Institute of Economic Development and Research
SCHOOL OF ECONOMICS
University of the Philippines
Quezon City

Discussion Paper No. 72-19 June 22, 1972

PRELIMINARY DATA ON NON-FARM EMPLOYMENT CHANGES IN AN AGRICULTURAL SUB-REGION

by

ARTHUR GIBB, JR.

NOTE: IEDR Discussion Papers are preliminary versions circulated privately to elicit critical comment. References in publications to Discussion Papers should be cleared with the author.

PRELIMINARY DATA ON NON-FARM EMPLOYMENT CHANGES IN AN AGRICULTURAL SUB-REGION

by Arthur Gibb, Jr.

INTRODUCTION

This paper presents preliminary data from a case study of non-agricultural change in a sub-region of Nueva Ecija Province in Central Luzon. The study area was the immediate trade region of the town of Gapan, including three adjacent Rural Towns -- San Isidro whose municipality is well irrigated and thus relatively wealthy, Peñaranda which is upland and poor, and San Leonardo which occupies an intermediate position between the two. The study variables are non-agricultural jobs in formal establishments. Establishment surveys were used to reconstruct the history of such non-agricultural employment between 1961 and 1971, with special emphasis on 1967-1971. The year 1967 was the last year before the new high yielding varieties (HYVs) of rice became statistically significant to production in this monoculture, rice area. Yields between 1967-1971 rose roughly 25% in the area and rough calculations suggest farm family incomes probably rose by the same proportion over the period. The research is attempting to correlate changes in non-agricultural employment with this change in farm incomes.

In order to place the case study results in perspective, certain definitional problems must be clarified. The design originally posed the question, "what is the impact of agricultural modernization on non-farm employment?" "Non-farm" was finally defined as encompassing all non-agricultural employment in and around agriculture market centers (AMCs), in other words all non-agricultural employment in the countryside with its towns and cities. Attempts to identify the magnitude of non-farm employment, using special tabulations of October, 1968, Labor Force Survey data, suggest the following breakdown of non-agricultural employment nationally:

Major Urban Areas		25%
"Countryside"		75%
20 Regional Centers	5%	
Sub-Regions	70%	

Major urban areas encompass Manila, Cebu, Iloilo, Davao, Iligan and their "urban shadows" plus various lesser non-agricultural enclaves. Thus, the twenty "Regional Centers" refer not to national regional centers but to agricultural market centers serving agricultural regions. In the case of Central Luzon these regions roughly coincide with the provinces. The "Gapan-area" is the core of the sub-region comprising southern Nueva Ecija. Gapan, the trade center for the sub-region, we classify as a Local Center. All other towns are classified Rural Towns.

It is clear from this disaggregation that non-farm employment, accounting for 75% of non-agricultural employment nationally -- and roughly 30% of all employment in the countryside -- is a strategic variable in labor absorption trends. What is also clear is that the sub-regions are the key areas, accounting as they do for 70% of the total. The Regional Center are not that important, especially when it is realized that a large part of the 5% of total non-agricultural employment in them is attributable to the Local Center function they perform with respect to the sub-region in which they are situated. (See I.E.D.R. Discussion

Paper 72-17, Evidence on Agriculturally-Based Cities, for a description of pattern of change in the Regional Center, Cabanatuan City, which serves the Gapan-area sub-region.)

Thus, an important point has emerged from the research. During the past decades of industrial- and export-led growth in LDCs, we have come to think of development as a process which works from the top down. But in the case of agriculture-led growth such as we are witnessing in the 1970s in the countryside, development moves from the bottom up. As a result, "intermediate urban areas" like the Regional Centers, which are currently being perceived as existing or potential lower-order "growth poles", are in fact the opposite. They are service centers whose growth is derived from that coming from below, from the sub-regions. They are importantly Local Centers for their sub-region, certain specialized functions required by the region being grafted onto them. This is not to say they could not be utilized as growth poles given appropriate policies for encouraging regional balance. But it appears that the solutions to the problems of rural-urban balance may be found at a lower level, in the sub-regions like the Gapan-area.

PRELIMINARY RESULTS OF GAPAN-AREA RESEARCH

The statistical appendices to this paper provide a breakdown of non-farm employment in the study area for 1961, 1967, and 1971 by industry. It is tabulated separately for each municipality. The first table (unnumbered) provides a summary by industry groups, showing 1971 employment and the percentage change between 1967-1971. A time-constraint prevents us from presenting a full analysis of this data at this time.

The main qualifications as regards this data are as follows. First, it is gross data in a number of cases where the variable measured has substituted for an unmeasured industry. This is most relevant to tricycle employment which has substituted for calesa-related employment, estimates of which are not reflected in the data. The second case is of tailoring and dressmaking where only firms which are operating as formal establishments (usually in shops in town) are counted; those that moved to town from working at home have not been netted out. On the positive side, the data for tricycle and tailoring/dressmaking may be taken as valid indices of the "modernization" or "formalization" rates in these areas.

Second, the summary table is based on regular, full-time jobs, excluding the seasonal employment reported in the industry tables. Because non-agricultural firms in the Gapan-area avoid seasonal hiring and use overtime instead, this provides the most stable representation of changes in labor absorption. It does, however, understate the importance of the construction and rice milling and handling industries in the structure of employment. (Since the tables were prepared, new survey data has shown that the seasonal employment in rice milling is significantly overstated in them. It seems the Gapan-area mills also have managed to a considerable extent to avoid seasonal hiring, in part by throwing the burden of it back into the agriculture sector.)

Third, the data for 1961 is of uncertain quality as yet. It significantly unstates the situation in some industries. In general, however, it provides useful orders of magnitude.

Fourth, industry tables are not provided for education (teachers) and a few other industries where it is not very complicated or significant.

A BRIEF ANALYSIS

One can see, by comparing the summary and industry tables, clear evidence of a significant positive income elasticity of demand -- which we know comes prominently from farm families -- for the following goods and services of local production: personal and recreation services (especially "eateries" and bowling/billiards/movies), tricycle services (very strong demand and profitability around 1968 was followed by strong entry and the demise of the calesa), clothing, secondary education (which is costly and essentially privately financed, whether in public or private institutions), house furnishings, and housing construction and up-grading.

The Manufacture for Regional Demands -- mainly slippers and rattan furniture -- is notable for two reasons. First, its customers are mainly from agricultural market centers so we may take its growth as being derived from agricultural modernization as well. Second, in accounting for nearly 10% of total non-farm employment and being mainly a creature of the last four years, it illustrates how important a specialty industry can be to a sub-region.

The Totals A, B, and C are tentative aggregations attempting to isolate the "income effect" (Total A) and the "output effect" (Total C) of higher farm productivity. Total B is a catch-all category which in the main is industries which are responding less directly to economic changes. In the latter, medical services are interesting in that they reflect the establishment of two small private hospitals in Gapan, facilities formerly available only in the Regional Center. Also interesting is that government employment is definitely not a significant source of labor absorption.

Growth in Total C importantly reflects the fact Gapan is a rice milling center for more than its sub-region, bring palay in from areas farther north. There was a roughly 25% increase in mills between 1967-1971 as a result of the availability of liberal government financing for this purpose during the period.

Lastly, if one examines closely the summary table, one can discern the spreading of non-agricultural activity to the Rural Towns as the base of consumer spending has broadened. Gapan still is the "primate city" for certain services such as tailoring, surprisingly enough, where style-consciousness and the label is important. But relative stagnation of Gapan's construction materials manufacture and construction contractors reflects the Rural Towns' developing their own capabilities in these industries. The differential growth rates of secondary teachers in Gapan and the Rural Towns reflects the catching up of the latter as a larger reservoir of unmet demands is gradually being satisfied. (We have statistics on enrollments over the past 15 years to support this obervation.) The relatively fast growth rate of tricycles in Rural Towns similarly reflects the broadened base of income and wealth. Most of these tricycles are owner-operated and the downpayments on their installment purchases are mainly financed by farm families, directly or indirectly.

In sum, the preliminary data shows clearly that non-agricultural employment in the sub-region has been significantly responsive to changes in agricultural incomes. The extent to which household consumption and investment demands in the sub-region are satisfied by local production with a high local value-added will be the basis for developing further the argument that in the case of agriculture-led growth development occurs essentially from the bottom up, not from the top down.

Table

Labor Absorption in

NON-AGRICULTURAL ACTIVITIES IN THE GAPAN-AREA, NUEVA ECIJA PROVINCE

	Gapan Employment* No.	Gapan Employment* %	% Increase ('67-71)	Rural Towns Employment* No.	Rural Towns Employment* %	% Increase ('67-71)
COMMERCE AND SERVICES	753	21	46	495	20	43
Retail: Traditional Goods/Services	428		41	282		48
Retail: Non-Traditional Goods/Services	68		42	11		120
Personal and Recreational Services	257		58	202		34
MFR. FOR HOUSEHOLD CONSUMPTION	487	14	170	337	14	47
Manufacture for Local Demands	158		93	139		25
Manufacture for Regional Demands	329		234	198		66
LIGHT TRANSPORT RELATED GROUP	653	18	140	454	18	274
Tricycles, Jeeps, Light Repair Shops	653		140	454		274
HOUSEHOLD INVESTMENT RELATED	428	12	24	214	9	65
Secondary Education (Teachers)	71		25	94		49
Housing Components & Furnishings Mfr.	68		74	39		70
Construction Materials Mfr./Supply	152		6	51		76
Construction Contractors	137		29	30		100
TOTAL A	(2,321)	(65)	(78)	(1,500)	(61)	(81)
PUBLIC SERVICES	677	19	28	632	25	18
Governments	241		5	148		20
Primary Education (Teachers)	321		34	406		15
Medical Services	70		125	54		23
Utilities, etc.	45		67	24		41
TOTAL B	(677)	(19)	(28)	(632)	(25)	(18)
AGRI. INPUTS, PROCESSING & TRADING	434	12	31	284	11	49
Agricultural Implements & Supply	28		75	3		-
Rice Milling and Trading	399		29	268		46
Palay Traders & Independent Truckers	7		-	13		-
HEAVY TRANSPORT & MACHINERY RELATED	118	4	51	71	3	37
Mfr., Maintenance/Repair Firms	118		51	71		37
TOTAL C	(552)	(16)	(35)	(355)	(14)	(41)
GRAND TOTAL	3,550	100	58	2,487	100	54

* Regular (Full-Time) Employment in 1971

Table -b

Labor Absorption in

RETAIL: NON-TRADITIONAL GOODS AND SERVICES

	No. of Firms			Employment			Store Fronts in Use		
	71	67	61	71	67	61	71	67	61
GAPAN	30	19	6	68	48	14	35	24	10
Hardgoods	11	9	2	21	20	4	11	9	2
Hardware/Electrical Supply	13	7	4	36	22	10	18	12	8
Auto/Cycle Supply	6	3	-	11	6	-	6	3	-
RURAL TOWNS	9	3	-	11	5	-	9	3	-
San Isidro	2	-	-	2	-	-	2	-	-
San Leonardo	5	2	-	6	3	-	5	2	-
Peñaranda	2	1	-	3	2	-	2	1	-
Hardgoods	7	3	-	9	5	-	7	3	-
San Isidro	1	-	-	1	-	-	1	-	-
San Leonardo	4	2	-	5	3	-	4	2	-
Peñaranda	2	1	-	3	2	-	2	1	-
Hardware/Electrical Supply	1	-	-	1	-	-	1	-	-
San Isidro	-	-	-	-	-	-	-	-	-
San Leonardo	1	-	-	1	-	-	1	-	-
Peñaranda	-	-	-	-	-	-	-	-	-
Auto/Cycle Supply	1	-	-	1	-	-	1	-	-
San Isidro	1	-	-	1	-	-	1	-	-
San Leonardo	-	-	-	-	-	-	-	-	-
Peñaranda	-	-	-	-	-	-	-	-	-
GAPAN AREA TOTALS	39	22	6	79	53	14	44	27	10

Table -c

Labor Absorption in

PERSONAL AND RECREATIONAL SERVICES

	No. of Firms			Employment			Store Fronts in Use		
	71	67	61	71	67	61	71	67	61
GAPAN	98	62	32	257	163	88	101	69	35
Restaurant/Refreshment	36	22	10	108	65	30	38	28	13
Billiards/Bowling/Movies	12	8	5	32	27	21	13	9	5
Barber/Beauty Shops	34	19	6	65	34	7	34	19	6
Other	16	13	11	52	37	30	16	13	11
RURAL TOWNS	98	59	29	202	151	38	98	59	29
San Isidro	43	26	14	69	44	17	43	26	14
San Leonardo	39	22	8	87	62	9	39	22	8
Peñaranda	16	11	7	46	45	12	16	11	7
Restaurant/Refreshment	27	15	3	69	36	5	27	15	3
San Isidro	10	4	-	23	11	-	10	4	-
San Leonardo	13	9	1	30	21	1	13	9	1
Peñaranda	4	2	2	7	4	4	4	2	2
Billiards/Bowling/Movies	19	5	1	75	61	2	19	5	1
San Isidro	7	-	-	11	-	-	7	-	-
San Leonardo	9	3	1	37	30	2	9	3	1
Peñaranda	3	2	-	27	31	-	3	2	-
Barber/Beauty Shops	47	36	25	55	42	31	47	36	25
San Isidro	24	21	14	28	25	17	24	21	14
San Leonardo	16	9	6	18	9	6	16	9	6
Peñaranda	7	6	5	9	8	8	7	6	5
Other	5	3	-	12	12	-	5	3	-
San Isidro	2	1	-	7	8	-	2	1	-
San Leonardo	1	1	-	2	2	-	1	1	-
Peñaranda	2	1	-	3	2	-	2	1	-
GAPAN AREA TOTAL	196	121	61	459	314	126	199	128	64

Table -d

Labor Absorption in

MANUFACTURE FOR LOCAL DEMANDS

	Regulars			Part-Time			Full-Time Eq.			% Increase		(Dec)
	71	67	61	71	67	61	71	67	61	67-71	61-67	61-71
GAPAN	158	82	54	67	28	20	176	92	60			
Bakeries, etc.	69	34	15	27	15	9	77	39	17			
Tailoring in SFs	66	35	33	31	8	9	74	39	36			
Dressmaking in SFs	23	13	6	9	5	2	25	14	7			
RURAL TOWNS	139	111	40	46	12	4	155	115	41			
San Isidro	65	66	18	19	3	1	74	67	18			
San Leonardo	60	32	13	23	5	-	67	34	13			
Peñaranda	14	13	9	4	4	3	14	14	10			
Bakeries, etc.	39	53	13	19	-	-	48	53	13			
San Isidro	27	46	6	13	-	-	34	46	6			
San Leonardo	10	4	3	6	-	-	12	4	3			
Peñaranda	2	3	4	-	-	-	2	3	4			
Tailoring in SFs	71	46	15	24	11	3	77	50	16			
San Isidro	29	15	7	3	2	-	30	16	7			
San Leonardo	32	23	3	17	5	-	37	25	3			
Peñaranda	10	8	5	4	4	3	10	9	6			
Dressmaking in SFs	29	12	12	3	1	1	30	12	12			
San Isidro	9	5	5	3	1	1	10	5	5			
San Leonardo	18	5	7	-	-	-	18	5	7			
Peñaranda	2	2	-	-	-	-	2	2	-			

Table -e

Labor Absorption in

MANUFACTURE FOR REGIONAL DEMANDS

	Regulars 71	Regulars 67	Regulars 61	Part-Time 71	Part-Time 67	Part-Time 61	Full-Time Eq. 71	Full-Time Eq. 67	Full-Time Eq. 61	% Increase (Dec) 67-71	% Increase (Dec) 61-67	% Increase (Dec) 61-71
GAPAN	329	98	82	68	-	-	363	98	82			
Rattan Furniture, etc.	20	-	-	22	-	-	31	-	-			
Slipper Manufacturers	286	96	80	36	-	-	304	96.	80			
Clothing Manufacturers	23	2	2	10	-	-	28	2	2			
RURAL TOWNS	198	119	80	17	51	17	207	145	89			
San Isidro	16	4	-	7	2	-	19	5	-			
San Leonardo	148	84	46	3	42	10	150	105	51			
Peñaranda	34	31	34	7	7	7	38	35	38			
Rattan Furniture, etc.	69	54	44	14	9	7	76	59	48			
San Isidro	16	4	-	7	2	-	19	5	-			
San Leonardo	19	19	10	-	-	-	19	19	10			
Peñaranda	34	31	34	7	7	7	38	35	38			
Slipper Manufacturers	40	-	-	-	-	-	40	-	-			
San Isidro	-	-	-	-	-	-	-	-	-			
San Leonardo	40	-	-	-	-	-	40	-	-			
Peñaranda	-	-	-	-	-	-	-	-	-			
Clothing Manufacturers	89	65	36	3	42	10	91	86	41			
San Isidro	-	-	-	-	-	-	-	-	-			
San Leonardo	89	65	36	3	42	10	91	86	41			
Peñaranda	-	-	-	-	-	-	-	-	-			

Table -f

Labor Absorption in

LIGHT TRANSPORT-RELATED INDUSTRIES

	Regulars			Part-Time			Full-Time Eq.			% Increase		(Dec)
	71	67	61	71	67	61	71	67	61	67-71	61-67	61-71
GAPAN	653	273	69	16	8	3	656	274	70			
Trans Shops (Light)	53	32	19	16	8	3	56	33	20			
Jeepneys	110	71	50	-	-	-	110	71	50			
Tricyles	490	170	-	-	-	-	490	170	-			
RURAL TOWNS	454	122	25	5	-	-	455	122	25			
San Isidro	196	40	10	-	-	-	196	40	10			
San Leonardo	200	56	5	5	-	-	201	56	5			
Peñaranda	58	26	10	-	-	-	58	26	10			
Trans Shops (Light)	22	10	4	5	-	-	23	10	4			
San Isidro	11	6	4	-	-	-	11	6	4			
San Leonardo	11	4	-	5	-	-	12	4	-			
Peñaranda	-	-	-	-	-	-	-	-	-			
Jeepneys	54	42	21	-	-	-	54	42	21			
San Isidro	18	11	6	-	-	-	18	11	6			
San Leonardo	13	11	5	-	-	-	13	11	5			
Peñaranda	23	20	10	-	-	-	23	20	10			
Tricycles	378	70	-	-	-	-	378	70	-			
San Isidro	167	23	-	-	-	-	167	23	-			
San Leonardo	176	41	-	-	-	-	176	41	-			
Peñaranda	35	6	-	-	-	-	35	6	-			

Table -h

Labor Absorption in

HOUSING COMPONENTS AND FURNISHINGS

	Regulars			Part-Time			Full-Time Eq.			% Increase	(Dec)	
	71	67	61	71	67	61	71	67	61	67-71	61-67	61-71
GAPAN	68	39	27	23	14	8	76	44	30			
Wood Furniture & Sash	28	13	8	11	2	-	32	14	8			
Metal Sash Mfr.	20	12	6	-	-	-	20	12	6			
House Furnishings	20	14	13	12	12	8	24	18	16			
RURAL TOWNS	39	23	8	19	11	10	46	26	11			
San Isidro	18	4	4	17	10	10	23	7	7			
San Leonardo	18	14	4	-	-	-	18	14	4			
Peñaranda	5	5	-	2	1	-	5	5	-			
Wood Furniture & Sash	19	12	-	3	1	-	19	12	-			
San Isidro	4	-	-	1	-	-	4	-	-			
San Leonardo	10	7	-	-	-	-	10	7	-			
Peñaranda	5	5	-	2	1	-	5	5	-			
Metal Sash Mfr.	-	-	-	-	-	-	-	-	-			
San Isidro	-	-	-	-	-	-	-	-	-			
San Leonardo	-	-	-	-	-	-	-	-	-			
Peñaranda	-	-	-	-	-	-	-	-	-			
House Furnishings	22	11	8	16	10	10	27	14	11			
San Isidro	14	4	4	16	10	10	19	7	7			
San Leonardo	8	7	4	-	-	-	8	7	4			
Peñaranda	-	-	-	-	-	-	-	-	-			

Table -i

Labor Absorption in

CONSTRUCTION: MATERIALS MANUFACTURE/SUPPLY AND CONTRACTORS

	Regulars 71	Regulars 67	Regulars 61	Part-Time 71	Part-Time 67	Part-Time 61	Full-Time Eq. 71	Full-Time Eq. 67	Full-Time Eq. 61	% Increase 67-71	% Increase 61-67	(Dec) 61-71
GAPAN	289	250	108	101	95	24	321	279	116			
Construction Mat. Supl.	49	45	27	9	13	8	53	50	30			
Hollow Block Mfr.& Supl.	51	31	-	18	21	-	54	35	-			
Gravel/Sand Supply	52	68	44	-	-	-	52	68	44			
Construction Contractors	137	106	37	74	61	16	162	126	42			
RURAL TOWNS	81	44	18	31	17	2	87	48	19			
San Isidro	37	20	4	20	15	1	41	23	5			
San Leonardo	40	22	13	11	2	1	42	23	13			
Peñaranda	4	2	1	-	-	-	4	2	1			
Construction Mat. Supl.	5	-	-	-	-	-	5	-	-			
San Isidro	5	-	-	-	-	-	5	-	-			
San Leonardo	-	-	-	-	-	-	-	-	-			
Peñaranda	-	-	-	-	-	-	-	-	-			
Hollow Block Mfr.& Supl.	28	9	-	16	10	-	30	11	-			
San Isidro	13	9	-	10	10	-	14	11	-			
San Leonardo	15	-	-	6	-	-	16	-	-			
Peñaranda	-	-	-	-	-	-	-	-	-			
Gravel/Sand Supply	18	20	13	-	-	-	18	20	13			
San Isidro	1	1	1	-	-	-	1	1	1			
San Leonardo	13	17	11	-	-	-	13	17	11			
Peñaranda	4	2	1	-	-	-	4	2	1			
Construction Contractors	30	15	5	15	7	2	34	17	6			
San Isidro	18	10	3	10	5	1	21	11	4			
San Leonardo	12	5	2	5	2	1	13	6	2			
Peñaranda	-	-	-	-	-	-	-	-	-			

Table -m

Labor Absorption in

MEDICAL SERVICES

	Regulars 71	Regulars 67	Regulars 61	Part-Time 71	Part-Time 67	Part-Time 61	Full-Time Eq. 71	Full-Time Eq. 67	Full-Time Eq. 61	% Increase (Dec) 67-71	% Increase (Dec) 61-67	% Increase (Dec) 61-71
GAPAN	70	31	17				70	31	17			
Private Practices/Clinics	12	8	10				12	8	10			
Hospitals'(3) Personnel	34	14	-				34	14	-			
Dental/Optical	6	4	2				6	4	2			
Rural Health Units (3)	18	5	5				18	5	5			
RURAL TOWNS	54	44	36				54	44	36			
San Isidro	21	17	14				21	17	14			
San Leonardo	16	14	12				16	14	12			
Pañaranda	17	13	10				17	13	10			
Private Practices/Clinics	15	15	11				15	15	11			
San Isidro	7	6	4				7	6	4			
San Leonardo	4	5	4				4	5	4			
Peñaranda	4	4	3				4	4	3			
Hospital Personnel	-	-	-				-	-	-			
Dental/Optical	11	10	6				11	10	6			
San Isidro	3	4	3				3	4	3			
San Leonardo	3	2	1				3	2	1			
Peñaranda	5	4	2				5	4	2			
Rural Health Units	28	19	19				28	19	19			
San Isidro	11	7	7				11	7	7			
San Leonardo	9	7	7				9	7	7			
Peñaranda	8	5	5				8	5	5			

Table -p

Labor Absorption in

AGRICULTURAL INPUTS, PROCESSING, AND TRADING INDUSTRIES

	Regulars			Part-Time			Full-Time Eq.			% Increase		(Dec)
	71	67	61	71	67	61	71	67	61	67-71	61-67	61-71
GAPAN	434	332	189	451	340	178	562	429	239			
Ag. Supplies Dealers	28	16	12	16	6	2	33	18	13			
Rice Milling/Trading	399	309	169	200	155	85	449	348	190			
Palay Dealers/Truckers	7	7	8	235	179	91	80	63	36			
RURAL TOWNS	284	191	113	292	198	119	366	245	141			
San Isidro	37	38	33	38	40	33	47	49	38			
San Leonardo	163	77	34	182	88	42	215	101	45			
Peñaranda	84	76	46	72	70	44	104	95	58			
Ag. Supplies Dealers	3	-	-	-	-	-	3	-	-			
San Isidro	-	-	-	-	-	-	-	-	-			
San Leonardo	3	-	-	-	-	-	3	-	-			
Peñaranda	-	-	-	-	-	-	-	-	-			
Rice Milling/Trading	268	183	111	134	92	56	303	206	125			
San Isidro	36	37	32	18	19	16	41	42	36			
San Leonardo	156	74	34	78	37	17	176	83	38			
Peñaranda	76	72	45	38	36	23	86	81	51			
Palay Dealers/Truckers	13	8	2	158	106	63	60	39	20			
San Isidro	1	1	1	20	21	17	6	7	6			
San Leonardo	4	3	-	104	51	25	36	18	7			
Peñaranda	8	4	1	34	34	21	18	14	7			

Table -q

Labor Absorption in

MANUFACTURE, MAINTENANCE, AND REPAIR OF HEAVY EQUIPMENT

	Regulars			Part-Time			Full-Time Eq.			% Increase	(Dec)	
	71	67	61	71	67	61	71	67	61	67-71	61-67	61-71
GAPAN	118	78	42	13	9	3	120	79	43			
Vehicle Body Bldg.	10	10	6	2	2	3	11	11	7			
Transport Shops(Heavy)	37	27	21	9	6	-	38	27	21			
Service Stations	50	31	15	-	-	-	50	31	15			
Thresher/Battery/Pump Manufacturers	21	10	-	2	1	-	21	10	-			
RURAL TOWNS	71	52	30	6	7	2	72	53	31			
San Isidro	20	27	21	2	5	2	20	28	22			
San Leonardo	43	20	4	4	2	-	44	20	4			
Peñaranda	8	5	5	-	-	-	8	5	5			
Vehicle Body Bldg.	21	12	13	4	3	2	22	13	14			
San Isidro	2	8	9	-	3	2	2	9	10			
San Leonardo	15	3	3	4	-	-	16	3	3			
Peñaranda	4	1	1	-	-	-	4	1	1			
Thresher/Battery/Pump	9	7	1	-	2	-	9	7	1			
San Isidro	-	-	-	-	-	-	-	-	-			
San Leonardo	9	7	1	-	2	-	9	7	1			
Peñaranda	-	-	-	-	-	-	-	-	-			
Transport Shops(Heavy)	16	15	14	2	2	-	16	15	14			
San Isidro	12	10	12	2	2	-	12	10	12			
San Leonardo	2	3	-	-	-	-	2	3	-			
Peñaranda	2	2	2	-	-	-	2	2	2			
Service Stations	25	18	2	-	-	-	25	18	2			
San Isidro	6	9	-	-	-	-	6	9	-			
San Leonardo	17	7	-	-	-	-	17	7	-			
Peñaranda	2	2	2	-	-	-	2	2	2			
GAPAN AREA TOTAL	189	130	72	19	16	5	192	132	74			