A STUDY OF LABOUR MARKETS AND YOUTH UNEMPLOYMENT IN EASTERN EUROPE

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Summary

The paper examines the labour markets of Eastern Europe. It studies the problem of high levels of joblessness among young people.

New microeconomic data are used -- drawing upon the latest Eurobarometer Surveys and samples from the International Social Survey Programme. These two data sets are designed to allow comparative research. They provide detailed information on approximately 60,000 randomly sampled adult and youth workers in the transition economies. To provide a comparison, the paper uses Western data from the same sources.

The paper begins by showing that, in both the West and East, adult and youth unemployment rates are closely correlated. It provides scatter-plot evidence using country cross-sections for the early 1990s. This suggests that to understand joblessness among the young it is necessary to understand joblessness among the old.

Four main conclusions are reached.

1. The microeconometric structure of unemployment regression equations is approximately the same in the nations of Eastern Europe as in the industrialized West. In other words, variables like education and age enter unemployment equations in similar ways in the two parts of the world.

2. Unemployed people in the transition nations are as unhappy, relative to the employed, as those who are jobless in the industrialized countries of the West. This finding emerges from the estimation of microeconometric well-being equations. Such a result casts doubt on the idea of benefit-induced 'voluntary' unemployment in the East.

3. Perhaps surprisingly, the degree of wage flexibility in the transition nations appears to be approximately the same as in the industrialized West. Estimating a 'wage curve', using pooled data from seven East European nations, produces a local unemployment elasticity of pay of -0.1. This is the same figure as

commonly found for the rest of the world. A doubling of local unemployment would then be associated with a fall of roughly one tenth (10%) in the level of pay. Such findings cast doubt on the idea that wages are inherently less flexible in the East.

4. The broad conclusion from the analysis is that, in so far as can be judged from our data, the workings of the labour markets of East and West are similar. 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.

A Study of Labour Markets and Youth Unemployment in Eastern Europe

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1. Introduction

Many of the newly emerging nations of Eastern Europe have high levels of unemployment. This paper uses recently released data to examine the structure of labour markets in the transition economies. It examines, in particular, unemployment rates among young people, and attempts to discover whether the labour market problems of the East are distinct from those in the West.

The transition countries number at least twenty three. There are the CIS nations of Armenia, Azerbijan, Belarus, Georgia, Kazakhstan, Kyrgystan, Moldova, Russia, Tajikistan, Turkmenistan, Ukraine, and Uzbekistan. There are also the CEE nations of Albania, Bulgaria, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, the Slovak Republic, and Slovenia. As Table A shows, these vary enormously in size, income and composition. The federation of Russia is the largest, Slovenia the richest, and Armenia and Albania the most agricultural.

A later section of the paper will calculate its own measures of joblessness in these nations. Before that, it is natural to begin with published statistics.

Table B reports latest European Bank of Reconstruction and Development (EBRD) figures on some of the major transition economies. With the exception of the Czech Republic, unemployment rates average around one in ten of the labour force, which is similar to rates found in the OECD countries in the mid-1990s. Early years' data in Table B are not necessarily reliable because of the pre-transition lack of officially recognised unemployment in the countries.

However, there is reason to think from the Table, and other sources, that unemployment has been growing.

Another source of information is the International Labour Office (ILO) itself. Table C provides their published statistics on joblessness. The figures may not be wholly comparable across countries, but the broad picture is as before. While a few nations appear to have low unemployment, and one (Macedonia) extraordinarily high unemployment, most have jobless rates clustered around eight to thirteen percent of the labour force. Many of the western industrialized countries have similar rates.

Youth unemployment is a special concern in the later pages. However, because it is easy to view joblessness among young people in isolation, a simple but important point is worth making at the outset.

Consider Figure 1. For a sample of advanced OECD countries, it plots the cross-section correlation between the levels of youth unemployment and adult unemployment. The gradient of the line is approximately two -- suggesting that a 1% point rise in adult unemployment is associated on average with a 2% point increase in young people's joblessness. Thus the youth labour market seems to respond in an amplified way to shocks hitting the aggregate labour market. The general pattern from Figure 1, nevertheless, suggests that the two kinds of joblessness are closely tied to one another.

Figure 2 does the same for Eastern Europe. Here the data are derived from our micro data (explained in detail later) on Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Russia, Romania, Albania, Armenia, Belarus, Slovakia, Georgia, Macedonia, Slovenia, Ukraine, Kazakhstan, Croatia, and East Germany. The gradient in Figure 2 is slightly smaller than for the West (given in Figure 1), at 1.5 rather than 1.8, and the scatter is a little less well-

defined. However, as in Figure 1, adult unemployment is a good predictor of youth unemployment.

While this is not surprising, it shows that an analysis of youth unemployment cannot be different in character from an analysis of general unemployment. To understand unemployment among the young, the first question to be asked is what creates unemployment among adults. This message moulds the later sections' analysis. Much of the report looks at adult data (and this has the additional advantage that sample sizes are then larger).

The appendices describe the data we use. The main sources are the International Social Survey Programme and the Eurobarometer Surveys (including the East Europe Eurobarometers). These offer an especially valuable statistical resource, because they have been specifically designed to provide comparable information across many countries, and have now been collected for a longish run of years. Appendixes 1-3 describe the data sets, give the numbers of observations, and provides mean unemployment rates. Blanchflower and Freeman (1996) use some of the data in their analysis of Western countries' youth labour markets.

2. What Do Microeconometric Unemployment Equations Look Like?

When random samples of individuals are available, it is possible to examine the correlations between joblessness and other characteristics (such as age and education). Although causal connections are not easily proved, this kind of work paints a useful picture of the unemployed.

It is natural to begin by looking at the patterns in individuals' unemployment experiences in Eastern Europe. However, to provide a benchmark, consider first Table D. This Table reports estimated

microeconometric unemployment equations for the Western nations plus East Germany. It does so using a randomly selected sample of just under 100,000 men and women from fourteen nations over the 1990s. The nations are listed within Table D. In this Table, the base omitted country is the UK.

What are the patterns in the West?

Table D contains microeconometric unemployment regressions. In principle, estimation should be by a probit or similar estimator. Ordinary least squares estimates, however, give the same broad results, so are presented here for simplicity. It was checked that the simple OLS equation reported here gives similar quantitative implication to the probit, and OLS has the advantage that coefficient estimates are easily understood. Technical readers will wish to know that formal probit equations are available from the authors.

The dependent variable in Table D measures whether the individual who is being sampled is unemployed. The variable can take one of two values. If the person is without work, the value is set to unity. If the person has a job, it is set to zero. Hence this is the simplest kind of limited dependent variable model.

Table D's independent variables, namely, the variables to be thought of as influencing a person's probability of joblessness, are listed vertically in the Table. In the Western economies, the important statistical correlates with unemployment turn out to be:

having left school at a young age

being young

being female

living in a high unemployment country

being single, divorced or separated.

These are the qualitative patterns in the data.

To go beyond this simple account, consider the sizes of the coefficients. The various 'age' dummy variables are all measured relative to an omitted category. It is the lowest possible amount, that is, "age left school = 14 or under." Because the coefficient on "age left school = 15" is -0.0151, for example, this implies that someone who stayed on in full-time education for one year more than fourteen would in consequence have a slightly lower chance of being unemployed. More exactly, he or she would be 1.5 percentage points less likely to be without work (leading to a probabilility of unemployment of 0.18 instead of 0.195, say).

Similarly, moving down the first column of Table D, someone who left school at age 16 would be 3 percentage points less likely to be jobless than a representative person who left at age 14. As can be seen from the Table, the coefficients move fairly smoothly up to the category of "age left school greater than or equal to 22", at which such an individual is 8 percentage points less likely to be unemployed. As is fairly well known, education reduces the chance of being without work.

Age also matters. Individuals are least likely to be unemployed in the West if their ages fall within the band of 40 to 49 (this is the omitted category in Table D, so implicitly is a coefficient of zero compared to the others). The young are much more likely, Table D reveals, to be without work. For example, the coefficient on those aged 15-19 is 0.1152. This means that someone in this age-group is eleven and a half percentage points more likely to be unemployed -- holding other things constant -- than someone aged in their forties. By most standards this is a large difference. A strong effect, though smaller, is also discernible for those between 20 and 24. In this case the coefficient is

approximately 0.06. The only other point to be noted is that, unsurprisingly, people older than 70 are noticeably less likely than others to be unemployed.

The other coefficients in Table D -- running from Belgium to West Germany -- are the 'pure' country unemployment rates. In other words, these dummy variable coefficients allow us to read off the unemployment differences across nations after controlling for personal and compositional variations by country. Although the patterns in these country dummies are broadly the expected ones (so West Germany is low and East Germany high, for example), they are not as pronounced as in raw data. The reason for this is that one part of the 'explanation' for high unemployment in Eire and Spain is the low levels of schooling in those countries.

The year dummies in Table D capture the aggregate cyclical movements in unemployment across Europe. Year 1990 is the omitted category.

Married and widowed people (and those living as married) are markedly less likely to be unemployed than others. While it is not easy to know the causal chain, if any, it appears that having a wife or husband is associated in the data with approximately an 8% lower probability of being jobless when compared to an equivalent individual who is single.

Lastly, it is worth noting that the R-squareds on these sorts of equation are not high. Only five percent of the variance in people's unemployment experiences is being explained in regressions such as these.

The other main source of data used in the paper is the International Social Survey Programme (ISSP). These are random samples collected each year by a multi-country team of social scientists. Non-European countries are included. The data are described in the Appendix. Table E provides a similar unemployment regression to that used in Table D. Approximately 45,000 individuals are sampled. Again the data run through the first half of the 1990s.

Table E has the same kind of implications as Table D. The countries differ slightly, however. Here the list runs from Australia to West Germany. Married people are six percent less likely to be unemployed, other things held constant. Highly schooled individuals are five percent less likely. There is a tiny positive effect from being male. Age dummies and year dummies work in the way they did in Table D. Once more, approximately 5% of the variance is being explained.

What are the patterns in the East?

It is of interest now to turn to a pure East-European sample of people.

Table F does this. Once again the equation is an ordinary least squares regression with a one or zero as the dependent variable. There are approximately 30,000 people in the sample, and the R-squared of the equation is slightly greater than 0.07. As before, probit estimation is to be preferred statistically, but makes no substantive difference here.

The first noticeable feature of Table F is that in most ways the structure of the unemployment equation is remarkably like that in Western samples. For example, the older someone is the higher the likelihood of having work. However, age works in an even more extreme way than before. In Eastern Europe, it seems, risk of unemployment is very much higher among those 15-19, and still markedly high among those 20-24. The extra probability points, compared to someone in their 40s, are respectively nearly 17 percent for ages 15-19 and 8 percent for ages 20-24. These two numbers can be compared with 9 and 7 percent respectively, for example, in Table E for the West. There is a small maleness effect in Table F. Year dummies work strongly, although 1994 is not, in this East European sample, a much better year than 1993. This is another

small difference with the West. Schooling has the same pattern as for the Western nations. Married individuals are again less probably jobless. The effect is slightly smaller than in the West. Country dummies work in apparently sensible ways. Interestingly, the Russian Federation, according to Table F, has a less serious underlying unemployment problem than appears from the aggregate figures. In these data, it is similar to the Czech Republic.

Table G gives a breakdown for a youth subsample taken from a separate Eurobarometer focused specifically on the young in 1990. The general conclusions are like those above. There are also small correlations with the type of person with whom an individual lives. The "after school" variables denote the time elapsed since finishing education, but they are not significantly different from zero.

It is possible to re-do a version using East Eurobarometer surveys rather than ISSP data. This is done in Table H. There are 20 nations. As earlier, the dependent variable takes a value of unity when the sampled individual says that he or she is unemployed, and a value of zero when he or she is employed. Here males are slightly less likely to report themselves as jobless. There is an enormous effect from being young (compared to the base category of people aged in their forties). Those in their teens are 31 percentage points more likely to be without work; people aged 20-24 are nearly 14 points more likely. Old people in this sample have a slightly smaller chance of being unemployed than do those 40-49. Table H includes a long set of country dummies. The year dummies again indicate that 1994 was a bad year. Higher education, secondary education, and some secondary education -- all come in with the expected negative signs when compared to the omitted base category of individuals with only elementary education.

Mean unemployment rates are summarised in Appendix 3.

Finally, a complete bank of age coefficients is included as Table J. These reflect the output of a large number of regressions (not reported). For each row of Table J a separate unemployment equation was estimated -- for the particular country in that row. Hence these are not pooled regression equations of the sort described earlier, but rather ones for single countries at a time. There are many numbers in Table J, so it is not possible to make precise comparisons by inspection. Nevertheless, the coefficient structure between East (the lower group of numbers) and West (the upper two groups) is similar. Perhaps the only sharp difference is that, in both ISSP and East Europe Eurobarometers, a few countries have much larger coefficients than exist for the West Eurobarometer countries. Bulgaria and Macedonia, for example, both enter with a 62% higher chance of teenagers being jobless. The highest equivalent number in the West is for Italy, on 37%. The negative sign on East Germany is a puzzle and may be an aberration.

The picture that emerges from this section is one of an Eastern Europe that looks much like the West. Although some of the effects may be slightly larger in the East, the pattern of correlations is similar in the two halves of Europe. The same types of people are unemployed in each part of the world.

3. Is East European Unemployment Voluntary or Involuntary?

A recent strand of empirical economics has begun to employ data on people's reported wellbeing. This section uses such an approach to estimate whether unemployment in Eastern Europe approximates to involuntary or voluntary. The answer to such a question has important policy implications, but until recently it had proved hard to design a plausible test. Wellbeing data offer an opportunity.

The background to this kind of work

Because this area of economic research is not yet well known, it may be of value to describe briefly some of the recent work.

Blanchflower, Oswald and Warr (1993) investigated wellbeing with the help of the General Social Surveys of the United States, which have for many years been interviewing people annually about their levels of happiness. These surveys are of randomly selected samples of Americans, so the information they provide can be treated as representative of the nation as a whole. GSS data are available for almost all of the years from 1972 to the 1990s (there are no data for 1979 or 1981). The size of sample averages approximately fifteen hundred individuals per annum. Different people are interviewed each year: the GSS does not follow the same individuals. The key question is:

"Taken all together, how would you say things are these days -- would you say that you are very happy, pretty happy, or not too happy?" (GSS Ques. 154-156)

The means for 1972-1990 were 33% very happy, 55% pretty happy, and 12% not happy. The first thing that is noticeable when studying individual years of the data is that "pretty happy" is the typical answer, and that "not too happy", which is the lowest score people can assign themselves, is only ever given by a small portion of the population. When looking at such numbers, first indications are not encouraging to the idea that growth leads to more well-being. There is little sign of a US time trend in the answer "very happy". The proportion of American respondents saying this was around one third both early in the 1970s and in the 1990s. Over the period, however, a declining number of people say that they are not too happy, and more state that they are pretty happy. United States raw data are therefore consistent with the view that the category "pretty

happy" is expanding while "not too happy" is shrinking. Nevertheless, the effect is not dramatic, and these are only raw data that may be being moulded predominantly by a population that is changing its composition.

There is similar information for European countries. Although few economists seem to have used the data, the Eurobarometer Survey Series asks: "On the whole, are you very satisfied, fairly satisfied, not very satisfied, or not at all satisfied with the life you lead?"

Answers are available for random samples, from 1973 to the present, of approximately 1000 people per year per country. The original nations were Belgium, Denmark, West Germany, Greece, Spain, France, Ireland, Italy, Luxembourg, The Netherlands, Portugal and Great Britain. Surveys have been held twice a year in each European Community country. Because of their late entry to the EC, there is no full run of data for Spain, Portugal and Greece. A valuable source of information about the Eurobarometer surveys is the comprehensive study by Inglehart (1990), who uses them to study changing cultural values.

The first thing that is obvious when inspecting such figures is large differences across nations. In Denmark, for example, more than half the population say they are "very satisfied", while in Italy the figure is around one in ten. These divergent numbers are likely to reflect cultural and linguistic differences. This is partly the difficulty of translation (words like happiness, contentment and satisfaction have subtle distinctions in English, and in other languages). But it is not all variation in language. As Inglehart (1990) points out, Switzerland makes an ideal laboratory to test this. German-speaking Swiss, French-speaking Swiss, and Italian-speaking Swiss all express higher satisfaction levels than do native Germans, French and Italians.

The second thing that is noticeable is that well-being is not moving uniformly upwards. Thus in the period 1973-1981 in Belgium, for example, on average 34% of the people interviewed said that they were very satisfied with their lives. Over the ensuing decade, this figure dropped dramatically. For 1982-1990, the proportion of respondents saying very satisfied was 25%. This evidence shows no gain over time of the sort to be expected if real income growth raises well-being. However, Belgium is not typical. Denmark, France, West Germany, Italy, Luxembourg and Netherlands all record increases in the numbers of individuals saying they feel very satisfied with life. Ireland posts a large drop. The UK experiences a small fall. Hence there is only slight evidence in the data that greater economic prosperity leads to more well-being in a nation.

There is another way to measure well-being, and that is to study psychiatric measures of mental distress. This is relevant to the present paper because the unhappiness and stress caused by unemployment will be central to a later section.

The new British Household Panel Study gives mental well-being scores from a form of psychiatric evaluation known as the General Health Questionnaire. The first sweep of the British Household Panel Study provides information, for the year 1991, about a random sample of approximately six thousand working Britons. One way to assess these people's feelings of subjective well-being is to use their scores from the General Health Questionnaire (GHQ) section of the survey. Argyle (1989) argues that a GHQ assessment is one of the most reliable indicators of psychological distress or 'disutility'. In its simplest form this assessment weights the answers to a set of questions about whether the respondent has been sleeping badly, felt under strain, been feeling happy or depressed, etc.

The British Household Panel Survey data on well-being have been investigated by Clark and Oswald (1994). As illustrated below, an apparently

sharp impact of unemployment upon well-being is discovered. The authors use data on six thousand British workers in 1991. Summing answers to the GHQ questions listed earlier, mental distress is twice as high among the unemployed as among those who have work. For example, of the 522 unemployed people in the table below, average mental distress (the scaling is explained below the table) was, in 1991, 2.98. For the employees, it was 1.45.

Measuring the Distress Levels of People in the Labour Force in Britain in 1991

Labour market status	Number in sample	Average mental distress*
Unemployed	522	2.98
Employee	4893	1.45
Self-employed	736	1.54

* These numbers are on a scale where the minimum is 0 and the maximum is 12. Calculating means in this way imposes an implicit assumption of cardinality.

Source: Clark and Oswald (1994) using BHPS data on GHQ scores

Interestingly, most of the new research in this field (summarised in Oswald, 1997) suggests that the worst thing about losing one's job is not the drop in take-home income. It is the non-pecuniary distress. To put this differently, most regression results imply that an enormous amount of extra income would be required to compensate people for having no work.

Eurobarometer data also show that the unemployed feel much less satisfied with life[1], and indicate that the relative distress from unemployment does not appear to be trending downwards through the years (the 'unhappiness gap' is not

[1] Longitudinal studies by psychologists have demonstrated that this is not merely because unhappy people have trouble finding jobs.

secularly shrinking). In passing, this might be thought to raise doubts about the oft-expressed view that an increasingly generous welfare state is somehow at the root of Europe's economic problems. A review of psychologists' earlier work is available in Warr et al (1988). The upshot of all this evidence is that in Western data u*nemployed people are very unhappy.*

More generally, it now well known that there are systematic patterns in micro data on people's subjective well-being. In other words, if one takes a random sample of people, and estimates a well-being regression equation of form 'reported well-being = f(personal characteristics)', the results tend to be the same across different periods, different countries, and even different measures of well-being. Summarizing: r*eported happiness is high among those who are married, on high income, women, whites, the well-educated, the self-employed, the retired, and those looking after the home. Happiness is apparently U-shaped in age (minimizing around the 30s).*

Blanchflower and Freeman (1997) compare reported wellbeing levels in micro data for East and West. They show that levels are much lower among individuals who live in Eastern Europe.

The results described in this section stem principally from an examination of coefficients in cross-section equations. However, a number of the correlations, particularly the link between unhappiness and unemployment, have been verified in panel data.

Results for East and West

Consider Table K, which estimates a life-satisfaction equation and provides an answer to the question "how bad is it to be unemployed in the West?" The

short answer is very bad indeed. To see why, it is necessary to have a feel for what is going on in the Table.

Assign the number 4 to people who say they are "very satisfied" with life, 3 to those fairly satisfied, 2 to those not very satisfied, and 1 to the "not at all satisfied." Then estimate an OLS wellbeing equation using the four digits as the dependent variable. This is, once again, not technically the correct estimator, but it produces approximately the true coefficients and is convenient to read.

Table K shows that young people say they are rather satisfied with their lives, and that life satisfaction is roughly U-shaped in age. Schooling works quite smoothly in the equation: life satisfaction rises almost monotonically with it. There are important differences between countries, but, as explained earlier, some of this is likely to be an illusion caused by language differences.

What matters especially for this paper, however, is Table K's size and sign on the coefficient for being unemployed. At -0.2, it is the largest in absolute size on any personal characteristic, and has a t-statistic of more than 50. This suggests that being without work is apparently the single worst thing that can happen to one in the West (among the variables on which there are data here).

A similar equation is estimated in Table L. This time the data are from ISSP. Once more, being unemployed has, at -0.1356, the largest coefficient on a personal variable. As in the equations described earlier, personal characteristics enter in a statistically strong way.

Table M reports a similar equation just for young people aged 15-23. The sample is now only 7600, but the substantive conclusions are identical. Unemployment is unusually bad when measured in these satisfaction or 'utility' units.

Is it true in Eastern Europe that being without work is exceedingly unpleasant? Or might unemployment in the East be largely voluntary, in some

sense? In Table N, quantitative estimates are given for the unpleasantness of unemployment by country. Panel (b) of Table N includes numbers for happiness equations rather than life satisfaction equations. The coefficients on unemployment in a happiness equation are:

East Germany -0.15

Hungary -0.10

Poland -0.12

Russia -0.13

Slovenia -0.14.

What is interesting about these is that they are close to the mean value for all Western and Eastern countries combined, namely, -0.14 (see the foot of Table N). This implies that the lower reported wellbeing induced by unemployment is similar in size in Eastern Europe and Western Europe. Moreover, there is no evidence of voluntary unemployment in these data. Joblessness is associated with markedly low wellbeing.

Once again, the two sets of labour markets -- West and East -- appear to function in the same way.

One general caveat is in order. Because the task of measuring well-being is a difficult and relatively unconventional one, the paper's results cannot be accepted uncritically. It might, for example, be argued that interview responses to happiness and satisfaction questions do not mean anything reliable. There is no wholly convincing way to dispose of such objections: as in any area of social science it is prudent to view the paper's punchlines cautiously. Nevertheless, a simple reply to such critics would be that these kinds of statistics are probably the only ones available to us if we wish to measure well-being, and that, at the very least, they raise doubts about routine beliefs. Moreover, counter-arguments to the methodological criticisms have been produced many times. It is known in the

psychological and medical literatures that objective economic events are correlated with happiness scores and with suicide (and para-suicide).

Perhaps the best reason to take seriously this section's statistical work is that psychologists themselves make extensive use of reported well-being data. It seems possible that economists should also do so.

4. Is Wage Flexibility Lower in Eastern Europe?

The next natural issue is the question of whether East European unemployment might be the result of unusually inflexible wages. To explore this, a series of 'wage curves' are estimated.

Wage Curves in the West

The empirical chapters in our 1994 book The Wage Curve had no results for Eastern Europe. They were based upon information on approximately three and a half million people in a dozen developed nations. The size of sample varied greatly from one country to another. The years sampled also varied. For the United States, for example, the analysis drew upon the Current Population Surveys from 1963 to 1990. This provided a sample of approximately one and a half million American workers. Some completed their interview survey sheets in the 1960s; others did so a quarter of a century later. A similarly large sample was available for South Korea. This country's Occupational Wage Surveys of 1971, 1983 and 1986 offered us information on approximately 1.4 million employees. At the other end of the spectrum, the book also reported results for countries like Switzerland and Norway. The data were from the International

Social Survey Programme, and came from the late 1980s. In this case the samples were of less than three thousand people in each country.

For each person, from each country, the data sets record the individual's level of pay, and his or her personal characteristics. In most instances, the name of the region in which the worker lives is also recorded in the data set. The rates of unemployment vary widely, as is well known, from one region to another and from one country to another. The book's analysis matched those unemployment rates to the sampled individuals. In other words, if Miss X of San Francisco was known to be earning $12,000 per year in 1981, the unemployment rate in California in that year was merged into the data set and treated as a variable that was potentially relevant in "explaining" the level of Miss X's pay. For Britain, similarly, the sample might include information on Mr Y working in Edinburgh in the year 1974. The 1974 unemployment rate for Scotland, therefore, could be added to the data set as a possible influence upon Mr Y's remuneration in that year. Repeating this process many times gave information on a large number of workers' pay levels and, in each case, an associated unemployment rate in the person's region.

Some people live in areas of high unemployment; others are surrounded by little joblessness. This variation offers useful statistical information.

What emerges from such an approach is a pattern linking pay and local unemployment. Just as in the case of smoking and lung cancer, it is necessary to control for many other factors (such as age and gender) when performing the calculations.

Once this is done, a locus of points is visible. This takes the form of a downward-sloping convex curve in wage/unemployment space. *A worker who is employed in an area of high unemployment earns less than an identical individual who works in a region with low joblessness.* The nature of the relationship

appears to be the same in different countries. The wage curve in the United States is very similar to the wage curves in, for example, Britain, Canada and Norway.

As a crude characterization of the data -- the details are spelled out in the book -- the wage curve in the countries that have been studied to date is described by the formula

$$\ln w = -0.1 \ln U + \text{other terms}$$

where ln w is the log of the wage, ln U is the log of unemployment in the worker's area, and the other terms in the equation are control variables for further characteristics of the worker and his or her sector. The equation, which seems to hold in each country, implies that the unemployment elasticity of pay is -0.1. A hypothetical doubling of unemployment is then associated with a drop in pay of ten per cent (that is, a fall of one tenth).

Such equations serve another purpose. When treated in the way just described, the data provide a method for the calculation of an index of wage rigidity or inflexibility. The concept of wage "stickiness" has long been central to much of macroeconomics. It has proved harder, however, to agree on a measure of wage inflexibility. The analysis developed here can be seen as offering such a measure. The responsiveness of workers' remuneration to the state of the labor market is captured by the coefficient on log unemployment in an equation for log earnings.

The Blanchflower and Oswald (1994) results suggest that it is approximately the same (at -0.1) in each of the twelve countries considered in the book. This uniformity seems remarkable. Despite countries' sometimes dramatic institutional differences, they exhibit much more uniformity in wage flexibility than has been thought. Put more technically, the unemployment elasticity of pay appears to be the same across nations.

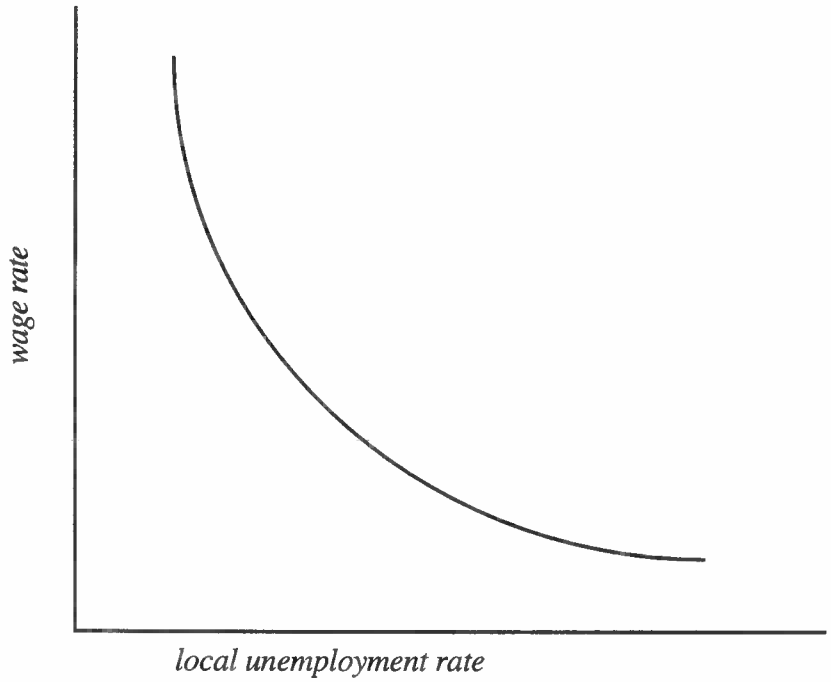
Why does a wage curve exist in the data? The competitive-market model gives an unconvincing rationalization for it, because high wages should be associated with higher unemployment (as workers are priced out of jobs). Hence non-competitive accounts of the labor market have to be considered. In a bargaining model, a high degree of joblessness in the surrounding labor market might be expected to reduce the ability of workers to claim a large share of the surplus to be divided. Non-economists probably think such an idea too obvious to be worth pondering, but economists are required to outline the mechanism at work. A possible story is that outside unemployment frightens workers. This is because if something goes wrong, and the bargaining reaches permanent impasse, the individual workers involved will need to obtain other jobs. Finding jobs is likely to be harder when the local labor market is depressed. Therefore, although some details of the process here remain cloudy, rising joblessness might be thought to spawn declining levels of pay.

A variant on this species of explanation relies on the explicit assumption of a trade union which worries about both its employed members and its unemployed members. High unemployment means that more of its members are likely to be without work, and that an employed member who is dismissed or laid-off will have difficulty finding new employment. An increase in unemployment may then tilt the union's preferences towards a greater concern with the number of jobs. If this implies a reduced concern for pay, or at least a slightly smaller weight on the target of high remuneration for union members, a lower negotiated level of pay might result.

While a bargaining or union approach might thereby render intelligible the pattern in the data in Figure 1.1, it could be viewed as inappropriate in many settings outside Western Europe and even in some industrial sectors within that part of the globe. Unionism is not pandemic. In the United States, in particular,

the great majority of those who hold jobs do not belong to a trade union. This does not make bargaining theory irrelevant, but it raises some doubts about its pertinence.

Figure 1.1



The wage curve

Another way to provide an intellectual rationale for the wage curve is by appealing to efficiency wage theory. This approach is instrinsically non-union, so it is potentially suitable for economies that are more like the US's than Sweden's.

The well-known characteristic of efficiency wage analysis is that firms set pay in an environment where the wage influences productivity. Shapiro and Stiglitz (1984) is an archetypal case. In equilibrium, firms try to maximize profits, and workers choose how hard to work. If the costs of shirking at work are low, employees put in little effort. The outside rate of unemployment plays a

role, because it determines the ease with which a sacked worker can get another job. In a highly depressed labor market, employees are frightened of losing their jobs, and so put in high effort even if pay is comparatively low. Put differently, a marginal rise in unemployment leads to a corresponding marginal fall in the level of wages. The reason is that firms can reduce pay slightly while maintaining a motivated workforce. Unemployment is a discipline device: when it is high the generosity of workers' remuneration can be low. Hence there is an efficiency wage interpretation of Figure 1.1's pattern.

Wage Curves in the East

There has been little attempt in the published literature to estimate micro-data wage curves for Eastern Europe. One exception is Kollo's chapter 3 in Enterprise Restructuring and Unemployment in Models of Transition (undated), edited by Simon Commander. He uses data for Hungary and concludes that, using Mincer style equations, in 1989 the unemployment elasticity of pay was -0.05 and in 1992 it was -0.15.

This section of the paper assembles new data and attempts to examine the unemployment elasticity of pay in the transition economies.

In doing such work, two questions are of particular interest. First, do wage curves exist in the emerging labour markets of the East? In other words, in microeconometric wage or earnings equations, does the local rate of unemployment enter with a negative coefficient? If so, a second question follows in a straightforward way. Is the elasticity similar to the -0.1 found by Blanchflower and Oswald (1994) and others for the advanced economies of the West?

Newly available ISSP data allow these questions to be answered. Table O sets out the estimation. Data from seven countries are pooled -- covering the period 1990 to 1994 -- both because there are otherwise relatively few observations and to explore the consequence of country fixed effects. The countries are Poland, Hungary, the Czech Republic, Bulgaria, East Germany, Russia, and Slovenia. Because of information restrictions, 1994 does not include Slovenia. The number of observations in the entire sample is approximately 16,000.

The dependent variable in Table O is the logarithm of gross weekly earnings. The independent variable is the local unemployment rate. This is measured at a fairly disaggregated level (as in the wage curve work on developed countries). To obtain the unemployment information, the ISSP data were themselves used to compute jobless totals for every area. The data set has information on eighty regions in total.

As well as having the log of unemployment as an independent variable, the regressions include the age and age squared of the respondent, a dummy variable for whether the respondent was male or female, four education dummies, 80 region dummies (for all the different countries' different areas), and 4 year-dummies. Hence the regressions effectively estimate regional panels in which there are controls for both so-called region fixed effects and year effects. While the structure of Table O's regression equations is slightly simpler than is used in the fuller micro data sets of the West, it is likely that the essence of wage-curve estimation is captured.

The results are remarkably like those found in the industrialised West.

In the first column of Table O, for example, the estimated unemployment elasticity for Eastern Europe is -0.1054 with a t-statistic of 8.00. This result is reminiscent of those found for nations like the US, Canada and UK. It implies

that a doubling of local unemployment would be associated with a ten percent fall in the level of pay.

Age and age squared also enter Table O's first column in a sensible and expected way. Earnings rise over the early decades of working life, and then, averaging across the whole sample, peak in a person's 40s. As is true in Western wage equations, a dummy for male enters with a large and positive coefficient. Here there is a male premium of approximately 30%.

Two checks on the results are also reported in Table O.

(i) In column 2, re-estimating for the period 1992-94 produces another well-defined wage curve but one with a slightly larger elasticity, -0.16. It is possible that the increase reflects greater flexibility brought about by the reforms. The age and gender coefficients hardly alter. Column 2 keeps the full set of 80 regional dummies but has, of course, only 2 year-dummies.

(ii) The third column of Table O is of a slightly different type. This equation has no panel structure. Interestingly, it produces the same general result. Table O's third column takes 1994 data alone and estimates a cross-section wage curve. The number of observations is much reduced -- to 3554 people. It is now impossible to include region dummies alongside regional unemployment, so instead the regression allows for a separate dummy variable for each country. In this case, the unemployment elasticity of pay is found to be approximately -0.12. Because of Slovenia's absence, there are five country dummies in the third column of Table O.

Perhaps unexpectedly, these calculations show familiar patterns in the data. There does appear to be evidence in the transition economies for a downward-sloping function linking pay to the area rate of unemployment, and the estimated effect is of similar size to the -0.1 found elsewhere in the world.

The structure of East Europe's wage curve is apparently like that of other nations.

5. Conclusions

This paper studies the labour markets of the transition nations of Eastern Europe. It focuses on the problem of high levels of joblessness (especially among young people). Microeconomic data are used -- drawing on the latest Eurobarometer and ISSP Surveys -- covering approximately 60,000 randomly sampled adult and youth workers in the transition economies. Equivalent Western data are analysed and compared with those from the East.

An underlying theme in the paper is that 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.

The empirical analysis produces four main conclusions.

1. The microeconometric structure of unemployment regression equations is approximately the same in the nations of Eastern Europe as in the industrialized West. Variables like education and age, for example, enter unemployment equations in similar ways in the two halves of Europe.

2. The degree of wage flexibility appears to be approximately the same in the transition nations and the industrialized West. Estimation of an East European 'wage curve' -- done by pooling micro data from seven transition nations -- produces a local unemployment elasticity of -0.1. This is the figure also commonly found in the western nations of the world. Such numbers mean that a doubling of local unemployment would be associated with a fall of roughly one

tenth (10%) in the level of pay. According to our estimates, therefore, wage inflexibility is no worse in the East than the West.

3. Unemployed people in transition nations seem to be as unhappy, relative to the employed, as those who are jobless in the industrialized countries. This result emerges from the estimation of (reported) wellbeing equations. Such a finding casts doubt on the idea that high levels of benefit are causing voluntary unemployment in the East.

4. The general conclusion from the analysis is that, in so far as can be judged from these early-mid 1990s data, the workings of the labour markets of East and West are remarkably similar.

In conclusion, it may be an error to believe there is a distinctive solution to Eastern Europe's youth or adult unemployment problem. It seems from the data examined in this paper that there is only a single problem, namely, high joblessness in Europe as a whole.

Background Notes on the Analysis of Wellbeing

Although little-read by economists, the pioneering work on the statistical study of well-being includes Andrews and Withey (1976), Campbell, Converse and Rodgers (1976), Cantril (1965) and Diener (1984). A good introduction is Argyle (1989). Easterlin (1974, 1995) provided some of the seminal empirical work suggesting that rising real income produces little or no extra happiness for a country. Economists interested in dipping into a huge recent literature might also look at Andrews (1991), Warr (1987 and 1990 a,b), Ng (1996) and Oswald (1997). Blanchflower and Oswald (1996) conclude that the young are getting systematically happier. Birdi et al (1995), Clark et al (1996) and Warr (1992) argue that satisfaction is U-shaped in age, and give other results. Blanchflower and Oswald (1998) find the self-employed are happier.

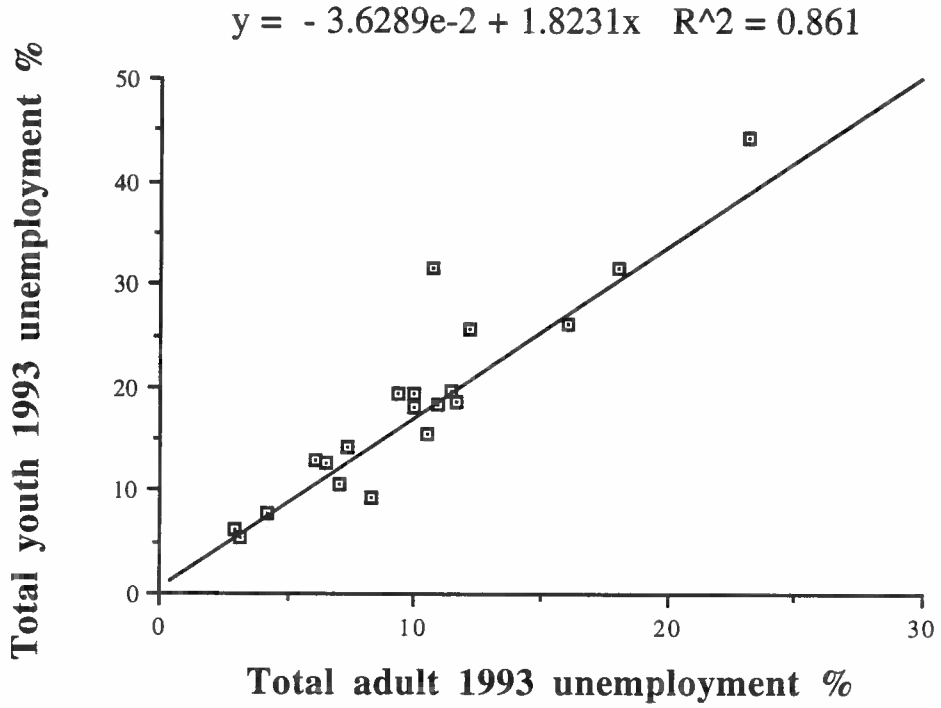
Many of the British results on the distress caused by unemployment are due to Jahoda (1982), Peter Warr (1978 onwards) and Jackson et al (1983). New work includes Whelan (1992) and Gallie and Russell (1995). The unemployment findings are now conventional in the psychology literature but probably still not well-known among economists. Innovative early work by economists includes Bjorklund (1985) and Edin (1988), who fail to find marked effects for Sweden. More recent research has uncovered large negative effects of joblessness upon wellbeing. The findings of Gerlach and Stephan (1996), Korpi (1997) and Winkelmann and Winkelmann (1997) seem particularly important. They control for person-specific fixed effects. The coefficient on unemployment in a panel well-being equation turns out to be fairly similar to that in a pure cross-section equation. Di Tella et al (1996) find, in a panel of countries, that rising unemployment reduces the reported life satisfaction levels even of those who have jobs.

There are potential links between the happiness literature and the literatures on the quality of life and the Human Development Index, but they have yet to be forged. Nussbaum and Sen (1993) contains a set of essays on the border between philosophy and economics. Smith (1993) is a critical inquiry into HDI. Crafts (1997) is a recent application of HDI methods.

International comparisons using the multi-national International Social Survey Programme are given in Birdi et al (1995), Blanchflower and Freeman (1997) and Curtice (1993).

Figure 1

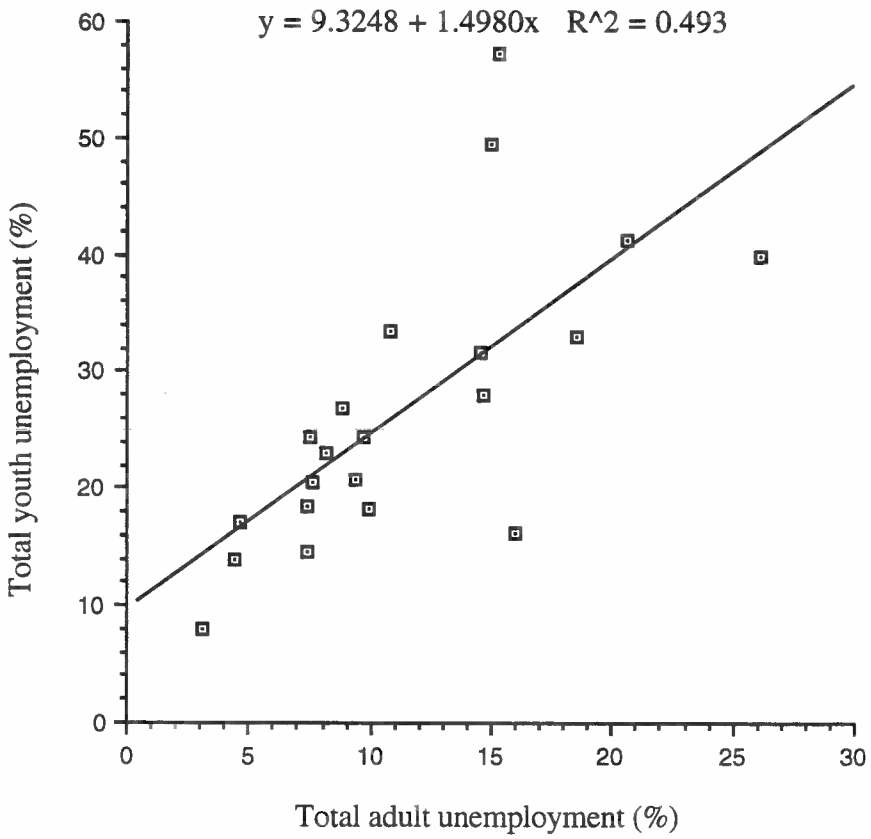
The Cross-Country Relationship Between Adult Unemployment and Youth Unemployment in the OECD Economies in the 1990s



The countries covered here are Canada, Switzerland, Japan, Sweden, Norway, France, Australia, USA, Netherlands, UK, West Germany, Belgium, Denmark, Finland, Luxembourg, New Zealand, Ireland, Italy, Spain, Portugal. Youth unemployment covers those 15-24. Both kinds of unemployment rates are standardized OECD figures for 1993.

Figure 2

The Cross-country Relationship Between Adult Unemployment and Youth Unemployment in Eastern Europe in the 1990s



The countries covered here are Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Russia, Romania, Alania, Armenia, Belarus, Slovakia, Georgia, Macedonia, Slovenia, Ukraine, Kazakhstan, Croatia and East Germany. The data are derived from the micro data used in the paper, and are averages for the early 1990s. The two outliers above the fitted line are Macedonia and Bulgaria; the one below is East Germany.

Table A

The Characteristics of the Transition Economies in the Early 1990s

CEE Countries	*Pop (million)*	*GDP/head (PPP$ c.1993)*	*% Agriculture*
Albania	13	1000	56
Bulgaria	9	4100	13
Czech Republic	10	7500	6
Estonia	2	6300	11
Hungary	10	6050	7
Latvia	3	5000	24
Lithuania	4	3100	18
Poland	39	5000	7
Romania	23	2800	21
Slovak Republic	5	6300	6
Slovenia	2	10600	5
CIS Countries			
Armenia	4	2000	55
Azerbaijan	7	2200	39
Belarus	10	6250	23
Georgia	5	1750	46
Kazkhstan	17	4800	39
Kyrgystan	4	2800	43
Moldova	4	2900	42
Russia	148	5050	13
Tajikistan	6	2000	33
Turkmenistan	4	3950	17
Ukraine	52	4450	16
Uzbekistan	23	2600	39

Sources: EBRD, HDR, 1995.

Table B

Recent % Unemployment Rates for Selected Transition Economies

Year	Bulgaria	Czec Rep	Hungary	Poland
1989	na	0.0	0.3	0.1
1990	1.5	0.8	1.9	6.1
1991	11.5	4.1	7.5	11.8
1992	15.6	2.6	12.3	13.6
1993	16.4	3.5	12.1	15.7
1994	12.8	3.2	10.4	16.0
1995	10.5	2.9	10.4	14.9
1996e	12.5	3.5	10.5	na

Year	Romania	Russia	Slovak R.	Slovenia
1989	na	na	0.0	na
1990	na	0.0	1.5	na
1991	3.0	0.1	11.8	na
1992	8.1	0.8	10.3	11.0
1993	10.2	5.5	14.4	na
1994	11.0	7.1	14.8	na
1995	8.9	8.2	13.1	15.0
1996e	6.1	9.3	12.8	na

NB. (i) Russian figure here is "open" unemployment. (ii) Separate figures for Albania show unemployment rates of 20% in 1995 and 27% in 1992, and for Ukraine 1.2% in 1996, and for Kazakhstan 3.5% in 1996.

Source: The Economics of Transition, May 1997, and EBRD Transition Report.

Table C: Unemployment
General Level
Per Cent

EUROPE	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995
Albanie (E)										
Total %	6.4	6.1	7.0	7.3	9.5	9.1	-	-	-	-
Austria (BA)										
Total %	-	3.8	3.7	3.1	3.2	3.5	3.7	4.3	3.6	-
Belarus (FB)										
Total %	-	-	-	-	-	0.1	0.5	1.4	2.1	2.7
Bulgaria (FB) [3]										
Total %	-	-	-	-	1.7	11.1	15.3	16.4	12.4	11.1
Croatia (FB)										
Total %	6.5	6.4	6.9	7.2	8.2	14.9	17.2	16.8	-	-
Czech Republic (BA) [4] [5]										
Total %	-	-	-	-	-	-	-	3.8	3.8	3.4
Czech Republic (FB) [3]										
Total %	-	-	-	-	0.7	4.1	2.6	3.5	3.2	2.9
Estonia (BA) [3]										
Total %	-	-	-	0.7	0.8	1.8	4.5	7.8	8.9	-

[1] Persons aged 16 to 74 years.
[3] Dec. of each year.
[4] Persons aged 15 years and over.
[5] Excl. persons on clild-care leave.
[6] Persons aged 14 years and over.

Estonia (FB) [1]										
Total %	-	-	-	-	-	0.1	1.7	1.9	2.2	-
Hungary (BA) [8]										
Total %	-	-	-	-	-	-	9.9	12.1	10.9	10.3
Hungary (FB) [9]										
Total %	-	-	-	-	1.7	8.5	12.3	12.1	10.4	12.0
Latvia (FB) [9]										
Total %	-	-	-	-	-	-	2.3	5.8	6.5	6.6
Lithuania (FB) [1]										
Total %	-	-	-	-	-	0.4	3.6	3.8	4.5	7.3
Macedonia (FB)										
Total %	21.7	21.5	21.4	22.6	23.6	24.5[3]	26.3	27.7	30.0	35.6
Moldova (FB) [5]										
Total %	-	-	-	-	-	-	0.7	0.7	1.1	1.0
Poland (BA) [3 4]										
Total %	-	-	-	-	-	-	13.7	14.9	13.9	13.1
Poland (FB) [5]										
Total %	-	-	-	-	6.3	11.8	13.6	16.4	16.0	14.9
Roumanie (BA) [6 8]										
Total %	-	-	-	-	-	-	-	-	8.2	8.0

[7] Prior to 1992: persons of 10 years and over.
8 Excl. registered applicants for work who worked more than 78 hours during the month.
[9] Dec. of each year.
10 Persons aged 15 to 72 years.

Roumanie (FB)										
Total %	-	-	-	-	-	3.0	8.4	9.9	10.6	8.7
Russian Federation (BA) [10]										
Total %	-	-	-	-	-	-	4.7	5.5	7.4	8.3
Russian Federation (FB) [9]										
Total %	-	-	-	-	-	0.1	0.8	-	-	-
Slovina (BA) [3 5]										
Total %	-	-	-	-	-	-	-	-	13.7	13.1
Slovina (FB) [3]										
Total %	1.4	1.5	2.2	2.9	4.7	8.2	11.5	14.4	14.4	-
Swisse (BA) [3 6]										
Total %	-	-	-	-	-	1.8	2.9	3.7	3.8	3.3
Swisse (FB) [3]										
Total %	0.8	0.8	0.7	0.6	0.5	1.1	2.5	4.5	4.7	4.2
Sweden (BA) [7]										
Total %	2.2	2.1	1.7	1.5	1.6	3.0	5.2	8.2[8]	8.0	7.7

Table D. Unemployment Equation (OLS): 1990-1995.
(Dependent variable=1 if unemployed 0 if employed)

	Coefficient	t-statistic
Male	-.0288	14.21
Age left school = 15	-.0151	3.69
Age left school = 16	-.0332	8.78
Age left school = 17	-.0503	11.46
Age left school = 18	-.0616	15.75
Age left school = 19	-.0606	12.67
Age left school = 20	-.0748	14.94
Age left school = 21	-.0847	15.61
Age left school >= 22	-.0818	22.22
Still at school	-.0536	4.20
Age 15-19	.1152	19.30
Age 20-24	.0645	15.92
Age 25-29	.0347	9.91
Age 30-39	.0112	4.02
Age 50-59	.0217	6.66
Age 60-69	.0056	1.08
Age >=70	-.0444	3.69
Belgium	.0166	3.44
Denmark	.0229	4.76
East Germany	.0769	17.16
Eire	.0195	3.95
France	-.0223	4.68
Greece	-.0337	6.69
Italy	-.0254	5.04
Luxembourg	-.0947	14.58
Netherlands	-.0281	5.68
Norway	-.0222	3.92
Portugal	-.0809	15.96
Spain	.0020	0.39
West Germany	-.0864	18.54
1991 dummy	.0219	5.98
1992 dummy	.0321	10.05
1993 dummy	.0456	12.56
1994 dummy	.0420	11.82
1995 dummy	.0067	1.44
Married	-.0784	27.95
Living as married	-.0495	10.90
Divorced	.0073	1.36
Separated	.0028	0.32
Widowed	-.0517	6.71
Constant	.1897	32.08
N	99410	
F(40, 99369)	144.34	
R-squared	.0549	
Adj R-squared	.0545	
Root MSE	.30891	

Notes: excluded categories UK, single, age 40-49, 14 years of schooling and under
Source: Eurobarometer surveys, 1990-1995

Table E. Unemployment equation (OLS), 1990-1994 - non-Eastern Europe

	Coefficient	t-statistic
Age 15-19	.0865	8.67
Age 20-24	.0692	13.59
Age 25-29	.0233	5.44
Age 30-39	.0080	2.44
Age 50-59	.0047	1.22
Age 60-69	.0017	0.28
Age >=70	-.0016	0.13
Male	.0074	3.01
1991 dummy	.0022	0.48
1992 dummy	.0073	1.56
1993 dummy	.0099	2.17
1994 dumy	.0023	0.55
11 years schooling	-.0056	1.32
12 years schooling	-.0300	7.69
>=13 years schooling	-.0481	15.57
Married	-.0583	16.86
Widowed	-.0213	2.39
Divorced/Separated	.0074	1.34
Australia	-.0848	14.96
Austria	-.0684	8.82
Canada	-.0677	9.23
Eire	.0165	2.20
Israel	-.0078	1.28
Italy	-.0598	9.08
Japan	-.0944	12.15
Netherlands	-.0402	6.16
New Zealand	-.0423	6.96
Norway	-.0530	9.40
Philippines	-.0384	6.32
Spain	.0805	10.88
Sweden	-.0240	2.42
USA	-.0646	11.79
West Germany	-.0841	16.42
Constant	.1567	23.93

N	44943
F(33, 44909)	83.68
R-squared	.0579
Adj R-squared	.0572
Root MSE	.25379

Notes: excluded categories: 10 years of schooling or less, UK, single, 1990, age 40-49.
Source: ISSP, 1990-1994

Table F. Unemployment equation (OLS), 1990-1994 - Eastern Europe

	Coefficient	t-statistic
Age 15-19	.1660	11.50
Age 20-24	.0806	10.22
Age 25-29	.0269	4.21
Age 30-39	.0157	3.27
Age 50-59	.0040	0.67
Age 60-69	.0064	0.48
Age >=70	-.0022	0.06
Male	-.0102	2.73
1991 dummy	.0650	7.07
1992 dummy	.1000	10.86
1993 dummy	.1189	12.86
1994 dummy	.1042	11.28
11 years schooling	-.0299	5.00
12 years schooling	-.0548	9.98
>=13 years schooling	-.0637	13.29
Married	-.0332	5.48
Widowed	-.0323	2.47
Divorced/Separated	.0060	0.68
Hungary	.0700	10.299
Czech Republic	-.1225	14.887
Slovenia	-.0602	8.424
Poland	-.0296	4.287
Bulgaria	.0208	2.510
Russia	-.1339	21.003
Constant	.1130	10.380

N	23999
F(24, 23974)	80.89
R-squared	.0749
Adj R-squared	.0740
Root MSE	.2847

Notes: excluded categories: 10 years of schooling or less, East Germany, single, 1990, age 40-49.

Source: ISSP, 1990-1994

Table G. Unemployment Equation (OLS) for the young ages 15-24: 1990.
(Dependent variable=1 if unemployed 0 if employed)

	Coefficient	t-statistic
Immediately after school	.00136	1.001
1 year after school	-.00166	0.798
2 years after school	-.00027	0.220
3 years after school	.00049	0.409
4 years after school	.00081	0.405
later than 4 years after school	-.00067	0.452
Belgium	.08484	3.035
Denmark	-.03842	1.327
East Germany	-.09063	4.082
Eire	.1153	4.649
France	-.0177	0.686
Greece	.08637	3.370
Italy	.09550	3.326
Luxembourg	-.14146	3.875
Netherlands	-.09640	3.514
Portugal	-.04257	1.788
Spain	.03519	1.359
West Germany	-.09882	3.953
Age 16	-.03697	0.691
Age 17	-.05025	1.014
Age 18	-.05927	1.214
Age 19	-.04094	0.840
Age 20	-.05136	1.076
Age 21	-.0588	1.239
Age 22	-.06673	1.389
Age 23	-.08566	1.781
Age 24	-.09165	1.915
Living alone	.01659	0.770
Life with wife/husband	-.0067	0.325
Live with girl/boy friend	.03391	1.633
Living in shared accomodation	.02008	0.680
Male	-.03742	3.293
Constant	.23882	4.948

N	3968
F(32, 3935)	6.57
R-squared	.0507
Adj R-squared	.0430
Root MSE	.35147

Notes: excluded categories; age 15, UK, still at school, living with parents

Table H. Unemployment Equation (OLS) for Eastern Europe: 1990-1995.
(Dependent variable=1 if unemployed 0 if employed)

	Coefficient	t-statistic
Male	-.0148	4.28
Age 15-19	.3075	31.04
Age 20-24	.1351	20.88
Age 25-29	.0782	13.23
Age 30-39	.0252	5.42
Age 50-59	-.0098	1.74
Age 60-69	-.0591	5.72
Age >=70	-.0324	1.34
Albania	-.0854	8.58
Armenia	.0735	6.81
Belarus	-.1425	13.87
Croatia	-.1085	7.15
Czech Republic	-.1686	16.33
Estonia	-.0855	8.90
Georgia	-.0407	3.40
Hungary	-.0306	2.79
Kazachstan	-.0076	0.50
Latvia	-.0666	6.65
Lithuani	-.0961	9.40
Macedonia	-.0124	1.06
Moldova	-.1304	9.18
Poland	-.0703	5.98
Romania	-.1297	13.58
Russia	-.1096	10.69
Slovakia	-.1202	9.95
Slovenia	-.1326	11.51
Ukraine	-.1121	11.09
1992 dummy	.0496	8.40
1993 dummy	.0617	8.41
1995 dummy	.1056	17.67
Some sec educ - not completed	-.0430	6.35
Secondary - graduated	-.0753	12.74
Higher education	-.1208	18.29
Constant	.1836	18.29
N	33259	
F(33, 33225)	111.99	
R-squared	.1001	
Adj R-squared	.0992	
Root MSE	.31404	

Notes: excluded categories Bulgaria, age 40-49, up to elementary education.
Source: East-Europe Eurobarometers.

Table J. Coefficients on age in unemployment equations by country

	Age 15-19	Age 20-24	Age 25-29
a) Eurobarometer			
Belgium	.17*	.12*	.03*
Denmark	.04	.07*	.06*
East Germany	-.093*	-.024*	-.024
France	.086*	.055*	.044*
Greece	.35*	.14*	.05*
Ireland	.27*	.10*	.07*
Italy	.37*	.20*	.09*
Luxembourg	.20*	.03	.00
Netherlands	.11*	.01	-.01
Norway	.23*	.07*	.04*
Portugal	.06*	.03*	.02
Spain	.17*	.11*	.07*
UK	.09*	.06*	.04*
West Germany	.013	.014	.026*
All	.12*	.06*	.03*
b) ISSP			
East Europe	.09*	.07*	.02*
Bulgaria	.62*	.24*	.09*
Czech Republic	.05	.07*	.04*
East Germany	-.13*	.015	.01
Hungary	.06	.03	.02
Poland	.46*	.24*	.03
Russia	.09*	.01	.01
Slovenia	.37*	.11*	.04*
c) East Europe Eurobarometers			
East Europe	.31*	.14*	.08*
Albania	.39*	.18*	.05*
Armenia	.29*	.12*	.05
Belarus	.28*	.08*	.06*
Bulgaria	.62*	.22*	.13*
Croatia	.52*	.28*	.11*
Czech Republic	.11*	.03	.04*
Estonia	.22*	.08*	.07*
Georgia	.23*	.16*	.04
Hungary	.20*	.20*	.21*
Kazachstan	.47*	.21*	.16*
Latvia	.04	.05	.00
Lithuani	.29*	.07*	.08*
Macedonia	.62*	.46*	.26*
Moldova	.45*	.06	.04
Poland	.49*	.10*	.09*
Romania	.21*	.06*	.08*
Russia	.27*	.14*	.13*
Slovakia	.39*	.14*	.04*
Slovenia	.28*	.15*	.02

Ukraine	.27*	.15*	.06*

Notes: excluded category is age 40-49. *= significant at 1%. Each row of the table is derived from a separate country equation.

Table K. Life satisfaction (OLS); 1990-1995
(dependent variable=1 if fairly or very satisfied; 0 if not at all or not very satisfied)

Question. On the whole, how satisfied are you with the life you lead? Would you say you are 4 "very satisfied" 3 "fairly satisfied" 2 "not very satisfied" 1"not at all satisfied" ?

	Coefficient	t-statistic
Male	-.0043	-2.36
Age15-19	.0765	16.28
Age20-24	.0403	10.84
Age25-29	.0326	9.26
Age30-39	.0149	5.13
Age50-59	-.0024	-0.76
Age60-69	.0174	4.92
Age>=70	.0263	6.48
School 15 years	.0217	6.36
School 16 years	.0381	11.69
School 17 years	.0516	13.62
School 18 years	.0610	17.66
School 19 years	.0584	12.92
School 20 years	.0753	15.74
School 21 years	.0773	14.57
School 22 years	.0822	24.48
Still at school	.0784	15.88
Belgium	-.0069	1.62
Denmark	.0741	16.79
East Germany	-.1429	33.97
Eire	-.0085	2.01
France	-.1325	30.93
Greece	-.3307	76.25
Italy	-.1041	24.28
Luxemberg	.0549	9.94
Netherlands	.0560	13.10
Norway	.0420	8.14
Portugal	-.1536	34.95
Spain	-.1171	27.09
West Germany	-.0029	0.69
1991	-.0164	5.07
1992	-.0260	9.24
1993	-.0411	12.63
1994	-.0274	8.69
1995	-.0054	1.33
Unemployed	-.2024	54.77
Out of the labor force	-.0121	4.87
Constant	.8562	183.59
N	175893	
F(37,175855)	604.99	
R-squared	.1129	
Adj R-squared	.1127	
Root MSE	.365	

Notes: excluded categories; 14 years of schooling and under; age 40-49 years; UK; 1990 and employed.
Source: Eurobarometers 1990-1995.

Table L. Happiness (OLS); 1991
(dependent variable=1 if fairly or very happy; 0 if not at all or not very happy)

Question. If you were to consider your life in general these days,
how happy or unhappy would you say you are, on the whole?
(Please tick one box only) 4. Very happy 3. Fairly happy 2. Not very happy 1. Not at all happy

	Coefficient	t-statistic
Male	-.0165	3.39
Age15-19	.1011	6.49
Age20-24	.0653	6.29
Age25-29	.0230	2.54
Age30-39	.0096	1.33
Age50-59	-.0041	0.51
Age60-69	.0291	3.12
Age>=70	.0935	7.91
Married	.0798	10.85
Widowed	-.0857	7.16
Divorced/separated	-.0834	7.15
Unemployed	-.1356	11.46
Out of the labor force	-.0389	6.05
Years of schooling	.0078	10.19
Australia	-.0271	2.39
Austria	.0008	0.06
East Germany	-.1420	11.58
Eire	.0090	0.65
Hungary	-.3023	21.74
Israel	-.1515	10.52
Italy	-.1584	11.09
Netherlands	-.0012	0.10
New Zealand	-.0525	3.83
Norway	-.0604	4.82
Philippines	-.0948	7.06
Poland	-.1753	12.56
Russia	-.2451	23.00
Slovenia	-.3158	27.97
USA	-.0132	1.05
West Germany	-.0351	2.77
Constant	.8089	52.58

N	23793
F(30, 23867)	109.13
R-squared	0.1211
Adj R-squared	0.1200
Root MSE	.35507

Notes: excluded categories; age 40-49 years; UK; single and employed.
Source: ISSP (1991)

Table M. Life satisfaction for the young ages 15-23 years (OLS); 1991
(dependent variable=1 if fairly or very satisfied; 0 if not at all or not very satisfied)

Question. On the whole, how satisfied are you with the life you lead? Would you say you are 4 "very satisfied" 3 "fairly satisfied" 2 "not very satisfied" 1"not at all satisfied" ?

	Coefficient	t-statistic
Male	-.0063	0.91
Age 16 years	-.0005	0.04
Age 17 years	-.0169	1.25
Age 18 years	.0018	0.14
Age 19 years	-.0186	1.34
Age 20 years	-.0220	1.64
Age 21 years	-.0066	0.51
Age 22 years	-.0171	1.23
Age 23 years	.0240	1.70
Unemployed	-.2071	14.90
Out of the labor force	.0243	3.08
Government scheme	-.0196	0.58
Belgium	.0182	1.11
Denmark	.0768	4.66
East Germany	-.0712	4.50
Eire	-.0131	0.81
France	-.0257	1.57
Greece	-.0917	5.67
Italy	-.0553	3.39
Luxembourg	.0362	1.51
Netherlands	.0642	3.92
Portugal	-.0985	6.04
Spain	-.0382	2.35
West Germany	-.0085	0.52
Live with parents	.0403	2.95
Live with wife/husband	.0166	0.90
Live with girl/boy friend	-.0017	0.09
Live in shared accomodation	-.0343	1.61
Constant	.8933	48.32

N	7630
F(28, 7601)	21.32
R-squared	.0728
Adj R-squared	.0694
Root MSE	.29975

Notes: excluded categories: age 15, UK, live alone, employed

Source: Eurobarometer 34.2 European Youth Fall 1990 (ICPSR # 9578).

Table N. Life satisfaction; 1990-1995 - unemployment coefficients by country plus life satisfaction means for the employed and unemployed.

	Unemployment coefficient	% happy Employed	Unemployed	N
a) Eurobarometers (1990-1995)				
Belgium	-.15	89	73	14199
Denmark	-.08	98	90	13870
East Germany	-.34	78	44	14600
Eire	-.24	89	63	13924
France	-.16	74	58	13937
Greece	-.09	54	49	13883
Italy	-.20	80	62	14423
Luxembourg	-.16	95	78	6616
Netherlands	-.17	96	79	14090
Norway	-.16	96	81	7982
Portugal	-.20	72	54	13817
Spain	-.21	76	56	13887
United Kingdom	-.20	89	68	18728
West Germany	-.34	89	55	14281
All	-.20	84	63	188237

Note: each coefficient derived from a separate equation of the form presented in table 5. N refers to the total number of observations on the life satisfaction variable.

% happy are % reporting being fairly or very satisfied.

b) International Social Survey Programme (1991)

	Unemployment coefficient	% happy Employed	Unemployed	N
Australia	-.11	92	81	2153
Austria	-.11	93	81	984
East Germany	-.15	80	65	1485
Eire	-.17	95	77	1002
Hungary	-.01*	69	69	1000
Israel	-.23	83	60	941
Italy	-.08	79	69	983
Netherlands	-.04*	95	88	1635
New Zealand	-.14	91	76	1056
Norway	-.09	90	83	1506
Philippines	-.16	85	73	1200
Poland	-.12	79	63	1063
Russia	-.13	73	62	2964
Slovenia	-.14	65	49	2070
USA	-.09	93	82	1358
All	-.14	84	70	24836

Note: each coefficient derived from a separate equation of the form presented in table 6. N refers to the total number of observations on the life satisfaction variable.

% happy are % reporting being fairly or very happy

c) Eurobarometers for the young (1990)

	Unemployment coefficient	% happy Employed	Unemployed	N
Belgium	-.23	96	72	590
Denmark	.03*	97	100	612
East Germany	-.36	84	48	654
Eire	-.26	91	64	598
France	-.39	90	51	595
Greece	-.14	80	68	604
Italy	-.12	84	72	604
Luxembourg	-.37	96	50	197
Netherlands	-.12	99	87	579
Portugal	-.11	80	69	588
Spain	-.08	87	76	598
West Germany	-.36	91	53	598
All	-.21	89	68	7633

Note: each coefficient derived from a separate equation of the form presented in table 7. N refers to the total number of observations on the life satisfaction variable.

% happy are % reporting being fairly or very satisfied.

Table O. East European Wage Curves, 1990-1994

	1990-1994		1992-1994		1994	
	Coefficient	t-statistic	Coefficient	t-statistic	Coefficient	t-statistic
Log Unemployment Rate	-.1054	(8.00)	-.1615	(8.55)	-.1178	(5.59)
Age	.0425	(17.21)	.0447	(15.38)	.0499	(9.83)
Age squared	-.0005	(16.59)	-.0005	(14.82)	-.0006	(9.08)
Male	.3179	(36.22)	.3353	(32.08)	.3564	(19.90)
Constant	6.0844	(104.0)	7.1584	(86.80)	7.6793	(64.27)
Education dummies	4		4		4	
Country dummies	-		-		5	
Region dummies	80		80		-	
Year dummies	4		2		-	
F	1318.2		800.34		2665.6	
R^2	.8861		.8628		.9003	
$\overline{R}^2$	.8854		.8617		.9000	
N	15854		11415		3554	
Root MSE	.5471		.5525		.5266	

Source: ISSP
Notes: 1994 excludes Slovenia.

Appendix 1. Numbers of observations by country, year and dataset

a) ISSP

Country	1990	1991	1992	1993	1994	Total
Australia	2398	0	2203	0	1779	6380
Austria	0	984	1027	0	977	2988
Bulgaria	0	0	1198	1183	1126	3507
Canada	0	0	1004	1467	1440	3911
Czech Republic	0	0	1101	1005	1024	3130
East Germany	1028	1486	1094	1092	1097	5797
Eire	1005	1005	0	957	938	3905
Great Britain	1197	1257	1066	1261	984	5765
Hungary	977	1000	1250	1167	1500	5894
Israel	991	991	0	1198	1287	4467
Italy	983	983	996	1000	1018	4980
Japan	0	0	0	1305	1307	2612
Netherlands	0	1635	0	1852	1968	5455
New Zealand	0	1070	1239	1271	1047	4627
Northern Ireland	772	838	0	767	647	3024
Norway	1517	1506	1538	1414	2087	8062
Philippines	0	1200	1200	1200	1200	4800
Poland	0	1063	1636	1641	1597	5937
Russia	0	2964	1983	1931	1998	8876
Slovenia	0	2080	1049	1032	1032	5193
Spain	0	0	0	1208	2494	3702
Sweden	0	0	749	0	1272	2021
USA	1217	1359	1273	1557	1447	6853
West Germany	2812	1346	2297	1014	2324	9793
Total	14897	22767	23903	26522	33590	121679

b) Eurobarometers

Country	1990	1991	1992	1993	1994	1995	Total
Belgium	2580	2056	4097	2009	2405	1052	14199
Denmark	2597	1994	3988	1993	2300	998	13870
East Germany	2627	2147	4175	2175	2444	1032	14600
France	2594	1986	3994	2038	2334	991	13937
Greece	2599	1990	3986	1997	2306	1005	13883
Ireland	2612	2001	3995	1986	2337	993	13924
Italy	2721	2076	4142	2044	2388	1052	14423
Luxembou	794	925	1983	1008	1408	498	6616
Netherla	2668	2032	4010	1995	2375	1010	14090
Norway	0	995	1991	1990	2025	981	7982
Portugal	2565	1991	3985	1989	2290	997	13817
Spain	2588	1998	3999	2011	2299	992	13887
UK	3496	2712	5391	2728	3036	1365	18728
West Germany	2613	2058	4083	2071	2417	1039	14281
Total	33054	26961	53819	28034	32364	14005	188237

c) East-Europe Eurobarometers

Country	1991	1992	1993	1995	Total
Albania	1000	1000	1054	1003	4057
Armenia	0	918	1000	1000	2918
Belarus	0	1028	1143	1021	3192
Bulgaria	989	1304	1198	1098	4589
Croatia	0	0	0	990	990
Czech Republic	1076	915	817	1075	3883
Estonia	999	1000	1011	1001	4011
Georgia	0	899	0	1059	1958
Hungary	987	1000	972	1004	3963
Kazachstan	0	0	0	1000	1000
Latvia	999	1000	992	1094	4085
Lithuani	1000	1000	1020	1003	4023
Macedonia	0	987	1097	1000	3084
Moldova	0	971	0	0	971
Poland	1000	996	1004	1000	4000
Romania	1000	998	1176	1141	4315
Russia	975	991	1377	1178	4521
Slovakia	0	733	684	1137	2554
Slovenia	0	1057	1000	1164	3221
Ukraine	0	1381	1171	1199	3751
Total	10025	18178	16716	20167	65086

d) Eurobarometer Youth Survey

Year	1990
France	603
Belgium	593
Netherlands	581
West Germany	613
Italy	608
Luxembourg	199
Denmark	617
Eire	600
Great Britain	821
Greece	612
Spain	600
Portugal	600
East Germany	659
Total	7706

Appendix 2. Mean unemployment rates (the dependent variable)

a) ISSP

Australia	.0255
Austria	.0611
Bulgaria	.2074
Canada	.0524
Czech Republic	.0408
East Germany	.1557
Eire	.1454
Hungary	.0809
Israel	.0977
Italy	.0591
Japan	.0116
Netherlands	.0749
Norway	.0550
New Zealand	.0730
Philippines	.0837
Poland	.1436
Russia	.0208
Slovenia	.1021
Spain	.2243
Sweden	.0921
United Kingdom	.1219
West Germany	.0461

b) East-Europe Eurobarometers

Albania	.1225
Armenia	.2808
Belarus	.0594
Bulgaria	.2027
Croatia	.1377
Czech Republic	.0328
Estonia	.1046
Georgia	.1666
Hungary	.2078
Kazachstan	.2384
Latvia	.1037
Lithuani	.0864
Macedonia	.2344
Moldova	.0487
Poland	.1549
Romania	.0798
Russia	.0982
Slovakia	.1115
Slovenia	.0914
Ukraine	.1015

3. Eurobarometers

Belgium	.1283	Luxembourg	.0820
East Germany	.1985	Norway	.0917
Eire	.1570	Portugal	.0673

France	.1024	Spain	.1458
Greece	.0923	UK	.1367
Italy	.1063	West Germany	.0481

Appendix 3. Description of data files

1. Eurobarometers

These surveys are the products of a unique program of crossnational and crosstemporal social science research. The effort began in early 1970, when the Commission of the European Community sponsored simultaneous surveys of the publics of the European Community. These surveys were designed to measure public awareness of, and attitudes toward, the Common Market and other European Community institutions, in complementary fashion. These concerns have remained a central part of the European Community's research efforts--which were carried forward in the summer of 1971 with another six-nation survey that gave special attention to agricultural problems. These themes were of central interest again in a survey of the publics of the European Community countries--then nine in number--carried out in September 1973. After 1973, the surveys took on a somewhat broader scope in content as well as in geographical coverage, with measures of subjective satisfaction and the perceived quality of life becoming standard features of the European Community public opinion surveys. In 1974, the Commission of the European Community launched the Eurobarometer series of the surveys, designed to provide a regular monitoring of the social and political attitudes of the publics of the nine member-nations: France, Germany, the United Kingdom, Italy, the Netherlands, Belgium, Denmark, Ireland, and Luxembourg. These Eurobarometers are carried out in the spring and fall of each year.

In addition to obtaining regular readings of support for European integration and the perceived quality of life, each of the Eurobarometers has explored a variety of special topics. Also, attitudes toward the organization and role of the European Parliament have been explored in each Eurobarometer beginning with Barometer 7 in the spring of 1977. The Eurobarometer surveys have included Greece since Autumn 1980 (Number 14), Portugal and Spain since Autumn 1985 (Number 24), the former German Democratic Republic since Autumn 1990 (Number 34), Norway since the fall of 1991 (Number 36), Finland since the spring of 1993 (Number 39), and Sweden and Austria since the fall of 1994 (Number 42). Note that beginning with Eurobarometer 43 and Central and Eastern Eurobarometer 6, the archival survey titles in these ICPSR series no longer contain a hyphen separating "Euro" and "Barometer," in keeping with current usage. Other archives may follow different naming practices for this survey series.;

The complete list of Eurobarometer titles is attached.

Complete List of Eurobarometers with European Commission and ICPSR Study Numbers

EC #	Description	ICPSR#
2	Problems facing the European Community, Oct/Nov 1974	6111
3	European men & women May 1975	7416
4	Consumer attitudes in Europe Oct/Nov 1975	7417
5	Revenues, satisfaction and poverty May 1976	7418
6	20 years of the common market oct/nov 1976	7511
7	Science and technology in the eec April 1977	7612
8	Men, women and work roles in Europe April 1978	7604
9	Employment and unemployment in Europe April 1978	7727
10	National Priorities and the Institutions of Europe, October-November 1978	7728
10a	Scientific Priorities in the European Community, October/November 1978	7807
11	Year of the Child in Europe, April 1979	7752
12	European Parliamentary Elections, October/November 1979	7778
13	Regional Development and Integration, April 1980	7957
14	Trust in the European Community, October 1980	7958
15	Membership in the European Community, April 1981	7959
16	Noise and Other Social Problems, October 1981	9022
17	Energy and the Future, April, 1982	9023
18	Ecological Issues, October 1982	9057
19	Gender Roles in the European Community, April 1983	8152
20	Aid to Developing Nations, October 1983	8234
21	Political Cleavages in the European Community, April 1984	8263
22	Energy Problems and the Atlantic Alliance, October 1984	8364
23	The European Currency Unit and Working Conditions, April 1985	8411
24	Entry of Spain and Portugal, October 1985	8513
25	Holiday Travel and Environmental Problems, April, 1986	8616
26	Energy Problems, November 1986	8680
27	Common Agricultural Policy and Cancer, March-May 1987	8715
28	Relations with Third World Countries and Energy Problems, November 1987	9082
29	Environmental Problems and Cancer, March-April 1988	9083
30	Immigrants and Out-groups in Western Europe, October-November 1988	9321
31	European Elections, 1989: Pre-election Survey, March-April 1989	9322
31A	European el;ections 1989, post-election survey June-July 1989	9360
32	The Single European Market, Drugs, Alcohol, and Cancer, November 1989	9519
33.0	The Single European Market: Eastern Europe, Spring 1990	9518
34	Perceptions of the EEC,Empt Patterns and Child Rearing, Oct/Nov, 1990	9576
34.1	Health Problems, Fall 1990	9577
34.2	European Youth, Fall 1990	9578
35.1	Foreign Relations, The CAP, and Environmental Concerns, Spring 1991	9697
35A	Working Conditions, Spring 1991	9696
36	Regional Identity and Perceptions of the Third World, Fall 1991	9771
37&.1	European Drug Prevention Program, March-May 1992	9956
37	Awareness of Maastricht and the Future of the EEC, March-April 1992	9847
37.1	Consumer Goods and Social Security, April-May, 1992	9957
37.2	Elderly Europeans, April-May 1992	9958
38	Court of Justice, Passive Smoking, and Consumer Issues, Sept-Oct 1992	6044
38.1	Consumer Protection and Perceptions of Science and Technology, Nov 1992	6045
39	European Community Policies and Family Life, March-April 1993	6195
39.1	Energy Policies, Biotechnology, and Genetic Engineering, May-June 1993	6196
39A	Health and Safety Issues, March-June 1993	6194
40	Poverty and Social Exclusion, October-November, 1993	6360

41	Trade Issues, Blood Donation, AIDS, and Smoking, March-June 1994	6422
41.1	Post-European Election, June-July 1994	6535
42	The First Year of the New European Union, November-December 1994	6518
43.1	International Trade and Radiation Protection, April-May 1995	6839
43.1b	Regional Development & Consumer and Environmental Issues, May-June 1995	6840
44	Cancer, Education Issues, and the Single European Currency, Oct-Nov 1995	6721
	Cumulative file 1973-1992	9361

Flash Eurobarometers

9	Maastricht, February 1992	6107
10	European Managers Survey, April 1992	6108
14	Maastricht, August 1992	6110
omb	Omnibus United Europe Jan 1992	6109

East Europe Eurobarometers

1	Public Opinion in Central and Eastern Europe, 1990	6104
2	Current Affairs and the Media, September - October 1991	6105
3	Political Disintegration, October - November, 1992	6106
4	Political and Economic Change, November 1993	6466
5	European Union, November 1994	6656
6	Economic and Political Trends, October-November 1995	6835

2. Eurobarometer 9578 - European Youth, Fall 1990 (ICPSR Study # 9578)

This round of Euro-Barometer surveys queried 15- to 24- year-old respondents on standard Euro-Barometer measures, such as how satisfied they were with their present life, whether they attempted to persuade others close to them to share their views on subjects they held strong opinions about, whether they discussed political matters, what their country's goals should be for the next ten years, and how they viewed the need for societal change. Additional questions focused on the respondents' knowledge and opinions of the European Community. One major focus of the study was the general interests of the respondents. Questions included what groups and associations they belonged to, whether they took part in clubs, organizations, or community centers intended for young people, which causes they felt were worth taking risks and making sacrifices for, how they rated certain aspects of their lives and relationships, which qualities they thought parents should encourage in their children, and what the three major problems facing young people were. Another major focus of the study was on exposure to foreign cultures. Queries included which foreign languages respondents knew, which languages they would like to know, whether they felt enough attention had been paid to foreign languages in school, how much time they had spent traveling abroad, what foreign countries they had visited, whether they had participated in a youth exchange or had worked abroad, which countries they would like to visit for work or study, and what problems were involved in working, studying, or training abroad. Respondents were also asked whether they had ever experienced discrimination, what their financial situation was, whom they talked to when making life course decisions, and whether they used counseling and guidance services.

Questions also examined employed respondents' current occupations and employment histories. Unemployed respondents were asked how many months they had been looking for a job, what they had been doing to find a job, and what the main reason was for their being unemployed. Respondents who were still in school or pursuing higher education were asked why they chose to continue studying, at what age they intended to finish their full-time education, why they chose the current subject of their studies, and what their current level of study was. Those respondents who were in a job placement or apprenticeship program were asked questions pertaining to their placement. Respondents no longer in school were asked how many years they studied beyond the minimum for schooling, what their reasons were for finishing formal education when they did, whether they had started a training course, how many training courses they had completed, how many months they had been involved in the training course, what they felt the standard of training was, how much they had gained from the training course, and whether the training had helped them get a job. Additional information was gathered on family income, number of people residing in the home, size of locality, home ownership, region of residence, occupation of the head of household, and the respondent's age, sex, occupation, education, religion, religiosity, subjective social class standing, political party and union membership, and left-right political self-placement.

3. Eastern Europe Eurobarometers

Central and Eastern Eurobarometers started in Autumn 1990 when nationally representative surveys were undertaken for the European Commission in Bulgaria, Czechoslovakia, Hungary and Poland (ICPSR Study # 6104). For the second wave of research conducted in October 1991, the number of countries was expanded to also include Albania, Estonia, Latvia, Lithuania, Romania and Russia, West of the Urals(ICPSR Study # 6105). The third survey (ICPSR Study # 6106) carried out in October/November 1992 provided data on 19 countries in Central and Eastern Europe: --Albania, Armenia, Belarus, Bulgaria, Croatia, the Czech Republic, Estonia, the former Yugoslav Republic of Macedonia, Georgia, Hungary, Kazakhstan, Latvia, Lithuania, Poland, Romania, the Russian Federation, Slovakia, Slovenia, and the Ukraine. The fourth (ICPSR Study # 6466) conducted in November 1993 included interviews in Albania, Armenia, Belarus, Bulgaria, Czech Republic, Slovakia, Estonia, Hungary, Latvia, Lithuani, Macedonia, Poland, Romania,

European Russia, Slovenia and Ukraine. The fifth survey (ICPSR Study # 6566) done in November 1994 covered the Czech Republic, Estonia, Macedonia, Georgia, Hungary, Kazakhstan, Latvia, Lithuania, Poland, Romania, the Russian Federation, Slovakia, Slovenia, and the Ukraine. Finally the sixth survey conducted in November 1995 included surveys in (ICPSR Study # 6835) Albania, Armenia, Belarus, Bulgaria, Croatia, the Czech Republic, Estonia, the former Yugoslav Republic of Macedonia (FYROM), Georgia, Hungary, Kazakhstan, Latvia, Lithuania, Poland, Romania, the Russian Federation, Slovakia, Slovenia, and the Ukraine.

Respondents in these surveys were asked questions on whether they felt that things in their country were going in the right or wrong direction, how the financial situation of their household had changed in the last year and how it might change in the next year, how they felt about the creation of a free market economy, how economic reforms were going in their country, how satisfied they were with the way democracy was developing, how much respect there now was for human rights, their impressions of the aims and activities of the European Community after its name was changed to the European Union, which countries they believed their future was most closely tied to, whether their country or the European Union benefited most from the current relationship, their main sources of information about the activities of the Union, and which groups within their societies would likely benefit or lose out as ties between their country and the Union increased. Demographic data collected on participants include respondent's age, highest level of education completed, occupation, voting status, mother tongue and knowledge of other languages, nationality/ethnic background, vote intention, sex, region, size of locality, and income.

Multistage national probability samples were conducted. A number of identical questions have been asked simultaneously with the standard Eurobarometer surveys described above. In each of the countries approximately 1000 persons in the 15+ age group were interviewed face-to-face in their homes. Although the same technical standards for surveys available in the European Community cannot necessarily be expected in Central and Eastern Europe at the present time, the European Commission believes that "the results, cautiously read, do allow insights into the attitudes of Central and Eastern Europeans as they face revolutionary times.

4. The International Social Survey Programme

The ISSP is a continuing annual programme of cross-national collaboration on surveys covering topics important for social science research. It brings together pre-existing social science projects and coordinates research goals, thereby adding a cross-national, cross-cultural perspective to the individual national studies. Twenty-six countries are members of the ISSP.

It started late in 1983 when SCPR, London, secured funds from the Nuffield Foundation to hold meetings to further international collaboration between four existing surveys - the General Social Survey, conducted by NORC in the USA, the British Social Attitudes Survey, conducted by SCPR in Great Britain, the Allgemeine Bevölkerungsumfrage der Sozialwissenschaften, conducted by ZUMA in West Germany and the National Social Science Survey, conducted by ANU in Australia. Prior to this, NORC and ZUMA had been collaborating bilaterally since 1982 on a common set of questions.

The four founding members agreed to jointly develop modules dealing with important areas of social science field the modules as a fifteen-minute supplement to the regular national surveys (or a special survey if necessary) include an extensive common core of background variables make the data available to the social science community as soon as possible.

Each research organisation funds all of its own costs. There are no central funds. The merging of the data into a cross-national data set is performed by the Zentralarchiv für Empirische Sozialforschung, University of Cologne. Since 1984, the ISSP has grown to 26 nations: the

founding four - Australia, Germany, Great Britain and the United States - plus Austria, Bulgaria, Canada, Cyprus, the Czech Republic, France, Hungary, Israel, Ireland, Italy, Japan, the Netherlands, New Zealand, Norway, the Philippines, Poland, Portugal, Russia, the Slovakian Republic, Slovenia, Spain and Sweden.

The annual topics for the ISSP are developed over several years by a sub-committee and are pre-tested in various countries. The annual plenary meeting of the ISSP then adopts the final questionnaire. ISSP questions need to relevant to all countries and expressed in an equivalent manner in all languages. The questionnaire is originally drafted in British English and then translated into other languages.

The ISSP marks several new departures in the area of cross-national research. First, the collaboration between organisations is not ad hoc or intermittent, but routine and continual. Second, while necessarily more circumscribed than collaboration dedicated solely to cross-national research on a single topic, the ISSP makes cross-national research a basic part of the national research agenda of each participating country. Third, by combining a cross-time with a cross-national perspective, two powerful research designs are being used to study societal processes.

ISSP Modules 1985-1999

ISSP 1985	Role of Government I
ISSP 1986	Social Networks and Support Systems
ISSP 1987	Social Inequality I
ISSP 1988	Family and Changing Gender Roles I
ISSP 1989	Work Orientations I
ISSP 1990	Role of Government II
ISSP 1991	Religion I
ISSP 1992	Social Inequality II
ISSP 1993	Environment
ISSP 1994	Family and Changing Gender Roles II
ISSP 1995	National Identity
ISSP 1996	Role of Government III
ISSP 1997	Work Orientations II
ISSP 1998	Religion II
ISSP 1999	Social Inequality III

The following are currently ISSP member countries (an updated version is available at the ISSP world wide web site: http://www.issp.org) – Australia, Austria, Bulgaria, Canada, Cyprus, CzechRepublic, France,

Germany, GreatBritain, Hungary, Ireland, Israel, Italy, Japan, Netherlands, NewZealand, Norway, Philippines, Poland, Portugal, Russia, Slovakian Republic, Slovenia, Spain, Sweden, USA.

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