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What Can Be Done to Reduce the High Levels of Youth Joblessness in the World?

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0. Introduction

The aim of the ILO's Action Programme on Strategies to Combat Youth Marginalisation and Unemployment is to develop interventions to combat youth unemployment and exclusion. The main output of the Action Programme will be a strategy document to guide the formulation of future youth employment policies and programmes. It will be based in part on a series of country studies, two regional papers and this summary paper.

This paper tackles a bold task – to evaluate youth joblessness in the *world* and what can be done to improve it. First the youth labor market in general and the youth labor market in particular are examined in five areas of the world 1) OCED 2) Transition economies 3) Latin America 4) Asia and Africa. There are many similarities, not least of which is the fact that youth unemployment is approximately double adult unemployment in most countries of the world. This ratio appears to decline as unemployment increases. Second explanations for youth joblessness are examined and the following are ruled out a) wages b) minimum wages c) cohort size d) shifts in industry composition e) trade f) technology g) increased female participation and rule in the level of aggregate demand in the economy. Unemployment makes young people very unhappy, which suggests it is not a conscious choice as some may believe. The army of the unemployed is a conscript rather than a volunteer army.

Third substantial supply responses to economic incentives in the youth labor market are documented. High unemployment encourages young people to stay on longer at school and get more education. The young are more likely these days than was true in the past to continue living with their parents. A number of worrying responses are identified including increased drug taking, more participation in crime and a higher incidence of suicide among the young, and especially so in English speaking countries.

Fourth, strategies to deal with youth joblessness are examined. Increased youth wage flexibility does not seem to be the right strategy: there is little evidence to suggest that the young are being priced out of jobs. Over the last decade or so there has been a decline in many countries in the wages of the young relative to adults. Minimum wages, which interfere with the market setting of wages, can help to improve poverty but if set too high can increase unemployment. Schemes to encourage self-employment, which provide advice on how to set-up in business or which help to overcome capital constraints may have some value. Active labor market policies have generally not been very successful in improving the situation of the disadvantaged young. I make a series of recommendations for narrow targeting and careful monitoring.

Finally, because it appears that solutions to youth unemployment are driven by what happens to overall unemployment, macroeconomic policies that have been suggested can be used to beat it are analyzed. Unfortunately we are a long way from understanding why aggregate unemployment is so high and why it has trended upwards over the last couple of decades. High unemployment does not seem to be primarily the result of job protection, trade union power or wage 'inflexibility'. There is some evidence that overly generous benefits do tend to raise the level of and the duration of unemployment by making work less attractive. Quantitatively the impact of benefits is small: as an example Italy has high unemployment but low benefits. There are two components of the aggregate unemployment problem to be understood. First, cyclical

movements in joblessness – why does unemployment in general and youth unemployment in particular go up and down in large irregular cycles? Second, why in so many countries has unemployment trended secularly upwards over the last few decades. It appears the main explanation for the cyclicity rests with changes in commodity prices in general and the oil price in particular while explanations of the upward trend have to do with unemployment benefits and labor taxes, the internal mobility of the population, home ownership and the existence of a well-functioning private rental sector.

1. Background on the economic and social position of youth around the world.

In 1995 there were 525 million men and 500 million women between the ages of 15 and 24 in the world according to estimates of the United Nations.¹ About 60% of the world's youth live in the developing countries of Asia alone, while 23% live in Africa, Latin America and the Caribbean. Only about 16% live in developed regions. From 1980 to 1995 the percentage of the world's population represented by youth ages 15-24 declined slightly from 19% to 18%. This decline occurred in all regions except Africa where youth as a percentage of the total population continues to increase. The ratio of young men to 100 young women is unusually high (over 106) in some countries in Asia and Oceania. Examples where the (1995) ratios are very high include UAE (124); Pakistan (111); India (109); Austria (108); Germany (108), and the UK (107). Rather surprisingly, the ratio is above 100 in all developed regions². The ratio of men to women is 96 or below only in Cape Verde (96); Central African Republic (95) and Congo (96). Among the reasons are urbanization, the majority of youth still live in rural areas, higher mortality among girls, sex preference at birth and migration preference of young men.

To place our analysis of youth in context Table 1 provides some background information on demographics and various measures of living standards across countries. The gap between the developed and developing countries is marked. Included are total population, population under 18, number of annual births, annual number of under age 5 deaths, under 5 mortality rate, GNP per capita, % under 5's under weight, net primary school attendance, fertility rate and maternal mortality rate. These statistical profiles show the brutal disparities between countries. The proportion of the population under the age of 18 was as high as a remarkable 55% (Benin, Niger and Zambia) to a low of 18% in Italy. Among these 192 nations, per capita GNP is as low as \$80 (Mozambique) and as high as \$45,360 a year (Switzerland). The under-5 mortality rate varies from 4 to 320 deaths per 1,000 live births (Singapore and Niger). The percent of under 5's under weight is as low as 1 (Chile, Croatia, Czech Republic and the United States) and as high as 56% (Bangladesh). The maternal death rate ranges from single figures to 1,800 deaths per 100,000 live births. The fertility rates vary from a high of 7.2 (Niger) to 1.2 (Italy and Spain) while the maternal mortality rate was highest in Sierra Leone at 1800 compared with a low of 6 in Canada, Norway and Switzerland. The primary school enrolment rate varies from 24% (Afghanistan) to 100% (many OECD countries) of young people.

¹ Statistical Charts and Indicators on the Situation of Youth, 1980-1995, United Nations, New York, 1998.

² Ibid Table 1, p.9.

The share of youth in the total labor force is continuing to decrease as educational enrolments have increased. The proportion of 12-17 year olds enrolled in the world in secondary school increased from 76.1% in 1970 to 88.3% in 1990. This contrasts with 35.8% and 48.2% respectively in developing countries³. In all regions except eastern Asia, the young female labor force is increasing more rapidly than the male labor force. This can be seen below

Share of youth in the economically active population, selected years (%).

	Year			
	1970	1985	1990	2000
World	32.1	31.1	27.5	27.3
Developed countries	26.2	24.0	22.3	20.7
Developing countries	34.1	35.1	34.1	29.5
Least developed countries	34.7	37.0	37.1	36.3
Africa	36.7	36.5	37.0	36.4
Americas				
Latin America	35.1	35.2	33.7	30.4
North America	28.9	25.0	21.8	20.1
Asia				
Eastern Asia	33.1	31.6	21.6	22.6
Southern Asia	33.4	35.0	34.2	32.1
Europe	23.8	22.4	19.4	18.4
Oceania	28.1	27.2	23.9	22.8
Transition Economies	24.5	22.5	24.0	22.7

Source: The Global Situation of Youth in the 1990s: Trends and Prospects, 1993, United Nations, New York, Table 3.

Notes: persons aged 15-24 as a percentage of persons age 15-64.

Enrolment in higher education is growing rapidly in all regions and everywhere is greater among young women than among young men, especially in Latin America and the Caribbean. Even with this growth in schooling, which as we will show below in considerably more detail has been substantial in many countries in the developing world, gross enrolment ratios, which are obtained by dividing the number of students enrolled in post-secondary schools, colleges and universities by the population aged 20-24 years, vary considerably by degree of development. They range from 10.7% in developing countries to 44.7% in developed countries and economies in transition.⁴ In most developing countries education is compulsory for between four and eight years while in the developed countries it is compulsory for at least eight years. Only a few

³ Source: United Nations Educational, Scientific and Cultural Organisation, Statistical Yearbook, 1990, United Nations, Paris, Table 2.11. The proportion in secondary school in Africa grew from 25.6% in 1970 to 47.1% in 1990 and in Asia from 37.5% to 46.6% and in Latin America and the Caribbean from 49.8% to 71.6% respectively for these years.

⁴ For Sub-Saharan Africa, 3.4%; Arab States, 13.1%; Latin America and the Caribbean, 18.0%; East Asia and Oceania, 7.2%; South Asia, 8.2% and for the least developed countries, 3.3%. Source for all of these numbers is UNESCO, Statistical Yearbook, Paris, UNESCO, 1995.

developing countries have been able to close this gap (e.g. Bahrain, Gabon, Malaysia, Namibia, Peru, South Africa, Sri Lanka and Venezuela). Developing countries have increased public expenditure on education as a share of GNP since 1980. On a per capita basis East Asia and Latin America increased their public expenditures on education more rapidly than the other developing regions. East Asia more than doubled public expenditures on education per inhabitant while Latin American countries raised it by 30% between 1980 and 1992.⁵ Despite this growth in spending the overall gap between the developing and developed countries in per capita public expenditures on education widened between 1980 and 1993.

The extremely low per capita incomes in some countries have made it hard for communities to find the resources to contribute further to the education of their children. Many developing countries have attempted to extend public primary education by hiring teachers with less formal education but more in-service training and hence lowering salary costs (e.g. Colombia, Senegal, Zimbabwe). Others such as Zambia and Bangladesh have raised pupil-teacher ratios and introduced double shifts which can reduce costs. Many developing countries have moved to favor primary education. In Chile the share of secondary and higher education expenditures was reduced from 18% and 33% in 1980 to 13% and 21% in 1993. Bangladesh lowered the share of higher education over this period from 13% in 1980 to 8% in 1992. According to UNESCO illiteracy rates have continued to decline around the world, falling from 30.5% in 1980 to 22.6% in 1995. They are higher in South Asia (49.8%) than in Sub-Saharan Africa (43.2%) or in the Arab States (43.4%). They are especially low in Latin America and the Caribbean (13.4%) and East Asia and Oceania (16.4%).

The size of the youth labor force is declining in agriculture and industry and increasing in services in developed regions, northern Africa and western Asia, Latin America and the Caribbean. In south-central Asia increases in the labor force are distributed about equally among the three sectors, but in sub-Saharan Africa, eastern and South-eastern Asia and Oceania about half of the increase of youth in the labor force is still in agriculture. From 1980 to 1990, services absorbed all of the increase in the youth labor force in developed countries and over half the increase in northern Africa, Latin America and the Caribbean and western Asia. In 1995 nearly two thirds of the world's youth lived in countries with per capita GDPs of less than \$US 1000 per year.

2. A Picture of the Youth Labor Market

We now turn to a series of tables that distinguish the extent to which the young are jobless by country and over time. First, in Table 2 changes in the relative size of the youth population aged 15-24 compared with the older age group 25-54 is reported. The size of the youth population aged 15-24 years relative to the numbers aged 25-64 has fallen in all developed countries and most developing countries – the main exceptions are Niger, El Salvador, Nicaragua, Paraguay and Pakistan. The youth population is increasing in most of the transition economies.

Table 3 reports labor force participation/activity rates by age and gender. Youth participation rates are higher in developed countries than in developing countries. Participation rates for

⁵ Source: Report on the World Social Situation, 1997, United Nations, New York, p.49).

young men, have declined in almost all countries. They have declined for women age 15-19 in most countries but increased for the older age group of 20-24 year olds reasonably widely but with the exception of the Eastern European countries where the rates have declined.

In Table 4 we present the latest available unemployment rates overall (with minimum and maximum ages variously defined) and by gender. Many more time series observations are available from 1980 but we present the most recent estimates for simplicity. Overall rates vary from as high 38.8% in Macedonia to as low as 0.4% in Uzbekistan. This illustrates the difficulty of interpreting the unemployment rate in developing and transition economies. For example it is unclear in transition economies whether a low unemployment rate is a signal of good things – the economy is working well at full-employment – or of bad things – little adjustment has been made to a market economy. Similarly in many less developed countries only the better educated can afford to be unemployed, hence in those countries unemployment rates for the more educated are above those of the least educated. In the majority of countries reported in the Table female unemployment rates are higher than male rates (e.g. Botswana, Jamaica, Chile, Belgium and Spain) but in a few others the reverse is true and male rates are higher (e.g. El Salvador, Algeria, Puerto Rico, UK, Sweden and Australia).

In Table 5 current unemployment rates across countries are reported separately for the 15-24 and 25+ age groups. Youth unemployment rates are approximately twice as high as adult unemployment rates across both developed and developing countries. In a number of developing countries the ratio is considerably higher (Egypt, Colombia, Chile, Honduras, Indonesia, Korea and Sri Lanka). The ratio is also above two in several southern European countries (Greece, Italy and Turkey) as well as in a number of ex-communist countries (e.g. Bulgaria, Estonia, Romania, Slovenia). Next, cross-section time series regressions were run for the countries reported in table 4 for the years 1980-1997 (some countries had many fewer observations) where the 15-24 year old unemployment rate was regressed on the 25+ unemployment rate along with (17) year dummies. The following coefficients on the adult unemployment variables were obtained⁶. Separate results are not reported for Africa as there were only 14 data points although they are included in the overall sample.

Coefficient on 25+ rate	Coefficient on 25+ rate plus country fixed effects	N
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⁶ The countries are, with the number of observations in parentheses -- Algeria (1); Burkina Faso (1); Central African Republic (1); Egypt (7); Ethiopia (1); Mauritius (2); Niger (1); Argentina (1); Bahamas (13); Belize (3); Bolivia (3); Brazil (10); Canada (18); Colombia (12); Costa Rica (13); Chile (13); Dominican Republic (1); Ecuador (4); El Salvador (5); Guadeloupe (2); Honduras (5); Jamaica (2); Mexico (7); Netherlands Antilles (2); Nicaragua (2); Panama (10); Paraguay (6); Peru (4); Puerto Rico (14); Suriname (2); Trinidad and Tobago (7); United States (18); Uruguay (7); Venezuela (5); Bahrain (1); Cyprus (1); Hong Kong, China (18); Indonesia (5); Israel (18); Japan (18); Korea, Republic of (18); Kyrgyzstan (1); Macau (7); Pakistan (3); Philippines (14); Singapore (12); Sri Lanka (3); Thailand (3); Austria (4); Belarus (1); Belgium (15); Bulgaria (2); Croatia (2); Czech Republic (5); Denmark (15); Estonia (1); Finland (18); France (18); Germany (25); Greece (15); Hungary (6); Iceland (8); Ireland (16); Italy (18); Latvia (3); Lithuania (3); Luxembourg (15); Macedonia (3); Malta (1); Netherlands (18); Norway (18); Poland (6); Portugal (18); Romania (3); Russian Federation (2); Slovakia (4); Slovenia (6); Spain (18); Switzerland (9); Sweden (18); Turkey (10); Ukraine (1); United Kingdom (14); Australia (18); New Zealand (12); Total (694).

All	2.07	1.61	694
OECD	1.91	1.67	393
Asia	2.76	1.83	85
Latin America	2.22	1.76	153
Ex-Communist	2.01	n/a	49
Males	1.95	1.71	687
Females	2.15	1.27	687

When a full set of 85 country dummies are included, to pick up differences in the unemployment benefit system prevailing across countries and other unchanging factors, the estimates reported in the second column are somewhat smaller (there are too few years of data to estimate a fixed effects result for the Ex-Communist countries). Increases in overall unemployment hit the young particularly hard and vice versa. **The 2 times rule means that solving adult unemployment is the key.**

Even though youth unemployment rates are nearly twice as high as adult unemployment rates, it does appear that the ratio declines in many countries as adult unemployment rises. The answer is the same if the analysis is performed separately for men and women. This is presumably due to the fact that governments intervene to keep youth unemployment rates down and young people themselves respond to the high levels of youth unemployment by staying on longer at school. Figures 1 through 4 for the USA, Japan, France and Canada illustrate these patterns for four OECD countries. Figures 5 through 8 report similar patterns for Chile, Israel, Philippines and South Korea that are fairly typical of the group of less developed countries in our sample.

Evidence that young people do especially well in booms is examined by Freeman and Rodgers (1999) who analysed the 1990s boom in the United States and found that it substantially improved the position of non-college educated young men, especially young African American who are the most disadvantaged and troubled group in the US. Young men in tight labor markets experienced a substantial boost in both employment and earnings. Adult men had no gains and their earnings barely changed even in areas where unemployment rates were below 4%. Youths did particularly well in areas that started the boom at lower jobless rates suggesting they would “benefit especially from consistent full employment” (Freeman and Rodgers, 1999, p.2). The earnings of youths in the US appear to be especially responsive to changes in the unemployment rate. Similar results have been found in other countries such as the UK, Australia and Canada, (see Blanchflower and Oswald, 1994). As unemployment amongst the young goes down and the attractiveness of work increases, because there are more jobs and better paying jobs out there and it becomes a virtuous cycle. Freeman and Rodgers found evidence that once that occurred in the US the crime rate dropped. **Increase aggregate demand and youths, especially disadvantaged youths, seem to do best.**

Table 6 reports male and female unemployment rates for our two age groups. Unemployment rates for young men aged 15-24 are lower than the equivalent rates for young women in virtually all of the developing countries and transition economies. The pattern is more mixed in the developed world – male youth rates are higher in the English speaking countries (Australia, Canada, Ireland, New Zealand, the UK and the US) plus Japan, Sweden and Turkey, but lower in countries such as Austria, Belgium, Denmark, France, Germany, Italy, Spain and Portugal.

Youth unemployment rates are significantly higher in the 1990s than they were in the 1980s in a number of countries. Even where they have not increased significantly they have generally remained high (e.g Spain at 36% and Italy 32%). The rate has increased markedly in Brazil, Colombia, El Salvador, Nicaragua, Canada, Italy, France, Finland, Sweden and New Zealand but declined sharply in Chile, the Netherlands and Portugal.

Table 7 shows average annual changes in the proportion of 20-24 year olds in 'third-level' or higher education between 1990 and 1995. The proportion of young people aged 20-24 in education -- either at the secondary or higher level -- has risen everywhere. It is likely that this is in part a labor supply response on the part of the young to the lack of unskilled job opportunities, as well as to the worldwide increase in the demand for skills. A lack of jobs causes young people to defer their entry into the world of work. The transition from school to work appears to be sensitive to aggregate economic conditions, with the employment and unemployment of youths highly dependent on the rate of unemployment, particularly for younger youths and those out of school (see Blanchflower and Freeman, 1996b and OECD, 1996).

3. Causes and Consequences of Youth Unemployment

What explains these patterns of high and persistent unemployment amongst the young? A number of possibilities suggest themselves -- aggregate demand; youth wages; the size of the youth cohort and a lack of skills. Clearly in finding solutions to the youth unemployment problem it is crucial to determine the relative importance of these factors (ILO, 1998). Many studies have shown the importance of aggregate demand. As we have shown above, youth unemployment rates are approximately twice as high as adult unemployment rates. Young people are more likely to quit their jobs voluntarily and more likely to be fired (last in first out). However, the opportunity cost to firms of firing young workers is less than firing older workers. Young workers are also less likely to be subject to employment protection legislation. It is often held that the wages of young workers are too high because of the existence of minimum wage legislation which raises the wage of the young and makes them uncompetitive, especially compared to married women who, around the world, have entered the labor force in large numbers over the last two decades. There is a good deal of evidence that youth wages relative to adult wages have declined considerably in recent times in many countries (Blanchflower and Freeman, 1999b). Also there is a growing literature that suggests that the employment reducing effects of the minimum wage have been greatly exaggerated, especially in the United States where its level is very low (Card and Krueger, 1995). The evidence does not seem to suggest that youths are being priced out of jobs in any major way.

A further explanation for high and persistent youth unemployment is the size of the youth cohort. The higher the number of young people the more jobs that will be required to accommodate them. This explanation doesn't fit the data well as was discussed earlier the size of the youth cohort has been in decline in most countries. Finally, it is argued that in this new technological age the young do not possess the skills that firms need. There is less demand than in the past for unskilled jobs, particularly because of new technology and this hits the young especially hard (Berman, Bound and Machin, 1998; Berman and Machin, 1999; Machin and van Reenan, 1998).

No matter what the cause of youth unemployment it does seem to have serious consequences, especially if the unemployment spells are long or an individual experiences numerous spells. On the one hand the duration of unemployment spells tends to be shorter for the young than for older workers. However, although there is some evidence across countries that youth unemployment is of shorter duration than that of adults the difference is not substantial (O'Higgins, 1997). The longer an unemployment spell the more difficult it is for that person to find work because of the loss of skills, morale, psychological damage etc.. There are three major reasons why unemployment while young, especially a lot of it, can be particularly harmful.

1. Unemployment early in someone's career may permanently impair his or her future productive capacity.
2. Barriers to employment can block young people in the passage from adolescence to adulthood, which involves setting up a household and forming a family. There is a connection between youth joblessness and serious social problems such as drug abuse, crime, vandalism, single parent families etc.. Particularly troubling in the US is the increased use of drugs by youth. In 1996 use of marijuana by 10th and 12th grade students increased for the fourth consecutive year while use by 8th graders rose for the fifth successive year. Similarly lifetime use of any illicit drugs amongst the young has been rising (Chaloupka et al, 1999) Young men are disproportionately the ones who commit crime (Britt, 1994; Freeman, 1999). There is evidence of a growth in suicides among young people in general and young men in particular over the last two decades especially in the English speaking countries (Blanchflower and Freeman, 1999b).
3. High levels of youth unemployment can lead to alienation from society and democratic political processes, which may give rise to social unrest. Unemployment makes people unhappy (Blanchflower and Oswald, 1999a, Winkelmann and Winkelmann, 1999; Oswald, 1997b). The unemployed are much less happy than those in work – unemployment seems to be worse than breaking up with one's wife or husband.

In the next three sections we examine the evidence that exists on the causes and consequences of youth unemployment in the OECD, Transition Economies, and finally the developing countries of Latin America, Asia and Africa. As a great deal more is known about the workings of the youth labor market in the OECD the first section on the OECD lays out much of what is known. In the following sections an attempt is made to compare and contrast the situation with that found in the OECD. Interestingly there seem to be more similarities than differences.

4. Analysis of the Workings of the Youth Labor Market in OECD Countries^{7,8}

⁷ The OECD was set up under a Convention signed in Paris in 1960. The original members are Austria, Belgium, Canada, Denmark, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey, United Kingdom, and the United States. The following countries became members subsequently through accession at the dates indicated – Japan (1964); Finland (1969); Australia (1971); New Zealand (1973); Mexico (1994); Czech Republic (1995); Hungary (1996); Poland (1996) and Korea (1996).

⁸ This section draws heavily on Blanchflower and Freeman (1999a).

In the 1970s the labor market situation of youth in member countries of the OECD worsened noticeably, apparently because of the huge increase in supply resulting from the entry of baby boomers into the job market (Blanchflower and Freeman, 1999; Korenman and Neumark 1999). Most analysts expected that the deteriorated position of youths in the job market would improve as baby boomers aged and as the youth cohort declined in size (see OECD, 1978). Most expected that increased education or training would substantially alleviate the problems of all youths except for a small hard core. The youth job market problem was expected to be a temporary one, readily curable by policy. Over twenty years later, while the youth cohort is much smaller and better educated than in the past, the youth job market problem remains.

1. What went wrong with the rosy expectations that demographic changes and additional schooling would resolve the youth job market problem?
2. How have youths responded to the deteriorated job market facing them?
3. How have economic policies focussed on youths, particularly policies to improve their skills, worked in the period?
4. Why does the youth labor market problem seem to have become a constant scar rather than a temporary blemish (see use David Ellwood, 1982)?

There has been a considerable of work on these questions for OECD countries, a good deal of it by members of the National Bureau of Economic Research. In 1982 Richard Freeman and David Wise led an NBER research project that produced The Youth Labor Market Problem: its nature, Causes and Consequences. In 1986, the NBER examined the specific problems of black youths (Freeman and Holzer, 1986). In 1994 Lisa Lynch examined private sector training, not only in the United States, which was the major emphasis in the earlier volumes, but in a number of other countries including the UK, Japan, the Netherlands and Germany. The latest of these volumes (Blanchflower and Freeman, 1999) extends this work to the post baby-boom generation; provides a detailed analysis of the situation facing young workers in a variety of countries besides the US [Germany, France, Sweden, the UK, and Canada]; and extends the traditional focus on wages and employment to other important outcome measures, such as living arrangements, crime, and measures of self-reported happiness.

a) Changes in the Transition from School-to-Work

Perhaps the most important and positive way in which young persons can respond to poor labor market conditions is by postponing entry into the job market and remaining in school. Without a family to support, youths can invest in human capital rather than struggling to make a living in a difficult market. In virtually all OECD countries, enrolments in school rose from the 1980s through the 1990s. The deterioration in the youth job market seems to have contributed to particularly large increases in enrolments in higher education. Among Americans, the proportion of young men enrolled in college and university fell in the 1970s, then rose from the mid-1980s to the late 1990s. The increase in college attendance was steady for women, so that by the 1990s approximately 25% more women were graduating with bachelor's degrees than men.

Enrolments increased even more rapidly in other OECD countries, so that the US has lost much of its edge in producing college/university graduates. Partially as a result of the response of Canadian youths to high joblessness, enrolment rates in Canada, which traditionally had been lower than in the US, came to exceed those in the US. In addition to enrolling in school, young persons shifted among fields of study and occupations. In the US students rejected sciences and liberal arts in favor of business related areas, and PhD degrees in favor of professional degrees. The flow of students toward relatively higher paying fields should have increased the earnings of young workers relative to the earnings of older workers, but such a pattern is not found in the data.

Is the extension of the period of schooling and delay of working the result of the state of the macro-economy or is it the result of some other factors? To what extent is the schooling-employment status of youths sensitive to aggregate economic forces? Blanchflower and Freeman (1999b) examined data for fifteen countries (UK, Belgium, Denmark, France, West Germany, Greece, Holland, Italy, Luxembourg, Portugal, Australia and Spain) for the period 1983-1994. In addition data were available for the US from 1970-1993 and for Canada for 1976-1994 making an overall total of 8000 observations. In some cases schooling was found to be strongly positively related to unemployment (Germany, Holland, Portugal, and Denmark); in other cases it was negatively related to aggregate unemployment (Italy, Luxembourg, UK, Belgium); while in yet others, schooling and aggregate unemployment had little relation (US, Canada, Spain, Eire, Greece). Pooling all of the countries together, schooling was positively related to unemployment, but the diverse country results prevent any broad generalization. By contrast, there is no ambiguity in the effect of aggregate economic conditions on the proportion of a cohort that is neither in school nor working or that was employed. The proportion neither in school nor working – sometimes called “idle” -- falls with unemployment in nearly all countries. In the pooled OECD sample, an increase in aggregate unemployment raised the proportion idle by .73 percentage points. Contrarily, unemployment reduced the employment rate of youths by 1.13 percentage points.

Table 8 shows how many 18 and 22-year-olds were in education/training, in employment only, in both or in neither in 1984 and 1997. In 1997, on average, 56 per cent of the cohort of 18-year-olds were in full-time education while among 22-year-olds 46 per cent were in employment only. Thus, education and employment are quite separate activities at ages 18 and 22 for many young people. In terms of the OECD average, the trends over the period are the same for both: a strong increase of youth in full-time education and a much smaller increase of those combining education with employment; conversely there has been a strong decrease of those in employment without studying and a much smaller decrease of those neither in education nor in employment.

In several countries, a high proportion of young people combine education and work, while in others this is rarely the case. For example, in Belgium youths rarely work while in school. Belgian teenagers are nearly all full-time students: in 1997, 85 per cent of teenagers aged 18 were in full-time education, only 1 per cent combined education with employment and only 3 per cent were in employment. In the United Kingdom, quite a large proportion of teenagers are working: 18 per cent of teenagers aged 18 were in full-time education, 30 per cent combined education with employment and 38 per cent were only in employment. But interestingly, in both countries, there exists a sizeable group at risk of social marginalization which is composed of

teenagers not in education nor in employment; this group accounted for over 20 per cent of the teenage population in the United Kingdom in 1997 compared with about 12 per cent in Belgium. It is also noticeable that the relative size of this at-risk- group has shown little change in both countries over the past 15 years (OECD, 1998).

Table 9 provides a complementary picture of the schooling and labour market statuses of young persons aged 18 and 22 by gender in 1997 and in 1984. The data show large variations across countries in transition patterns, *e.g.* the different proportions in school and the high proportion of young persons in vocational training/apprenticeships in Austria, Denmark and Germany. They also show a general pattern of increases in school attendance and of declines in employment/population ratios; and high rates of unemployment in most countries for youths of both genders. The rise in school enrolments is most marked outside the US. Among 18 year olds, in 1984 61 percent of US men and 56 percent of U.S. women were in school, considerably above the OECD averages by gender (48.8 percent for men, and 50.6 percent for women). By contrast in 1997, the U.S. 18 year old men are below the OECD average in the percentage enrolled in school and US women are slightly above the OECD average.

The proportion of young men that are idle – that is neither in school nor in the labor force -- has increased over the period 1984-1997 and especially so in the UK and the US, although the level is considerably higher in the former case -- 11.4% and 6.8% for 18 year olds and 8.4% and 5.6% respectively for 22 year olds. The proportion of young women that are idle decreased in the OECD as a whole but increased, as it did for men, in Germany, the US and the UK. With respect to employment, employment to population rates fell between 1984 and 1997 in virtually all the OECD countries in the table. The unweighted average shows that 35.4% of 18 year old men were employed in 1997 compared to 43.8% employed in 1984 -- a drop of 8.4 percentage points; and that 29.9% of 18 year old women were employed in 1997 compared to 36.6% in 1984 -- a drop of 6.7% percentage points. The comparable figures for 22 year olds show a drop in employment rates for men of 7.0 percentage points compared to 4.0 percentage points for women. Interestingly, unemployment as a proportion of population - which is a better measure of labor market slack than the unemployment rate for the young in most countries because of reductions in the size of the labor force arising from increases in schooling -- declined in most countries for both men and women. Major exceptions to this are to be found in Australia, France and Canada.

Successful transition into the world of work varies considerably by educational attainment in every country (Table 10). In general the burden of joblessness among the young falls on the least educated and the least skilled. In a number of countries amongst young men – much less so for young women -- the most educated have to wait longest to find work. Examples where this occurs are Germany, Greece, Italy, Portugal and Spain. What does stand out from this table, though, is how low the unemployment rate for the least educated is in Germany (9.7% for men and 13% for women). This contrasts dramatically with most other countries where more than one third of such individuals were unemployed one year after completing education. Germany gets young people into jobs early and they stay employed. It takes much longer for young people in the US, for example, to find work. What is perhaps surprising is the similarity in the degree of concentration of unemployment in Germany and the US. Among all Germans 1.6% of the population who experienced at least two years of unemployment accounted for 25% of all weeks

of unemployment over the five year period examined. Analogously, in the US 1.8% of the population with at least two years of unemployment accounted for around 20% of total unemployment. This evidence is inconsistent with the view that the transition from school to work is dominated by short spells.

A number of OECD countries have experimented with *labor market programs* designed to help youths in the job market. On the supply side are programs that link schooling to work before youths encounter difficulties in the market; and second chance programs that try to increase the skills of youths having trouble in the job market. On the demand side are programs that raise youth wages, for instance through the minimum wage, or that target some employment opportunities at youths. On the basis of aggregate outcomes, the German apprenticeships seem to be a highly successful supply-side program. Less educated young workers have lower unemployment rates and higher relative earnings in Germany than in the US. In the first five or so years of work, many fewer young Germans are jobless than young Americans. Apprenticeships offer a good return for most young persons. But the German apprenticeship system has its own problems. The number of apprenticeship contracts has fallen as more youths have chosen higher education. Youths who do not find a job immediately after their apprenticeship face a comparatively long period of non-employment and those who fail an apprenticeship program suffer long-term reductions in earnings. The apprenticeship system does not ameliorate the effects of family background; children of blue-collar and white-collar employees were more likely to be employed subsequently than children of non-employed parents (Franz et al, 1999).

By contrast, second chance programs, including Sweden's much heralded active labor market programs, do not seem to be overly effective (Blanchflower, Jackman and Saint-Paul, 1995). There is also considerable evidence that large scale programs, designed to move young people from unemployment to work, such as YOP and YTS programs that operated in the UK in the 1990s were largely ineffectual. For example Dolton et al (1994) found that YTS lowered the probability of subsequent *employment*. Some studies such as O'Higgins (1994) have found more positive effects on employment but he finds no significant employment effects for the disabled and ethnic minorities. The substantial variation in magnitudes of such estimates has lead Ryan and Buchtemann (1996) to question the reliability of these studies. Studies such as Green et al (1996) which have looked at the effect of YTS on *earnings* have generally found a negative effect (see O'Higgins, 1997). For many years Sweden was viewed as having solved the problem of joblessness and economic inequality. During the 1970s and 1980s young workers fared reasonably despite sharply increasing youth relative wages. But the recession of the early 1990s proved that Sweden was not immune to substantial unemployment nor to a major youth joblessness problem. In the 1990s youth unemployment has risen sharply, and the state has expanded youth participation in active labor market programs. This has reduced employment somewhat without solving the joblessness problem. Indeed, the increase in unemployment has been roughly proportional by age and education, implying that these programs have not altered the relative distribution of unemployment. The proportional growth of joblessness suggests that aggregate factors were more important in Sweden's joblessness than disaggregate shifts in demand for labor among different skill groups (Edin and Holmlund, 1999).

France has a wide variety of youth programs and indeed leads the advanced countries in the proportion of youths employed under some special program. France also has relatively high minimum wages, which in contrast to the minimum in the United States has increased quite strongly in recent years, can be expected to adversely affect youth employment. To some extent these two factors offset one another. The real minimum hourly wage in France (the SMIC) has risen steadily since 1967 whereas in the US the Federal Minimum Wage has declined. In 1990 approximately 28% of French workers were at or below or within 5F per hour of the minimum. In 1987 in the US, only 18% of employed persons had hourly wage rates at or below the minimum or within an additional \$1.00 of the minimum. Young workers paid around the minimum wage in France were more likely to become unemployed or move out of the labor force than those paid over the minimum wage (Abowd et al, 1999). While an analogous similar pattern is found in the US, where a larger share of workers employed at or around the minimum wage were either unemployed or out of the labor force in the previous period than was true among workers above the minimum wage, the smaller scope of the minimum implies less of an impact on the youth market. But employment effects in France are mitigated somewhat by participation in employment promotion programs that seem to shield workers from some of the effects of the increasing real SMIC. When this eligibility ends, the probability of subsequent non-employment rises sharply.

b) Evaluating the causes – wages, cohort size, changing industry structure, the rise in female participation rates, aggregate demand or other factors?

What makes the deterioration of the job market for young workers puzzling is that most of the basic economic forces that affect youth employment prospects operated to *raise* their relative position. Movements of wages, cohort size and industry all appear to work in youth's favor. Also the increased years of schooling and skill of younger workers relative to that of older workers should have raised their relative pay and employment. In short, things did not work out as expected in the youth job market. We will consider each of these factors in turn.

Wages. The 1980s and 1990s were different from the preceding two decades, which for most advanced countries had been a time of narrowing occupational and educational differentials. In the 1980s educational differentials moved differently among countries. In several countries the differentials rose but at more modest pace than in the United States where wage dispersion rose dramatically. The hourly earnings of a worker at the 90th percentile in the US relative to a worker at the 10th percentile grew by about 20 percentage points for men and 25 for women from 1979-1989 (Freeman and Katz, 1995, p.7). The one country with widening wage differentials which were quantitatively similar to those in the US was the UK (Katz et al, 1995). Canada, Sweden, Australia and Japan had smaller increases in educational differentials but wage differentials continued to narrow in Italy and France; the Netherlands and Germany experienced no change. The patterns outside the OECD are similar⁹.

⁹ In Latin America a number of countries have seen rises in income inequality, these include Argentina, Brazil, Mexico, Panama, Paraguay and Venezuela. However, there has been *declining* income inequality in Bolivia, Chile, Colombia and Uruguay.

Along a variety of dimensions the economic position of workers in the age brackets 16 to 24, 25-29, and even 30-34 has worsened relative to that of older workers in virtually all OECD countries. In the US the worsening has largely taken the form of a drop in the relative earnings of youths, particularly those with less than college education. But relative earnings of young workers have fallen in other advanced countries as well (Blanchflower and Freeman, 1996, 1999b). Blanchflower (1999b) found from an analysis of data from the International Social Survey Program for 13 industrialized countries that there was only a weak relationship between youth/adult relative wages and the corresponding youth/unemployment rates.¹⁰ To be sure, there are some country differences in the magnitude and timing of the fall in relative youth earnings. The U.S. and Canada had steep drops from the mid-1970s; the U.K.'s decline was larger from the mid-1980s to the mid 1990s than in the earlier period; Italian youth wages do not begin to fall sharply until the 1990s; and Swedish relative wages were roughly constant through 1991. But, Sweden aside, despite the sharp fall in the relative size of youth cohorts, and despite differences in the institutions of wage-setting *the relative pay of youths dropped throughout the OECD*. This implies that the presumably beneficial effect of the declining size of youth cohorts on youth wages was overwhelmed by other market forces. The surprise is that the 1980s-1990s deterioration in relative earnings followed a sharp drop in relative earnings attributed to the baby-boom increase in the supply of young persons on the job market, despite favorable demographic changes.

The minimum wage also does not seem to play a major part in explaining the poor economic performance of the young in OECD countries. As was noted above Card and Krueger (1995) found no harmful effects on employment of the minimum wage in the United States although this was disputed by Neumark and Wascher (1996). Either way even if the minimum had any impact it was small. Dolado et al (1996) found no harmful effects of the minimum for the Netherlands, Spain, the UK and France. In contrast Abowd, et al, (1999) find that increased minimum wages in France reduced the employment of young less skilled workers, with an effect concentrated on a narrow band of young workers in the immediately affected parts of the wage distribution.

Regardless of the wage experience, however, youth unemployment rates rose substantially everywhere except in Germany. The country which seems to have most successfully dealt with the youth problem is Germany. While some German youths have great troubles in the job market, and while the apprenticeship system has run into some problems (Franz, et al, 1999), young less educated Germans have done markedly better in both employment and wages than comparable Americans. The situation for young women is less worrying, as young women have continued to move into the job market in increasing numbers and as female pay has improved relative to male pay. Still in the late 1990s, young women earned less than seemingly comparable young men; and experienced a similar twist in the age-earnings profile against them. The unemployment rate for young women workers has risen in most countries, and in the US and UK at least poverty has become increasingly concentrated among single parent female-headed households.

¹⁰ The countries were Australia, Austria, Canada, Ireland, Great Britain, Italy, Netherlands, New Zealand, Northern Ireland, Norway, Switzerland, USA and West Germany.

Cohort size. Korenman and Neumark (1999) have documented that the youth proportion of the population declined sizeably in the US and in virtually every other OECD country in the 1980s and 1990s. Declining youth cohort size should lead to lower unemployment rates for youth and higher relative earnings for youth. This should be particularly marked in countries like Japan, Ireland, Italy, Spain and Portugal, where the fall in the relative size of youth cohorts was exceptional. But the economic position of youths worsened rather than improved. That the demographic changes failed to improve the position of youths much does not mean that shifts in supply have no effect on the youth job market -- the elasticity of youth unemployment rates with respect to relative youth cohort size may be moderately large (Korenman and Neumark, 1999). Rather, it means that other factors such as aggregate rates of unemployment or technological changes dominated youth job market outcomes, or even that global factors such as increased trade with less developed countries with huge numbers of young less skilled workers may have made domestic supply considerations less important than they were in the past. In the US the youth share of the population will rise in the early part of the 21st Century.

Industry, technology and trade. In addition to the demographically induced decline in the number of young workers and the declines in youth wages relative to adult wages documented above, there was a shift in the industrial composition of employment toward sectors that hire relatively many workers -- retail trade and services like hotels and restaurants. (Blanchflower and Freeman, 1999b, OECD, 1996). This should have increased employment if not the wages of young workers. And the technological factor that many analysts cite as underlying the long run rise of inequality and higher premium to skills -- computerization -- should have benefited the young, who have grown up with computers, relative to older workers, who have not. Increased trade with third world countries is another potential determinant of the deteriorated economic position of young workers. On a world scale the share of youths in the working age population is much larger than in advanced countries. Thus, trade with LDCs might be expected to reduce the relative position of young workers. But again, the sectors which compete most with less developed countries are those such as apparel that traditionally employ women workers, so one would expect trade to have devastated their wages or employment rather than that of young men.

Increased female participation. The influx of women into the job market may also have affected the economic position of young workers. Many women workers are new entrants or re-entrants into the job market who might fill jobs that younger workers would otherwise hold. But female pay has increased as the supply of women to the workforce has grown. Since we would expect the effects of an increase in the supply of women to be greater on women than on substitute young workers, this makes such a story difficult to sustain.

Other explanations. While the increased supply of competitive workers due to women or trade may have affected the position of young workers but these forces do not seem sufficiently powerful to counteract the demographic and demand factors that favored young workers. To explain the observed deterioration in terms of labor supply, we must argue that workers in the baby boom generation are highly substitutable with younger workers so that the baby boom cohort reduced not only their earnings but those in the ensuing smaller cohorts as well. As the baby boom cohort gets older and older, however, and the economic position of young workers remains depressed, this becomes an increasingly tenuous claim. But there is yet another supply side possibility that is that young workers are simply not as good as older workers. Test scores

for younger and older workers on the OECD international adult literacy survey rejects this explanation save for the US and Ireland. This survey, conducted in 1994, gave adults in several countries the same test of their literacy skills -- prose, document, and literacy. The figures for all countries except the US and Eire show that younger workers are more skilled than older workers. (OECD, 1997a) As the survey does not include college students on campuses, however, it probably understates the skill level of younger Americans. Even if a decline in youth skills story can help explain the problems of young American workers, it cannot explain the general deterioration of the relative position of youths across the OECD. In sum, it is difficult to make a case for shifts in demand or supply or for deterioration of youth skills caused the worsened job market for young workers. High unemployment explains some of the jobless problem among EU youths and some of the fall in relative wages of youths in the US.

Aggregate demand. If demographic factors and long-term demand worked to improve the situation for young workers, why did their economic position deteriorate? The main reason appears to be that aggregate unemployment was relatively high in OECD countries in the 1980s and 1990s. The demand for young workers is highly sensitive to aggregate economic conditions (Blanchflower and Freeman, 1996; Clark and Summers, 1982). As new entrants to the job market, young workers lack the specific training or seniority that buffers older workers from swings in market conditions. Their employment is highly dependent on the aggregate state of the labor market. High rates of unemployment in the EU thus go a long way to explaining the prevailing rate of youth joblessness¹¹. The fall in joblessness in the US in the late 1990s produced some rise in youth wages, as well as employment, after two or so decades of decline. But it did not come close to restoring the relative position of young workers.

Many analysts would expect that the relative employment of youths to vary inversely over time with their relative wages. Perhaps greater youth discounts and greater declines in youth wages generated more jobs for them in some countries, but the declines that did occur, including the large drops in youth wages in the U.S., did not suffice to stabilize, much less, raise youth employment to population rates. One interpretation is that the wage and employment numbers lie along labor supply curves, due to massively declining labor demand for young workers. Another interpretation is that the concordance of joblessness and falling pay reflects disequilibrium in the labor market, also the result of declining demand for young workers. Whichever, we have identified one basic pattern in the worsened job market for young workers: the disproportionately large response of youth employment or unemployment to changes in overall unemployment. The sensitivity of youth employment and unemployment to the overall rate of unemployment dominated sizable demographic and structural changes favorable to youth in determining how youths fare in the job market. Unless overall rates of unemployment are reduced, there is little prospect for improvements in youth outcomes in the OECD, even if youth shares of the population continue to fall or remain relatively small or if the composition of employment shifts modestly toward service sectors that hire relatively many youths.

¹¹ This is the same conclusion reached by Freeman and Wise in their introduction to the Youth Labor Market volume in 1983 – “Aggregate economic activity has been found to be a major determinant of the level of youth employment” (Freeman and Wise – ‘Introduction’, 1983, p.15)

To summarize there is little evidence then that the size of the youth cohort, (which is in relative decline almost everywhere), or the size of youth wages, (which have been falling) or the existence of minimum wages (which are low) explain the rise in youth unemployment over the last couple of decades. Changes in aggregate demand, an increased demand for skilled workers and the rising participation of women who compete with the young for jobs appear to be the main culprits. Youths in the OECD appear to have responded to the worsening job market by deferring entry and undertaking more schooling.

c) Correlates of youth joblessness

A number of other important changes in society have accompanied high and rising levels of youth unemployment are correlated with a number of other social outcomes.

i) Unemployed youngsters are increasingly concentrated in workless households.

Germany seems particularly successful in getting the vast majority of its young people into work. Just like the US and France, the Germans appear to have difficulties finding jobs for a small group of less educated individuals. Of particular concern is the fact that an increasing proportion of the unemployed in Germany reside in households where no other person is employed, and especially so for unemployed teenagers (Table 11). In 1997 a higher proportion of unemployed teenagers in Germany resided in households where nobody else was working than in any other country except Ireland (36.3% in Germany in 1996 compared with an OECD average of 22.2%). Of considerable concern is the fact that the proportion of teenagers and young adults (20-24) living in households where nobody else is employed has risen in the EU as a whole and especially in Belgium, France, Germany, Ireland and the UK. The share of unemployed youth living in workless households is, at over 40%, highest in Finland, Ireland, and the UK and lowest in the southern European countries, Austria, Luxembourg, Mexico and Switzerland.

ii) Increasing proportions of young people are living with their parents

Table 12 suggests that, with perhaps the exceptions of Belgium and Ireland this move to being in households where nobody else is working is not because the young are striking out on their own. In Canada, France, Greece, Italy, Portugal and Spain for both age groups there has been a strong increase between 1985 and 1996 in the proportion of young people living with their parents. In Canada and the US low youth wages increased the likelihood that young women would remain living with their parents and that they would attend school, while low employment rates raised the chances that women would remain in their parents home though only marginally affecting their rate of school attendance. Between 1971 and 1994, the proportion of 16-24 year old American men who were heads/spouses in their own family fell from 22% to 11%; while in Canada the proportions dropped from 16 percent to 8 percent. Among women the trends were similar: a drop from 36 percent to 24 percent in their own family in the US and a drop from 30 percent to 17 percent in Canada (Card and Lemieux, 1999). Taken together, increased schooling and residence in parental homes has elongated the period of youthful preparation for the job market and family formation.

The proportion of young people living with their parents are especially high in Spain. Interestingly enough Spain has the highest rate of home ownership in the OECD (Oswald, 1999). The outside housing market appears to shape whether or not young people live at home. With no

renting out there, what option does a youngster have but to live with their parents? The reason that so many young Spaniards live at home, presumably, is that the private rental housing market is non-existent in that country so the young have to live with their home-owning parents, and probably save for a deposit themselves. Much the same happens in the UK and elsewhere. An unskilled worker who is unable to get a mortgage or a council house is likely to try and stay in the family home, save for a deposit on a house and join the queue for a house in the council house sector *in that area*. Clearly if there is a lack of private renting it makes life difficult for the young to branch out on their own, and especially so for those youngsters with neither skills nor capital.

iii) The young are increasingly involved in crime

The Blanchflower and Freeman (1999) volume also documents another, more deleterious response of youth to the deterioration in their economic opportunities, which is most marked in the US: increased involvement in crime. Large numbers of young American men committed sufficiently serious crimes in the 1980s and 1990s to make ‘prisoner’ just about the fastest growing occupation among the young. At the time of writing (August 1999) the latest estimates available for 1998 suggest that the US prison population reached a record 1.8 million which represented an incarceration rate of 672 inmates per 100,000 US residents or 1.05% of the population aged 15-64.¹² An estimated 7% of black males in their twenties and thirties were in prison in the US in 1997. The incarceration rates per 100,000 residents of each group in Federal or State prison (and excluding those held in local jails) are as below

	Males				Females			
	Total	White	Black	Hispanic	Total	White	Black	Hispanic
Total	841	386	3209	1273	53	25	200	87
18-19	776	274	2587	1184	28	17	83	30
20-24	1956	789	6999	2603	78	41	215	128
25-29	2143	868	8630	2703	134	58	452	210
30-34	2002	950	7485	2587	176	83	650	235
35-39	1682	806	6814	2207	141	66	546	213
40-44	1257	615	4841	2217	82	37	337	131
45-54	700	394	2775	1263	42	21	154	99
55+	155	100	509	394	5	4	20	10

This incarceration rate is approximately ten times higher than other western countries. In the UK, which has the highest rate of incarceration in western Europe just under 50,000 people were in prison in 1995 or 0.13% of the population aged 15-64 (48,983 men and 1979 women: Source: The World Factbook of Criminal Justice Systems, U.S. Department of Justice, Bureau of Justice Statistics – downloadable at <http://www.ojp.usdoj.gov/bjs/abstract/wfcj.htm>).

At a time when crime in the US has been declining crime in other countries has been growing – the UK is a good example. In 1981 the murder rate in the US was 8.7 times higher than that in England and Wales in 1981 but 5.7 times higher in 1996. In 1981 the US rape rate was 17 times

¹² Source: ‘Prisoners in 1998’, Bureau of Justice Statistics Bulletin, US Department of Justice, August 1999. Downloadable at <http://www.ojp.usdoj.gov/bjs/abstract/p98.htm>

higher but only 3 times higher in 1996. The robbery rate was 6 times higher in the US in 1981 but 1.4 times in 1996. The assault rate was 1.5 times that in England and Wales but in 1996 the English assault rate was higher. The burglary rate was slightly higher in the US in 1981 but by 1996 the English rate was more than double. The motor vehicle theft rate went from 1.4 times America's in 1981 to nearly twice as high in 1996.¹³ In both the UK and the US the black incarceration rate is about six times the white incarceration rate and for persons of other races about twice as high in both countries.

Young criminals come largely from disadvantaged backgrounds, including lone parent homes, have low AFQT scores, often suffer from child abuse, spend time in foster homes, have relatives who end up incarcerated and have friends who are also involved in criminal activity. Similarly, in the UK, young men who have trouble with the police have low scores on academic tests, are disproportionately from lone parent homes and are placed in care. Many young persons involved in crime are employed before their arrest, suggesting that they have reservation wages for both legal and illegal work (Freeman, 1999; Gregg and Machin, 1999). While it is difficult to determine the supply elasticity of youths to crime, given the absence of good data on criminal earnings, the best evidence suggests that it is reasonably high, both to legitimate wages and unemployment, as well as to criminal sanctions (Freeman, 1996, 1999).

The reaction of youths to the deteriorated job market in terms of enrolments, residence in parental homes, and crime suggest **substantial supply responsiveness to economic incentives**, which may augur well for the future. The more responsive young people are to market conditions, the more likely is it that they will undertake the actions that will bring about economic improvement. But socially desirable supply responsiveness such as enrolling for additional education can be difficult for youths from disadvantaged backgrounds. In the US the huge rise of enrolments in college is concentrated among young persons from high income families and has been minimal among those from families in the bottom quintile of the income distribution.

d) Young people, surprisingly, are increasingly happy

In a recent paper Blanchflower and Oswald (1999) attempt to understand what has been happening to the well-being of young people in the US and Europe and find a rather surprising result. They studied what random samples of people say about their own levels of happiness and satisfaction with life. Young Americans and Europeans, at least during the 1980s, seem to have had rising levels of happiness through time. This is especially so for the young unmarried. Being unemployed is associated with a heavily depressed level of happiness and life satisfaction both for the young and the old in Europe and the United States. Recently released numbers for the end of the nineties both in Europe and the USA suggest that this pattern has slowed down and has perhaps even reversed, although the cause of the dip is at this point unclear. Table 13 updates results in Blanchflower and Oswald (1999) for the United States to 1998. In 1972, for example, 16% of young Americans reported themselves as "not too happy" and 27% said that they were "very happy". In 1993, 9% of young Americans were not too happy and 29% were very happy. By 1998 the numbers were 15% and 26% respectively. Older people in the USA show a decline. For Europe, the paper uncovers similar evidence. Life satisfaction has been

¹³ See Langan and D.P. Farrington, (1998 – downloadable at <http://www.ojp.usdoj.gov/bjs>).

growing noticeably faster in the under-twenty-five age group. Figures 9 plots the proportion of European respondents¹⁴ saying, respectively, that they are "very satisfied" and "not at all satisfied" with their lives and updates Blanchflower and Oswald's estimates from 1992 to 1998. As in the case of the USA, it is the young who stand out as saying they were "very satisfied" with their lives. Approximately 20% of individuals gave this answer. Through time, the data fan out but then turn down from 1996. This widening in the inequality of life-satisfaction occurs especially strongly from the middle of the 1980s.

The evidence suggests, therefore, that in the West the well-being of the young was rising from around 1983 to 1996. Explaining why is more difficult. It does not appear to be explained by the decline in the chances of war with the Eastern bloc, falling discrimination, changing education and work, or the rise of youth-oriented consumer goods. Most of the increase in young people's well-being is to be found in the group who are unmarried. It may be that young men and women have benefited from society's recently increased tolerance of those living outside marriage, and from their consequent ability to live in less formal relationships. While this is not an explanation, it suggests that the ultimate answer is somehow connected to the role of family life and personal freedom. Perhaps this hunch will help future researchers to find an answer.

f) Increasing numbers of young people are committing suicide

The 1980s and early 1990s worsening of the youth job market was accompanied by changes in several social outcomes for youths, including crime, living arrangements and reported happiness. Some of these changes may be responses to the new circumstances operating in the labor market for young people. Others may be simply correlates of those changes. Whichever, it is useful to go beyond the job market indicators of how youths have fared in the 1980s-1990s to examine other social outcomes. Here we focus on an extreme indicator of the well-being of youths, their death rate due to suicides.

Table 14 gives death rates per 100,000 by suicide and self-inflicted injury for young and older persons for 22 countries, for 1970, 1980, and 1992, separately by sex. Suicide is a reasonably well measured and powerful indicator of how people feel about themselves and their relation to society. The suicide rates are in all cases higher for men than for women. Across the countries, there is a wide variation in both the adult and youth rates and considerable variation in the pattern of change. In English-speaking countries -- the U.S., Canada, U.K., Australia, New Zealand, and Ireland -- rates of suicide rose sharply, which could potentially reflect rising problems for youths in the job market in those countries, in particular the increase in inequality that marked the 1980s. But rates of suicide also rose among young men in Norway, where earnings inequality is small and the social safety net high. That youths in these countries report themselves as being happier or more satisfied with their lives further complicates any simple interpretation of these patterns and their link with the increasingly elongated transition from school to work.

¹⁴ These data are taken from the Eurobarometer Survey series. The sample used here is restricted to 12 countries (UK includes Great Britain and Northern Ireland) and excludes any new entrant countries in the 1990s such as East Germany, Austria, Sweden and Finland. The 12 are Belgium, Denmark, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Portugal, Spain and the UK.

Of particular concern is the rising crime, which is mostly committed by the young, and rising suicide rates among the young which conflicts with other evidence suggesting that youths report being satisfied with their lives. Barriers to employment can block young people in the passage from adolescence to adulthood, which involves setting up a household and forming a family. There is a connection between youth joblessness and serious social problems such as drug abuse, crime, vandalism, single parent families etc.. High levels of youth unemployment can lead to alienation from society and democratic political processes, which may give rise to social unrest. Unemployment makes people unhappy.

We now turn to an examination of youth labor markets outside the developed world.

5. Analysis of the Workings of the Youth Labor Market in the Transition Economies of the Former Soviet Union

Are the patterns observed in the OECD repeated in the group of countries that were members of the former Soviet Union. The answer is a qualified yes. There has been some work on the labor market situation of the young in the ex-communist countries of the Soviet Union since the fall of the Berlin wall in 1990. Lack of quality data has made such an analysis difficult but the situation appears to be improving. The countries for which the best data exists include East Germany, which is now a part of Germany and a member of the EU; there is also some good published data available on Hungary, Poland and the Czech Republic, who have recently joined the OECD. There are also a number of micro-data files that have become available that researchers have analyzed that shed some light on the situation in these countries. Examples of such surveys include the German Socio-Economic Panel, the East Europe Eurobarometer Survey series, the International Social Survey Program (ISSP), the Polish Social Survey, the Russian Longitudinal Monitoring Survey. and the Russian survey of employment, income, and attitudes. Analysis of various of these labor market surveys for eastern Europe is reported in Blanchflower and Freeman (1996), Blanchflower and Oswald (1999), Hunt (1999), Krueger and Pischke (1995), Kollo (1998), Blanchflower (1999b).

It is apparent from the data reported in Tables 1-6 that

- a) The Central Asian Republics such as Armenia, Azerbaijan and Tajikistan are poor and similar to many other South Asian countries. Transition economies in Eastern Europe are much richer. In comparison with many developing countries maternal and child mortality rates are relatively low in countries like Hungary, Poland and the Czech Republic.
- b) By 1997 approximately a quarter of the population of the European transition economies are under the age of 18. This is a significantly *higher* proportion than is found in most Western European economies where closer to 20% of the population is under the age of 18.
- c) In contrast to most Western European economies the relative size of the youth population aged 15-24 has been *rising* in most of these countries in the 1990s.

- d) The level of aggregate unemployment varies a lot across the transition economies that we have data for. It is particularly high in the Former Yugoslav Republic of Macedonia (1997=38.8%) and very low in Tajikistan (2.7%), Uzbekistan (0.4%) and the Czech Republic (1997=4.7%). It is unclear what to make of the unemployment rate in many of these countries. Does it indicate a well-functioning labor market (Czech Republic) or one where little adjustment to capitalism has occurred (Russia).
- e) As was found for OECD countries the level of youth unemployment is generally between two and four times higher than for older workers. The ratio of youth to adult unemployment was highest in Romania at 4.7 times.
- f) Based on the most recent estimates we have (mostly 1997) there is no obvious pattern in youth unemployment rates between men and women. Female rates are higher in Belarus, Croatia, Czech Republic, Macedonia, Lithuania, Poland, Romania, Slovakia but are lower in Hungary, Latvia, Russia and Ukraine. They are about the same for the two sexes in Slovenia.
- g) The proportion of 20-24 year olds in 'third-level' or higher education has declined in Belarus, Latvia, Russia and Ukraine but increased strongly in the Czech Republic, Hungary and Estonia and has increased but to a lesser extent elsewhere.

Adjustment from a centrally planned economy to a market economy has been difficult. Not only have there been dramatic increases in unemployment rates but also declines in real wages and considerable widening of the overall wage distribution. Year to year swings are very pronounced in many of these transition economies. Declines in real wages have been dramatic in many countries especially from the CIS. Annual changes in real wages, 1989-1995 are presented below.

	1989	1990	1991	1992	1993	1994	1995
Eastern Europe							
Albania	-	0.37	-42.6	-30.9	-33.8	-	-
Bulgaria	-	6.2	-42.3	14.9	1.3	-20.5	-
Czech Republic	0.9	-5.7	-26.1	13.6	0.1	7.7	4.5
Hungary	2.2	-8.3	-3.1	2.5	2.8	2.5	-7.5
Poland	10.4	-28.8	-5.4	-6.3	2.8	-1.2	-0.2
Romania	3.3	6.1	-19.4	-13.3	-14.9	1.2	-
Slovakia	0.9	-5.7	-26.1	7.5	-7.2	4.5	-
Slovenia	27.6	-26.5	-23.2	-1.2	11.2	6.0	-
CIS							
Belarus	7.2	11.1	4.5	-11.3	-30.0	-	-
Kazakstan	-	-	-10.7	10.8	-11.6	-31.3	-
Kyrgyzstan	-	-	40.5	-30.3	-51.5	-25.8	-
Russian Federation	-	-	-3.0	-33.0	4.0	-8.0	-
Ukraine	-	-	31.0	-41.0	-58.0	-	-
Uzbekistan	-	-	-18.3	2.8	6.3	42.1	-

Source: Report on the World Social Situation, 1997, United Nations, New York, p.124.

Blanchflower and Oswald (1998a) examined the labor markets of Eastern Europe. Their paper uses new data on 60,000 randomly sampled workers in the transition economies. The main data sources are the International Social Survey Program and the Eurobarometer Surveys (including the six (now 8) East European Eurobarometers). To allow a comparison, the paper analyzed Western data from the same sources. Three conclusions were reached. First, the micro-econometric structure of unemployment regression equations is approximately the same in the nations of Eastern Europe as in the industrialized West. Second, unemployed people in the transition economies are as unhappy, relative to the employed, as those who are jobless in the industrialized Western countries. Such a result sheds doubt on the idea that voluntary or benefit-induced unemployment is worse in the East. Third, estimating a 'wage curve', (the unemployment elasticity of pay following Blanchflower and Oswald, 1994) using pooled data from five East European nations, produces a local unemployment elasticity of pay fairly close to -0.1 which is the figure commonly found for the rest of the OECD, which casts doubt on the argument that wages are inherently less flexible in the East. Keune (1998) examined youth unemployment in Hungary and Poland and argues that "(I)n general, the main factors explaining youth unemployment are the same as the ones explaining general unemployment" (p.24).

The broad conclusion from the analysis conducted to date on the transition economies is that the workings of the labor markets of East and West appear surprisingly similar. To understand youth unemployment it is necessary to understand adult unemployment. There is another side to this coin: youth employment policy is unlikely to be successful if it ignores the aggregate unemployment picture. There is probably no distinctive solution, therefore, to *Eastern Europe's* unemployment (whether youth or adult). Instead there is only a single problem -- joblessness in Europe.

6. Analysis of the Workings of the Youth Labor Market in Developing Countries

a) Latin America

The countries of Latin America show considerable variation in wealth, degree of development and labor market performance¹⁵. According to Table 1 the country with the highest GDP per capita is Argentina (\$US 8380) and the lowest Nicaragua (\$US 380). Similar differences are found on other dimensions such as maternal and under 5 mortality rates. The difference in the proportion of the population that is young (<18) shows enormous variation from a high of 50% in Nicaragua to a low of 28% in Uruguay. Although the size of the youth population is declining relative to the adult population (Table 2) relative to the adult population (Table 2) in most countries in the world, and indeed in many countries in Latin America (e.g. Brazil, Chile and Peru) it has been increasing in Bolivia, Nicaragua and Paraguay. There are also large differences in labor market performance. Tables 2-6 also suggest the following

- 1) Unemployment rates are generally higher in the 1990s than they were in the 1980s (Table 2). The main exceptions to this is Chile where unemployment has declined dramatically. In

¹⁵ For an overview of the labor markets in Argentina, Brazil, Chile and Mexico see OECD (1994) pp.33-51.

Chile the unemployment rate was as high as 19.6% in 1982; by 1997 the rate had fallen to 5.3%.

- 2) Unemployment rates are especially high in Argentina (1995=16.3%), Colombia (1997=12.1%) and Panama (1996=14.3%). They are low in Bolivia (1996=4.2%), and Mexico (1997=3.5%).
- 3) In most OECD countries unemployment rates are highest for the least educated – the two major exceptions are among the poorest member nations Greece and Korea¹⁶. Higher unemployment rates for the least educated also found in the more developed of the Latin American countries (e.g. Argentina, Brazil, Chile, Mexico and Uruguay). Urban unemployment rates in 1994/1995 for those with 13 or more years of schooling compared with those with 0-5 years are presented below. The most educated have *higher* unemployment rates than the least educated in Bolivia, Ecuador and Venezuela.¹⁷
- 4) Over the last two fifteen years or so the size of the youth cohort relative to that of adults has declined in most Latin American countries and dramatically in some such as Colombia, Costa Rica, Honduras, Puerto Rico, Trinidad & Tobago and Venezuela. It has remained roughly the same in Bolivia, El Salvador and Uruguay but has increased strongly in Nicaragua and Paraguay.
- 5) Youth unemployment rates are approximately twice as high as adult rates in most countries. Youth unemployment seems to be a particularly serious problem in the late 1990s in Argentina (24.6%), Colombia (35.1%), Panama (27.3%) and Uruguay (24.6%). As can be from table 15 youth unemployment rates for the youngest age groups in a number of

¹⁶ In the OECD the unemployment rate for those with less than secondary education was 12.3% in 1995 compared with 4.2% for those with tertiary level education. In Greece and Korea the numbers were 6.3% and 8.1% and 1.0% and 2.0% respectively. Source: OECD Employment Outlook, 1998, p.202.

¹⁷ Unemployment rates by years of schooling are as follows

	All	0-5	>=13
Argentina	13.0	14.0	7.7
Bolivia	4.7	2.9	5.0
Brazil	7.2	6.6	3.0
Colombia	9.2	7.0	7.0
Costa Rica	5.6	6.1	3.3
Chile	6.0	6.7	4.0
Ecuador	6.8	3.9	5.8
Honduras	4.1	7.1	1.3
Mexico	4.5	3.9	3.5
Panama	16.0	11.8	11.8
Paraguay	5.1	5.4	2.5
Uruguay	10.1	7.2	5.8
Venezuela	10.7	8.9	10.1

Source: Social Panorama of Latin America, 1997, Economic Commission for Latin America and the Caribbean, United Nations, Santiago, Chile.

countries are worryingly high, even in Chile which has experienced strong declines in aggregate unemployment.

- 6) There has been considerable growth in the proportion of those aged 20-24 going to college in most Latin American countries in the 1990s.
- 7) Urban minimum wages exist in most Latin American countries. The coverage of minimum wage laws is incomplete and enforcement weak and likely to vary considerably across countries. As can be seen below there is considerable variation across the countries in how the minimum has changed. The unemployment rate in 1995 and percentage point changes in adult unemployment rates sine 1987 are in the final two columns.

	Urban Real Minimum wage (1990=100)				Unempt. Percent	
	1980	1985	1989	1994	Rate 1995	Change 1987-1994/5
Argentina	465.9	541.5	323.5	363.9	18.6	+12.7
Bolivia	-	185.5	117.2	199.9	5.8	-1.4
Brazil	138.4	135.0	133.1	107.4	4.7	+1%
Chile	114.4	87.3	91.3	124.4	5.6	-6.3
Colombia	93.1	101.4	102.7	96.0	8.6	-3.2
Costa Rica	82.7	93.5	99.1	93.6	4.3	-1.6
Ecuador	288.3	203.6	110.2	115.9	8.4	+1.2
El Salvador	287.2	190.1	106.3	99.8	7.5	-1.9
Guatemala	207.5	195.0	157.5	62.8	4.3	-7.1
Honduras	118.0	105.1	85.7	94.8	4.5	-6.9
Mexico	252.9	181.2	111.4	89.6	6.4	+2.5
Panama	100.8	101.8	100.7	107.3	14.3	+0.2
Paraguay	76.4	75.6	104.5	86.0	4.8	-0.7
Peru	428.0	232.8	107.3	61.9	8.2	+3.4
Uruguay	145.0	134.8	112.8	67.3	10.7	+1.4
Venezuela	171.4	165.5	126.1	116.7	10.3	+0.4

Source: Tardanico (1997)

There appears to be no simple relation between changes in the minimum and the levels or changes in unemployment. In a few countries growing real minimum wages are associated with increases in unemployment in Argentina, Brazil and Ecuador and vice versa in Colombia, Costa Rica, Guatemala, Honduras and Paraguay. The pattern is more mixed elsewhere. There appears to be only a little empirical work on the role of the minimum wage in Latin America, with the main exception being the work of Reynolds and Gregory (1965); Card and Krueger (1995) and Castillo-Freeman and Freeman, 1992 on Puerto Rico. There do not appear to be substantial or robust employment effects of the minimum in Puerto Rico which are governed by the US Congress, although it has had an enormous effect on the wage distribution. Minimum wages in Mexico were found by Feliciano (1998) to have little effect on male employment but a small negative employment effect on females. Lustig and Mcleod (1997) found minimum wages increased unemployment but lowered poverty.

- 8) There has been rising income inequality in many Latin American countries and especially in Brazil, Chile and Colombia. Poverty rose between 1980 and 1989 from just over one-fourth to just under one-third of the population (Morley, 1995). It was highly localized to a subset of countries – in 1989 Brazil had 45% of the continent’s poor but only 33% of its population. At the same time there has been *declining* income inequality in Bolivia, Chile, Colombia and Uruguay.

Average income of the richest 10% as multiples of the poorest 40% is presented below.

	Urban	Rural
Argentina		
1980	6.7	
1994	9.8	
Bolivia		
1989	12.6	
1994	9.3	
Brazil		
1979	13.3	8.4
1993	14.5	12.5
Chile		
1987	12.6	7.7
1996	11.8	8.5
Colombia		
1980	15.0	
1994	14.5	13.8
Costa Rica		
1981	4.9	6.0
1994	6.3	6.6
Mexico		
1984	5.1	5.2
1994	8.2	5.4
Panama		
1979	7.5	6.3
1994	10.9	8.5
Paraguay		
1986	7.8	
1994	8.7	
Uruguay		
1981	7.1	
1994	4.7	
Venezuela		
1981	4.3	4.0
1994	7.5	6.1

Source: Social Panorama of Latin America, 1997, ECLAC, Santiago, Chile, p217.

These patterns of rising inequality are surprisingly similar to those reported above for the OECD. Sluggish growth of the macro economy and high overall unemployment has hit the young hardest. Falling cohort sizes which reduce the relative supply of the young do not seem to have helped much in improving the situation of the young.

Labor Market Programs in Latin America

Since the beginning of the current decade, with the support of the Inter-American Development Bank (IDB), a training program focused on unemployed young has spread rapidly through several Latin American countries. It was first conducted in Chile in the late 'eighties under the name of "Chile Joven" (CHJ). The program is specifically directed at young people in a situation of 'social risk and/or structural unemployment'. From the beginning, both in Chile and in every other country where the model was introduced, it has provoked strong reactions and controversy. The CHJ makes use of programs that help young people to acquire basic skills to be eligible for work. The scheme was originally implemented in Chile with the intention that it should last for four years (1991-1995). However, in 1994 it was extended for a further four years. The training and occupational practice process normally lasts about six months (from 200 to 300 hours' training and two to three months of work practice, although in some variants of the Chilean case training reaches up to 420 hours). The program is highly decentralized and relies on around 1000 training centers which undertake public bidding for training contracts. While they are on the program, users get a maintenance and transportation subsidy, to encourage them not to drop out. Usually the subsidy is about 50% of the minimum wage in force. Firms who take trainees are not obliged to remunerate trainees or give them employment subsequently.

Several evaluation studies have stressed the success of the CHJ in promoting employment. The program enrolled more than 128,000 young people participated in the program, well above its target. In the first three years almost 60% of the young people found a job at the end of the program compared to 40% for those who did not get the training. Around 55% of the participants were employed in the company where they took the traineeship compared with 41.3% in the control group which was made up of youths residing in the same neighborhood with the same socio-economic characteristics as program participants. The difference was even greater for women – 45.5% and 27.0% respectively, and those who were relatively younger had the greatest problems in finding a job. Of these, the overwhelming majority came from the target population: 95.6% came from low income sectors and 79% were below the age of 24 (Castro and Verdisco, 1999). Unfortunately it is unclear from these studies a) the extent to which the trainees are cheap substitutes for existing workers who could potentially lose their jobs to the subsidized (lower cost) trainees b) whether the jobs the trainees obtain are long-lasting – evaluation was generally focussed on what happened six months after completion c) whether the schemes teach real skills d) whether the training actually represent a route out of poverty. "Evaluation must at least make an attempt to take into account what would have happened in the absence of such programs" (ILO, 1998).

In the rest of Latin America there have been other ambitious schemes to improve the economic situation of the young, particularly in Argentina and Brazil, but also in Columbia, Peru and Uruguay¹⁸. In Argentina "Proyecto Joven" which is a variant of Chile Joven has been in

¹⁸ These programs need to be placed against the backdrop of declining public sector employment in Argentina and Chile. Such cuts began earliest and have been deepest in Argentina in both the military and civilian branches of

existence since 1994. It is addressed at young persons with employment problems, from low-income homes, low educational levels and little or no occupational experience. By training youth the program attempts to increase their productivity and to instill in them values and attitudes which are thought to improve their chances of getting and keeping a job. Courses are completely free of charge, including teaching materials, tools, transportation, inputs, safety and hygiene implements and other elements required for training purposes. The program has set itself the goal of training 280,000 persons. The first phase that started in 1994 and recently came to an end had over 100,000 young participants; another 180,000 will be trained in the following three years. There have been some successes in Argentina but they have been smaller than found in Chile, especially for women. The overwhelming majority of participants are poor (80% belong to low-income families) and only 7% had finished secondary education. Males increased their employment rates from 43.7% to 61.3% over the 11 month interval between the training and the survey compared with 51% and 59.9% for the control. Results for females are less convincing – employment went up from 35.4% to 38.6% whereas the control group did *better* increasing from 35.3% to 41.5%. There are some concerns about the nature of the control groups as they were generated *ex-post* and do not appear to have matched characteristics to the treatment group (see Castro, 1999).

In 1996 Brazil implemented PLANFOR targeted towards youth, the unemployed and the dispossessed. During the first year of operation the program trained close to 1.2 million workers. The program targets rural areas: blacks and non-whites are over-represented. The program is much more heterogeneous than the Chile Joven but does appear to be having some success. There is some evidence of statistically significant impacts on employment and wages of men and older workers but lesser effects for women and younger workers (de Moura Castro and Verdisco, 1998). Colombia has implemented the Program of Occupational Training for Young People. Its general objective is to help low income young people from 17 to 25 years of age that are unemployed and have not completed their secondary education, by giving them semi-skilled training in occupations for which there is evidence of demand in the productive sectors. Peru has implemented their own Pro-Joven Program of Youth Occupational Training. The purpose of Pro-Joven is to supply semi-skilled training and labor experience to low-income young people in specific trades in demand in the productive sector. It thus endeavours to face the problem of access of deprived young persons into the labor market. It is intended to have an intake of 150,000 youngsters over a period of five years. Uruguay's PROJOVEN is much smaller than the programs in Brazil, Chile, Argentina, Columbia and Peru. An initial set of pilot schemes organised training courses with a coverage of only 4090 young people between 1995 and 1996. To date they have trained 1200 to 1500 young persons a year.

Castro and Verdisco (1999) compare the projects in Chile, Argentina and Brazil regarding the quality of the training they offer and the targeting mechanisms used, and come to the conclusion that the two "Joven" schemes are strong in targeting but weak in quality, while the courses sponsored by PLANFOR tend to be of good quality but poorly focussed. Those in charge of the Chile Joven Program point out that the growth experienced by the Chilean economy is a key factor in the success ascribed to the project. According to Messina (1995), the only positive

governments and in Chile, essentially in the civilian branch only. The declines in public sector employment have been much less elsewhere in Latin America. (Tardanico and Larin, 1997)

effect in the Chilean case would be the opportunity of a temporary labor experience for beneficiaries.

Just as in Europe and the US the evidence on the effectiveness of training schemes in Latin America is mixed at best.

b) Asia and Africa

The lack of good data makes it difficult in many developing countries in Asia and Africa to evaluate the extent of the youth labor market problem. Tables 1-6 suggest considerable variation in the levels of GDP per capita in both Asia and Africa (c.f. Gabon and Eritrea; Singapore and Nepal) and similarly for other variables such as infant death rates and primary school attendance. There are no consistent patterns of youth unemployment – they are very high in some countries (e.g. Algeria, Egypt, Mauritius, Sri Lanka) and very low in others (e.g. Burkina Faso; Central African Republic; Ethiopia; Thailand). Female unemployment rates are generally higher than male rates. There has been considerable growth in Asia and Africa, but presumably from a very low base, in the proportion of young people in ‘third-level’ or higher education and especially so in Africa.

The size of the agricultural sector in these countries tends to be large: the majority of the young live in rural areas. The unemployment rate is generally not a useful measure of labor market slack in such areas, especially in countries where no unemployment benefit system exists. The unemployment rate in the developing world is primarily an urban phenomena. Where unemployment rates for rural areas exist they are almost always much lower than in urban areas. Youth unemployment rates tend to be higher than adult rates in these countries and generally higher for the more educated than the less educated who can’t afford to be unemployed. Underemployment is the main problem in rural areas. In comparison with the OECD as well as the transition economies and the Latin American countries, much less empirical work on wages and/or unemployment has been undertaken on the developing world. The main published exceptions are Hoddinott (1996) on the Cote d’Ivoire; Dickens and Lang (1995) on Sri Lanka and Schultz and Mwabu (1998) and Moll (1993) on South Africa and Blanchflower (1999b) on the Philippines.

A useful set of studies have been commissioned by the ILO on the nature of the youth labor market in a number of developing countries -- Lebanon (Khalaf, 1997); India (Visaria, 1998), Indonesia (Juoro, 1998), Vietnam (Nguyen, 1997), Zimbabwe (Kanyenze, 1997), Tanzania (Mjema, 1997), Cameroon (Mamder, 1997a), Cote d’Ivoire (Mamder 1997b), Mali (ILO, 1997). The ILO has also commissioned summary papers for Asia (Chadha, G.K. (1998) on Sri Lanka, Philippines, India and Indonesia) and Anglophone Africa (ILO, 1999 on Egypt, Nigeria, South Africa, Uganda, Zambia and Zimbabwe). A number of facts emerge from these papers –

- a) Youth unemployment in most developing countries is perceived as a major problem. In many countries young people are a very high proportion of both the total population and total unemployment. In many countries the young unemployed are looking for their first job (e.g. India).

- b) Inadequate and incomplete data make it hard to know exactly the scale of the problem.
- c) Developing countries struggle to deal with youth unemployment – low incomes, lack of capital investment and low human capital cause problems. High inflation (311% in Vietnam in 1988 and 487% in Lebanon in 1987)¹⁹ and restrictive macro-economic policies have especially harmed youth. There seems to be some recognition that the problem is closely linked with adult unemployment.
- d) Various strategies have been tried unsuccessfully – public sector job generation has not worked. The World Bank and IMF have come to the aid of countries in financial crisis but forced them to reduce public sector employment (e.g. Tanzania, Vietnam).
- e) Minimum wages exist in many countries (e.g. Indonesia, Tanzania, Mali, Cote d’Ivoire, India, Mauritius, Zimbabwe, South Africa). High levels of the minimum apparently exist in Mauritius, Zimbabwe and South Africa which may reduce employment (ILO, 1999a). The absence of a youth sub-minimum is likely to have the largest employment consequences on the young who tend to have the least skills, if the minimum actually binds. Lustig and Mcleod (1997) found minimum wages increased unemployment but lowered poverty in four African countries (Ghana, Mauritius, Morocco, Tunisia) and five Asian countries (India, Indonesia, Philippines, Sri Lanka, Thailand)
- f) A number of countries have experimented with some success with policies to increase self-employment in both urban (e.g PMRY in India) and rural areas (TRYSEM in India) and the Indonesian Youth Co-operatives. These include workshops on how to set up in business (e.g. Mali and Zimbabwe), provision of lines of credit and advisory activities to help the creation and survival of small businesses (e.g Bangladesh, Philippines, Indonesia, Sri Lanka, Zimbabwe, Mali, Cote d’Ivoire and Cameroon).
- g) There seems to be broad recognition of the importance of formal schooling (Chadha, 1997; ILO, 1999a) and the need to improve its quality (e.g. Indonesia, Tanzania, Zambia, Zimbabwe). Raising the school leaving age, reducing child labor and raising the quality of education are important objectives.
- h) There is little evidence that job training schemes work, especially in difficult times. One exception perhaps is Egypt which has adopted the Mubarak-Kohl initiative which attempts to adapt the successful German dual education and training system to the Egyptian context. Several pilot schemes suggest some success (ILO, 1999a). The rate of return to programs is likely to be a function of the state of the labor market (national and local). It is easier to place program participants when unemployment is low and vice versa. Displacement effects for non-participants are potentially serious.

¹⁹ Interestingly the hyper-inflation went away very rapidly in both countries a) Vietnam 1989=96%; 1990=68%; 1991=67%; 1992=18%; 1993=5% (Nguyen, 1997, Table 1); b) Lebanon 1988=155%; 1991=51%; 1994=8.7%, (Khalaf, 1997,q1 Table 1)w

- i) It will be hard to ‘solve’ the problem of urban youth unemployment as this would induce a flow to the cities from the land. Programs need to be developed to slow the flow from the land and deal with the underemployment of the young and low living standards that exist in rural areas.

The situation in Sub-Saharan Africa (SSA) has been somewhat different to that in Asia – modern economic growth has succeeded in increasing the welfare of many developing countries but it has left most of Africa behind. Thirty six per cent of the region’s population live in economies that in 1995 had not regained the per capita income levels first achieved before 1960. The evidence on whether openness to international trade enhances economic growth is also rather mixed (Sachs and Warner, 1995; Harrison, 1998). Inequality doesn’t seem to be a major factor inhibiting growth (deininger and Squire, 1996). Many analysts have attributed the lack of growth in SSA to low levels of human capital. However, recent work has produced equivocal results on the effects of education on productivity (see Krueger and Lindahl 1998, Topel, 1999, Pritchett, 1997). Freeman and Lindauer (1999) argue that the main limit on African growth is political turmoil, corruption and the lack of security of property; by implication fast economic growth can only be achieved in a peaceful, stable environment where property rights are guaranteed. According to the Heritage Foundation and the Wall Street Journal who publish an Index of Economic freedom (<http://www.heritage.org/index/>), sub-Saharan Africa remains the most economically unfree, and by far the poorest, area in the world. Of the 42 sub-Saharan African countries they graded, none received a rating of "free." Only 7 received a rating of "mostly free," 27 were rated "mostly unfree," and 8 were rated "repressed." Only Botswana and Namibia rank in the top 50 in 1999 at joint 48th place; Uganda and Swaziland were ranked joint 54th.

“The return to schooling requires stable property relations and a safe economic environment, which have been lacking in most African states. Wars, corruption, revolutions, and other instabilities that disturb or distort the normal functioning of markets may make the value of schooling less than it would be in a more stable world. If your country is riven with strife, better to pick up a gun than a book”, (Freeman and Lindauer 1999, p.6).

The good news is that investment in *physical capital* is well correlated with economic growth, but for this to occur property rights have to be guaranteed. Namibia and Uganda, who ranked as ‘mostly free’ have experienced rates of growth in investment in excess of 7% per annum. Lowly ranked Nigeria (95th) and Togo 134th experienced investment declines of nearly 10% a year.

7. So why so much emphasis on the OECD rather than on the developing world?

The main reason why there is so much emphasis in this report on the OECD is twofold. First, we know so much more about the OECD countries than anywhere else. A lot of high quality labor market *data* – especially micro-data – are now available across countries, often collected in the same way with the same variables. Aggregation matters in the labor market, hence one needs to analyze *disaggregated* data drawn from surveys of individuals, households and firms. Panel surveys where the same respondent is surveyed on more than one occasion are especially useful; repeating a cross-section survey year after year is another valuable resource for researchers.

Many such surveys in similar form are available for OECD countries – panels include the National Longitudinal Survey (NLS) in the US, the British Household Panel Study (BHPS), the Swedish HUS and the German Socio-Economic Panel (GSOEP).

There has also been much more *econometric analysis* conducted on OECD countries about the workings of the labor market than is true for developing countries. Even though many developing countries have implemented labor market programs, a large body of technical literature has shown that it is virtually impossible to measure the success of any program without carefully conducted evaluations with appropriate control groups. Experience with these types of evaluations in the United States suggests zero or even negative rates of return for such programs for the disadvantaged young, although there is some evidence that they work for adults and especially so for women.

Such econometric work that we do have suggests that there are many *patterns in the data* that are similar across member countries of the OECD which appear to extend over to the transition economies and the developing world. This runs contrary to conventional wisdom that emphasizes differences not similarities. Regression equations estimated on various countries – for the OECD and elsewhere – to explain wages and earnings, self-employment, unemployment, union density, happiness, life satisfaction and job satisfaction, for example, tend to have the same significant variables with the same signs, although with differences in their coefficients no matter for which countries they are estimated (see Blanchflower, 1996, 1999b on wages; Blanchflower, 1999b on union density and Blanchflower and Oswald, 1999b on unemployment; Blanchflower, 1999a on self-employment, Blanchflower and Oswald, 1999a on happiness and life satisfaction; Blanchflower and Oswald, 1999c on job satisfaction). There is little if any systematic variation in the coefficients by country in any of these variables that are correlated with any macro variable of interest such as economic performance. Mincerian earnings equations estimated on the US, the UK and Germany look broadly similar to those estimated in countries in transition economies and the developing world.

As an illustration let us take a series of facts from this paper that are similar within the OECD and seem to also apply to the rest of the world.

1. Youth unemployment is higher than adult unemployment. Double is a good rule of thumb.
2. The relative size of the youth cohort is down.
3. The relative size of the youth labor force is down.
4. There is a growing move to increased formal education among the young.
5. Young people are deferring marriage until later in life.
6. Rising female participation rates.
7. Labor market programs for the young generally have low rates of return.

There is also evidence from a series of econometric studies that there are *patterns in the data* that hold in the western democracies that are repeated elsewhere. Institutions may matter less than we think. Let us take an example – the wage curve.

Recent research has established that there is a negatively sloped curve linking pay to unemployment. The nature of this relationship -- "the wage curve" -- is almost identical across the countries of the world. This curve was first found in micro-data for 11 OECD countries -- Austria, Canada, Holland, Ireland, Italy, Norway, South Korea, Sweden, Switzerland, the UK and the United States -- by Blanchflower and Oswald in their 1994 book, The Wage Curve. It is also present, within nations, across different periods of time. In the countries studied in the Wage Curve book, the estimated unemployment elasticity of pay was approximately -0.1. A doubling of unemployment is then associated with a ten percent fall in pay. Blanchflower and Oswald further reported on work by other researchers which established the same pattern in a further three countries non-European countries, Japan, the Cote d'Ivoire and India making fourteen in all. Since the book was written a) other researchers have confirmed these results for the group of countries Blanchflower and Oswald analyzed b) a number of new papers have established similar results in a number of new countries across all continents Europe (Belgium, Denmark, France and Spain), Latin America (Argentina and Brazil), the transition economies (Bulgaria, Czech Republic, East Germany, Hungary, Poland and Russia); Africa (Ghana, South Africa, Burkina Faso) and Asia (Taiwan). The wage curve slopes down in *all* 30 countries studied with approximately an elasticity of -0.1. Who would have expected it?

Kingdon and Knight (1998), for example, concluded that "when we use the definition of unemployment that is most plausible for South Africa i.e. the broad definition, there is evidence of a remarkable OECD-type wage curve in South Africa, a country with several times the typical unemployment rate of OECD countries. The relationship between broad unemployment and wages is downward sloping, becomes flat at high unemployment rates and yields a wage unemployment elasticity of -0.11", 1998, p.21). Other examples of wage curves outside the OECD are Hoddinott (1998) for the Cote d'Ivoire, Galiani (1999) for Argentina; Amadeo and Camargo (1997) and Barros and Mendonca (1994) for Brazil and Rodgers and Nataraj (1998) for Taiwan and Blanchflower and Oswald (1999b) for the transition economies. The degree of wage flexibility may be more similar across countries whether in the OECD or outside it than has been previously believed.

Clearly there is much to be learned about the workings of labor markets around the world. High and persistent unemployment is a hard problem to solve. The starting point for any prescriptions for solving unemployment has to be what we *know*. Much of this is derived from econometric analysis of the workings of labor markets in OECD countries. In the future it would be helpful to have more research on the workings of labor markets using micro data outside the developed world. This process has started – projects such as the Living Standards Survey of the World Bank which now has micro-data on households available in 19 countries²⁰, and the International Social Survey Programme which now has 30 members including a number of transition economies (Poland, Hungary, Russia, Slovenia, Bulgaria, Slovakia and developing countries (Philippines) offer interesting sets of data that can be used for further analysis²¹. Many countries

²⁰ The countries covered are Albania, Bulgaria, Cote d'Ivoire, Ecuador, Ghana, Guyana, Jamaica, Kazakhstan, Kyrgyz, Nepal, Nicaragua, Panama, Pakistan, Peru, Romania, Russia, South Africa, Tanzania, Vietnam. For details see <http://www.worldbank.org/lsm/guide/select.html>

²¹ The following countries are members of the ISSP -- Australia; Austria; Bangladesh; Bulgaria; Canada; Chile; Cyprus; Czech; Republic; Denmark; France; Germany; Great; Britain; Hungary; Ireland; Israel; Italy; Japan; Latvia;

particularly in Latin America run household surveys; releasing them for analysis by the worldwide research community would be an important step. We need more *analysis* of how labor markets work in developing countries; descriptions of institutions will not take us far.

8. Solutions to Youth Unemployment

a) Minimum wages

There is little strong evidence either that youth wages are too high or that that minimum wages have priced young people out of jobs. There is some evidence that youth wages relative to adult wages have been falling in the OECD. It does not appear that youths are being priced out of jobs there – there is much less evidence on movements on relative wages in the developing world. Wage cuts are not a solution (ILO, 1995, pp 173-176).

During the last decade or so the level of the minimum wage in the United States has been at an all time low in real terms. The evidence is now in and it seems that its low level and small changes in it had small if any effect on employment (Card and Krueger, 1995). There is also little evidence from Europe that the minimum wage has had major employment effects (Dolado et al, 1996). Even where evidence has been found in OECD countries for negative effects these have generally been small and weakly significant. Minimum wages have generally remained low in most European countries except France, where they appear to have had some employment effects. Neumark and Wascher (1999) report evidence in the raw data that increase in minimum wages have reduced youth employment rates in Canada, the Netherlands, Luxembourg, and to a lesser extent in the US and the UK. They also found evidence that declines in minimum wages were accompanied by declines in youth employment rates in Italy, Belgium, Spain, Greece and Portugal. They could find no relation between these two variables in Germany, Sweden, France and Japan. Both patterns were evident at various times in New Zealand and Denmark. There is stronger evidence for employment reducing effects of minimum wages in a number of Latin American countries. This is not to say that minimum wages could not reduce employment if they are set too high.

There are strong grounds for operating a youth sub-minima to ensure youths are not priced out of jobs for a lack of skills. It might also make sense to allow some variation within a country to allow for differences in living costs and earnings. A minimum wage of five pounds an hour is likely to have very different effects in London than it is in Yorkshire say, where the cost of living is lower. Large increases in the minimum wage can significantly worsen young people's relative position. High minimum wages in developing countries do seem to raise unemployment but overall they appear to *reduce* poverty (Lustig and Mcleod, 1997). This result is consistent across high and low poverty lines, alternative measures of poverty and the classification of observations by whether the economy is growing or contracting, by whether the population is urban or rural,

Netherlands; New; Zealand; Norway; Philippines; Poland; Portugal; Russia; Slovakia; Slovenia; South; Africa; Spain; Switzerland; Sweden; USA and Venezuela. For details see <http://www.issp.org>

and by region (Latin America or Asia or Africa)²². Raising the earnings of some of the young may make things worse for the rest. Lustig and McLeod argue forcefully that their findings “should not lead to a flat endorsement of minimum wage increases as an effective policy measure to reduce poverty” (1997, p.81). However their results do suggest that reducing minimum wages in the developing world does hurt the poor at least in the short run.

b) Self-employment.

The persistence of the youth labor market problem seems to demonstrate that standard economic policies have been insufficient. Western governments are searching for new alternatives. One is the idea that policy should attempt to create more entrepreneurship among the young. It is not obvious, however, that even a large new supply of young entrepreneurs would solve the jobs crisis. Self-employment presents an opportunity for the individual to set his or her own schedule, they can work when they like, they have to answer to nobody and ultimately perhaps it is a way to become rich. Unfortunately on the downside, if the business fails it may take with it their job, their savings, their home if as often happens it is used as security on a loan, and perhaps even their marriage because of the stresses and strains involved in making ends meet. If we have learnt anything from portfolio theory it is that an individual should diversify their portfolio and not to pool their resources into a single risky activity. Governments on the other hand frequently see self-employment as a route out of poverty and disadvantage and for this reason offer aid and assistance for small businesses. The justification for these actions are usually that this will help promote invention and innovation and thus create new jobs; new firms may also raise the degree of competition in the product market bringing gains to consumers; greater self-employment may also go along with increased self-reliance and well being. Unfortunately economists have little evidence on whether these hypothetical benefits exist in practice. Nevertheless, there are a number of ‘potential’ benefits often discussed by commentators (Blanchflower and Oswald, 1998b).

1. Entrepreneurship may promote innovation and thus create new jobs.
2. There may be a direct effect on employment if new young entrepreneurs hire fellow youths from the dole queues.
3. New small firms may raise the degree of competition in the product market, bringing gains to consumers.
4. Young entrepreneurs may be particularly responsive to new economic opportunities and trends.
5. Greater self-employment among young people may go along with increased self-reliance and well-being.

Economists have little evidence, however, on whether these hypothetical benefits exist in practice. Moreover, it is by no means obvious that more self-employment is better than less. Blanchflower (1999a) could find no evidence in OECD countries that increases in the self-employment rate increased the real growth rate of the economy; in fact there was even evidence

²² The countries they examine are Ghana, Mauritius, Morocco, Tunisia, India, Indonesia, Philippines, Sri Lanka, Thailand, Argentina, Bolivia, Brazil, Colombia, Costa Rica, Guatemala, Honduras, Mexico, Panama, Paraguay, Peru, Uruguay and Venezuela.

of the opposite! He also found that the overall trend in self-employment, at the economy level in the years since 1966, has been down in most countries – mostly due to the decline in agricultural self-employment. The end of the twentieth century may mark a particularly appropriate time for young entrepreneurs. Some commentators argue that new opportunities abound – due to technological change, the fragmentation of markets, and increased deregulation across Europe.

There is evidence that many more people would like to run their own businesses. Table 15 shows that when respondents in the International Social Survey Programme were asked

Suppose you were working and could choose between different kinds of jobs. Which of the following would you choose: being an employee or being self-employed?

Remarkably high numbers of individuals express a preference for self-employment. In most countries, large numbers of respondents said they would prefer being self-employed. A follow-up question is also asked in the ISSP survey. It says

Would you choose working in a small firm compared to working in a large firm?

Again, most said they would prefer a small firm.

A noticeably higher proportion of the young people preferred self-employment. In most countries, the majority of young workers did so. The data appears to indicate – assuming questionnaire material can be viewed as reliable – that there is large latent demand for a kind of entrepreneurial behavior—self employment. People find self-employment intrinsically attractive. Moreover self-employed individuals – a special but well-defined entrepreneurial group – report markedly greater well-being than equivalent employees. Their job satisfaction, life-satisfaction and reported happiness levels are all higher than workers of identical personal characteristics. While this finding does not tell us how to create more entrepreneurs in society, it does suggest that self-employment brings direct microeconomic benefits to people. It raises a puzzle, too. If self-employment does this, why are not more individuals running their own businesses? Economists have amassed considerable evidence that potential entrepreneurs are held back by lack of capital. (see for example, Blanchflower and Oswald, 1998b, Evans and Jovanovic, 1989; Evans and Leighton 1989; Holtz-Eakin, Joulfaian and Rosen, 1994; Black et al, 1996; Lindh and Ohlsson, 1994). There is particularly strong evidence in the US that suggests that liquidity constraints bind especially tightly on blacks which may help to explain why the self-employment rate of black males is about one-third that of white males (see Fairlie, 1999 and Blanchflower, Levine and Zimmerman, 1998)

The literature on micro-enterprises also identifies a lack of capital as a primary constraint to enterprise development (see, for example, Todd (1996) and Counts (1996). The Grameen Bank in Bangladesh has demonstrated very successfully that the poor will repay small, noncollateralized loans or microloans (see Yaron, 1994). Grameen organizes borrowers into peer groups usually clustered together in villages; if any member of the group defaults, no member can ever again borrow from the bank. By getting borrowers to monitor each other, Grameen has consistently been able to recover 98% of its loans from its mostly female

customers, enabling it to offer credit to over 1 million families a year. The Grameen Bank's data suggests that a good percentage of its members manage to pull themselves out of poverty. The main lesson to be learnt is that there is a demonstrated need in Bangladesh and many other developing countries such as Thailand, Indonesia and Botswana, for institutional changes which channel loanable funds to micro-enterprises. This helps to overcome the capital constraints confronted by the poor.

Similar results to those found in developing countries have been reported by Godley (1996) in the case of east European Jewish immigrants, a group with a strong predisposition to entrepreneurship. Most immigrants arrived in their host country with little money and with little prospect of acquiring capital from traditional sources. Hence, they were forced to seek openings in sectors such as the clothing industry which had very low start-up costs. They were able to develop innovative financial intermediaries -- soft loan societies -- to ease the flow of credit to immigrant entrepreneurs in New York and London between 1880 and 1914²³. The success of these two lending institutions was only possible by minimizing the incentives for borrowers to cheat. Two reasons have been suggested for this, first the presence of trust in the Jewish culture and, second, the need for some sort of insurance in highly seasonal trades having acted as an incentive to repay. Default rates were exceptionally low, even though, as with the case of the Grameen bank, the size of the loans were generally small. The Jewish loan societies appear to have been important in reducing liquidity constraints which facilitated a rapid growth in the levels of self-employment among these groups of immigrants in both the US and the UK.

How such a finding – that liquidity constraints bind - can be exploited by the designers of economic policy is more complicated to judge. Econometric and questionnaire research suggests that the main constraint on new entrepreneurs is a lack of start-up and liquid capital. This does not mean that government cash ought to be handed out to those who wish to start a business. However, it indicates that plans to foster more entrepreneurship (if this is socially desirable) should begin by considering economists' evidence on the importance of capital constraints. There does appear to be some potential for encouraging entrepreneurial activity by unemployed workers. Evidence does suggest that a minority of unemployed workers are interested in self-employment and that government assistance can help to increase the numbers of unemployed who start their own business (see Forslund and Krueger, 1995). In Britain and France, for example, government programs provide transfer payments to the unemployed while they attempt to start businesses. In the U.S. similar programs are being started for unemployment insurance and welfare recipients. Many countries, including the UK and the United States, have government programs to provide loans to small businesses, and even exempt small businesses from certain regulations and taxes. Furthermore, many states and municipalities in the U.S. have had programs to encourage minority and female-owned small businesses.

There is evidence of an underlying interest in self-employment among large numbers of citizens who are currently employees. Econometric and questionnaire research suggests that the main constraint on new entrepreneurs is a lack of start-up and liquid capital. There appears to be a demonstrated need in Bangladesh and many other developing countries for institutional changes which channel loanable funds to micro-enterprises. This helps to overcome the capital

²³ The New York Hebrew Free Loan Society and the Loan Department of the London Jewish Board of Guardians.

constraints confronted by the poor. This does not mean that government cash ought to be handed out to those who wish to start a business. However, it indicates that plans to foster more entrepreneurship (if this is socially desirable) should begin by considering economists' evidence on the importance of capital constraints. Schemes which provide help and advice to young people on how to set up their own business and remove regulations that prevent individuals from doing so may also have value.

c) Active Labor Market Programs

Considerable progress has been made in the last few years, mostly in the US and Canada in developing methods that can be used for program evaluation. The most widely known are the experimental impact studies that have examined the effectiveness of schemes operating under the Job Training programs and which were funded by the US Department of Labor at a cost of approximately \$30 million had no impact at all – or even more worryingly that they scarred participants. The experiment found negative and statistically significant impacts on the earnings of male youth in the 18 months after random assignment and negligible impacts on the earnings of female youth (Bloom et al, 1993)²⁴. There was some evidence of positive returns to adults and especially adult females. In response to these findings Congress cut funding for the youth component of JTPA from \$540 million in 1994 to only \$110 million in 1995, a cut of over 80%.

Non-experimental evaluations of programs for the young are consistent with the results in the experimental literature. The estimated impacts usually are close to zero or even negative again²⁵. The outcomes of other programs such as the Summer Training and Education Program (STEP) are disappointing. Analysis of the General Equivalence Diploma (GED), which is of interest in its own right because a major goal of many government training programs is certification of participants at high school GED levels, suggests that except for a tiny upper tail GED certified high school graduates earn roughly the same as high school dropouts (Cameron and Heckman, 1993).

There is some evidence that more narrowly focussed, smaller but much more expensive schemes such as Job Corps, which is a residential scheme in the USA in which youth are removed from their neighborhoods to a separate camp, and which costs \$20,000 or so a participant, have generated significant positive returns (Marrar et al, 1982). Interestingly, the main source of the benefits depends heavily on reductions in murder arrests which are very small in number but have a very high value assigned to them (see Donohue and Siegelman, 1998). The Jobstart program, which was essentially Job Corps without the residential training programs, had no effect in Manpower Demonstration Research Corporation's (MDRC) experimental evaluation

²⁴ Recent work by Heckman and Smith (1999b) re-examined these results. They found that the estimates of the returns to training were sensitive to a) the set of training centers included in the evaluation b) how outliers in the earnings data are handled c) the construction of the earnings data d) control group substitution d) treatment group dropping out. Even after these adjustments they conclude that their results for youth "fit comfortably into the pattern of several decades of research that finds very limited earnings effects for the types of services offered by JTPA".

²⁵ The wage outcomes for adult women are generally significant and large: for men they are often smaller and less consistently positive. See Heckman, LaLonde and Smith, 1999 section 10.4.

(Cave and Doolittle, 1991). Impacts on the earnings of dropouts in the National Supported Work Demonstration (even more expensive) were negligible (Hollister, et al, 1984).

The CETA estimates for youth reported in Bassi (1984) are negative for males and small for females. Similarly in Europe there seems to be little evidence that active labor market policies have had a positive impact on participants' wages. There is stronger evidence that they have had positive employment effects but there is no consensus on the question. Even if there were, it is unclear the extent to which any of the newly created jobs constitute net job creation or are offset by the displacement of non-participants (Heckman, LaLonde and Smith, 1999). "No cheap training problem has yet been found that can end the welfare problem" (Heckman, 1999). In 1996 when asked by the Economist how much training schemes in the US help their clientele Jim Heckman replied that 'zero is not a bad number' (Economist, 6th April, 1996).

In contrast early childhood interventions of high quality do appear to have lasting effects. Disadvantaged, subnormal IQ children randomly assigned to the Perry Pre-school program, one of the early childhood programs most studied, were administered intensive treatments at ages 4 and 5. Treatment was then discontinued and the participants followed (they are now 35). The evidence suggests that those enrolled in the program have higher earnings and lower levels of criminal behavior than do comparable children randomised out of the program. Benefit-cost ratios seem to be substantial (Heckman, 1999, p102). Other examples of early intervention programs which have had some positive results include the Syracuse Pre-school program and Head Start.

The program evaluation literature makes it clear how important it is, as with medical trials of the effectiveness of new interventions and drug treatments, to have a fully representative control group to allow for 'what might have been' (see Heckman and Smith, 1999). Unfortunately, experimental evaluations involving humans are often imperfect. Some of the negative results appear due to details of the evaluation procedure, and the specific way the evaluators handled dropouts from the program, differences among sites, treatment of outliers, construction of earnings variables, and other technical decisions which could readily have gone differently. In addition, the fact that some youths in the "control sample" seek training outside of the program means that comparisons of the control and experimental group gives a downward bias to estimates of the effect of training per se (Heckman and Smith, 1999). The literature also makes clear how difficult it is to determine the impact of any program using non-experimental methods. However, all is not lost on the non-experimental front; the lesson to be learned is that care needs to be taken both in the selection of the control group and ensuring that comparable data are available on both control and treatment group. Before a program is fully implemented it makes sense to run a series of pilot programs with a panel of expert advisers to help in the design of any analysis, selection of sample etc.. Care also needs to be taken that the labor market histories of control and treatment groups are comparable. It is essential also to conduct the analysis at multiple sites because of the possibility of the success or failure of any programs being dominated by local factors such as the state of the local labor market²⁶. For a discussion of appropriate methods to use in conducting program evaluation see Heckman, LaLonde and Smith (1999) and Heckman and Smith (1998).

²⁶ We thank David Card for helpful discussions on this issue.

The evidence from the program evaluations that have been conducted in OECD countries suggest that large scale interventions have been only partially successful in overcoming the problem of widespread unemployment. Auspos, Riccio and White (1999) review the existing literature on labor market programs directed at young people in US and Europe and conclude that European programs have *not* produced earnings gains for participants. As for the effect of training programs the evaluations that have been done suggest no statistically significant impacts in Sweden, Norway, Poland, East Germany and Ireland. They found some evidence of positive effects of training schemes in Austria, Finland, France and the Netherlands but there are serious concerns about the appropriateness of the methods used, sample attrition and in particular about the appropriateness of the control groups used. Small but significant gains were found in Denmark as well as by some studies for Britain (e.g. O'Higgins, 1994 and Main and Shelley, 1990) but not by others (Dolton et al, 1994). Even if there is evidence of positive employment effects of the European training schemes it is unclear whether these impacts generate output increases or are offset by deadweight, substitution or displacement effects (Heckman, LaLonde and Smith, 1999; O'Higgins, 1997). Begg et al (1991) have estimated the total of the first two of these was of the order of 80%; if so then O'Higgins notes, "the positive employment effects observed are almost entirely attributable to an improvement in participants' employment prospects at the expense of other mainly young people rather than through an improvement in the demand for young workers' (1997, p.57). Moreover, Auspos et al go on to caution that the contrast between the USA and Europe "should be treated with some caution because most US programmes have been evaluated by experimental methods which may be more stringent than the non-experimental methods used in Europe" (1999, p.81). Despite enormous expenditures on youth training schemes in many countries in Europe the youth unemployment problem has not gone away.

As we discussed in an earlier section a number of developing countries, particularly in Latin America, have conducted labor market programs for the disadvantaged (e.g Chile, Argentina, Peru, Colombia and Brazil). There has been evidence of moderate success, but to an even greater extent than was the case in OECD countries, the schemes have not been subjected to the strict scrutiny of researchers in the way that programs such as the JTPA in the United States have been examined. As Castro and Verdisco have noted, the programs in Argentina and Chile do seem to have had some success - "in an area where failures are much more common than successes" (1999, p.21). It is important to subject these programs to high quality experimental and non-experimental evaluations to determine if the programs really do work. If they do then the Chile Joven model could be a valuable template for the rest of the world – including the United States where nothing seems to work for young black men. There may be other studies out there that work but we shouldn't recommend their widespread adoption until it is clear they work. Analogously, there are many new drugs out there, but we don't release them to the general public until we have tested any claims made and we are convinced they do not have harmful side-effects. The cost of this strategy is that it slows down the release of drugs that work at the expense of keeping out ones that don't (Type 1 and Type 2 errors). We need to avoid releasing the equivalent of Thalidomide onto the market. Sometimes it is worse to do something than it is to do nothing. This is not a prescription for inaction, rather a call for careful piloting, monitoring and measurement.

Rates of return to private training and higher education are high but most training conducted by firms tends to exclude low-skilled workers. Heckman (1999) has argued controversially that investing in low-skilled, disadvantaged workers makes no economic sense. He goes on to suggest that

“The fact is that policies that seek to alleviate poverty by investing in low-skill workers conflict with policies that raise the wealth of society at large. Taking the available evidence at face value, the most economically justified strategy for improving the incomes of the poor, especially low-ability low-skilled adults is to invest more in the highly skilled and then to tax them and redistribute tax revenues to the poor” (1999, p106)

There may well be something to this but such a free market solution is probably too radical for many. A number of conclusions can be drawn from the experimental and non-experimental evaluation literature.

- 1) Investing in formal schooling for the most able young people conveys high rates of return, which in most countries have increased in recent years. The more skilled do more investing even after they attain high skill levels.
- 2) Private sector training typically excludes low-skilled persons -- firms choose not to train the disadvantaged. “The lack of interest of private firms in training disadvantaged workers indicates the difficulty of the task and the likely low rates of return to the activity” (Heckman , 1999, p.105).
- 3) In general, training programs for the disadvantaged do not appear to raise wages or employment prospects for the young. Evidence is somewhat more positive for adults. Large scale schemes such as JTPA in the US and YOP/YTS in the UK appear to have been an enormous waste of money. Most importantly they have not improved the job prospects of the young.
- 4) Young people are increasingly choosing to stay on in formal schooling either at high school or tertiary college. There would seem to be some merit in encouraging young people to remain at school, possibly by raising the school leaving age and/or providing them with a subsidy to do so. It may be cheaper to train young people in schools rather than creating a new parallel bureaucracy.
- 5) Consideration should be given to preschool programs that intervene in the lives of children and their parents (Heckman, 1999).
- 6) Careful consideration and planning needs to be given on the types of training the young people are being given. Governments are not well placed to predict market demands. Public sector job creation is generally not an option.
- 7) Any schemes that are implemented probably need to be small, narrowly targeted and carefully piloted and monitored. Considerable care needs to be taken – and more than has been in most countries outside the USA – in careful selection of a control group to overcome the selection bias problem.
- 8) Successful schemes are likely to be very expensive – JobCorps a residential program the United States which runs for around six months costs roughly the same as undergraduate tuition at Harvard. It is probably better to spend \$10,000 on one person than \$1,000 each on ten people.

- 9) The rate of return to training is likely to vary across sites. What works in one place may not work in yet another. Careful selection of control groups from the same labor market seems crucial.
- 10) Rates of returns to training programs are likely to be highest at times when the economy is booming and lowest when it is in recession. There are more jobs going in good times and program participants are easier to place. The programs are most needed when times are bad and there are no jobs.
- 11) It makes sense to consider the displacement and substitution effects of any program. Do the teenagers take the jobs away from older age groups?
- 12) In any evaluation it makes sense to calculate the social returns from a society investing in a training program as well as the private returns that accrue to the individual in question are relevant. A major benefit to society of getting young people into the world of work could be a lower crime rate, fewer people in jail, fewer homeless people, fewer teenage pregnancies, less illicit drug taking, lower suicide rates etc.. This is valuable.

d) Macroeconomics

It does appear that solutions to youth unemployment are inextricably linked to, and cannot be separated from, the difficulties countries face in trying to reduce overall unemployment. Unfortunately we are a long way from understanding why aggregate unemployment is so high and why it has trended upwards over the last couple of decades. There is some evidence that overly generous benefits can increase unemployment, but the correlation is rather weak in the data – Italy has high unemployment and low benefits. Despite conventional wisdom (OECD, 1994; Layard, Nickell and Jackman, 1991; Nickell, 1997; Nickell and Layard, 1999), high unemployment does not seem to be primarily the result of job protection, labor taxes, trade union power or wage ‘inflexibility’ (Oswald, 1996, 1997a, 1999, OECD, 1999b). The view that these variables have little role to play in explaining changes in unemployment that have occurred in Europe is broadly consistent with the views expressed in ILO (1995) –

"The foregoing review of the evidence suggests that labour market rigidities have not been an underlying cause of past labour market performance. Labour market performance has deteriorated since the first oil shock irrespective of differences in labour market regulation, suggesting that a more fundamental common factor (or factors) has been at work." (1995, p.20) (my italics)

What is true is that unemployment in Europe is higher than it is in the USA and Europe has more job protection, higher unemployment benefits, more union power and a more generous welfare state. But that is a cross-section correlation and it tells us little or nothing about time series changes. Blanchard and Wolfers (1999) have argued that “the interaction of shocks and institutions does a good statistical job of fitting the evolution of unemployment both over time and across countries” (1999, p.18). This result is questionable because it is obtained in an over-fitted model -- few data points and lots of variables -- and the results appear to be driven by the cross-section variation rather than by any time series changes. In many OECD countries

unemployment has increased a lot over the last decade or so²⁷ but unemployment benefits have been cut, union density has fallen and union power has weakened (Blanchflower, 1996), job protection has changed little and there is a new flexibility in wage bargaining, so they say, than there was in the past. If these were the culprits then unemployment ought to have gone down not up, surely? If not why not? Current research on unemployment has been unable to find a convincing answer. Recent research suggests some promising new candidates that merit consideration - changes in commodity prices in general and the oil price in particular seem to predict reasonably well cyclical movements in unemployment. One promising line of inquiry is into the inter-regional mobility of the population and the role of home ownership which seem able to explain at least some of the upward trend in unemployment. Youth immobility has been unduly neglected by researchers as an explanation for the high levels youth unemployment prevailing today.

Home ownership. The large rise in European home ownership may well be the ‘missing piece of the unemployment puzzle because it impairs people’s mobility (Oswald, 1997a). It has the considerable advantage over the other possible explanations as it seems to fit the facts! Over the last few decades European governments have made concerted efforts to reduce the size of the private rented sector and to increase home ownership. Yet homeowners are relatively immobile, partly because they find it much more costly than private renters to move around. Unemployment rates have grown most rapidly in the nations with the fastest growth in home ownership. Of the major industrial nations Spain has the highest unemployment and the highest rate of home ownership and Switzerland the lowest unemployment and the lowest rate of home ownership. In the 1950s and 1960s the US had the highest unemployment and the highest rate of home ownership (Oswald, 1999). High home ownership rates block young people’s ability to enter an area to find a job. If we look at countries like Spain and the UK a key part of the unemployment problem is of young unemployed people living at home unable to move out because the rental sector hardly exists. The rise in home ownership and declining internal migration appears to be part of the explanation for the upward trend in European unemployment over the last couple of decades or so. Figure 10 shows a strong positive correlation in the European countries between the level of unemployment and the extent of home ownership ($R^2=.645$). The data on unemployment rates and home ownership used in the Figure are presented below (source: Oswald, 1999) with the countries ranked by 1990s unemployment level. Home ownership rates for the 1960s and the 1990s are presented. Country ranks on home ownership for the ‘90s are in parentheses. Spain and the Netherlands had the most dramatic increase in home ownership between the ‘60s and the ‘90s.

	Unemployment Rate (%) ‘90s	Home Ownership Rate ‘60s	Home Ownership Rate ‘90s
1. Spain	18.9	52	75 (3)
2. Ireland	14.8	60	76 (2)
3. Denmark	10.8	43	55 (13)
4. Finland	10.5		78 (1)
5. France	10.4	41	56 (14)

²⁷ For OECD Europe the unemployment rate was 2.7% in 1970, 6.0% in 1980; 6.4% in 1990 and 9.7% in 1998 (Source: OECD Labour Force Statistics, 1973-1993 and Employment Outlook, 1999).

6. Canada	9.8	66	63 (10)
7. Australia	9.0		70 (5)
8. New Zealand	8.9	69	71.(4)
9. UK	8.9	42	65 (7)
10. Italy	8.2	45	68 (6)
11. Belgium	8.1	50	65 (7)
12. Netherlands	7.0	29	45 (15)
13. US	6.2	64	64 (9)
14. Norway	5.5	53	60 (11)
15. West Germany	5.4	29	42 (17)
16. Portugal	5.0		58 (13)
17. Sweden	4.4	36	43 (16)
18. Switzerland	2.3	34	28 (18)
19. Japan	2.3		59 (12)

Oswald (1999) makes it clear that economies need to be adaptable. Countries require workers to be able to move around to find new jobs. Private rental housing helps. Public housing generally doesn't primarily because it charges less than market rents. Renting allows people to be mobile: it provides a way for a square peg in Zurich to move to a square hole in Geneva. In the period from 1950 to 1960, most European nations had low owner-occupation rates and low unemployment rates. Oswald makes a further important point that tends to be forgotten, that the United States during that period had a relatively high owner-occupation rate of 60%. At that time the US had the highest unemployment rate in the industrialized world. Americans gazed in wonder at the low joblessness across the Atlantic and pondered if they too should aim for a generous welfare state and strong trade unions. Since then, US home ownership has been constant through the years (like the trend in its unemployment). All the other industrialized nations except Japan and Switzerland have witnessed a large increase in home ownership. Unemployment rates have risen most quickly in the nations with the fastest growth in home ownership. According to the slope in Figure 11, a rise of ten percentage points in the extent of private renting is associated with a rise of four percentage point in the proportion of men working (statistics on females' work are a less reliable indicator because they are influenced by national cultures)²⁸. The link between housing and jobs appears to hold across space within a country as well as across different countries. Oswald (1999) presents evidence that this relation also exists for the cantons of Switzerland and across US states.

The processes behind these correlations are not fully understood, but there are six plausible links in the chain. First, there is a direct effect from home ownership. Selling a home and moving is expensive. For this reason, indeed, many homeowners who lose their jobs are willing to commute long distances to find work. Hence owner-occupiers are less mobile than renters, and

²⁸ The data are for males age 16-65 circa 1992. The countries are Canada (renting % = 34, Employ/pop % = 69.5), Switzerland (60, 91.4), Japan (38, 87.8), Sweden (16, 76.7), Norway (18, 77.3), France (21, 68.5), Australia (20, 75.7), USA (32, 78.8), Netherlands (17, 76.5), UK (10, 73.6), W Germany (36, 74), Austria (22, 77.8), Belgium (30, 67.3), Denmark (24, 80.7), Finland (11, 66.6), Luxembourg (31, 76.8), New Zealand (20, 74), Ireland (9, 67.8), Italy (8, 72.9), Spain (16, 64.6), Greece (26, 69.1), Czech Republic (11, 78.1), Hungary (2, 55.6), Portugal (28, 79.4), Poland (3, 65.9). Source: Oswald (1999)

therefore more vulnerable to economic downturns in their region. Nevertheless, this probably cannot be the whole story. If we look at countries like Spain and the UK, a key part of the problem is young unemployed people living at home, unable to move out because the rental sector hardly exists. Therefore, second, part of the difficulty is not that unemployed people are themselves the homeowners; it is that unemployed men and women cannot move into the right places. High home ownership levels block young people's ability to enter an area to find a job. Those without capital to buy are at a particular disadvantage in a world where ownership is the dominant form of housing tenure. Third, in an economy in which people are immobile, workers do jobs for which they are not ideally suited. This inefficiency is harmful to everyone: it raises costs of production and lowers real incomes in a country. Prices thus have to be higher, and real wages lower, than in a more mobile society. Jobs get destroyed -- or more precisely priced out of existence -- by such inefficiencies. Fourth, areas with high home ownership levels may act to deter entrepreneurs from setting up new operations. Planning laws and restrictions on land development, enforced by the local political power of groups of homeowners, may discourage business start-ups. Fifth, we know from survey data that home owners commute much more than renters, and over longer distances, and this may lead to transport congestion that makes getting to work more costly and difficult for everyone. Technically speaking, this acts like higher unemployment benefits, because it reduces the gain from having a job. If getting to work is more expensive, that has the same net effect as raising the attractiveness of not working. Sixth, negative (or even low) equity, which has occurred at times in a number of countries (e.g. the UK and the Netherlands) usually after a pronounced housing boom when house prices have fallen rapidly when the value of the house is less than the mortgage owed. The existence of negative equity may restrict the ability of home owners to leave their home to find alternative employment elsewhere -- it is hard for them to leave if there is no private rental market to run to.

Internal migration. Table 15 provides data for a number on a number of OECD countries on the amount of inter-regional migration there was in the 1970s and 1980s. Interestingly there is relatively little cyclical in these numbers which does suggest the numbers are not simply a response to the unemployment rate which was highly cyclical over the period. The *low* unemployment countries of Norway, Sweden, Japan and the USA all have *high* proportions of their populations that move across regions. High unemployment Italy had comparatively low mobility (1.1%) in 1970 and which actually fell to 0.5% in 1987. Mobility is low and unemployment -- especially youth unemployment -- is particularly high in Italy (32% in 1998): Faini et al (1997) have shown that migrations between Northern and Southern Italy declined steadily from 1970 to 1990. The 1990 level was approximately 1/7th the 1970 level. Over this period the unemployment differential between north and south doubled from just under 7% to just under 14%). When plotted the two series are almost mirror images of each other. Faini et al argue that "punitive housing taxation and widespread rent controls have surely played a substantial role in increasing the costs of geographic mobility" (1997, p.578)).

Wage flexibility. It is sometimes alleged that the trouble with many European economies is that wages are inflexible. However, recent research seems to indicate that the degree of local wage flexibility is approximately the same in all of the countries studied. Blanchflower and Oswald (1994) which is an attempt to document the existence of an empirical regularity using random samples of individuals from twelve nations. Approximately the same curve holds in data from many countries in both the developed and less developed world. The estimated unemployment

elasticity of pay was found to be approximately -0.1. Subsequent analysis has established that this fact holds in many other countries also (see above). A doubling of unemployment is then associated with a ten percent fall in pay. The earnings of youths appear to be especially responsive to changes in the unemployment rate and have a somewhat higher elasticity of closer to -.20; this pattern is broadly consistent across countries (see Blanchflower and Oswald, 1994; Freeman and Rodgers, 1999;). In summary, the degree of wage flexibility may be more similar across countries than has been believed. As there are very different rates of unemployment across nations, it is possible that we have all spent too long looking for our answers in the cupboard marked "wage flexibility". Making wages more flexible across countries does not seem to be a solution to youth unemployment.

Unemployment benefits, taxes and trade unions. There is only a weak positive relation in Figure 11 between unemployment and benefits ($R^2=.066$)²⁹. A similar picture is seen if a comparison is drawn between unemployment rates and the proportion of GDP spent on unemployment compensation. On both measures Italy has low benefits and high unemployment. In 1996 Italy spent 0.68% of GDP on unemployment compensation, which are the latest numbers available even though it had a 12% unemployment rate (Source: OECD Employment Outlook, 1999, Table H). In contrast as a proportion of GDP Canada spent 1.28% (9.7%); Spain 2.11% (9.6%); Switzerland spent 1.27% (3.9%); France 1.44% (12.4%); Austria 1.29% (4.4%) Belgium 2.12% (9.7); Denmark 2.54% (6.8); Germany 2.38% (8.9%); Finland 3.27% (14.6%) and the Netherlands 4.17% (6.3%) – 1996 unemployment rates in parentheses. Japan and the US are counter-examples having low unemployment and low spending on benefits. (0.40% of GDP and an unemployment rate of 3.4% for Japan and 0.26% of GDP and an unemployment rate of 5.4% respectively). The R^2 between the percent of GDP spent on unemployment compensation and the unemployment rate across these 13 countries is only .084. There is some evidence from Denmark and the US and to a lesser degree the UK, New Zealand and the Netherlands that reducing the generosity and the duration of benefits can cut unemployment. However, the degree of responsiveness of unemployment to cuts in benefits, although significant, has been surprisingly small.

There is no correlation between unemployment and taxes (Figure 12)³⁰ and even a weak negative relation (Figure 13) with union density³¹. Spain and France have very low union density rates and high unemployment while Austria has low unemployment and quite high union density.

²⁹ The countries are Austria (unemployment = 3.7%, benefits = 31.0 per cent), Belgium (8.1, 42.3), Denmark (10.8, 51.9), Finland (10.5, 38.8), France (10.4, 37.2), West Germany (5.4, 28.1), Ireland (14.8, 29.3), Italy (8.2, 2.5), Netherlands (7.0, 51.3), Norway (5.5, 38.8), Portugal (5.0, 34.4), Spain (18.9, 33.5), Sweden (4.4, 29.4), Switzerland (2.3, 21.9), UK (8.9, 17.5), Canada (9.8, 27.8), US(6.2, 11.1), Japan (2.3, 9.9), Australia (9.0, 26.5), New Zealand (8.9, 30.4). Source: Oswald (1999).

³⁰ The countries are Austria (unemployment = 3.7%, payroll tax rate = 22.6 per cent), Belgium (8.1, 21.5), Denmark (10.8, 0.6), Finland (10.5, 25.5), France (10.4, 38.8), West Germany (5.4, 23.0), Ireland (14.8, 7.1), Italy (8.2, 40.2), Netherlands (7.0, 27.5), Norway (5.5, 17.5), Portugal (5.0, 14.5), Spain (18.9, 33.2), Sweden (4.4, 37.8), Switzerland (2.3, 14.5), UK (8.9, 13.8), Canada (9.8, 13.0), US (6.2, 20.9), Japan (2.3, 16.5), and Australia (9.0, 2.5). Data on payroll taxes in New Zealand were unavailable. Fitting a line through the scatter produces a horizontal slope. The R-squared is less than 0.01. Source: Oswald (1999).

³¹ The countries are Austria (unemployment = 3.7%, unionized proportion = 46.2 per cent), Belgium (8.1, 51.2), Denmark (10.8, 71.4), Finland (10.5, 72.0), France (10.4, 9.8), West Germany (5.4, 32.9), Ireland (14.8, 49.7), Italy

Econometric support for the importance of home ownership and mobility in explaining unemployment in Europe is provided in OECD (1999) who model unemployment across countries and find home ownership to be the only significant influence; job protection, benefits and unions play *no* role at all^{32,33}. Their regression results are as follows, which make use of the Layard/Nickell panel of 17 countries * 2 years and most of their preferred variables (n=34).

-0.05 (0.5) Employment protection – 0.23 (1.4) Union coordination -0.20 (0.8)
 Union centralization – 0.01 (1.7) Union density + 0.01 (1.4) Bargaining coverage
 + 0.01 (1.3) Replacement ratio + 0.00 (1.0) Unemployment duration + 0.02 (1.4)
 Tax wedge + 0.04 (0.01) ALMP spending – 0.09 (2.8) Output gap + 0.02 (2.1)
 Home ownership rate % + 0.06 (0.4) Earnings dispersion.

t-statistics in parentheses. (Source: OECD, 1999, Table 2.8, page 78, column 5).

There are good reasons to be deeply suspicious of any regression that has so few observations and so many variables, but even so there is *no* support here from the OECD for the belief that unions, benefits, the tax wedge, ALMP spending or earnings dispersion influence unemployment. This runs contrary to claims made in Layard, Nickell and Jackman (1991) which appear to be based upon miss-specified cross-country unemployment equations which probably suffer from serious omitted variable bias, probably the most serious of which are the omission of country specific fixed effects the home ownership rate and a further macro variable – the real oil price. The home ownership rate does a good job of explaining the upward trend in unemployment.

Oil prices. Movements in oil prices appear to cause cyclical changes in unemployment in the US and Europe but seem unable to explain the upward trend in European unemployment. Carruth, Hooker, and Oswald (1995, 1998) find that oil prices help to explain unemployment in the UK and Canada and the United States respectively. In Figure 14 we plot the raw unemployment rates for the US and OECD Europe along with the oil price for the years 1970-1998³⁴. This updates the annual series used by Carruth, Hooker and Oswald from 1994 to 1998. Unemployment is the standard 16-and-over rate, the real oil price is the producer price index for crude oil divided by the (US) GDP deflator. The upward trend in European unemployment

(8.2, 38.8), Netherlands (7.0, 25.5), Norway (5.5, 56.0), Portugal (5.0, 31.8), Spain (18.9, 11.0), Sweden (4.4, 82.5), Switzerland (2.3, 26.6), UK (8.9, 39.1), Canada (9.8, 35.8), US (6.2, 15.6), Japan (2.3, 25.4), Australia (9.0, 40.4), New Zealand (8.9, 44.8). Fitting a line through the scatter produces a negative slope. The R-squared is less than 0.01. Source: Oswald (1999).

³² Indeed the various union variables included are close to significance but actually have the wrong sign – higher unionization *lowers* unemployment. The output gap, is included to control for the effects of the cycle.

³³ These results are in marked contrast to those reported in earlier Employment Outlooks (e.g. OECD, 1993, p.70).

³⁴ We thank Andrew Oswald and Mark Hooker for providing us with the updated oil price data.

compared to the absence of trend in US unemployment is another feature of the figure that is worth identifying. A notable feature of the Figure is the timing of the comovement between unemployment and the real price of oil. This correlation has been paid relatively little attention in the unemployment literature. Unemployment appears to follow the oil price with a lag of about one year in the US: the simple correlation between US unemployment and the four-quarter lagged oil price is 0.72; it steadily declines to 0.64 for the contemporaneous measure. The oil price hikes of 1973, 1979, 1989 and 1994 all appear to have had harmful effects a short time later on unemployment in both Europe and the US. The steady decline in oil prices which started in 1982 and went on until 1989 predates declines in unemployment in both the US and Europe and similarly for the period 1990-1994. The oil price does a good job in explaining the cyclical movements of unemployment.

A test case - Spain

Spain is an interesting test case. Unemployment in Spain is the highest in the OECD (18.8% in 1998 compared with an OECD average of 7.0%) and considerably higher than neighbouring Portugal (1998=4.9%). Rates by age and overall since 1980 are reported below. Adult unemployment has trebled since 1980 while youth unemployment has increased by nearly a half over the period. By 1998 the unemployment rate for 15-24 year olds in Spain was 34% compared with an OECD Europe average of 17.8%. For this group the labor force participation rate was about the same as the OECD Europe average (46.4% and 45.6%) but the employment/population rates was low compared to the OECD Europe averages (30.6% and 37.5% respectively).

Year	15-24	25+	All
1980	25.4	6.6	11.1
1981	31.1	8.2	13.8
1982	34.8	9.4	15.6
1983	37.6	10.6	17.0
1984	41.8	12.9	19.8
1985	43.8	14.4	21.2
1986	42.8	14.2	20.8
1987	40.2	13.9	20.2
1988	37.1	13.6	19.1
1989	32.0	12.7	17.0
1990	30.1	12.2	16.0
1991	29.0	12.7	16.1
1992	32.4	14.6	18.2
1993	41.1	18.1	22.6
1994	42.8	19.6	23.9
1995	40.3	18.8	22.7
1996	39.8	18.2	22.0
1997	37.1	17.2	20.6
1998	34.1	16.5	18.8
1998 EU	19.1	8.6	10.0
1998 OECD	12.8	5.7	7.0

In 1975, when Spain and Portugal both joined the EU, Spain had an unemployment rate of 4.5% compared with 4.4% in Portugal. By 1998 Spain's rate had increased more than four fold whereas in Portugal the rate has hardly increased (4.9%). In order to be able to explain this high level of unemployment in Spain key driving variables (or groups of variables) need to be around their highest levels in the OECD to have any chance of explaining such large differences. Few do. What is the explanation for the high and rising levels of unemployment in Spain?

- 1) *Trade Unions.* According to the OECD (1997b) union coverage in Spain went from 76% in 1980 to 78% in 1994. Bargaining coverage and union density in Spain are very low by European standards and well below Austria, Belgium, Finland, France, Germany and Sweden (OECD, 1997). Although union density has increased somewhat in Spain by 1994 it had the next to *lowest* rate in Europe and only slightly higher than in the United States (19% and 16% respectively): it is higher than France that has 9% density but 100% coverage. It seems unlikely that unions have much to do with the growth in unemployment in Spain.
- 2) *Hiring and firing costs.* Blanchard et al (1995) suggest that increases in firing costs, especially due to the introduction of fixed term contracts in 1984, are a large part of the story for the rise in unemployment in Spain. Unfortunately most of the rise in unemployment had occurred pre 1984. Not this.
- 3) *Unemployment benefits.* The replacement rate in Spain rose strongly in the 1970s but since 1980 it has declined steadily (Blanchard and Wolfers, 1999). Public expenditure in Spain on unemployment compensation in 1998, despite the very high levels of unemployment, was only 1.64% of GDP compared with 1.91% in Sweden; 2.21% in free market New Zealand; 3.14% in low unemployment Netherlands; 2.29% in Germany and 2.06% in Belgium (OECD, 1998). Unemployment benefit regulations were made substantially tighter in 1992 but unemployment has gone up since then. Nor this.
- 4) *Employment protection.* Although fairly high in Spain employment protection has steadily decreased since the 1980s. This is largely because of the development of fixed term contracts rather than the weakening for workers on indefinite contracts. The share of fixed contracts rose from 10% to one third of dependent employment and is not restricted to first time job seekers as in Germany but is spread across a broader range of workers and firms (OECD, 1999, p.71). Definitely no smoking gun here.
- 5) *Skills mismatch.* The mismatch index used for Spain by Blanchard et (1995) was only slightly higher in 1994 than it was in 1983 and in any case it was a) was much lower in Spain than in most other European countries b) grew much faster in Portugal than it did in Spain and Portugal had virtually no increase in unemployment over the period in question! Not this either.
- 6) *Minimum wages.* Neumark and Wascher (1999) show that the ratio of the minimum wage in Spain fell from 49% in 1976 to 34% in 1993. In 1993 this was the lowest level in any of the 20 OECD countries they examined. A lower youth sub-minimum also existed in Spain which was not found in a number of countries (e.g. Norway, Finland, and Canada).

Dolado et al (1996) in their study found no harmful effects of the minimum for Spain. Another no.

- 7) *Wage flexibility.* Wage flexibility in Spain measured by the responsiveness of wages to changes in the unemployment rate – the wage curve is the same in Spain as in other European economies. In a recent study Canziani (1997) has found, remarkably, that “the unemployment elasticity of wages in Spain is equal to -0.1” (1997, p.23). This is the same rate found in the US, the UK and Canada (Blanchflower and Oswald, 1994). No again.
- 8) *The home ownership rate.* Spain has a high home ownership rate while Portugal has a low one (76% and 58% respectively). Home ownership in Spain has increased dramatically since the 1960s until by the end of the 1990s it is the highest home ownership rate in the world. Remarkably, it also has a legal requirement that no rental contract can be less than five years; so even what small renting sector there is, is heavily distorted³⁵. Growth in the home ownership rate tracks, and most importantly precedes movements in the unemployment rate. The direction of causation is clear: it appears to run from home ownership to unemployment and not vice versa.

	Home ownership rate	Unemployment rate
1960	52%	2.5%
1970	64%	2.4%
1980	73%	11.2%
1990	76%	16.2%

(Source: Layard, Nickell and Jackman, 1991 and Oswald (1999))

This looks better.

- 9) *Inter-regional mobility.* As far as internal migration goes Blanchard et al (1995) note in an appendix “Spain shows one of the lowest rates of regional mobility of all OECD countries” (p.132). Interestingly, however, Blanchard and co-authors don’t appear to believe that this has anything to do with Spain’s high unemployment. Jimeno and Bentolila have shown that “the responses of migration and participation to rates to labor demand shocks, seem to be significantly slower than in the US states and EU regions” (1998, p.46). Antolin and Bover report that “migration does not seem to be working as a mechanism for alleviating the very high levels of unemployment in Spain” (1997, p.230). They attribute this in part to an individuals’ family situation and in part to the unemployment registration system which appears to have a direct negative effect on the probability of migration. Antolin and Bover find further that higher than average unemployment in Spain barely induces unemployed workers to migrate. Gonzalez and Puebla (1996) documented that during the 1980s less than 1 per cent of the population moved regions reaching a minimum of 0.45% in 1981 and a second period which starts in

³⁵ We owe this point to Andrew Oswald.

1986 when migration trends increased annually to affect 1.76% of the population by 1990 while unemployment fell. They go on to argue that the “two distinct periods in migration patterns coincide *exactly* with the turning point in the Spanish economy during the 1980s, when there was an economic crisis and structural adjustment up until 1986, followed by a very strong growth situation in the second half of the decade” (1996, p.180). Bentolila and Dolado (1991) note that inter-provincial migration flows have followed a U-shaped path since the 1960s. The interregional migration rate declined steadily through the 1960s in Spain from an average of 1.22% in 1962-9 to 0.92% in the 1976-1986 period and started to rise again from 1982. The decline is even steeper for inter-regional flows which have fallen from over 0.9% in 1964 to just over 0.3 in 1982 and have risen back to just under 0.6% in 1994. So does this.

There is relatively little evidence for Spain that firing costs, unemployment benefits, unions, the size of the tax wedge (the difference between take-home pay and the cost of labor to employers), skills mismatch or labor unions had much of anything to do with the rise in unemployment in Spain. This runs contrary to claims made in Layard, Nickell and Jackman (1991) and repeated in OECD (1994) for the role of these variables. Interestingly in their main unemployment regression Layard, Nickell and Jackman (1991) appear to be unable to explain *any* of the growth in unemployment in Spain, as they simply include in their regressions a dummy variable for Spain for each year since 1973 (Chapter 9, p. 434), which unsurprisingly enters positively and significantly.

How have countries fared who have tried to make their labor markets more ‘flexible’?

Countries like the UK and New Zealand have attempted to make their labor markets more flexible by amongst other things cutting unemployment benefits, loosening labor market regulations, restricting the power of unions and so forth. Has this worked? The first thing to look at is how they have done in the economic rankings – if these policies worked they ought to have risen up the league tables. Unfortunately they haven’t. The ranking of OECD countries (excluding Luxembourg, Iceland and Switzerland) by unemployment rates and employment/population rates (EPOP) are reported in table 16. In 1980 New Zealand ranked 5th in the OECD in terms of the level of its unemployment rate; by 1998 it was ranked 10th. The UK was ranked 9th in 1980 when Mrs Thatcher first came to power; in 1998 the UK ranked 8th. A similar story applies to employment/population rates for the UK was ranked 6th in 1980 and 5th in 1998. New Zealand showed some improvement over the period moving from 13th to 8th. However, in Table 17 when rankings are based on GDP per capita the UK moves from 17th to 18th while New Zealand dropped from 15th to 20th – and the UK had North Sea Oil.

Maloney and Savage (1996) document the labor market reforms that have occurred in New Zealand since 1984. Over the past fifteen years or so the economy was made more decentralised; unemployment benefits were cut, welfare eligibility criteria were tightened, industrial relations legislation was passed to restructure the industrial relations system by eliminating national awards and removing compulsory unionism. Union density fell dramatically from 40.8% in 1991 to 24.1% in 1994 (Maloney and Savage, 1996, p.201). Interestingly product markets were protected and made immune from many competitive pressures. In subsequent work Maloney (1998, 1999) found that neither changes in unionisation nor benefits had *any* significant effect on unemployment although they do appear to have some effects on employment and labor force

participation. Chapple et al (1996) concluded at the end of their examination of unemployment in New Zealand that

“despite ten years of stabilisation, liberalisation and labour market reform, it should be a source of some discomfort that these changes have yet to be reflected in an unemployment rate lower than when the reforms began” (p.169, 1996).

Just as in New Zealand reforms conducted in the UK focussed on lowering benefits and reducing the power of unions as well as encouraging self-employment. A program to privatise many of the nationalised industries was also undertaken. Little or nothing was done to reform the product market: many of the newly privatised industries retained substantial monopoly power. Prices rose as did the salaries of the managers as the quality of many services declined (e.g. in water supply and railways) after privatization which generated a public outcry. Subsequently the incoming Labour Government imposed a windfall tax on the newly privatized utilities to claw back some of their gains. Interestingly the main success stories of the privatisations were British Steel and British Airways that were privatised to competition. These labor market changes have been accompanied by a dramatic increase in the crime rate. According to crime victim studies the rape, assault, burglary, robbery and motor vehicle theft rates all increased strongly in England and Wales between 1981 and 1996. In 1995 the American burglary and motor vehicle theft rates were less than half the rates in England and Wales (Langan and Farrington, 1998, pp.4-5).

Blanchflower and Freeman (1994) analysed the effectiveness of the Thatcherite reforms on the UK labour market. They concluded that the reforms had succeeded in their goals of weakening union power; may have marginally increased employment and wage responsiveness to market conditions and may have increased self-employment. On the positive side the reforms were accompanied by a substantial improvement in the labour market position of women. But the reforms failed to improve the responsiveness of real wages to unemployment; they were associated with a slower transition from non-employment to employment for men; a devastating loss in full-time jobs for male workers and produced substantial seemingly non-competitive increases in wage inequality. “While we cannot rule out the possibility that the reforms created the preconditions for an economic ‘miracle’ in the mid 1990s there is little in the data to support such a sanguine reading of the British experience. Higher inequality and poverty and lower full-time employment are not normally viewed as an ideal stepping stage for economic success” (Blanchflower and Freeman, 1994, p.52).

The Netherlands and Denmark have both seen a strong improvement in their position in these rankings, whether measured by unemployment or EPOP. For example, the unemployment rate in the Netherlands fell from 7.1% in 1994 to 4.0% in 1998 while Denmark’s unemployment rate fell even faster falling from 10.1% in 1993 to 5.1% in 1998. Denmark’s rise in the rankings is even more pronounced than that of the Netherlands. Denmark shows a rapid jump up the rankings in GDP per capita, from 12th in 1980 to 5th in 1997: the Netherlands’ position remained unchanged at 11th. It doesn’t appear that this decline in unemployment in either country was brought about by declines in union power, changes in job protection, mismatch or labor taxes. Overall strictness of employment protection measures, according to the OECD, remained *unchanged* in both countries between the 1980s and 1990s (OECD, 1999; Barrell and Genre,

1999). Apparently there were significant declines in the level of disability benefits paid in the years in the Netherlands since 1993 which arose primarily because of reductions in the numbers of people counted as disabled (Nickell and van Ours, 1999). What is puzzling is that over this period of rapidly declining unemployment in the Netherlands there was an *increase* in spending on labor market programs: as a proportion of GDP from 3.22% in 1990 to 4.69% in 1993-1994 to 4.86% in 1996-7. Spending on unemployment compensation (which is included as one part of the total spending measure reported above) in the Netherlands went from 3.22% of GDP in 1990 to 3.82% in 1994 to 3.14% in 1998 despite the decline in the level of unemployment.

In the case of Denmark there is more evidence of declines in benefits being correlated with declining unemployment. In 1994 Denmark introduced a reform package which seemed to work – it reduced the generosity of its unemployment compensation system, job placement interviews were introduced, paid leave schemes were made less generous, the maximum duration of benefits were reduced and the eligibility criteria were tightened. A tax reform package was also implemented to lower taxes on labour and increase incentives to work (Barrell and Genre, 1999). As a percent of GDP spending on labor programs in Denmark went from 5.66% in 1990 to 7.0% in 1994 to 5.63% in 1998 however those on unemployment compensation did decline from 3.78% in 1994 to 1.86% in 1998. This program appears to have been working. Union power doesn't seem to fit the story very well either as union membership in the Netherlands *increased* during the 1990s – the number of members went from 1.4 million in 1990 to 1.87 million in 1995 and union density increased from 26% to 28% over this period (Source: *Statistical Yearbook of the Netherlands*- Statistics Netherlands). Union density in Denmark was the same in 1994 as in 1980. Bargaining coverage and the degree of centralization or coordination of their bargaining remained roughly constant in both countries over this period. (Source: OECD Employment Outlook, 1997, Table 3.3, page 71). There certainly does not appear to have been a 'miracle', to use Nickell and van Ours' (1999) term in the UK or the Netherlands, or in New Zealand for that matter, but it looks as if the labour market improved quite miraculously in Denmark where unemployment was halved from 10.1% in 1993 to 5.1% in 1998.

It does not make sense to make unemployment too attractive – governments must not to set unemployment benefits too high – there needs to be incentives for individuals to work and for firms to hire them. A delicate balance has to be struck between helping the unemployed through a crisis, and assisting them to find a new job on the one hand and being overly generous on the other. The cost of setting benefit levels too high imposes a heavy burden on those who do work. At the same time there is little benefit in trading poverty out of work for poverty in work. *It is important to reward work over non-work.* Labor market mobility also appears to be an important factor in explaining both youth and adult unemployment. More detailed evidence on the effects of increased home ownership is obviously needed in the long run as researchers get to grips with fact that it seems to fit the facts better than other explanations. A direct recommendation would be to help to subsidise mobility in the form of allowances for moving as well as subsidies to individuals and firms to help in building a fully functioning and large private rental housing sector. Bashing unions, removing job protection, lowering minimum wages and/or cutting youth wages probably won't do it. The evidence from countries such as New Zealand and the UK suggests that there is little payoff in terms of lowering unemployment from making the labor market more competitive. Perhaps it is now time to concentrate on making other markets more competitive. The product and housing markets would be probably be good places to start.

7. Conclusions

This paper tackled a difficult task – to evaluate youth joblessness in the *world* and to consider what might be done about it. It was found that there are many similarities across countries, not least of which is the fact that youth unemployment is approximately double adult unemployment in most countries of the world. This ratio appears to decline as unemployment increases. **The 2 times rule means that solving adult unemployment is the key.**

The following are ruled *out* as explanations of high levels of youth joblessness – wages; minimum wages; cohort size; shifts in industry composition; trade; technology; increased female participation. I rule *in* the level of aggregate demand in the economy. Unemployment makes young people very unhappy, which suggests it is not a conscious choice as some may believe. The army of the unemployed is a conscript rather than a volunteer army. Presumably in response to poor labor market prospects substantial supply responses to economic incentives are observed in the youth labor market. High unemployment encourages young people to stay on longer at school and get more education. It is possible to rule *in* the level of unemployment and welfare benefits – if set too high or paid for too long or both they can reduce the incentive to work. An encouraging sign is that young people around the world appear to have responded to the lack of jobs by staying on in school longer and getting more education. The young are more likely these days than was true in the past to continue living with their parents. A number of worrying responses were also identified which include increased drug taking, more participation in crime and growing rates of suicide particularly among young men.

Strategies to deal with youth joblessness were also examined. Minimum wages can help to improve poverty in developing countries but if set too high can increase unemployment. There might be an argument, however, if a minimum wage operates in a country, to have a lower rate for the young to ensure they are not priced out of jobs because of their lack of labor market experience. Schemes to encourage self-employment and entrepreneurship, which provide advice on how to set-up in business or which help to overcome capital constraints may have some value. Active labor market policies have generally not been very successful in improving the situation of the disadvantaged young. A series of recommendations were made for narrow targeting and careful monitoring.

As noted in section 6, facts that are similar across OECD countries seem to apply equally in the developing world. In particular,

1. Youth unemployment is generally twice as high as adult unemployment.
2. The relative size of the youth cohort is declining as is the relative size of the youth labour force.
3. There is a growing move to increased formal education among the young.
4. Young people are deferring marriage until later in life.
5. There are rising female participation rates.
6. Labor market programs for the young generally have low rates of return.

With due regard to the importance of economic cycles and stages of development there are, thus, clear lessons learnt here from OECD and other countries that can provide pointers for public policy throughout the world. The first and most fundamental lesson is that youth unemployment cannot be dissociated from adult unemployment. Rising levels of aggregate demand will reduce both adult and youth unemployment but it will have twice as high an impact on the young than it will on older age groups. How to achieve growth in aggregate demand is an issue that goes beyond the scope of this publication. Efforts to make the labor market more flexible, to reduce the power of unions, to cut minimum wages, or to enfeeble job protection legislation do not reduce (nor have they reduced) unemployment, either in the young or in the adult populations.

The debate about education versus training needs to be revived. In an increasingly mobile world, the need to acquire the skills to learn are often more important than the acquisition of a specific skill, though some evidence does indicate that effective apprenticeship systems ease the transition from education to work. Investment in better, earlier and longer education might be more effective in developing the attitudes and competencies required for the world of work. It is questionable that large untargeted youth employment or training programs have positive rates of return. There is little evidence anywhere in the world that such programs improve either the employment prospects or earnings for the young and especially so for the disadvantaged young. Narrowly targeted and carefully evaluated programs can, however, ease the plight of selected youth categories. The effective use of public resources can only be achieved if there are ways to measure the short medium and long-term outcomes of specific strategies. It is strongly argued that detailed evaluations must be conducted for any job creating strategy for the young. The assessment of the impact of such programs must take into account the initial endowments of both beneficiaries of the strategy under review and a control group and their evolution over time both in terms of employment and wages.

High unemployment does not seem to be primarily the result of job protection, trade union power or wage 'inflexibility'. It appears the main explanation have to do with the levels of aggregate demand along with the generosity of unemployment benefits, the internal mobility of the population, the existence of a well-functioning private rental sector and changes in commodity prices in general and the oil price in particular. Rising and high levels of home ownership in western countries appear to have had unexpectedly harmful consequences in the labor market in general and the youth labor market in particular. Unemployment remains hard to solve. There is much still to learn.

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