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EMPLOYMENT, GROWTH AND REFORMS IN JAMAICA

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EXECUTIVE SUMMARY

The main objective of this study on “Growth and Employment” is to determine the ability of the Jamaican economy to generate productive employment, and how this has been affected by reforms implemented in the last 15 years. To this end, the research focuses primarily on labour demand in the formal sector and the dynamics of salaried employment, although the importance of the informal sector and supply dynamics (volume and composition of labour) will be stressed as well.

The findings are as follows:

Wherever there has been growth and investment there has been labour absorption and this has been to the benefit to both males and females although males seemed to have benefited more overall. This has been the case for every other major sector except for traditional manufacturing, and agriculture which seemed to have suffered in the short run as a consequence of the reforms which removed much of their protection. While investment in manufacture has risen this has not resulted in increased growth, productivity or increased employment. In addition the employment has been in the area of a better quality labour force as the share of workers with limited education has declined in this sector. It is clear that the investment has been in restructuring and retooling rather than output expansion and over time it would be possible to see the impact of these changes.

There has been a considerable informalisation of the labour market as self-employed workers, part time workers, contractors and generally lower level workers have been in demand. This has been the result of a structural shift in the economy as the service sector has expanded the expense of the goods sector. In this sectoral shift, women have benefited from the growth and investment in services. Productivity however, has not risen significantly in this sector and employment has expanded at the lower and the upper end of the workforce. This *weakly* suggests the phenomenon of ‘de-skilling’ and ‘up-skilling’ that is simultaneously taking place.

There has been a general decline in the share of part time work in the economy as measured by the number of hours worked and an increase in full time employment. There has also been a decrease in overtime employment maybe due to the new tax regime which taxes overtime work. The decline in part time work however, has benefited men more than women as the number of women in part time work has not changed significantly while for men half as much were employed in 1972 as in 1996. This is a very important finding for clearly, while the

quality of labour demanded has fallen, working hours have increased which may reflect the tendency to higher returns and less polarisation over time.

Wage levels have increased despite the fall in productivity and the rise in labour costs. This may reflect the impact of strong labour unions in an environment of inflation in which wage rates are based on past inflation. This has been a source of conflict however, between trade unions and employers, as employers have been opting for more part time and contract workers on less stringent and legally binding wage contracts and demanding the right to downsize without large compensation packages.

There is some tension between current institutional labour arrangements and employee demands for the right to strike in some services. In particular a source of conflict has been the essential services sector which legally their is no right to strike, but workers are demanding the right to strike for better remuneration. The reduced inflation rates to as low as 8 percent in 1997 will certainly remove this source of conflict.

There has been increasing industrial tensions between employers and the unions as the reform force changes at the firm and industry levels especially in areas in traditional manufacturing and garments and agro-processing. The number of strikes over remuneration have increased with its resulting impact on days lost. The ESOP scheme was seen as a way to diffuse this situation as workers would own shares in companies and companies would get tax and other incentives. This however has not been effective in a climate of restructuring and downsizing.

I. REFORMS, GROWTH AND THE LABOR MARKET

1. Introduction

This module, focuses on employment and is part of the study on " Growth, Employment, and Equity: Latin America and the Caribbean in the 1990s", which is being conducted on behalf of the Economic Commission for Latin America and the Caribbean (ECLAC). Its main objective is to determine the ability of the Jamaican economy to generate productive employment, and how this has been affected by reforms implemented in the last 15 years. To this end, the research focuses primarily on labour demand in the formal sector and the dynamics of salaried employment, although the importance of the informal sector and supply dynamics (volume and composition of labour) will be stressed as well.

There are five testable hypotheses which guide the research and these are summarised as follows:

1. Economic growth is central to job creation at both the sectoral and overall level.

2. In the short run, non -labour reforms may impact negatively on productive employment and wages and its severity depends on how quickly growth can occur and the prevailing macro-economic conditions.

3. When technical progress brought on by new investment is not labour intensive there may be little job creation. Jobs which are created however, may be of a high quality and this can influence the composition of aggregate employment.

4. The restructuring of production given an environment of growth will create and destroy jobs as new skill emerge and others become obsolete. Because demand and supply of skills may not match this may lead to polarisation in term of productivity and relative wages.

5. In the short term, labour reforms will increase labour market efficiency, while their impact on wages and employment may be negative. In the longer term, the direct effect of labour reform depends on their specific character.

The third hypothesis, which focuses on technical progress, links growth in sectorial productivity and sectorial output to job creation destruction and job quality. The labour market outcomes are shown in schema (1), where the changes expected in the volume of employment are underlined whilst changes in the quality of employment are shown in italics.

Schema 1
CHANGES IN VOLUME AND QUALITY OF SECTORAL EMPLOYMENT IN DIFFERENT SITUATIONS OF OUTPUT GROWTH AND PRODUCTIVITY WITHIN SECTORS

		Growth In Sectoral Output	
		Low	**High**
Growth in Sectoral Productivity	**High**	**Considerable Job Reduction** *Quality Improves*	**Weak Job Creation** *Quality Improves*
	Low or Negative	**Weak Job Creation** *Quality Declines*	**Strong Job Creation** *Quality Declines*

Source: ECLAC Document, Growth, Employment and Equity: Latin America and the Caribbean in the 1990's.

The schema suggests that high growth in sectorial productivity and low growth in sectorial output, may be accompanied by job reduction and increased job quality. Secondly, high growth in sectoral productivity and output may be accompanied by weak job creation though job quality may also improve. Third, low growth in sectoral productivity and output may be accompanied by weak job creation and a decline in job quality. Fourth, low productivity growth and high growth in sectorial output may be accompanied by strong job creation even though job quality may decline.

The research seeks to determine the impact of a variety of reforms, among these are the removal of trade barriers, exchange rate liberalisation, fiscal restraint and tax and other labour market reforms. The ability to test the five hypotheses depend on the level of data aggregation that is possible and the set of labour market signals that may be captured by the data in the relatively short time since the reforms. For example, it was not possible to get a disaggregation of the labour force data by area, which hampered a study of rural urban changes in the agricultural sector. In the next section the major reforms, over the period, are briefly set out.

2. Economic Reforms

The Jamaican economy by the early 1980's was characterised by large budget deficits, exchange controls, balance of payment deficits, and low tax revenue buoyancy despite high progressive tax rates (Alleyne, 1999). The economy suffered severe contraction between 1973 through 1980 as real GDP and per capita income declined by 18 and 26 percent respectively and the CPI rose by 304 percent. In the same period, while government revenue rose by 274 percent, public expenditure went up by 419 percent and net foreign reserves dropped by US$582 million. At the same time unemployment increased from 22 to 27 percent (Bahl, R.1990, p.4).

This economic stagnation forced the government to seek assistance from the International Monetary Fund and later the World Bank by way of a series of structural adjustment programs, designed to arrest this decline. Among the major reforms were fiscal restraint, domestic market liberalisation and external openness characterised especially by tariff reduction and stabilisation. A major area of reform has been the reduction in the size of the government sector in the economy. The share of government expenditure in GDP fell from 50 percent to below 24 percent in 1989 and then rose to 35 percent in 1996. This reduction was also proxied by the share of government employment in the total labour force which was 20 percent in 1980 and was 9 percent in 1992.

Privatisation of state owned enterprises began purposefully after 1989. Between 1980 and 1989, 11 enterprises were partially or fully divested and between 1989 and 1994 as much as 50 enterprises were divested. Since then there has been a slower pace to this process and even some acquisitions due to the financial crisis.

Another area of reform has been in financial services. The 1980's were a period of financial repression due to direct controls, stringent reserve requirement to halt inflation and interest rate ceilings. Between 1990 and 1991 both constraints were removed but the reserve ratio remained high. In terms of the financial sector, there was the gradual removal of exchange rate controls and in 1990 commercial banks were authorised to do business in foreign exchange and citizens were authorised to hold foreign exchange accounts. There was also the removal of explicit foreign exchange management by the central bank with interest rate and money supply management used as means of stabilising the exchange rate.

Comprehensive changes also occurred in the area of tax reform after 1986, as the complex tax structure on both direct and indirect taxes was simplified. On the direct side, the many credits and allowances were replaced by a single threshold and only few allowances were maintained. The tax rates on personal incomes were been reduced and a proportional tax currently at 25 percent implemented. Company tax rates were set at 33.3 percent, while the multiple distinction between firms were eliminated and full loss offset introduced to reduce the private risk of investment. With respect to indirect taxes, the major changes were the introduction of the GCT and the renewed registration of firms to reduce tax evasion and avoidance.

There were also significant changes in the tariff structure. Between 1983 and 1985 quantitative trade restrictions were replaced by import tariffs by way of import duties which were for the purpose of cushioning import substituting sectors from the adjustment. The World Bank (1994) estimates that the average tariffs declined from 50 percent to 20 percent between 1989 to 1991. In 1990 in line with the CARICOM Common External Tariff (CET), Jamaica agreed to reduce its tariff to the range between 5-35 percent in 1993 and 5-20 percent in 1996. This reduction saw greater competition from regional and extra regional markets especially with respect to manufactured and agricultural goods.

3. Theoretical Issues

In order to identify the relationship between macroeconomic reforms and employment creation as is outlined in the five hypotheses, a theoretical model is identified which discusses the possible relationship between reforms and labour market outcomes. This is the well known Australian or development economy model with flexible prices and no market distortions and trade liberalization (See Mussa 1974; Dornbusch1974, 1980; Edwards 1988). Greater realism can be employed by including such issues as minimum wages, sector specific distortions, labour mobility and capital liberalization as discussed in the Harris-Todaro type approach to modelling the labour market. Since a significant aspect of Jamaica's reforms has been trade reform, a simple formulation of the model is employed which examines the impact of a reduction in tariff on employment.

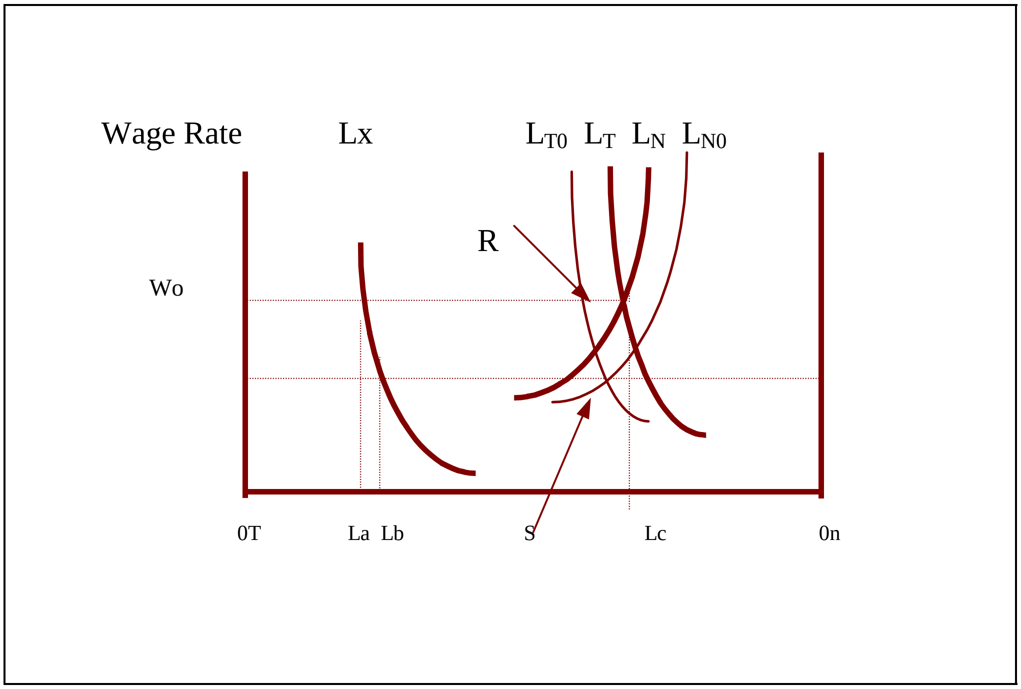
Following Edwards and Edwards (1994, p.108), it is assumed that a small country produces and consumes three goods I, E and N, where I is importables, E is exportables and N is non-tradables. There are a large number of producers, perfect competition prevails and firms seek to maximise profits. It is also assumed that the government imposes a tariff. The general equilibrium conditions for this model are satisfied in the following three equations(Edwards and Edwards, p.109).

$$R(1,p,q;L,K,Z) + \kappa(E_p-R_p)=E(1,p,q,U)$$
$$E_q=R_q$$
$$p=p^* + \kappa$$

where L is labour, K is capital, Z is natural resources, κ is a specific input tariff, R is a revenue function, E is an expenditure function, q is the price of non-tradables relative to exports, and p is the price of imports relative to exportables, E_p-R_p are imports and **U** is the total utility. Equation (1) states that the total income from factors and government transfers must equal total expenditure. Equation (2) is the non-tradable equilibrium and equation (3) spells out the relationship between the domestic price of importables and the import tariff.

Figure 1 illustrates the model in which factor supplies are assumed to be inelastic. The vertical axis measures wage rates in terms of exportables and the horizontal axis measures the stock of labour in the economy. Total labour demand in tradables is labour in the non-importable goods sector plus labour in the non-tradable goods sector.

Figure 1
DEPENDENT ECONOMY MODEL WITH TRADE LIBERALIZATION



Source: Edwards and Edwards (1994).

Wo represents an initial equilibrium wage with full employment, where OT La is labour in exportables, La Lc is labour in importables and On Lc is labour in non-tradables. As a result of tariff liberalization, import tariffs are reduced as in the Jamaica case, causing a decline in the domestic price of imports and this affects a number of variables. Lower domestic prices causes the L_T curve to shift downwards while Lx is constant. The new L_T curve, L_{To}, intersects Ln at point R. This reduction in q causes L_N to shift downwards to L_{NO} but by less than the change in L_T at a point S with lower wage rates w1. At the new equilibrium wage, production of exportable will increase and labour of the amount La Lb will move out of importables into nontradables and exportables. In addition, wages have declined in terms of exportables (Edwards and Edwards, p.112) and non-tradables. Wages relative to importables have increased because the domestic prices of these goods have fallen by more than the wage decline. Edwards and Edwards point out that the short run effects will see increase in exportables and decrease in importables. The implications for non-tradable production will be ambiguous. In addition, the real return to factors specific to the importable sector will decrease relative to importables but could increase or decrease relative to other goods.

Agenor (1996, p.317) warns, that while there appears to be broad agreement on the allocative effects of trade liberalisation, the short and medium-run impact of trade reform on wage structure, the composition of employment and aggregate unemployment remains less understood. There are other significant long run changes in the labour market due to trade reforms especially when it is assumed that capital and natural resources become mobile.

Within the model framework outlined, human capital is assumed to be homogenous, but when this assumption is relaxed, labour mobility across sectors may become costly. One of the consequences of trade liberalization is that entire industries may be wiped out and with it may come the fall in demand for industry specific human capital in some sectors and the rise in demand for others and this is part of the cost of adjustment. Edwards point out that greater realism can be introduced in the model as it accounts for economy wage rigidities (as minimum wages) and sector specific rigidities, capital accounts liberalization, the removal of other trade restrictions and the rise of the informal sector. Agenor (p.273) notes that unemployment due to the destruction of industry specific capital effects the experienced group in the labour force more severely. He attributes this to their reservation wage and unwillingness to take on certain jobs.

Additional theoretical insights come from the Harris-Todaro type formulations which seek to explain trade liberalisation with migration between the formal and informal sectors. This type of model incorporates an economy wide constraint as a minimum wage and determines the wage rates and labour absorption across the formal and informal sectors of the economy. The model predicts that if the minimum wage is binding then there will be an expansion of informal employment. Other outcomes according to Rama and Tabellini (1995) are that minimum wage legislation leads to excessively high wage costs, particularly for unskilled labour, in the formal sector, misallocation of labour and lower employment by preventing wages from being downward flexible and causing the substitution of capital for labour. An alternative insight (Freeman 1992) is that minimum wages in developing countries have positive nutritional effects as advocated in the efficiency wage model of Dasgupta and Ray (1986) and may redistribute resources in a welfare-enhancing way. As a result, high minimum wages may help reduce poverty and raise productivity by enticing workers to work harder and change jobs less frequently.

Agenor has noted that in many instances either due to inflation or the level at which the minimum wage is set such wages may not be binding. There is some evidence that in the Jamaican case, this result may also hold and the World Bank has argued that the minimum wage may not be binding (World Bank, 1996, p.44). The greatest source of expansion of the informal sector may be due to a reduction of employment in manufacturing and agriculture due to firm closures as a result of increased competition form abroad, and the gradual decline in government employment rather than the minimum wage distortion.

An important issue in this study is the relationship between growth and employment and the first hypothesis presumes such a relationship. While we may expect a positive relationship between output growth and employment, the empirical evidence is often ambiguous. Agenor (1996, p.271) pointed out that the data for the first and second part of the 1980s on the behaviour of growth and open unemployment in several countries, shows that there is a weak correlation between the rate of output growth and the open unemployment rate. While there are several explanations for the lack of a stable relationship between these two variables, Turnham (1993) observed that in Latin America during the recession of the 1980s the loss of jobs in the formal sector led to sharp increases in self-employment in several Latin American countries. This situation has also occurred in other regions as in African where Urani and Winograd (1994) document that during the late 1970s and 1980s there were increases in informal employment even as output fell. This is also the Jamaican scenario where real output has fallen especially over the last five years while the unemployment rate since the 1980s has declined with a concomitant rise in the informal sector.

The final area in which theoretical and empirical insights may be helpful in understanding the Jamaican situation is with respect to labour market institutions and regulations. In the Jamaican case such matters as minimum wage laws, wage indexation (except during the period of wage guidelines in the 1980s), land tenure laws and restrictions on labour mobility have not been particularly important labour market constraints or sources of segmentation. Jamaica of course has extensive worker protection in the formal sector and these coupled with strong trade unions may limit labour market flexibility and the ability of employers to replace unproductive workers with productive ones. In recent years there has been considerable use of contract workers and part time labour as a means of circumventing some of these regulations.

Agenor (p.311) pointed out that advocates of labour market reform have argued that circumventing labour regulations with respect to hiring and firing workers, reducing non-wage labour costs, limiting unemployment and other benefits and the role of trade unions would create greater flexibility and enhance growth. The idea is that such protection and constraints segment the labour market and limit its flexibility. It is the case however, that this view of the labour market is not unanimous. Abrams and Houseman (1994) after a careful examination of employment protection measures in Germany, France and Belgium in the mid 1980s found no evidence that changes in such provisions affected labour market adjustment. Alogoskoufis et al (1995) suggested that dismantling regulations would not be an appropriate response to high unemployment in Europe as the costs of such restrictions are not high. In Jamaica, the central issue has been the degree of unionization and the level of industrial conflict, especially in periods of economic decline.

Trade unions, which were formerly linked to political parties, are still very strong and exert much pressure on wage bargaining especially through the larger unions. This influence had been declining, however, especially in the light of falling inflation and restructuring of the economy. Economic theory suggests an inverted U shape between the degree of centralization (the extent to which unions and workers co-operate on wages in wage bargaining) and wage pressure (see Agenor, 1996). Thus one would expect greater wage push for countries where centralisation is in the intermediate range that is at the industry level. This process is more characteristic of Jamaica where there is union rivalry and a great deal of conflict over bargaining rights.

It may be the case however, that the degree of unionization may not correspond to the level of influence on wage formation. Unions in strategic industries may exert considerable influence on wage formation at the sectoral and industry level.

4. Economic Performance

There is agreement that the economic performance of Jamaica under the reform programs has so far been mixed. The growth rate of GDP since 1991 has been no greater than 1% per year while the inflation rate has averaged 40%. In this period, the foreign exchange market has been liberalised, there has been considerable progress in the liberalisation of the trade regime with substantial reduction in rates of duty and limited protection for domestic production, even in agriculture. This has been accompanied by deregulation and privatisation of companies, public sector retrenchment and the removal of subsidies and price controls. Table 1 reports some key indicators of economic performance for the period 1981-1996.

Table 1
KEY ECONOMIC INDICATORS, 1981-1996

Year	%Change in Real GDP	% Change in Per-capita Income	GFCF to GDP Ratio	Nominal Exchange rate	% Change in CPI
1981	0.9	-0.4	19.9	1.78	12.7
1982	-0.1	-1.8	22.4	1.78	6.3
1983	4.1	2.2	22.7	3.27	11.6
1984	-0.3	-2.0	23.3	3.94	27.6
1985	-8.0	-9.3	25.4	5.56	25.8
1986	3.0	1.9	20.3	5.48	15.0
1987	7.1	6.4	25.1	5.49	6.6
1988	3.9	3.7	29.1	5.49	8.3
1989	6.8	5.4	32.4	6.4	17.2
1990	5.4	3.7	31.3	8.2	29.8
1991	0.7	-0.3	29.5	21.5	80.2
1992	1.5	0.6	35.7	22.2	40.2
1993	1.3	0.2	37.4	31.3	30.1
1994	1.1	-0.1	36.0	33.2	26.7
1995	0.5	-0.4	37.8	35.5	25.6
1996	-1.7	-2.7	37.0	37.0	25.8

The GDP and per-capita figures are at 1996 prices.
Sources: National Income and Product Accounts, Statistical Institute of Jamaica (STATIN).
The Consumer price Indices, Statistical Institute of Jamaica (STATIN).
The Quarterly Statistical Digest, Bank of Jamaica. (various issues).
The Economic and Social Surveys of Jamaica (ESSJ), Planning institute of Jamaica (PIOJ).

The most significant of these has been the fact that real growth has been elusive since 1991 while changes in per-capita income have been below one percent since then and turned negative between 1994 and 1996. There has been some macro-economic stability however, as the inflation rate has fallen considerably from 40 percent in 1992 to 25.8 percent in 1996 and 9.2 percent in 1997. The ratio of GFCF to GDP has increased from 19.9 percent in 1991 to 29.1 percent in 1988. Since then, the ratio has risen to over 30 percent in the last two years to 37 percent.

The unemployment rate, which was 26 percent in 1980, fell to 16 percent in 1996 with gains to both males and females. The external debt service to exports ratio, which was a constraint to growth, declined form 35.8 percent in 1988 to 27.9 and 16 percent respectively in 1994 and 1997.

An expansive monetary policy in the late 1980's, designed to reduce liquidity, helped to fuel inflation since 1991. Growing inflation accompanied by rising interest rates helped to retard competitiveness especially in the goods producing sectors of the economy. In fact, since 1990, the service sector has become the greater contributor to GDP as against the goods producing sector and this has affected the type of jobs created in the labour market and the relative rewards to labour.

Policies of stringent reserve requirements helped to keep interest rates high and to restrict long term productive investments. The monetary policy regime has also helped to create a considerable internal debt which has implication for higher future taxes. The internal debt was $J12 billion in 1991 and this rose quickly to $J856 billion by 1996. A measure of the size of the debt can be seen by the ratio of internal to total debt which was 15.5 percent in 1991, 36.6 percent in 1993 and 45.3 percent in 1996.

The relatively low rates of real output in the 1990s, in some sectors, have had a direct impact on labour absorption and the composition of the labour force. Problems in the financial sector between 1996 and 1997 have also helped to worsen matters with the Financial Sector Adjustment Company (FINSAC) having to support a large number of ailing institutions

According to the World Bank (p. xiii) a flexible labour market is essential for Jamaica to generate rapid growth. A Labour Committee in April 1996, reported that there was need to improve the functioning of the labour market and employer-employee relations. They also suggested that labour quality need improvement. These issues together with lack of economic growth created a stagnant labour market despite the decline in the unemployment rates relative to the 1980s.

5. Export Performance

An important consideration in understanding the labour market and its capacity to generate employment is the level of export performance and employment generation in the face of trade liberation. In section 3 it was noted that according to economic theory this leads to an adjustment in relative prices and a reallocation of resources towards exportable and a contraction of import competing sectors. The overall impact on employment, however, is not certain (Agenor,p.317).

Table A-1 Looks at the performance of total domestic exports and traditional exports between the period 1990 to 1997.

Table 2
TOTAL DOMESTIC EXPORTS, ANNUAL CHANGE, ANNUAL % CHANGE AND TRADITIONAL EXPORTS AS % OF TOTAL EXPORTS

Year	Total Domestic Exports	Annual Change In Exports	Annual % Change	Domestic Traditional Exports as % of Total Exports
1980	935460	129130	16	na
1981	966240	30780	3.3	na
1982	746670	-219570	-22.7	na
1983	673140	-73530	-9.8	na
1984	687860	14720	2.2	0.80
1985	535100	-152760	-22.2	0.71
1986	567161	32061	6	0.71
1987	692380	125219	22.1	0.68
1988	861172	168792	24.4	0.66
1989	965254	104082	12.1	0.74
1990	1122681	157427	16.3	0.80
1991	1056637	-66044	-5.9	0.79
1992	1031830	-24807	-2.3	0.71
1993	1058322	26492	2.6	0.67
1994	1184245	125923	11.9	0.66
1995	1388130	203885	17.2	0.66
1996	1346973	-41157	-3	0.68
1997	1353446	6473	0.5	0.70

Source: External Trade, Statistical Institute of Jamaica, Various years.

Total domestic exports grew by 2.1 percent over the period 1980 to 1997. In the sub periods 1980 to 1989 and 1990 to 1997, the first of which saw the initial tariff reductions, growth rates were 0.3 and 2.6 percent respectively. Traditional exports [1] as a ratio of total exports declined from 80 percent in 1980 to 66 percent in 1994 and between 66 and 70 percent in 1997. Between 1986 and 1997, traditional exports grew by 8.2 percent while non-traditional exports grew by 8.6 percent. This suggests that the share of non-traditional exports has risen slightly. This is not surprising since lesser scope for growth lay in traditional exports, a major source of which, sugar and bananas are determined by quota in overseas markets and rely on special concessions.

Tables A-1 and A-2 report the composition of non-traditional exports and their share in total non-traditional exports respectively for the period 1986-1997. Sectorial growth was uneven and the major components were food, beverages and tobacco, lubricants and miscellaneous manufactures which was composed mainly of garments. Substantial declines occurred in mineral fuels and lubricants, manufactured goods, transport equipment and crude materials which reflected the decline in manufacturing in general. For example, the ratio of chemicals to total non-traditional exports was 11 percent in 1986 and declined to 1 percent in 1997. Beverages and tobacco fell from 12 to 7 percent over the period, much of the competition coming from the Trinidad and Tobago food sector. Miscellaneous manufacture have shown some increase from 39 percent in 1986 to 65 percent in 1994, then fell to 58 percent in 1997, largely due to the apparel sector. The implication is that export performance has not been outstanding and the economy outside of tourism still depend heavily on traditional exports, in which sector employment has been in decline.

6. Growth, Investment and the Labour Market

The volume and composition of employment in a particular sectors is linked to the level of investment, output growth and technological change in those sectors. In the light of the first hypothesis on growth and the second on the link between investment and labour absorption, the growth rates of GDP and the investment profiles of the key sectors are examined.

6.1 Growth By Industrial Sector

Tables A-3 and A-4 report the percentage contribution to real GDP by industrial sectors for the period 1986 to 1996 at market prices and real GDP by industrial sectors for the same period and growth rates. Table A-3 shows that the share of agriculture in GDP which was 7.5 percent in 1986 and 1986, declined to between 5.9 and 6.2 percent between 1989-1991 after which it rose again to 8.4 percent. Mining and quarrying, after having a share of 6.5 percent in 1986 declined to 5.9 percent in 1988 after which it regained its share of between 8 and 9 percent of GDP.

The sector that has been in recent decline has been manufacturing whose share rose from 21.2 percent in 1986 to 21.5 percent in 1989, after which there has been a gradual decline in the share of manufacturing to 18.1 percent in 1996. In the short run at least, the reforms seem to have adversely affected the performance of this sector with obvious implications for employment. The next four sectors, construction and installation, electricity and water, distributive trades and finance and insurance services have all shown a greater increased share over time. The last of these sectors has been the most dynamic, showing an increased share from 6.7 percent in 1986 to 11.7 percent in 1992 and 15.9 percent in 1994. This phenomenal growth rate reflects the direct results of financial reform and government's monetary policy which expanded the banking sector. After 1995 there was a reversal of this growth trend due to the crisis in the banking sector.

The sector real estate and business services has shown a slight increase in its share while producers of government services, has shown a decline in its share of GDP over the period. The overall growth rates of the sectors may also impact on the relative labour demand and for this reason, we analyse the rates of real growth for the overall period 1980 to 1996, and sub-periods. Omitting the last three sectors, the leading sector was finance and insurance services, followed by mining and quarrying and construction which had roughly similar growth rates of about 6 percent. The next set of sectors in terms of growth were electricity and water, construction and installation and real estate and business services which also had similar rate of growth of roughly 4 percent. The manufacturing sector had a growth rate of 1 percent while the government sector showed negative growth of 0.3 percent and was the only sector with such a performance.

When the periods are broken down into sub period, the period 1986-1989 clearly shows positive growth for all sectors, except for government services. The second period 1989 to 1993 showed lower growth rates relative to the previous period for all sectors except agriculture forestry and fishing which grew at 8.5 percent. At he same time, manufacturing and the producers of government services had negative growth rates of -1.1 and -0.9 respectively. The period 1993 to 1996 was not very different from the preceding one and with the exception of transport storage and communications and finance and insurance services, the other sectors showed lower growth rates than in the previous period. In this period also growth in manufacturing, construction and installation, as well as producers of government services were negative. Clearly the service sector buoyed up by positive growth over time in transport storage and communications, finance and insurance, distributes trades, real estate and business services and electricity and water, was expected to show dynamic labour absorption. The next section considers the investment profile and employment shares of the major sectors.

6.2. Investment by Major Sectors and Employment

In order to examine the link between investment and employment and to see how they have responded since the reforms, the investment profile of major sectors of the economy, is analysed. Table 3 and 4 report the various components of gross fixed capital formation (GFCF) and the ratios of each component to GDP (in nominal terms) respectively, for the period 1980 to 1996. The major components of capital formation identified are construction, transport equipment, and other machinery and equipment. Over the period the major components of GFCF were construction followed by other machinery and equipment and transport equipment.

Table 3
THE PERCENTAGE COMPOSITION OF FIXED CAPITAL FORMATION BY THE TYPE OF CAPITAL GOODS AT CURRENT PRICES, 1980-1996

	Cons-truction	Components of Construction			Components of Transport Equipment				Components of Machinery and Equipment			Total
Year	As % of GFCF	Building Cons-truction as % GFCF	Other Cons-truction as % GFCF	Transport Equipment as % GFCF	Cars as % GFCF	Trucks Buses as % GFCF	Other Transport as % GFCF	Machinery & Equip-ment as % GFCF	Agricultural Machinery & Equipment as % GFCF	Industrial Machinery & Equipment as % GFCF	Other Equip-ment as % GFCF	Fixed Capital Forma-tion
1980	52.4	48.3	4.0	11.5	3.5	6.0	1.9	36.1	2.0	10.6	23.6	100.0
1981	47.9	44.4	3.4	13.8	5.1	6.1	2.6	38.3	1.6	13.1	23.5	100.0
1982	50.4	47.6	2.9	17.4	6.1	9.4	2.0	32.1	1.2	10.1	20.7	100.0
1983	52.0	48.1	3.9	14.0	6.1	6.7	1.2	34.0	1.4	12.3	20.3	100.0
1984	50.5	47.6	3.0	9.4	2.6	4.7	2.1	40.1	1.9	11.3	26.9	100.0
1985	42.9	40.7	2.2	21.2	5.1	5.9	10.2	35.9	1.6	10.5	23.9	100.0
1986	47.1	43.5	3.6	13.9	7.7	3.4	2.8	39.0	1.5	13.0	24.5	100.0
1987	47.4	45.1	2.3	11.5	2.9	5.5	3.2	41.0	2.8	14.5	23.7	100.0
1988	53.5	47.9	5.6	17.4	4.5	6.9	6.0	29.1	1.7	9.0	18.5	100.0
1989	52.0	50.1	1.9	13.9	4.8	7.2	1.9	34.1	2.3	11.2	20.6	100.0
1990	43.0	41.1	1.9	21.1	5.1	7.1	9.0	35.9	1.2	10.6	24.1	100.0
1991	50.1	47.4	2.7	18.7	7.3	8.2	3.1	31.2	1.1	9.3	20.7	100.0
1992	46.2	43.2	3.0	16.1	5.2	7.4	3.5	37.7	1.4	11.0	25.2	100.0
1993	48.3	45.6	2.7	18.5	5.6	11.3	1.6	33.1	1.1	9.6	22.4	100.0
1994	45.8	43.1	2.7	13.4	3.2	8.6	1.6	40.8	1.2	13.6	26.0	100.0
1995	49.4	45.4	4.1	12.5	2.2	7.1	3.2	38.1	1.2	12.7	24.1	100.0
1996	42.6	39.2	3.3	14.2	2.4	7.5	4.3	43.2	1.0	16.1	26.1	100.0

Table 4
FIXED CAPITAL FORMATION BY THE TYPE OF CAPITAL GOODS AS A % OF GDP AT CURRENT PRICES, 1980-1996

	Construction	Components of Construction			Components of Transport Equipment				Components of Machinery and Equipment			Total
Year	As % of GDP	Building Cons-trution as a % GDP	Other Cons-truction as a % GDP	Transport Equipment as % GDP	Cars as % GDP	Trucks Buses as % GDP	Other Transport as % GDP	Machinery & Equipment as % GDP	Agricultural Machinery & Equipment as % GDP	Industrial Machinery & Equipment as % GDP	Other Equip-ment as % GDP	Fixed Capital Forma-tion as % GDP
1980	8.3	7.6	0.6	1.8	0.6	1.0	0.3	5.7	0.3	1.7	3.7	15.8
1981	9.6	8.9	0.7	2.8	1.0	1.2	0.5	7.7	0.3	2.6	4.7	20.0
1982	11.3	10.7	0.6	3.9	1.4	2.1	0.4	7.2	0.3	2.3	4.7	22.4
1983	11.8	10.9	0.9	3.2	1.4	1.5	0.3	7.7	0.3	2.8	4.6	22.7
1984	11.8	11.1	0.7	2.2	0.6	1.1	0.5	9.3	0.4	2.6	6.3	23.3
1985	10.9	10.4	0.5	5.4	1.3	1.5	2.6	9.1	0.4	2.7	6.1	25.5
1986	9.6	8.8	0.7	2.8	1.6	0.7	0.6	7.9	0.3	2.6	5.0	20.3
1987	11.9	11.3	0.6	2.9	0.7	1.4	0.8	10.3	0.7	3.6	5.9	25.1
1988	15.6	14.0	1.6	5.1	1.3	2.0	1.8	8.5	0.5	2.6	5.4	29.2
1989	16.9	16.3	0.6	4.5	1.6	2.3	0.6	11.1	0.7	3.6	6.7	32.5
1990	13.5	12.9	0.6	6.6	1.6	2.2	2.8	11.3	0.4	3.3	7.6	31.4
1991	14.8	14.0	0.8	5.5	2.2	2.4	0.9	9.2	0.3	2.7	6.1	29.5
1992	16.6	15.5	1.1	5.8	1.9	2.6	1.3	13.5	0.5	3.9	9.0	35.8
1993	18.1	17.1	1.0	7.0	2.1	4.2	0.6	12.4	0.4	3.6	8.4	37.5
1994	16.5	15.5	1.0	4.8	1.1	3.1	0.6	14.7	0.4	4.9	9.4	36.0
1995	18.7	17.2	1.5	4.7	0.8	2.7	1.2	14.4	0.5	4.8	9.1	37.8
1996	15.8	14.6	1.2	5.3	0.9	2.8	1.6	16.0	0.4	6.0	9.7	37.1

Source: National Income and Product, STATIN (various years).

The results clearly suggest that there has been an increase, since 1984, in the ratio which jumped from below 30 percent in the 1980s to between 31 and 37 percent since 1990. The rate of investment growth has however been uneven especially since there has been some restructuring of such sectors as manufacturing and the financial sector.

Table 3 suggests that the largest component of GFCF, construction has shown some increase as a share of GDP. The ratio, which was 8.28 percent in 1980, doubled in 1993 and 1995 and was 15.7 percent in 1996. The major component of construction was building construction followed by other construction, both of which saw increases since 1980. The second major category, machine and equipment saw increases in its ratio to GDP. This ratio which was 5.7 percent in 1980 rose to 10 percent in 1987 and was 16 percent in 1996. Interestingly this category is made up of agricultural machinery and equipment, industrial machinery and equipment and the category other equipment. The share for agricultural equipment was generally flat and given that these are nominal values it is clear that there has been no dramatic investments in agriculture. The ratio for industrial machinery and equipment rose slightly since 1993 from 3.5 percent to 5.9 percent in 1996, while other machinery and equipment have shown some increase from 3.7 percent in 1980 to 7 percent in 1990 and 9.6 percent in 1996

The Committee on Labour Market Reforms (LRMC, p.31) has suggested that the loss of protection and a moving away from import-substituting to export orientation, has opened the sector to greater competition from cheap imports. This, it is anticipated, would have forced producers to introduce new technology and modernise their plants. Much of the growth however they point out, has occurred in the sub-sectors with relatively high local value added, such as foods, beverages apparel and sewn products.

The investment in construction and installations has been reflected in increased employment in that sector with an increase from 54.9 thousand jobs in 1991 to 66.3 thousand in 1994 and 82.7 thousand in 1996. With respect to transport, storage and communications which would encompass, roads and telecommunication, the share of employment has also risen with absolute employment rising from 35.8 thousand in 1991, to 38.2 thousand in 1994 and 48.8 thousand in 1996. This has paralleled the increased investment in telecommunications coming on the heels of privatisation of the sector.

The overall results suggest that there is a positive correlation between investment growth and employment creation but there has been little evidence of any significance upsurge in investment or growth in the major traditional sectors of agriculture and manufacturing. In later sections we consider the types and quality of new jobs created.

7. The Labour Market in Jamaica: Overall Characteristics

One of the key indicators of the nature of the labour market is the size and growth of the labour force. Table A-5 shows that the labour force was 808.3 thousand persons in 1972 and increased to 1,141 thousand in 1996 a growth rate of 1.4 percent per year. The labour force however, is not evenly distributed by gender. In 1972, the male labour force was 56.5 percent of the total labour force and while this ratio has fluctuated, it has remained fairly stable at 53 percent between 1988 and 1996. Given that the population of Jamaica is evenly divided by gender, the male participation rate was much higher than that of females.

The employed labour force in 1972 was 626.5 thousand persons and this rose to 955.1 thousand persons in 1996 and this represented a growth rate of 1.7 percent annually. The male employed labour force grew by 1.4 percent a year over the period while the female labour force grew by 2.3 percent reflecting a faster rate of growth among females.

It should be noted that in 1972, 63 percent of the employed labour force were males, in 1988 it was 57.9 percent, and 57.7 percent in 1996. There were obviously slight gains for women and this has coincided with the expansion of the service sector.

A crucial issue in understanding the performance of the labour market in the reform period is the unemployment rate. In Table A-6, the participation, unemployment and the Job seeking rates are shown. The labour force survey defines the unemployment rate as an extended concept as it includes job seekers and non-seekers. The rationale is that persons may be willing and able to work but may be discouraged from looking for work. The overall unemployment rate has declined dramatically since the 1980’s, which had historical rates of between 20 and 27 percent between 1980-1987 but since than there has been a dramatic fall in the unemployment rate. The rate fell from 18.9 percent in 1988 to between 15 and 16 percent from 1993 to 1996, where it seems to have stabilised. It is important to investigate the reasons for the decline in the rate in the latter part of the 1980's. While the overall rate has fallen, those for both males and females have also declined. In 1972, the unemployment rates were 13.6 percent for males and 34.6 percent for females and by 1996 they were 10.6 percent for males and 23.1 percent for females.

The gap between male and female unemployment rates has closed slightly however there is still considerable unemployment among females. These changes are clearly brought out in Figure 2 below.

Figure 2
OVERALL UNEMPLOYMENT RATES AND RATES OF UNEMPLOYMENT BY GENDER

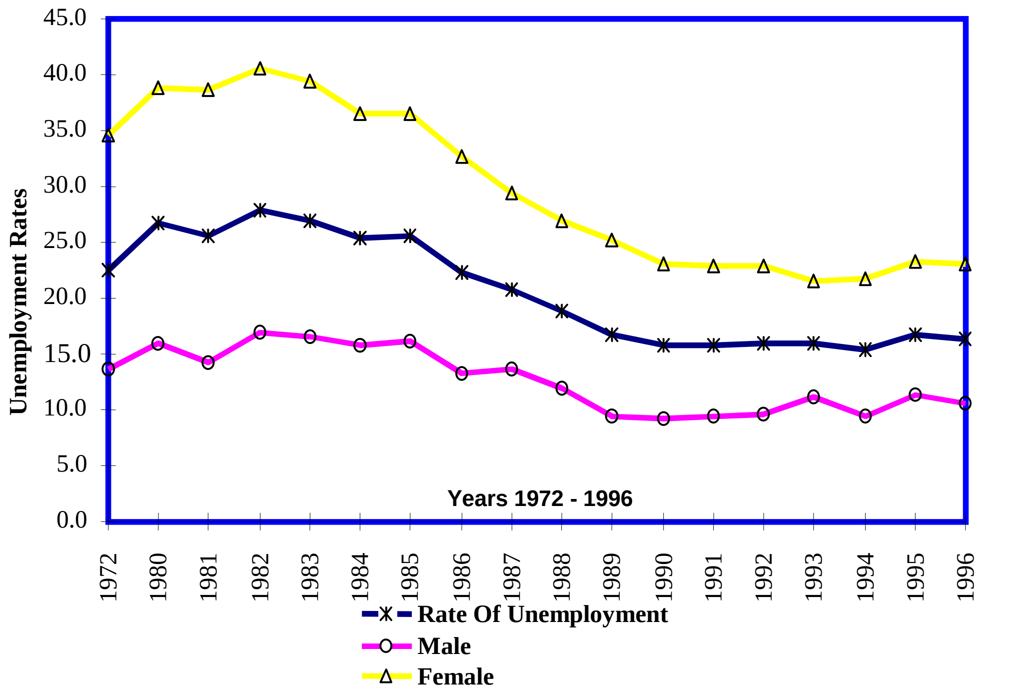


Table A-6 also shows the share of the employed labour force by industry divided into the goods and service producing sectors. This classification is of particular importance since the share of services has tended to increase relative to the goods sector in the 1990's. The goods sector is composed of agriculture, forestry and fishing, mining, manufacturing and construction. The service sector, on the other hand, is made up of transport storage and communication, financing insurance, real estate and business services, community social and personal services, electricity, gas and water, wholesale and retail and finally hotels and restaurant services.

The process of adjustment has seen considerable changes in the contribution of these sectors to employment. Within the goods sector, fluctuations in agriculture, mining and manufacturing and indirectly construction have determined the level of labour absorption. In the service sector, it is the wholesale, retail, restaurant and services, community, social and personal services which absorb a substantial number of workers. Between 1981 and 1987 the goods sector absorbed between 51 to 53 percent of the employed. The 1990's, however, saw a decline in its share where between 1990 and

1996 it varied between 41 and 46 percent. This broad shift in the relative shares of employment between the goods and service sectors, was directly related to structural shifts in the economy.

In 1991 both manufacturing and mining recorded lower employment, with the former declining by 8.5 percent and the latter by 29.2 percent. This outcome may be linked to the high interest rate policy and trade liberalisation which affected the competitiveness of the sector. The service-producing sector continued to absorb labour with 16,400 new jobs in 1991.

In 1993 the employment levels in the goods-producing sector declined by 25,500 jobs and the only exception was the mining and construction sectors which saw increases of 33 and 5.2 percent in employment respectively. Agriculture also declined by 10.7 percent and for the first time in recent years it lost its place as the single largest employer of labour. The service sector in the meantime continued to expand with an average of 22,000 jobs in 1993. This represented a definite shift towards a service economy with some 56 percent of the labour force. The important point is that jobs created in this sector were mainly in the community, social and personal services sector which were dominated by women. In this same year some 19,000 jobs were created in the wholesale, retail and hotels and restaurant sectors of which 60 percent were women.

The problems in manufacturing and the agricultural sector reflected a shift in economic structure as the service sector became the dynamic sector of the economy. Agriculture lost 2,700 jobs in 1994 due partly to the divestment of Government-owned agricultural entities. At the same time, manufacturing declined again in 1994 losing 2,700 jobs due to a fall in output while mining also lost 6,800 jobs also due to decreased production. In the same year, 1994, the service sector gained 16,600 jobs and sector productivity also increased with most subsections showing some increase (Table A-28).

By 1996, the goods-producing sector showed a slight decline in employment over 1995 and except for construction all other sectors generated lower demand for labour. The agricultural sector showed no increase in labour demand and may have been affected by the 1996 programme of restructuring by the Sugar Company of Jamaica, which created redundancies. Manufacturing showed a decline in labour absorption under the constraint of tight monetary policies and trade liberalisation, which may have negatively impacted on short run output and productivity. This sector was also largely affected by the decline in the apparel sub-sector influenced by prevailing macro policies. The service-producing sector has continued to expand employment despite the decline in the financial sector. The increases however have paralleled the increase in self-employment. In the next section the occupation status of the employed is considered. These patterns are consistent with the declines in overall unemployment since the 1980's.

8. Unemployed Labour Force by Sex and Household Status

Given the decline in unemployment rates we would also expect a decline in the unemployed labour force by household status. In particular, since a number of studies show a positive relationship between headship and employment, we expect the relationship to hold. Table A-7 and A-8[2] report the labour force and employed labour force by sex and household status. Since 1980 there has been a considerable decline in the number of male household heads that were unemployed. The number fell from 23.1 thousand in 1980 to 12.7 thousand in 1988. There was an increase to 15.8 thousand in 1994 and then a decline to 12.5 percent in 1996. The growth rates of employed heads over the period varied by gender. They were 0.2 percent for males and 2.0 percent for females.

The unemployment of spouses of male heads of households was 2.9 thousand in 1980, then rose to 4.6 thousand in 1985 and 2.7 thousand in 1996. The category child of head, which had a large number of unemployed, reflecting the high level of youth unemployment was 44.6 thousand in 1985 and fell to a low of 26.3 thousand in 1991 then rose to 34.9 thousand in 1996. Unemployment in the category other relatives on the other hand was 16.2 thousand in 1980 then fell to a low of 8.2 thousand in 1994 and rose to 14.3 thousand in 1996.

Similar patterns were observed for female heads and the other related categories except that the numbers were higher reflecting the larger unemployment among females. Among female heads 35.3 thousand females were unemployed in 1980 and this number declined to 25.1 thousand in 1991, then rose to 31.2 thousand in 1994 and was 25 thousand in 1996. The spouses of female heads showed a continuous decline in unemployment, from 49.3 thousand in 1980 to 14.5 thousand in 1996. The children of female household heads show the largest number of unemployed, from 62.8 thousand in 1980, this figure rose to 74.7 thousand in 1995, after which the figure varied between forty and fifty thousand. The results show that the structure of the labour market has not changed significantly, by gender except for a slight improvement for women.

9. Employment by Occupational Group and Branch of Activity

While this analysis concentrates on formal sector employment the rise of the informal sector in Jamaica as a source of labour absorption due to adjustment cannot be ignored. Table A-9 considers the labour force and its percentage share by occupational groups. Since 1972 the largest occupational group has been the Self-employed and Independent occupations with 34.8 percent of total employment. In 1980 the share of employment in this group was 41.1 percent and fell to 38 percent in 1991. Since 1993 this category was not continued, but seems to have been partially reflected in the category, elementary occupations. The new classification does not distinguish between a worker who is a “working proprietor” or not but focuses on the duties of the worker in his or her occupation. Thus the category “Elementary occupations” was the largest employer, accounting for 21.1 percent of persons employed in 1993. These occupations consist of street vendors of food and non-food products, door-to-door and telephone sales persons, domestic helpers, and labourers. The implication is that some occupations which were previously classified as self-employed and unskilled workers are included here. It is interesting that in 1993 some 61.6 percent of persons employed in this group were women and this was 32.2 percent of all women employed.

Of the other groups, Professional and related occupations rose slightly. Clerical and sales remained fairly stable while the unskilled category declined slightly. Witter and Anderson have pointed out that the new growth in the labour market after the mid 1980’s involved both self-employed and wage earners and with both males and females benefiting. The crucial issue however is that most of these jobs were created in the informal sector or in the secondary sector of the labour market. These jobs were thus characterised by low wages, low skill, job instability and the absence of worker protection (Witter and Anderson, 1991). The areas they identified were export-processing manufacture, tourism, small scale service industries, and retail establishments, domestic service and vending and hustling.

In Table A-10 considers the employed labour force and its percentage share by branch of activity. As was suggested in the previous section, Agriculture Forestry and Fishing constituted up to 1991 the largest share of employment by activity declining from 33.5 percent in 1972 to 27.3 percent in 1991 and 23 percent in 1996. Community, social and personal services were to become the major employer of labour, contributing 26.7 percent in 1991 and 25.2 percent in 1996. The next major contributors to employment was wholesale and retail, hotel and restaurant services which contributed 19.1 percent in 1991 and 21.1 percent in 1996. The important sectors of mining and manufacturing have not been very dynamic in the 1990s. Mining which is a capital intensive operation, contributed 1.2 percent to employment in 1980 but since then its contribution has varied between 0.6 and 0.7 percent. Manufacturing, on the other hand, contributed 10.9 percent to employment in 1980 and this ratio rose to 15 percent in 1988 but between 1991 and 1996 it varied between 10 and 11 percent.

Since 1988 some categories have changed so that construction was separated from installation and the service sector has been more disaggregated. Clearly the most dramatic shift has been the rise of the service oriented economy with community, social and personal services absorbing more labour than agriculture.

10. Part Time and Full Time Employment during Survey Week

The labour force surveys of Jamaica define persons working less than 25 hours in the survey week as casual or part time workers. Those working between 25 and less than 33 hours as part time, those between 33 and under 40 hours as full time and those working over 40 hours as overtime workers. Table A-11 shows the distribution of employed workers by hours worked. In the category under 25 hours, we observe persons working under 9 hours, nine and under 17 hours and seventeen to below 25 hours. In all these categories of hours worked, there has been a decline in the number of workers by gender. It is reasonable to use this category of under 25 hours as a measure of disguised employment with some caution since it is not clear whether the hours worked were voluntary or involuntary.

In the category, 17 and under 25 hours, there were 23.2 thousand workers in 1972, and this number rose to 34.4 thousand in 1985 after which there was a decline to 16.7 thousand in 1996. The reduction in number of men in less than full employment was greater than that of women. For example, while half as many men were employed in 1996 as in 1972 in the 17-25 hours per week category, the number for women was the same.

It should also be noted that while the decline in the number of men in less than full employment was continuous, in the case of women, the numbers employed showed considerable variation.

With respect to individuals employed between 25 and under 33 hours the pattern was an increase in employment up to 1985 then a decline thereafter. For persons who work full time between 33 and under 41 hours, the increase since 1972 was continuous however the gains by gender were unevenly distributed. For example, 60.4 percent of the persons employed in the category 33 to under 41 hours, in 1972, were males, while in 1988 the number of males was 56.2 percent and in 1996 it was 53.2 which suggests that women had made some additional gains in full time work. The growth rates of male and female employment in the category 33 to under 41 hours, was 4.8 percent for males and 6.1 percent for females

In the category 41 to under 49 hours of work in the survey week, the pattern was mixed. From 194.5 persons employed in 1972, 170.4 were employed in 1980, the number then rose to 305.9 in 1991 and declined to 262.8 in 1996. In the final category, of forty-nine hours and over there was a decline in the number of persons employed. The number employed was 181.7 thousand in 1972 and this number declined to 67.4 thousand in 1994 then there was a steep increase to 109.3 thousand in 1996.

The results are that for individuals working in less that full time employment women dominate the labour market, and have benefited less from full time employment than men. There was a general decline in the share of the workforce in less than full time employment, or a decline in the disguised employment rate, however, men gained more full time work in the 1990s.

11. Private Sector Wages and the Minimum Wage

The dramatic shift in the economy from goods oriented to service producing sectors affected the level and type of employment generated in the economy. Women seemed to have marginally reduced the unemployment gap between themselves and their male counterparts and there has been expansion of the informal sector. These changes, together with greater flexibility in major markets as the foreign exchange market and import liberalisation, would have affected the level and degree of wage rate changes over time.

Tables A-12 and A-13 provide data on the quarterly real wage for the private sector, excluding agriculture and the minimum wage respectively. In part A the final column reports the real average and quarterly indices of wages in 1988 dollars. The index rose from 86.67 in 1986 to 100 in 1988, it then declined to 96.4 in 1990. This was the period just before the deterioration of the exchange rate in 1991 after liberalisation of the exchange rate system. The rapid inflation after 1991 saw a loss in real wages with the index falling to 84.07 and 71.62. After 1993 there was some recovery as the index rose to 98.36 and 110.21 in 1995 and 1996 respectively.

The index of real minimum wage has exhibited an erratic pattern influenced by the fortunes of inflation over time. Generally there were some gains between 1981 and 1985, with slight reversals in 1982 and 1983. In 1987 and 1988 the index dropped rapidly to 83.3 and 77.8. Between 1988 and 1990 there were improvements in the index rising from 100 to 110. The problem of inflation after the liberalisation in 1991 also as expected showed up in the index. Between 1994 and 1996 there was a rapid increase in the index from 113 to 150 in 1995 and 133 in 1996.

Table A-14 reports the average earnings and an index of wages in large establishments, excluding agriculture, for the period 1986 to 1996. In 1989, the highest average nominal earnings were in mining, electricity and water, transport storage and communications and in finance and real estate. The wages of these sectors were above the average in that year while all the others were below. The lowest average earnings was in community services which was 68 percent of the average followed by the sectors, manufacturing, construction, trade, hotels and restaurants had little difference between them. By 1993 the rankings had shifted with manufacturing having the lowest average earnings of all sectors, and most other sectors maintained their percentage or improved over the average, except for trade, hotels and restaurants which had a slightly lower percentage relative to the average 1989 earnings. Interestingly, two sectors, electricity gas and water and mining showed considerable increases in earnings in 1993.

In 1996 the rankings had changed with trade, hotels and restaurants showing the lowest average, followed by manufacturing and community services. Over the period 1989, 1993 and 1996 however, mining, electricity, gas and water, transport and storage and finally finance, insurance and real estate maintained their importance as sectors paying above average earnings.

If the growth rates in the earnings index for the overall period is considered, the greatest growth was in transport and storage, followed by finance, insurance and real estate the fastest growing sector up to 1996. In the sub-period 1989-1993, electricity, gas and water, construction and community services saw the fastest growing earnings. It should be noted that these sectors also had considerable growth in investment spending. In the 1993-1996 period, the growth sectors were transport and storage, finance, real estate and insurance. The manufacturing sector tended to show below average growth except for 1996.

The results suggest that except for mining, which employs a relatively small number of workers, the goods sector has not done very well in terms of rewards to labour.

Table A-15 reports the average nominal and real earnings and the growth rates of real earnings. The average growth rates for real earnings was 1.8 percent over the period 1986-1996, and most sectors showed positive growth except for trade, hotels and restaurants which had a growth rate of -2.7 percent. For the sub-period 1989-1993 except for three sectors, mining, construction and community services, all other sectors showed negative growth. In the sub-period 1993-1996, mining, electricity and water and trade, hotels and restaurants showed negative growth, with positive growth in all other sectors. Two sectors of particular interest in this period are trade, hotels and restaurants which had negative growth throughout the period and transport and storage and construction which have had higher average earnings than mining. Thus sectoral shifts have also been followed by shifts in relative earnings across some sectors. Following Gafar (1997,p.257) the data show substantial earnings differentials for various industries, thus confirming the segmented labour market hypothesis.

12. Conclusion

In the first section a number of important insights have emerged which link the labour market outcomes with growth and investments. While male unemployment has declined that of females have also fallen but the gap between male and female employment has closed slightly suggesting that women have made greater gains in employment overall. In addition, males have gained more in full time employment while such employment for women has remained fairly constant. Women in full time employment have shown a faster growth in full time employment relative to males. Most of the expansion in employment for women has been in the service sector and in elementary occupations.

Secondly there has been a strong correlation between employment creation and investment and this has held for most sectors except manufacturing which has suffered from imports from abroad despite the increase in investment.

Thirdly, average wages have also generally followed the pattern of sectoral investment and growth with the growing service sector showing grater than average earnings for workers. This follows the theoretical relationship between growth and employment. Overall employment growth has however been dampened by the lack of overall significant growth between 1993 and 1996.

Fourthly, the liberalisation of imports and reduction of tariff have not helped to expand the traditional export sector while the non-traditional sector has grown slowly, and this has impacted on employment since employment in the traditional export sector has been in decline.

II. THE EVOLUTION OF THE JAMAICAN LABOR MARKET: ANALYSIS OF THE 1989, 1993 AND 1996 LABOUR FORCE SURVEYS

1. Introduction

In this section of the report the focus is on the labour force surveys of Jamaica for the years 1989,1993 and 1996. The four tentative conclusions that have emerged in the last section will be further investigated in relation to job quality as measured by the level of education of workers, age structure, employment status and income. It is important to note also that there are certain differences between the surveys, some of which made it impossible to identify all the variables suggested in the terms of reference for the three surveys. For these reasons a number of observations are made.

First, a significant number of tables utilised the income data from the Labour force Surveys. These data are not often used in the official reports because of the fear of selectivity bias, due to non responses and the fact that incomes are usually underreported. The usual strategy is to employ expenditure data, however, the labour force surveys do not contain data on expenditure, so we use the income results with some caution.

Secondly, the analysis includes the public sector workers who are a small percent of the sample and do not affect the overall results. In 1989 Government workers were 11.6 percent of the overall sample and in 1993 they were 9.4 percent.

Thirdly a number of tables could not be generated because of the fact that the data were not made available. For example, we could not get from the Statistical Institute of Jamaica, (STATIN) a urban/rural breakdown of the data. Additional tables which asked for a measure of job quality could not be generated but such proxies as years of education was used.

Finally, for only in the 1993 and 1996 surveys were questions asked with regard to the size of establishment but this is not the absolute number of workers but respondents were asked to identify ranges of (1-4), (5-9) and ten plus workers, within which they were employed. This hampered the generation of some additional tables which asked for the number of workers by establishment size.

2. Overview of the Labour Force Surveys, 1989, 1993 and 1996

The labour force surveys (LFS) of 1989, 1993 and 1996 sampled 18,739,11,973 and 15410 individuals over fourteen years of age. Raising factors were then applied to raise the sample values to the population totals. After the raising factor were applied there were slight differences between the published reports and the survey results. For example the 1989 published LFS reports 504.8 thousand males and the survey result was 502.0 thousand. For females the two reports were 371.7 and 365 respectively. For 1993 the results for males was exactly the same but for females it was 392 and 312 thousand for the published report and sample data respectively. In 1996 it was 551 and 556 thousand for males and for females the two were the same. Since the percentages, however were not large enough to cause any concern and considerable time was lost in getting the raising factors, no further corrections were made.

The 1989 LFS sample had a labour force of 1,525,736 persons of which 47.8 percent were males and 52.2 percent females. Of the total number of males, 68.8 percent were employed, 9.2 percent were unemployed and 21.8 percent were outside of the labour force. For females, 45.92 percent were employed, 16.3 percent were unemployed and 37.78 percent were outside of the labour force.

The 1993 labour force comprised 1,502,859 individuals of age greater than 14 years, of which 50.8 percent were males and 49.1 percent were females. At the same time, 66.4 percent of males were employed, 7.6 percent unemployed and 25.9 percent were outside of the labour force. In the case of females, 42.3 percent were employed, 16.02 percent unemployed and 41.6 percent outside of the labour force.

The 1996 survey comprised 1,674,336 individuals of which 47.3 percent were males and 52.6 percent were females. Of the males in this survey, 70.1 percent were employed, 7.6 percent were unemployed and 22.2 percent were outside of the labour force. For females, 45.9 percent were employed, 14.05 percent unemployed and 40.04 percent were outside of the labour force.

3. Employed Persons According to the Integration in the Labour Market

Table 5 shows the status of persons in the labour market by three age groups by gender for 1989. Given the gains in employment over time the age composition of the population by sector is also important.

Table 5
MALE AND FEMALE POPULATION ACCORDING TO THE INTEGRATION IN THE LABOUR MARKET, BY AGE GROUP, 1989

	Age Groups			
Males	**14-24**	**25-54**	**55 and Over**	**Total**
Employed	128490	283871	89723	502085
Row%	25.59	56.54	17.87	
Unemployed	40120	23523	4056	67699
Row%	59.26	34.75	5.99	
Outside labour force	111300	10108	38139	159547
Row %	69.76	6.34	23.9	
Total	279910	317503	131919	729331
Total Row %	38.38	43.53	18.09	100
Females				
Employed	73474	234449	57775	365699
Row%	20.0	64.11	15.08	
Unemployed	71165	54910	3726	129801
Row%	54.83	42.30	2.87	
Outside labour force	151880	58823	90202	300905
Row %	50.47	19.55	29.98	
Total	296519	348182	151704	796405
Total Row %	37.23	43.72	19.05	100

The table shows that for employed males, between the ages under 24 years, 25-54 and 55 years and over, the percentage of persons employed was 25.59, 56.54 and 17.87 percent which was similar to the 1993 figure of 25.23, 57.24 and 17.53 percent (Table 6).

Table 6
MALE AND FEMALE POPULATION ACCORDING TO THE INTEGRATION IN THE LABOUR MARKET, BY AGE GROUP, 1993

Age Groups				
Males	**14-24**	**25-54**	**55 and Over**	**Total**
Employed	128067	290567	88965	507600
Row%	25.23	57.24	17.53	
Unemployed	36031	20141	2228	58400
Row%	61.7	34.49	3.82	
Outside labour force	133824	17405	46622	197851
Row %	67.67	8.7	23.5	
Total	297922	328113	137816	763851
Total Row %	39.0	42.9	18.0	100
Females				
Employed	61054	205160	46652	312865
Row%	19.51	65.57	14.91	
Unemployed	62759	52416	3225	118401
Row%	53.01	44.27	2.72	
Outside labour force	153862	66473	87407	307741
Row %	49.9	21.6	28.4	
Total	277674	324048	137285	739008
Total Row %	35.5	43.8	18.5	

In the 1996 sample, the percentages were 22.32, 61.27, and 16.41 for the respective age groups. The results suggest that, there were gains for males in the share of employed since 1989 to the age group 25-54 years and a slight decline in the age group 14-24 and 55 years and over. Thus slight gains have gone to prime age males with only a small decline in the young and older age groups. For unemployed males the shares between the three age groups were 59.26, 34.75 and 5.99 in 1989, while for 1993 it was 61.7, 34.4 and 3.82. In 1996 (Table 7) the shares were 58.88, 36.4 and 4.71 percent respectively reflecting no significant shifts in the age structure . For males outside the labour force by similar age groups, the figures were 69.76, 6.34 and 23.9 in 1989, while for 1993 the data show percentages of 67.67, 8.7 and 23.5 and in 1996 they were 72.2, 7.39 and 20.27 respectively. In considering the three surveys, in the case of unemployed males, the greatest change occurred in age groups 14-24 between 1993 and 1996 relative to 1989 and 1993. For the 25-54 age group, the greatest change was in the last two survey years and for the oldest age group the greatest change occurred as well between the last two years. The results also suggest a decline in the share of employed in the (14-24) age group for males outside the labour force and an increase in the age group (25-54) and 55 years and over .

Table 7
MALE AND FEMALE POPULATION ACCORDING TO THE INTEGRATION IN THE LABOUR MARKET, BY AGE GROUP 1996

	Age Groups			
Males	**14-24**	**25-54**	**55 and Over**	**Total**
Employed	124112	340652	91241	556005
Row %	22.32	61.27	16.41	
Unemployed	35613	22017	2849	60480
Row	58.88	36.40	4.71	
Outside labour force	127556	13040	35771	176367
Row %	72.28	7.39	20.27	
Total	287282	375709	129861	792852
Total Row %	36.23	47.38	16.38	100
Females				
Employed	74467	278164	51973	404604
Row	18.40	68.75	12.85	
Unemployed	63774	56082	4008.8	123865
Row	51.49	45.28	3.24	
Outside labour Force	174790	86531	91583	352904
Row %	49.53	24.52	25.95	
Total	313032	420077	147564	881373
Total Row %	35.52	47.74	16.74	100

In the case of females, in 1989, for the age groups 14-24 years, 25-54 and over 55 years, the share of individual employed was 20.0, 64.1 and 15.08, in 1993 it was 19.5, 65.57 and 14.91 while in 1996 it was 18.4, 68.75 and 12.85 percent showing a decline in the number of younger workers. In the case of unemployed females, the shares in the 1989 sample were 54.83, 42.3 and 2.87 while for 1993 it was 53.01, 44.27 and 2.72 and in 1996 it was 51.49, 45.28 and 3.24 respectively.

For females outside the labour force in 1989 the shares were 50.47, 19.55 and 29.98 while for 1993 it was 49.9, 21.6 and 28.4 and in 1996 it was 49.5, 24.5 and 25.9.

Table 8
MALE AND FEMALE POPULATION ACCORDING TO THE INTEGRATION IN THE LABOUR MARKET, BY LEVEL OF EDUCATION, 1989

	Years of Education					
Males	**Under 3 years**	**4-6**	**7-9**	**10-12**	**13-15**	**Total**
Employed	17532	64356	264950	139452	10225	496516
Row %	3.53	12.96	53.36	28.09	2.06	
Unemployed	1077	6858	25305	33677	410	67330
Row %	1.60	10.19	37.58	50.02	0.61	
Outside labour force	6481	14877	85877	49413	2264	158913
Row %	4.08	9.38	54.04	31.09	1.43	
Total	25091	86091	376132	222543	12900	722758
Row %	3.47	11.91	52.04	30.79	1.78	100
Females						
Employed	9419	40767	176165	128228	8432	363012
Row %	2.59	11.23	48.53	35.32	2.32	
Unemployed	1369	9738	58467	59296	669	129541
Row %	1.06	7.52	45.13	45.77	0.52	
Outside labour force	11494	37567	161934	84567	3514	299076
Row %	3.84	12.56	54.14	28.28	1.17	
Total	22282	88073	396566	272091	12615	791628
Row %	2.81	11.13	50.09	34.37	1.59	100

The results suggest a significant increase of 3 percent in the share of women 25-54 years, at the expense of those 14-24 years and 55 years and over in the labour force between 1993 and 1996. A smaller percentage of women work at lower age groups than men and this is consistent with the fact that more women seek to pursue formal education than men at lower age groups. For example, in 1989, of all men in age group (14-24), 25.59 percent were employed while for females it was 20.0, while in age group (25-54), 56.5 percent of males were employed while 64.1 percent of females were in this group. The implication is that women enter the labour market later than men.

Interestingly, the percentage of males remaining in the labour force 55 years and over was 17.87 percent in 1989 and 1993 and 16.41 percent in 1996, while for females it was 15.08, 14.91 and 12.85 percent respectively, showing a higher participation rate for males, earlier entry, and later withdrawal from the labour force than females.

Tables 8 and 9 consider the status of male individuals in the labour market by years of education approved and gives a measure of labour quality and how this has been affected since the reforms. The analysis is carried out for 1989 and 1993 only because the questionnaire with respect to primary education was changed in 1996 making the education levels not comparable with the pre 1996 period. Considering the levels of education under three years, 4-6, 7-9, 10-12 and 13-15 years in 1989 the percentage of persons of employed in each groups was 3.53, 12.96, 53.36, 28.09 and 2.06 percent while for 1993 it was 2.17, 11.67, 48.01, 36.49 and 1.66 (Table 9).

The results show a significant increase in the share of employment in the 10-12 years of education group, between 1993 and 1993 and a decline in the share of persons in the 7-9 group. Thus the impact of the labour market on demand for labour with different levels of education was uneven with significant labour absorption at the lower end of the labour market.

In the case of females, for 1989 the percentage of persons employed in the five groups were 2.59, 11.23, 48.53, 35.32 and 2.32 percent respectively, in 1993 the percentages were 1.99, 9.80, 41.39, 44.2 and 2.62 percent.

Table 9
MALE AND FEMALE POPULATION ACCORDING TO THE INTEGRATION IN THE LABOUR MARKET, BY LEVEL OF EDUCATION, 1993

Males	**Level of Education**					
	Under 3	**4-6**	**7-9**	**10-12**	**13-18**	**Total**
Employed	10875	58437	240431	182749	8311	500803
Row %	2.17	11.67	48.01	36.49	1.66	
Unemployed	1046	3757	24452	28300	414	57971
Row %	1.81	6.48	42.18	48.82	0.72	
Outside labour force	11025	60596	334906	203071	6496	616095
Row %	1.79	9.84	54.36	32.96	1.05	
Total	22945	122791	599790	414120	15222	1174870
Row %	1.95	10.45	51.05	35.25	1.30	100
Females						
Employed	6138	30308	127957	136666	8113	309184
Row %	1.99	9.80	41.39	44.2	2.62	
Unemployed	1653	6540	46128	62860	721	117904
Row %	1.40	5.55	39.12	53.31	0.61	
Outside labour force	16997	81421	386728	227079	4692	716917
Row %	2.37	11.36	53.94	31.67	0.65	
Total	24788	118270	560814	426605	13526	1144004
Row %	2.17	10.34	49.02	37.29	1.18	100

The most interesting result was that for females, for there was an increase in the share of individuals in the groups (4-6) years over the period and a decline in the share of persons with less than three years and 4-6 years of education. On the other hand there was a decline in the group (7-9) years of education since 1989.

In considering employed males and females, it is clear that by 1993 the proportion of females that were employed at higher education levels was higher than that of males reflecting the increasing investment in education by women. When the employed population was taken as a whole over all three surveys two interesting points emerge. First there was significant change in the proportions of individuals employed at each education level between 1989 and 1993. Thus while we cannot at this point determine the relation between restructuring, investment and the composition of employment, there has been considerable changes in the composition of employment with labour absorption taking place at the middle and lower end of the education spectrum.

4. Employment Status, by Branch of Activity and Gender

Tables A-16 to A-18 consider the status of employed persons by branch of activity (industry) and by gender and employment status for 1989, 1993 and 1996 respectively. For 1989 the industry categories were (0) agriculture (1) mining, (2-3) manufacturing, (4) construction and installation, (5,7) Transport communication and public utilities, (6) commerce, (8) public administration, (9) other services. In the case of 1993 and 1996, items 1-3 were similar to 1989. Item four (4) was electricity gas and water, while (5) was construction, (6) wholesale and retail trade, hotel and restaurants while (7) was transport storage and communication, (8) was financing, real estate and business services while (9) was community, social and personal services. This means that only categories 0-3 were comparable across surveys. When category 4 and 7 were combined in 1993-1996 these were comparable to category 5 and 7 in 1989. The employment status categories were as follows:

(1) and (2) Government workers, (3) Private sector businesses (4) unpaid worker (5) employer (6) own account worker and category (7) is employment status not specified.

The results show that 11.5, 9.2 and 9.3 percent of persons employed in the labour force survey were government workers in 1989,1993 and 1996 respectively; 42.4, 47.0 and 48.5 percent were from the private sector in the survey years respectively and 41.0, 40.2 and 36.6 percent of individuals employed were own account workers and these constituted the major components of the employed labour force. The size of the own account category confirm the fact that the elementary occupation group did not account for all the self-employed.

Of the private sector workers in 1989, 1993 and 1996, 10.1, 8.0 and 8.2 percent were from agriculture which was only 14.2, 14.3 and 16.8 percent respectively, of total agricultural employment. Own account workers in agriculture accounted for 76.1 in 1989, 78.9 percent in 1993 and 72.6 in 1996. Ignoring the category community, personal and social services, the main industry grouping for the private sector was manufacture of 13.3 percent in 1989, 11.2 percent in 1993 and 10.0 percent in 1996 and this reflects the general decline in the contribution of manufacture to GDP. Another important component was transport storage, communication and utilities which had a share of 4.5 percent in 1989, 5.4 percent in 1993 and 6.0 percent in 1996. The share of the employed in transport, storage and communication has grown relative to 1989. With respect to own account workers besides agriculture the next large category was group (6) wholesale, retail, hotels and restaurants of 24.8 in 1993 and 27.5 percent in 1996. For own account workers in sector (6), females dominated being 51.9 percent of employment in that sector in 1996. These results suggest that the expansion of the services relative to the goods sector saw greater absorption of labour in the services sector.

5. Employment Status, by Occupational Groups

Tables A-19, A-20 and A-21 consider the status of employed persons, by occupational groups for 1989, 1993 and 1996 respectively. The 1989 employment codes were changed in 1993 and 1996, and these had to be made comparable by identifying categories in the 1989 codes that were similar to those in later years[3]. For 1989,1993 and 1996, professionals were 7.9,10.0 and 12.5 percent of total employed, while for clerks the shares were 13.0, 7.6 and 7.7 percent. For skilled agricultural workers, the percentage shares were 23.6, 23.7 and 20.3 percent in the three years respectively.

With respect to service workers the ratios were 14.4, 5,12.3 and 16.0 percent and for craft and related trade workers it was 16.2, 17.0 and 17.6 percent for the three years respectively. Finally for elementary occupations the shares were 10.8 percent in 1989 and 21.4 percent in 1993 and 18.8 in 1996. There was obviously some fluctuations in the shares of employment in these occupation groups especially since 1993 which suggest that some of these jobs may be temporary.

Looking at the private sector by occupational groups for 1989, by gender, it is observed that for males and females in the category professionals, senior officials and technicians, males were 20.0 percent and female were 15.5 percent and this ratio was 18 percent and 15.9 for the two groups in 1996.

In the public sector females were 40.3 percent of all professionals in 1989, 25.8 percent in 1993 and 23.0 percent in 1996. This reflects the general decline in public sector employment as it fell from 11.5 percent in 1989 to 9.2 percent in 1993 and 9.4 percent in 1996. Women who were affected may have moved to the service sector.

For clerical employment 36.2 percent of employed were males and 63.8 percent were females in 1989 and in 1996, 24.7 percent were males and 75.2 percent were females. Thus, while women dominated services males dominated plant and machine operations and elementary occupations. In the own account sector, males dominated the skilled agricultural sector while females dominated services.

6. Employed Persons, by Branch of Activity and Age and Gender

Gender differences are important to understanding changes in the labour market in Jamaica especially since there has been a decline in the gap between male and female employment. These differences have been caused by sectoral shifts, which saw women concentrated in the service sector. Tables A-

22, A-23 and A-24 look at the number of employed persons by branch of activity and age groups 24 years and under, 25-54 and 55 years and over, by gender. Again the major branches are agriculture, manufacturing and transport storage and communications and public utilities (note that for the last group the code is 5and 7 for 1989 and 4 and 7 for 1933-1996).

For agriculture the shares for the three age groups for males in 1989 were 21.0, 49.0 in 1989, and 29.9 percent, in 1993 it was 20.2, 48.4 and 31.2 and in 1996 it was, 15.6, 53.5 and 30.7 percent. With respect to females, the shares were 9.5, 54.5 and 35.9 in 1989, in 1993 they were, 8.0, 53.9 and 38.0 percent and in 1996, 7.8, 60.6 and 31.4 percent respectively. Employed females in agriculture were, however, only 34 percent of all males employed in agriculture in 1989, 21.0 in 1993 and 24.6 percent in 1996 showing a relative decline in the share of women in agriculture since 1989.

In manufacture, the shares for the three age groups, for males in 1989, 37.2, 54.8, and 7.9, while in 1993 they were, 36.6, 53.9, and 9.3. In 1996 they were 34.2, 59.4 and 6.2 percent. With respect to females, the shares were 35.8, 58.7 and 5.3 percent in 1989, 32.9, 62.2 and 4.8 in 1993 and 30.2, 65.4 and 4.2 percent in 1996 respectively. Clearly there was a decline in labour absorption in the 24 and under age group in manufacturing.

In transport, storage and communications and public utilities, the shares in each group for males in 1989 were 18.4, 70.4 and 11.1 in 1993, they were 15.3, 72.9, 11.6 and in 1996, 14.3, 77.8 and 7.7 percent. For females, the shares for the three age groups were 17.3, 77.1 and 5.5 percent in 1989, 23.5, 72.6, and 3.8 percent in 1993 and 24.3,68.0 and 7.6 in 1996. The overall results show there were some gains for females in the lower age group between 1989 and 1993 in transport storage and communications and utilities.

7. Mean Hours Worked, by Age Groups, by Branch of Activity and Sex

Tables A-25, A-26 and A-27 show the mean hours worked for three age groups, 24 years and under, 25-54 and 55 and over, by branch of activity and by sex. Considering the year 1989, the overall mean weekly hours for the age groups are 39, 40 and 38 hours, and an average of 39 hours for the three age groups in 1993. In 1996 the average hours worked for the three age groups were 40, 40 and 39 hours showing slightly higher averages. This is the typical pattern of participation in which hours worked tend to decline after prime age and also confirm earlier analysis that the number of hours worked less than regular working hours had declined over time.

In this section comparisons can only be made for 1993 and 1996 since the industry codes are different. On the assumption that industry 2 and 3 which are both manufacturing are counted as two sectors and ignoring branch (9), in 1989, five out of eight branches showed women working greater or equal average hours in age group under 24 years and these are industries (8), (7), (5), (4), (2) and (1). For the year 1993 there were four industry branches (5), (3), (2) and (0) for which women worked at least as many hours as men or greater. In 1996, for the 24 and under age group, there were five industries for which women worked for equal or greater average hours and these were industries (6), (5), (3), (1) and (0). In 1989 for the age group 25-54 females worked for more hours on average than men in four out of eight industries, and these were industry (3), (2) and (1) while for 1993, it was only agriculture for which women worked equal or greater hours. There was a number of missing values in the last age group suggesting some selectivity problems so these data must be treated with caution.

8. Product and Labour Productivity by Branch of Activity

Sectoral growth or decline investment and labour absorption are also reflected in the level of productivity across sectors and the economy as a whole. Productivity declines and increasing costs also relate directly to competitiveness in the face of trade liberalisation. Table 10 reports the real wage rate, productivity levels and unit labour costs for the economy as a whole.

Table 10
WAGES, PRICES, PRODUCTIVITY AND UNIT LABOUR COST

Year	Nominal Wage rate [1]	CPI[2]	Real Wage[3]	Unit Labour Productivity[4]	Unit Labour Cost[5]
1972	52.3	66.7	78.4	107.4	72.9
1973	56.0	78.7	71.2	93.3	76.3
1974	100.0	100.0	100.0	100.0	100.0
1975	117.8	117.5	100.3	94.2	106.4
1976	128.6	128.9	99.8	87.8	113.6
1977	132.2	143.2	92.3	85.9	107.4
1978	151.4	193.3	78.3	83.3	93.9
1979	175.1	249.2	70.3	84.4	83.3
1980	184.8	317.5	58.2	79.4	73.2
1981	202.3	357.8	56.5	73.2	77.1
1982	267.3	381.3	70.1	74.6	93.9
1983	272.2	425.4	64.0	80.3	79.7
1984	326.6	543.8	60.1	78.6	76.4
1985	343.6	683.5	50.3	69.8	72.0
1986	392.8	786.7	49.9	68.6	72.7
1987	454.0	838.6	54.1	69.8	77.5
1988	517.8	908.3	57.0	68.4	83.3
1989	640.9	1038.8	61.7	71.2	86.6
1990	800.3	1266.8	63.2	72.4	87.2
1991	1144.4	1912.9	59.8	72.0	83.0
1992	1842.6	3326.6	54.3	73.4	73.9
1993	2790.9	4125.5	67.6	74.2	91.1
1994	3504.2	5594.2	62.6	73.8	84.8
1995	4454.4	6707.7	66.4	71.7	92.6
1996	5532.6	8478.6	65.2	70.5	92.4

1.This is defined as compensation of employees divided by total employment and is used as a proxy for the nominal wage rate.
2.This is taken from the IFS; 3.Nominal wage rate divided by the CPI; 4.Real GDP divided by the number of employees, or output per worker; 5.Column 3 divided by column 4. The original table is column 1 divided by column 4.
Source: Taken from Table 7, for the period 1972 to 1992, Gafar, J.Structural Adjustment and the Labour Market in Jamaica. The period 1992 to 1996 was extended by the author.

The real wage index has increased since the late 1980s moving from 61.7 in 1989 to 66.4 in 1995 and 65.2 in 1996. This is not surprising because collective bargaining agreements in the formal sector, usually last for two years and wages are usually set in relation to past inflation rather than anticipated inflation. As a result, real wages tend to rise when prices fall and fall when prices rise.

The most worrying aspect of the labour market has been the trend in productivity. The index of labour productivity although higher than in the late 1980s, has not shown a significant upward trend and have fallen from 74.3 in 1993 to 70.5 in 1996. Unit labour costs have tended to fluctuate over this period, with the index moving from 100 in 1974 to 107.4 in 1977. Thereafter the index declined to 72.0 in 1985. The trend since 1985 has been an increase in the index from 91.1 in 1993 to 92.4 in 1996. Clearly short term wage gains have been made but at the expense of productivity increases.

Tables A-28 and A-29 report the labour productivity by branches of activity for individual sectors and the overall economy as a whole. Looking at the index of productivity, the results confirm that of Table 10 which suggest that productivity levels were stagnant in the 1990s. The index which was 100 in 1989, rose to 106 in 1993 and returned to the 1989 level in 1996.

Because it was not always possible to match the labour force categories with similar categories in the National Income and Product Accounts (NIPA), the base year for some industry groups had to begin in 1991. For group (0) agriculture, productivity rose steadily after 1989, declined in 1994 then increased in 1996. This obviously reflects the impact of reforms in the sector and industry restructuring. Recall also that the share of employment in agriculture has declined over time.

For group (1) mining the index was 100 in 1989 and 134 in 1992, then declined to a little over 100 since then. Mining of course has lost its place as the major contributor to export earnings. In the case of group (2) manufacture, this saw after 1994 a plunge in productivity reflecting a declining output base. For group (3), electricity and gas, group (4), construction, group (5), wholesale and retail and groups (6,7), transport storage and communication, and group (8) community, social and personal services, the index showed a definite decline after 1994 which seems to have been a watershed year in which most sectors showed some decline. Given the general negative performance it is not surprising that the overall index also showed no strong productivity growth. This may also explain the lack of competitiveness in such sectors as manufacturing in the face of trade liberalisation.

9. Mean Monthly Income by Branch, by Size of Establishment and by Sex

It was already pointed out that there were considerable variation in wages across sectors and growing sector seem to reward labour more than stagnant or declining sectors. The size of firms may also have an important influence on wage levels. The size of establishment data relates only to 1993 and 1996 since the question on the size of establishments was not asked in the 1989 labour force questionnaire. Tables A-30 and A-31 consider the four groups of branches by the size of establishment by the mean monthly income by sex. The branches were constructed to identify agriculture sector (0), the goods sector (1, 2, 3, 4, 5) and the service sector (6, 7, 8) especially since the service sector has emerged as an important area of growth relative to the goods producing sector. The problem of selectivity bias may be strong in these data due to the fact that many individuals did not report their income, so the income results are treated with caution.

The table shows overall average monthly income of $2,826 in establishments of size 1-4 workers, $2,893 for size 5-9 and $3,601 for size 10 plus while in 1996 the average income for the three establishment sizes were J$7,810; J$8,287 and J$9,119 strongly supporting the conclusion that earnings varied by size of industry. The percentage change in incomes between 1993 and 1996 by establishment size was 1.76 percent, 1.86 percent and 1.50 percent which suggest that income grew faster for smaller establishments.

In the category of establishment size (1-4) the ratios of female to male income for the four branches were 1.14; 0.46; 0.77, 1.5 in 1993, and in 1996 they were 0.39; 0.53; 0.49 and 0.97 while for establishment size (5-9) they were 0.95; 0.64; 0.97 and 0.75 in 1993 and 0.71; 0.75, 0.40 and 2.70 in 1996. In the largest size establishment, the ratio of average female to male income in 1993 and 1996 respectively were 0.27 and 0.87, in agriculture, 0.44 and 0.61 in branches (1, 2, 3,4, 5) and 0.71 and 0.84 in branches (6, 7). They were 1.31 and 1.19 in branch (8), community social and personal services.

Given the fact that the overall mean earnings for men is higher than that of women some analysts have suggested that the labour market was discriminatory but we clearly notice variation across sectors but generally there seems to have been a closing of the income gap.

Tables A-32 and A-33 are similar to tables A-30 and A-31 except that there are only three branches of activity in this case to clearly identify the agricultural, goods and service sector. In the aggregate branch (1, 2, 3, 4) the ratio of females to male average earnings for 1993 was 0.67 percent, 1.04 and 0.38 respectively for establishment sizes.

(1-4), (5-9) and 10 plus workers respectively while in 1996 the ratios were 0.68, 1.08 and 0.62. In the case of the industry group (5, 6, 7, 8) the ratios were 0.60, 0.77 and 0.88 in 1993 and 0.48, 0.83 and 1.0 percent for the three establishment sizes respectively.

While wages varied by gender they also varied by sector as male wages in agriculture were lower than wages in the other two sectors in 1993, thus average agricultural income to average incomes in industry group (1, 2, 3, 4) for male employees for the three establishment sizes were 0.62; 0.85 and 0.97 in 1993 and 1.12; 0.79 and .59 in 1996, while for industry group (5, 6, 7, 8) agricultural incomes were 0.44; 0.51 and 1.55 in 1993 and in 1996 they were 0.64; 0.54 and 0.53.

In the case of females the ratio of average monthly incomes going to agricultural employees to average female income in group two (1, 2, 3, 4) was larger (1.06 and 0.77; 0.73 respectively) in 1993, and 0.65 and 0.62 and 0.84 percent in 1996, for industry for establishment size (1-4) and (5-9) and 10 plus. When male and female ratios were compared, the differentials for females were relatively larger for establishment size 10 plus workers.

With respect to industry group three, the ratios for mean incomes of female agricultural workers to female incomes in the group (5, 6, 7, 8) were 0.84; 0.63 and 0.48, in 1993 and 0.53, 0.46 and 0.46 in 1996, suggesting that the gap between agricultural wages and wages in the two other sectors was greater in large establishments.

Looking more specifically at establishment size 10 plus workers, for males, the highest average wages in 1993 was in branch or industry (0) while for females it was (5, 6, 7, 8), while in 1996 for both males and females, the highest average wages were in group (5, 6, 7, 8). This is consistent with the results in section one in which the goods sector which had declined showed low average earnings .

10. Branch of Activity by Highest Examination Passed

In addition to years of education, the level of certification provides a measure of labour quality and changes in its composition provides some indication of the types of jobs which are absorbed or destroyed in the labour market. Tables A-34, A-35 and A-36 consider the number of employees for three branches of activity by highest examination passed for 1989, 1993 and 1996 respectively. The three branches were aggregated to identify agriculture, the goods sector and the service sector as was pointed out before since these represent the areas of importance in the labour market as the good and agriculture sectors have declined and have impacted on labour absorption in those sectors, while the service sector has expanded.

The groups for 1989, 1993 and 1996 were made comparable by examining industry (0) agriculture, industries (1, 2, 3, 4) for 1989 with (1, 2, 3, 5) for 1993-1996 and sectors (5, 6, 7, 8, 9) for 1989 with (4, 6, 7, 8, 9) for 1993 and 1996.

The categories for the highest examination passed are as follows. The first category 'none' represents those persons who had passed no examinations or who did not state what examinations they had passed. The second category (2, 3, 4) is as follows: persons who passed the JSC or third JLE, persons with one to two GCE 'O' subjects and persons with three to four GCE'O' level subjects. The category (5, 6) represented persons with five GCE 'O' level subjects or one to two GCE 'A' level subjects or three GCE'A' level subjects. The last category 'degree' represents persons with a degree or some other achievement in higher education. These categories together with the tables on education levels before do reflect some measure of labour quality and the relationship between labour market restructuring and labour quality and absorption.

The 1989 data showed that in agriculture some 95.7 percent of employees had no form of certification or did not report what kind of certification they had and only 4.6 percent had some form of certification. In 1993 the figures were 98.5 percent for those reporting no certification and in 1996, it was 96.9 percent. In the case of branch of industry (1, 2, 3, 4), in 1989, 86.1 percent had no form of certification while 3.2 percent had some degree. The figures in comparable sectors (1, 2, 3, 5) were 86.7 and 2.7 percent in 1993 and 89.6 and 1.2 percent in 1996.

In the services sector for 1989, 51.6 percent of persons in branches (5, 6, 7, 8, 9) had no certification, while 13.8 percent had a degree. The 1993 for comparable sectors (4, 6, 7, 8, 9) the results were 65.9 percent with no certification and 8.0 percent had some degree. In 1996 they were 68.7 of the employed without certification and 3.8 percent had a degree. Clearly there has been an expansion in labour demand for persons without certification from 51 percent to 68.7 percent and a decline for persons with degrees from 13.8 to 3.8 percent between 1989 and 1996.

The overall results for 1989,1993 and 1996 were 70.5, 78.4 and 80 percent of employees had no certification, 16.9; 13.8 and 14.0 percent had passed examination in category (2, 3, 4) and 4.2, 2.7 and 3.0 percent had category (5, 6) of highest examination passed while 8.1, 4.8 and 2.5 percent had a degree. Clearly there has been a deterioration in the proportion of workers employed with some form of certification, an issue which may be linked to the increased in costs of education and the decline in the share of the annual budget towards education and training. At the same time, the employment growth and labour demand has been at the lower end of the labour market.

The conclusion with respect to education quality is that labour demand has been in the secondary sector of the labour market and this is certainly linked to the kinds of jobs created, the lack of labour productivity and the expansion of service employment.

11. Conclusion

The results in section and section II provide a set of outcomes which suggest that the labour market has not responded to investment across all sectors and significant labour absorption has occurred at the lower and upper end of the job quality spectrum. Significant labour absorption across both gender occurred in the 4-6 years of education group. The results also clearly suggest that women enter the labour market with higher levels of education and at a later age than men. The sectoral shifts also suggest a process of de-skilling and lower level jobs are in demand and up-skilling as persons at higher education levels were also absorbed. The analysis also suggest that there was significant overall productivity decline in the economy with gains in real wages and at the sectoral level manufacturing showed considerable productivity decline. This may explain the lack of competitiveness in the face of trade liberalisation. Higher real wages also tended to follow the leading sectors relative to sector in decline. The overall result is that most of the labour demand has been in the secondary labour market due to the informalisation of the labour force.

III. LABOR MARKET INSTITUTIONS

1. Labour Reforms and Their Impact on the Labour Market

Labour institutions and practices are an important aspect of labour reforms and certain practice may limit the flexibility of the labour market. As was pointed out before, however, the literature on such issues as the impact of minimum wage legislation and trade union activity is not unanimous and the evidence is mixed. In this section we consider the impact of labour reform on the labour market flexibility, wage setting and wage rigidity, and the relationship between labour productivity and conflict. These areas are examined to determine how they impact of labour absorption in the light of the reforms.

The World Bank has pointed out (World Bank, 1996, p.44) that the Jamaican labour market has a large flexible segment where self-employment and informal activities are prevalent. As a matter of fact, even in the formal sector, many firms do not comply with the requirement of paying social security contributions and taxes on behalf of their workers since evasion and avoidance are high (Wozny, 1985). They also conclude that firms in the formal segment of the labour market did not seem constrained by stringent labour market regulations, despite minimum wages and job security legislation.

Private sector workers are usually entitled to severance pay if they have two years of service at a rate of two weeks of pay per year. The rate rises to three weeks after three years. The problem however, is that since 1986, there is no cap on how much an employer may pay to a dismissed worker.

The contributions of employers to mandatory social security benefits are also not high relative to regional averages. The employer and employee (Alleyne, 1998) both pay 5% of the payroll to the National Insurance scheme, which provides a variety of benefits. Employers and employees also pay 5 % to the National Housing Trust (NHT), the funds of which are used to finance low cost housing. There is also a 3 % contribution to the HEART fund, if employers do not hire HEART trainees and this goes to training individuals for the workforce.

As part of labour market reforms, significant changes have occurred at the level of personal taxes. In 1986 a number of allowances and perquisites were removed and a flat rate tax of 33.3 percent, later 25 percent was imposed above a threshold of J$8,580.0 per annum. This threshold was later increased in the face of the inflationary spiral in the 1990s and has generally not kept abreast of inflation (Alleyne, 1998). This has effectively drawn low income earners into the tax net. The tax system has generally been simplified and has reduced major sources of distortion among income earners both in terms of horizontal and vertical equity. With respect to indirect taxes, the GCT was introduced in 1991 and this removed a large number of indirect taxes which was a major source of cascading.

Alleyne (1998) has estimated the effective rates of taxes and contributions for Jamaican workers and found them to generally fall on middle income PAYE workers in both the public and private sector while the self - employed pay very little in taxes and contributions. This represents on source of distortion in the labour market since self-employed incomes and labour have grown over time. It also creates incentives for individuals to reallocate some of their time wherever possible in pursuing informal activities rather than devoting their timer fully in the formal sector.

2. Wage Setting and Employment Rigidity

The last few years with the exception of 1997, saw periods of considerable price increases. Given an environment in which there are strong labour unions, each round of inflation has been followed by calls for wage increases. Most wage negotiations in Jamaica tend to follow a two year cycle with past inflation rather than inflationary expectation strongly influencing wage increases. The implication is that there is usually some wage rigidity in the short run, thus wages decline, as the data show, when prices rise and rise when prices fall.

There was some attempt to restrain wages in the 1980's with a series of wage guidelines, however these were of limited effect especially in period of unstable prices. In fact there was heavy use of non wage compensation especially by high income earners to circumvent the guidelines.

With the greater openness of the economy has come the call by employers for a more flexible work force, especially since employment growth has occurred fastest in the collective services such as retail, hospitality, tourism, entertainment, health care and in the financial sub-sector. The reduction of employment in some sector as manufacturing, the public sector and in the troubled financial sector, has seen a rapid trend in non-standard jobs such as part timers, self employed, dependent and independent contractors and a polarisation of work time with a combination of long and short hours. This may be a way in which employers are circumventing excessive trades union activity. According to the LMRC (p.29) trade unions in Jamaica have expressed concern over the growing incidence of "contracts for employment" under which individuals are hired under fixed term contracts, which are renewed at the pleasure of the employer. These new arrangements, depending on whether they will be accepted by labour unions, in the short run, will remain a potential source of labour market conflict and adjustment. This however, reflects the need for flexibility on the part of employers and employees especially in an inflationary environment.

3. Labour Productivity and Conflict

Although the first hypothesis of this study recognises the importance of growth and productivity to labour absorption, institutional factors also play an important part in influencing labour market outcomes. Incentives in the form of both monetary and non-monetary rewards affect the stability of the labour market. The World Bank (1996, p.45) points out that unionisation may be one factor affecting flexibility across sectors, but there has been some decline in labour union importance over time. One estimate is that unionisation has decreased from 43 percent in 1979 to about 24 percent. Part of this may be downsizing in many sectors and the general decline in the goods and manufacturing sector relative to the service sector, which has been relatively unionised. Conflict between union members and employers is clearly a source of labour market disruption and an obstacle to productivity. There is some concern on the side of the government as well since taxes and statutory deductions tend not to be made out for contract and part-time workers.

Table 11 reports the number of industrial disputes reported by trade unions by main causes in the period 1988-1997. While the overall number of instances of industrial unrest have tended to decline, the 1997 figure of 205 cases was higher than the figures for 1995 and 1996.

Table 11
NUMBER OF INDUSTRIAL DISPUTES BY CAUSES AND % OF MAJOR CAUSES 1988-1997

Year	Total Causes, and % Composition of Major Causes			
	Total Causes	Wages and Conditions of Employment, %	Bargaining rights, %	Dismissals and Suspensions %
1988	372	13.7	22.0	41.6
1989	308	24.0	26.2	36.3
1990	275	25.8	24.0	29.4
1991	269	20.0	25.2	29.3
1992	254	35.0	22.4	27.9
1993	248	30.2	26.8	26.6
1994	227	37.4	18.0	26.4
1995	181	40.3	22.0	21.5
1996	195	45.6	14.3	20.5
1997	205	39.0	19.0	23.9

Note: The three causes do not sum to 100%. The other causes are under the category miscellaneous.
Source: The Economic and Social Surveys of Jamaica (ESSJ),
Planning Institute of Jamaica (PIOJ). (various issues)

In addition, when the causes of unrest are desegregated in percentage terms, issues over wages and conditions of employment continue to be significant especially since 1995 when labour productivity fell for most sectors. Indeed wages and conditions of employment as a cause of labour disputes seem to have risen above historical levels in the last three years. For example, such causes rose from 30 percent in 1993 to 40 percent in 1995 and 45.6 percent in 1996. The issue of bargaining rights show some decline from 22 percent in 1995 to 19 percent in 1997 and there was also a decline in conflict over dismissal and suspensions.

When the number of disputes are broken down by industry it is observed that manufacturing and services account for a significant percentage. In 1996, 31.7 percent of all disputes occurred in Manufacturing, while Community, Social and Personal Services, Wholesale, Retail, Hotels and Restaurants accounted for 35.8 percent. In 1997 the percentages were 29.7 and 34.1 percent for these sectors. The manufacturing sector has under performed in the last few years and has been the source of considerable industrial unrest given the number of closures and restructuring than has been taking place.

The LMRC (p. 58) also points out that a closer look at the service sector reveals the disturbing fact that essential services, for which strikes have been prohibited by law have been a major source of conflict. They accounted for 20 percent of strikes in 1990, 14 percent in 1991 and 25 percent in 1994. It would appear however, that with the dramatic fall in the inflation rate since 1994, there would be fewer strikes in this sector.

The high number of labour disputes may be linked also to the slowness of the dispute resolution process. Usually when the labour dispute is over most of the workers may be taken on again. When there can be no resolution of a dispute between employers and their union there may be conciliation by the Ministry of Labour if requested by one of the partied to the dispute. If this fails the matter goes to the Industrial Disputes Tribunal (IDT) and even after this there may be recourse to the courts. The awards however take some time and this is a matter of great concern. Naturally labour disputes imply loss of labour time and in some cases severe loss of production and competitiveness. Table 12 reports the man-days lost to disputes, the number of workers involved and mandays lost per worker.

Table 12
MAN-DAYS LOST AND NUMBER OF WORKERS INVOLVED IN DISPUTES AND MAN-DAYS LOST PER WORKER.

Year	Man Days Lost	Number of Workers	Man Days Lost Per Worker
1988	45,894	5,385	8.5
1989	28,730	6,568	4.4
1990	30,676	10,173	3.0
1991	47,674	22,390	2.1
1992	154,172	23,312	6.6
1993	83,269	19,452	4.3
1994	155,491	57,597	2.7
1995	181,020	73,468	2.5
1996	39,624	13,265	3.0
1997	50,610	18,494	2.7

Source: The Economic and Social Surveys of Jamaica (ESSJ), Planning Institute of Jamaica (PIOJ). (various issues)

The results suggest that there has been a decline since 1995 in the number of workers involved in disputes and in the number of mandays lost per worker. The industrial relations climate however, is still relatively turbulent as firms go through restructuring and down sizing.

There has not been many instances of co-operation between unions and management and it was anticipated that with the introduction of Employee Share Ownership Plans in 1994, there would be greater co-operation at the firm level. The ESOP Act was designed to encourage workers to become shareholders of the companies for which they worked. Tax incentives were given to companies and to institutions which would lend for ESOP purposes. To date however ESOPs have not been very successful except in a very few companies. One of the reasons may be that since 1994 there has been low growth in the economy and many firms, especially in manufacturing have had to lay off workers.

IV. SUMMARY AND CONCLUSIONS

Regarding five hypotheses we can summarize the following insights

With respect to the first that economic growth is central to job creation at both the sectoral and overall level the results are unambiguous. Sectors that have grown have also absorbed labour. Manufacturing the lagging sector has been the clearest example. While the unemployment rate has declined however, the jobs created have not been in the formal sector but in own account work.

The second hypothesis is that, in the short run, non -labour reforms may impact negatively on productive employment and wages and its severity depends on how quickly growth can occur and the prevailing macro-economic conditions. Clearly the impact of the trade reforms have had a negative impact on some aspects of manufacturing and agriculture which was once the major labour absorbing sector.

The third hypothesis argues that when technical progress brought on by new investment is not labour intensive there may be little job creation. Jobs which are created however, may be of a high quality and this can influence the composition of aggregate employment. There was not much to be said with respect to this hypothesis because the new investment could not be sufficiently disaggregated except for agriculture.

The fourth hypothesis was that the restructuring of production given an environment of growth will create and destroy jobs as new skill emerge and others become obsolete. Because demand and supply of skills may not match this may lead to polarisation in term of productivity and relative wages. There is some weak results for this as there has been a polarisation of wages with average wages rising with the leading sectors. This has been complicated however by the fact that labour productivity overall has declined while labour costs have risen.

The final hypothesis states that in the short term, labour reforms will increase labour market efficiency, while their impact on wages and employment may be negative. In the longer term, the direct effect of labour reform depends on their specific character. The data available have only allowed for a short run analysis but the reforms have not affected overall real wages though secotral have been affected.

The results of this study elucidate a number of issues which have emerged in the post reform period and which allow some tentative approach to the five hypotheses outlined in the first section of the paper. The findings are as follows:

1. Wherever there has been growth and investment there has been labour absorption and this has been to the benefit to both males and females although males seemed to have benefited more overall. This has been the case for every other major sector except for traditional manufacturing, and agriculture which seemed to have suffered in the short run as a consequence of the reforms which removed much of their protection. While investment in manufacture has risen this has not resulted in increased growth, productivity or increased employment. In addition the employment has been in the area of a better quality labour force as the share of workers with limited education has declined in this sector. It is clear that the investment has been in restructuring and retooling rather than output expansion and over time it would be possible to see the impact of these changes.

2. There has been a considerable informalisation of the labour market as self-employed workers, part time workers, contractors and generally lower level workers have been in demand. This has been the result of a structural shift in the economy as the service sector has expanded the expense of the goods sector. In this sectoral shift, women have benefited from the growth and investment in services. Productivity however, has not risen significantly in this sector and employment has expanded at the lower and the upper end of the workforce. This *weakly* suggests the phenomenon of 'de-skilling' and 'up-skilling' that is simultaneously taking place.

3. There has been a general decline in the share of part time work in the economy as measured by the number of hours worked and an increase in full time employment. There has also been a decrease in overtime employment maybe due to the new tax regime which taxes overtime work. The decline in part time work however, has benefited men more than women as the number of women in part time work has not changed significantly while for men half as much were employed in 1972 as in 1996. This is a very important finding for clearly, while the quality of labour demanded has fallen, working hours have increased which may reflect the tendency to higher returns and less polarisation over time.

4. Wage levels have increased despite the fall in productivity and the rise in labour costs. This may reflect the impact of strong labour unions in an environment of inflation in which wage rates are based on past inflation. This has been a source of conflict however, between trade unions and employers, as employers have been opting for more part time and contract workers on less stringent and legally binding wage contracts and demanding the right to downsize without large compensation packages.

5. There is some tension between current institutional labour arrangements and employee demands for the right to strike in some services. In particular a source of conflict has been the essential services sector which legally their is no right to strike, but workers are demanding the right to strike for better remuneration. The reduced inflation rates to as low as 8 percent in 1997 will certainly remove this source of conflict.

6. There has been increasing industrial tensions between employers and the unions as the reform force changes at the firm and industry levels especially in areas in traditional manufacturing and garments and agro-processing. The number of strikes over remuneration have increased with its resulting impact on days lost. The ESOP scheme was seen as a way to diffuse this situation as workers would own shares in companies and companies would get tax and other incentives. This however has not been effective in a climate of restructuring and downsizing.

Due to the fact that some reforms are only now taking effect the results found in this study reflect significant changes in the last three years 1993 to 1996 rather that for the 1989 period which suggest that they may represent transitional changes in some sectors. The structural shifts and informalisation of the economy have come on the heels of downsizing and retrenchment especially in the public sector. As some sectors, as manufacturing, begin to grow again and become more efficient, it may well be that the self-employed sector will shrink. The response to the economy to increased exports will take some time as firms begin to respond with new technologies and greater efficiency, but for now, given stagnant growth, there is only a limited capacity, in the formal sector of the economy, to absorb labour.

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APPENDIX

Table A-1
DOMESTIC NON-TRADITIONAL EXPORTS BY SITC SECTION

Year	Non-raditional Exports	Food	Beverage and Tobacco	Crude material	Minerals, Fuels and Lubricants	Chemicals	Manufactured goods	Machinery transport and Equipment	Miss manufacture
1986	162706	31247	19178	4722	17976	15710	7456	2362	63959
1987	224694	30825	22828	6135	13655	20741	8882	3061	116091
1988	241709	30283	23023	5372	18796	20072	13569	4696	125873
1989	252593	32685	19332	11136	16290	23746	18440	4295	126644
1990	223108	37798	19608	7784	16523	24210	16969	4252	95927
1991	226483	46361	17437	5673	11552	22647	16861	3749	101945
1992	296012	52814	17259	6183	10088	25426	16313	3557	164333
1993	344987	60034	19053	6873	6536	24703	13543	2288	210476
1994	407167	64712	19529	7759	6015	23992	17854	2345	263423
1995	477846	77143	21015	7625	8355	44898	15190	3414	299324
1996	436097	78776	21988	5888	5930	44793	13402	3289	262006
1997	406993	74685	27026	12604	4506	39501	8721	4549	235207

Table A-2
DOMESTIC NON-TRADITIONAL EXPORTS BY SITC SECTION AS A PERCENTAGE OF OF TOTAL NON-TRADITIONAL EXPORTS

1986	1.00	0.19	0.12	0.03	0.11	0.10	0.05	0.01	0.39
1987	1.00	0.14	0.10	0.03	0.06	0.09	0.04	0.01	0.52
1988	1.00	0.13	0.10	0.02	0.08	0.08	0.06	0.02	0.52
1989	1.00	0.13	0.08	0.04	0.06	0.09	0.07	0.02	0.50
1990	1.00	0.17	0.09	0.03	0.07	0.11	0.08	0.02	0.43
1991	1.00	0.20	0.08	0.03	0.05	0.10	0.07	0.02	0.45
1992	1.00	0.18	0.06	0.02	0.03	0.09	0.06	0.01	0.56
1993	1.00	0.17	0.06	0.02	0.02	0.07	0.04	0.01	0.61
1994	1.00	0.16	0.05	0.02	0.01	0.06	0.04	0.01	0.65
1995	1.00	0.16	0.04	0.02	0.02	0.09	0.03	0.01	0.63
1996	1.00	0.18	0.05	0.01	0.01	0.10	0.03	0.01	0.60
1997	1.00	0.18	0.07	0.03	0.01	0.10	0.02	0.01	0.58

Table A-3

REAL GDP BY INDUSTRIAL SECTORS (1986-1996) AT 1996 PRICES AND GDP GROWTH RATES

Industrial Sector	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Agriculture, Forestry & Fishing	7.5	7.4	6.9	5.9	6.2	6.2	6.9	7.4	7.9	8.0	8.4
Mining & Quarrying	6.5	6.4	5.9	7.5	8.8	9.2	8.8	8.7	9.2	8.6	9.4
Manufacturing	21.2	20.8	21.4	21.5	21.2	19.4	19.5	18.8	18.7	18.4	18.1
Electricity & Water	4.1	4.1	4.0	4.2	4.2	4.3	4.4	4.5	4.5	4.7	5.0
Constuction & Installation	7.8	8.3	9.2	10.2	9.8	9.8	9.7	9.5	8.8	9.4	9.1
Distributive Trade	20.1	20.7	20.3	19.7	19.5	19.8	20.5	21.1	21.2	21.9	22.6
Transport, Comm. & Storage	9.4	9.8	9.9	9.7	9.5	9.8	10.2	10.8	11.3	12.3	13.7
Finance & Insurance Services	6.7	6.9	7.8	8.8	9.3	11.0	11.7	10.8	15.9	15.5	15.0
Real Estate & Business Services	7.9	7.6	7.6	7.2	7.3	7.6	7.9	8.0	8.3	8.7	9.0
Producers of Govt. Services	9.0	8.4	8.5	7.8	7.2	7.1	7.0	6.9	6.7	6.6	6.7
Misc. Services	4.3	4.3	4.1	4.1	4.2	4.0	4.0	4.2	4.1	4.1	4.2
Household % Non-profit Inst.	0.8	0.8	0.8	0.7	0.7	0.7	0.6	0.5	0.6	0.6	0.6
Less imputed Services charges	5.4	5.5	6.5	7.3	7.9	8.8	11.1	11.2	17.1	18.8	21.7
Total GDP at constant prices	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Table A-4

REAL GDP BY INDUSTRIAL SECTORS (1986-1996) AT 1996 PRICES AND GDP GROWTH RAT

Industrial Sector	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1986-1996	1986-1989	1989-1993	1993-1996
Agriculture, Forestry & Fishing	1048.0	1102.9	1065.3	968.5	1080.2	1078.5	1217.5	1340.7	1439.8	1471.2	1519.1	3.8	1.0	8.5	4.3
Mining & Quarrying	901.0	955.8	913.0	1238.1	1520.5	1606.7	1565.9	1571.3	1679.9	1565.2	1682.8	6.4	19.1	6.1	2.3
Manufacturing	2950.1	3122.7	3292.2	3540.5	3677.7	3400.5	3454.4	3389.4	3400.6	3360.6	3257.6	1.0	7.6	-1.1	-1.3
Electricity & Water	569.1	615.1	617.2	685.4	732.6	745.5	778.2	809.3	814.5	852.2	893.4	4.6	8.8	4.2	3.4
Constuction & Installation	1086.1	1240.6	1424.6	1680.5	1707.2	1718.2	1725.5	1716.9	1608.7	1724.9	1631.6	4.2	16.3	0.5	-1.7
Distributive Trade	2794.2	3100.9	3131.1	3237.1	3387.3	3462.1	3645.3	3791.2	3855.2	4008.0	4064.5	3.8	6.6	4.0	2.3
Transport, Comm. & Storage	1309.8	1465.0	1532.2	1592.5	1647.2	1714.7	1808.0	1952.1	2050.5	2254.2	2459.1	6.5	7.9	5.2	8.0
Finance & Insurance Services	928.3	1031.2	1205.6	1454.6	1607.6	1919.9	2072.6	1936.2	2902.1	2838.1	2690.5	11.2	20.1	7.4	11.6
Real Estate & Business Services	1091.0	1137.0	1169.6	1192.2	1274.7	1327.5	1398.6	1434.0	1505.6	1592.2	1612.4	4.0	5.3	4.7	4.0
Producers of Govt. Services	1255.4	1262.8	1306.4	1281.2	1247.0	1237.2	1238.6	1234.0	1213.9	1216.9	1213.0	-0.3	-0.2	-0.9	-0.6
Misc. Services	596.7	649.6	627.4	675.8	721.5	701.2	709.1	747.1	742.4	755.6	756.3	2.4	6.5	2.5	0.4
Household % Non-profit Inst.	111.3	114.9	119.2	113.6	121.4	114.3	108.3	97.7	106.6	112.1	107.0	-0.4	2.9	-3.7	3.1
Less imputed Services charges	744.3	817.1	995.3	1200.7	1366.3	1539.9	1965.3	2019.0	3117.2	3449.8	3900.1	18.0	22.4	13.9	24.5
Total GDP at constant prices	13892.2	14981.2	15408.4	16459.3	17358.8	17486.4	17756.7	18000.8	18202.7	18301.4	17987.1	2.6	7.7	2.3	-0.3

Table A-5
MAIN LABOUR FORCE INDICATORS
(In thousands)

	1972	1980	1985	1988	1989	1991	1993	1994	1996
Total Population	1949.6	2176.7	2303.9	2354.1	2356.0	2425.6	2466.1	2501.6	2521.4
Population 14 years and over	1104.3	1378.8	1502.0	1509.7	1510.4	1555.5	1581.9	1604.6	1692.5
Labour Force	808.3	1006.9	1049.8	1075.1	1062.1	1076.6	1076.4	1091.3	1141.3
Male	456.7	533.5	564.1	573.3	567.2	574.8	566.0	573.5	616.2
Female	351.6	473.4	485.7	501.8	494.9	501.8	510.4	517.8	525.1
Employed Labour Force	626.5	737.3	781.0	871.8	876.5	907.9	899.6	924.2	955.1
Male	394.7	448.2	473.3	505.3	504.8	520.6	507.6	519.1	551.1
Female	231.8	289.1	307.7	366.5	371.7	387.3	392.0	405.1	404.0
Unemployed Labour Force	181.8	269.6	268.8	203.3	185.6	168.7	176.8	167.1	186.2
Male	62.0	85.3	90.8	68.0	62.4	54.2	58.4	54.4	65.1
Female	119.8	184.3	178.0	135.3	123.3	114.5	118.4	112.7	121.1

Table A-6
PARTICIPATION RATES, UNEMPLOYMENT RATES AND JOB SEEKING RATES, BY GENDER

	1972	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996
Labour Force as % of The Total Population	41.5	46.3	46.4	46.8	45.9	44.9	45.6	45.4	46.1	45.7	44.8	44.5	44.4	44.1	43.7	43.6	46.2	45.3
Male	48.4	49.6	50.0	50.3	50.2	49.6	49.8	49.8	51.0	49.7	49.2	48.6	48.3	48.6	46.9	46.8	50.7	49.9
Female	34.9	43.0	42.9	43.3	41.9	40.4	41.5	41.3	41.2	41.8	40.6	40.6	40.6	40.6	40.6	40.6	41.8	40.8
Labour Force as % of the Population 14 years and Over	73.2	73.0	72.4	72.3	71.3	70.4	69.9	70.9	71.5	71.2	69.9	69.4	69.2	68.8	68.1	68.0	68.8	67.4
Male	87.5	80.4	80.2	79.9	80.1	78.9	78.4	78.8	80.0	78.6	77.9	76.9	76.5	75.7	74.2	74.0	76.6	75.4
Female	60.3	66.2	65.2	65.2	63.1	62.9	62.7	63.4	63.4	64.3	62.5	62.4	62.4	62.4	62.4	62.4	61.4	60.0
Rate Of Unemployment	22.5	26.8	25.6	27.9	26.9	25.4	25.6	22.3	20.8	18.9	16.8	15.7	15.7	15.9	16.0	15.3	16.8	16.3
Male	13.6	16.0	14.2	17.0	16.5	15.7	16.1	13.3	13.6	11.9	9.5	9.3	9.4	9.7	11.1	9.5	11.3	10.6
Female	34.6	38.9	38.7	40.6	39.4	36.5	36.6	32.6	29.5	27.0	25.2	23.1	22.8	22.9	21.5	21.8	23.2	23.1
Job Seeking Rate		19.5	19.2	21.7	22.3	12.7	13.3	10.8	9.6	8.3	8.2	6.9	5.6	6.1	6.7	7.9	6.9	7.3
Male		12.2	11.3	13.3	14.5	9.8	8.5	7.5	7.3	6.0	5.2	4.4	3.7	4.3	5.6	5.8	4.9	4.6
Female		29.1	29.4	32.3	32.6	16.6	17.9	15.4	12.8	11.4	12.1	10.1	8.0	8.5	8.0	10.4	9.4	10.9
Employment by Sector																		
Goods Producing Sector			52.2	52.4	50.3	50.8	53.2	52.4	53.4	51.0	50.8	46.0	44.7	46.3	43.5	41.8	42.6	42.2
Service Sector			47.7	47.6	49.6	49.1	46.8	47.6	46.6	48.9	50.2	54.1	55.3	53.7	56.5	58.2	57.4	57.8

Table A-7

LABOUR FORCE BY SEX & HOUSEHOLD STATUS (In thousands)

Relationship to Head of Household	1980	1985	1988	1989	1991	1993	1994	1996
Male								
Head	304.8	299.0	284.9	279.9	282.2	290.6	290.4	304.4
Spouse	25.4	31.8	32.5	43.1	46.3	54.9	50.8	51.1
Child	129.9	156.6	165.6	157.7	162.9	140.7	155.5	175.6
Other Relatives	61.6	65.1	74.7	71.0	71.8	70.9	65.1	75.7
Other	11.8	11.6	15.6	15.5	11.6	8.9	11.7	9.4
Female								
Head	149.0	149.2	154.1	161.5	166.8	197.7	194.7	183.5
Spouse	152.3	147.9	138.9	135.2	135.4	128.6	125.4	126.6
Child	101.3	123.8	135.3	124.0	122.7	124.2	126.1	144.2
Other Relatives	54.1	54.0	55.5	54.8	57.7	50.4	59.1	59.5
Other	16.7	10.8	18.0	19.3	19.2	9.5	12.5	11.3

Table A-8

EMPLOYED LABOUR FORCE BY SEX & HOUSEHOLD STATUS (In thousands)

Relationship to Head of Household	1980	1985	1988	1989	1991	1993	1994	1996
Male								
Head	281.7	275.9	272.2	267.6	268.0	272.6	274.6	291.9
Spouse	22.5	27.2	30.6	41.3	44.2	52.4	48.0	48.4
Child	88.2	112.0	126.5	124.3	136.6	114.4	129.1	140.7
Other Relatives	45.4	49.3	61.8	19.3	61.9	61.0	56.9	61.4
Other	10.4	8.9	14.2	12.3	9.9	8.2	10.5	8.7
Female								
Head	113.7	116.9	131.1	140.5	141.7	165.7	163.5	157.9
Spouse	103.0	106.7	115.2	112.4	115.4	104.9	105.8	112.2
Child	38.5	49.1	75.8	68.1	76.0	79.8	83.8	88.3
Other Relatives	21.8	29.6	30.6	34.7	38.5	34.1	41.5	36.9
Other	12.1	5.4	13.8	16.0	15.7	7.5	10.5	8.7

Table A-9

EMPLOYED LABOUR FORCE BY GROUP OF OCCUPATION AND PERCENTAGE SHARE IN EACH GROUP (In thousands**)**

GROUP OF OCCUPATION	1972	%	1980	%	1985	%	1988	%	1989	%	1991	%
Professional, Technical, Administrative, Executive	43.7	7.0	63.5	8.6	57.4	7.0	60.5	6.9	65.8	7.5	67.9	7.48
Mangerial & Related Occupations		0.0		0.0		0.0		0.0		0.0		0
Clerical & Sales Occupations	77.4	12.3	89.1	12.1	81.1	12.3	99.3	11.4	108.1	12.3	116.9	12.9
Self Employed &n Independent Occupations	218.1	34.8	302.2	41.0	339.4	34.8	351.0	40.3	339.9	38.8	345.6	38.1
Service Occupations	85.3	13.6	87.3	11.8	102.5	13.6	127.3	14.6	122.8	14.0	134.6	14.8
Craftsmen, Production Process & Operating	106.3	17.0	86.4	11.7	103.4	17.0	134.3	15.4	145.1	16.6	151.5	16.7
Occupations		0.0		0.0		0.0		0.0		0.0		0
Unskilled Manual & General Occupations	96.0	15.3	107.2	14.5	95.1	15.3	96.1	11.0	92.0	10.5	88.3	9.73
Unskilled Manual & General Occupations		0.0	1.6	0.2	2.1	0.0	3.3	0.4	2.8	0.3	3.1	0.34
	626.8	100.0	737.3	100.0	781.0	100.0	871.8	100.0	876.5	100.0	907.9	100

GROUP OF OCCUPATION	1993	%	1994	%	1996	%
Professional, Senior Officials & Technicians	97.8	10.87	108.5	11.7	125.2	13.1
Clerks	76	8.45	77.9	8.4	69.5	7.3
Service Workers & Shop & Market Sales Workers	112.2	12.47	123.4	13.4	145.2	15.2
Skilled Agricultural & Fishery Workers	193.1	21.47	181.0	19.6	190.9	20.0
Craft & Related Trade Workers	147.7	16.42	164.7	17.8	169.7	17.8
Plant & Machine Operators & Assemblers	60.9	6.77	62.3	6.7	72.0	7.5
Elementary Occupations	201.8	22.43	195.0	21.1	182.2	19.1
Occupations not specified	10.1	1.12	11.4	1.2	0.4	0.0
	899.6	100.00	924.2	100.0	955.1	100.0

The categories changed between 1991 and 1993

Table A-10
EMPLOYED LABOUR FORCE BY BRANCH OF ACTIVITY AND PERCENTAGE SHARE OF EACH BRANCH (In thousands)

BRANCH OF ACTIVITY	1972	%	1980	%	1985	%	1988	%	1989	%
Agriculture, Forestry & Fishing	210.5	33.6	271.4	36.8	278.9	37.8	261.1	29.9	239.5	27.3
Mining, Quarrying & Refining		0.0	8.7	1.2	6.0	0.8	6.2	0.7	7.8	0.9
Manufacture	79.6	12.7	80.0	10.9	100.6	13.6	131.1	15.0	134.7	15.4
Construction & Installation	41.6	6.6	26.4	3.6	34.8	4.7	48.9	5.6	56	6.4
Transport, Communication & Public	26.0	4.1	34.8	4.7	34.7	4.7	40.7	4.7	44	5.0
Commerce	82.4	13.1	92.7	12.6	115.3	15.6	135.0	15.5	141.4	16.1
Public Administration	67.7	10.8	110.5	15.0	81.1	11.0	74.1	8.5	72.1	8.2
Other Services	118.9	19.0	110.1	14.9	127.2	17.3	167.8	19.2	177.4	20.2
Industry not specified		0.0	2.7	0.4	2.4	0.3	6.9	0.8	3.6	0.4
	626.7	100.0	737.3	100.0	737.3	100.0	871.8	100	876.5	100.0

	1991	%	1993	%	1994	%	1996	%
Agriculture, Forestry & Fishing	247.7	27.3	219.1	24.36	215.9	23.4	217.2	22.7
Mining	5.3	0.6	8.6	0.96	6.3	0.7	6.9	0.7
Manufacture	95.6	10.5	101.9	11.33	101.2	11.0	101.2	10.6
Electricity, Gas & Water	6.2	0.7	4.4	0.49	5.9	0.6	8.2	0.9
Construction	54.9	6.0	64	7.11	66.3	7.2	82.7	8.7
Wholesale & Retail, Hotels &	173.5	19.1	189.3	21.04	194.6	21.1	190.9	20.0
Restaurant Service		0.0		0.00		0.0		0.0
Transport, Storage & Communication	35.8	3.9	40.7	4.52	38.2	4.1	48.8	5.1
Financing, Insurance, Real Estate &	40.2	4.4	42.5	4.72	49.0	5.3	54.5	5.7
Business Service		0.0		0.00		0.0		0.0
Community, Social & Personal	242.8	26.7	219.3	24.38	232.5	25.2	244.5	25.6
Service		0.0		0.00		0.0		0.0
Industry not specified	5.9	0.6	9.8	1.09	14.3	1.5	0.2	0.0
	907.9	100.0	899.6	100.00	924.2	100.0	955.1	100.0

The categories changed between 1988 & 1991

Table A-11
EMPLOYED LABOUR FORCE BY NUMBER OF HOURS WORKED DURING THE SURVEY WEEK (In thousands)

Number of Hours	1972	1980	1985	1988	1989	1991	1993	1994	1996
Under 9 hours	4.8	8.6	10.8	13.5	9.9	7.3	7.8	9.2	9.7
Male	2.6	2.5	3.2	5.4	3.6	3.5	2.8	4.0	4.8
Female	2.2	6.1	7.6	8.1	5.8	3.8	5.0	5.2	4.9
9 to under 17 hours	16.9	16.0	11.2	9.0	10.6	8.0	9.6	7.1	6.6
Male	8.5	7.7	4.2	3.8	2.8	2.5	3.5	2.7	1.9
Female	7.5	8.3	7.0	5.2	7.8	5.5	6.1	4.4	4.7
17 to under 25 hours	23.2	32.0	34.4	25.4	22.1	26.2	23.5	19.8	16.7
Male	12.9	13.3	12.3	9.6	7.9	10.3	9.9	8.1	6.2
Female	10.3	18.7	22.1	15.8	14.2	15.9	13.6	11.7	10.5
25 to under 33 hours	45.5	53.2	59.6	50.9	43.0	48.6	49.4	35.8	34.1
Male	21.4	23.2	27.0	22.8	20.0	20.5	21.7	16.9	13.8
Female	24.1	30.0	32.6	28.1	23.0	28.1	27.7	18.9	20.3
33 to under 41 hours	144.9	320.6	346.1	432.4	414.4	447.5	486.2	492.3	515.9
Male	87.6	182.5	194.5	243.2	236.7	242.8	258.0	263.7	274.6
Female	57.3	138.1	151.6	189.2	177.7	204.7	228.2	228.6	241.3
41 to under 49 hours	194.5	170.4	216.0	289.7	288.5	305.9	269.4	292.6	262.8
Male	124.2	120.9	152.7	185.7	180.3	197.6	171.3	177.0	172.3
Female	70.3	49.5	63.3	104.0	108.2	108.3	98.1	115.6	90.5
49 hours & over	181.7	111.3	102.9	50.9	92.6	64.4	63.8	67.4	109.3
Male	119.3	82.6	79.4	34.8	64.5	43.4	39.8	46.7	77.5
Female	62.4	28.7	23.5	16.1	28.1	21.0	24.0	20.7	31.8
Not stated	13.9	25.2							
Male	8.1	15.5							
Female	5.8	9.7							

Table A-12
AVERAGE REAL EARNING FOR THE PRIVATE SECTOR
(Excluding agriculture, 1988 prices)

Year	March	June	September	December	Annual Average	Average Index
1986	349.49	355.2	352.53	361.42	354.77	86.67
1987	382.18	386.28	392.98	394.67	388.85	95.00
1988	403.75	418.39	416.71	398.21	409.32	100.00
1989	395.53	400.18	404.59	407.76	402.67	98.38
1990	402.32	395.23	391.98	390.17	394.62	96.41
1991	390.23	359.59	332.19	314.86	344.15	84.08
1992	288.83	283.65	289.55	308.99	293.19	71.63
1993	352.26	374.52	391.22	403.14	381.85	93.29
1994	394.58	393.4	391.21	428.57	402.62	98.36
1995	430.8	456.67	457.63	457.43	451.13	110.21
1996	425.73	435.93	433.55			

Table A-13
NOMINAL AND REAL MINIMUM WAGE

Year	Nominal Minimum Wage	CPI	Real minimum Wage	Real Index
1981	26	39.5	66	91.67
1982	26	42.1	62	86.11
1983	30	46.8	64	88.89
1984	40	59.9	67	93.06
1985	52	75.5	69	95.83
1986	52	86.6	60	83.33
1987	52	92.4	56	77.78
1988	72	100	72	100.00
1989	84	114.3	74	102.78
1990	110	139.5	79	109.72
1991	140	210.8	66	91.67
1992	300	373.6	80	111.11
1993	300	456.6	66	91.67
1994	500	615.9	81	112.50
1995	800	738.5	108	150.00
1996	800	933.5	96	133.33

Table A-14

AVERAGE EARNINGS IN LARGE ESTABLISHMENTS:1986-1996

(Excluding agriculture, government, and employees in free zones)

	Nominal Wages in current Jamaican Dollars											**Ratio of Sector Earnings to Average Earnings**		
I ndustry	**1986**	**1987**	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1989**	**1993**	**1996**
Mining	622.5	831.7	889.1	918.6	1198	1620	3042.7	4151	5779	5601	7098	193.3	246.6	172.8
Manufacturing	271.9	309.4	345.9	391.8	460.5	586.7	899.7	1241	1910	2398	3028	82.4	73.7	73.7
Electricity, gas and water	383.1	471.3	554.3	694.2	836.6	1207	1928.4	4228	4534	7338	7694	146.1	251.2	187.3
Construction	272.3	296	375.2	396.6	471.4	663.4	1045.3	1648	2248	2885	3469	83.5	97.9	84.5
Trade, hotels, and resturants	268.4	318.7	365.1	386.7	458	558.4	872.9	1232	1702	2551	2198	81.4	73.2	53.5
Transport and Storage	480.1	488.6	583.3	654.5	740	1103	1487.3	2297	3221	6318	8080	137.7	136.5	196.7
Finance, Insurance,real estate	364.1	455.9	527.7	625.8	781.9	1022	1550.1	2206	3332	4226	5469	131.7	131.1	133.2
Community services	270.6	286.6	336.3	326.4	405	518.9	775.4	1421	2091	2148	3169	68.7	84.4	77.2
All sectors	317.2	70.32	422.4	475.2	568.3	748.5	1130.3	1683	2430	3307	4107	100.0	100.0	100.0
	Index of Nominal Wages (1986=100)											**Growth Rate of Earnings**		
	1986	**1987**	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1986-1996**	**1989-1993**	**1993-1996**
Mining	100	133.6	142.8	147.6	192.4	260.2	488.8	666.8	928.4	899.8	1140	27.6	45.8	19.6
Manufacturing	100	113.8	127.2	144.1	169.4	215.8	330.9	456.4	702.5	881.9	1114	27.3	33.4	34.6
Electricity, gas and water	100	123.0	144.7	181.2	218.4	315.1	503.4	1103.6	1183.5	1915.4	2008	35.0	57.1	22.1
Construction	100	108.7	137.8	145.6	173.1	243.6	383.9	605.2	825.6	1059.5	1274	29.0	42.8	28.2
Trade, hotels, and resturants	100	118.7	136.0	144.1	170.6	208	325.2	459.0	634.1	950.4	818.9	23.4	33.6	21.3
Transport and Storage	100	101.8	121.5	136.3	154.1	229.8	309.8	478.4	670.9	1316.0	1683	32.6	36.9	52.1
Finance, Insurance,real estate	100	125.2	144.9	171.9	214.7	280.6	425.7	605.9	915.1	1160.7	1502	31.1	37.0	35.3
Community services	100	105.9	124.3	120.6	149.7	191.8	286.5	525.1	772.7	793.8	1171	27.9	44.4	30.6
All sectors	100	116.7	133.2	149.8	179.2	236	356.3	530.6	766.1	1042.6	1295	29.2	37.2	34.6

Table A-15

AVERAGE NOMINAL AND REAL EARNINGS IN LARGE ESTABLISHMENTS :1986-1996 AND GROWTH RATES OF REAL EARNINGS

(Excluding agriculture, government, and employees in free zones)

	Average Nominal Earnings (in current Jamaican dollars)										
Industry	**1986**	**1987**	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**
Mining	622.5	831.7	889.1	918.6	1198	1620	3042.7	4151	5779	5601	7098
Manufacturing	271.9	309.4	345.9	391.8	460.5	586.7	899.7	1241	1910	2398	3028
Electricity, gas and water	383.1	471.3	554.3	694.2	836.6	1207	1928.4	4228	4534	7338	7694
Construction	272.3	296	375.2	396.6	471.4	663.4	1045.3	1648	2248	2885	3469
Trade, hotels, and resturants	268.4	318.7	365.1	386.7	458	558.4	872.9	1232	1702	2551	2198
Transport and Storage	480.1	488.6	583.3	654.5	740	1103	1487.3	2297	3221	6318	8080
Finance, Insurance,real estate	364.1	455.9	527.7	625.8	781.9	1022	1550.1	2206	3332	4226	5469
Community services	270.6	286.6	336.3	326.4	405	518.9	775.4	1421	2091	2148	3169
All sectors	317.2	370.2	422.4	475.2	568.3	748.5	1130.3	1683	2430	3307	4107
CPI	**86.6**	**92.4**	**100**	**114.3**	**139.5**	**210.8**	**373.6**	**456.6**	**615.9**	**738.5**	**933.5**

(Index 1988=100, in current Jamaican dollars)

	Average Real Earnings (in 1988 Jamaican dollars)										Growth Rates Of Real Earnings		
	1986	**1987**	**1988**	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1986-1996**	**1989-1993**	**1993-1996**
Mining	**718.8**	**900.1**	**889.1**	**803.7**	**858.8**	**768.3**	**814.4**	**909.1**	**938.3**	**758.4**	**760.4**	**0.6**	**3.1**	**-5.8**
Manufacturing	**314.0**	**334.8**	**345.9**	**342.8**	**330.1**	**278.3**	**240.8**	**271.8**	**310.1**	**324.7**	**324.4**	**0.3**	**-5.6**	**6.1**
Electricity, gas and water	**442.4**	**510.1**	**554.3**	**607.3**	**599.7**	**572.6**	**516.2**	**926.0**	**736.2**	**993.6**	**824.2**	**6.4**	**11.1**	**-3.8**
Construction	**314.4**	**320.3**	**375.2**	**347.0**	**337.9**	**314.7**	**279.8**	**360.9**	**365.0**	**390.7**	**371.6**	**1.7**	**1.0**	**1.0**
Trade, hotels, and resturants	**309.9**	**344.9**	**365.1**	**338.3**	**328.3**	**264.9**	**233.6**	**269.8**	**276.3**	**345.4**	**235.5**	**-2.7**	**-5.5**	**-4.4**
Transport and Storage	**554.4**	**528.8**	**583.3**	**572.6**	**530.5**	**523.4**	**398.1**	**503.1**	**523.0**	**855.5**	**865.6**	**4.6**	**-3.2**	**19.8**
Finance, Insurance,real estate	**420.4**	**493.4**	**527.7**	**547.5**	**560.5**	**484.7**	**414.9**	**483.1**	**541.0**	**572.2**	**585.9**	**3.4**	**-3.1**	**6.6**
Community services	**312.5**	**310.2**	**336.3**	**285.6**	**290.3**	**246.2**	**207.5**	**311.2**	**339.5**	**290.9**	**339.5**	**0.8**	**2.2**	**2.9**
All sectors	**366.3**	**400.6**	**422.4**	**415.7**	**407.4**	**355.1**	**302.5**	**368.6**	**394.5**	**447.8**	**440.0**	**1.8**	**-3.0**	**6.1**

Table A-16
NUMBER OF EMPLOYED PERSONS BY BRANCH OF ACTIVITY AND STATUS IN EMPLOYMENT BY SEX, 1989

		Employment Status							
Branch of Activity	sex	1	2	3	4	5	6	7	Total
0	Male	349	1102	28012	7086	751	149887	123	187310
	Female	73	494	7685	13844	400	41224		63720
1	Male	148	318	4251			360		5077
	Female		77	564			57		698
2	Male	135	1054	30572	1328	878	11222		45189
	Female	123	215	33295	496	84	2855		37068
3	Male	92	350	12222	302	456	8623		22045
	Female		66	5205	172	63	847		6353
4	Male	144	194	36873	431	586	7873	180	46281
	Female			618	196		144		958
5	Male	1084	2751	513					4348
	Female	83	763	256					1102
6	Male	216	1131	20353	1392	1714	20328		45134
	Female	293	1713	28136	3291	1112	54723		89268
7	Male	746	3434	13049		631	7121		24981
	Female	1206	2610	2320		149	275		6560
8	Male	27079	1521	1772			143	115	30630
	Female	39905	2224	1718	68			70	43985
9	Male	74	1057	39176	997	1074	14181	100	56659
	Female	978	2342	86164	1714	835	21664	260	113957
Total		72728	23416	352754	31317	8733	341527	848	831323

Employment Status: (1)- Central Government (2) Other Government Agencies (3)Private Sector Businesses (4) Unpaid Worker (5) Employer (6)Own AccountWorker (7) Not Reported.

Table A-17
NUMBER OF EMPLOYED PERSONS BY BRANCH OF ACTIVITY AND STATUS IN EMPLOYMENT BY SEX, 1993

		Employment Status							
Branch of Activity	sex	1	2	3	4	5	6	7	Total
0	Male	222	1897	23559	3138	1965	134251	326	165358
	Female		117	5136	5419	448	23762		34882
1	Male		381	6435			188		7004
	Female			437					437
2	Male	590	1746	32169	237	343	11411		46496
	Female	598	109	26183	115	278	3838		31121
3	Male		165	4813		153	942		6073
	Female			706					706
4	Male	521	1024	1700					3245
	Female			498	149				647
5	Male	538	444	43154	445	1113	7041	279	53014
	Female		152	553			175	149	1029
6	Male		224	38963	1134	940	21701	141	63103
	Female	126		31723	2913	712	53238		88712
7	Male	370	1940	13935		797	10242	122	27406
	Female	1866	1218	3479				132	6695
8	Male	875		14203		436	489		16003
	Female	160	259	15111		123	513		16166
9	Male	160	5370	34633	1510	1151	19464	165	78331
	Female	26340	5972	57222	725		16035	592	106886
Total		48244	21516	354263	15636	8459	303290	1906	753314

Employment Status: (1)- Central Government (2) Other Government Agencies (3)Private Sector Businesses (4) Unpaid Worker (5) Employer (6)Own AccountWorker (7) Not Reported.

Table A-18
NUMBER OF EMPLOYED PERSONS BY BRANCH OF ACTIVITY AND STATUS IN EMPLOYMENT BY SEX, 1996

		Employment Status							
Branch of Activity	**sex**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**Total**
0	Male	164	562	27870	7407	4287	131826	63	172179
	Female	290	348	8211	7954	1389	24095	91	42378
1	Male	95	162	3957		94		302	4610
	Female	75		476			206		757
2	Male	465	158	30734	93	2169	11595	86	45300
	Female	274	382	34205	338	1061	2986		39246
3	Male			4077	90	76	1130	116	5489
	Female			610			91		701
4	Male	678	2141	1524			468		4811
	Female	78	683	320					1081
5	Male	319	221	58226	322	1232	8400	76	68796
	Female			1907		92	103		2102
6	Male	273	436	37006	1123	3662	27798		70298
	Female	416	92	50857	4339	2983	63367		122054
7	Male	1535	1711	19730	130	1355	14718		39179
	Female	1629	1294	5043	113	200			8279
8	Male	956	444	22285		956	1496	198	26335
	Female	385	1086	20620		88	499		22678
9	Male	15906	8309	34569	667	2293	17720	453	79917
	Female	28887	14258	75273	564	1435	23628	579	144624
Total		52425	32287	437500	23140	23372	330428	1662	900814

Table A-19
NUMBER OF EMPLOYED PERSONS BY STATUS IN EMPLOYMENT AND OCCUPATION, 1989

	Two code occupation group								
Branch of Activity	**Sex**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**Total**
1	Male	8032	4113	249	11774	659	2530	2710	30067
	Female	24436	9378		8288			559	42661
2	Male	2126	3494	75	1968	310	2432	2507	12912
	Female	2402	5642		1938	133		389	10504
3	Male	11345	24853	2413	23987	21972	49499	52724	186793
	Female	10250	45200	220	72457	23687	375	13772	165961
4	Male	173	1399	741	438	1665	627	6493	11536
	Female	210	3095	1430	1228	1306		12512	19781
5	Male	988	2236	858	1612	65	264	67	6090
	Female	155	1345	510	633				2643
6	Male	1922	3234	150262	57451	1622	3607	1640	219738
	Female	1364	4596	41164	74040	385		240	121789
7	Male	100		123	115		180		518
	Female		70		260				330
Total		63503	108655	198045	256189	51804	59514	93613	831323

Note Occupational Code: (11-34)Professional, senior Officials and technicians (2) Clerks (51-52) Service Workers (61-62) Skilled agricultural and fishery workers (71-74) Craft and related workers (81-83) Plant and Machine operators (91-93) elemental Occupations (99) Not specified

Table A-20

NUMBER OF EMPLOYED PERSONS BY STATUS IN EMPLOYMENT AND OCCUPATION, 1993

		Two Code Occupation Group								
Branch of Activity	**Sex**	**Prof**	**Clerks**	**ServWrk**	**SkllAgr**	**Craft**	**MachOper**	**ElemOcc**	**NotStat**	**Total**
1	Male	7004	2147	6707		691	799	1806		19154
	Female	17060	6594	3297	117			1892	130	29090
2	Male	1816	2258	1435	368	1400	1761	4153		13191
	Female	2534	2784	647	117		109	1105	1029	8325
3	Male	21450	11185	26831	9372	70662	20765	51419	1880	213564
	Female	11906	31376	21054	1228	6077	15506	51924	1628	140699
4	Male	139		818	1963	1471	169	1741	163	6464
	Female	429	629	2348	4451	155		1160		9172
5	Male	1758		234	1725	1751	797	633		6898
	Female	717	149	132	448	115				1561
6	Male	5694		8367	134571	32073	10541	12812	1671	205729
	Female	5409	220	20569	24343	13598	359	32524	539	97561
7	Male		141	287	176	279		150		1033
	Female		149	164				560		873
Total		75916	57632	92890	178879	128272	50806	161879	7040	753314

Table A-21

NUMBER OF EMPLOYED PERSONS BY STATUS IN EMPLOYMENT AND OCCUPATION, 1996

		Two Code Occupation Group							
	Sex	**Prof**	**Clerks**	**SkllAgr**	**ServWrk**	**Craft**	**MachOper**	**ElemOcc**	**Total**
1	Male	6074	2420	7054		1471	907	2465	20391
	Female	17688	7130	3154	121		177	3764	32034
2	Male	4183	3145	2455	340	1140	1285	1596	14144
	Female	8310	5393	1766	98	96	95	2385	18143
3	Male	20406	10905	34077	10609	87283	25228	51470	239978
	Female	17971	39556	39931	1560	9006	18460	71038	197522
4	Male	426	78	722	4061	966	130	3449	9832
	Female	1028	390	2791	4487	733	91	3788	13308
5	Male	5613	117	775	4218	3523	1439	439	16124
	Female	3716		1265	1206	416	195	450	7248
6	Male	10576	516	13087	132301	35801	14286	8886	215453
	Female	16307		37312	23806	18312	197	19041	114975
7	Male	471	88		155	162		116	992
	Female	94			91			485	670
Total		112863	69738	144389	183053	158909	62490	169372	900814

Table A-22

NUMBER OF EMPLOYED PERSONS BY BRANCH OF ACTIVITY AND AGE GROUP, 1989

		Age			
Branch of Activity	**Sex**	**24 or under**	**25-54**	**55 & over**	**Total**
0	Male	39349	91875	56086	187310
	Female	6088	34743	22889	63720
1	Male	906	3841	330	5077
	Female	94	604		698
2	Male	18134	23669	3386	45189
	Female	14262	21085	1721	37068
3	Male	6903	13183	1959	22045
	Female	1321	4423	609	6353
4	Male	12140	28036	6105	46281
	Female	301	569	88	958
5	Male	439	3222	687	4348
	Female	343	670	89	1102
6	Male	12154	26074	6906	45134
	Female	16765	56624	15879	89268
7	Male	4961	17426	2594	24981
	Female	989	5238	333	6560
8	Male	4024	23407	3199	30630
	Female	5003	34532	4450	43985
9	Male	16419	33320	6920	56659
	Female	26868	75463	11626	113957
Total		187463	498004	14856	831323

Note: (0-1)- Agriculture, Forestry, Fishing and Mining - (2)(3)Manufacturing(4) Construction and installation (5-7) Transport, communication and Public utilities (6) Commerce(7 Public administration (9) Other services

Table A-23

NUMBER OF EMPLOYED PERSONS BY BRANCH OF ACTIVITY AND AGE GROUP, 1993

		Age			
Branch of Activity	**Sex**	**24 or under**	**25-54**	**55 & over**	**Total**
0	Male	33492	80121	51745	165358
	Female	2795	18818	13269	34882
1	Male	1612	4836	556	7004
	Female	185	252		437
2	Male	17201	24379	4916	46496
	Female	10040	19534	1547	31121
3	Male	2086	3987		6073
	Female	440	266		706
4	Male	744	2501		3245
	Female	196	260	191	647
5	Male	15083	30605	7326	53014
	Female	147	707	175	1029
6	Male	19089	37235	6779	63103
	Female	15949	56366	16397	88712
7	Male	4211	20003	3192	27406
	Female	1576	4863	256	6695
8	Male	4643	10328	1032	16003
	Female	5583	9568	1015	16166
9	Male	21043	49883	7405	78331
	Female	19159	76593	11134	106886
Total		175274	451105	126935	753314

Note: (0)- Agriculture, Forestry, Fishing(1)-Mining - (2)(3)Manufacturing(4) Electricity. gas and Water (5) Construction (6) Wholesale and retail. Hotels and Restaurant Services(7) Transport. Storage and Communication, (8) Financing, Insurance, Real State and Business services, (9) Community, Social and

Personal Services

Table A-24

NUMBER OF EMPLOYED PERSONS BY BRANCH OF ACTIVITY AND AGE GROUP, 1996

		Age			
Branch of Activity	**Sex**	**24 or under**	**25-54**	**55 & over**	**Total**
0	Male	26991	92227	52961	172179
	Female	3338	25695	13345	42378
1	Male	409	3755	446	4610
	Female	287	470		757
2	Male	15296	27001	3003	45300
	Female	11905	25645	1696	39246
3	Male	2105	3190	194	5489
	Female	198	503		701
4	Male	1064	3310	437	4811
	Female	157	924		1081
5	Male	19850	42108	6838	68796
	Female	419	1683		2102
6	Male	19113	41939	9246	70298
	Female	22310	81991	17753	122054
7	Male	5636	30513	3030	39179
	Female	2012	5637	630	8279
8	Male	4204	20120	2011	26335
	Female	6843	15193	642	22678
9	Male	19101	52400	8416	79917
	Female	21852	106534	16238	144624
Total		183090	580838	136886	900814

Table A-25

MEAN WEEKLY WORKING HOURS OF EMPLOYEES, BY BRANCH OF ACTIVITY AND SEX, AND AGE GROUP, 1989

		Age		
	Sex	**24 or under**	**25-54**	**55 & over**
Branch of Activity		**Hours**	**Hours**	**Hours**
0	Male	39	40	40
	Female	35	38	39
1	Male	44	41	42
	Female	45	43	
2	Male	39	41	42
	Female	39	39	38
3	Male	41	40	38
	Female	37	39	29
4	Male	39	41	39
	Female	42	38	
5	Male	37	40	31
	Female	39	38	37
6	Male	40	41	43
	Female	39	42	40
7	Male	40	43	38
	Female	41	39	21
8	Male	39	40	42
	Female	39	39	40
9	Male	39	40	36
	Female	40	38	36
Total		39	40	38

Note: (0-1)- Agriculture, Forestry, Fishing and Mining - (2)(3)Manufacturing (4) Construction and installation (5-7) Transport, communication and Public utilities (6) Commerce (7) Public administration (9) Other services.

Table A-26
MEAN WEEKLY WORKING HOURS OF EMPLOYEES, BY BRANCH OF ACTIVITY AND SEX, AND AGE GROUP, 1993

		Age		
	Sex	24 or under	25-54	55 & over
Branch of Activity		Hours	Hours	Hours
0	Male	38	38	36
	Female	39	41	39
1	Male	38	39	41
	Female	37	25	
2	Male	38	40	43
	Female	38	39	40
3	Male	39	40	
	Female	48	37	
4	Male	39	41	
	Female	37	37	37
5	Male	37	40	39
	Female	37	39	
6	Male	40	41	39
	Female	39	39	40
7	Male	43	40	42
	Female	38	39	40
8	Male	40	41	39
	Female	39	40	32
9	Male	39	40	42
	Female	37	37	37
Total		39	39	39

Note: (0)- Agriculture, Forestry, Fishing. (1)- Mining - (2)(3)Manufacturing (4) Electricity, gas and Water (5)Construction (6) Wholesale and retail, Hotels and Restaurant Services (7)Transport, Storage and Communication,(8) Financing, Insurance, real estate and Business services (9) Community, Social and Personal Services

Table A-27
MEAN WEEKLY WORKING HOURS OF EMPLOYEES, BY BRANCH OF ACTIVITY AND SEX, AND AGE GROUP, 1996

		Age		
	Sex	24 or under	25-54	55 & over
Branch of Activity		Hours	Hours	Hours
0	Male	38	41	42
	Female	39	40	38
1	Male	37	42	47
	Female	37	43	
2	Male	40	41	40
	Female	38	39	36
3	Male	44	41	37
	Female	44	39	
4	Male	39	40	37
	Female	37	37	
5	Male	40	41	40
	Female	42	39	
6	Male	41	42	43
	Female	41	41	39
7	Male	41	43	45
	Female	39	38	36
8	Male	39	41	42
	Female	38	38	39
9	Male	40	41	39
	Female	38	37	36
Total		40	40	39

Note: (0)- Agriculture, Forestry, Fishing. (1)- Mining -(2)(3)Manufacturing (4) Electricity, gas and Water (5)Construction (6) Wholesale and retail, Hotels and Restaurant Services (7)Transport, Storage and Communication,(8) Financing, Insurance, real estate and Business services (9) Community, Social and Personal Services

Table A-28
LABOUR PRODUCTIVITY, BY BRANCH OF ACTIVITY

	Output Per Worker 1989 to 1996									
	Group 0	**Group 1**	**Group 2**	**Group 3**	**Group 4**	**Group 5**	**Group 6**	**Group 7**	**Group 8**	**ALL Sect**
1989	3.9	225.1	26.3	NA	30.0	NA	36.7	NA	NA	18.7
1990	4.6	211.2	27.0	NA	28.9	NA	40.2	NA	NA	19.4
1991	4.4	359.6	35.6	120.2	31.3	20.0	47.9	80.8	8.5	19.3
1992	4.6	301.1	30.2	129.7	26.5	17.9	45.7	75.5	7.8	19.6
1993	6.1	191.6	35.4	165.1	29.3	20.0	51.0	75.6	8.8	19.8
1994	6.3	240.0	28.9	125.3	21.3	17.1	48.8	81.0	7.7	19.7
1995	6.2	220.5	27.6	103.9	18.4	17.4	45.5	75.7	7.5	19.1
1996	7.0	243.9	32.2	108.9	19.7	21.3	50.4	78.9	8.5	18.8

Table A-29
INDEX OF LABOUR PRODUCTIVITY, BY BRANCH OF ACTIVITY

	Group 0	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	All Sect
1989	100	100	100	NA	100	NA	100	NA	NA	100.0
1990	119	94	103	NA	96	NA	109	NA	NA	104.0
1991	112	160	135	100	104	100	131	100	100	103.1
1992	118	134	115	108	88	90	124	93	92	104.7
1993	155	85	135	137	98	100	139	94	104	106.0
1994	162	107	110	104	71	86	133	100	91	105.4
1995	158	98	105	86	61	87	124	94	89	102.4
1996	179	108	122	91	66	107	137	98	100	100.8

For sectors 0,1,2,4and 6 ,base year 1989; for sectors 3,5,7,8 base year 1991

Group (0) Agriculture, Forestry and Fishing

Groups (1-5) Mining, Manufacture, Electricity and Gas, Construction, Wholesale and Retail

Groups (6) Transport Storage and communication

Groups (7) Finance and Insurance

Groups (8) Community Social and personal Services

Table A-30
MEAN INCOME OF EMPLOYEES BY BRANCH OF ACTIVITY AND SEX, BY SIZE OF ESTABLISHMENT, 1993

		Establishment Size		
		1 - 4	5 - 9	10+
Branch, Four Group	Sex	Monthly Income	Monthly Income	Monthly Income
0	Male	1,639	1,787	5,453,
	Female	1,884	1,709	1,512
1, 2, 3, 4, 5	Male	3,829	3,380	4,588
	Female	1,770	2,194	2,056
6, 7	Male	2,823	2,747	3,691
	Female	2,177	2,688	2,625
8	Male	3,200	3,949	3,334
	Female	4,800	3,000	4,388
Total		2,826	2,893	3,601

Table A-31
MEAN INCOME OF EMPLOYEES BY BRANCH OF ACTIVITY AND SEX, BY SIZE OF ESTABLISHMENT, 1996

		Establishment Size		
		1 - 4	5 - 9	10+
Branch, Four Group	Sex	Monthly Income	Monthly Income	Monthly Income
0	Male	6,864	5,255	5,628
	Female	2,739	3,770	4,934
1, 2, 3, 4, 5	Male	9,800	7,904	9,874
	Female	5,290	5,956	6,040
6, 7	Male	10,041	12,872	10,384
	Female	4,989	5,246	8,727
8	Male	7,183	12,154	12,092
	Female	7,005	32,832	14,455
Total		7,810	8,287	9,019

Table A-32
MEAN INCOME 0F EMPLOYEES BY GROUP OF BRANCHES OF ACTIVITY AND SEX, AND SIZE OF ESTABLISHMENT, 1993

		Establishment Size		
		1 - 4	5 - 9	10+
Branch, Four Group	Sex	Monthly Income	Monthly Income	Monthly Income
0	Male	1,639	1,787	5,453
	Female	1,884	1,709	1,512
1, 2, 3, 4	Male	2,625	2,092	5,317
	Female	1,770	2,194	2,045
5, 6, 7, 8	Male	3,687	3,488	3,517
	Female	2,235	2,697	3,121
Total		2,826	2,893	3,601

Table A-33
MEAN INCOME 0F EMPLOYEES BY GROUP OF BRANCHES OF ACTIVITY AND SEX, AND SIZE OF ESTABLISHMENT, 1996

		Establishment Size		
		1 - 4	5 - 9	10+
Branch, Four Group	Sex	Monthly Income	Monthly Income	Monthly Income
0	Male	6,864	5,255	5,575
	Female	2,739	3,770	4,934
1, 2, 3, 4	Male	6,093	6,574	9,313
	Female	4,190	6,003	5,842
5, 6, 7, 8	Male	10,680	9,609	10,435
	Female	5,149	8,071	10,529
Total		7,782	8,344	8,831

Table A-34
BRANCHES OF ACTIVITY, BY HUMAN CAPITAL LEVEL, 1989

	Highest exam passed				
Branch, Four Group	None	2,3,4	5,6	Degree	Total
0	35648	845	323	418	37234
1, 2, 3, 4	111920	11617	2852	4448	130837
5, 6, 7, 8	75557	41279	10328	20898	148062
Total	223125	53741	13503	25764	316133

Note: (0-1)- Agriculture, Forestry, Fishing and Mining - (2)(3)Manufacturing(4) Construction and installation (5-7) Transport, communication and Public utilities (6) Commerce(7 Public administration (9) Other services

Highest Exam passed: none-no subject passed plus not stated; 2,3,4 -JSC or JLE or GCE ‘O’ 1-2 or GCE ‘O’ 3-4; 5,6- GCE ‘O’ 5+ SC or GCE’A” 1-2; 7,8 - degree and other

Table A-35
BRANCHES OF ACTIVITY, BY HUMAN CAPITAL LEVEL, 1993

	Highest exam passed				
Branch, Four Group	None	2,3,4	5,6	Degree	Total
0	30167	447			30614
1, 2, 3, 4	61921	9579	2144	3179	76823
5, 6, 7, 8	123050	27961	5504	10176	166691
Total	215138	37987	7648	13355	274128

Branches of activity: (0)- Agriculture, Forestry, Fishing. (1)- Mining - (2)(3)Manufacturing (4)Electricity, gas and Water (5)Construction (6) Wholesale and retail, Hotels and Restaurant Services (7)Transport, Storage and Communication, (8) Financing, Insurance, real estate and Business services (7) Community, (9)Social and Personal Services

Highest Exam passed: none-no subject passed plus not stated; 2,3,4 -JSC or JLE or GCE ‘O’ 1-2 or GCE ‘O’ 3-4; 5,6- GCE ‘O’ 5+ SC or GCE’A” 1-2; 7,8 - degree and other.

Table A-36
BRANCHES OF ACTIVITY, BY HUMAN CAPITAL LEVEL, 1996

	Highest exam passed				
Branch, Four Groups	**None**	**2,3,4**	**5,6**	**Degree**	**Total**
0	34763	712		400	35875
1, 2, 3, 4	61329	9952	1047	1698	74026
5, 6, 7, 8	157836	33664	8690	5831	206021
Total	253928	44328	9737	7929	315922

	Highest exam passed				
Branch, Three Groups	**None**	**2,3,4**	**5,6**	**Degree**	**Total**
0	35648	845	323	418	37234
1, 2, 3, 4	108302	10784	2491	4094	125671
5, 6, 7, 8,9	79175	42112	10689	21252	153228
Total	223125	53741	13503	25764	316133

	Highest exam passed				
Branch, Three Groups	**None**	**2,3,4**	**5,6**	**Degree**	**Total**
0	30167	447			30614
1, 2, 3, 4	102036	10849	1559	3223	117667
5, 6, 7, 8,9	82935	26691	6089	10132	125847
Total	215138	37987	7648	13355	274128

	Highest exam passed				
Branch, Three Groups	**None**	**2,3,4**	**5,6**	**Degree**	**Total**
0	34763	712		400	35875
1, 2, 3, 4	114639	10935	754	1612	127940
5, 6, 7, 8,9	104526	32681	8983	5917	152107
Total	253928	44328	9737	7929	315922

Notes

[1]. Traditional exports are made up of bauxite and alumina, gypsum, sugar, bananas, citrus and citrus products, coffee, and coffee products, cocoa and cocoa products and rum.

[2]. These tables have been used to calculate the level of unemployment by household status.

[3]. Jamaica Standard Occupation Classification, 1991.STATIN