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Increasing Labor Demand and Labor Productivity in Ghana

The Ghanaian economy is characterized by low employment growth and low labor productivity against a backdrop of a relatively high population growth. The labor force is growing faster than the rate of job creation. This imbalance between labor supply and labor demand and the resultant under-utilization of human resources exerts negative pressure on economic growth and development. Reversal of this requires a vigorous policy aimed at creating new jobs and increasing labor productivity. The evidence, however, indicates that not only has employment not kept up with growth in the labor force, but that formal sector employment has been declining for over three decades. Furthermore, while the rapidly increasing labor force will require labor productivity to increase proportionately in order to provide employment at constant real wages, this is not currently happening. On the contrary, the level of real wages has declined because productivity has not increased in accordance with the growth in labor force.

Historical data from five manufacturing industries were used to identify and assess the factors that influence employment demand and labor productivity. In addition, a survey of selected firms across all sectors of the Ghanaian economy was used to provide recent trends in employment levels across major occupational categories and across sectors.

Employment Trends Across Occupational Categories and Sectors

Results from the survey data show that the overall employment levels rose between 1980 and 1990, but declined slightly between 1990 and 1995. Despite the decline in overall employment levels, there was a slight increase in managerial employment between 1990 and 1995. Employment of technical workers also increased in 1990, but declined precipitously thereafter. While there was a decline in employment of other workers (i.e. non-managerial, non-technical/production workers) between 1980 and 1990, there has been a strong rally in this employment category since 1990.

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The survey further shows that the bulk of employment has been in the non-tradable sector. It is obvious that while employment levels in the tradable sector have increased dramatically, this increase does not translate into large head counts due to its low employment base compared with the non-tradable sector where, unfortunately, employment levels have declined. The evidence of an overall increase in demand in the tradable sector suggests that the increase in labor demand in the exportable sector more than offsets the decline in employment in the importable sector. This seems to be a positive employment response to trade liberalization. The policy implication is that there is a need for further financial and non-financial incentives to firms in the exportable sector.

Determinants of Employment Demand

The elasticity of substitution between labor and capital ranged from 0.226 in the garment industry to 0.572 in the paper and printing industry. The implication of this finding is that policies that reduce the relative price of capital tend to discourage employers from hiring labor and encourage the use of more capital in the industries studied. The greater ease of substitutability between capital and labor in these industries suggests that it will be cheaper for firms to replace people with machinery if capital is relatively cheaper than labor. Policies that subsidize capital such as overvalued currency or credit subsidies are likely to reduce employment levels and increase the use of capital intensive technologies.

The study shows that in general, the own-wage elasticity of substitution for skilled labor is greater than that for unskilled labor. This finding suggests that an increase in skilled wage will reduce skilled employment more than a similar proportionate increase in unskilled wage will affect unskilled employment. Consequently, selective increases in wages of skilled workers require caution lest they reduce overall employment.

The cross elasticity of demand for skilled and unskilled labor indicates that they are substitutes. When the wage of skilled labor increases, more unskilled workers are hired to replace the skilled labor lost because of its wage increases. Similarly, when the wage of unskilled labor increases, more skilled labor will have to be hired to replace the lost unskilled workers. Even though an increase in the wages of unskilled workers generates greater decline in unskilled employment than the increase in skilled employment that ensues, if the wage differential is high, such a situation can raise production costs drastically. On the other hand, an increase in the wages of skilled workers tends to reduce the number of skilled workers hired and increase the number of unskilled workers hired, thus reducing total production costs. The resultant policy implication is that mandated minimum wage increases tend to increase employment of higher paid skilled workers, with an associated increase in production costs. Unless the use of more skilled workers results in higher productivity, the higher cost of production must be absorbed by firms or passed on as higher prices to consumers. Either result may make the firms less competitive.

The study results showed a robust positive effect of real output on employment demand, suggesting that firms that are able to produce more are more likely to hire more workers. However, firms will produce more only if they can sell more. Firms can sell more if their products are competitive on the market, implying that firms will employ more if they are competitive. Thus, policies that increase firms' competitiveness, such as productivity enhancement programs, privatization, and openness will enhance labor absorption.

The study suggests that a firm's demand for labor is affected by who operates the firm and how. For example, the effect of capacity utilization on employment demand was positive. Firms that operate at near capacity tend to hire more workers. The ability of firms within a given industry to operate at levels of capacity higher than competitors depends on the resourcefulness of the firm's management. The policy implication of this finding is that there is a need for training in modern management practices for current and future managers. Furthermore, the results showed that the effect of foreign ownership on employment levels was positive and significant in most equations. This suggests that multinational corporations tend to employ more workers than indigenous firms. This is probably due to better management and efficiency associated with these multinationals. The policy implication is that foreign direct investment should be vigorously encouraged. Finally, the survey data suggests that capital constraints, concerns about firing laws, and labor cost constraints are major factors that reduce the firms' hiring of additional workers. Furthermore, while unions may have negative effects on firms' hiring practices, the effect is not statistically significant. However, firms that face more industrial actions are likely to hire less. The policy implications are obvious. First, there is a need to ease credit availability to businesses. Second, there must be a review of labor laws to minimize hiring costs. Third, labor actions should be transferred from the political arena into the industrial realm to encourage a direct, non-political, and more peaceful employer-employee/union bargaining and negotiations process.

Determinants of Labor Productivity

The highest value-added per employee was recorded in the food, tobacco, and beverages industry, followed by the paper and printing industry. The study shows that real wages for production workers were highest in the food, tobacco, and beverages industry. This suggests that the most efficient firms in terms of value-added per worker are those that pay their workers higher wages and thus attract more highly qualified workers. This suggests that productivity correlates positively with wages and employee training, experience and qualifications. A major implication of this finding is the need for increasing both on-the-job and general training that will provide workers the necessary skills and qualifications.

The study confirmed that capital-labor ratio, wages, and capacity utilization are the major determinants of value-added per worker in the industries surveyed. There are several implications for these findings. First, firms' technology should be updated to include relatively more capital intensive technologies. A major related policy recommendation is to ease, rather than subsidize, credit availability for the purpose of updating technologies. Second, even though capital-intensive technology is needed to increase productivity, investment in human capital as demonstrated by the level of wages is critical for productivity increase. Finally, on-the-job training as well as general skill training through government-industry partnership is vital.

The study indicated that there has been a consistent technological retrogression in the manufacturing sector over the years. The implication of this finding is that there is the need for purposeful research and development programs in the industrial sector. This could take the form of a partnership between the corporate world and the research institutions such as those under the Council for Scientific and Industrial Research of Ghana (CSIR) facilitated by Government.

Employment, Productivity, and Wage Nexus

The study showed that the food, tobacco, and beverages industry (ISIC 31) was the major employer of production workers. It was further shown that value-added per worker was highest in the food, tobacco, and beverages industry. Thus, that industry is both the major employer and the most productive industry among those studied, and is more likely to hire more workers and be more competitive with imports than any other industry studied due to its high level of productivity. To enhance both labor absorption and labor productivity in the manufacturing sector, resources should be directed to the food, tobacco, and beverages sector.

In Summary

Increasing labor demand in Ghana requires minimal government interference in the labor, capital, product, and foreign exchange markets. However, government should redirect resources and the attention of efficient economic agents to sectors with the highest job creation potential. There are specific actions that governments *should not* take and these include the following:

- There should be no control of currency exchange rates or provision of credit subsidies, lest they make capital artificially cheap and employers replace workers with machinery.
- There should be no selective increases in wages for unskilled workers, since the substitution of skilled for unskilled labor is likely. This substitution has the tendency to increase production costs unless the replacement of unskilled workers by skilled workers results in higher productivity.

Governments *should*, however, take these actions:

- Provide financial and non-financial incentives to firms in the exportable sector.
- Pursue productivity enhancement programs, privatization, and cautious openness of their markets.
- Increase training in modern management practices for current and future managers.
- Provide employers incentives to increase both on-the-job and general training in order to afford workers the necessary skills and qualifications.
- Encourage foreign direct investment.
- Make credit easily available to businesses through guarantees.
- Review current labor laws to reduce the cost of hiring workers.
- Remove labor actions from the political arena into the industrial realm in an effort to encourage a direct, non-political, and peaceful employer-employee/union bargaining and negotiation process.

Enhancing labor productivity in Ghana requires investment in human capital, research and development, and physical capital. In this regard, the following are some specific recommendations:

- Ease credit availability in order to update existing technologies.
- Increase investment in relevant human capital. This can be in the form of both on the-job training and general skill training through government-industry partnership.
- Encourage purposeful research and development programs in the industrial sector. This can take the form of a partnership between corporations and research institutions, such as those under the Council for Scientific and Industrial Research of Ghana (CSIR) facilitated by Government.

This policy brief is based on EAGER Discussion Paper Number 50, *Increasing Labor Demand and Labor Productivity in Ghana,* 2000, by George Gyan-Baffour [Baffg@aol.com], and Charles Betsey [CBetsey2@aol.com], Howard University, with collaboration from Kwadwo Tutu and Kwabia Boateng, University of Ghana.

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