217
Foreign	14	36,207	19	47,117	33	42,489
Others	9	13,938	20	40,965	29	32,577
All Types	130	18,513	155	20,620	285	19,659

Table 35. Average Earnings of Wives by Type of Household and Residency, Cavite, 1984

Type of Household	Migrant		Native Resident		Both	
	SR	Average (₱)	SR	Average (₱)	SR	Average (₱)
Agriculture	2	8,475	8	7,711	10	7,864
Fishery	7	6,984	16	7,432	23	7,295
Industry	4	6,120	1	18,000	5	8,496
Services	11	13,536	9	16,272	20	14,767
Foreign	1	10,440	1	132,000	2	71,220
Others	4	8,992	5	14,254	9	11,916
All Types	29	9,849	40	13,708	69	12,086

Table 36. Average Earnings of Other Household Members by Type of Household and Residency, Cavite, 1984

Type of Household	Migrant		Native Resident		Both	
	SR	Average (₱)	SR	Average (₱)	SR	Average (₱)
Agriculture	–	–	3	3,558	3	3,558
Fishery	6	6,280	7	10,350	13	8,471
Industry	1	600	–	–	1	600
Services	4	11,505	11	14,018	15	13,348
Foreign	–	–	2	13,920	2	13,920
Others	9	14,376	14	19,464	23	17,473
All Types	20	10,684	37	13,504	57	13,813

Criteria of Economic Development

The three criteria of economic development are: (1) reduction in unemployment, (2) reduction in inequality and (3) reduction in poverty. The Lorenz curve, Gini ratio and ratio of the mean income of the top five (5) percent of the households to the mean income of the bottom 30 percent (Y_5/Y_{30}) and the per capita income were the indicators selected to shed light on the status of community development in general and status of the "Fishery" households in particular.

The Lorenz Curve

Figure 3 shows the Lorenz curve. It is a popular indicator of income inequality. Any point on the 45 degree line means proportional equality between income in the Y-axis and number of households in the X-axis. The Lorenz curve is constructed by connecting the series of points plotted on the X-Y coordinates. The lower the curve to the diagonal line, the worse is income inequality and vice-versa.

The Lorenz curve for all households is seen to be farther away from the diagonal line while that of the "Fishery" households is closer. This means that income inequality among all households is more pronounced than that among the "Fishery" households.

The Gini Ratio

The Gini ratio was computed from the Lorenz curve. Its value ranges from zero to unity. A value of zero means complete equality while a value of unity means complete inequality.

The computed Gini ratio for all households was 0.43518, which reflects a wide disparity in the levels of household income. For "Fishery" households, the Gini ratio was 0.26044, which means that there is a lesser degree of inequality among this group. This, however, does not mean a good gauge because the absolute level of income of "Fishery" households is second to the lowest.

Ratio of the Top Five Percent to the Bottom 30 Percent

The mean income of the top five percent of the households (Y_5) was computed to be ₱116,867, while the mean income of the bottom 30 percent (Y_{30}) was computed to be ₱8,379. The ratio Y_5/Y_{30} was 13.95. This shows that the mean income of the richest households is almost 14 times greater than the mean income of the poorest households.

The Bottom 30 Percent of the Households

The bottom 30 percent of the households (or up to the lower third decile of the Lorenz curve) had a mean income of ₱8,380 but a median of ₱9,000. This reveals that most of the observations cluster around the ₱8,000 to ₱9,999 bracket (Table 37).

By decomposing the poorest households, it was found that almost two-fifths (38.88 percent) of them belong to the "Fishery" group, and that the majority were migrants. However, on the whole, there was a proportionally greater percentage of native residents (57.78 percent) than that of migrants (42.62 percent) in the poorest group (Table 58).

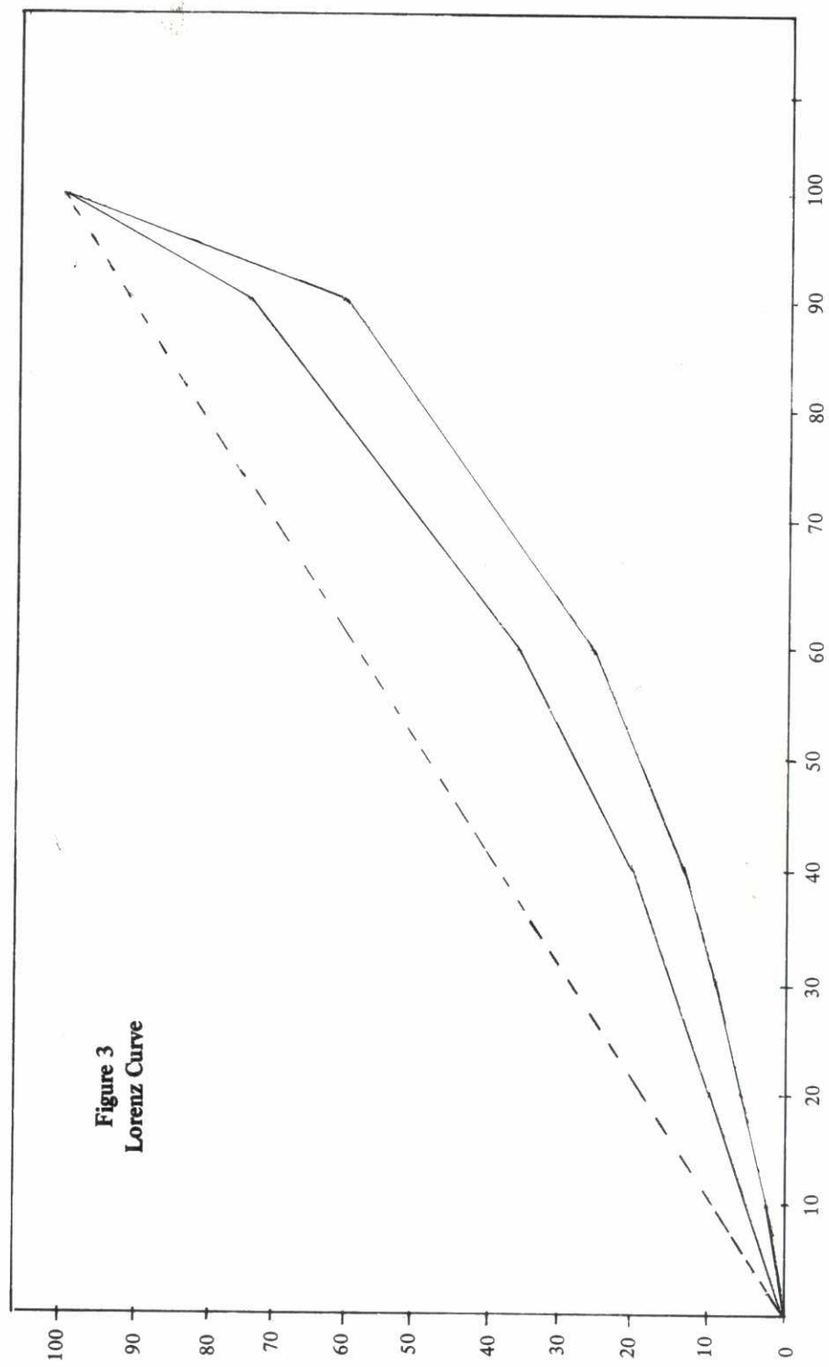


Figure 3
Lorenz Curve

Table 37. Income of the Bottom 30 Percent of Sample Households by Type of Household and Residency, Cavite, 1984

Type of Household \ Income bracket (₱)	2,000-3,999		4,000-5,999		6,000-7,999		8,000-9,999		10,000-14,999		Total	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Agriculture	2	18.18	1	9.09	1	9.09	6	54.54	1	9.09	11	100
Fishery	1	2.86	5	14.29	4	11.43	13	37.14	12	34.29	35	100
Industry	–	–	2	28.57	–	–	3	42.86	2	28.57	7	100
Services	2	8	4	16	2	8	10	40	7	28	25	100
Foreign	–	–	–	–	–	–	1	100	–	–	1	100
Others	–	–	4	36.36	1	9.09	3	27.27	3	27.27	11	100
All Types	5	5.56	16	17.78	8	8.89	36	40.00	25	27.78	90	100

Table 38. Decomposition of the Bottom 30 Percent of Sample Households by Type of Household and Residency, Cavite, 1984

Type of Household				Migrant			Native Resident			Both		
	n	n_{30}	n_{30}	$\frac{n_{30}}{n_{90}}$	n	n_{30}	$\frac{n_{30}}{n}$	$\frac{n_{30}}{n_{90}}$	n	n_{30}	$\frac{n_{30}}{n}$	$\frac{n_{30}}{n_{90}}$
Agriculture	4	1	25.00	1.11	17	10	58.82	11.11	21	11	52.38	12.22
Fishery	43	18	41.86	20.00	46	17	36.96	18.89	89	35	39.32	38.88
Industry	15	5	26.67	4.44	8	3	37.50	3.33	23	7	30.43	7.78
Services	45	12	26.67	13.33	46	13	28.26	14.44	91	25	27.47	27.77
Foreign	14	1	7.14	1.11	19	–	–	–	33	1	3.03	1.11
Others	14	2	14.28	2.22	30	9	30.00	10.00	44	11	25.00	12.22
All Types	134	38	28.15	42.22	166	52	31.32	57.78	301	90	29.90	100.00

n = overall sample distribution
n_{30} = sample distribution of the bottom 30%
n_{90} = total number of samples in the bottom 30%

REGRESSION RESULTS

1. *All Sectors*

The result of the basic schooling model follows:

$$\ln E = 2.0103 + .0762S \quad (5.131) \qquad r^2 = .097, \; n = 247$$

The schooling variable explains about ten percent of the difference in the level of earnings as seen in r^2. The estimated average rate of return on schooling for all individuals is .0762 percent, which means that a year's increase in schooling is expected to result in 7.62 percent increase in the log of earnings. The number in parenthesis below the slope coefficient is the computed t-value. The t-value shows whether the beta coefficient of the schooling variable is significant or not. In this case it is. However, there is a weak linear association between log of earnings and years of schooling as indicated by the low correlation coefficient.

When the variable years of experience (or post-school training) is added, the result is

$$\ln = 1.8860 + .0817S + .0029X \quad (5.133) \quad (.961) \qquad R^2 = .100, \; n = 247$$

Apparently, the inclusion of years of experience does not add significant explanation to differences in individual earnings as seen in the small additional percentage points to the coefficient of determination and also in insignificant t-value for this variable's slope coefficient.

The inclusion of the log of weeks worked to the preceding model yielded the following:

$$\ln E = 1.8546 + .0619S - .0041X + .1005 \ln W \quad (3.618) \quad (-1.072) \quad (2.870) \qquad R^2 = .130, \; n = 247$$

The coefficient of lnW is the elasticity of annual earnings with respect to the fraction of weeks worked a year. The t-value is significant at the five percent level. The expanded model's explanatory power increased to just 13 percent and there is still a low linear association among the variables as seen in R = .360. The negative relationship between log of weeks worked and years of schooling reduced the percentage points in the rate of return for schooling. Greater was the reverse relationship between log of weeks worked and years of postschool training as indicated by the negative sign of b_2.

The negative relationship between years of schooling and years of experience (or post-school training) is explained by the fact that if a person has to undergo formal schooling, he has to forego post-school training. This is because it is assumed that schooling is a full-time activity. Furthermore, since years of experience squared was deleted from the equation, the slope coefficient became biased downward. Another reason might be the nature of the data itself. Unlike other studies of similar nature which limit the age of respondents from 24 to 64 years, this study has no such limitation.

2. *Single Sector*

Using the same model by sector, some interesting insights were derived. The results are presented in Table 39. For the specified model, the "Industry" sector has the best fit and the strongest linear correlation among variables. The least responsive to this kind of model was the "Services" sector, followed by the "Fishery" sector. However, these two sectors contrast in the significant variables. Whereas in the "Services" sector years of schooling and experience are positive with only the first (schooling) as significant, log of weeks worked is negative and insignificant. On the other hand, in the "Fishery" sector, years of schooling and experience are negative and insignificant while log of weeks worked is positive and significant. This condition in the "Fishery" sector is similarly observed in the "Agriculture" sector. This seems to mean that higher education is not needed for those in the "Fishery" and "Agriculture" sectors. What is needed is a greater number of hours worked.

3. *Rate of Return on Schooling by Sector*

A regression run to determine the effect of schooling on income received by sector of employment yielded very low results. The rate of return is significant only in the "Services" sector. The explanatory power of the years of schooling ranged from .001 ("Fishery" sector) to .132 ("Industry" sector). For all sectors there was a low linear relationship between log of earnings and years of schooling (Table 40).

Table 39. Summary Statistics on In E Regressed against S, X and In W by Sector, Cavite, 1984

Sector	Constant	b_1 (S)	b_2 (X)	e (In W)	R^2	R	F-ratio	N
Agriculture	1.4554	-.0488 (-.782)	-.0112 (-.981)	.4190 (2.700)	.334	.578	2.837	21
Fishery	.7473	-.0236 -.924	-.0035 (-.593)	.4791 (4.059)	.181	.425	6.248	89
Industry	-1.2535	.0469 (1.445)	.0043 (.465)	.9048 (4.258)	.582	.763	8.338	22
Services	1.8374	.0813 (2.858)	.0070 (1.083)	-.0192 (-.381)	.112	.334	3.311	83
Foreign	-4.4428	.0109 (.268)	.0130 (1.291)	1.9375 (3.413)	.378	.615	5.679	32

Table 40. Summary Information on In E Regressed against Year of Schooling by Sector, Cavite, 1984

Sector	Constant	Years of Schooling (b_1)	t-value	r^2	r
Agriculture	1.8698	.0105	.181	.002	.041
Fishery	2.3179	-.0056	-.239	.001	-.026
Industry	1.9464	.0721	1.747	.132	.364
Services	2.0133	.0744	3.278	.118	.344
Foreign	3.8621	-.0308	-.760	.018	.135

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

SUMMARY

This study covers the seven sample fishing barangays picked from the province of Cavite. From these localities 3,000 households were involved. They were classified into economic sectors, namely: Agriculture, Fishing, Industry, Services, Foreign and Others. These households were further categorized into migrants and native residents. The sampling procedure applied

The results of the study show migration to be prevalent in the fishing barangays, especially in Barangay Capipisa in Tanza and in Barangays Maliksi and Sineguelasan in Bacoor. It was observed that the farther the fishing barangays are from Metropolitan Manila, the more dependent they are to Agriculture and Fishery as sources of livelihood.

In general, most of the households involved belong to the "Services" and the "Fishery" sectors, in that order. "Agriculture" and "Industry" had the lowest proportion of households under them.

As this study rests on the concept that socio-economic level is the aggregate measurement of consumption, investments and savings, these variables were presented in detail. Aside from these, selected personal characteristics of the respondents were also quantitatively estimated.

This paper dwelt lengthily on income as this is considered the most important variable. It was brought out that the "Fishery" households were the most distressed group (aside from "Agriculture"). They constitute almost 40 percent of those in the bottom 30 percent of the households.

CONCLUSIONS

1. The socio-economic level of fishery households was estimated to be ₱16,218. This was the second lowest among the sectors. Among the migrant groups, the "Fishery" sector was the worst. Within the "Fishery" group alone, the native residents had a higher average income than the migrants, but the discrepancy in their incomes is small. Through a z-test for all types of households, the observed gap in the mean incomes of migrants and native residents may be attributed to chance.

2. To determine whether the differences in the mean incomes between migrants and native residents may be due to chance, either a t-test or z-test was applied to each of the sectors. The results to follow:

Sector	No. of Samples		Statistical Test on Difference of Means	Level of Significance ($\alpha/2$)	
	M	NR		.01	.05
Agriculture	4	17	t-test	not significant	not significant
Fishery	43	46	z-test	not significant	not significant
Industry	15	8	t-test	not significant	not significant
Services	45	46	z-test	not significant	not significant
Foreign	14	19	t-test	significant	significant
Others	14	30	t-test	not significant	significant
All	135	166	z-test	not significant	not significant

3. The regression results show years of schooling and number of weeks worked as the significant variables that affect the level of labor income. However, for the "Fishery" sector alone, number of weeks worked is the only significant variable.

RECOMMENDATIONS

This study did not find significant contributions of migration to the socio-economic levels of households in fishing communities. However, as the reasons for migration strongly indicate the search for economic advancement, there is reason to believe that migrants come from relatively economically less developed places of origin in comparison to the place of destination, *e.g.*, Cavite. By the mere act of positing their children in economically better places, household heads have enhanced their children's access to and chances for better schooling facilities, employment probabilities, awareness to various socio-economic conditions and integration into the mainstream of urban life.

The relatively low explanatory power of schooling does not invalidate the human capital concept but the residual of the general model points still to the ingredients, of luck, ability, family background and the like. The element of luck apparently may partially refer to employment at the right place at the right time. This brings to fore once again migration as a vehicle of change by bringing the children of poor families closer to where the opportunities are.

As the regression results of the expanded human capital model suggest, the "Foreign" and "Industry", sectors hold promise of better gain in human capital investments in the coastal areas of Cavite. These sectors comprise the group that are receptive to the human capital investment concept. Our empirical data reveal the mean income of those in the "Fishery" sector to be very much behind three sectors, namely Foreign, Industry and Services especially those under "Foreign" and "Services".

To be exposed to the actual scenes of blighted settlements and to observe a seemingly intragenerational bequeathal of poverty status among most of the "Fishery" households, one could not help but ask what forms of long-term policy measures could best serve this distressed segment of society.

The results of this study did reveal that, indeed, the sector of employment plays a significant role in explaining differences in income in Cavite. The imbalance in regional development is a major reason for the influx of people to the relatively developed regions of the country. Migration is just an act of equalizing the access to opportunities in schooling and employment to all citizens.

It is common knowledge that education has been increasingly used as a screening of device to entry in the "Industry", "Services" and "Foreign" sectors. Of course, the protected jobs in these sectors are open to everyone, but the chances of entry are greater for those who are educated and who live in or close to the urban areas where the establishments are.

In the rural areas there is a free universal education up to the elementary level only and the employment opportunities are severely limited to the "Agriculture" and "Fishery" sectors. In contrast, there are places in the urban areas where there is a free universal education up to the high school level and the employment opportunities are relatively wider in scope and relatively greater in quantity with relatively higher returns to labor.

From the preceding, therefore, this paper is inclined to recommend:

1) inter-industry shifting among the households in the fishing communities of Cavite-- i.e., movement of the labor force away from the "Agriculture" and "Fishery" sectors to the "Industry", "Services" and "Foreign" sectors of the economy (subject to further study);

2) implementation of a free universal education up to high school, preferably with vocational training, to better equip children of the poor, especially those belonging to the "Fishery" households, in their quest to etch a living out and away from the "Fishery" sector; and

3) exploration of other general variables that may explain the differences in the levels of earning among groups as they may affect the "Fishery" sector.

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