EGYPT COMMODITY IMPORT PROGRAM EMPLOYMENT STUDY

Submitted to:

USAID/Egypt
Strategic Objective 16
Environment for Trade and Investment Strengthened

Under:

MOBIS Contract No. GS-10F-0185K
Task Order No. 263-M-00-03-0006-00

Prepared by:

Joseph M. Lieberson
Economist & Team Leader

Juan J. Buttari
Economist

With the Collaboration of

Nihal El Megharbel
Economist

Arwa Morsy
Economist

Submitted by:

Development Associates, Inc.
Results Reporting Support Activity
20 Aisha El-Taimoreya St., 1st Floor, Suite 2,
Garden City, Cairo, Egypt

FINAL

August 30, 2005

TABLE OF CONTENTS

List of Tables and Figure:

This publication was made possible through support provided by the U.S. Agency for International Development, under the terms of MOBIS Contract No.GS-10F-0185K. The opinions expressed herein are those of the authors and do not necessarily reflect the views of the U.S. Agency for International Development.

ACKNOWLEDGEMENT

The authors would like to thank Dr. Samir Makary (Makary Consulting), Dr. Samir Radwan and Diaa Nour El Din (Economic Research Forum) for their review and comments that helped to sharpen several points in the study. Additionally, USAID/Egypt CIP Division were incredibly helpful in identifying stakeholder groups and providing background information on the program. Finally, the authors would like to thank the numerous private sector representatives who took the time to discuss their experiences with the Commodity Import Program. Their frank assessments and insightful analyses were crucial to writing this report.

1. EXECUTIVE SUMMARY

To measure Commodity Import Program (CIP) employment generation, this study used an economic model with: capital-labor ratios to estimate direct jobs created at firms using the CIP; a ratio of indirect to direct jobs generated at other firms that buy from or sell products to CIP firms and; an expenditure multiplier to estimate induced jobs throughout the economy. Between January 2000 and mid-2005 the CIP helped Egypt's private sector create 31,000 direct jobs, 16,000 indirect jobs, and 118,000 induced jobs, for a total of 165,000 new jobs. But how important are these CIP employment figures relative to the new labor force entrants and the employment and unemployment situation in Egypt?[1] During 2000 to mid-2005 the 165,000 CIP-supported jobs were 4-5 percent of those newly entering the labor force. Absent the CIP there would have been an unemployment rate for new entrants of at least 14 percent rather than the existing 10 percent. In other words, the unemployment rate would have been 40 percent higher.[2]

As a way to double-check these findings, employment information for 2000 to mid-2005 was collected from a sample of 23 Egyptian firms that had used the CIP. All but one reported an increase in employment, with almost all reporting substantial (50 to 100 percent) increases. Several firms stated that the CIP was the most important reason for increased employment. Most of the others said the CIP was important but other factors were also important.

The private sector CIP has been operating since 1987. Assuming that jobs created followed the same distribution as in 2000 to mid-2005, then some 112,000 direct jobs, 59,000 indirect jobs and 420,000 induced jobs, for a total of 591,000 jobs were generated during the period, 1987-2005. Egypt's current labor force is estimated at approximately 22 million workers.[3] Under the assumption that the 591,000 CIP jobs have survived until the present, those jobs represent 2.7 percent of the present labor force. When one

[1] The labor force refers to persons of working age able and willing to work. It includes the employed unemployed labor force.

[2] The number of average yearly jobs supported by the CIP is significant. Even if the unemployment rate for the new entrants is twice the national rate (20 percent for new entrants), without the CIP the unemployment rate for the new workers would be some 24 percent or some 21 percent higher than the 20 percent unemployment rate. (A 20 percent unemployment rate for new workers translates into 140,000 newly unemployed. If the 30,000 average annual CIP supported jobs were not there the number of newly unemployed would rise to 170,000 (140,000 plus 30,000), which divided by 700,000 gives 24 percent)

[3] Authors' projection based on Alia El-Mahdi, GNP Global Labor Market Database: Egypt, Faculty of Economics and Political Science, Cairo University, October 2003, http//www.GlobalPolicyNetwork.org. El-Mahdi's work presents labor force figures from 1997 through 2002. The implicit annual compound rate of growth is 2.3 percent. At such rate the 2005 labor force is some 22 million. It is worth noting that estimates of the Egyptian labor force are not always consistent. For instance, USAID/Cairo's website puts Egypt's 2001 labor force at 20.6 million In contrast, The World Bank estimated the 2000 labor force at 24 million (see The World Bank Group Gender Stats, http://www.devdata.worldbank.org/genderstats). Moreover, the United States Central Intelligence Agency gives the 2004 labor force as some 21 million workers (CIA, The World Factbook, http://www.cia.gov).

takes into account the size of the Egyptian economy, even if the percentage was cut by half, the resulting job creation is significant.[4] It is also possible to estimate the additional income workers received as a result of the CIP resources. For 2000 to mid-2005 the 165,000 jobs generated total wage income of $334 million. For the total private sector CIP period (1987 through mid-2005) it is estimated that 591,000 jobs generated total wages of $1.2 billion. The jobs were likely sustained because, over the last 18 years, the government instituted policy reforms which included dismantling its old, failed policy of having the public sector dominate the economy.

Egypt's change in policies allowed the private sector to grow rapidly and improve the economy's economic growth and employment prospects. Egypt has achieved impressive economic progress. The country strengthened its macroeconomic discipline, privatized many public sector investments, stabilized the Egyptian pound (the official and parallel foreign exchange markets are now unified) and Egypt has entered the ranks of emerging economies with per capita Gross National Income of $1,390 in 2003[5]. Absent those reforms, the CIP employment impact would have been greatly reduced.

[4] For perspective one has to bear in mind that CIP assistance is much less than half the yearly economic assistance that the US provides to Egypt and that such economic assistance is less than 1 percent of Egypt's GDP. See Embassy of the United States of America, Economic Trends Report Egypt, September 2004

[5] April 2005,World Bank World Development Report

2. INTRODUCTION

Why a CIP Employment Study

The private sector CIP program has been operating for 18 years and over that period there have been several evaluations. Annex B provides a summary of the 2003 evaluation. It covered CIP operating procedures; the impact on Egyptian private sector development; the impact on U.S. trade; an examination of support for environmentally sound investments; investments in Upper Egypt, where economic growth has historically lagged behind the rest of Egypt and an estimate of direct job creation. The 2003 CIP evaluation and other CIP evaluations were not asked to fully analyze employment impacts. That is the task of this study.

Investment and increased production are important but it is also useful to understand the effect of the CIP on employment. Egypt has an official unemployment rate of roughly 10 percent, large underemployment and some 700,000 young people entering the job market every year. More new jobs are needed if Egypt is to avoid the problem of rising unemployment and problems of disillusionment and potential unrest. The CIP provides imports that increase private sector production and generate demand for more labor.

This study analyzes CIP impact in generating new employment at Egyptian firms that used CIP resources, and in the economy at large during 2000 to mid-2005. Based on results for that period, employment estimates were made for the period from the start of the private sector program in 1987 to mid-2005.

When a participating firm receives CIP imports it is able to increase its output, and with growth in sales it usually needs more workers. But there is more to the story than just the new jobs at the firm that uses CIP resources. There are also indirect, upstream and downstream employment impacts as the firm buys more inputs from its suppliers, and sells more products to other firms. Those firms increase their sales and employment. The new wage income in turn generates a demand for more goods which generates additional employment. This evaluation analyzes all of those employment impacts.

How the Study was done

This study analyzes the CIP employment impact during the period 2000 to mid-2005. Analysis was carried out at the macro and micro levels. Among other technical tools, the macro level analysis relied on a capital-to-labor ratio, the ratio of indirect to direct employment, and the marginal propensities to consume and import (i.e., how much of an extra Egyptian pound of income is spent on consumption and on imports).

At the micro or firm-level the analysts collected data from managers of a sample of companies, in Cairo and Alexandria, that imported CIP goods and firms no longer using the CIP. The analysis confirmed the adequacy of key parameters and provided concrete

case examples of what happened to firms in terms of employment changes and the CIP's role in those changes.

Employment impact analysis was done by applying economic ratios and relationships to estimate the direct, indirect and induced employment resulting from the CIP as well as the resulting wage bill and the types of jobs generated. As the variance of such values or estimates may be significant, the analysis included sensitivity or "what if" analysis using more than one value for selected variables or coefficients. The analysis provides a range of job and wage generation estimates and identified the most appropriate scenarios.

The next section provides an explanation of CIP operations. It is followed by a section on research methodology for this study; analysis of CIP generated employment from the macro or national perspective and finally; employment growth at the firm-level to provide a way to confirm the employment estimates that were made at the macro level.

3. THE COMMODITY IMPORT PROGRAM IN EGYPT

USAID's strategic plan shifts the focus of U.S. development assistance from aid to trade and investment. USAID Strategic Objective 16 is designed to strengthen the environment for trade and investment through three implementation vehicles:

---Traditional project assistance, managed by the SO16 team.

---Development Support Program cash transfers that are conditioned on the Egyptian government's achievement of specific economic reforms.

---The Commodity Import Program (CIP), which finances Egyptian private sector imports of U.S. goods.

The CIP has evolved over time. Between 1975 and 1986, the CIP funded only public sector imports. In 1986, USAID established a private sector CIP, providing foreign exchange to finance imports from the United States. Egyptian firms can import machinery, parts and components and raw materials. Consumption goods, luxury items and a few other items are excluded. Since 1986, the CIP provided more than $3.2 billion to the private sector for the purchase of U.S. exports. In 1991, USAID ended the public sector CIP.

Since 2000 the private sector CIP has provided roughly $200 million a year. The CIP stimulates private investment by financing U.S. imports for Egyptian private firms in all sectors of the economy. All entrepreneurs and private sector firms, either traders (importing for resale) or end user (importing for their own use) are eligible to use the CIP. A low minimum transaction size of $10,000 encourages emerging private sector businesses to participate. The annual maximum limit for any one firm is $5 million for traders, $4 million for end users importing industrial inputs (goods other than fixed-capital) and $8 million for end users importing machinery (fixed-capital goods). In addition, the CIP provides the importer with short to medium term credit and a grace period. The grace period varies from 6 to 36 months and the repayment period from 6 months to 8 years. Traders receive the shortest terms with longer terms for end-users. The longest grace periods and credit terms are available to end-users who import machinery (fixed capital), environmental equipment or firms located in Upper Egypt, where investment has lagged.

The CIP process begins when an importer identifies the needed capital equipment and requests quotes from several U.S. suppliers and documentation that the goods are consistent with USAID's list of eligible commodities. Once a U.S. supplier has been selected, the documentation and loan application are submitted to a participating Egyptian bank. The participating bank reviews the application and sends it to USAID for approval. If it is in order, USAID approves the application and USAID issues letters of commitment to participating U.S. banks to pay U.S. exporters that sell goods through the CIP. The Egyptian bank opens a "letter of credit" with a participating U.S. bank. This is the point where the foreign exchange rate is locked-in and the importer knows how many Egyptian pounds must be paid. Once the U.S. exporter transfers title to the Egyptian

importer (usually when the goods are loaded aboard a vessel for export), the U.S. bank pays the U.S. supplier and USAID then pays the U.S. bank.

Egyptian importers do not make immediate payment since there is the CIP grace period. After the grace period, the importer either pays for the imports, or if there was a loan, makes payment of local currency to the participating Egyptian bank based on the loan terms. The participating bank forwards the local currency payments to a special account at the Egyptian Central Bank and then USAID/Egypt and the Government of Egypt jointly program the special account funds. In recent years about 75 percent of these funds supported Egypt's budget, 9 percent went for USAID projects and technical and feasibility studies; 6 percent for USAID operating expenses and; about 10 percent for cancelled transactions and refunds.

The following section presents a detailed discussion of the methodology used in this study to analyze the impact of the CIP on employment in Egypt.

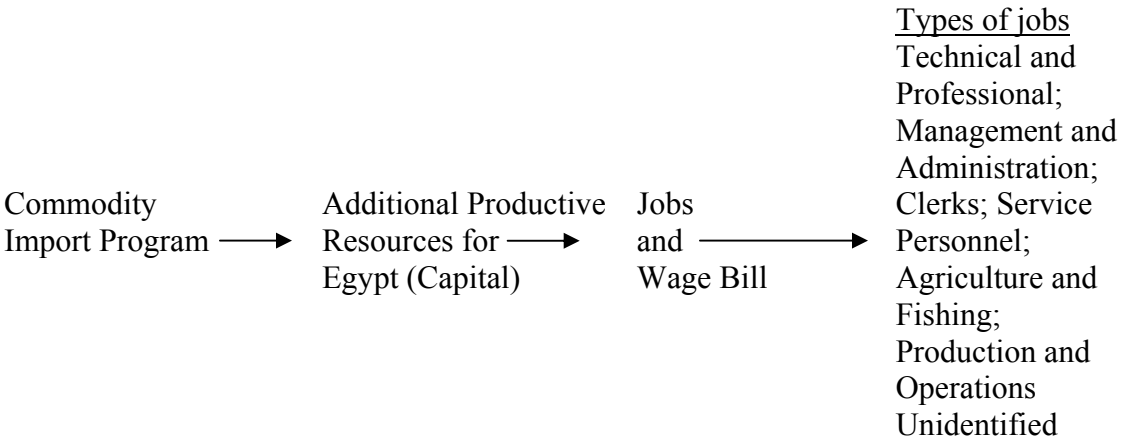
4. RESEARCH METHODOLOGY: AN OVERVIEW OF THE ANALYSIS OF THE CIP'S EMPLOYMENT IMPACT

The CIP transfers productive capital resources to Egypt. It is important to remember, that even abstracting from the sectors or companies that use the CIP facilities, the end result is that CIP capital is additional to the resources that Egypt previously had.

Financial flows should not be confused with the flow of real goods represented by the imports financed by the CIP. The fact is that as a result of the CIP Egypt receives productive goods for free. Whether the Egyptian private sectors pays local currency to Egyptian banks and the banks turn around and pass those payments on to the Government of Egypt is not material. The point is that there is no payment from Egypt to the United States for the value of the goods. Accordingly, from a country perspective there is a net transfer of productive goods from the United States to Egypt.

The new capital combines with labor to generate a flow of increased output and income. As a result, the CIP capital resources enable the Egyptian economy to absorb idle labor. The CIP thus generates additional jobs and labor income.[6] The following flow chart summarizes this concept.

Figure 1
The CIP and Job Creation



An analysis of CIP employment impact may proceed in more than one way. It can, for example, rely on a comprehensive survey of firms that used the CIP. Such a survey would also have to include other firms to assess the upstream and downstream effects, beyond the original firms that use CIP resources. That would require thorough sampling and extensive surveying, a relatively costly approach. Alternatively one can use plausible

[6] In this analysis jobs are taken to mean full-time regular remunerative positions. "Regular" implies that as long as business conditions remain favorable the jobs will remain. "Remunerative" in the sense that a worker is paid for the tasks performed because such tasks add value to the employer.

assumptions based on economic theory (indicators, coefficients, and mathematical relations) of different degrees of complexity to arrive at reasonable estimates. An analysis based on plausible assumptions at the level of the national economy may be termed a "macro" approach.

The present study relied on the macro approach which was complemented with information from a survey of firms that used the CIP. The analysis at the firm-level is termed the "micro" analysis. As explained below, both tiers of analysis (macro and micro) are complementary.

Macro Analysis

For this study the macro analysis used a model that connected employment creation to capital investment and production output. (A model is nothing more than a system of relationships that portrays how key elements interact to cause a real world event – changes in employment and wages in this case.)

The model used in this analysis assumes an implicit general production function in which the generation of output requires labor and capital. Moreover, as Egypt has an oversupply of labor (there is significant underutilization of labor resources), the model assumes that a net addition of capital enables Egypt to absorb underutilized or idle labor to increase production.

Accordingly, with a larger stock of capital Egypt is able to have more of its workers productively employed, the productivity of workers is higher, and total wages and output rise. This is why the previous section started by noting that the CIP transfers additional productive resources (capital) to Egypt and that the new capital combines with labor to generate a flow of increased output and income.

The model postulates how much capital is "typically" needed in the modern Egyptian manufacturing sector to create a job – that is to provide full-time employment for one worker. The relation between capital and jobs is the capital-labor ratio. Once one knows the capital-labor ratio, by multiplying the inverse of the capital-labor ratio (labor-capital ratio) times the amount of capital provided by the CIP, it is possible to determine direct employment creation. The increase in employment results from combining workers with CIP capital to increase production.

The next step recognizes that the expansion of production in a firm also has production effects on other firms. For example, an increase in production at firm A may mean an increase in its demand for the products that firm B makes. Faced with an increase in the demand for its products, firm B increases production which translates into an increase in the number of workers employed in firm B.

Likewise, an increase in production at firm A may enable a firm that uses firm A's products (say firm C) to increase its own production and number of workers employed. These effects can be thought of as backward and forward linkages (or upstream or

downstream effects) and result in additional employment generated. Such additional employment is known as indirect employment.

CIP capital results in direct and indirect employment generation, and the model establishes a relation between the number of direct jobs created and the indirect jobs associated with them. See below for the specific assumptions in this regard.

Next the model postulates that an increase in autonomous expenditures (say investment) translates into an increase in incomes.[7] The higher incomes are partly spent on other goods and services. This means that those that produce those goods and services also enjoy a rise in income and subsequently spend part of such income. This chain of events is repeated with smaller sums of income passed on at each stage. The end result is an increase in total income that can be broken down in additional payments to labor and capital.

The model then makes an estimate of the share of income paid to labor. This share of labor income can be called the total wage bill. Dividing the wage bill by an estimate of the average wage rate Egyptians workers earn provides an estimate of total jobs generated by the CIP supported expenditures.

Finally, to avoid double counting jobs, induced jobs facilitated by the CIP are estimated as the difference between total jobs and the sum of the direct and indirect jobs estimated in earlier steps. The model is summarized in the following 7 ratios and relationships. The definition of the symbols comes immediately afterwards.

The Ratios and Relationships Used in the Macro Analysis Model

(1) L/K is the labor-to-capital ratio.[8]

(2) $L/K \times K_{cip} = D_L$

(3) $(D_L + I_L)/ D_L = M_L$ which is equivalent to $(D_L + I_L) = D_L \times M_L$

[7] The assumption is that the idle resources needed to increase income are rapidly forthcoming. "Autonomous" refers to events that are caused by factors outside the model, the CIP disbursements and related expenditures in this case, for example. The total change in income relative to the initial change in autonomous expenditures that gave rise to it is known as the income or expenditure multiplier. The derivation of the multiplier is presented in footnote 9 and the explanation of how the marginal propensities to consume and import were derived is presented in section 5, page 15. The local currency that ends as a transfer to the Egyptian government supports a level of expenditures that does have a multiplier effect. This of course bypasses the issue of the relative efficiency of public versus private sector expenditures.

[8] This ratio can be expressed as a relation of workers to capital, say total assets or fixed assets in a firm to workers as, for example, CAPMAS does in The Annual Industrial Statistics series. The ratio can also be expressed as a ratio of assets to the wage bill paid in the firm. In practice both approaches amount to the same thing. If one multiplies the total workers in a firm by the average wage rate paid one obtains the total wage bill. Analogously, if one divides the total wage bill by the average wage rate one gets the number of workers. In this paper capital labor ratios are taken to mean a firm's total assets per worker.

(4) $\Delta Y/K_{cip} = 1/(s+m)$ from where $\Delta Y = K_{cip} \times 1/(s+m)$[9]

(5) $\Delta Y \times W^* = W_{cip}$

(6) $W_{cip}/W = TJ$

(7) $TJ - (D_L + I_L) = IJ$

The macro level analysis was conducted by applying the ratios and relations, (1) to (7) above, to estimate the direct, indirect and induced employment resulting from the CIP resources as well as the resulting wage bill. Assuming that the total number of jobs (TJ) follows the occupational structure observed in Egypt's employed labor-force, the analysis inferred the types of jobs generated.

Values for the ratios and coefficients were taken from existing official publications, studies, countries at a comparable stage of development or, simply, they reflect the best judgment of economists familiar with the Egyptian economy. Sources for the estimates are identified where appropriate.

As the variance of such values or estimates may be significant, the analysis included sensitivity or "what if" analysis by using more than one value for selected variables or coefficients. Accordingly, while the analysis provides a range of job and wage generation estimates, analysts identify what are considered the most likely scenarios.

An example of "what if" analysis relates to the definition of CIP capital. The nature of capital has been an issue of frequent contention in theoretical and applied economics.[10] Capital is defined as assets used in the production of other goods and services. Such assets include fixed capital (machinery, buildings, etc) and working capital (stocks of raw materials, partly-finished products, and money) used up quickly in the production process. There is a question concerning what proportion of CIP disbursements should be

[9] The derivation of the CIP income multiplier is as follows:
Let $Y_1 = C + I + G + X - M$ where G is net government expenditures, X is exports and M is imports. If $C=C_0 + cY$ and $M = M_0 + mY$, substituting and rearranging one obtains $Y_1 = [1/ (1-c+m)] C_0+I+G+X-M_0$ that can be called equation (a). Likewise let $Y_2 = C + I + K_{cip} + G + X - M$ where $C=C_0 + c\ Y_2$ and $M = M_0+ mY_2$. (Note that, in this equation, expenditures on total capital involves the CIP resources plus other investment available to the economy. As pointed out in the text the assumption is that the income effect of the CIP capital is similar to that of other investment.) Substituting and rearranging one gets equation (b) or $Y_2 = . [1/ (1-c+m)] C + I + K_{cip} + G + X - M$. Subtracting equation (a) from equation (b) one gets $Y_2 - Y1 = \Delta Y = . [1/ (1-c+m)] K_{cip}$. Remembering that 1-c = s one could write $\Delta Y = . [1/ (s+m)] K_{cip}$. One could get the same result by differentiating equation (b) with respect to K_{cip}.

[10] A main issue revolves around how to measure capital and its returns. During the 1960s it generated much controversy among noted economists in what became know as the Cambridge Capital Controversy. The controversy was never totally settled. The main participants were economists from Cambridge University in England and neo-classical economists from the Massachusetts Institute of Technology. The economists from Cambridge University (for example, Joan Robinson and Nicholas Kaldor) argued, among other points, that it is not possible to measure capital in the aggregate. Among others, Paul Samuelson and Robert Solow from MIT participated in the debate. Much of the debate is esoteric and mathematical. See G.C. Harcourt, **Theory of Capital**, Cambridge University Press, 1972

treated as capital. Instead of using just the total value of CIP disbursements, the analysis also assumed that a portion of such disbursements were either not capital or not used efficiently. Naturally, the employment impact differs whether all or part of the CIP resources are taken into account. As a rule, when in doubt the analysts chose to err by being conservative, that is by underestimating rather than overestimating employment and wage impacts. Although it involves some repetition of concepts, the detailed assumptions and steps for arriving at estimates are also discussed in the results section.

Key Definitions

SYMBOL	MEANING OR DEFINITION
L	**Number of workers**
K	**Capital goods** used in the production of other goods and services
K_{cip}	**Additional productive resources** made available to Egypt through the Commodity Import Program
D_L	**Direct jobs** resulting from the combination of workers with the additional productive resources made available through the CIP
I_L	**Indirect jobs** resulting from the additional production at firms that sell goods and services to CIP firms, and additional jobs at firms that buy goods and services from the CIP firms.
M_L	**The employment multiplier** is the ratio of the sum of direct and indirect jobs over direct jobs. It is used to calculate direct plus indirect jobs given the number of direct jobs. To calculate the employment multiplier one has to start with an estimate of how many indirect jobs result from the creation of one direct job.
$\Delta Y/K_{cip}$	**The CIP income multiplier** is the change in national income induced by the additional CIP resources. It is assumed that CIP capital resources have the same impact on income as an autonomous increase in investment expenditures.
I	**Investment expenditures** are expenditures on new capital
W*	**The share of wages** in national income
W	**The average wage**
W_{cip}	**The total wage bill** created by the new employment generated by CIP resources
Y	**National income** or a more or less equivalent measure such as Gross Domestic Product GDP
C	**Consumption expenditures**
c	**The marginal propensity to consume** is the proportion of each additional dollar of household income that is used for consumption expenditures.
s	**The marginal propensity to save** is the proportion of each additional dollar of household income that is used for saving --- not consumed.
m	**The marginal propensity to import** is the proportion of each additional dollar of income that is used for imports.
TJ	**The total number of jobs** made possible by the CIP
IJ	**Induced jobs** are new jobs resulting from increased spending as output grows thanks to the CIP injection of productive resources.

Micro Analysis

This part of the analysis relied on interviews to collect data from managers of 23 firms that used the CIP. Included were firms currently using the CIP and those who had stopped using the CIP. The interviews included traders and end users and large, medium and small firms --- with the emphasis on large firms, since they received the bulk of CIP imports. Except for the traders, all firms are manufacturers producing a broad range of industrial and consumer goods.

The main purpose of the interviews was to obtain information on assets, number of workers, gender composition, wage bill, broad occupational structure of firms, and the managers' sense of average wages in each category. Such firm level data provided a means to confirm the validity of assumptions made in the macro level analysis.

The analysts are aware that the bulk of job generation is not in the firms that use the CIP facilities, but in other firms. Nonetheless, the interviews were a means to identify concrete examples of whether the CIP had enabled firms to expand or sustain business and employment.

Furthermore, besides the collection of data identifying the nature of a firm's business, the visits to firms also provided an opportunity to gauge managers' sense of whether current labor laws or regulations are an impediment to their business operations and hiring. The meetings also provided an opportunity to obtain assessments by individual managers of how the CIP Program operates.

In conducting the interviews the analysts used a standard questionnaire (See Annex E) dealing with the points mentioned above. At the start of the meetings the analysts explained the objectives of their task (assessing the CIP's likely employment impact) and underlined that they were not carrying out an evaluation of the CIP program.

5. EMPLOYMENT IMPACT FROM THE MACRO, ECONOMY-WIDE PERSPECTIVE

This section presents estimates of new jobs facilitated by the CIP. To adjust for inflation, yearly CIP disbursements were converted from current to constant dollars (2004 prices) so that they would reflect real resources provided to Egypt. The deflator used was the US GDP implicit price deflator as presented in the Economic Report of the President, February 2005. Converting current dollar disbursements into disbursements at 2004 prices gave total disbursements for the 2000 to mid-2005 period of $1.06 billion (compared to $1.02 billion in current dollars).

It is often useful to take inflation out of the numbers by using constant dollars. But in this case, using constant dollars made little difference in the employment estimates (using constant 2004 dollars the employment estimates were at most 4 percent higher). For the longer term, from 1987 to June 2005, the difference is significant due to significant inflation over that time period.

The analysis generated estimates on the creation of: direct jobs, indirect jobs, direct plus indirect jobs, total jobs (direct plus indirect plus induced), and induced jobs – in that sequence. The assumptions, basic parameters and sources are spelled out in each subsection. The employment impact reflects the use of constant dollar CIP disbursements.

Direct Jobs

Capital-labor ratios (or assets per worker) have frequently been used in the analysis of employment impact.[11] For this study, capital-labor ratios are based on the opinion of experts on the Egyptian economy, the analysts' assessment of the empirical literature, and Egypt's Central Agency for Public Mobilization and Statistics' (CAPMAS). The analysts estimate that Egypt's modern, medium-to-large manufacturing firms typically have assets of approximately $20,000 to $25,000 per employee. That means, to create one new job it takes an investment of $20,000 to $25,000. This is slightly higher than data from Egypt's Central Agency for Public Mobilization and Statistics' (CAPMAS) that shows for the year 2000/01, Egyptian manufacturing industries have a capital to labor ratio of some $17,500.[12]

[11] For example: William F. Steel, **Small-Scale Employment and Production in Developing Countries Evidence from Ghana**, Praeger Publishers, 1977; International Labour Office, **Employment Problems and Policies in the Philippines**, 1969; Larry Coore, Ten Informal Sector Activities in Kingston, Jamaica, in International Labor Office, PREALC, **The Informal Sector Operations and Policies**, 1978 (in Spanish);Howard Pack in The Choice of Technique and Employment in the Textile Industry in A.S. Bhalla (editor), **Technology and Employment in Industry**, International Labour Office, 1975; Sam P.S. Ho, **Small-Scale Enterprises in Korea and Taiwan**, World Bank Staff Working Paper No. 384, April 1980

[12] CAPMAS' figure is based on long-lived assets (land, building, machinery). This study uses total assets (long-lived and working capital), which is one reason why its assets-to-worker ratio is somewhat higher.

Many of the firms surveyed reported assets-to-worker ratios of between $25,000 and $35,000. This is higher than the CAPMAS number of $17,500, but it is consistent with what one finds in the empirical literature. The larger and modern CIP firms were technically advanced and expected to show relatively high capital to labor ratios – as they in general did.

Given the above considerations it is reasonable to assume that it takes $20,000 to $40,000 to create one new job and to estimate the direct CIP employment impact using capital to labor ratios of $20,000 to $40,000. Table 1 shows the direct employment estimates assuming different capital-to-labor ratios for three different scenarios: assuming that (1) all CIP disbursements between January of 2000 and June 2005 count as capital or were used efficiently; (2) that only seventy percent of resources should count; or (3) that only 45 percent of the resources should be counted (this last proportion is what USAID classified as CIP "capital" for the period 1993 to 2003).

Table 1
Direct CIP Jobs Generated from January 2000 to Mid June 2005
(Full-time jobs, numbers rounded to the nearest thousand)

Capital Labor Ratio ($ per worker)	All CIP Resources	Seventy Percent of CIP Resources	Forty Five Percent of CIP Resources
20,000	53,000	37,000	24,000
30,000	35,000	25,000	16,000
40,000	27,000	19,000	12,000

As the table shows, depending on the assumption regarding capital-to-labor ratios and what proportion of CIP disbursements count as capital resources, the CIP supported the creation of a maximum of some 53,000 direct jobs and a minimum of approximately 12,000 direct jobs. The shaded area reflects the analysts' judgment of what would be the most reasonable estimate. This reflects the assumption that the typical capital/labor ratios are between $20,000 and $30,000 per worker and the educated assumption that most likely some 70 percent of CIP disbursements supported employment creating activities. Seventy percent is about half-way between 100 percent and 45 percent and is a reasonable estimate of the portion of CIP imports that were capital goods used efficiently. It also is a conservative way to avoid overestimating employment impact. A mid-point estimate of some 31,000 direct jobs created is probably the most reasonable.

Indirect Jobs

As explained in the methodological overview, firms that use CIP resources buy inputs from other Egyptian firms. Their impact on the operations of local suppliers is often referred to as a backward linkage or an upstream effect. There is also the extra output of CIP firms which enables production expansion at other firms that use the output as inputs. That impact is often called the forward linkage or downstream effect.

As a result of the downstream and upstream effects, indirect job growth follows the generation of direct jobs. The real question is how many new indirect jobs are created by each new direct job.

Under the World Employment Program the International Labor Organization carried out a number of studies that produced estimates of indirect to direct job creation. Naturally, such estimates vary by industry, size of firm, source and quality of data, and method of estimation.[13] Nonetheless, for countries at approximately the same stage of economic development as Egypt (a low middle income country) the most common estimates range from 0.3 to 0.7 new indirect jobs per each new direct job.[14] In fact, an estimate of 0.5 indirect jobs per direct job fits very well with the preliminary results for manufacturing and other industries of a recent USAID sponsored study. This study relied on input-output modeling techniques[15]. Accordingly, an estimate of 0.5 indirect jobs for each direct job created is reasonable for Egypt. Table 2 presents estimates of indirect jobs created under such assumption for the same CIP resources scenarios as in table 2.

Table 2
Indirect CIP Jobs Generated from January 2000 to Mid June 2005
(Full-time jobs, numbers rounded to the nearest thousand)

Capital Labor Ratio ($ per worker)	All CIP Resources	Seventy Percent of CIP Resources	Forty Five Percent of CIP Resources
20,000	27,000	19,000	12,000
30,000	18,000	12,000	8,000
40,000	13,000	9,000	6,000

[13] For instance see International Labour Office, PREALC, **Techniques for Employment Planning in Latin America and the Caribbean**, PREALC Working Paper 196, 1980 (in Spanish).

[14] For a theoretical discussion of the indirect employment effects of investment see J. Krishnamurty, Indirect Employment Effects of Investment, A.S. Bhalla (editor), **Technology and Employment in Industry**, International Labour Office, 1975. For an assessment of direct and indirect employment effects in developing countries see Steve Guisinger with the assistance of Mohammad Irfan, Trade Policies and Employment: The Case of Pakistan, in Anne O. Krueger, Hal B. Lary, Terry Monson, and Narongchai Akransanee (editors) **Trade and Employment in Developing Countries 1 Individual Studies**, National Bureau of Economic Research, 1981, and Anne O. Krueger, **Trade and Employment in Developing Countries 3 Synthesis and Conclusions**, National Bureau of Economic Research, chapter 5, 1983. For an algebraic definition of employment multipliers including ratios of indirect to direct employment (also termed nonbasic to basic employment) see **Employment Multipliers (Economic Base)** at : http://faculty.washington.edu/krumme/207/development/baseemploy.html. In this reference, the second formulation (multiplier formulation #2) links the employment multiplier with the income multiplier and the "propensity to consume" locally.

[15] Estimating Employment and Income Multipliers for Food Processing Industries in Egypt, draft report submitted to USAID/Egypt by Development Associates, Results Reporting Support Activity, May 24, 2005, appendix page II-5-3.

The number of indirect jobs created range from 27,000 to 6,000 depending on the assumptions regarding the capital labor ratio and the amount of CIP resources included. As with table 1 the shaded area indicates what the analysts think is the most likely scenario in terms of job generation. A point estimate of around 16,000 indirect jobs is most reasonable.

Direct plus Indirect Jobs

The estimate of direct and indirect jobs is obtained by summing the results presented in tables 1 and 2 and are shown in table 3. As noted in the previous section, an employment multiplier of 1.5 (one direct and 0.5 indirect jobs) makes sense. Economists who are experts on the Egyptian economy agreed that this assumption was reasonable.

Table 3
Direct plus Indirect CIP Jobs Generated from January 2000 to June 2005
(Full-time jobs, numbers rounded to the nearest thousand)

Capital Labor Ratio ($ per worker)	All CIP Resources	Seventy percent of CIP Resources	Forty Five percent of CIP Resources
20,000	80,000	56,000	36,000
30,000	53,000	37,000	24,000
40,000	40,000	28,000	18,000

As with tables 1 and 2, the shaded area in Table 3 indicates what are considered the most plausible outcomes -- job creation between 37,000 and 56,000 direct plus indirect jobs between the year 2000 and June 2005. Accordingly, a point estimate of some 47,000 direct and indirect jobs is the analysts' best estimate.

Total Jobs (Direct, Indirect, Induced) and the Total Wage Bill

As explained in the methodological overview, total jobs generated were estimated by first making an estimate of the additional income resulting from the injection of additional CIP resources. This was done through the application of a Keynesian-type income multiplier which is a function of the marginal propensity to save and the marginal propensity to import (see ratio 4 in the methodological overview section).[16]

[16] See Organization of American States, **Labor Market Issues in Tourism in the English Speaking Caribbean Countries**, Department of Economic Affairs, Washington D.C. (1984). This publication discusses methods to estimate employment creation in tourism. Among the techniques explained are the use of the income multiplier to estimate wage bills and employment generated. For the use of sector specific income or expenditure multipliers also see: Brian H. Archer, **Tourism in the Bahamas and Bermuda: Two Case Studies**, University of Wales Press, 1977 and Robert Cleverdon, **The Economic and Social Impact of International Tourism on Developing Countries**, The Economist Intelligence Unit, 1979. For a more general application of expenditure multipliers in the context of cost-

While the analysts found no official estimates of either the marginal propensity to save or import, in the judgment of expert Egyptian economists, a marginal propensity to save of 20 percent (that is, typically Egyptians allocate 80 piastres of each additional Egyptian pound to consumption expenditures, and save the remaining 20 piastres) is a reasonably conservative estimate. Likewise the assumption of a 40 percent propensity to import (each additional Egyptian pound of income gives rise to 40 piastres of imports) seems warranted on the same grounds. The analysts checked the rates with Egyptian economists and they found them reasonable. The rates also mean that CIP employment impact will not be overstated. Accordingly the income-investment multiplier was estimated using a marginal propensity to save of 20 percent and a marginal propensity to import of 40 percent. This resulted in a multiplier of 1.67. (Note that lower marginal propensities to save or to import would have resulted in a larger multiplier with a stronger income impact and, ultimately, larger job and wage creation effects.)

As per the methodological approach described previously, the next step consisted in calculating how much of the new income goes to workers in the form of wages (see ratio 5 in the methodological overview section). For that calculation a wage share of 27 percent of national income was used. While the estimate of the wage share struck the analysts as somewhat on the low side, it is the official figure put out by the Government of Egypt and was taken from Egypt's Ministry of Planning, National Accounts 2005, www.mop.org.eg.

Multiplying the additional income by 0.27 (the wages share) the analysts arrived at an estimate of the additional wage income made possible by the CIP resources. Total jobs generated were obtained by dividing the total wage bill by the average annual wage rate for the country (see step 6 in the methodological overview). The annual average wage rate used was US$ 2,023, a figure based on CAPMAS, Employment, Wages, and Working Hours, October 2001[17]. Total estimated jobs and the corresponding wages are shown in table 4. As with the previous tables three scenarios for the relevant amount of CIP disbursements were used.

Table 4
Total Jobs[1] and Wage Bill Generated from January 2000 to Mid June 2005[2]

	All CIP Resources	Seventy Percent of CIP Resources	Forty Five Percent of CIP Resources
Wages ($)	478,000,000	334,000,000	215,000,000
Jobs	236,000	165,000	106,000

Notes: (1) Total jobs include direct, indirect and induced jobs
(2) Wage bill is in US dollars; wage estimates are rounded to the nearest million; job estimates are rounded to the nearest thousand

benefit analysis of projects see Peter Kilby and David D'Zmira, **Searching for Benefits**, USAID Evaluation Special Study, 1985.

[17] This figure is for the private sector and was adjusted by the analysts for inflation.

As one can see, depending on the assumption regarding the amount of CIP resources, total wages generated for the year 2000 through mid-2005 ranges from some $478 million to $215 million. Jobs range from 236 to 106 thousand. The most likely point estimates (gray background) are 165,000 jobs and a wage bill of some $334 million.

Induced Jobs

Induced employment was estimated as a residual by subtracting the sum of direct and indirect jobs from total jobs generated (see relation 7 in methodological overview).[18] Table 5 presents the estimates of induced jobs.

The estimates range from 70,000 to 196,000 induced jobs. The analysts judge that capital labor ratios are more likely to range between $20,000 and $30,000 per job and that the assumption that seventy percent of the CIP resources result in the generation of jobs is more reasonable than the extreme assumptions that all or only 45 percent of CIP resources generate jobs. The analysts inferred that induced jobs most probably ranged between 110,000 and 128,000 jobs. A point estimate would be some 118,000 induced jobs.

Table 5
Induced Jobs Generated from January 2000 to Mid June 2005
(Figures rounded to the nearest thousand)

Capital Labor Ratio ($ per worker)	All CIP Resources	Seventy Percent of CIP Resources	Forty-Five Percent of CIP Resources
20,000	156,000	110,000	70,000
30,000	183,000	128,000	82,000
40,000	196,000	137,000	88,000

It is useful to summarize the key variables. The range of coefficient estimates was based on official publications, studies, countries at a comparable stage of development or, simply, the best judgment of economists familiar with the Egyptian economy. It was possible to narrow the range to a "most likely" point. In order not to overstate CIP impact, the key job creation coefficients are conservative. Here are the five most likely estimates for the key variables used in estimating employment generation, and the data for each:

- **The capital/labor ratio**. It requires a capital investment of $20,000 to $30,000 to create one new job in the modern manufacturing sector.
- **CIP resources.** Seventy percent of CIP disbursements are counted as capital that was used efficiently.
- **Consumption.** The Egyptian economy has a marginal propensity to save of 20 percent.

[18] Notice that the larger the capital labor ratio the larger are the induced job estimates because the amount of direct and indirect jobs subtracted from total jobs is greater the lower the capital labor ratio.

- **Imports.** The Egyptian economy has a marginal propensity to import of 40 percent.
- **Wages.** Workers receive 27 percent of national income.

A Recapitulation: CIP Jobs Created from January 2000 through June 2005

Table 6 presents a summary of the point estimates of jobs created according to type of job. Direct and indirect jobs account for some 28 percent of the jobs created.

Table 6
CIP Jobs by Type from January 2000 to Mid June 2005
(Figures rounded to the nearest thousand)

Job Type	Number of Jobs
Direct	31,000
Indirect	16,000
Induced	118,000
Total	165,000

But how important are these CIP employment figures relative to the new labor force and the employment and unemployment situation in Egypt?[19] To address this question one starting point is the amount of new yearly entrants into the labor force. This figure is conventionally estimated at some 700,000 persons.

During 2000 to mid-2005 the CIP supported the generation of 165,000 jobs. This meant some 30,000 jobs per year (165,000 divided by 5.5 years). The CIP contributed to employment equivalent to some 4 percent of the new labor force (30,000 divided by 700,000).

Furthermore, as the unemployment rate in Egypt is estimated at 10 percent, this implies that of the persons that join the labor force each year at best some 90 percent or 630,000 persons will be among the employed.[20] Assuming a minimum unemployment rate of 10 percent for yearly labor force entrants, the yearly job creation supported by the CIP is the equivalent of some 5 percent of the newly employed per year (30,000 divided by 630,000 times 100) becoming employed in CIP supported jobs.

The flip side of this calculation further clarifies the issue. Assume for the sake of argument that all CIP facilitated job went to new labor force entrants.[21] Then if the jobs supported by the CIP did not exist, the number of newly employed would not be 70,000 workers but, instead, at least 100,000 (70,000 unemployed plus the 30,000 that find

[19] The labor force refers to the persons of working age who are able and willing to work. It can be divided into the employed labor force and the unemployed labor force.
[20] The unemployment rate is the number of unemployed workers divided by the labor force. It is a measure of the proportion of idle productive resources – in this case labor.
[21] It goes without saying that CIP-supported jobs go to the previously unemployed, to some of the already employed who find the new jobs more attractive, and to the new labor force entrants. The point of the text is to provide a sense of the magnitude or importance of the amount of CIP facilitated jobs.

employment in the CIP jobs). In this scenario, a 10 percent unemployment rate for new labor force entrants, absent the CIP there would be a floor unemployment rate for new entrants of at least 14 percent (100,000 divided by 700,000) --- in other words, an unemployment rate some 40 percent higher.[22]

Jobs and Wages Generated from 1987 through Mid-2005

From 1987 through June 21 2005 CIP disbursements in current dollars equaled $3.3 billion. Removing inflation and expressing CIP resources at 2004 prices, this amount becomes $3.8 billion. Consistently with the most reasonable scenario used for the 2000-2005 estimates, only 70 percent of that amount, $2.7 billion, was used as the measure of job-creating CIP resources.

The estimate of total jobs and wages generated for this longer period was based on the assumption of proportionality. In other words, as $2.7 billion is some 3.58 larger than the amount of CIP resources used for the 2000-2005 estimates ($743 million under the 70 percent preferred scenario), the job and wage generation for the longer period is 3.58 larger than for 2000-2005.

On this basis the creation of some 591,000 jobs was facilitated by CIP disbursements from 1987 through mid 2005. Likewise, it is estimated that this gave rise to a wage bill of some $1.2 billion for the same period.

Moreover, on the assumption that the breakdown of jobs created (direct, indirect and induced) followed the same distribution as the 2000-2005 years, one can infer that some 112,000 direct jobs, 59,000 indirect jobs and 420,000 induced jobs for a total of 591,000 jobs were generated during 1987-2005.

What are the implications of the CIP supported jobs for Egypt's employment situation? A reference point is the size of Egypt's current labor force. This is estimated at approximately 22 million workers.[23] Under the assumption that those jobs have survived

[22] The key point is that relative to the yearly labor force entrants the number of average yearly jobs supported by the CIP is significant. Even if the unemployment rate for the new entrants is twice the national rate (say an unemployment rate of 20 percent for new entrants), without the CIP the unemployment rate for the new workers would be some 24 percent or some 21 percent higher than the 20 percent unemployment rate. (A 20 percent unemployment rate for new workers would translate into 140,000 newly unemployed. If the 30,000 average annual CIP supported jobs were not there the number of the new unemployed would rise to 170,000 – 140,000 plus 30,000 – which divided by 700,000 gives 0.24.)

[23] Authors' projection based on Alia El-Mahdi, GNP Global Labor Market Database: Egypt, Faculty of Economics and Political Science, Cairo University, October 2003, http//www.GlobalPolicyNetwork.org. El-Mahdi's work presents labor force figures from 1997 through 2002.
The implicit annual compound rate of growth is 2.3 percent. At such rate the 2005 labor force is some 22 million. It is worth noting that estimates of the Egyptian labor force are not always consistent. For instance, USAID/Cairo's website puts Egypt's 2001 labor force at 20.6 million In contrast, The World Bank estimated the 2000 labor force at 24 million (see The World Bank Group Gender Stats, http://www.devdata.worldbank.org/genderstats). Moreover, the United States Central Intelligence Agency gives the 2004 labor force as consisting of some 21 million workers (CIA, The World Factbook, http://www.cia.gov).

until the present, the 591,000 CIP-supported jobs generated during 1987-mid2005 amount to close to some 2.7 percent of the present labor force and to 3 percent of the employed labor force. When one takes into account the size of the Egyptian economy and its labor force of 22 million workers, even if these percentages were cut by half the resulting estimates would still be significant.[24]

Occupational Distribution of the Jobs Generated

The population census of 1996 provides estimates of the occupational distribution of Egypt's labor force. CAPMAS publishes the data for each census year in its, General Census of Population, Housing and Establishments. The estimates in this section are based on those CAPMAS publications.

Using CAPMAS's data and this analysis' estimates of new jobs generated it is possible to estimate what the occupational distribution of CIP jobs is likely to look like in 2005. The results are presented in Table 7 and the underlying assumption is that the occupational distribution of 1996 holds for 2005.

Table 7
Distribution of Jobs Created by the CIP*

Occupations	Jobs	
	2000 – 2005	**1987 – 2005**
Technical and professional	35,000	125,000
Management and administration	7,000	25,000
Clerks	11,000	39,000
Services personnel	14,000	50,000
Workers in agriculture and fishing	45,000	161,000
Production and operation workers	37,000	134,000
Unidentified	16,000	58,000
Total	**165,000**	**591,000**

* Sum may not equal totals due to rounding.

Workers in agriculture and fishing, plus workers in production and related operations, account for 50 percent of the new jobs created. Nonetheless, "technical and academic professions" account for a substantial 21 percent. It is clear that during the period the proportion of technical and academic professions rose consistently.[25] Judging from such trends and the analysts' impressions from the CIP firms visited, it is likely that the

[24] For perspective one has to bear in mind that CIP assistance is much less than half of the yearly U.S. economic assistance provided to Egypt and total economic assistance is less than 1 percent of Egypt's GDP. See Embassy of the United States of America, Economic Trends Report Egypt, September 2004.

[25] As far as it relates to the occupational distribution, the censuses from different years are not comparable. At least one occupational category used in 1976 and 1986 does not appear in 1996 and the rate of growth (decrease) in some of the categories is incredible high. Therefore the analysis relies on 1996 census data rather than the earlier periods.

proportion of workers in technical professions is higher than the national average, which is shown in table 7. As these are likely to be high-wage occupations it is reasonable to conclude that the CIP has supported the creation of a sizable portion of quality jobs.

6. EMPLOYMENT IMPACT FROM THE PERSPECTIVE OF THE FIRM --- THE MICRO-LEVEL IMPACT

Section 5 provided analysis of the CIP's employment impact from the national or macroeconomic perspective. While the data and findings are consistent with experience in similar countries, it is important to compare the results with the actual experience of Egyptian firms. Employment data were collected through site visits at 23[26] firms that had used the CIP since 2000. Interviews included firms currently using the CIP and those no longer using the CIP. It includes traders and end users and large, medium and small firms --- with the emphasis on large firms, since they received the bulk of CIP imports. Except for the traders, all firms are manufacturers producing a broad range of industrial and consumer goods.

It is important to analyze a normal time period that is not influenced by economic factors that would distort the analysis. During an economic boom almost all firms are doing well while a recession is the reverse. The period covered for this analysis is 2000 to 2005 which includes the full business cycle --- a time of good economic growth (2000- 2001), an economic downturn (2002) and then economic rebound (2004, 2005). It provides a good base for analyzing employment and is also a reasonably proxy for the economic conditions over the last 18 years when the private sector CIP was in operation.

CIP Impact on Employment

All but one of the interviewed firms reported an increase in employment, with most reporting substantial increases. Most firms said that CIP imports provided essential production capacity, technology and inputs that helped increase output and employment. Other firms said the CIP was important but there were also a number of other factors (new government policies, increased export demand, and increased local demand) behind their increased output and increased employment.

As Table 8 shows, the employment increases, in both percentage and absolute terms, were impressive. All but one of the firms increased its workforce over the last five years. The largest firm had the largest increase as it added 3,000 workers and total employment went from 7,000 to 10,000 workers --- a 43 percent increase. The interesting thing is employment growth in firms that had 100, 200 or 300 employees --- for those firms the increase in employment was in the range of 50 to 746 percent, with most generating employment growth of 100 to 200 percent. For smaller firms, there were similar growth rates. A new firm went from 1 employee to 254 and a small firm increased its employment from 30 to 150 employees. Smaller and mid-sized firms appear to be the most dynamic, with good management and the ability to grow rapidly. Access to CIP imports likely played an important part in their rapid growth and increased employment.

[26] The 23 firms are 8 percent of the number of firms that participated in the CIP program in FY 2004.

Table 8
Employment Growth in Firms That Used the Commodity Import Program (CIP)

Employment in 2000	Employment in mid-2005	New Employees	Percentage Increase
7,000	10,000	3,000	43 %
2,250	2,500	250	10 %
1,688	1,688	0	0 %
932	1,400	468	50%
450	850	400	89%
330	801	471	143 %
300	500	200	67 %
260	300	40	15%
200	300	100	50 %
180	320	220	78 %
134	1,134	1,000	746 %
100	320	200	220 %
100	195	95	95 %
70	100	30	43%
65	120	55	85 %
30	150	120	400 %
25	58	33	132%
13	16	3	23%
8	13	5	63%
6	12	6	100%
1	254	253	253%

Employee Skill Levels and Wages

Data collection included wage rates for unskilled, skilled and administrative/management employees (see Annex C). Wage rates were a sensitive issue for some of the firms. They were reluctant to release information on their company since they viewed it as a confidential matter. In those cases we asked for their best estimate of industry wage rates, but a few still refused to provide information.

It was difficult to get an exact figure for total wages for each skill level since non-wage benefits often added an additional 40 to 100 percent to basic wages. Those benefits included government social insurance funds and health insurance. They also might include an annual bonus, transportation allowance, housing allowance, company pension, or other benefits which varied among companies. In addition, some workers were part-time or contract employees with limited benefits. Wage rates for a skill-level varied greatly among companies. Where the data were unclear, the study estimated wage rates, including fringe benefits.

Data collected at the CIP firms indicated wage rates and capital/labor ratios that were higher than national averages. This is likely due to the fact some of the surveyed firms export part of their output. The vast majority of production by CIP firms was for the Egyptian market. Even if exports were limited, they needed to meet higher international standards and produce more technically sophisticated products. In addition, many firms producing for the domestic market also use high technology machinery. Their production process is more capital intensive and their workforce is more skilled --- with very few unskilled workers.

These are mainly industrial manufacturing firms that run two or three production shifts a day. Since it is shift work and physically demanding, it is viewed as "culturally inappropriate" for women workers to be on the shop floor or to come in for the midnight shift. Women are less than 5 percent of total employees and are all in the office, in white collar jobs. There was only one firm that had a policy of not hiring any women --- in their view women should stay home and take care of their family.

CIP Benefits

In past years, when foreign exchange was not readily available, the CIP was essential to all of the firms. It allowed them to import machinery and inputs that would not have otherwise been available. Almost every firm mentioned the times when it was very difficult to get foreign exchange.

During that time one firm was able to get CIP machinery in the 1980s that allowed it to build a new factory. CIP-financed inputs helped it maintain its operations and employment through good and bad economic times. Another company noted that the CIP allowed it to import chemicals and agricultural inputs when there was no other source of imports. It also introduced the firm to U.S. companies which turned into long-term relationships that helped the firm maintain its technical edge. As the firm said, "The CIP is the reason the company was able to grow and prosper." A small trader who had been in operation 12 years said it could not have survived without the CIP --- "a small firm is last in line when there is little foreign exchange available." Thanks to the CIP it was able to increase its employment by 50 percent over the last 5 years. Another firm said that because of the CIP it was able to generate the money necessary to open a new operation with 50 new employees. A firm in a different industry has built new production lines to double its output. While one firm had not increased its employment, all of the other firms, even those not presently using the CIP, give the CIP credit for their increased production and increased employment.

In past years foreign exchange was tight. But now Egyptian foreign exchange is not controlled and allocated by the government and firms can get the foreign exchange they need on the open market. But many still see benefits from using the CIP. While some complained that U.S. prices were high, most stated that U.S. prices and quality were competitive with other countries. The biggest benefit was the fact that the foreign exchange rate on the dollars was locked-in once the letter of credit was issued. In contrast, Egyptian commercial bank practices often did not lock-in the rate until the

goods were shipped from the U.S. or when the local currency loan was repaid. Egypt lacks an effective futures market for foreign exchange so, in the past when there had been unexpected rate changes, it was costly for importers. The uncertainty of exchange rate fluctuations is a strong negative force which the CIP avoids.

The grace period on repayment of CIP loans was also an important benefit. With banks charging up to 16 percent interest per annum, a 6 to 36 month grace period is an important benefit. A firm that was receiving a 6 month grace period said that after a letter of credit was issued it took a month before the goods were shipped from the U.S. and a month in transit to Cairo. The firm could then use the imports in its production process and sell the goods before the end of the grace period --- it required no working capital.

For environmental projects the CIP provided a grace period of 3 years before repayment was required. One firm said that it would have used environmental equipment from Argentina, which was 40 percent cheaper, if the CIP grace period had not been available. Another firm said it would not have made its environmental investment without the CIP program and the 3 year grace period. A firm that made a major non-environmental investment in a new mill said that the grace period and 3 to 10 year repayment period were the reasons it was willing to invest its money in a major manufacturing facility.

CIP Drawbacks

Some CIP importers complained about USAID and Egyptian bank paperwork, approvals and delays or problems with U.S. suppliers. The complaints were similar to those in previous CIP evaluations. The larger firms and those who had used the CIP for many years seemed to understand the paperwork and approval process and had few complaints. It was the smaller and infrequent users who had difficulties.

The extra cost of shipping on U.S. flag vessels, and the difficulty at times of finding a U.S. vessel were mentioned by several firms. Only two USAID approved shippers are willing to carry CIP goods to Egypt. The firms felt that with only two shippers there was no real competition, so shipping costs were artificially higher. Even if a firm was willing to pay the higher shipping charges, ships were often not available.

Several CIP importers reported that U.S. manufactures did not want to bother with USAID procedures and therefore would not sell directly to an Egyptian firm. A group of U.S. brokers, who understand CIP procedures, are willing to export to Egyptian firms but at a higher price. A final complaint was that the CIP importers were not sure if USAID would approve their full dollar request or at what time during the year funds would be available. For some imports seasonality affects the price. If a letter of credit is not opened at the right time, the price is higher.

In summary, the micro-level analysis, based on interviews with 23 firms, is consistent with the macro-level findings. For the period 2000 to mid-2005, CIP imports provided essential production capacity, technology and inputs that helped increase output and employment. All but one of the firms interviewed reported an increase in employment, with most reporting substantial increases. Most firms stated that the CIP was an important reason for increased employment. Other firms said it was important but a number of other factors also contributed to their increased output and increased employment.

Government Labor Laws

In the 1960s-1980s Egypt had labor laws and regulations designed to protect workers. They often required a firm to get government approval before laying-off workers and required severance packages. However, the business cycle still operated with economic expansions and contractions. Since a firm knew it would be difficult to cut back on employment if sales declined, it was reluctant to hire new workers and employment suffered. Both workers and employers suffered. But times change, and a new labor law was recently approved.

Businesses see no problems with Egyptian labor laws. They have the labor flexibility they need. Many firms use one-year labor contracts rather than life-time employment. By planning ahead a firm can reduce employment on a rolling basis as one-year contracts come to an end. If a firm needs to cut back on labor costs it can eliminate company-provided benefits or reduce an employee's wages to the government minimum, which is very low. Most employees quit at that point.

7. U.S. EXPORTERS

Interviews with the few U.S. firms that have subsidiaries in Cairo indicated that the USAID CIP increased their sales to Egypt and improved their market position. It was not clear if the CIP created "additionality" or additional U.S. exports beyond the CIP-financed exports.

One firm noted that it had factories in many countries and its corporate policy was for each factory to specialize in one or two products and then export those products throughout the world through the company's international distribution network. The process only works effectively if each country factory has assured access to foreign exchange. In the past that had been a problem in Egypt. However, with CIP funding, imports were secure and the process worked effectively. Even now, with a liberalized foreign exchange market, the firm values the security of the CIP and a USAID-backed Letter of Credit. During the last five years the firm was able to sharply increase its production and exports while employment increased by 85 percent.

Another U.S. firm noted that USAID rules prohibit it from selling equipment and materials directly to its Egyptian subsidiary. Instead the U.S. firm has a list of approved U.S. suppliers that produce equipment and parts that meet the company's technical standards. The Egyptian subsidiary imports from those firms and then assembles and manufactures equipment in Egypt to meet the standards of its U.S. parent firm. The Egyptian firm started using the CIP in 2001 when foreign exchange was difficult to get. While the U.S. firm does not use the CIP for exports to Egypt, it allowed the Egyptian subsidiary to expand its production and nearly double its employment while allowing the U.S. firm to build its sales and brand name in Egypt. It was not clear if the Egyptian subsidiary used non-CIP funds to import from the U.S. parent firm.

Another U.S. firm noted that the CIP was very important in the past when foreign exchange was tight. The CIP helped the company increase its sales in Egypt and the subsidiary has been able to introduce new products and expand its market share. The CIP benefits (of access to foreign exchange and a grace period) are not important now. The Egyptian subsidiary can now get foreign exchange from its commercial bank and U.S. companies will ship with payment due in 90 days. It no longer needs to use the CIP.

8. SUMMARY OF FINDINGS

- **New jobs:**
  From January 2000 to mid-June 2005 the CIP helped generate some 165,000 jobs. From 1987 through mid-June 2005 it helped generate 591,000 jobs. These are conservative estimates.

- **Mid-sized and smaller firms had strong employment growth:**
  The larger firms had the largest increase in the number of employees. But percentage growth in employment was strongest in small and mid-sized firms. For 2000 to mid-2005, employment growth in firms that had 100, 200 or 300 employees was in the range of 50 to 746 percent, with most generating employment growth of 100 to 200 percent. At the smaller end there were similar growth rates. Access to CIP imports likely played an important part in their rapid growth and increased employment.

- **CIP jobs created since 2000:**
  On average, 30,000 new CIP-supported jobs were created each year during 2000 to mid-2005. These jobs are equivalent to some 4 percent of the new annual labor force entrants (estimated at 700,000 workers per year).

- **CIP jobs created since 1987:**
  If all CIP jobs created since 1987 have survived until the present, the 591,000 jobs amount to close to some 2.7 percent of the present labor force and to 3 percent of those currently employed. When one takes into account the size of the Egyptian economy relative to CIP disbursements, even if these percentages were cut by half the results would still be significant.

- **CIP job wage income:**
  The estimated labor income flows accompanying the CIP-supported jobs were $334 million for 2000 to mid-2005 and some $1.2 billion for 1987 to mid-June 2005. In addition to the large total magnitude, the wages must have significantly raised the labor income of the workers who got the new jobs. A sizeable proportion of CIP jobs were in modern, higher-wage firms. Moreover, as per the interviews with the firms' managers, and the estimated breakdown by occupation of the new jobs, a large proportion of the jobs require or serve to develop marketable skills.

- **A strong linkage between the CIP and new jobs:**
  The CIP job impact estimated through the macro techniques were consistent with the business experience of almost all CIP firms visited. These firms experienced very high increases in their number of workers, and many of them praised the CIP for facilitating their business and employment expansion.

ANNEX A
SCOPE OF WORK

June 19, 2005

I. Background

At the start of the Commodity Import Program (CIP) in 1975 and through 1984 the major beneficiaries of the $300 million annual program were public sector importers --- government-owned enterprises and ministries. The program financed the import of capital goods for large "project-type" transportation and communications infrastructure, and bulk commodities such as coking coal, tallow, and corn and equipment for a variety of public sector importers in several sectors of the economy.

From the mid-1980s to the mid-1990s the nature and role of U.S. assistance in Egypt changed markedly. Congress began earmarking annual assistance levels for the overall USAID program and for the CIP within that total. Private sector participation greatly expanded, beginning with the establishment in 1986 of the Private Sector Commodity Import Program (PRCIP). The PRCIP provided the private sector with short and medium-term credit for raw materials and capital goods along with longer-term credits for plant modernization and expansion.

In the early years the CIP was seen by the Mission in Cairo as important to the U.S. policy dialogue with the Government of Egypt (GOE) and one of the main instruments used to encourage and support policy reform and restructuring initiatives. For example, the CIP played a key role over the past two and a half decades in helping the GOE stabilize Egypt's balance of payments. In addition, the sustained level of commodity support provided during periods of severe economic strain contributed significantly to the underlying strength of the economy and permitted the GOE to undertake significant economic restructuring efforts.

In 1986 USAID adjusted its assistance strategy and CIP funding was shifted to support for private sector development, as a means of achieving more rapid economic growth. In 1992 the CIP was shifted exclusively to the private sector. By 2003 program managers characterized it as not just a commodities program but a trade and investment program.

II. Purpose

The purpose of this assessment is to analyze the impact of the CIP on participating Egyptian firms at the level of new and retained employment, production, and business growth. Primary emphasis will be on employment impacts in the firms that received CIP financing for their imports requirements. Of interest are indirect jobs created in the supply and marketing channels, as well as comment on employment generated by the new income earned by employees of the participating firms. The analysis will also comment on the impact of CIP-financed sales for U.S. businesses.

III. Statement of Work

The tasks described here are designed to provide USAID/Egypt with information on the impact of the Commodity Import Program on employment in Egypt and its effect on U.S. exporters.

Primary Focus: Analysis of CIP impact on employment

To assess the program's impact on employment, analysis will be carried out at two levels. At one level the analysis will assess the impact that additional CIP imports have had on output (GDP). It will next estimate employment generated as a function of the increased output. At this level the analysis will use such variables as the import/GDP coefficient, incremental capital output ratios, output elasticity of employment and employment multipliers. Estimates of the appropriate parameters will be obtained from relevant government offices (e.g., Ministry of Planning, Ministry of Finance, Central Bank), along with a review of available literature and consultations with specialists familiar with the Egyptian economy.

At the other level the analysts will meet with managers of firms that have participated in the program since 2000. In 2003 extensive firm-level survey work was completed as part of an evaluation of program impact. This field work will build on that effort and supplement the data with the result of in-depth interviews. Analysis at the firm level will confirm the adequacy of the parameters mentioned in the previous paragraph and obtain information on the increase in employment as well as retained jobs at the firm and the occupational profile of the CIP firms' workers, average wages, and gender composition. In addition the analysis will gather information related to indirect jobs created and retained – "downstream and upstream" – as a result of the firms' expanded business activities. The analysis will also comment on employment generated by new income earned by employees of CIP participating firms (i.e., new household help, new household services used for upgrading/remodeling/repairing apartments, etc.). To the extent possible, the analysts will visit a cross section of firms by industry and size.

In addition to the macroeconomic data, information at the enterprise level will be collected through brief interviews using structured interview guides/protocols to assure that all interviews cover the same issues. Information collected will include a description of the industry, goods and services produced by the enterprise, value of assets, value of loans through the CIP (this information will be cross-referenced with that in the USAID data bank), sales or production before and after the CIP loans, downstream and upstream business linkages, number of employees, change in the number of employees after the CIP loan, workers' profile by occupational group (e.g., executives, managerial and administrative support, professionals, blue-collar or production, unskilled) and average wages. (Information on average wages should also be available from the US Mission, the Ministry of labor, and labor force surveys.) Likewise, the analysis will assess the CIP's influence on business practices through interviews with enterprises, banks and relevant organizations such as chambers of commerce. The type of information to be gathered will relate to such aspects as changes in business transactions with other domestic and

overseas firms (e.g., sales to new markets, increase in purchases from domestic producers, date when firm started to export or increased exports, changes in the level of imports, nature of transactions with the financial sector). In addition the analysts will confer with other knowledgeable parties such as government officials and US Mission staff.

Secondary Focus: Effects on US Exporters

The question here is whether the CIP has fostered increased or sustained trade linkages between the US and Egypt and the extent to which it has stimulated US exports to Egypt. Meetings with several U.S. exporters will give an indication of recent trends and prospects.

Contacts with the Egyptian-American Chamber of Commerce in Cairo and the local offices of American exporting firms will provide insights on the effects on US exports. The information sought will relate to, among others, characteristics of the US firm(s), volume of exports to Egypt and changes in the volume of such exports made possible by the CIP, nature of exports, the number of Egyptian firms with which they have regular business relations and change in such number and agents or representatives in Egypt. The contacts will focus on firms that have participated in the CIP since the year 2000.

Likewise the analysis will update information on issues like the advantages of using the CIP mechanisms, the constraints to using CIP, and conclusions.

Deliverables

The main deliverable will be a report that describes and explains the impact of the CIP program on employment and business growth in Egypt and that sheds light on how the CIP has affected US exports to Egypt and business links between Egyptian and US firms. The analysts will brief USAID on the team's findings and conclusions prior to their departure from Egypt. The draft report will be presented prior to departure and the final report will be due within three weeks of that time conditioned on USAID comments and suggestions.

The key deliverable is an impact assessment report that describes the assessment purpose, objectives, findings and conclusions. This report will clearly and objectively describe the CIP's impact on employment in Egypt and report on the benefits generated for U.S. suppliers participating in the program.

Prior to the consultant team's departure from the field, a briefing will be provided to USAID on the findings and conclusions. The draft report will be presented prior to departure from the field and the final report will be due within three weeks of that time

The team will submit an overall work plan during their first meeting with the USAID/CIP staff who will review the plan within two days of the team's arrival in the field.

IV. Team Composition

Economist-Evaluator/Team Leader. This person will oversee the evaluation from the design phase to completion of the final report. He will prepare a workplan and schedule of work. The team leader will guide all work in the field and coordinate closely with USAID. He/she will be responsible for organizing and coordinating production of the evaluation report at draft and final stages, and in preparing for the out-briefing of USAID staff. He will also respond to comments on the draft report and submit the final product.

Labor Economists (2). Two persons (one Egyptian and an American) will be responsible for the analysis of the labor impacts of the CIP program. These two specialists will prepare the interview guides. Both economists will work closely with the team leader on data collection and interviews with firms that received imports and credit under the CIP, participating banks and with USAID and the GOE. They will prepare the data analysis and draft appropriate sections of the report.

V. Schedule

June 8-9	Design in-person interview protocols for use with representatives of participating banks, Egyptian importers, U.S. exporters and GOE.
June 23	Depart U.S.
June 24	Arrive Cairo
June 26	Meet with Development Associates Team briefing to USAID/CIP, present draft work plan, and begin field interviews
July 14	Team briefing to USAID on preliminary conclusions
July 20	Team brief to USAID on conclusions, lessons-learned and submission of draft report.
July 21	Team departure from Cairo
July 31	Final USAID comments concerning the draft report sent to Development Associates.
August 21	Final Report submitted to USAID/Cairo by Development Associates.

ANNEX B
SUMMARY OF FINDINGS FROM THE 2003 CIP EVALUATION

In 2003 USAID completed an exhaustive evaluation of the Egypt Commodity Import Program covering the ten year period from 1994 through 2003. The evaluation found that, as a development tool at the macroeconomic level, the CIP had three key benefits:

- It demonstrated USAID and USG support for GOE policies to foster private sector development.

- The CIP did not encourage an overvalued exchange rate. The annual CIP resource transfer is small in comparison with Egypt's total foreign exchange uses, which meant that was not an obvious prop for poor exchange rate management.

- The CIP also built a strong group of entrepreneurs who have clamored for improved economic and financial policies.

Based on firm level surveys, the CIP clearly helped firms become more competitive and their operations more cost-efficient. Overall, the CIP accounted for 15-20 percent of a firm's growth. The Program also helped them reduce prices in the price-sensitive local market. Over half said CIP availability was a factor in their decisions to expand productive capacity, on occasion helping to found entirely new product lines and industries. A third of the firms saw the CIP as very important in expanding employment in their firms or among customers and suppliers of local inputs. CIP participating firms, especially manufacturers, expanded employment significantly since entering the Program. In addition, newer and smaller companies tended to benefit substantially through the extra security that a USAID-backed Letter of Credit provided to them as new customers of the U.S. exporters.

The CIP accounted for 23 percent of all non-grain, non-military U.S. exports to Egypt. CIP availability was one of the most critical factors in Egyptian firms' decisions to import from the United States. The program was also an important factor in introducing U.S. products to private Egyptian importers, thereby expanding U.S. export sales. Follow-on export sales resulted because CIP importers continued to buy from the United States when no longer participating in the Program.

There were costs to the firms related to the time and effort of CIP paperwork. This included commercial bank requirements and delays, USAID requirements (several price bids, and special documentation) and the extra cost of U.S. flag shipping. The loan grace period and longer-term repayment period offset most of those costs. Whether they were a subsidy to an individual firm depended on the specifics of the proposed transaction and the alternatives available to that importer. When it was difficult to get foreign exchange through normal GOE channels, the CIP was especially valuable.

U.S. exporters appreciated the increased sales made possible by the CIP and the security of a USAID-backed Letter of Credit. Importers said they liked the CIP because it eliminated foreign exchange risks, provided an interest-free grace period, allowed payment in Egyptian pounds and, for some, provided foreign exchange at a lower cost than might otherwise be available to them.

One-third of CIP importers found the CIP to be extremely important to increasing employment at their firm. The evaluation estimated that 51,434 jobs were created at firms since they started benefiting from the CIP. This is a 24 percent employment increase. Since several factors influence job creation, it is not possible to say that the increase was solely due to the CIP.

Another way of looking at job creation is to compare the total CIP value of $2.1 billion (1994-2003) to the number of new jobs created; it took $41,000 of CIP funds to create one new job.

ANNEX C
SUMMARY OF DATA COLLECTED FROM CIP FIRMS*

Firms	628a	629a	629b	629c
CIP Imports $ mil.	2004 $2.6 mil.	n.a.	n.a.	2002-2005 1.1, 2, 4, 4 mil.
Total assets $ mil.	$6 million	n.a.	n.a.	$9.5 - $10.3
Plant & Equip. $ mil.	$4.8 million	n.a.	n.a.	$6.0 - $7.0
New hires since 2000	254	n.a.	n.a.	55
Total workers 2005	254	n.a.	n.a.	120
Unskilled Number	89			5
Unskilled annual salary $	$1,040	$250	$360 - $600	$200
Skilled number	114			95
Skilled annual salary $	$2,585	$415 - $1,250	$2,400 - $3,600	$2,070 - $5,000
Managerial number	51			20
Managerial annual salary $	$7,325	$1,650 - $2,500	$,6000	$10 to $20,000
Number of women	8			7

*Note: Firms treat employment and wage data as confidential information. A code number is used rather than the firms' name.

Firms	630a	630b	630c	630d
CIP Imports	n.a.	n.a.	$14+ million	n.a.
Total assets $ mil.	$77.6	$16.5	$32.2	$30
Plant & Equip. $ mil.	$38.8	$ 6.6	$25.8	$15-$17
New hires since 2000	250	3,000	1,000	220
Total workers 2005	2,500	10,000	1,134	320
Unskilled number	300	1,000	7	55
Unskilled annual salary $	$620 - $725	$1,240	$620 – 830	$1920
Skilled number	1,450	8,600	1,072	200
Skilled annual salary $	$1,030 - $13,50	$2,480 - $8,275	1,450 – 2,070	$3,120-$7,800
Managerial admin., number	50	400	55	65
Managerial ad. annual salary $	$1,860	$6,200	3,100 – 14,480	$3,360-$7,200
Number of women	50	?	5	7

Firms	73a	73b	73c	74a
CIP Imports	$9 million	2000 to 2004 $10 million	Since 2000 $?	Since 2002 $4.3 mil
Total assets $ 000	$22 million	$15 million	$11.9 million	$10.4 million
Plant & Equip. $000	$18 million	$ 8 million	$8.1 million	$ 4.3 million
New hires since 2000	220	200	471	95
Total workers 2005	320	500	801	120
Unskilled Number	62	$1,440	168	5
Unskilled annual salary $	n.a.	$120	$520 - $830	$725
Skilled Number	184	250	484	135
Skilled annual salary $	n.a.	$2040 - $3,120	$930 - $3,620	$1,030 - $1,240
Managerial Admin Number	70	120	149	40
Managerial ad annual salary $	Total wage bill $766,000 p.a.	$8,280	$1,450-14,500	$5,170-$14,800
Number of women	12	16	10	5

Firms	74b	75	77	710a
CIP Imports	Started in 2002	Started 1978-80 $205 million	1978-1990 $3-4 mil. p.a.	n.a.
Total assets $ 000	$120 million	$495 million	$26 million	$1.6 million
Plant & Equip. $000	$37 million	$270 million	$17	$520,000
New hires since 2000	120	0	100 million	33
Workers in 2005	150	1,700	300	58
Unskilled Number	12	198	$30	8
Unskilled annual salary $	$1,035	$620	$2,000	$1,035
Skilled number	24	929	120	41
Skilled annual salary $	$1,450	$3,000	$3,000	$3,400
Managerial Admin number	30	561	150	9
Managerial ad annual salary $	$6,200	$2,070	$6,000	$2,120
Number of women	10	20	20	6

Firms	710b	710c	711a	711b
CIP Imports	$300,000 a year	$1-2 million a year	$240,000 a yr, 2001-2004	$3.9 million a yr., 2002-2004
Total assets $ 000	$170,000	$7.2 million	n.a.	n.a.
Plant & Equip. $000	$34,000	$10.2 million	n.a.	n.a.
New hires since 2000	4	40	4	n.a.
Total workers 2005	12	300	16	500
Unskilled number	1	10	2	n.a.
Unskilled annual salary $	$517	n.a	$1,500	n.a.
Skilled number	4	258	10	n.a.
Skilled annual salary $	$1035	n.a.	$7,240	n.a.
Managerial Admin. number	7	32	4	n.a.
Managerial ad annual salary $	$1035	Total wage bill $570,000 p.a.	$7,240	n.a.
Number of women	1	30	2	150

ANNEX D
LIST OF INTERVIEWS CONDUCTED

Contact Name	Title	Company / Organization
U.S. Government		
Robert Van Horn	Chief Commodity Import Program	USAID, Commodity Import Program (CIP)
Kurt Fuller	Deputy Chief, Commodity Import Program	USAID, Commodity Import Program (CIP)
Joe Ryan	Associate Director	USAID, Economic Growth Program
Mary Ott	Deputy Mission Director	USAID
Tyffany Murphy	Labor Attaché	US Embassy
Karim Sobhy	Political Analyst, Economic and Political Section	US Embassy
Sudha K. Haley,	Labor Economist	ILAB, U.S. Department of Labor, Washington, DC
Joseph DeMarie	Labor Economist	DRL/IL, U.S. Department of Labor, Washington, DC
Egyptian Government		
Bakr Sultan	Under Secretary for the President's Office	CAPMAS -- Central Authority for Public Mobilization and Statistics
Safaa Eweda	Under Secretary	Ministry of Planning
Frank Szumilo	Chief of Party	DATA Project, Ministry of Planning (MOP)
Mamdouh Sadek Al-Najjar	Computer System Advisor	DATA Project, Ministry of Planning (MOP)
Ghazal Abdel Aziz	Statistical Methodology Advisor	DATA Project, Ministry of Planning (MOP)
Nadia Sholkamy	Project Administrator	DATA Project, Ministry of Planning (MOP)
Nasr Tantawi	Project Coordinator	DATA Project, Ministry of Planning (MOP)
El Houssainy A. Rady	Sampling Advisor	DATA Project, Ministry of Planning (MOP)
Kamal Selim	Statistical Advisor for Economic Surveys	DATA Project, Ministry of Planning (MOP)

Egyptian Private Sector Firms and Organizations		
Tamer Abou Bakr	Senior Vice President and Managing Director	Master Gas Company
Rabeh Kamal	Treasury and Accounting Manager	Eli Lily Egypt Co.
Hisham Fahmy	Executive Director	American Chamber of Commerce in Egypt
Khaled Sewelam	Manager, Business Studies and Analysis Center	American Chamber of Commerce in Egypt
Hassan Abdel Salam	General Manager	El Sewedy for Plastic Industry
Mahmoud Badran	Chairman & Managing Director	Natural Gas Vehicles Co.
Mohamed Abdo El Nezamy	Projects Director	Arab Cables and Electrical Industries/ El Sewedy Cables
Sherif Fikry	Overseas Purchasing Manager	Misr El Hegaz Co.
Gerard Chaba	General Manager	Unipak Nile Ltd.
Emile Boustany	Export and Logistics Manager	Unipak Nile Ltd.
Alexander Georgiadis	Costing and Planning Manager	Pyramids Paper Mills (Flora)
George Boulos	Procurement Manager	Pyramids Paper Mills (Flora)
Wadidi Nabil Nour	Assistant Purchasing Manager	Pyramids Paper Mills (Flora)
Hany Maabed	Supply Chain Manager	Trane Air Conditioning
Ayman Gobran	Purchasing Team Manager	Trane Air Conditioning
Hassan Haridy	General Manager	El Rehab Saudi Egyptian Co. for Edible Oil Extraction
Farid Tobia	General Manager	International Company for Paper Products
Adel Aziz	Director of Projects and Environmental Control	Suez Cement Co.
Ayman Fahmy Messiha	Vice President	Vinavil Egypt for Chemicals
Sherif M. Saleh	Chief Engineer	Nofa Egypt
Moustafa Ayoub	Owner and Manager	Rainbow Import and Export Commercial Agency
Marwa Ayoub	Export Manager	Rainbow Import and Export Commercial Agency

Egyptian Private Sector Firms and Organizations		
Abdel Meneim Khalifa	Chairman	Protall for Paints and Chemicals Industries
Francis A. Shehata	President	CBC Egypt
Michael Francis Shehata	Chief Engineer	CBC Egypt
Amira I. Saleh	Chief Accountant, Treasury Finance and Accounting Dept.	Proctor and Gamble Egypt (P&G)
Sami Allam	Chairman	Saco Pharma, Veterinary Products
Nour El-Din Mahmoud	Chairman	Misr El-Nour for Plastic Packages
Nabil Attalah	General Manager	Delta Plast
Romany Nabil Attalah	Deputy General Manager	Delta Plast
Romone Attallah	Deputy Manager, New Factory	Delta Plast
Maher Michael	Owner	Maco Adhesives and Paints Company
Nagui I. Riad	General Manager	GEOS Agents and Distributors
Meray George	Deputy General Manager	GEOS Agents and Distributors
Academic Researchers / Other Institutions		
Hanaa Kheir El Din	Professor	Faculty of Economics, Cairo University
Samir Radwan	Managing Director	Economic Research Forum (ERF)
Diaa Nour El-Din	Senior Economist	Economic Research Forum (ERF)
Alaa Raed Hashim	Chief Operating Officer	Industrial Modernization Center
Martin Flaherty	Program Coordinator	Industrial Modernization Program
International Organizations		
Ibrahim Awad	Director, North Africa Office	International Labor Organization
Farrukh Iqbal	Senior Coordinator Middle East and North Africa	World Bank, Washington, DC

Interviews classified by categories (3)

ANNEX E
DATA COLLECTION QUESTIONNAIRE FOR CIP PARTICIPATING EGYPTIAN FIRMS

Name of Company:

Address:

Telephone Number:

Description of industry and type of importer:

Industry:

Resale/trader
Manufacturing

Trader: do you resell to:

Consumers
Manufacturers
Retailers
Wholesalers
Other

Manufacturer:

Processor
End user

Can you provide an estimate of?

Current value of your plant and equipment:
Inventories of goods in production plus goods for final sale
Total assets
Total sales during a recent "typical" financial year
Total sales before and after importing through the CIP

CIP related activity

Major import(s) from the USA?

Major imports under the CIP?

In what year did the firm start to import from the USA?

In what year did the firm first start using the CIP?

How many transactions have participated in the CIP since the year 2000?

Level of imports from the US under the CIP in year 2000?

Level of imports from the US under the CIP in years:

2001
2002
2003
2004
2005

How did you hear about the USAID financed program?

Other participants in the program
US exporters
USAID promotion
Participating banks
US Foreign Commercial
Other

During your last financial year, what percentage of your total imports from the USA was made under the AID-financed export program?

Employment related section

How many full time employees does your firm have at present?

What proportion of those employees has been hired since the year 2000?

Of the employees hired since the year 2000 how many were hired as a result of your firm's participation in the CIP program?

During the period 2000-2005 were any of the employees hired because of the CIP program let go? If yes, how many?

Of the employees hired after the year 2000 can you tell us how many are?

Unskilled plant workers?
- How many women?
- How many men?

Skilled plant workers?
- How many women?
- How many men?

Managerial or administrative workers?
- How many women?
- How many men?

Any part time employment linked to operations made possible by the CIP program?
- How many workers?
- What type of workers (unskilled, skilled, and managerial?)

How has your industry done during the last 5 years?
- Production and sales have been stable?
- Production and sales have grown more or less steadily?
- Down in some years up in others?

In years when the industry output or sales fell or doing not too well, how was your firm doing?
- Better than the industry
- The same
- Worse

If better, what is your sense of the level of sales and jobs you were able to maintain thanks to access to the Commodity Import Program?

Can you provide an estimate of the average wage paid to full time employees in the following occupational groups?

Unskilled

Skilled

Managerial

Wage rate paid to part time employees?

Does your firm provide a pension plan for full-time employees?