

# **Agricultural Labor Absorption by Industrial Firms in the Clark Freeport Zone**

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## *Abstract*

*The Lewis two-sector model assumes that surplus labor from the agricultural sector is being absorbed by the industrial sector. This study, however, found that such an assumption does not hold in practice. None of the 186 respondents from the 13 sample firms were from the agricultural, fisheries, and agribusiness sectors. Nevertheless, employment in industrial firms inside the Clark Freeport Zone has had a positive impact on wages and working and living conditions of the respondents. Specifically, the P361.5 mean current daily wage rate of the respondents was found to be significantly higher than the P290.5 mean daily wage rate that they used to get prior to their employment in industrial firms inside the Clark Freeport Zone*

## **Introduction**

Pampanga is a perfect illustration of Philippine resilience. In spite of the devastation brought about by the eruption of Mount Pinatubo

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in 1991, the province was able to stand up again—just like a bamboo after being bent by the mighty wind. Pampanga today is a picture of economic progress. It has four big malls (SM City Pampanga, SM City Clark, Robinsons Star Mills and Marquee Mall); a free port zone (Clark Freeport Zone); a television channel (CLTV 36); an international airport (Diosdado Macapagal International Airport); car dealership companies (Laus Group of Companies); meat processing companies (Pampanga's Best, CDO, Meken and Tita's); a Christmas lantern industry; a furniture industry, and many other industries. But long before these symbols of modern progress had surfaced, agriculture and fisheries have always been predominant in the province. Rice, corn, sugarcane and watermelon are just a few of the crops grown in the province.

Because of the predominance of agriculture in Pampanga, it would be logical to conclude that the province has an abundance of labor engaged in farming, fishing, aquaculture and agribusinesses. The unfortunate destruction of farms due to the eruption of Mount Pinatubo twenty years ago, and the recent and ongoing conversion of wide tracts of land into residential, commercial and industrial areas, must have displaced most of the province's agricultural labor force. Thus, it would be tempting to speculate that there is now a surplus of agricultural labor in Pampanga.

According to the Lewis two-sector model (which will be explained further in the next part of this paper), any surplus labor in the agricultural or rural sector should be absorbed by the industrial or urban sector. If Lewis' two-sector model holds, then the surplus agricultural labor in Pampanga should find its way into the province's industrial sector, specifically in the Clark Freeport Zone,<sup>1</sup> where most of the industrial and commercial firms in the province are located.

It is the general aim of this paper to validate the Lewis two-sector model—whether the model really works in practice. Specifically, this paper aims to: (1) determine the proportion of sample workers whose previous jobs were in agriculture; (2) explain how these former agricultural workers gain the necessary skills for their current jobs, and identify the personalities or institutions that are facilitating their transformation into manufacturing and industrial workers; and (3) determine whether their absorption by the industrial firms inside the Clark Freeport Zone has made a positive impact on their wages and working and living conditions.

Due to time and financial constraints, the author randomly took 13 sample firms only out of the 127 total number of industrial firms (or 10% of the total number of industrial firms) listed in the CDC Marketing

Department's June 2011 Business and Investments Update. The author clarifies that the 127 industrial firms in the said roster of the CDC Marketing Department comprise all of the industrial firms in the Clark Freeport Zone as of June 2011 only. The author does not rule out the possibility of new industrial firms moving into the Clark Freeport Zone immediately after the publication of the roster.

The author originally planned to randomly draw at least 30 sample respondents from each of the 13 sample firms. However, the managers of the human resources departments of the sample firms refused to give the author a roster of their employees which could have served as the sampling frame of this study. Instead, they just asked the author to give them the questionnaires that they would distribute to their employees. Thus, the author lost control in setting the number of sample respondents for each of the 13 sample firms.

The objective of the survey was two-fold: (1) to find out the work history of the sample workers, particularly their previous sector of employment; and (2) to determine the proportion of sample workers from agriculture, not necessarily rendered surplus therein, that were absorbed by the industrial or manufacturing firms in the Clark Freeport Zone.<sup>2</sup> The sample workers must have been hired by the Clark industrial firms sometime between 1993 (the year when the Clark Freeport Zone opened) and 2011.

This study will gain significance when the government decides to: (1) determine whether export processing zones, free port zones, and special economic zones are indeed creating jobs and absorbing surplus labor as expected of them; and (2) assess whether industrialization and urbanization are the right paths to development. If the results of this study fail to prove that a significant proportion of the sample industrial workers in Clark had come from agriculture, then perhaps both the national and local governments should encourage firms to invest elsewhere in the country. Instead of concentrating the incentives in economic and free port zones that are mostly found in urban areas, the national and local governments should disperse them in the rural areas. In other words, it might be wiser to either bring industrialization to the countryside or employ a strategy of simultaneously developing the agricultural and industrial sectors.

### **The Lewis Two-Sector Model and Its Application in Previous Studies**

One of the best known early theoretical models of development that focused on the structural transformation of a primarily subsistence economy was that formulated by Nobel laureate W. Arthur Lewis in the mid-1950s.<sup>3</sup> According to the two-sector model of Lewis, an underdeveloped economy has two sectors—the agricultural or rural sector and the industrial or urban sector. Lewis assumed that there is surplus labor in the agricultural sector and that this agricultural labor surplus has zero marginal productivity. Hence, it can be withdrawn and transferred to the industrial sector without any loss of output. Output expansion in the industrial sector makes possible this process of labor transfer. In turn, the rate of investment and capital accumulation determine the rate of output expansion. According to Todaro and Smith (2003), Lewis assumed that wages in the industrial sector are at least 30% higher than that of the agricultural sector. This wage difference serves as an incentive for agricultural workers to transfer to the industrial sector. The Lewis two-sector model is this paper's theoretical framework.

Before proceeding with the task of determining whether surplus labor is being absorbed by the industrial sector, it is imperative to ask first whether there is surplus labor in agriculture. And indeed there is, according to Paredes and Puyat (1996). They arrived at this conclusion by looking at the unusually high underemployment rates in agriculture. From the period 1989 to 1992, the average underemployment rate in agriculture according to the duo is 68%. The implication of this is that out of the total labor force employed in the agricultural sector, 68% are still in need of additional hours of work.

Another indicator of labor surplus in agriculture that was used by Paredes and Puyat is the land-labor ratio. From 1988 to 1994, while agricultural land has remained stable at an average of 12,930,260 hectares, the number of agricultural workers increased at an average of 189,000 persons per year.<sup>4</sup> Paredes and Puyat predicted that this trend of increasing number of people working on relatively too little land would continue into the future, given the high fertility rate of rural women.

In spite of the fact that the industrial sector received a much larger share of investments relative to the agricultural sector, Paredes and Puyat concluded that the latter was unable to absorb surplus labor from agriculture. Their findings, certainly, are contrary to what the Lewis two-sector model expects to happen.

In a related but a more recent study, Legaspi and Rodriguez (2003) evaluated the direct and indirect employment generated by the tourism industry within the Clark Special Economic Zone (CSEZ) from 1994 until the first quarter of 2003. They are convinced that tourism projects in the CSEZ could be a good strategy for bringing economic progress to nearby towns and cities. Their conviction stems from the fact that majority of the workers employed in tourism-related projects in the CSEZ are from Mabalacat and Angeles City. Legaspi and Rodriguez concluded that generally, tourism has the potential to absorb excess labor due to its high demand for unskilled labor. This implies that surplus agricultural labor may well be absorbed into the Clark Freeport Zone provided that most of its projects are tourism-related. This study, however, deliberately excluded tourism and all the other sectors because the Lewis two-sector model focuses only on the industrial or manufacturing sector.

Meanwhile, Alejandro and Tubeo (1998) conducted a benefit-cost analysis of the CSEZ for the period 1993-1998. They found out that the benefit-cost ratio of the CSEZ was nearer to one (1), implying that benefits outweigh the costs. Alejandro and Tubeo's study also suggested that the CSEZ has the capacity to absorb surplus labor from the City of Angeles, the towns of Mabalacat and Porac in Pampanga, and the other towns of Central Luzon. They added that for the years 1993-1998, the CSEZ was able to generate around 48,500 jobs.

But perhaps one of the earliest and the most important assessment of labor absorption into economic zones was conducted by Vasquez (1987). In his summary evaluation of the Philippine economy, Vasquez outlined three points that are relevant to this paper. Firstly, he found that Philippine agriculture has failed to retain and mobilize labor within this sector because of its low productivity. In turn, this low level of agricultural productivity was attributable to what Vasquez calls "lack of scientific farming" and institutional structures like tenancy. Secondly, the manufacturing sector was also unable to absorb labor moving out of agriculture due to its poor performance. Vasquez reported that for the decade 1970-1980, the manufacturing sector grew at an average annual rate of 7.2% only. Thirdly and finally, due to the government's obsession with industrialization, it protected the domestic market and discouraged the manufacture of labor-intensive exports. Unfortunately, it is the labor-intensive exports that have the potential for absorbing surplus labor from agriculture.

In his Bataan Export Processing Zone (BEPZ) case study, Vasquez found direct employment was significant when measured within BEPZ's

objective of regional dispersal of industries. BEPZ's contribution becomes doubly significant when Vasquez considered indirect employment. Vasquez's definition of indirect employment included service industries that have grown around BEPZ and its host municipality, Mariveles. Based on Vasquez's calculation, indirect employment was twice the level of direct employment.

Vasquez noted, however, that the employment generation of BEPZ became insignificant when the lack of forward and backward linkages was taken into account. He argued that allowing the entry of cheap textile imports in order to help the garment industry discouraged the linkage with the domestic textile industry. Vasquez, therefore, concluded that some policy changes were needed in order to initiate industrial linkage and consequently increase employment.

Finally, Vasquez's findings on skills transfer are worth mentioning. He explained that the level of skills acquisition in BEPZ was low because the workers' period of learning was relatively short and the training method was informal. He also added that training for higher level skills was more of an exception rather than the rule.

### **Agriculture and Employment in Pampanga**

Seventy percent of Pampanga remains agricultural. This is the view of Edilberto E. Salenga, Extension Service Chief of the Office of the Provincial Agriculturist of Pampanga.<sup>5</sup> As proof, he enumerates the crops, livestock, poultry, and inland fresh water and brackish water fish being grown in each municipality or city of Pampanga. The author summarizes Salenga's enumeration in the four tables below.

Table 1.1 Agricultural and Fishery Products per Municipality or City of Pampanga's 1st District

<b>Angeles City</b>	root crops, <sup>6</sup> sugar cane
<b>Mabalacat</b>	vegetables, <sup>7</sup> root crops, sugar cane
<b>Magalang</b>	rice, corn, <sup>8</sup> tamarind, livestock <sup>9</sup>

Table 1.2 Agricultural and Fishery Products per Municipality of Pampanga's 2nd District

<b>Porac</b>	sugar cane, root crops, rice, tilapia <sup>10</sup>
<b>Florida Blanca</b>	rice, corn, root crops, vegetables, sugar cane
<b>Guagua</b>	rice, vegetables, tilapia
<b>Santa Rita</b>	rice, vegetables, inland fresh water fish <sup>11</sup>
<b>Sasmuan</b>	shrimp, prawn, milkfish
<b>Lubao</b>	rice, corn, vegetables, prawn and milkfish <sup>12</sup>

Table 1.3 Agricultural and Fishery Products per Municipality or City of Pampanga's 3rd District

<b>Bacolor</b>	sugar cane, rice, vegetables, tilapia
<b>City of San Fernando</b>	rice, corn, sugar cane, vegetables
<b>Mexico</b>	rice, corn, vegetables, fresh water fish
<b>Arayat</b>	rice, corn, vegetables, fresh water fish
<b>Santa Ana</b>	rice, corn, vegetables, fresh water fish

Table 1.4 Agricultural and Fishery Products per Municipality of Pampanga's 4th District

<b>Santo Tomas</b>	tilapia, shrimp, rice
<b>Minalin</b>	chicken egg, <sup>13</sup> milkfish, prawn
<b>San Simon</b>	rice, fresh water fish
<b>San Luis</b>	rice, tilapia, vegetables
<b>Apalit</b>	rice, tilapia, prawn, milkfish
<b>Candaba</b>	rice, <sup>14</sup> tilapia, duck eggs
<b>Macabebe</b>	tilapia, milkfish, shrimp, prawn
<b>Masantol</b>	tilapia, milkfish, shrimp, prawn

Labor statistics for the province of Pampanga are currently unavailable. The provincial government does not compile one, and neither does the regional office of the Department of Labor and Employment (DOLE). Fortunately, the National Statistics Office (NSO) has

just conducted a Labor Force Survey in January 2011, and according to Mary Josephine L. Castro, Statistician II of the DOLE Region 3 Office, the result for Central Luzon (Region III) would be a good approximation for the labor statistics of Pampanga.

The above-mentioned survey indicates that the unemployment rate in Central Luzon is 7.9%, while the underemployment rate in the region is 9.7%. Using the underemployment rate in Central Luzon as a proxy for the underemployment rate in Pampanga, one could speculate (following Paredes and Puyat, 1996) that at least 9.7% of the employed in Pampanga is still in search for more hours of work. Since the province is still predominantly agricultural (consistent with the view of Salenga), one can safely assume that majority of this underutilized or surplus labor comes from the agricultural sector.

The author concedes that it could have been better if he had presented a time series data on unemployment and underemployment in Pampanga (or at least in Central Luzon) from 1993—the year when the Clark Freeport Zone was established—up to 2011. Unfortunately, both the Pampanga Provincial Government and the DOLE Region 3 Office could not provide the author such data.

### **Effects of the Mount Pinatubo Eruption on Pampanga's Agricultural Labor**

According to Salenga, the towns of Bacolor, Porac, Guagua, Santa Rita, and Lubao had been the most devastated by the 1991 eruption of Mount Pinatubo. Farms and houses in these towns had been either buried or submerged in lahar. The volcanic eruption also had made the coast lines of Minalin and Sasmuan shallow.

In an attempt to rehabilitate the devastated farms, the Department of Agriculture (DA) in 1991 launched "*Oplan Sagip Bukid*." In addition to tractors, affected farmers received P1,000 per hectare of their devastated farms. Meanwhile, families whose houses had been destroyed were given new houses worth P22,000 each.<sup>15</sup>

Exemplifying Filipino resiliency, the displaced farmers who had moved to various resettlement areas in the province quickly found new ways of making a living—driving three-wheelers and working in quarry sites. In addition, their children of working age had been prioritized in the hiring process by firms inside the Clark Freeport Zone. The latter piece of information, which was shared by Salenga, somehow bolsters the claim of



the Lewis two-sector model. However, it is premature at this stage to say that the model really works.

### ***The Sample Industrial Firms***

The succeeding table shows that majority of the 13 sample firms are engaged in the manufacture of electronics and garments. In addition, most of these firms are owned by Filipinos and Japanese.

Table 2.1 Eight of the Thirteen Sample Firms, Their Products, and Nationalities

<b>Name of Industrial Firm</b>	<b>Product</b>	<b>Nationality</b>
AMT	Electronics	American
APX	Electronics	Korean
CPI	Garments	Filipino-British-Chinese
CLD	Ice cream	Filipino
FPI	Electronics	Japanese
HGJ	Jewelry	Korean
IDF	Garments	Filipino-Taiwanese
MLC	Fiber glass mannequins	Filipino-French

Table 2.2 Five of the Thirteen Sample Firms, Their Products, and Nationalities

<b>OLC</b>	Garments	Filipino-Japanese
<b>PSC</b>	Construction materials	Filipino
<b>RIP</b>	Industrial/agricultural equipment	American
<b>TNW</b>	Medical devices	Japanese
<b>YTP</b>	Tires	Japanese

The real names of the sample firms enumerated in the preceding table were concealed upon the request of the company officials. The identities of the sample respondents from the 13 sample firms were likewise kept anonymous because it was the only way for the author and their human resources managers to have them answer the questionnaires.

### ***Socio-Demographic Profile of Respondents***

This study had a total of 186 respondents. This number represents those workers in the 13 sample firms who actually answered the questionnaires and returned them to the author through their human resources managers. Out of this total number, 81 were males and 105 were females. These male and female respondents had the same mean age of 27 years. Surprisingly, 56% of the respondents were college graduates, while 28% of them were high school graduates. Those who finished vocational courses represent 15%, while those who completed elementary education comprise 1%. These figures suggest that most of the respondents are overqualified for their jobs. They could also mean that most of the respondents are underemployed because they are not utilizing all of the knowledge and skills they had acquired in college in their current jobs.

Most of the respondents were from Angeles City (30%) and Mabalacat (30%). Angeles City is a chartered city while Mabalacat is a municipality currently aspiring to be a component city of Pampanga.<sup>16</sup> Around 35% of the respondents were from the following municipalities and city of Pampanga: Apalit, Arayat, Bacolor, Florida Blanca, Guagua, Lubao, Magalang, Mexico, Minalin, Porac, San Fernando, San Isidro, San Simon, Santa Ana, and Santa Rita. The remaining 5% of the respondents were from the following towns and city of Tarlac: Bamban, Capas, Concepcion, and Tarlac. It should be noted that except for the respondents from the cities of Angeles and San Fernando, majority of the respondents (around 70% of the total number of respondents) were from Pampanga and Tarlac municipalities that are still highly agricultural or rural. This geographic distribution of respondents gives a semblance of consistency with the Lewis two-sector model. After all, the model assumes that surplus labor from agricultural or rural areas is being absorbed by industrial or urban areas.

Most of the respondents' mothers were housewives (61.88%), sewers or seamstresses (10.39%), storekeepers or vendors (10.39%), and farmers (3.46%). The respondents' fathers, on the other hand, were mostly construction workers (27.27%), farmers (22.46%), and carpenters (12.3%). The top three occupations of the respondents prior to their employment in industrial firms in Clark were factory worker (55.28%), electrician (4.88%), and service crew or service staff (4.47%). On the average, the respondents held their most recent jobs prior to their employment in Clark for 2.4 years. Meanwhile, they had been holding their current jobs in Clark for an average of 2.9 years.

### ***Failure of the Lewis Two-Sector Model***

It is important to note that none of the respondents had held jobs in agriculture, fisheries, and agribusiness prior to their employment in industrial firms in Clark. This study, therefore, is compelled to conclude that industrial firms in Clark are not absorbing surplus agricultural labor in Pampanga and its neighboring provinces. Corollary to this is the conclusion that the Lewis two-sector model does not really work. But there must be compelling reasons why Lewis's model fails to stand this empirical test. What could be those reasons?

Firstly, instead of the industrial firms inside the Clark Freeport Zone, it is possible that other industries outside the zone are the ones absorbing the surplus agricultural labor of Pampanga and its neighbouring provinces. Surplus labor from agriculture is usually unskilled or low-skilled, hence, unsuitable for employment in the Clark industrial firms.

Secondly, instead of the industrial firms, it could be the services sector inside and outside of the Clark Freeport Zone that are absorbing the surplus labor from agriculture. Although utilizing employment data for the United States from 1900 to 1989, Ehrenberg and Smith (1991) had long observed this pattern of labor shifting from agriculture into service industries. Ehrenberg and Smith (1991) as well as Kindleberger (1958) had described this employment from agriculture to services as a shift from the primary sector to the tertiary sector.<sup>17</sup>

Related to the second reason is the conclusion of Legaspi and Rodriguez (2003) that tourism and related services in the former *Clark Special Economic Zone* have the potential to absorb excess labor in Pampanga and the rest of Central Luzon due to their high demand for low-skilled or unskilled labor.

Thirdly and finally, it is highly possible that most of the surplus labor from agriculture have gone on overseas employment. Vasquez (1987) would argue that this phenomenon is more of a reality than a possibility. Given the official or unofficial labor policy of overseas employment in the country, this author cannot help but agree with Vasquez.

Todaro and Smith (2003) argue that four of the key assumptions of the Lewis two-sector model do not fit the institutional and economic realities of most contemporary developing countries like the Philippines.

Firstly, the assumption that the rate of labor transfer and employment creation in the industrial sector is proportional to the rate of capital accumulation in the same sector may not hold because capitalist profits can either be reinvested in more sophisticated labor saving capital

equipment or sent abroad as a form of capital flight and added to the deposits of Western banks.

Secondly, the assumption that surplus labor exists in rural areas while there is full employment in urban areas is not really true. The duo explains that most contemporary research indicates that there is little general surplus labor in rural areas.

Thirdly, the following notion is unreal: "a competitive labor market in the industrial sector guarantees the continued existence of constant real industrial wages up to the point where the supply of agricultural surplus labor is exhausted." Todaro and Smith say that in almost all developing countries, there is a tendency for wages to rise substantially over time. This is in spite of the presence of rising unemployment in the industrial sector and low or zero marginal productivity in agriculture. The duo also adds that institutional factors such as union bargaining power, civil service wage scales, and hiring practices of multinational corporations tend to counter the competitive forces in the industrial sector labor markets of developing countries.

Fourthly and finally, Lewis' model assumes that there are diminishing returns in the industrial sector, but much of the evidence that Todaro and Smith have found points to increasing returns in the industrial sector.

These unrealistic or invalid assumptions of the Lewis model somehow lend credence to the findings of this study, particularly the inability of the industrial firms inside the Clark Freeport Zone to absorb the surplus agricultural labor of Pampanga and its neighboring provinces. Be that as it may, the Lewis two-sector model remains a classic and useful framework for understanding the dynamics of labor transfer from the industrial sector to the agricultural sector.

### **Transformation of Respondents into Industrial Workers**

How did the respondents acquire the skills necessary for their current jobs? Most of them (86.2%) acquired them through training programs offered by their companies. Only a few obtained them through training programs offered by TESDA (8.3%), friends (2.8%), family members (1.8%), and local government units (0.9%). Most of the training programs given by the abovementioned sources lasted for about 1-3 weeks (47.9%), 1-6 months (28.6%), 1-5 days (22.1%), and 1-5 years (1.4%). With this figures on hand, one might conclude that TESDA and local

government units (LGUs) only had minimal participation in transforming the respondents of this study into industrial workers.

### **Impact of Industrial Employment on Wages and Working and Living Conditions**

The mean daily wage rate of respondents in their previous jobs outside Clark was P290.5, while in their current jobs inside Clark, it was higher at P361.5. The paired samples test (T-test)<sup>18</sup> revealed this difference is significant. At 95% confidence interval, the p value of 0.001 is much less than 0.05.<sup>19</sup> The P361.5 current mean daily wage rate of the respondents is also higher than the prevailing minimum daily wage rates in Central Luzon. According to the website of the National Wages and Productivity Commission (<http://www.nwpc.dole.gov.ph>), as of September 12, 2011, the minimum daily wage rates in Central Luzon are as follows: P279-P330 for non-agriculture, P264-P300 for plantation agriculture, and P244-P284 for non-plantation agriculture. All the wage rates mentioned in this paragraph, however, are nominal—unadjusted for inflation.

The working conditions of respondents before and after their employment in industrial firms in Clark were the same, at least quantitatively. Their number of work days per week in their previous jobs outside Clark was 5.9 or almost 6. Currently, they have the same number of work days per week. Similarly, this study finds no significant difference in the number of work hours per day at the respondents' previous and current jobs. The mean number of work hours per day in the respondents' previous jobs was 8.1, while in their current jobs, it was 8.2.

An overwhelming majority of the respondents (87.1%) consider their current jobs inside Clark as better than their previous jobs outside Clark. The top reason for saying so was "higher wages" (55.2%). "Nearer to their family" (9.9%) was the second most mentioned reason, while "can gain more knowledge" (6.8%), "better working environment" (6.8%), and "better company policies" (6.8%) were the third most popular reasons given by the respondents.

Some 83.73% of the respondents say that their current living conditions are better off than their living conditions prior to their employment in Clark. They say so because now they can "meet their basic needs" (62.7%), "help their family" (17.3%), "purchase more" (10%), "save more" (5.5%), "be empowered or more financially independent" (3.6%), and "have personal growth" (0.9%).

Overall, employment in industrial firms inside Clark has had a positive impact on wages and working and living conditions of respondents. This is despite the fact that none of the 13 sample industrial firms had absorbed surplus agricultural labor in Pampanga and its neighboring provinces.

## Conclusions

The Lewis two-sector model assumes that surplus agricultural labor is being absorbed by the industrial sector. The results of this study, however, show that this assumption does not work in reality. None of the 186 respondents had agriculture, fisheries or agribusiness as their previous sectors of employment. Most of them—around 55%—have already been in factory work prior to their employment in industrial firms inside the Clark Freeport Zone.

Possible reasons for the failure of Lewis' model are: (1) other industries outside Clark are the ones absorbing the surplus labor from agriculture; (2) service industries inside and outside of Clark are the ones absorbing the agricultural labor surplus; and (3) surplus labor from agriculture are finding employment overseas. These employment possibilities are contrary to the very restrictive assumption of the Lewis model that surplus labor from agriculture are being absorbed solely by the industrial sector.

Most of the respondents—around 56%—were college graduates, suggesting that they are overqualified for their current jobs. They could also be underemployed since they are not utilizing all the knowledge and skills they had acquired in college in their current jobs. These observations bolster the claim of many that there is indeed a problem of labor mismatch in the country.

Most of the respondents—around 86%—have gotten the skills necessary for their current jobs from the training programs of their companies. The TESDA and LGUs only had minimal participation in transforming the respondents into industrial workers.

The P361.5 mean current daily wage rate of the respondents is significantly higher than the P290.5 mean daily wage rate of the respondents in their previous jobs. This P361.5 mean current daily wage rate is also higher than the prevailing minimum daily wage rate of P279-P330 for non-agricultural workers in Central Luzon.

Overall, the respondents perceive that their employment in industrial firms inside the Clark Freeport Zone has had a positive impact on their wages and living and working conditions. They feel that they are now receiving higher wages and are nearer to their families. They also feel that they are now able to meet their basic needs and help their families more.

This study illustrates that special economic zones such as the Clark Freeport Zone are indeed creating jobs for the Filipino workforce, although not necessarily for the unemployed or underemployed in the agricultural sector. The government must re-examine its policy of concentrating the incentives for job creation in special economic zones if it really wants to mobilize surplus agricultural labor. Borrowing the words of dependency theorists, these special economic zones, after all, are just “enclaves in a dualistic Third World economy.” It is high time for the government, therefore, to realize that industrialization and urbanization are not the only paths to economic development. To capture and mobilize surplus agricultural labor, it is imperative for the government to either attract investments in the countryside or simultaneously attract investments in special economic zones, urban, and rural areas.

## Endnotes

<sup>1</sup> In actuality, the Clark Freeport Zone is a Special Economic Zone since it has areas earmarked by the government for development into balanced industrial, commercial, agricultural, and tourist or recreational uses. But for the purpose of this paper, the more popular name – Clark Freeport Zone shall be used. For a more detailed differentiation between types of economic zones, please refer to Alejandro, E. and R. Tubeo. 1998. Clark Special Economic Zone: An Assessment of Costs and Benefits. Unpublished undergraduate thesis, School of Economics, University of the Philippines, Diliman, Quezon City.

<sup>2</sup> This procedure was in accordance with the advice of U.P. School of Economics Professor Dante Canlas which the author received by electronic mail on 30 March 2011.

<sup>3</sup> Todaro, M. P., and S. C. Smith. 2003. Economic Development. UK: Pearson Education Limited.

<sup>4</sup> Paredes, F. C., and M. E. Puyat. 1996. Absorption of labor surplus in the Philippines. Unpublished undergraduate thesis, School of Economics, University of the Philippines, Diliman, Quezon City.

<sup>5</sup> Mr. Edilberto E. Salenga was interviewed by the author on Friday, August 19, 2011 at the Office of the Provincial Agriculturist, POE Complex, Sindalan, City of San Fernando.

<sup>6</sup> Root crops mainly include cassava and sweet potato.

<sup>7</sup> Vegetables are of the following main types: string beans, bitter melon, squash, and okra. Salenga refers to these as “pinakbet” vegetables.

<sup>8</sup> For the whole province, corn is grown during the dry season and immediately following the rice cropping season.

<sup>9</sup> The livestock category includes mainly hogs and beef cattle.

<sup>10</sup> The tilapia in Guagua is grown both in brackish water and inland fresh water.

<sup>11</sup> Tilapia, dalag or mudfish, and hito or catfish are included in this category.

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<sup>12</sup> Prawn and milkfish are grown mainly in brackish water. Fresh water fish such as tilapia is also grown inland.

<sup>13</sup> Minalin is considered as the egg basket of Pampanga.

<sup>14</sup> Candaba is considered as the rice granary of Pampanga.

<sup>15</sup> Families who resettled in Barangay Sakop in Lubao, however, had to pay P3,000 for their new houses. This piece of information was also given by Pampanga Provincial Extension Service Chief Edilberto E. Salenga to the author on August 19, 2011.

<sup>16</sup> Contrary to the belief of some people, Mabalacat is still a municipality. The author was able to confirm this status of Mabalacat through his September 26, 2011 interview with Election Officer Francisco M. David at the Municipal Hall, Xevera, Barangay Tabun, Mabalacat, Pampanga.

<sup>17</sup> Kindleberger (1958) calls the manufacturing sector as the secondary sector.

<sup>18</sup> According to Archambault (2000), the Paired Samples T Test compares the means of two variables. It computes the difference between the two variables for each case, and tests to see if the average difference is significantly different from zero. For a complete explanation, see Archambault, S. 2000. Paired Samples T Test at <http://www.wellesley.edu/Psychology/Psych205/pairttest.html> (accessed February 3, 2012).

<sup>19</sup> The T-test results are shown in the Appendix of this paper.

#### Paired Samples Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	CDW	290.5058	13	57.38662	15.91619
	PDW	361.4945	13	39.13034	10.85280

#### Paired Samples Correlations

		N	Correlation	Sig.
Pair 1	PDW & CDW	13	.253	.404

#### Paired Samples Test

	Paired Differences					t	df	Sig. (2-tailed)
	Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of the Difference				
				Lower	Upper			
Pair 1 PDW-CDW	-70.98869	60.72982	16.84342	-107.68735	-34.29003	-4.215	12	.001



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