ISBN 92-894-5296-X
ISSN 1725-1338
Cat. No. KS-PB-03-002-EN-N

2003 EDITION

EUROSTAT NEWS

20th CEIES seminar

"Labour statistics — towards enlargement"

Budapest, 14 and 15 November 2002

EUROPEAN COMMISSION

1

THEME 1
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Luxembourg: Office for Official Publications of the European Communities, 2003

ISSN 1725-1338
ISBN 92-894-5296-X

1st day
14 November 2002

(starting at 9:15 a.m)

08:45 REGISTRATION

09:15 OPENING SESSION

Welcome to the participants:
Mr J. Lamel, Vice-chairman of CEIES
Opening address:
Ms G. Vukovich, Deputy President of the Hungarian Central Statistical Office
Keynote speech:
Mr A. Baigorri, European Commission, Eurostat, Social statistics Directorate

10:00 (1) STATE OF THE ART – INTERNATIONAL INPUT
Chair: Mr A. Baigorri, European Commission, Eurostat

- *Ms H. D'Agostino, European Commission, Directorate general Employment and Social Affairs*
- *Mr E. Hoffmann, International Labour Office*
- *Mr H. Ahnert, European Central Bank*

10:45-11:15 Coffee / Tea break

- *Mr G. Lemaïtre, OECD*
- *Mr K. Schömann, European Trade Union Institute*

11:45-12:30 OPEN DISCUSSION

12:30-14:00 LUNCH BREAK

14:00 (2) STRUCTURE OF THE LABOUR MARKET
(sectoral, skills, formal and informal, gender, working time, etc)
Chair: Mr M. Landesmann, The Vienna Institute for International Economic Studies, Austria

Views of the Producers
- *Ms A. Franco, European Commission, Eurostat*
- *Ms S. Pisica, National Institute for Statistics and Economics Studies (INSSE), Romania*
- *Mr I. Makalous, Czech Statistical Office*

Views of the Users
- *Mr M. Werding, Institute for Economic Research (IFO), Germany*
- *Mr F. Siebern-Thomas, European Commission, Directorate general Employment and Social Affairs*

OPEN DISCUSSION

15:30-16:15 Coffee / Tea break

- *Ms J. Bock-Schappelwein/Ms G. Biffl, Austrian Institute of Economic Research (WIFO), Austria*
- *Ms Börbely, National Confederation of Hungarian Trade Unions, Hungary*
- *Mr R. van de Poll, Nehem International, The Netherlands*
- *Ms H. Vidovic, The Vienna Institute for International Economic Studies, Austria*

16:30-17:30 OPEN DISCUSSION

17:30 END OF 1ST DAY

19:00 COCKTAIL

Thanks is given to the Hungarian Central Statistical Office for the organisation of the social event

2nd day
15 November 2002

(starting at 9:00 a.m)

09:00 (3) COMPARATIVE STATISTICS ON EMPLOYMENT AND UNEMPLOYMENT (LFS)
Chair: Ms G. Vukovich, Hungarian Central statistical office, Hungary

Views of the Producers
- *Mr D. Mota, Instituto Nacional de Estatistica, Portugal*
- *Ms H. Strzelecka, Central Statistical Office, Poland*
- *Ms I. Svetin, Statistical Office of the Republic of Slovenia*

Views of the Users
- *Mr M. Sihto, Ministry of Labour, Finland*
- *Ms U. Marksoo, Ministry of Social Affairs, Estonia*

10:15 - 10:45 Coffee / Tea break

- *Ms B. Tsolova, Ministry of Labour, Bulgaria*
- *Mr H. Schäfer, Institut der Deutschen Wirtschaft, Germany*

11:15 - 12:15 OPEN DISCUSSION

12:15-14:00 lunch break

14:00 (4) PANEL DISCUSSION
Chair: Ms M. Epler, Chairperson of the CEIES Subcommittee on Social statistics, bundeskammer für arbeiter und angestellte, Austria

- *Mr A. Usai, Italian Economic Statistics, Bloomberg L.P., United Kingdom*
- *Ms D. Ambrozaitiene, Statistics Lithuania, Lithuania*
- *Mr E. Tasti, State Institute of Statistics, Turkey*
- *Mr R. Manchin, Eurobarometer, Gallup International, United States*

15:30-16.00 OPEN DISCUSSION

16:00-16:30 Coffee / Tea break

16:30 SUMMING UP
Ms M. Epler, chairperson of the CEIES subcommittee on Social Statistics

16:50 REACTION FROM EUROSTAT
Mr A. Baigorri

17:10 CLOSING UP BY THE CHAIRPERSON
Mr J. Lamel, Vice-chairman of CEIES

END OF THE SEMINAR

Background and aim of the seminar

The enlargement of the European Union will provide a historic opportunity to unite Europe peacefully, to improve the stability of the Union and to consolidate the political and economic transition that has taken place in Central and Eastern Europe since 1989. When the Applicant Countries are added to the EU's Single Market of over 370 million inhabitants, the biggest economic area in the world will be created. This step is without precedent in terms of scope and diversity, involving an increase of population of more than 100 million people. A market of this size can be expected to give a boost to investment but above all to job creation in both the old and new Member States[1].

The seminar on **« Labour Statistics – towards enlargement"** follows a trend set in earlier seminars organised by the CEIES subcommittee on Social Statistics to discuss in depth social issues that require input from varied statistical fields.

Overall, this seminar will make a contribution to the discussion on challenges put forward on labour market issues by enlargement to the candidate countries and the existing member states of the Union and policy considerations. The particular objective of the seminar will be to inform participants from the EU Member States about the experiences of the Accession Countries and provide the opportunity to highlight any possible difficulties or problems that may be encountered.

This should initiate an exchange of information between producers and users of statistics, of labour market experts in the Member States and the applicant countries. It is intended if possible to identify specific labour market phenomena occurring in the Candidate Countries.

Special statistical issues, such as how to measure and present the informal labour market, the gender gap, sectoral and educational differences, different levels of labour costs as well as the predicted labour migration and the projections after enlargement will be addressed.

In particular, the seminar should lead to recommendations for improvements in labour market statistics at both national and European levels.

What is CEIES?

CEIES stands for *Comité consultatif européen de l'information statistique dans les domaines économique et social;* in English: 'The European Advisory Committee on Statistical Information in the Economic and Social Spheres'. Its task is to assist the Council and the Commission in the co-ordination of the objectives of the Community's statistical information policy, taking into account user requirements and the costs borne by the information producers.

The committee was set up by Council Decision 91/116/EEC of 25 February 1991. The original decision was amended by Council Decision 97/255/EC of 19 April 1997 taking into account the accession of Austria, Finland and Sweden.

CEIES is chaired by the Commissioner responsible for statistics, currently Mr Pedro Solbes Mira. The vice-chairman is Mr Joachim Lamel, from Austria. CEIES is composed of two private members per Member State, three members from the European Commission, the Chairman of the Committee on Monetary, Financial and Balance of Payments Statistics (CMFB) and the Presidents or Directors-general of the National Statistical Institutes of the Member States.

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Organisers: *CEIES Subcommittee on Social Statistics: Ms Margit Epler, Ms Ineke Stoop, Mr Fernando Marques, Mr Kris Degroote, Mr Ioannis A. Mylonas, Mr Diego Cano Soler, Mr Thorbjon Broddason*

Reporting Member: *Ms Bettina Stadler*

CEIES Secretariat: *Ms Annika Näslund-Fogelberg, Ms Nicole Lauwerijs, Ms Deborah Evans*

[1] http://europa.eu.int/comm/enlargement/faq/index.htm - Why

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The proceedings are a collection of papers prepared by the speakers in advance of the seminar. They do not include the open discussions nor the discussions in the round table/panel session.

The papers presented and published herein only represent the views of their authors and do not necessarily reflect an official position of their institutions or organisations.

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LABOUR STATISTICS TO MEET USER DEMANDS WHEN THE CANDIDATE COUNTRIES JOIN THE EU

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1. History of the enlargement

While the Copenhagen European Council ('93) defined the common values (democracy, a market economy and adherence to the aim of the political, economic and monetary Union) that a country must meet in order to be a member of the EU, the Essen European Council ('94) determined a pre-accession strategy. This strategy essentially consists of the implementation of the *acquis communautaire* to prepare for integration into the internal market and financial support of the Phare programme.

The Luxembourg European Council ('97) decided to actually start the enlargement process with 10 candidate countries and Cyprus - and one year later with Malta.

This enlargement will bring many benefits: it will create a zone of peace, stability and welfare in Europe, a Single Market with over 100 million people in addition to 380 million in the EU now, stable democracies have emerged in Central and Eastern Europe, economic reforms were achieved with high rates of economic growth and better employment prospects.

Sound statistics play a vital role in policy formulation. The task of the Candidate countries was immense: in less than 10 years, to provide the same, comparable statistics as the Member states in a permanent and sustainable way. Article 285 of the Amsterdam Treaty specifies the conditions to produce these statistics: "… (they) shall conform to impartiality, reliability, objectivity, independence, cost-effectiveness and statistical confidentiality." These conditions ensure trust in the figures.

Co-operation with Eurostat started in '94-'95. Progress was needed in applying the same definitions and classifications, in implementing or adapting data sources and surveys besides building an appropriate organisation and infrastructure. In general, there is a good level of alignment to the basic requirements in the *acquis*. It is now a good moment to start co-operating towards future perspectives and statistical developments.

2. Labour market policy

According to the Amsterdam Treaty, article 125, "Member states and the Community shall work towards developing a co-ordinated strategy for employment…with a view to achieving the objectives in … (article 2) … a high level of employment" The extraordinary European Council in Luxembourg started a process to apply these articles. The employment policy guidelines (as part of this process) emphasise active measures to improve employment and counter unemployment. The Cardiff European Council ('98) has put employment in a larger frame of economic reform of labour, product and capital markets. Part of the analysis of the economic reform relies on the structural indicators referring to the relevant policy domains, e.g., employment, innovation and market reform. Later European Councils reinforced this process and agreed on strategic goals and targets, e.g., the overall employment rate, the female employment rate and the employment rate of older workers - Lisbon 2000 defining the targets for 2010 and Stockholm 2001 defining intermediate targets for 2005.

Comparable statistics on the basis of clear definitions are required to describe labour market performance and monitor progress under the European Employment Strategy. Tomorrow morning, we will have presentations about comparative employment and unemployment statistics.

Besides the structural user needs, there is also a need for short-term, cyclical statistics. An overview of requirements of short-term macro-economic statistics (including labour statistics) was presented by the ECB in August 2000. A priority set of data concerns employment, unemployment, labour cost and job vacancy aggregates with little breakdown. The second set of data concerns complementary statistics and more breakdowns by sex, age and education.

If we want an informed judgement on the labour market, we need a comprehensive set of data that I will describe next.

3. Framework for labour statistics

The labour demand and supply framework is applied as the conceptual framework to identify the key labour statistics and to describe their relationships. It is a simple and easy to understand representation how the labour market is functioning. Basically, it says that the quantity of labour demand is a function of its price (increasing demand with a decreasing price) and that the quantity of labour supply is a positive function of the wage rate (increasing supply with higher wage rates). Demand consists of the total human resources to produce an output, it is the sum of employment and unmet demand. Labour supply consists of the sum of employment and unemployment. A balance is achieved at a particular labour price. When firms want to raise output, the labour demand function shifts outward, employment will increase at any given wage rate and comes closer to its full employment level.

This framework can be elaborated. Labour supply, for example, can be measured more precisely as a volume instead of a simple count of persons. In this case, the volume of time-related underemployment as a measure of under-utilisation of labour resources can be compared with the volume of unemployment.

The source for statistics on labour demand is usually a business survey while the labour force survey is the main source for statistics on the labour supply. [This has consequences for the possible distinctions; business characteristics, for example, the distinction formal/informal sector[1] may be measured more appropriately by business surveys]. The focus of this seminar is mainly on the labour supply. This afternoon, we will have several presentations about the structure of the labour supply in the candidate countries on the basis of the labour force survey.

4. Achievements in statistics in the last 5 years

- In March ‘98, the Council Regulation on the organisation of the LFS providing quarterly and annual results was adopted. This regulation recognises a continuous survey as the preferred design. A new EP and Council regulation on the implementation of a continuous survey in all Member states is on the way now to be adopted. From 2005, a continuous survey will be carried out in all Member states.
- Several implementation measures were adopted since ‘98, e.g., the operational definition of unemployment, the revised coding of the variables from 2001 onwards, the adaptation of the coding of the variables on education and training from next year onwards (with additional information about the field of the highest level of education). Part of the content of the labour force survey changes from year to year as a response to new policy demands. Since ‘99, ad hoc modules were organised on accidents at work, transition from school to work, working time patterns and this year, employment of disabled people.
- In ‘99, a Council Regulation n° 530 was adopted concerning structural statistics on earnings and labour costs. In a next step, two Commission Regulations were adopted to implement the Council Regulation and specify the Labour cost survey and the Structure of Earnings Survey. The coverage of both structural surveys will improve from 2004 onwards when they will cover all non-agricultural economic activities except public administration (section L). In addition, efficient ways to extend the coverage further to included section L and small statistical units with less than 10 employees are being examined.

[1] defined as small, unregistered (under tax, social security or commercial trade acts), private unincorporated enterprises for which no separate accounts are available (15th ICLS, ‘93). The informal sector should not be confused with informal jobs when the labour relationship is not subject to labour legislation, taxation or social security. Employees with these informal jobs should be identified in the labour force survey.

- The precise calculation of the quarterly labour cost index has only just been defined. The EP and Council Regulation will be adopted in the next months. It specifies the composition of the LCI and that it will cover all NACE sections C-O and units of all size.
- The obvious shortcoming of this system of 4-yearly structural surveys and a quarterly labour cost index is the missing information of annual and hourly earnings by, for example, occupation with an annual frequency. The expansion of the coverage of the structural surveys and the annual estimation of earnings with a breakdown by social characteristics are major issues in the current review of the integrated system of earnings and labour cost statistics.
- The transmission of quarterly job vacancy statistics will start next year and is likely to cover all MS except one; without any doubt, the coverage of the Candidate countries will meet a manifest user demand.
- Quarterly and annual data on hours worked by paid employment/self-employment and economic activity will be available within the ESA95 national accounts transmission programme.

Progress in the Candidate countries in the last 5 years

Considerable progress is achieved by the Candidate Countries in complying with the EU standards in labour statistics when we compare the current statistical production with the technical assessment of the system of labour statistics in '98:

- almost all Candidate Countries carry out a quarterly labour force survey and participate on a wide scale in the programme of ad hoc modules,
- Candidate countries also carried out the 2000 Labour Cost Survey and will launch the 2002 Structure of Earnings Survey,
- for the years between the structural surveys, the Candidate countries can provide the hourly and monthly labour costs as well as annual gross earnings by NACE rev.1 sections but harmonised monthly and hourly gross earnings are more difficult to provide,
- the quarterly labour cost index can also be provided by the Candidate countries.

A first pilot project on labour statistics was organised under the '98 Phare multi-beneficiary statistical co-operation programme. This first pilot project covered technical workshops about the labour force survey and the compilation of a labour cost index. One year later, a pilot project on structural earnings and labour cost statistics was organised. Half a year ago, a pilot project started to improve the coherence of the data on employment.

5. State of the art of the labour force survey and a future perspective

The LFS is the principal source for consistent statistics on employment and unemployment according to ILO definitions and measured for all members in the household. I can only endorse this conclusion of an informal regional consultation organised by UNECE in May 2002 with representatives attending from ILO and Eurostat.

Furthermore, the role of the labour force survey was recently reinforced as a source for data on the potential labour supply. Persons outside the labour force were until now a neglected population category. But, a policy to increase employment has a clear interest in the composition of this category of persons outside the labour force and their reasons why they are not on the labour market.

To improve the labour force survey as a tool to monitor developments on the labour market, Eurostat has proposed to introduce 6 new variables in the labour force survey. This additional response burden will be compensated by the possibility to collect data on structural variables once a year only instead of quarterly. This proposal received an overall favourable opinion of the Member states. The take home pay is a key job characteristic in addition to the already available information on job security, working times and skill level. Without data on wages and salary in relationship with the other job characteristics, we will not be able to fully understand labour participation and the reasons behind, hence, the need to test an appropriate data collection.

I foresee that the pivotal role of the LFS will increase when I look, for example, at the use of the continuous survey for estimates of annual hours worked and the use of ad hoc modules about highly relevant policy issues (in 2004-'06, working time flexibility, the reconciliation of work and family life and the transition into retirement). I am very interested in the presentations and your comments during this 2-days seminar.

LABOUR STATISTICS – TOWARDS ENLARGEMENT

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1. The overall political context

1.1. The European Councils

In successive meetings in Gothenburg, Laeken and Seville, the European Council reaffirmed that, if the present rate of progress in negotiations and reforms is maintained the European Union is determined to conclude negotiations with Cyprus, Malta, Hungary, Poland, the Slovak Republik, Lithuania, Latvia, Estonia, The Czech Republic and Slovenia by the end of 2002, if those countries are ready. The objective remains that these countries should participate in the elections for the European Parliament in 2004 as full members.

The European Council: Presidency conclusions

http://europa.eu.int/council/off/conclu/index.htm

1.2. The Regular Reports and the Strategy Paper 2002

The European Commission (on 9 October 2002) has recently adopted the regular reports and strategy paper for this year. The Commission recommends that the negotiations on accession to the European Union should be concluded by the end of 2002 with Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, the Slovak Republic and Slovenia. The Commission considers that these countries will be ready for membership from the beginning of 2004. The recommendations are based on a rigorous and fair assessment of the state of preparedness of each candidate country. Preparations of the ten countries for membership will continue and will be strictly monitored by the Commission. As for Bulgaria and Romania, the Commission will strongly support these two countries in achieving their objective to join in 2007. Regarding Turkey, the Commission recommends that the EU should enhance its support for Turkey's pre-accession preparations and provide additional resources for this purpose.

The findings and recommendations of the regular reports and the strategy paper adopted by the Commission will be examined by the European Council meeting in Brussels on 24-25 October.

The regular reports and the strategy paper can be found in the following web site address:

http://europa.eu.int/comm/enlargement/index_en.html

This year's Regular Reports and Strategy Paper carry three important messages:

- The Union's pre-accession strategy has proved a success. The transformation process in the candidate countries has been considerably accelerated by the prospect of enlargement.

- The accession negotiations, which have been based on the principles of own merits, differentiation and catching up, can be concluded with most candidates by the end of 2002. Preparations for enlargement will continue.
- Enlargement is an inclusive process which is not yet completed with the first accessions. The European Union continues to give its full support to those candidates that will not be in a position to participate in the next wave of enlargement.

A rigorous and fair methodology

As in previous years, the Commission measured the progress of the candidate countries towards meeting the accession criteria, which were set down for the first time in 1993 at the European Council of Copenhagen, according to its well established methodology defined and explained in 1997 in Agenda 2000.

Under these so-called « Copenhagen criteria », membership requires that the candidate country ensures :

- *« stability of institutions guaranteeing democracy, the rule of law, human rights and the respect and protection of minorities »* : this is the political criterion.
- *« the existence of a functioning market economy as well as the capacity to cope with competitive pressure and market forces within the Union » :* these are the economic criteria.
- *« ability to take on the obligations of membership, including adherence to the aims of political, economic and monetary union ».* This criterion refers to the implementation of the Union's legislation (the ***« acquis communautaire »***) and ensuring its effective application through appropriate administrative and judicial structures.

The candidate countries are expected to fully meet these conditions upon accession. The Commission has therefore included a forward-looking element in this year's Regular Reports based on progress achieved by the candidate countries not only during the past twelve months, but over several years. It also takes into account their track record in implementing the commitments made in the negotiations and detailed implementation plans agreed between the Union and the candidate countries concerned. This approach allows the Commission to conclude on the readiness of the candidate countries from the beginning of 2004.

Main conclusions of the reports

The Commission considers that **Cyprus, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, the Slovak Republic and Slovenia** fulfil the political criteria and will have fulfilled the economic and *acquis* criteria within the timeframe foreseen for accession by the European Council. These countries will be ready for membership from the beginning of 2004. The Commission recommends concluding the accession negotiations with these countries by the end of this year with the aim of signing the Accession Treaty in Spring 2003.

As regards the implementation of the *acquis*, the Reports show that, overall, candidate countries have generally reached a high degree of alignment in many areas, as a result of the considerable progress in transposing the *acquis* over the last years. Steady progress has also been made in building up the administrative and judicial structures required for implementing and enforcing the *acquis*.

In some sectors, alignment with the *acquis* needs to be finalised and the building up of the necessary administrative capacity needs to be completed in view of accession. This is the case for the internal market, competition, consumer policy, environment, transport, energy, social policy and employment, justice and home affairs and taxation areas.

1.3. The Gothenburg European Council

The Gothenburg European Council in June 2001 gave an important political impetus to the enlargement process and encouraged the Commission to increase the efforts to prepare the candidate countries for accession.

[slide: Gothenburg European Council]

The Gothenburg European Council invited:

- the candidate countries to translate the European Union's economic, social and environmental objectives into their national policies;
- and as of spring 2003 the Commission would begin to include data on the candidate countries and their national policies in its Annual Synthesis Report.

In the light of the timetable and objectives defined by the Gothenburg European Council, the Employment and Social Affairs DG has increased their efforts in preparing the candidate countries for their participation in the Lisbon Strategy.

2. The Lisbon Strategy

In March 2000, the **Lisbon European Council** opened a new phase in the EU's economic and social policy, following the decision made at the beginning of the 1990s to create a single currency, and in the wake of the Amsterdam Treaty's extension of the scope and tools of social policy.

[slide: The Economic and Social Objectives here]

Marking this new phase, the European Council stressed that Europe is today committed to an irreversible transition towards a "knowledge-based economy" in which growth and competitiveness, and therefore employment, are based on innovation and knowledge, and in which social cohesion is a factor in both competitiveness and reason, to ensure that this transition succeeds, the Heads of State and Government set out a strategy for the period 2000-2010. This is a strategy of structural reforms, based on long-term change in Europe, which has two important features:

- *It sets the EU ambitious objectives:* to make the economy more dynamic and boost entrepreneurship among Europeans; to create more and better jobs; to improve social cohesion and modernise social protection. Pursuing these objectives should make it possible to return to full employment by 2010 – an employment rate of 70%, at least 60% for women, and 50% for older workers.
- [slide: The Lisbon Strategy here]
- *It is comprehensive and balanced*, as it ensures that there is complementary interaction between social policy, economic policy and employment policy, and, since the Gothenburg European Council, environmental policy.
- All of these policies are mutually supportive, and their design and implementation must be coherent and coordinated. This is the 'triangle' idea which was developed in the European Social Agenda. For this reason the Social Agenda and its follow-up are an integral part of implementing the Lisbon strategy, as seen in the Commission's presentation of a "scoreboard" in advance of the spring European also means that all policies involved in implementing the Lisbon strategy are designed in an integrated manner, with consistent political impetus conferred by the European Council:
- the synchronisation and streamlining of the two processes: the annual economic ie the «Broad Economic Policy Guidelines and the employment policy coordination cycle; the European employment strategy (or "Luxembourg process"), based on the implementation, via national action plans, of annual guidelines based on the four major pillars of employability, adaptability, entrepreneurship and equal opportunities; read more in: http://europa.eu.int/comm/economy_finance/publications/structural_policies/structuralpolicies_communication03092002_en.htm
- open coordination on tackling exclusion at European level, based on «common objectives» adopted at the Nice European Council and implemented last year by the first national action plans and the first evaluation report;
- first moves towards coordination on pensions, which the Laeken European Council introduced by adopting common objectives, as the Member States must this year draw up their "national strategy".

The Lisbon strategy is important not only because of the vision which inspired it or the measures which implement it. It is also important because of the profile of its follow-up, which is at the highest political level. It is for this reason that an annual meeting, in spring, of the European Council evaluates the progress made since Lisbon. This is preceded by a meeting of a consultation body at the highest level, involving the Heads of State and Government, the Commission and the social partners, the aim of which is to review the social partners' contribution, past and future, to the success of the Lisbon strategy.

The guidance given by Lisbon to the EU's social and employment policy obviously has a significant impact on **cooperation with the candidate countries**.

3. The Co-operation with the Candidate Countries on Employment and Social Inclusion

The *Employment and Social Affairs DGs* co-operation with the candidate countries has one aim: to prepare the candidate countries for participation in the Lisbon strategy following the accession.

The DG Employment and Social Affairs preparation of the candidate countries in the Lisbon strategy focuses in three fields:

- to prepare the candidate country for the European Employment Strategy
- to prepare the candidate country for the social inclusion process
- other areas of social protection

3.1. Co-operation on future participation in the European Employment Strategy

European Employment Strategy
http://europa.eu.int/comm/employment_social/empl&esf/ees_en.htm

Further to the Amsterdam Treaty and the Luxembourg and Lisbon European Council meetings the co-ordination of national employment policies within the framework of the European Employment Strategy has been placed high in the EU political agenda.

It is now an important part of the *acquis* and as laid down in the Commission Strategy paper, intensifying preparation for enlargement requires associating candidate countries to this process as far as possible.

The Göteborg European Council conclusions encourage an intensification of this co-operation on employment:

- They invite the candidate countries to translate the Union's economic, social and environmental objectives into their national policies; the Commission will continue the work on employment with the candidate countries to ensure that they are prepared to implement the Employment Title as from their accession.
- They invite the Commission to include the candidate countries and their national policies in its Annual Synthesis Report, starting from 2003; the Commission intends to present in this synthesis report the achievements of the candidate countries on employment policy.

The new Member States will be important for the success in achieving the Lisbon targets. While the quantitative impact is limited, the policy challenge relates mostly to the much bigger disparities in the enlarged Union and to the urgency of some problems. Indeed, despite of the high and often rising unemployment in these countries accession will reduce the employment rate of the Union only by some 1.5 percentage points. The real employment challenge for the new Members will be to manage well and fast the restructuring from old style industrial employment to modern services and for some of them in addition a very considerable but necessary decline in agricultural employment. Similarly, major challenges emerge in combating high levels of poverty and social exclusion and in particular in improving the conditions of minorities including the Roma.

With this background the Commission launched in 1999 the co-operation with the candidate countries in the field of employment. The first stage of this co-operation is to agree jointly on the Joint Assessment of Employment Policy Priorities (JAP).

Employment and Enlargement
the JAPs can be found at the following web site address:
http://europa.eu.int/comm/employment_social/empl&esf/enlargement_en.htm

The Joint Assessment Papers focus on the need to establish a flexible labour market with the right incentives for people to seek and for employers to create new job opportunities in particular in the service sector, to modernise the public employment services for managing structural changes and to reform the education and training systems. One key question is to provide sufficient resources for promoting active and preventive labour market policies and life-long learning in particular in enterprises where many candidate countries are far behind the present Member States.

These challenges, agreed between the Commission and candidate countries, require reviews and reforms of existing systems and practices and an important task will be to push for these reforms in the follow-up process. The JAP priorities are also reflected in the national employment policies as well as in the preparation for the future intervention of the European Social Fund and in the National Development Plans.

The JAPs have been jointly agreed for all candidate countries with the exception of Latvia.[1] Most candidate countries have subsequently submitted progress reports on the implementation of the priorities identified in the JAPs.

The JAPs are together with the progress reports valuable instruments and represent an important step in assessing the extent to which the countries have progressed in order to prepare themselves for future participation in the EU wide employment policy co-ordination - the European Employment Strategy - upon accession.

The JAPs and the progress reports are also decisive for identifying the key tasks for the provision of financial support to the new Member States in the framework of the Structural Funds and in particular the European Social Funds.

It is crucial that the candidate countries ensure the implementation of the JAP priorities. For this purpose the Commission has set up a monitoring mechanism consisting of technical seminars and periodic reviews of policy developments in the candidate countries.

In the light of the Gothenburg European Council conclusions (§11) DG Employment and Social Affairs DG will prepare for adoption in November a report on the progress in the co-operation on employment policy, which will also serve as a contribution to the Annual Synthesis Report 2003. The Report will present the achievements as well as weaknesses of the implementation of the JAPs.

Existing data sources

The data for the candidate countries on labour market is comprehensive and exist for the agreed EU indicators on employment.

3.2. Co-operation on future participation in the social inclusion process

An important part of the Community *acquis* consists of the EU policy co-operation on social inclusion issues, which received a major political impetus at the Lisbon European Council. At Lisbon, the European Council recognized that it was unacceptable that so many people lived in poverty and in social exclusion. It is clear that the challenge of social exclusion is also a challenge for the candidate countries.

It is therefore necessary for the candidate countries to prepare themselves to join the process of open method of co-operation on social inclusion which has been successfully developed with Member States. Taking into account the experience of co-operation on employment, DG Employment and Social Affairs has proposed to the candidate countries to launch a comparable co-operation process on social inclusion. The purpose is to sign, before accession, a Joint Memorandum on Social Inclusion (JIM) between the Commission and each candidate country.

This memorandum will identify, for each country, the key issues/challenges and policy orientations for promoting social inclusion in the light of the common objectives set out for the Union. It will also be an opportunity to gather related data and improve statistics regarding social inclusion. National seminars took place in each CC during June and July 2002[2] and the drafting of the JIM have started.

The candidate countries are very heterogeneous, they are at different economic levels and have in general a more flat income distribution, which is also confirmed by data. However, beyond a lower degree of inequality, evidence shows that social inclusion is related to having a job, some countries have minority groups particularly at risk and some face a significant poverty trap and it will be important to find a proper balance between the level of social benefits and incentives to work.

[1] For Bulgaria and likely also for Romania the JAPs will be formally signed by the end of October 2002.

[2] September 2002 for Bulgaria

Existing data sources: [this needs to be updated by information on the on-going project from Eurostat]

A comprehensive set of agreed EU structural indicators for the candidate countries concerning social cohesion is still poor. At the moment Eurostat is carrying out a project to improve the data for at least three of the agreed structural indicators, that is distribution on income, risk of poverty before and after social transfer.

On the basis of preliminary information it seems that the income distribution curb is rather flat in the candidate countries and therefore the resulting income inequality and poverty rates measured by the EU agreed indicators would have to be carefully interpreted. There is a need for specific discussions and analysis of these data as part of the whole JIM exercise with a view to approach the real scope of income disparities in the candidate countries.

3. 3. Social Protection

Further to the Laeken conclusions, co-operation on pensions is being intensified at EU level. On the basis of these policy developments with Member States a process with the candidate countries based on the co-operation on JAP/JIM is envisaged as from the end 2002 or beginning 2003.

I see the following areas as ones where some contributions have been made, but additional work is needed to meet pressing needs of statistical agencies:

LABOUR STATISTICS AT THE ENLARGEMENT OF THE EUROPEAN COMMUNITY: PERSPECTIVES ON THE STATE OF THE ART.[1]

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Introduction

1. This note will try to provide an overview of the extent to which the labour statistics that are being produced in member and applicant countries of the European Union correspond to international recommendations, as well as the extent to which the scope of these recommendations provide guidance on the full range of labour statistics that are needed to describe and analyze the structures, functioning, conditions and outcomes of modern labour markets as well as the short and longer term changes that are taking place.[2] The review of the current (2002) situation with respect to national labour statistics will limit itself to whether or not those areas of labour statistics that correspond to the international recommendations are being produced. It will be beyond the scope of this review to examine the **quality** of the respective statistics, even though 'quality' must be regarded as a highly relevant feature of 'the state of the art' in labour statistics. However, the balance between different quality aspects[3] of statistics will differ between the different areas of labour statistics as well as between different descriptive and analytical uses that are to be made of them. This means that a full review of such issues could not be summarized easily in a note like this.

Core labour statistics: national promises and practices

2. **ILO Convention No.160 concerning Labour Statistics**, adopted by the *International Labour Conference* in 1985 and in force since April 1988, had been ratified by 45 countries by mid 2002. Among these are 12 member countries of the European Union[4] and 6 of the countries applying for memberships[5]. By ratifying this Convention the national authorities are in principle legally obliged to develop good national labour statistics as described by the convention, and to report to the ILO at regular intervals on the implementation of the con-

[1] Prepared by Eivind Hoffmann for the *20th CEIES Seminar "Labour Statistics – towards enlargement"*, organized by the European Advisory Committee on Statistical Information in the Economic and Social Spheres, 14–15 November 2002, Budapest, Hungary. Comments from A.S. Young to an earlier draft resulted in significant improvements. The views expressed are those of the author and do not necessarily reflect those of the organizers, the ILO or its Bureau of Statistics. The author apologizes for all errors and omissions, and would welcome comments and suggestions for improvements and correction. Address: CH-1211 GENEVE 22, Switzerland; e-mail: hoffmann@ilo.org

[2] Such descriptions and analysis will have to draw on economic, demographic and social statistics as well as labour statistics. However, the overview in this note is limited to the latter.

[3] The quality of official statistics normally are discussed with reference to the following dimensions, see e.g. Platek & Särndal (2001) as well as the comments by Bailar, Fellegi and Norbotten: population coverage; units of observation; timeliness and frequency; geographic resolution; consistency with other statistics and over time; as well as features of the main and descriptive variables, in terms of validity and consistency of definitions; resolution and validity of value sets (classifications) used; reliability of measurements. The costs of production and dissemination may also be seen as a quality relevant feature.

[4] Belgium, France and Luxembourg have not ratified this convention.

[5] Cyprus, the Czech Republic, Latvia, Lithuania, Poland, and Slovakia have ratified this convention.

sequent obligations. Non-ratification may signal that the national authorities do consider that their country's national statistical system will not have the necessary capacity in the foreseeable future to develop one or more of the statistical series specified by the Convention, even though a country can make reservations with respect to one or more of the articles. However, non-ratification may also just reflect a lack of interest or bureaucratic inertia, in particular in larger and more statistically advanced countries and if the responsibility for the various areas of labour statistics is divided between several authorities. To get a better understanding of the type of labour statistics that are produced by national statistical authorities (NSAs) it may therefore be useful to review the statistics that are provided upon request to international agencies. This section is limited to the core labour statistics compiled from NSAs by the ILO and related documentation of sources and methods, and mainly those regularly requested by the ILO and made available to the general public through the publicly available data base LABORSTA[6] as well as in the *Yearbook of Labour Statistics (YLS)* and the ILO publications on *Sources and Methods: Labour Statistics*. This is mostly for reasons of convenience, but the picture that emerges should not differ dramatically if one reviewed the national responses to the different requests from Eurostat or OECD, even if these are more comprehensive in some areas and less so in others.

Statistics on employment, unemployment and hours of work

3. Those who are interested mainly in the broad structure of the economically active population (by age and level of educational attainment), employment and unemployment (by broad groups of 'industry' and 'occupation') and hours of work (by 'industry') can find relevant statistics for almost all EU member and application countries in the 15 tables in chapters 1 – 4 in LABORSTA and YLS[7,8]. However, from the documentation available about these statistics one can observe that although they are presented in a common format that does not necessarily mean that they are reasonably comparable. The degree of comparability depends on a range of factors, such as the type of source that has been used to produce the statistics as well as the definitions and classifications used, and the coverage and operational procedures for the primary data used as basis for the statistics reported. All EU member countries and all but one (Malta) of the application countries conduct *Labour Force Surveys (LFS)* at least annually.[9]

4. It should be remembered, however, that for many descriptive and analytical objectives it will not be sufficient to work with statistics on employment for the very broad groups of the type presented in chapters 1 – 4 of LABORSTA and YLS. Labour markets are more or less segmented[10] by different locations, by 'occupation' and by 'industry', and the distinctions relevant for describing and analyzing what is happening in different labour markets or to different groups of workers normally will require more detailed statistics than those presented there, and more detailed statistics than those which can be produced with a satisfactory degree of precision from a LFS. The extent to which sources are available that can provide estimates with satisfactory degree of precision, and the types of such sources, differs between both member and application countries, as do their coverage and other quality dimensions.

Statistics on wages, labour costs, occupational injuries and labour conflicts

5. Those who are interested in statistics for broad groups[11] on these topics can look at the 10 tables presented in chapters 5 –6 and 8 –9 of LABORSTA and YLS.[12] However, looking at the tables as well as the documentation it is clear that the quality of these statistics differ greatly. It is even more clear for these statistics

[6] See http://laborsta.ilo.org. The ILO also has other publicly available statistical databases which either are experimental or updated only at long or irregular intervals, see e.g. Young (2002) for more information.

[7] Statistics on employment and hours of work are provided for more detailed groups within 'manufacturing'.

[8] Some (preliminary) statistics from the 2002 updating of LABORSTA and YLS: For 10 of the 15 member countries one will find statistics in all 15 tables. For one (Luxembourg) there are statistics in only 8 tables. For 9 of the 13 application countries one will find statistics in all 15 tables, and for one country (Malta) one will find statistics in only 12 tables. The 'average' most recent reference year range from '96.6 to '00 among the member countries, and from '97.3 to '00 among the application countries; with respectively Luxembourg and Cyprus ranking highest. Statistical series that stop in '92,'93, '94 or '95 can be found for several countries in both groups.

[9] The "ILO comparable estimates" programme for statistics on employment and unemployment is based on results from the national LFS. So far only nine member countries and five application countries participate, see e.g. Lawrence (2002) for further details. Eurostat and the ILO have started to explore (fall 2002) the possibility of future cooperation on the production of such estimates from the files submitted to Eurostat, to reduce the burden on NSAs.

[10] In the sense that it often will be costly and/or time consuming for establishments to change location and/or activity, and for workers to change location and to acquire the skills that are necessary to work in a different occupation.

[11] As defined by 'industry'. For statistics on wages and labour costs more detailed categories are distinguished within 'manufacturing'.

[12] For seven member and five application countries are statistics presented in at least 9 of the 10 tables.

than for those mentioned above that the common format for the statistics in these areas does not make them comparable between the countries. The work that is being done by Eurostat and ILO to clarify and reach agreement on the relevant scopes, concepts and definitions for the various statistics is contributing to improving both the overall quality and comparability of these statistics. Other important factors that influence the quality and comparability of statistics include the overall social and economic structures of the countries in relation to the capacities of the NSAs, as well as the coverage of their business registers and the procedures used for their updating. The scope, regulations and procedures of the administrative registrations that in many countries provide the basis for the available statistics on e.g. labour conflicts and occupational injuries also make it difficult to achieve even reasonably comparable statistics for these areas.

6. In addition, many users of such statistics will need them for much more detailed categories than those presented in the LABORSTA tables mentioned. Concerning statistics on wages and hours of work this was recognized by the *First International Conference of Labour Statisticians (ICLS)* in 1923, and since 1924 the ILO has had a programme for compiling statistics on these variables for selected occupations in selected industries. Since 1985 this programme has requested NSAs to provide statistics for a total of 175 categories of workers, as specified by the 140 different occupations in 49 industry groups.[13] However, both the extent to which NSAs are providing these statistics, the regularity by which they are provided and their type and quality differ dramatically between countries, as demonstrated by e.g. Freeman & Oostendorp (2001). According to the status in late September 2002 ILO had received some statistics of this type from 12 of the member countries, with the number of categories ranging from 38 to 158, and the latest reference year from 1984 to 2001 (5 countries). The situation is similar among the 11 application countries that have provided some statistics of this type: the number of categories for which statistics have been given range from 40 to 151 and the latest reference year from 1986 to 2001 (5 countries).

Consumer price indexes

7. The *consumer price index (CPI)* has traditionally been considered as part of labour statistics, because of the importance of considering statistics on wages and employment-related income in relation to statistics that describe the development of the prices that workers have to pay for the goods and services that they purchase. Thus the ILO's role as compiler of national CPI statistics and custodian for CPI methodology has continued also after the CPI has become important also for other policy concerns, and in particular as a major indicator for inflationary developments in the economy to which it refers.[14] The latter development is the main factor that has made the *Harmonized Indices of Consumer Prices (HICP)* a high priority among the member and application countries: see e.g. Eurostat (2001). This, as well as the fact that the member countries and some of the application countries rank among the statistically most developed countries will lead us to expect both high quality and a relatively high degree of comparability in the HICP estimates, although the underlying process of data collection and processing is both complex and costly.[15]

Classifications

8. Definitions and classifications provide the backbone of all forms of statistics. They are necessary, but not sufficient, elements for the creation of good quality statistics. For the areas of labour statistics mentioned above there are relevant international recommendations, see ILO (2000). These include the definitions as well as most of the classifications that were considered to reflect "best practices" in labour statistics at the time when the recommendations were adopted by the ICLS. Even when not directly adopted or adapted to be used as basis for national statistics, these recommendations serve as points of reference for the work by the NSAs and provide the basis for requests by international agencies for national statistics in the relevant areas. However, some of the most important classifications for labour statistics are the subject of international recommendations in their own right, or are normally seen as belonging to other domains of econom-

[13] See table O1 in http://laborsta.ilo.org and the annual ILO publication *Statistics on occupational wages and hours of work and on food prices. Supplement to Bulletin of Labour Statistics*.

[14] A confirmation of this is that the ILO is preparing for a revision of the international guidelines on the CPI, in the form of a draft resolution to be discussed and hopefully adopted at the *17th International Conference of Labour Statisticians (ICLS)*, meeting 24 November – 3 December 2003. An Inter-Secretariat working group is preparing a new *Manual* on the preparation of the CPI. The manuscript is expected to be available in time for the 17th ICLS.

[15] It must be considered a disadvantage when using the HICP estimates to judge e.g. the rate of inflation, that they cover a smaller set of consumer expenditures than the national CPIs. Thus both types of estimates are necessary.

ic, social or demographic statistics. Among the most important international standard classifications are those for 'occupation' (ISCO-88), 'status in employment' (ISCE-93), 'industry' (ISIC, rev. 3) and 'educational attainment' (ISCED '97).[16] Among these, ISIC, rev. 3 (through NACE, rev. 1) has served as basis for the 'industry' classifications currently used in all member and application countries, mainly because of the importance that economic statistics and national accounts have in the implementation of economic policies in the EU. While ISCO-88 has served as model for the 'occupation' classifications currently used in all application countries several of the member countries have decided that their labour statistics would better serve national users if more "tailor made" national classifications are used.[17] Links have been established between ISCED '97 and most corresponding national classifications,[18] and most NSAs are using simplified versions of ICSE-93. Still important in many of the application countries is the possibility to identify those who are employed in the 'informal sector'[19], either as 'employees' or as self-employed, even though few produced statistics on them on a regular basis. Member countries are more concerned with measuring various aspects of the activities in the "hidden economy", but statistics are not produced on a regular basis.[20] ILO (2002) presents a conceptual framework for describing 'the informal economy', defined to cover both the activities that fall within the 'informal sector' and other contractual relationships that are not regulated by or consistent with national legislations or collective agreements.

Core labour statistics: challenges

9. Although the core labour statistics briefly reviewed above are being produced by most member and application countries, at least to some extent, it is quite clear that both the NSAs and the multi-national bodies that assist them, primarily Eurostat and the relevant arms of OECD and ILO, are facing a number of challenges in their quest to ensure that these statistics in the future can serve the needs of their users. Some of these challenges are linked to the fact that in some respect and in some countries the core statistics have not been developed to satisfy the quality requirements of users, in particular with respect to coverage, timelines and degree of detail. To some extent these shortcomings are the same as those in other areas, e.g. with respect to statistics on services and ICT related activities., while others are specific to labour statistics, such as the need to improve and expand the statistics on wages and employment-related income in many countries, in particular those related to specific labour markets and groups of workers, as defined e.g. by 'occupation'.

10. Another set of challenges follows from the changes that are taking place in the social and economic structures in countries. The changes in the underlying realities that are important for the structure, function, conditions and outcomes of the labour markets will sooner or later mean that the concepts and definitions that are being used as basis for the statistics will have to be re-examined and possibly changed: otherwise we run the risk that the statistics that are being produced with their help increasingly fail to provide an adequate reflection of these realities and of the changes that are taking place.[21] The international recommendations and classifications also need to be re-examined, usually on the basis of pressure from users as well as work that takes place in some pioneering countries, for them to be able to serve as models and tools for creating better international comparability of national statistics. Following this year's updating of ISIC, rev. 3 work has already started on preparations for a thorough revision of ISIC (and NACE), to be completed in 2007. The 17th ICLS will in 2003 be invited to consider the need to revise and expand the 1962 recommendations concerning statistics on hours of work; as well as on the need to revise ISCO-88. A review of NSAs' practices with respect to ICSE-93 presented to the 16th ICLS (1998) concluded that it provides the best available basis for improved statisti-

[16] ILO is the custodian of the first two, UN is the custodian of ISIC, and UNESCO is the custodian of ISCED. ISCO-88(COM) is an adaptation for reporting to Eurostat. NACE rev. 1 was developed to be equivalent with ISIC, rev. 3 at an aggregate level.

[17] The most important examples are, in order of distance from ISCO-88: France, Germany, the Netherlands, Ireland and the United Kingdom. The classifications of the last three are based on principles similar to those of ISCO-88, but implement them differently.

[18] Note, however, that these links are to the classifications for the current educational system in the countries. It is largely unexplored how well these (and the links) can reflect the educational attainment of a population educated over a long period and in different countries.

[19] See the *Resolution concerning statistics on employment in the informal sector*, adopted by the 15th ICLS (1993) and presented in ILO (2000), as well as Hussmanns (1998) for a review of methodological problems and practical experiences with surveys of the 'informal' sector.

[20] Although conceptually distinct the activities in the "informal sector" and the "hidden economy" may be overlapping to some extent, particular because of approximations that have to be made to their intended scopes when measuring their activities. See OECD, IMF, ILO & CIS (2002) for further discussions.

[21] Note that for classifications it is important to distinguish between (i) updating to accommodate e.g. new activities and occupations into the existing structures; and (ii) revision, i.e. to change (important elements of) these structures. Updating should in principle be an on-going activity, while revisions should only be undertaken at long intervals.

cal descriptions of contractual situations in the labour market, see Elias (2000). However, much work will be needed in NSAs before they have statistics that can throw light on the increasingly diversified contractual relationships in the labour markets of member countries as well as application countries (at least according to the anecdotal and non-statistical 'evidence' often quoted in media as well as in more serious discussions).

11. A third set of challenges are linked to the need to ensure that labour statistics collected from different sources[22] on the same or related subjects can be used together to draw on their relative strengths. The results of work done to develop the conceptual basis for this have been presented under the heading *Labour Accounting System (LAS)*, see e.g. Hoffmann (2000). It has been recognized that most of the difficult practical work has to be done in NSAs and be guided by their capacities and the sources available, as well as the priorities of those using labour statistics, see e.g. Buhmann et al (2002). An extension of the national work will be to achieve better integration between statistics on employment and statistics on the associated labour costs and employment-related income. The understanding of the functioning of labour markets will have to remain incomplete in the absence of such integrated statistics.

Some additional challenges for labour statistics

12. While the statistical areas briefly reviewed above will remain the core of labour statistics, it is clear that new political priorities as well as the social and economic changes that are taking place are bringing forward labour related issues and concerns that call for statistics that have not been produced before, at least not on regular basis by the NSAs. Some of these are common with or closely related to other areas of statistics, e.g. concerning the impact of ICT. This section will review briefly some of those which can be said to be more specific to labour markets.

Working time and working time arrangements

"Time@ is often described as our most fundamental resource. We all have time to spend, and how we spend it will influence our wealth, welfare and happiness as well as that of persons close to us. How time is spent can be described by the *types of activities* carried out and by the *length* of time spent in them, as well as by the *context* in which they are done and their *scheduling* over a week, a month, a year or a lifetime. The demographic changes that are taking place as well as the increasing 'flexibility' in how work is organized over long as well as short periods mean that new and improved statistics that can describe patterns and changes in the length and arrangements of working time have become increasingly demanded not only to understand better social and demographic structures and changes but also economic structures and developments, e.g. of productivity differences, as well as of labour markets and working conditions. This is one area where development work is needed on both conceptual and practical aspects, see e.g. Mata Greenwood (2001). The modules on contract durations and working time arrangements in the *European Labour Force Survey (ELFS)* coordinated by Eurostat represent a promising start and we should expect that much useful information will emerge from the results of the *European Time Use Surveys (ETUS)*, also coordinated by Eurostat. Hopefully those responsible for these surveys in the NSAs and in Eurostat will recognize the need for analysing methodological issues in light of the relevant national experiences, and be given the resources necessary. It is expected that these experiences will be important when preparing the draft for a revised ICLS resolution concerning working time mentioned above.

Non-standard forms 'of employment

14. Working time and working time arrangements are only some of the elements that are considered when discussing "non-standard forms of employment": their nature as well as their importance for different groups of workers and the economy in general. Many of the other aspects are related to the type of contractual situations that ensure that workers will receive an income from their work and the type and basis for that income, as well as other working conditions. The tools used by NSAs for describing these situations are the 'status in employment' classifications. As observed above these have not been developed to provide the necessary distinctions. Mata Greenwood & Hoffmann (2002) have presented a conceptual framework which it may be possible to use as basis for understanding these various situations and how they can be represented in revised classifications. However, much further work is needed, both to understand the different forms of contractual situations, and on how to capture the information needed to identify (distinguish) them. ILO

[22] I.e. administrative records, establishment censuses and surveys and population censuses and household surveys.

(2002) introduces the notion of the 'informal economy', composed of the 'informal sector' as well as the contractual situations of those working elsewhere that do not correspond to relevant labour laws and collective agreements. To develop statistics on the 'informal economy' it will be necessary therefore to resolve some of the issues already mentioned in connection with the classifications on 'status in employment'.

Labour demand and vacancies

15. There is a more than 50 year long tradition of discussion of the statistics needed to provide the best understanding of the level, structure and developments for the supply side of labour markets. These discussions have resulted in international recommendations, see ILO (2000), that serve as reference for all statistics in these areas and provide the basis for all labour force surveys. In contrast national efforts to measure imbalances on the demand side[23] have been relatively few and often interrupted, as have corresponding international discussions. As a consequence no relevant international recommendations have emerged. However, our understanding of what is happening in the labour markets will always be incomplete if we cannot describe statistically also their demand side. This is one reason for the 'vacancies surveys' that now is being initiated in both member and application countries, see Eurostat (2002) for an overview of the situation in EU and EFTA countries in mid-2002. Similar surveys have recently been (re-)started in other OECD countries and have existed for some years elsewhere. Hopefully these efforts can be sustained and provide sufficient experience with both conceptual ("what to measure?") and methodological ("how to measure reliably and effectively what we want to measure?") problems to develop useful international recommendations, e.g. at the 18th (2008) or 19th (2013) ICLS.

Training and lifelong learning

16. Picking up from the insights first gained at the start of the last century about the importance of improved human skills as a source of higher incomes for individuals and economic growth for national economies there have been two later periods where the role of 'human capital' (1960s) and 'lifelong learning' (late 1990s onwards) has been in the focus of both policy makers and researchers. During the latter period OECD and EUROSTAT have taken a series of important initiatives to develop relevant statistics, both by extending existing surveys of establishments and households with modules on training activities undertaken, and by creating new types of surveys. Most member and application countries seem to have participated in one or more of these activities, see e.g. CEIES (2000) for a progress report.
17. The major challenges for statistical development in this area are linked to (1) the informal, episodic and unstructured nature of many of the relevant activities; (2) that existing administrative recordings will only capture a small fraction of relevant activities and only record some of the relevant information[24]; and (3) that it is still very unclear what to measure that can serve as valid indicators of the 'output' of training activities, and how measurements can be carried out reliably and effectively to serve as basis for statistics.[25]

International migration of workers and trade in services

18. International migrations in general represents difficult political and humanitarian issues as well as difficult practical problems in many member and application countries, whether they are mainly receiving, mainly sending or mainly serve as countries of transit. Many of these issues and problems are linked to migrant workers and the (lack and quality of) work opportunities for migrants. Improved statistics on the international migration of workers and the work of international migrants will therefore be a major challenge for NSAs, as it is clear that the methodological problems for collecting such statistics are significantly more difficult than the already difficult problems of producing reliable statistics on international migrations in general, see e.g. Bilsborrow et al (1997) and Hoffmann (1997). This is the case whether we are concerned with the movements across international borders during a period or with the numbers of 'migrants' present in or absent from the country at a point in time. While the UN recommendations for statistics on international migrations, see UN (1998), focus mainly on the groups that have been considered to be of in-

[23] The expression 'imbalances on the demand side' covers both 'vacancies' (conceptually corresponding to 'unemployment') and 'surplus workers', see Hoffmann (1999) for more detailed discussions and further references.

[24] This is the case for the records kept by government institutions with responsibilities in this area as well as the records kept by private and public establishments.

[25] The division of responsibilities among the UN organizations assigns 'vocational training' to the ILO. One of the challenges for the ILO, and to some extent to UNESCO as well, will be to establish to what extent and how the experiences gained by the OECD and Eurostat experiences can and should be transferred to developing countries that want to produce these types of statistics. This work has just started.

terest for demographic studies, they do present a conceptual framework that can be expanded to provide better guidance also for those additional groups that are of interest mainly for labour market studies. There is reason to hope that work to develop such guidance can start in the foreseeable future. It will not be easy, and the need for statistics that are relevant for monitoring "presences of natural persons", one of the modes of trade in services under the *General agreement on trade in services (GATS)*, may create special complications, because of the 'flexible' formulations on what such 'promises' cover and the possibility that countries have for making commitments to such trade.[26]

Labour market dynamics

19. Both users and producers of labour statistics have recognized for a long time that statistical time series based on 'snap-shots' about the size and characteristics of groups in the labour markets at different points in time, only will provide basis for estimating 'net' changes in the labour markets. However, the situation of individuals will have changed in different 'directions' between two snap-shots, e.g. some persons will have left the labour market and others have entered, not necessarily for the same jobs. There are few statistics produced regularly by NSAs that can be used to describe and evaluate the such 'gross' changes ('dynamic' experiences) over short or longer time periods. The same is the case with statistics on wages and employment-related income, i.e. on the number of individuals and households who over time experience improvements or declines in the wages and incomes gained in the labour market, see e.g. OECD (1996). This has become increasingly unsatisfactory, in particular as the focus of economic policies have tended to shift from macro-(economic) effects to the effects on individual behaviour and experiences, whether of establishments or of the workers.

20. A large variety of statistics may be relevant when describing different aspects of labour dynamics, e.g. the hirings and separations of workers; the inflow and outflow of workers from a country; training and recruitment of workers; workers' short and longer term 'careers' in the labour market over short periods as well as over their whole working life, with respect to types of jobs, spells of non-economic activities and unemployment as well as changes in earnings. This means that the range of conceptual issues and methodological problems that have to be tackled is an order of magnitude larger and more difficult than those of 'snap-shot' statistics. To get faster progress on these issues NSAs and the international agencies probably need to become more focused in their (joint) efforts. This will not be easy given the limited resources available for development work as well as the range of interests by important users of such statistics. However. international discussions in OECD and the *Paris Group on Labour Statistics*[27] have focused on two approaches: (i) estimating 'transition probabilities' from the panel components of Labour Fource Surveys or linked administrative records, see e.g. OECD (2001); and (ii) the possibility of developing relevant and parsimonious classification for the type of labour market experiences that persons may have had over a time period such as a year[28]. Hopefully, these discussions may provide the basis for recommendations about the kind of development work in this area that it may be most useful for the NSAs and the international agencies to undertake.

Presenting and using labour statistics more effectively and more widely

21. To produce statistics that are not (or will not be) used represent a waste of resources, those of the respondents as well as the data collecting and processing agencies. Most of the quality concerns mentioned in footnote are motivated by a need to ensure that a much higher ratio of usefulness can be achieved for statistics than is normally granted advertising,[29] and it is a constant challenge for the NSAs to maintain and hopefully raise this ratio. Constant dialogues with major users and monitoring of how the statistics are presented by media to the general public and used by organizations, researchers and policy advisors are therefore necessary. There is no doubt that most of the 'useful' statistics will be individual numbers, often presented as time-series or as distributions to make possible comparisons over time or between groups. Recently

[26] See ITF-SITS (2001) for further discussions of GATS and the possibilities for statistics that are relevant. for monitoring developments and their impacts as support for the negotiators

[27] This is one of the so-called 'city groups' of NSAs formed to help develop a specific area of official statistics, under the auspices of the UN Statistical Commission.

[28] Hoffmann (1996) presents an early draft. See INSEE (1999) for a report on the discussions. Stibbard (1996) gives an overview of issues for statistics on labour market dynamics.

[29] This is a reference to the famous statement that "we know that half of all advertisements are wasted, the problem is that we do not know which half".

a search has (again) started for numbers that can serve as meaningful indicators of more general concerns in different areas. One example are the 'millennium indicators', see e.g. UN (2002), among which are two indicators directly related to the functioning of labour markets.[30] In addition, both the European Commission and ILO have started work to develop sets of indicators to monitor developments in labour markets and the situation of those participating, see e.g. European Commission (2001) and Anker et al (forthcoming). There are significant areas of overlap between these two efforts even if the scope of the ILO's "indicators of decent work" is broader thematically as well as geographically. Hopefully these efforts will result both in a better understanding of the concerns that the indicators are designed to highlight and in the investments needed to ensure not only the establishment of the necessary underlying statistical data-collection processes, where they do not exist, but also that these processes will be consistent with the quality requirements for the chosen indicators.

Concluding remarks

22. The objective of this note is to provide some understanding of the "state of the art" of labour statistics among the member and application countries on the eve of the further enlargement of the European Communities. It does not claim to provide a complete picture[31], but hopefully it has been possible to indicate that labour statistics as an area of official statistics both have made important achievements and face important challenges. Straddling the divide between economic statistics on the one side and social and demographic statistics on the other one finds as part of labour statistics indispensable short term indicators of the current economic 'temperature', i.e. the 'unemployment rate' and the 'consumer price index', and statistics that describe economic, social and demographic structures that are of fundamental importance for the long term welfare of countries. The achievements, in particular in the established areas of labour statistics, are both methodological and operational and are building on as well as contributing to those of the social and economic 'partner' areas of statistics. The challenges can be found in both established and in 'new' areas for labour statistics, and are methodological as well as operational in the face of the developments that are and will be taking place internationally as well as in the member and application countries of the European Union. It seems safe to predict that those working to produce and develop labour statistics will have interesting and challenging tasks in the years to come, trying to meet users' demands for new and improved statistics as well as for timely and comparable results from existing statistical programmes, all within limited and often falling human and financial resources in both NSAs and their international counterparts and partners. In this situation it is important that those allocating resources for work with labour statistics as well as the labour statisticians themselves and the users of the results will remember that the GIGO[32] rule will always apply.

[30] "Share of women in wage employment in the non-agricultural sector" and "youth unemployment rate"

[31] Among issues not mentioned are those faced when producing statistics that can be used to describe the impacts on e.g. employment, productivity and working conditions by the changing contractual and organizational arrangements for providing goods and services traditionally provided by the 'public sector', e.g. through 'privatization' and 'outsourcing'. See e.g. Hoffmann (2001).

[32] GIGO = Garbage In gives Garbage Out

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LABOUR MARKET STATISTICS FOR THE EURO AREA AND ACCESSION COUNTRIES – THE ECB POINT OF VIEW *)

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Abstract

The ECB, like other central banks, monitors labour market data for many reasons, including inflation, macroeconomic and competitiveness analyses. The first section of this paper explains this monitoring in more detail. The second section then looks, at the European level, at the harmonised and national data sources available. The third section explains the resultant needs for EU accession country data. Some conclusions are drawn in the fourth and final section.

In conclusion, the paper suggests, for ECB purposes, that the short-term priorities for accession country data should be to supply a set of key indicators (employment, compensation, unemployment, unit labour costs); these are needed to monitor economic development and the accession process. After EU accession, the data requirements for applicant countries are similar to those of the European Union Member States who have not yet joined Monetary Union. Particularly important for the ECB is the implementation of European Regulations for infra-annual labour market data, including the use of comparable statistical methods.

1. The ECB, the euro area and labour market statistics

1.1. Objectives and policy of the ECB

The European Central Bank (ECB) has as its primary objective the maintenance of price stability over the medium term in the euro area. This objective is set out in Article 105(1) of the Treaty:

"The primary objective of the ESCB shall be to maintain price stability. Without prejudice to the objective of price stability, it shall support the general economic policies in the Community with a view to contributing to the achievement of the objectives of the Community..."

The Governing Council of the ECB systematically combines information from two pillars in order to make monetary policy decisions aimed at achieving this primary objective[1]. The first pillar concentrates on an analysis of M3 monetary aggregates because inflation is, in the long run, a monetary phenomenon. The second pillar is a wider analysis of macroeconomic and financial information from a broad range of indicators. The analysis under the second pillar focuses on revealing the influence of a variety of factors that normally affect price developments in the shorter term. Labour market data form part of this second pillar and are also mentioned in the general economic objectives of the EU. In addition, labour market data are monitored in order to analyse

*) Paper to be presented at the 20th CEIES Seminar «Labour Statistics – towards Enlargement», 14 and 15 November 2002 in Budapest.
[1] See also "The Monetary Policy of the ECB", 2001, for a full explanation; available at the ECB's website (http://euroweb/website/pub/pdf/monetarypolicy2001.pdf).

competitiveness. Finally, labour market data (unit labour costs) are mentioned by the Treaty for the convergence assessment in the context of the single monetary policy.

1.2. Labour market data for inflation and conjunctural analysis

The labour market data are seen by the ECB as additional indicators of inflationary pressure as well as macroeconomic indicators to assess the development of economic activity. As such, they are a key indicator regularly reported in the ECB Monthly Bulletin (see annex for an example of the data regularly presented there). The need for these statistics is explained in the ECB's August 2000 publication "Requirements in the field of General Economic Statistics"[2]. While, in general, the data presented in ECB publications are of an aggregated nature, there is often a need for more detailed information to aid analysis. In terms of geographical coverage, the ECB's data requirements are as follows: euro area aggregates, individual euro area country data, data for the EU countries which have not yet adopted the single currency and data from important trading partners (in that order). In addition, data for EU accession countries have become more important in recent years for obvious reasons. The emphasis is on timely short-term (i.e. monthly or quarterly) statistics with a breakdown by industrial sectors, rather than very detailed socio-economic or demographic breakdowns. Occasionally, structural analysis is carried out on annual data. Because the emphasis is on conjunctural analysis it is important that backdata for series exist, as a rule of thumb starting from 1991.

The ECB always prefers to use harmonised data to fulfil its tasks. EU-wide harmonised data is crucial for cross-country comparisons and for compiling euro area aggregates. There are also some good reasons to closely monitor and use typical «national» data. When harmonised data are not available or not yet available, the ECB calculates its own aggregates for the euro area on the basis of closely related but non-harmonised national data, but takes into account the resultant deficiencies in any interpretation of the results. Moreover, given the current heterogeneity of European labour markets it also remains necessary to examine national results (e.g. series on negotiated wages, vacancies, etc.).

1.3. Report of the Economic and Financial Committee

An important milestone in the development of labour market statistics for Economic and Monetary Union (EMU) was the 1999 report of the Economic and Financial Committee (EFC). ECOFIN endorsed the results of this Committee in January 1999[3]. The report said that "the proper co-ordination of economic policy in the third stage of EMU requires a solid information system capable of yielding the necessary statistics in a timely fashion". It went on to say that "cross-country comparisons of the labour market and of labour costs will demand more attention in EMU". In particular, the report noted that priority should be given to three subjects: quick implementation of the continuous quarterly labour force survey regulation, the same for the short-term indicators regulation, and investigation into the possible need for a European Labour Price Index. Other recommendations of the EFC are not specific to labour market statistics, but have implications for them. These include, for example, measures for a better coverage of the service sector, measures to improve the timeliness of euro area statistics and measures to achieve a better convergence in important methodological questions, such as seasonal adjustments.

Regular follow-ups of the progress on this EFC report have been undertaken. These led in 2000 to the establishment of an Action Plan on EMU statistical requirements, which was developed by the ECB and the Commission. This report set out the highest country-specific priorities for work to be completed. The aim was in all cases the provision of timely euro area aggregate data. In the domain of labour market statistics three main results from this Action Plan will improve situation: the new time limit for introducing quarterly labour force surveys in the Member States; the new harmonised basis for labour cost indices; and the improvements to timeliness in the context of national accounts statistics covering quarterly data on employment, compensation and hours worked (for details see section 2).

[2] The requirements were not new and were first highlighted in 1996 by the European Monetary Institute (the forerunner of the European Central Bank), which noted, in particular, the need for data on labour demand and supply (employment, unemployment, vacancies and hours worked) as well as labour costs and earnings. An update of the ECB's requirements, including a more detailed section on requirements for accession countries, is in preparation.

[3] See http://ue.eu.int/emu/en/index.htm for a full text, and for all follow-up reports.

2. Euro area labour market data used by the ECB

The ECB currently has recourse to two main sources of labour market data – EU harmonised data, which is generally made available by Eurostat as a result of European Regulations and national definition data supplied by national sources.

2.1. EU harmonised labour market data

Eurostat currently supplies the ECB with several sets of harmonised labour market data, although it should be noted that the degree of comparability varies greatly and it is not always possible to gauge which is the "highest-quality" series.

(a) Harmonised unemployment data: This very important data set is available broken down by country, gender and youth and adult unemployment. The monthly data are collected under a gentleman's agreement, although the definition of unemployment is governed by an EU Regulation. Unfortunately, short-term information on unemployment by duration and by previous economic activity at branch level is not available from this source, but would be important for the ECB.

(b) Labour market data under the ESA 95 Regulation: The ECB is, for short-term analysis, mainly interested in the quarterly data of this Regulation. The quarterly level data on compensation and gross wages and salaries, employees and self-employed are relevant here. The data are also available for a breakdown by the six main industries of the economy. The EMU Action Plan stipulated that all of the quarterly labour market data under the ESA 95 Regulation should be made available 70 days after the end of the quarter. A Regulation extending the requirements to include compilation of data on hours worked is currently under discussion as a result of the Action Plan. Data on hours worked is particularly important for the ECB for international comparisons, because «per capita» employment measures disregard differences in the average working time per person employed, which may be due to different economic structures or preferences across countries.

(c) Continuous quarterly labour force survey: For many years the EU has conducted an annual labour force survey (LFS). The data available in this survey is a consistent and detailed examination of the full range of employment and unemployment data. However, the usefulness of the results of the survey for short-term analysis have until recently been severely hampered due to their low frequency and the significant lags in the data release. In 1998, a European Regulation[4] came into force which specifies that results of the survey be available at a quarterly frequency. The current expectation is that fully harmonised data for all EU countries from this source will come, at the earliest, in 2005. However, many countries already provide data. It is expected that by end-2003 all countries will have implemented the Regulation except Italy and Germany, who will provide proxy data instead. This will allow a proxy series for the euro area to be calculated. The importance of the LFS will further increase once fully harmonised and reliable euro area aggregates can be calculated from the data. Specifically, those quarterly variables that are business cycle-sensitive are the most important for the ECB. Current work aiming to reduce the number of variables collected on a continuous basis is therefore welcomed by the ECB in order to increase the quality of the data which is actually needed at quarterly intervals.

(d) Labour market data collected under the Short-Term Statistics (STS) Regulation: The STS Regulation, aimed at improving the comparability and coverage of the available short-term statistics was adopted on 19 May 1998[5]. Data covered from the labour market field includes: industry (number of employed, hours worked and gross wages and salaries), construction (same three breakdowns), retail trade and services (number employed). The data are required for the NACE 2 digit breakdown. The data will only be fully operational in 2003. Detailed information on the service sector will be especially important from this source. Data on this sector are generally poorly covered elsewhere. This is a severe gap in the statistics, considering that these sectors cover up to about 50% of total employment in EU countries.

(e) Hourly labour cost indices: Non-harmonised labour cost indices (LCI) data are collected from countries under a gentleman's agreement. After working with the data for some time it became apparent that har-

[4] COUNCIL REGULATION (EC) No. 577/98 of 9 March 1998 on the organisation of a labour force sample survey in the Community.

[5] COUNCIL REGULATION (EC) No. 1165/98 of 19 May 1998 concerning short-term statistics.

monisation was needed. The work on establishing a Regulation has been virtually completed and it is expected to be enacted in 2003. The currently available LCI is composed of gross wages and salaries, employers' social security contributions, and taxes net of subsidies connected with employment. It covers NACE sectors C-K. As such it is mainly a supplement to the ESA 95 National Accounts. The new Regulation is expected to seek ways to broaden the coverage (e.g. services) and provide more detail, therefore enhancing the uses which can be made of the data by the ECB.

The use of EU labour market statistics from different sources requires users to understand the relationships between these statistics and to define which indicators are used for which purpose. Overall, national accounts labour market data are expected to remain the benchmark and the main source of employment and compensation data for euro area analysis by the ECB. The data can also be combined in order to calculate important indicators used by the ECB, such as productivity and unit labour costs. EU labour force surveys will be the main source for detailed analysis of, in particular, the labour supply; short-term statistics produce very timely indicators of short-term developments in the economy, at a relatively high degree of breakdown by industrial branches; EU labour cost indices are expected to provide high- quality labour cost measures, with additional detail for labour cost components and for the industrial breakdown compared with national accounts aggregates.

Moreover, this mixing of different data underlines the importance of a common conceptual framework for labour market statistics. For this reason, the ECB is following with interest developments such as the labour accounting systems in some European countries. These approaches cover labour market variables which are also to be included in the national accounts, but go beyond this and form links with to the other sources mentioned before.

2.2. The new Principal European Economic Indicators

Under the aegis of the Statistical Programme Committee (SPC), a group of senior statisticians compared the European Statistical System with that of the United States. As a result of this work, a list of Principle European Economic Indicators (PEEI) was established and adopted by the SPC in September 2002. This list covers a broad range of economic indicators and sets out medium-term guidelines to improve European aggregate timeliness. A similar list of indicators has existed in the United States for many years. Labour market statistics included in the list are quarterly employment data to be released after 45 days, monthly unemployment rates after 30 days, labour cost indices after 70 days and a quarterly job vacancy index after 45 days. Each of these deadlines are expected to be met as from end-2003 with ongoing improvements for harmonisation thereafter. The ECB has supported and welcomed these developments.

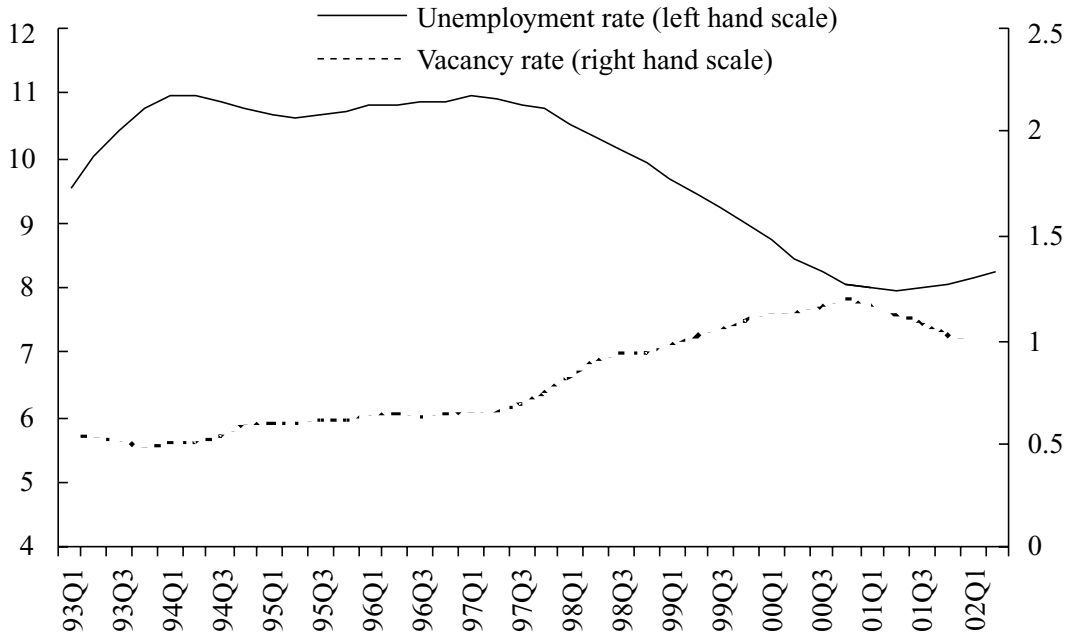
2.3 National labour market data

National labour market statistics play an important role for the ECB for mainly two reasons. First, national labour markets are still largely independent of one another and have certain national practices particular to each Member State. Therefore, in order to analyse national practices it is important to be able to supplement the harmonised data sets mentioned above with those available in each Member State and sometimes specific to one or some Member States (e.g. wage settlements, national public employment schemes). The second reason is that EU-wide and harmonised labour market data are not available for some important variables. It is therefore necessary to combine the non-harmonised information from the national sources to euro area estimates and to compare the developments across countries. One example of this, relating to job vacancies, is explained in the box below.[6]

[6] See «The information content of job vacancies in the euro area», ECB Monthly Bulletin, February 2002.

Combining national data - a vacancy indicator for the euro area

Job vacancies are seen as a cyclical indicator for the euro area – economic upturns are generally accompanied by an increase in the vacancy rate (i.e. vacancies as a percentage of the labour force). However, no harmonised data on job vacancies exist at a European level. The national definition data suffer from many conceptual differences which are relevant when aggregating to a euro area figure. These differences include the coverage of the national statistics (e.g. only jobs notified to job centres or a wider coverage), some countries having no vacancy data at all (the aggregate calculated covers only around 60% of the countries in the euro area) and the national definitions used for vacancies. Work is under way in Eurostat to produce a more harmonised set of vacancy statistics, which can only improve the data already available to the ECB. In the meantime, the indicator calculated from the non-harmonised data is a useful part of the toolkit for assessing euro area labour market developments.



3. The accession process and ECB requirements for labour market statistics for accession countries

This section first gives a broad overview of the current dialogue with the accession countries in the area of central banking[7]. It then describes, for the labour markets data set, the data required for analysis by the ECB.

3.1. Eurosystem dialogue with EU accession countries

The European System of Central Banks (ESCB) has for some time been monitoring the convergence process and, in its field of competence, is involved in the accession process. Upon accession to the European Union, the countries will join Economic and Monetary Union with the status of «countries with a derogation» and their central banks will become part of the ESCB. Once they have reached sustainable convergence on the basis of the Maastricht criteria, they would also adopt the euro and join the Eurosystem. The dialogue preparing for this is continuing at two levels with the accession countries; a policy dialogue is under way at board and management level, while more technical subjects are covered at expert level.

[7] See "The Eurosystem's dialogue with EU accession countries", ECB Monthly Bulletin, July 2002.

A wide range of policy and technical issues are being addressed in both the policy and technical spheres, of which among the most important are real macroeconomic convergence, inflation developments, monetary policy and exchange rate policy and, of course, central bank statistics.

3.2. Requirements for EU accession countries statistics

As can be seen from the previous section, both policy and technical discussions involve intensive use of statistical data. When they join the European Union, the accession countries are required to implement all EU Regulations, including those pertaining to statistics. The ECB's priorities are set out below.

As mentioned in previous sections, the ECB's main interest in the economic statistics of accession countries before their entry into the EU is to monitor the accession process and economic developments outside the euro area in general. For both purposes, and to provide at least some years of backdata when they join the EU, the comparability of data, and therefore the implementation of the main concepts set out in existing EU Regulations on statistics, is important.

Before accession, only aggregate key indicators are used by the ECB. Within the labour market statistics domain these relate, in particular, to unemployment rates; quarterly ESA 95 whole economy employment (broken down into employed and self-employed) and quarterly whole economy compensation of employees; derived measures from national accounts are productivity and unit labour costs. Once the appropriate regulatory framework is completed quarterly whole economy total labour cost indices (LCI) will also be an important variable.

After accession, economic and labour market statistics are required for three main purposes. First, a key set of macroeconomic convergence indicators is required for the regular assessment of convergence under Article 122(2) of the Treaty as reported in the ECB's Convergence Reports. Second, a broader set of statistics is used for monitoring economic development in these countries. All EU NCBs are members of the General Council of the ECB and participate in the Biannual Monetary Policy Co-ordination Exercise. Third, in general, the statistical requirements aim at similar standards in euro area countries and in those countries which may join the euro area at a later stage in order to ensure the smooth integration of statistics for these countries into the existing euro area statistical framework, including sufficient backdata (as a rule of thumb, starting in 1991).

Another issue, which needs careful planning and often a long lead time, is the technical preparation for data transmission to send data to Eurostat. Data not only need to be collected and published, but also transmitted in bulk via Eurostat to the ECB and other interested users. Problems in this area have in several cases contributed to delays and inaccuracies with euro area data. Considerable effort has been invested here – the issue is mentioned in the Action Plan – and much technical work has been undertaken by bodies such as the CMFB in order to make progress. It has been decided that in the medium term all data transmissions from NSIs to Eurostat and on to the ESCB will be conducted using a single message format (GESMES/CB) and identical coding. The EU accession countries are therefore also strongly encouraged to make preparations in this field prior to accession in order to ensure swift access for end-users to data once they become part of the EU.

4. Conclusions

Labour market data are important for the ECB in its role in maintaining price stability. The data used by the ECB for the euro area cover variables relating to employment, volume of work, unemployment, labour cost indices and various compensation and earnings indicators. Structural data is used for occasional detailed studies. The requirements for accession country labour market statistics before accession are for selected key variables, while after enlargement the same criteria as for current EU countries apply. From the ECB's point of view, quarterly labour market variables under ESA 95 (employment, employees, compensation), as well as standardised unemployment rates have the highest priority. In addition, national labour market indicators, such as vacancies or results of wage settlements, are and will remain important, and they may fill some gaps until fully harmonised results become available. It is important for the ECB that this set of key indicators for the labour market becomes available in good quality via Eurostat in the near future for all accession countries.

ASSESSING TRANSITION DEVELOPMENTS USING LABOUR FORCE SURVEYS

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Introduction

Almost thirteen years have gone by since the fall of the Iron Curtain in Central and Eastern Europe and the subsequent abandonment by countries in this area of planned economies in favour of market-driven ones. Over that period, labour markets have evolved significantly in these countries from a situation characterised by little to no unemployment, extensive labour-hoarding with accompanying low productivity, a higher-than-average concentration of employment in the primary sector and in manufacturing and a high participation of women in the work force.

The introduction of market economies in these countries initially created a certain amount of turbulence and uncertainty, which existing statistical infrastructures were ill-equipped to deal with. However, the labour force surveys implemented soon and successfully after the beginning of the transition in these countries have proven an invaluable data source in tracking the changes that were occurring and that have occurred. Because of these surveys, we know, for example, that the current situation in transition countries is generally characterised by a low incidence of part-time work, a continuing lower than average proportion of service sector jobs, high annual hours of work, a high incidence of long-term unemployment, relatively low worker mobility and a relatively low proportion of persons with high educational attainment in the labour force.

This paper starts (and ends) with the assumption that the labour force survey remains an exceedingly powerful vehicle for analysing the structure and the dynamics of the labour market. In some if not all countries, its main weakness is the lack of data on that fundamental economic and labour market statistic, namely earnings. One can of course bemoan the lack of information on labour costs, vacancies, and detailed sectoral data on employment (generally obtainable from establishment surveys or social security sources). However, no other data source is so comprehensive in its coverage (including family workers, the self-employed and even the potential of capturing at least a portion of the informal sector); incorporates the possibility of providing data on the family situation of persons who are employed, unemployed or inactive; can provide information on the dynamics of the labour market; and finally, has the potential to supplement the regular core collection with data of topical interest at marginal cost through supplementary surveys.

Thus this paper will not so much focus on what new data sources may or may not be needed (and financed), but rather on what sorts of statistics can be generated from the labour force survey that provide a particular insight into the transition process. As will be seen, the conclusions may not be entirely good news in that the statistics suggest rather slow changes to the structure of the labour market in transition countries and not very dynamic labour markets.

Changing labour markets

The term “transition economies” accurately transmits what anyone looking at labour markets in these countries believes is happening, namely that there are profound changes occurring. But what has been the extent of

change since the beginning of the transition and is the rate of change in labour markets important? How does the current sectoral and occupational structure of the work force compare with that in EU countries? Are the work forces in transition countries still adapting to market conditions or has the structure of the labour market stabilised? In addressing these questions, we will be looking at an array of traditional and perhaps not so traditional statistics. Labour force surveys are going to be the primary data source we will be using, because they are especially strong at describing the structure of labour markets and at tracking changes in this structure over time.

Employment and unemployment

We first set down the background by considering the basic results for employment and unemployment, which are generally known (Tables 1 and 2).[1] From the indications we have for the Czech Republic and Poland, the only countries for which we have data for 1989-1994, what was observed was a significant amount of labour shedding from 1989-1994 (almost 15% per cent in Poland) as these economies were exposed overnight to market forces, most of it occurring in the first two years of transition. We will not be saying any more than this on developments in the early years of transition, on what sectors, occupations or groups were affected by these changes. Rather our attention will be focussed on the recent past, on what has happened after the initial turbulent period, on the current situation and prospects for the future. It is likely that most persons would say that the transition is not yet completed, that the initial labour shedding was just the first step in a long process that will result in convergence to a true market economy. We will try to see to what extent this is the case.

So let us look as what has happened to employment and unemployment since 1994. As Tables 1 and 2 show, there has generally been a significant deterioration in the employment situation, with a concomitant increase in unemployment (the notable exception being Hungary), in particular since 1998, at a time when employment in the European Union has been increasing rather strongly. The declines in employment are not quite as large as those observed at the beginning of the transition, but they are nonetheless stronger than generally observed during an economic downturn.

A measure of structural change

Now these net changes mask a lot of the underlying change occurring, particularly with respect to the reallocation of labour resources across and indeed within sectors. We know that the former planned economies were production-oriented with a concentration of labour in the manufacturing sector and an undersupply of workers in the service sector. How has the situation changed since 1994? It is a simple matter to examine how the sectoral distribution of employment has changed, but what is needed is a summary measure which captures in a succinct fashion the overall labour market adjustment which has occurred.

Such a measure (generally known as the index of dissimilarity) can be constructed from labour force survey data by taking the absolute difference between the percentage of workers in a sector in 1994 and that in 2001, summing over all sectors and then dividing by two. This index varies between 0 and 1, 0 being the value it takes when there is no change in the sectoral distribution of employment, 1 when the sectors of departure disappear and are entirely replaced by new sectors. In practice, the index measures the hypothetical minimum amount of movement of workers across sectors that is required so that the distribution at time t becomes that at time t+1. In practice, of course, the change in the distribution observed does not necessarily reflect only the movement of workers, but could reflect as well the net effect of persons losing their jobs in certain sectors and withdrawing from the labour force, on the one hand, and of new entries (hires) into other sectors.

Chart 1 shows the result.[2] The picture is a mixed one. The Czech Republic has seen inter-sectoral movements that are low compared to the average of the EU countries shown, whereas Hungary, Poland and the Slovak Republic show overall sectoral employment change that is at the high end of what is observed for EU countries. Still the movements are not out of line with what one sees in certain "mature" market economies such as Ireland or the Netherlands. The movements are generally out of agriculture and into trade, financial and business

[1] Employment data for years prior to 1992 for the Czech Republic and Poland are from establishment surveys or administrative sources.

[2] The sectoral classification used was the 1-digit ISIC revision 2, this being the only one for which consistent data could be obtained over the entire 1994-2001 period. All data henceforth are from the Community Labour Force Survey or, for the transition countries, from national labour force survey data supplied to Eurostat.

services and community and personal services. Although the share of employment in manufacturing has declined (again except in Hungary), the fall has not been that large.

This overall result is somewhat surprising, because one might have been led to expect that the increasing exposure to market pressures over time would result in a stronger reallocation of resources from less to more productive sectors or firms. Following the early movements at the start of the transition, the inter-sectoral movements do not seem to be any more extensive than what one observes in a number of other EU countries. However, it is true that in OECD countries, most labour turnover occurs as a result of within-sector firm competition rather than reflecting movements of labour across sectors. Perhaps the major cross-sectoral movements occurred early and further reallocations have been, as in other OECD countries, taking place within sectors. We will be examining the extent of overall turnover in transition countries later in this note to assess the extent to which this is what is happening.

A second issue of interest is the extent to which the sectoral and occupational distributions of employment in transition countries resemble that in EU countries, after twelve years of exposure to market conditions. Here again a summary statistic would be useful. The index described above can be easily adapted to this end, if, as the reference statistic, one replaces the 1994 reading for each transition country by the average of the sectoral and of the occupational distributions, respectively, for EU countries in 2001. The index in this case would give a measure of the dissimilarity of the two distributions, that is, of the sectoral distribution for a transition country compared to the average distribution for EU countries.

Charts 2 and 3 provide the results. One observes, first of all, that there is considerable variation in the distribution of employment across sectors and occupations, even within the European Union, with Greece, Portugal and Sweden showing relatively large differences with the EU average and Austria relatively small ones. With the exception of Hungary, the transition countries tend to show rather large differences with the EU average in the distribution of employment by sector, attributable largely to a concentration of employment in manufacturing (and in Poland, in agriculture), in trade and in business and community and personal services. On the occupational front, transition countries tend to be "under-represented" in clerical occupations and "over-represented" in craft workers and plant and machine operators, which are of course occupations common in manufacturing.

Here again, one observes a number of EU countries that differ almost as much from the EU average as the transition countries, but generally for different reasons, Greece and Portugal largely because they continue to have a large agricultural sector (like Poland but unlike Hungary and the Czech and Slovak Republics), Sweden essentially because community and personal services are very prominent. It is difficult to say how much further transition economies will move down the road to "convergence" with EU countries. It is true that the latter term is a relative one. There are considerable differences across countries even within the EU, among countries that one would deem "mature" market economies. Germany has a higher proportion of workers in manufacturing than Hungary and Poland, Finland a lower proportion in trade, restaurants and hotels than the Czech Republic and Hungary. However, to the extent that the transition economies have not been fully exposed to the sort of secular trends that one has generally observed in OECD countries, namely a decline in agriculture and in manufacturing and an increase in services, the future undoubtedly holds more and significant movements in these directions for the transition economies, as they do for certain OECD countries.

Turnover measures – a view of labour market dynamics

We have seen above that the change in the sectoral distribution of employment from 1994-2001, although high in some transition countries, was nevertheless within the range of what was observed in EU countries.

In other words, the speed of cross-sectoral movements recently does not seem to have been any more rapid there than elsewhere, at least at the sectoral detail (1-digit ISIC) examined. What of overall movements in the labour market? For this we examine the current distribution of job tenures. In transition countries, we expect to see high proportions of persons whose jobs started in the early years of the transition, when there was considerable turbulence in labour markets in these countries. As we can see from Chart 4, the transition countries, with the exception of Poland, have the highest proportions of persons in 2001 with tenures between three and ten years, exceeding the comparable proportion in the United Kingdom, for example, by over ten percentage points, and by even more relative to other EU countries. On the other hand, data for recent years tend to show an almost complete reversal of this pattern in Hungary, Poland and the Slovak Republic, which now show hiring rates that

correspond to the lowest of what is seen in EU countries. The Czech Republic is somewhat of an exception to this, with hiring rates having stabilised at a level somewhat less than what is observed in what are considered to be the more "dynamic" labour markets in the European Union.

The data on unemployment durations tend to confirm this general picture of a less active labour market. Chart 5 shows that the percentage of persons with durations under three months in transition countries is at the low end of what one observes in EU countries and shows the largest drops in 2001 relative to what was observed in 1994. Now a high number of inflows into unemployment may seem like an odd statistics to be advancing as an indicator of labour market mobility, but it is generally the case that labour markets with high unemployment inflow rates are also those where the unemployed have an easier time finding employment and correspondingly, spend the least time unemployed.

Thus the overall picture in transition countries is one where the extent of structural change seems to have slowed down considerably and where mobility has settled down to levels that are typical of what one observes in EU labour markets of relatively low mobility. What does this imply regarding future employment growth prospects? Although there is a tendency for hiring within a country to be procyclical, that is, to move with the business cycle, any connection overall across EU countries between the hiring rate and the rate of employment growth appears to be a relatively weak one. However, if one restricts oneself to EU countries with relatively low turnover (Greece, Italy, Luxembourg, Belgium), it has been the case that none of these has had an employment performance over the last decade that compares with that of such high labour mobility countries as Spain, Ireland, Finland and the Netherlands.

To the extent that the process of structural change does imply the disappearance of certain types of jobs and the appearance of new ones, the low hiring rates that one observes currently in most transition countries suggests that a plateau of sorts has been reached and that further change and adjustment will be slow. It will also take on a somewhat different form, with a relatively lower probability of job loss among persons employed but also greater difficulty in leaving the ranks of the unemployed if job loss does occur. This is already evident in the high rates of long-term unemployment being observed in these countries.

Educational attainment as a skill measure

Human capital and skills have become the subject of considerable policy interest in recent years. Beyond the rhetoric about the "knowledge economy" and the "information age" lies a belief that the knowledge and skills of its population are among a country's most valuable assets, for fostering both economic and social development. Recently a number of empirical results have appeared in support of this. World Bank calculations of the wealth of nations have estimated the value of human resources to be about 70-80 per cent of total national wealth, in both developed and developing countries.[3] A recent OECD study of the determinants of economic growth estimated that an additional year of schooling resulted in a 6 per cent increase in GDP over time (OECD 2001). Many studies have demonstrated the social and non-market benefits of education (Wolfe and Haverman 2000[4]).

Labour force surveys have long collected information on the educational attainment of the working-age population. This information is generally collected in the form of the highest level or diploma completed, although some surveys allow for the specification of partial completion of studies at various levels. Educational attainment is a measure of the formal qualifications of individuals, often acquired before they reach their mid-twenties, although individuals may obtain or update their qualifications later in life. As a measure of skill, educational attainment is evidently flawed by its failure to take into account learning or training that takes place outside the formal education system or the contribution of experience to skill, nor does it recognise that skills can depreciate over time. On the other hand, attainment is generally a relatively straightforward data item to collect, except perhaps for persons educated abroad, since the diplomas or qualifications held are normally of common knowledge in a particular country and would tend to be known as well by other family members who might be called upon to report for the entire household. There is likely also less of a tendency for respondents to "inflate" their qualifications, as may sometime occur in the reporting of occupational titles or job duties.

[3] Human resources are determined residually after estimating the value of natural capital and produced assets. See http://www.worldbank.org/fandd/english/1296/articles/041296.htm.

[4] See http://www.hrdc-drhc.gc.ca/stratpol/arb/conferences/oecd/accounting.pdf.

It has generally been assumed that, although productivity levels in transition countries have been low, the high level of skills of the work force under appropriate economic conditions would reverse this. Indeed, among EU countries only Germany and the United Kingdom show, like the transition countries, over 80 per cent of the employed population having completed secondary education (see Chart 9). Secondary education in these countries, as in Germany and the United Kingdom, tends to be heavily concentrated in the vocational streams (over two thirds to three fourths).

However, attainment at the tertiary level in the transition countries has not been high, and it is generally considered that this level provides the impetus for innovation and productivity and is needed for participation in the "knowledge economy" of tomorrow. With Portugal, Italy and Austria, transition countries show the lowest levels of tertiary attainment among the employed that one observes in OECD countries. In particular, the non-university tertiary sector, which prepares young people for associate professional and technicians' occupations and that has been the object of significant growth in many EU countries, is largely absent in transition countries. Moreover, in Hungary and the Czech and Slovak Republics, tertiary attainment levels among the cohort of 30-34 year olds are showing little to no change relative to the older cohort of 35-44 year olds, at the same time as levels in quite a few EU countries where levels are already high continue to increase (Chart 6).

To offset this apparently gloomy picture, recent data on enrolment in tertiary education show relative increases from 1995 to 1999 in transition countries that are among the highest in Europe, albeit from a more modest base. And because there is much more room for improvement in educational attainment in transition countries, there is reason for a guarded optimism regarding future economic and employment growth that are generally associated with increasing national attainment levels.

Although such attainment levels, as measured by labour force surveys, do not take account of quality but only take account of the "quantity" of education received, even these crude measures have been sufficient to demonstrate impacts of increases in education on economic growth.

Summary and conclusion

This note has summarised a number of labour market developments in transition countries, using data from labour force surveys. Such surveys clearly do not provide a complete picture of labour markets in countries. In particular, they do not cover the demand side of the labour market (vacancies) nor do they provide information on labour costs, with the possible exception of earnings. However, they continue to be a rich source of data on labour market outcomes that generally are insufficiently exploited.

On the other hand, labour force surveys provide little if any information on policy interventions, such as the amount of unemployment insurance benefits (relative to salaries), subsidies for training, minimum wages, employment protection regulations, etc.. They were not of course designed for this, but it is clear that such information is needed to understand certain of the developments described in this note. We have seen that the period of rapid change in the structure of the labour markets in transition countries seems to be over and that labour markets have "settled down" to dynamics that are typical of the less mobile labour markets in the European Union. With unemployment rates in certain of these countries that are spiralling upward, these are worrisome developments. Mobility is of course not an end in itself, but it is generally associated with a more rapid recovery from adverse economic conditions. The question of interest in this context is whether the policy environment since the beginning of the transition has encouraged, unwittingly or not, the gradual evolution of the types of labour markets that are manifesting themselves in these countries.

Secondly, we have seen that transition countries show rather low levels of tertiary attainment relative to EU countries, although secondary attainment levels are high. This is cause for optimism, because there is considerable room for catch-up and because increases in educational attainment levels have been shown to be an important motor for economic growth. And with higher education levels may come the potential for greater mobility. Indeed higher attainment levels are generally associated with a higher incidence of continuing education and training and consequently, a better adaptability to changing work environments and economic conditions.

Table 1. Employment in the EU and in transition countries, 1989-2001 (1994=100).

	Czech Republic	Hungary	Poland	Slovak Republic	EU
1989	106.5		114.9		96.2
1990	101.4		110.0		98.4
1991	97.8		103.5		103.5
1992	99.1	108.8	102.6		102.3
1993	98.9	102.0	100.6		100.2
1994	100.0	100.0	100.0	100.0	100.0
1995	100.7	98.0	100.9	101.7	100.8
1996	100.9	97.2	101.9	105.4	101.4
1997	100.2	97.2	103.4	104.5	102.3
1998	98.8	98.6	104.6	104.7	104.2
1999	96.7	101.6	100.4	101.3	106.0
2000	96.0	102.6	98.8	99.7	107.8
2001	96.4	102.9	96.6	100.8	109.2

Table 2. Unemployment in the EU and in transition countries, 1990-2001 (1994=100)

	Czech Republic	Hungary	Poland	Slovak Republic	EU
1990	18				69
1991	100				77
1992	61	98	94		87
1993	100	115	98		96
1994	100	100	100	100	100
1995	94	92	92	97	97
1996	91	89	85	85	99
1997	112	77	78	89	98
1998	152	69	73	95	92
1999	205	63	97	125	85
2000	206	58	113	145	78
2001	190	52	128	152	71

Chart 1. Index of change in sectoral distribution of employment (1-digit ISIC REV. 2), 1994-2001.

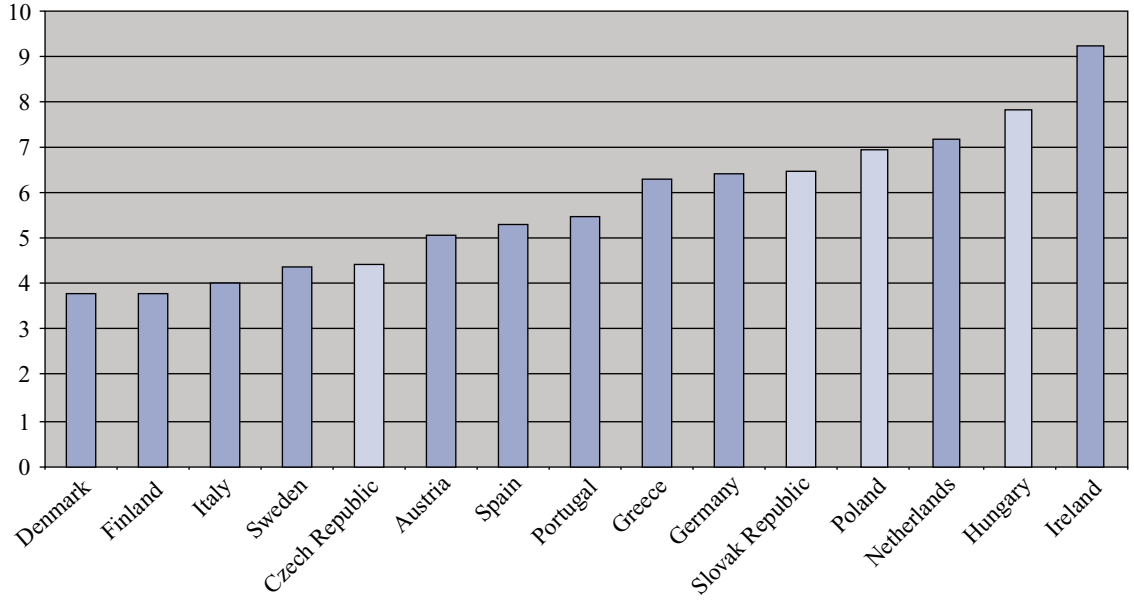


Chart 2. Index of difference in sectoral distribution of employment (1-digit ISIC Rev. 2) relative to mean of EU countries shown, 2001.

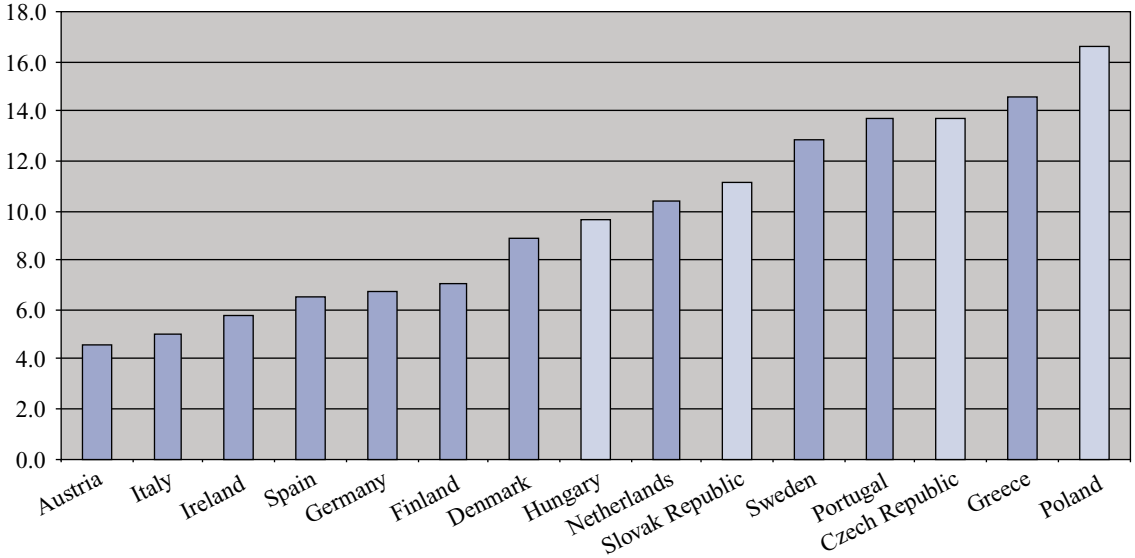


Chart 3. Index of difference in occupational distribution (ISCO 1-digit) relative to EU average, 2001.

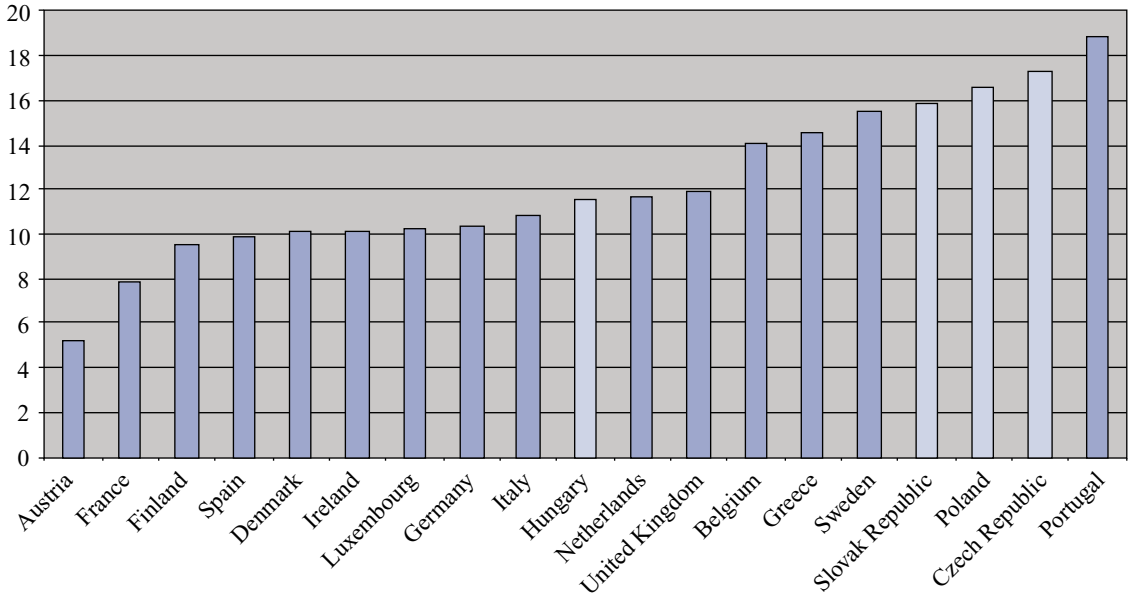


Chart 4. Percentage of employed persons with indicated job tenures, 2001.

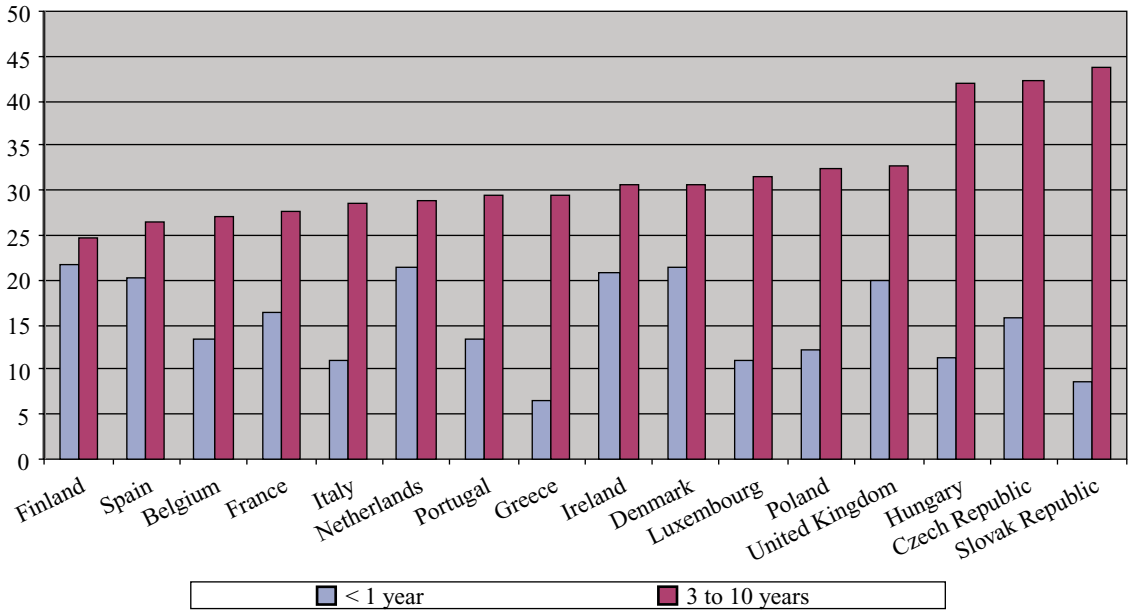


Chart 5. Percentage of persons unemployed less than three months, 1994 and 2001.

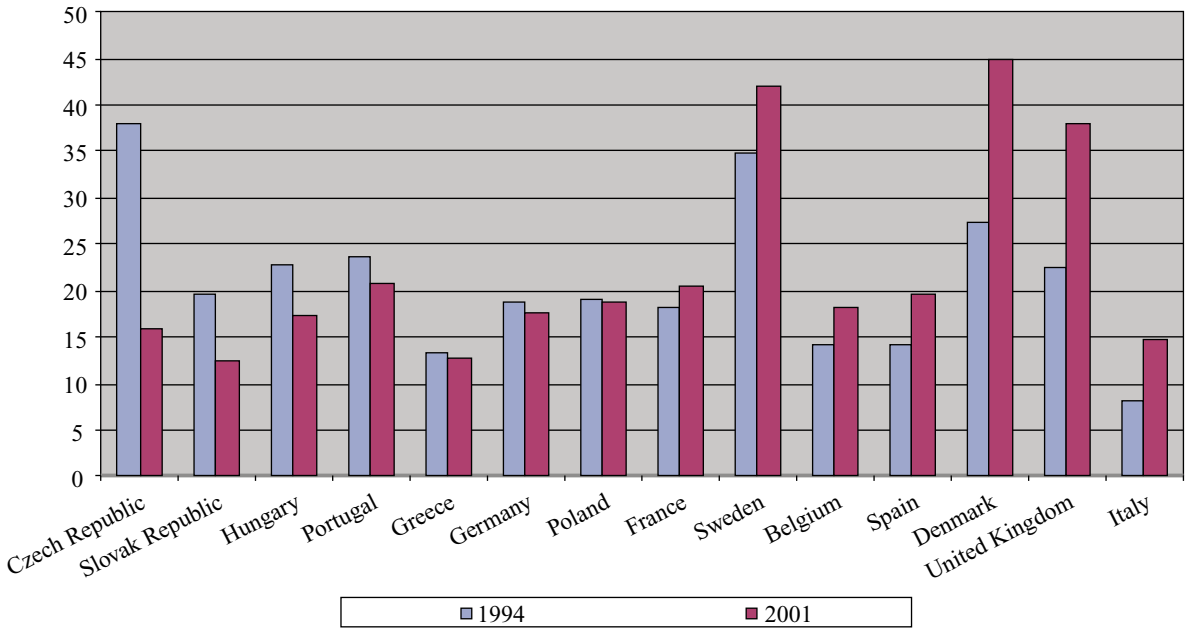
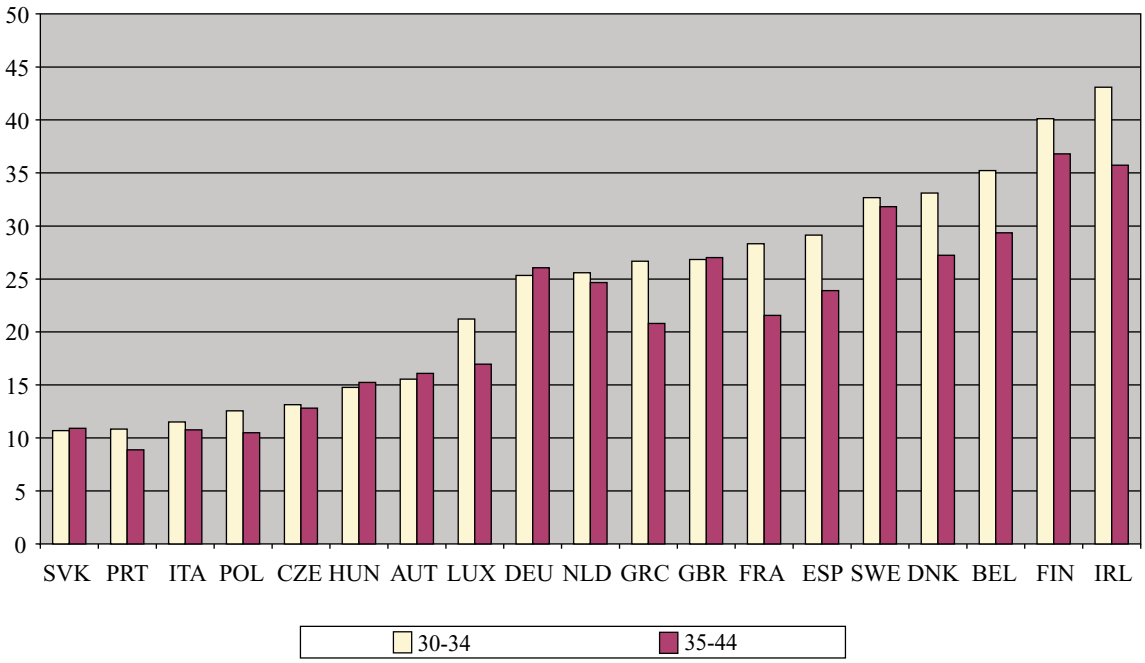


Chart 6. Tertiary educational attainment level, 30-34 and 35-44 year olds, 2000.



LFS IN THE CANDIDATE COUNTRIES

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Abstract

A Labour force survey is in general a household survey with the purpose of collecting information on labour market issues. All the sectors of the economy are covered and information is collected from the total population, not only from those economically actives.

The European Union Labour force survey is formed by putting together the National LFS using the same definitions, using common classifications, collecting the same characteristics and coding them according to a common scheme of codification. Data is then centrally processed by Eurostat. This procedure ensures a high degree of comparability of the results obtained.

Since 1983 a micro data database was built using the ILO definitions and recommendations for the classification of the population in employed, unemployed or inactive. Since 1998, the EU LFS has become progressively a quarterly continuous survey in the EU countries and in 2005 all EU and candidate countries will adopt this kind of survey. The list of variables has been adapted in order to answer to the policy needs and the possibility of having ad hoc modules on labour market issues (introduced in 1998) has considerably increased the flexibility and the potential of information of the EU LFS.

In the candidate countries, most of the information on labour market was produced based on administrative sources and it was only in the early nineties that Labour force surveys were implemented in most of these countries. These surveys were designed already following closely the EU definitions, recommendations and classifications which ensures a good comparability between their results and those obtained in the EU countries. Most of these countries have launched continuous surveys providing quarterly results and those which have not done it yet, foreseen it in a close future.

LFS micro data is available in Eurostat since 1996 for Hungary and Slovenia, and since 2000, almost all of the candidate countries, except Turkey are regularly providing data.

Data should be provided 12 weeks after the end of the reference period and most of the candidate countries respect this delay.

The first data deliveries from these countries were somehow incomplete and though the main variables were provided, a certain number of variables were not covered by the national questionnaires. Progressively, this problems have been solved and most of the countries are now delivering the totality of the EU variables. The most problematic variables were those related with the composition of the household, the participation in education or training during the last 4 weeks, the atypical work and the use of the EU classifications, being the regional classification the most difficult to implement.

These countries are equally including the EU ad hoc modules in their data collection and only Poland and Cyprus have not yet participated in any ad hoc module.

The employment policies are now in the heart of the European Union policies and the Labour force survey is the tool recognised to be one of the most appropriated for the follow up of these policies. Most of the performance indicators (indicators used for the assessment of the progress made in the implementation of the European Employment Strategy) are calculated using the LFS results and 7 from the 35 so-called "Structural indicators" come equally from these survey. Most of these indicators can be calculated for the candidate countries and the results are comparable with those from the EU countries. Most of the still existing problems with these indicators will be hopefully solved when the 2002 LFS results will be available.

1. The EU Labour force survey

1.1. What is an LFS, advantages in relation to administrative sources

A labour force survey is an inquiry directed to households designed to obtain information on the labour market and related issues by means of personal interviews.

There are a number of advantages in using an approach of this kind in collecting labour market information. In the first place it affords the opportunity to obtain information on relevant labour market aspects across all sectors of the economy in a consistent manner. It also facilitates the interpretation of the information in a wider population setting, since the information collected need not necessarily be confined to persons in the labour force (i.e. those employed or unemployed), but can involve all other persons in the households covered. In current labour market circumstances this is an important additional dimension as analysis is increasingly concerned with those on the peripheries of the labour market.

The wider coverage associated with labour force surveys also allows the possibility of assessing labour market effects in a household or family context. This is important if, for example, one wishes to measure the extent to which persons other than those directly involved (e.g. spouses, other dependants, etc.) are affected by the circumstances of unemployment.

Another advantage of a labour force survey is that it affords the opportunity to define certain labour market characteristics not normally available from other statistical sources. Thus, for example, it is possible to identify the degree of employment engaged in by an individual in terms of the hours worked, or attempt to conceptualise unemployment in terms of aspects such as job search and availability for work. This is important because of the advantages it confers in being able to define certain labour market entities in a more meaningful way. Additionally, because the definitions used to measure these entities are the same for each country, comparability between countries is guaranteed for certain estimates. This aspect is clearly of considerable importance in the context of the European Union.

There are, however, some limitations which apply to labour force surveys. Cost considerations place a constraint on the overall household sample size and the resultant sampling variability limits the level of detail that can reasonably be shown. Thus, for example, while the labour force survey can be used to compile estimates of employment across economic sectors, it cannot be expected to yield reliable figures at a detailed level of regional disaggregation, nor for individual small industrial or commercial subsectors. The sampling base on which such estimates would depend would be too small, and the degree of variability correspondingly high. For the same reason, there is also a limit to what can be achieved with labour force surveys in monitoring trends over time (in employment and unemployment, for example), especially if the movements involved are relatively small.

It is appropriate at this point to refer briefly to other sources of statistical information so that the position of the labour force survey in an overall statistical perspective can be more clearly understood. The other principal sources of labour market information are:

(a) surveys of enterprises

(b) administrative records.

The former source clearly has the potential for providing detailed estimates of employment for individual sectors (and in fact this is done in many countries). However, such a source is clearly restricted to a consideration of those with jobs and cannot provide any information on the unemployed, nor other persons outside the labour force but who may have an attachment to it. Such surveys can, however, be used to obtain information, not only

in relation to employment, but also to output, earnings and hours worked. The simultaneous collection of consistent data on employment and output makes it possible to compile indicators of productivity. Indeed, the derivation of output-type information is usually the main purpose of enterprise-based surveys. Many countries, for example, carry out detailed quarterly or monthly inquiries of the industrial sector which provide consistent information on output, earnings, employment and other related aspects.

Administrative records – in this case mainly social insurance records and population registers, which are widely used in Denmark, Sweden and Finland – can also be used to provide indicators of the levels of employment and unemployment. A prerequisite, however, is that the administrative arrangements should specifically cater for the extraction of the relevant statistics. While this source involves relatively less expense than information derived from either enterprise or household surveys, it suffers from a significant disadvantage in that the underlying systems are based on social welfare or other administrative provisions which do not necessarily accord with the accepted conventions for defining employment and unemployment. Furthermore, if these arrangements are changed (and experience indicates that they frequently are), discontinuity invariably arises in the data. A disadvantage of even greater relevance in an international or EU context is the fact that the social insurance systems in question vary greatly from country to country, both in terms of their design and in the manner of their implementation. This renders the derived information virtually useless in the context of making comparisons between countries, especially in absolute terms. Such sources can, however, provide a reasonable basis for monitoring short-term (i.e. monthly, quarterly, etc.) trends, the most notable in this regard being the various national series on the registered unemployed.

To summarise, therefore, the principal advantages associated with labour force surveys relate to

(1) the opportunity of obtaining comprehensive information (at less cost than a census) across the entire economy, which can be assessed in a global setting embracing society as a whole;

(2) the inherent flexibility of such surveys, which makes it possible to define or conceptualise not only employment and unemployment, but also the circumstances surrounding other groups outside or on the margins of the labour force.

This latter feature (i.e. the facility to conceptualise or define) has assumed greater importance in recent years because of the manner in which labour markets and society have generally evolved, and in view of the growing need to view labour market phenomena in an international context. It must be recognised, however, that the sampling aspect associated with labour force surveys places a limitation on the level of detail possible when analysing the results.

1.2. What is the European Union Labour force survey?

The EU Labour force survey is formed by putting together the 15 national LFS conducted by the Member States. Perfect comparability among 15 countries is difficult to achieve, even were it to be by means of a single direct survey, i.e. a survey carried out at the same time, using the same questionnaire and a single method of recording.

Nevertheless, the degree of comparability of the EU Labour Force Survey results is considerably higher than that of any other existing set of statistics on employment or unemployment available for Member States. This is due to:

(a) the recording of the same set of characteristics in each country;

(b) a close correspondence between the EU list of questions and the national questionnaires;

(c) the use of the same definitions for all countries;

(d) the use of common classifications (e.g. NACE for economic activity);

(e) Eurostat is centrally processing the data.

The EU Labour Force Survey, although subject to the constraints of the EU's statistical requirements, is a joint effort by Member States to co-ordinate their national employment surveys, which must serve their own national requirements. Therefore, in spite of the close co-ordination between the national statistical institutes and Eurostat, there inevitably remain some differences in the survey from country to country.

The national statistical institutes are responsible for selecting the sample, preparing the questionnaires, conducting the direct interviews among households, and forwarding the results to Eurostat in accordance with the common coding scheme. Eurostat checks the results and is responsible for processing and disseminating the information sent by the national statistical institutes as well as the calculation of EU totals.

Each Member State in the national language or languages, taking into account the stipulations made in the Regulation draws up the questionnaires. For every survey characteristic listed in the Regulation, a question or series of questions exists in each questionnaire to permit this information to be supplied to Eurostat. Otherwise the information is imputed from other sources such as population registers. The questionnaires may also contain other questions that do not relate to the list of characteristics in the Regulation, but rather reflect an interest in the topic concerned at national level. Based on the sample design the figures obtained from the sample survey are expanded to population levels, usually on the basis of grossing-up factors derived from the most recent census of population, suitably adjusted to take account of recent changes which may have occurred since that census or from the population registers when they are available.

The design of the sample is subject to certain constraints imposed in the Regulation concerning the required level of statistical reliability and representativity both at NUTS II regional level and regarding changes between two consecutive quarters. Within these constraints each Member State draws up its own sample design and carries out the interviews.

1.3. The story so far

1960-1973 - The first attempt to carry out a labour force survey covering the then European Community was made in 1960 with the six original Member States (Belgium, Germany, France, Italy, Luxembourg and the Netherlands). This was regarded largely as an experiment and was not repeated until 1968, when the first of a series of annual surveys took place.

1973-1981 - With the first enlargement of the European Community in 1973, a series of biennial surveys was initiated.

1983-1991 - The definitions used in these early surveys were necessarily somewhat imprecise, due to the lack of an internationally accepted terminology. This gap was filled in 1982 when the Thirteenth International Conference of Labour Statisticians, convened at Geneva by the International Labour Organisation, passed a Resolution concerning statistics of the economically active population, employment, unemployment and underemployment, containing exact definitions of the various categories of the population which labour force surveys were designed to measure. The Member States of the then European Community agreed to apply these recommendations in a new series of Community Labour Force Surveys that would be conducted annually. During the course of this series, a substantial and coherent database of labour market information comprising microdata (individual observations) was built up.

1992-1997 - The survey continued to be conducted annually, but for the first time a criterion of statistical reliability at regional level was introduced. The list of variables covered was revised, so as to include topics relevant to the Single Market (such as labour mobility across national boundaries), innovative working patterns (working at home, second jobs or other economic activity outside the traditional forty-hour week) and recent developments in the area of education and vocational training. The questions relating to job-search were revised so as to underpin the commitment to the ILO recommendations, particularly by implementing the distinction between active and non-active methods of seeking work. The continued commitment to the ILO recommendations ensured a high degree of comparability between the results obtained from this series and those from the surveys between 1983 and 1991. A single permanent regulation replaced the previous annual regulations.

1998- … - In the mid-1990s, the data needs were re-examined and the following requirements were identified:

- Recent data on employment growth for evaluating policy measures and for determining labour market policies;
- An annual average estimate of employed persons taking into account the seasonal pattern in employment (holiday jobs, jobs in the agriculture, etc).
- Measurement of the annual volume of employment taking into account changes in the patterns of part-time working;

- A better understanding of the relationships between wages and specific types of employment and the intermediate situations between full-time employment and unemployment (in particular visible underemployment);
- Information about labour participation within a household based upon better data on the composition of the household;
- Comparable monthly unemployment rates depending less on the auxiliary data from unemployment registers and more on the quarterly results of the labour force survey.

To some extent, the national demands for statistical information from the labour force survey had resulted in the adaptation of the labour force survey design. Some Member States were planning to implement more frequent surveys (a quarterly survey with repeated interviews was already conducted in several countries). Unfortunately, these national initiatives were not always taken in the same direction, which resulted in a divergent set of national survey designs.

To assure a convergence of the designs, it was necessary to agree upon a common framework of reference, to form the basis for the future progress. So after four years of discussions with the Member States a new Regulation was adopted which defines a target continuous survey while allowing the Member States the possibility of conducting only an annual survey in the spring if they are not in a position to implement a continuous survey.

This new Regulation was adopted by the Council and was published in the Official Journal with the number 577/98. Another council regulation that will be adopted soon stipulates that the transition period for the passage to a continuous survey should take place before 2003.

2. Labour Force Survey in the candidate countries

2.1. Labour Force Survey is a recent tool in the candidate countries

The notion of obtaining information on the work force by means of household-based inquiries is not in any sense new. Questions on the concept of possessing a «gainful occupation» were introduced in censuses of population in some countries during the latter half of the last century. However, at that stage no questions were asked in regard to what is termed a person's «economic status», i.e. whether at work, unemployed or economically inactive. Indeed, at that stage such a notion was hardly even conceived. However, the advancing trend of industrialisation and the resultant restructuring of society created a need for new approaches, and for more sophistication in measuring labour market phenomena. The situation became particularly urgent with the advent of mass unemployment in the 1930's following the Great Depression. Whatever the uncertainties that may have previously existed regarding the need to conceptualise or measure unemployment were dispelled by the sheer fact of millions in a state of enforced idleness. There was now a clear need to have regular information on the level and trend of employment and unemployment. The first labour force survey was introduced in the United States in 1940 (on a monthly basis) with a new conceptual framework designed to provide information on relevant labour market characteristics.

The movement towards the use of labour force surveys was somewhat slower in Europe. While the intervention of the war years contributed to this, it was also due to the existence of alternative sources of information which provided at least a partial insight into aspects of the labour force. Virtually all Western European countries maintained comprehensive unemployment registers (for the purpose of dispensing unemployment compensation) which, despite their disadvantages, provided a rudimentary basis for monitoring unemployment trends. However, in time, as the need to take a more global view of the labour market became apparent, different European countries began to initiate labour force surveys. The first European country to carry out a labour force survey was France in 1950. Further such inquiries were conducted in France throughout the subsequent decade and these evolved into a regular consistent series in the early 1960s. After an extended period of preparation, the Federal Republic of Germany initiated an annual series of labour force surveys in 1957 (the *Mikrozensus*). Sweden conducted its first labour force survey in 1959 and, after further experimentation, initiated a quarterly series in 1963.

In the candidate countries most of the information on labour market statistics was produced based on administrative sources and the first Labour force surveys were only conducted in the early nineties (see table 1). One advantage of this late start is that these countries have designed their surveys integrating other countries experiences and taking into account most of the Eurostat recommendations and legislation on the subject.

Table 1: Date of first LFS in the candidate countries

	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SL	SI
1st survey	1993	1999	1992	1995	1992	1995	1995	2000	1992	1994	1993	1993

Turkey is also conducting a LFS but their actual statistical law do not allow the transmission of micro data to Eurostat. A draft of a new law has been produced and Eurostat expects to start receiving LFS individual data from 2003 onwards.

2.2. Characteristics of the LFS in the candidate countries

Regulation 577/98 on the organisation of a LFS in the EU stipulates that the survey should be continuous providing quarterly results.

In 2002, 11 of the 12 candidate countries providing LFS data to Eurostat have quarterly surveys. Cyprus is the only country still having an annual survey conducted in Spring.

In Cyprus, Czech Republic, Estonia, Poland, Romania and Slovakia the survey is continuous which means that the reference weeks are spread uniformly throughout the whole year (quarter in the case of Cyprus). In Latvia, in all the reference weeks a part of the sample is interviewed though there is no uniformity in the distribution of these interviews.

Bulgaria, Lithuania and Slovenia have a single week of reference for the whole quarter and Hungary have a single week of reference per month.

The following table gives a very general picture of some of the characteristics of the LFS in the candidate countries in 2001:

Table 2: Characteristics of the LFS in the candidate countries in 2001

	Sample unit	Base used for the sample	Overall sample rate	Variables used for stratification	Data collection methods	% of proxy interviews
BG	Household	Population Census	0.82%	Degree of urb. region	Face to face (paper / pencil)	35%
CY	Dwellings	Population Census	1.6%	Degree of urb. region	CAPI	43.4%
CZ	Dwellings	Register of census areas		Region	CAPI + CATI	60%
EE	Household	Population Register	1.6%	Region	Face to face (paper / pencil)	15%
HU	Dwellings	address register based on the 1990 census	0.9%	Degree of urb. region	Face to face (paper / pencil)	33%
LV	Household	Population census	0.3%	Degree of urb. region	Face to face (paper / pencil)	64.5%
LT	Household	Population Register	0.4%		Face-to-face and telephone interviews (paper/pencil)	39.3%
MT	Household	Electoral register	2%	Region	Face to face (paper / pencil)	45%
PL						
RO	PSU = area USU= dwelling	Multifunctional Sample of Territorial Areas	2%	Degree of urbanisation	Face to face (paper / pencil)	27.3%
SK						
SI	Household	Population Register	1%	Region	CAPI + CATI	63.1%

2.3. Availability of the data

Though a certain number of candidate countries have started conducting LFS in the begin of the nineties, the first of these countries to provide microdata according to the EU format and recommendations were Hungary and Slovenia in 1996.

Table 3 shows the availability of the data for these countries by the end of August 2002.

Table 3: Availability of the LFS data for the candidate countries

Reference year/quarter	BG	CY	CZ	EE	HU	LV	LT	MT	PL	RO	SK	SI
1996Q2					X							X
1997Q2			X	X	X							X
1998Q1			X									
1998Q2			X	X	X	X	X		X	X		X
1998Q3			X									
1998Q4			X									
1999Q1			X		X					X	X	X
1999Q2		X	X	X	X	X	X		X	X	X	X
1999Q3			X		X					X	X	X
1999Q4			X		X					X	X	X
2000Q1	X		X	X	X					X	X	X
2000Q2	X	X	X	X	X	X	X	X	X	X	X	X
2000Q3	X		X	X	X				X	X	X	X
2000Q4	X		X	X	X				X	X	X	X
2001Q1	X		X	X	X				X	X	X	X
2001Q2	X	X	X	X	X	X	X		X	X	X	X
2001Q3	X		X	X	X				X	X	X	X
2001Q4	X		X	X	X				X	X	X	X
2002Q1	X		X	X	X	X				X	X	

2.4. Delays for the data transmission

Most users want up-to-date figures, which are published frequently and on time at pre-established dates.

The 577/98 regulation stipulates that for countries with a continuous quarterly survey, data should be forward to Eurostat within 12 weeks after the end of the reference period. For countries still having an yearly survey data should be forward to Eurostat within 9 months of the end of the reference period.

Nevertheless, the countries do not always respect this delay, though progress has been observed in the successive data transmissions during the last years. It should also be noted that the introduction of a quarterly survey causes some extra delays in the first data transmissions. After a period of adaptation the delays tend to be reduced. In most of the cases the delays are better respected by Candidate countries than EU Member States. The following table shows the respect of the delays for the 4 quarters of 2001.

Table 4 : 2001 data transmission

Country	Quarter	Expected date	Date of arrival	Delay in months
BG	Q1	6/2001	11/2001	+5
	Q2	9/2001	1/2002	+4
	Q3	12/2001	3/2002	+3
	Q4	3/2002	4/2002	+1
CY	Q2	2/2002	2/2002	0
CZ	Q1	6/2001	6/2001	0
	Q2	9/2001	8/2001	-1
	Q3	12/2001	1/2002	+1
		3/2002	3/2002	0
HU	Q1	6/2001	9/2001	+3
	Q2	9/2001	9/2001	0
	Q3	12/2001	11/2001	-1
	Q4	3/2002	4/2002	+1
EE	Q1	6/2001	7/2001	+1
	Q2	9/2001	9/2001	0
	Q3	12/2001	12/2001	0
	Q4	3/2002	3/2002	0
PL	Q1	6/2001	1/2002	+6
	Q2	9/2001	12/2001	+3
	Q3	12/2001	1/2002	+1
	Q4	3/2002	8/2002	+5
LV	Q2	2/2002	1/2002	-1
LT	Q2	2/2002	12/2001	-2
RO	Q1	6/2001	8/2001	+2
	Q2	9/2001	11/2001	+2
	Q3	12/2001	12/2001	0
	Q4	3/2002	3/2002	0
SI	Q1	6/2001	9/2001	+3
	Q2	9/2001	9/2001	0
	Q3	12/2001	12/2001	0
	Q4	3/2002	5/2002	+2
SK	Q1	6/2001	12/2001	+6
	Q2	9/2001	12/2001	+3
	Q3	12/2001	1/2002	+1
	Q4	3/2002	3/2002	0

2.5. Variables not covered and problematic variables

None of the candidate countries cover the whole list of variables though considerable progress have been made since the previous years for some of these countries. The most important still missing variables relate to household composition, participation in education and training and atypical work (shift work, night work evening work, Saturday work, Sunday work). Most of the countries engaged themselves to cover the whole list of variables in 2002. In Poland it will be in 2004 with the introduction of a computer assisted data collection (CAPI).

The main classifications are covered by the majority of the countries:

- NACE (classification on the economic activities) should be provided at 2 digits level. From 2001 the provision at 3 digits level is requested but not compulsory. NACE at 2 digits was provided by most of the countries except Poland which provides only this classification at 1 digit level. This problem will be solved in 2004
- ISCO (classification of occupations) should be provided at 3 digits level. From 2001 the provision at 4 digits level is requested but not compulsory. ISCO at 3 digits was provided by most of the countries except Romania which provides only this classification at 1 digit level and Latvia and Lithuania which doesn't provide any information on occupation. These problems will be solved in 2002.

In 2001 ISCO coded at 4 digit level has been provided by Czech Rep., Estonia, Hungary, Lithuania and Slovenia.

- ISCED (classification on the levels of education) - All countries are providing now this information
- The Regional classification was a problematic one in most of the countries. Now, all the countries having a regional classification equivalent to NUTS 2 are providing this data but this was the case only since 2001 for Czech Rep. and Romania and since 2000 for the remaining countries.

In 2001 a considerable break in the unemployment figures can be noticed in Bulgaria. This is mainly due to the fact that the questionnaire was changed, the sample frame has used for the first time the preliminary results of the 2001 census and the weights were also calculated using these census results.

2.6. Ad hoc modules

Regulation 577/98 lays down that *ad hoc* modules (on subjects concerning the labour market) may be added to the main questionnaire in an agreed quarter.

This was a considerable improvement in terms of covering the needs of the users in a relatively short delay and gives a big flexibility to the survey. These modules are limited in size and they should not exceed 11 variables.

The subjects covered until now were:

1999 Accidents at work and occupational diseases

2000 Transition from school to work

2001 Length and patterns of working time

2002 Employment of disabled persons

Only Hungary has participated in the 1999 ad hoc module. Czech republic, Hungary, Latvia, Lithuania, Romania Slovenia and Slovakia have already participated in the 2000 module and the same plus Estonia and Malta have participated in the 2001 one.

3. LFS becomes an indispensable tool for policy monitoring

The issue of employment took an increasing important political profile within the European Union in the last years and employment statistics are now in the heart of the European Union policies.

An employment chapter was introduced in the Amsterdam Treaty in 1997 and in the extraordinary European Council of Luxembourg in November 1997, the heads of state of the 15 EU Member States endorsed an ambitious European employment strategy. This strategy is centred on four broad pillars:

- improving employability,
- developing entrepreneurship,

- encouraging adaptability and

- strengthening the policies on equal opportunities.

For each of these pillars some indicators, both qualitative and quantitative, were defined as being key to monitoring the achievement of a set of political objectives, the so-called employment guidelines.

Member States have committed themselves to pursue this European Employment Strategy by implementing yearly Employment Policy Guidelines and the process of employment policy co-ordination as laid down in Article 128 of the Amsterdam Treaty. The cornerstones of this process are the National Action plans, where the European Employment Policy Guidelines, adopted by the Council, are translated into national policies, the Joint Employment Report, where progress in implementing the strategy is annually assessed, and the recommendations providing guidance for Member States' policies and structural reforms. Most of the performance indicators used come from the LFS (Employment rate, Full-time equivalent employment rate, Total unemployment rate, Youth unemployment ratio, Long-term unemployment rate). If the present rate of progress of the negotiations and reforms in the candidate countries is maintained, ten countries (CY, CZ, EE, HU, LV, LT, MT, PO, SK and SI) would be Member States in 2004 and it will be necessary to ensure that the employment policies can be monitored in the same way as in the other countries.

Furthermore, at the Lisbon Special European Council, the Union set itself the *"strategic goal for the next decade: to become the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion"*

The Council acknowledged the need to regularly discuss and assess progress made in achieving this goal on the basis of commonly agreed structural indicators.

The Structural Indicators are 35 indicators which are nearly exclusively compiled on an annual base and from these 35 indicators, 7 come from the LFS ("Total employment rate", "employment rate of workers aged 55 to 64 years old", "unemployment rate", "life-long learning", "jobless households", "early school-leavers not in further education or training" and "long term unemployment").

The challenge ahead for the Candidate Countries is that, following the Presidency conclusions of the Gothenburg European Council in June 2001, the annual synthesis report will start from Spring 2003 onwards to cover the Candidate Countries. Thus this data should be available from these countries.

The following tables show the structural indicators for the candidate countries and the total for EU 15. Most of the data is available and do not put major problems of quality or comparability with the EU countries

The main problem is the lack of long time series. As it was mentioned before, the LFS microdata have been provided only since 1996, and for some countries only since 2000.

Some indicators could not be calculated for certain countries, due to the fact that data is not collected for some of the variables. This is the case for "Life-long learning" and "Early school leavers" where the information on the "participation on education during the 4 weeks preceding the week of reference" was not collected in Czech Republic, Latvia and the Slovak Republic. In 2002 the question was already included in these countries' questionnaires.

In Bulgaria, the question was asked for the first time in 2001 but results appeared to lack accuracy. Data should be available from 2002 after a redesign of the question in the 2002 questionnaire.

Unemployment rates show a break in the time series in 2001 for Bulgaria. The explanation of the break can be found in point 2.5.

Still due to the fact that participation in education is not asked in Czech Republic, Latvia and the Slovak Republic, in the calculation of the indicator "jobless households", the exclusion of households on the basis of participation to education and training can not yet be applied and this implies slight comparability problems in the three countries. Comparability should be achieved for 2002 results.

For the same indicator, In Poland, no data is available due to the lack of household identifier in the 1998-2001 micro data transmitted to Eurostat. Eurostat is in contact with the Polish NSI to solve this technical issue.

Employed persons aged 15-64 as a share of the total population aged 15-64

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
EU15	62.2	61.1	60.0	59.7	59.9	60.1	60.5	61.2	62.3	63.2	64.0
BG	:	:	:	:	:	:	:	:	:	51.5	50.7
CY	:	:	:	:	:	:	:	:	64.2	65.5	67.9
CZ	:	:	:	:	:	:	68.6	67.5	65.6	64.9	65.0
EE	:	:	:	:	:	:	64.9	65.3	62.0	60.6	61.1
HU	:	:	:	:	:	52.0	52.0	53.2	55.4	55.9	56.3
LT	:	:	:	:	:	:	:	62.9	65.0	60.1	58.6
LV	:	:	:	:	:	:	:	58.6	59.4	57.7	58.9
PL	:	:	:	:	:	:	58.8	59.2	57.5	55.1	53.8
RO	:	:	:	:	:	:	67.2	65.9	65.0	64.2	63.3
SI	:	:	:	:	:	61.7	62.8	63.5	62.5	62.7	63.6
SK	:	:	:	:	:	:	:	:	58.0	56.3	56.7

Source: European Union countries: Eurostat - Comparable estimated based on the Labour Force Survey
Source: Candidate countries: Eurostat - Labour Force Survey - Spring data

Employed persons aged 15-64 as a share of the total population aged 15-64, Females

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
EU15	50.2	49.8	49.3	49.3	49.7	50.1	50.6	51.5	52.8	54	54.9
BG	:	:	:	:	:	:	:	:	:	47.2	47.9
CY	:	:	:	:	:	:	:	:	50.2	52.5	56.5
CZ	:	:	:	:	:	:	60.2	58.9	57.4	56.8	57.0
EE	:	:	:	:	:	:	60.6	60.7	58.0	57.1	56.9
HU	:	:	:	:	:	45.1	44.8	46.8	48.8	49.4	49.6
LT	:	:	:	:	:	:	:	58.5	61.4	58.5	57.4
LV	:	:	:	:	:	:	:	54.2	54.1	53.5	56.1
PL	:	:	:	:	:	:	51.6	52.2	51.6	49.3	48.4
RO	:	:	:	:	:	:	61.1	60.1	59.7	59.0	58.2
SI	:	:	:	:	:	57.5	58.4	59.5	58.1	58.5	58.6
SK	:	:	:	:	:	:	:	:	52.1	51.1	51.8

Source: European Union countries: Eurostat - Comparable estimated based on the Labour Force Survey
Source: Candidate countries: Eurostat - Labour Force Survey - Spring data

Employed persons aged 15-64 as a share of the total population aged 15-64, Males

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
EU15	74.3	72.5	70.7	70.1	70.2	70.1	70.3	71.0	71.7	72.5	73.0
BG	:	:	:	:	:	:	:	:	:	56.1	53.6
CY	:	:	:	:	:	:	:	:	78.7	78.9	79.7
CZ	:	:	:	:	:	:	77.1	76.1	74.0	73.1	73.2
EE	:	:	:	:	:	:	69.7	70.3	66.3	64.3	65.6
HU	:	:	:	:	:	59.4	59.6	60.0	62.4	62.7	63.3
LT	:	:	:	:	:	:	:	67.6	68.9	61.8	59.8
LV	:	:	:	:	:	:	:	63.5	65.2	62.3	61.9
PL	:	:	:	:	:	:	66.2	66.3	63.6	61.2	59.2
RO	:	:	:	:	:	:	73.4	71.9	70.4	69.5	68.6
SI	:	:	:	:	:	66.0	67.1	67.5	66.8	66.7	68.5
SK	:	:	:	:	:	:	:	:	64.0	61.6	61.8

Source: European Union countries: Eurostat - Comparable estimated based on the Labour Force Survey
Source: Candidate countries: Eurostat - Labour Force Survey - Spring data

Employed persons aged 55-64 as a share of the total population aged 55-64

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
EU15	37.0	36.2	35.7	35.7	35.9	36.2	36.3	36.6	37.1	37.8	38.6
BG	:	:	:	:	:	:	:	:	:	22.1	23.9
CY	:	:	:	:	:	:	:	:	47.0	49.0	49.8
CZ	:	:	:	:	:	:	38.5	37.5	37.6	36.1	36.9
EE	:	:	:	:	:	:	48.8	50.2	47.9	43.0	48.6
HU	:	:	:	:	:	17.6	17.9	16.7	19.1	21.9	23.7
LT	:	:	:	:	:	:	:	40.2	42.6	42.2	39.1
LV	:	:	:	:	:	:	:	37.0	36.6	35.4	36.4
PL	:	:	:	:	:	:	35.5	33.3	32.5	29.0	30.5
RO	:	:	:	:	:	:	55.0	54.7	52.9	52.0	50.5
SI	:	:	:	:	:	19.9	22.7	25.9	23.4	22.3	23.4
SK	:	:	:	:	:	:	:	:	22.2	21.4	22.5

Source: European Union countries: Eurostat - Comparable estimated based on the Labour Force Surve
Source: Candidate countries: Eurostat - Labour Force Survey - Spring data

Employed persons aged 55-64 as a share of the total population aged 55-64, Females

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
EU15	23.9	24.0	24.2	24.6	25.3	25.8	26.1	26.3	27.1	27.9	28.9
BG	:	:	:	:	:	:	:	:	:	11.2	14.8
CY	:	:	:	:	:	:	:	:	28.8	31.9	32.6
CZ	:	:	:	:	:	:	24.0	23.2	23.6	22.1	23.0
EE	:	:	:	:	:	:	40.5	42.0	39.3	37.5	41.9
HU	:	:	:	:	:	10.2	10.7	9.3	11.1	13.0	14.6
LT	:	:	:	:	:	:	:	27.4	31.8	34.5	31.8
LV	:	:	:	:	:	:	:	28.1	26.4	25.9	30.1
PL	:	:	:	:	:	:	27.7	25.2	24.5	21.8	23.8
RO	:	:	:	:	:	:	48.2	48.4	47.3	47.3	45.8
SI	:	:	:	:	:	12.9	16.4	19.4	14.9	14.3	14.4
SK	:	:	:	:	:	:	:	:	10.6	10.2	10.0

Source: European Union countries: Eurostat - Comparable estimated based on the Labour Force Survey
Source: Candidate countries: Eurostat - Labour Force Survey - Spring data

Employed persons aged 55-64 as a share of the total population aged 55-64, Males

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
EU15	51.2	49.4	47.9	47.4	47.1	47.2	47.1	47.3	47.5	48.0	48.7
BG	:	:	:	:	:	:	:	:	:	34.9	34.2
CY	:	:	:	:	:	:	:	:	66.3	67.1	67.9
CZ	:	:	:	:	:	:	54.8	53.4	53.2	51.6	52.4
EE	:	:	:	:	:	:	59.6	60.9	59.2	50.2	57.1
HU	:	:	:	:	:	27.1	27.1	26.3	29.3	33.0	35.0
LT	:	:	:	:	:	:	:	57.0	56.7	52.2	48.6
LV	:	:	:	:	:	:	:	49.2	50.2	48.3	44.8
PL	:	:	:	:	:	:	44.5	42.7	41.8	37.4	38.3
RO	:	:	:	:	:	:	62.8	61.9	59.4	57.4	56.0
SI	:	:	:	:	:	28.1	29.8	32.8	32.2	31.0	33.0
SK	:	:	:	:	:	:	:	:	36.4	35.2	37.7

Source: European Union countries: Eurostat - Comparable estimated based on the Labour Force Survey
Source: Candidate countries: Eurostat - Labour Force Survey - Spring data

Percentage of population, aged 25-64, participating in education and training. (Adult participation in training over the 4 weeks prior to the survey)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
EU15	:	:	:	:	:	5.7 e	5.8 e	:	8.2 e	8.4 e	8.4 e
BG	:	:	:	:	:	:	:	:	:	:	:
CY	:	:	:	:	:	:	:	:	2.6	3.1	3.4
CZ	:	:	:	:	:	:	:	:	:	:	:
EE	:	:	:	:	:	:	4.3	6.3	6.5	5.9	5.3
HU	:	:	:	:	:	:	2.9	3.3	2.9	3.1	3
LT	:	:	:	:	:	:	:	:	4	2.7	3.7
LV	:	:	:	:	:	:	:	:	:	:	:
PL	:	:	:	:	:	:	:	:	:	:	5.2
RO	:	:	:	:	:	:	0.9	1	0.8	0.9	1.1
SI	:	:	:	:	:	5.3	:	:	:	4.2	3.7
SK	:	:	:	:	:	:	:	:	:	:	:

Source: Eurostat - Labour Force Survey - Spring data

Notes:
(1) EU-15: 1999-2001 results estimated on the basis of 1997 data for A and IRL, 2001 results on the basis of the 2000 data for D.
(2) PL2001: Data may lack reliability due to the high no answer rate (48%)

Total unemployment rate - as % of total active population

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
U15	:	:	10.1	10.5	10.1	10.2	10	9.4	8.7	7.8	7.4
BG	:	:	:	:	:	:	:	:	:	16.9	20.3
CY	:	:	:	:	:	:	:	:	:	:	:
CZ	:	:	:	:	:	:	:	6.5	8.8	8.8	8.2
EE	:	:	:	:	:	:	:	:	:	13.7	12.6
HU	:	:	:	:	:	:	:	:	7	6.4	5.7
LT	:	:	:	:	:	:	:	:	:	:	:
LV	:	:	:	:	:	:	:	:	:	:	:
PL	:	:	:	:	:	:	:	:	:	16.1	:
RO	:	:	:	:	:	:	:	:	6.9	7.2	6.6
SI	:	:	:	:	:	:	:	:	7.4	6.7	6.2
SK	:	:	:	:	:	:	:	:	16.4	18.8	19.3

Unemployment rate - Females - as a % of female active population

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
EU15	:	:	11.5	11.9	11.7	11.7	11.6	11.1	10.2	9.2	8.6
BG	:	:	:	:	:	:	:	:	:	16.7	19.4
CY	:	:	:	:	:	:	:	:	:	:	:
CZ	:	:	:	:	:	:	:	8.2	10.5	10.5	9.9
EE	:	:	:	:	:	:	:	:	:	12.8	12.3
HU	:	:	:	:	:	:	:	:	6.3	5.6	5.0
LT	:	:	:	:	:	:	:	:	:	:	:
LV	:	:	:	:	:	:	:	:	:	:	:
PL	:	:	:	:	:	:	:	:	:	18.1	:
RO	:	:	:	:	:	:	:	:	6.2	6.4	5.9
SI	:	:	:	:	:	:	:	:	7.7	7.1	6.8
SK	:	:	:	:	:	:	:	:	16.4	18.6	18.7

Unemployment rate - Males - as a % of male active population

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
EU15	:	:	9.2	9.4	9	9.1	8.9	8.2	7.5	6.7	6.4
BG	:	:	:	:	:	:	:	:	:	17.1	21.1
CY	:	:	:	:	:	:	:	:	:	:	:
CZ	:	:	:	:	:	:	:	5.1	7.4	7.4	6.8
EE	:	:	:	:	:	:	:	:	:	14.6	13.0
HU	:	:	:	:	:	:	:	:	7.6	7.1	6.4
LT	:	:	:	:	:	:	:	:	:	:	:
LV	:	:	:	:	:	:	:	:	:	:	:
PL	:	:	:	:	:	:	:	:	:	14.4	:
RO	:	:	:	:	:	:	:	:	7.5	7.8	7.2
SI	:	:	:	:	:	:	:	:	7.2	6.5	5.6
SK	:	:	:	:	:	:	:	:	16.3	18.9	19.8

Share of the population aged 18-24 with only lower secondary education and not in education or training

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
EU15	:	:	:	:	:	21.6 e	20.7 e	:	20.7 e	19.7 e	19.3 e
BG	:	:	:	:	:	:	:	:	:	:	20.3
CY	:	:	:	:	:	:	:	:	15.1	15	14.8
CZ	:	:	:	:	:	:	:	:	:	:	:
EE	:	:	:	:	:	:	17.9	12.8	14.2	14.3	14.5
HU	:	:	:	:	:	:	17.8	15.9	13	13.8	13.2
LT	:	:	:	:	:	:	:	:	27	17.2	14.2
LV	:	:	:	:	:	:	:	:	:	:	:
PL	:	:	:	:	:	:	:	:	:	:	7.3
RO	:	:	:	:	:	:	19.7	19.1	21.5	22.3	21.3
SI	:	:	:	:	:	10.8	:	:	:	7.4	8.3
SK	:	:	:	:	:	:	:	:	:	:	:

Source: Eurostat - Labour Force Survey - Spring data

Notes
(1) EU-15: 1999-2001 results estimated on the basis of 1997 data for IRL, 2001 results on the basis of the 2000 data for D.

Long term unemployment (over 12 months) as % of total active population aged 15-64

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
EU15	3.2	3.7	4.6	5.2	5.2	5.2	5.1	4.7	4.2	3.7	3.2
BG	:	:	:	:	:	:	:	:	:	9.5	12.5
CY	:	:	:	:	:	:	:	:	:	1.3	0.9
CZ	:	:	:	:	:	:	1.3	1.8	3.1	4.3	4.1
EE	:	:	:	:	:	:	4.2	4.4	5	6.3	5.8
HU	:	:	:	:	:	5.3	4.2	4.4	3.3	3.1	2.5
LT	:	:	:	:	:	:	:	7.8	4	8.2	9.3
LV	:	:	:	:	:	:	:	8.1	7.4	8.1	7.7
PL	:	:	:	:	:	:	5.1	4.7	5.1	7.3	9.2
RO	:	:	:	:	:	:	2.6	2.5	2.8	3.4	3.2
SI	:	:	:	:	:	3.5	3.4	3.4	3.1	4.3	3.6
SK	:	:	:	:	:	:	:	:	7.4	10.3	11.3

Source: Eurostat - Labour Force Survey - Spring data

Percentage of persons aged 0-65 living in households where none is working out of the persons living in eligible households (ie. excluding education and retirement)

	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
EU15	:	:	:	:	15.4 e	15.4 e	15.4 e	15.0 e	14.5 e	14.0 e	13.9 e
BG	:	:	:	:	:	:	:	:	:	19.9	21.8
CY	:	:	:	:	:	:	:	:	:	7.7	6.9
CZ	:	:	:	:	:	:	8.6	9.6	10.9	11.6	11.9
EE	:	:	:	:	:	:	13.2	11.9	13.3	12.6	14.2
HU	:	:	:	:	:	20.1	19.9	20	18.8	17.8	17.5
LT	:	:	:	:	:	:	:	13.2	11.2	12	13.3
LV	:	:	:	:	:	:	:	16	17.3	17.8	15.9
PL	:	:	:	:	:	:	13	:	:	:	:
RO	:	:	:	:	:	:	8.5	8.8	9.4	9.9	9.7
SI	:	:	:	:	:	10.8	10.9	10.4	11.4	11.4	11.2
SK	:	:	:	:	:	:	:	:	13.3	14.5	13.2

Source: Eurostat - Labour Force Survey - Spring data

Notes
(1) EU-15: estimations on the basis of the available data

Annex 1: European Union list of questions

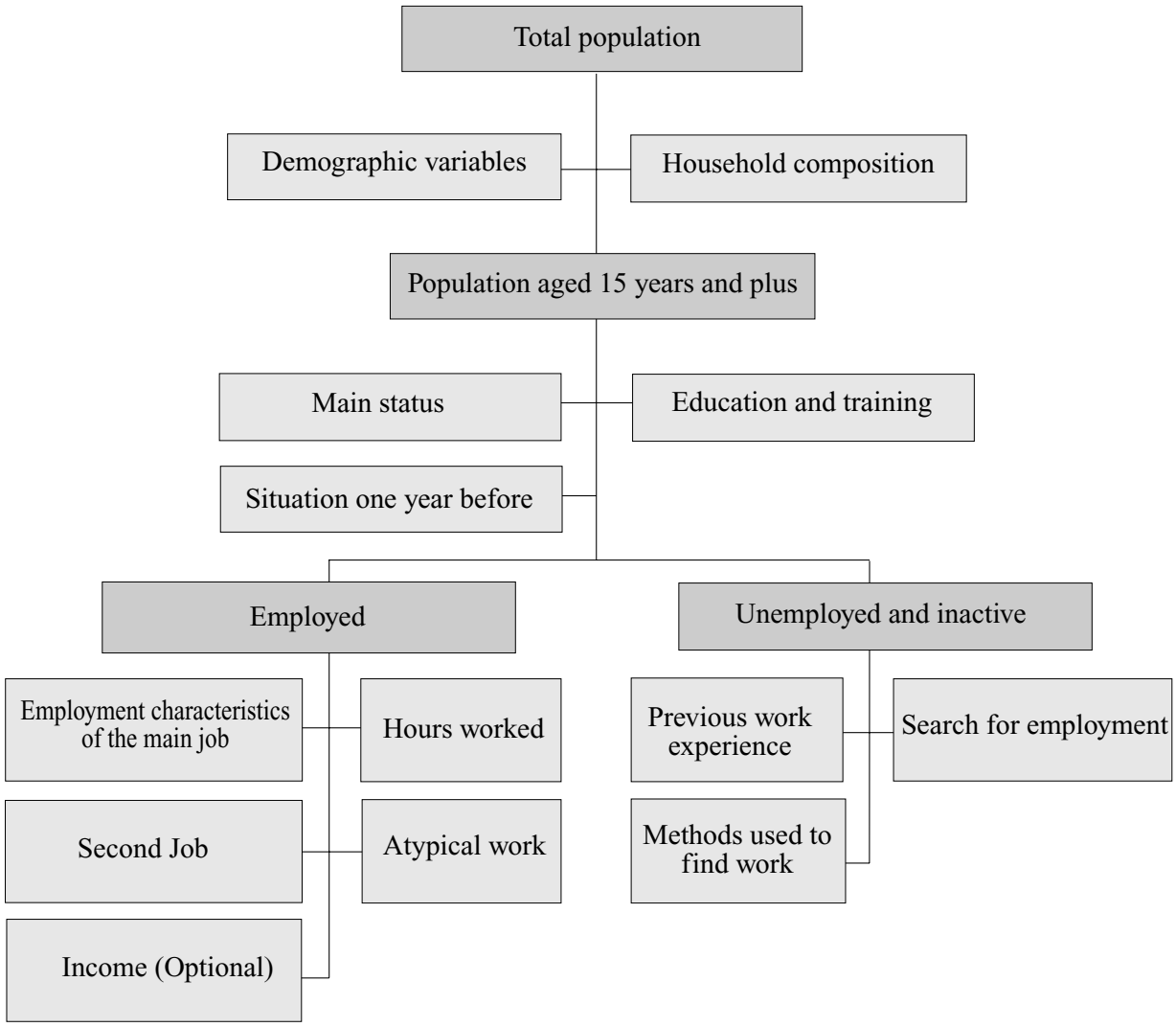
This list shows the correspondence between the LFS variables and the column numbers of the current series, those of the series 1983 to 1991, 1992 to 1997 and 1998 to 2000. The asterisks in the list 1983 to 1991, 1992 to 1997 or 1998 to 2000 denote that, although there is a correspondence between the questions in the two series, some changes have been made in the conventions for coding the data.

LFS variable	Description
	Demographic background
SEQNUM	Sequence number in the household
LIENREF	Relationship to reference person in the household
SPOUNUM	Sequence number of spouse or cohabiting partner
FATHNUM	Sequence number of father
MOTHNUM	Sequence number of mother
SEX	Sex
YEARBIR	Year of birth
DATEBIR	Date of birth in relation to the end of reference period
MSTATUS	Marital status
NATIONAL	Nationality
YEARRES	Years of residence in this Member State
COUNTRYB	Country of birth
NATPART	Nature of participation in the survey
	Labour status
WSTATOR	Labour status during the reference week
REASON	Reason for not having worked at all though having a job
	Employment characteristics of the main job
STAPRO	Professional status
NACE3D	Economic activity of the local unit
ISCO4D	Occupation
NBPERS	Number of persons working at the local unit
WCOUNTRY	Country of place of work
WREGIOR	Region of place of work
YSTARTWK	Year in which person started working for this employer or as self-employed
MSTARTWK	Month in which person started working for this employer or as self-employed
FTPT	Full-time / Part-time distinction
PERM	Permanency of the job
DURTEMP	Total duration of temporary job or work contract of limited duration
	Hours worked
HWUORIG	Number of hours per week usually worked
HWAORIG	Number of hours actually worked during the reference week
REAHAHU	Main reason for hours actually worked during the reference week being different from the person's usual hours
WISH	Wish to work usually more than the current number of hours
HWWISHOR	Number of hours that the person would like to work in total
HOMEWK	Working at home
MOTAUTRE	Looking for another job and reasons for doing so
	Second job
EXIST2J	Existence of more than one job or business
STAPRO2J	Professional status (in the second job)

LFS variable	Description
NACE2J2D	Economic activity of the local unit (in the second job)
HWA2ORIG	Number of hours actually worked during the reference week in the second job
	Previous work experience of person not in employment
EMPLEXP	Existence of previous employment experience
YEARPR	Year in which person last worked
MONTHPR	Month in which person last worked
REASFORL	Main reason for leaving last job or business
STAPROPR	Professional status in last job
NACEPR2D	Economic activity of the local unit in which person last worked
ISCOPR3D	Occupation of last job
	Search for employment
RECHTRAV	Seeking employment during previous four weeks
TYPEMPCH	Type of employment sought
DUESEAR	Duration of search for employment
	Methods used during previous four weeks to find work
METHODA	Contacted public employment office to find work
METHODB	Contacted private employment agency to find work
METHODC	Applied to employers directly
METHODD	Asked friends, relatives, trade unions, etc.
METHODE	Inserted or answered advertisements in newspapers or journals
METHODF	Studied advertisements in newspapers or journals
METHODG	Took a test, interview or examination
METHODH	Looked for land, premises or equipment
METHODI	Looked for permits, licences, financial resources
METHODJ	Awaiting the results of an application for a job
METHODK	Waiting for a call from a public employment office
METHODL	Awaiting the results of a competition for recruitment to the public sector
METHODM	Other method used
DESIRTR	Willingness to work for person not seeking employment
DISPO	Availability to start working within two weeks
SITBEFST	Situation immediately before person started to seek employment (or was waiting for new job to start)
INSCRIT	Registration at a public employment office
	Main labour status
MAINSTAT	Main status
	Education and training
EDUC4WN	Education or training received during previous four weeks
EDUCTYPE	Type of instruction
EDUCLEVE	Level of this education or training
PURP4WN	Purpose of this education and training
LENTR4WN	Total length of this education or training
HWTROR	Usual number of hours of training per week
ISCD2001	Highest level of education or training successfully completed
ISCDVOC	Having obtained a (non tertiary) vocational qualification (minimum duration : 6 months)
ISCDYEAR	Year when highest level of education or training was successfully completed

LFS variable	Description
	Situation one year before survey
WSTAT1Y	Situation with regard to activity one year before survey
STAPRO1Y	Professional status one year before survey
NACE1Y2D	Economic activity of local unit in which person was working one year before survey
COUNTRY1Y	Country of residence one year before survey
REGI1YOR	Region of residence (within Member State) one year before survey
	Income
INCMONOR	Monthly (take home) pay from main job
INCADDOR	Additional payments from main job
INCUNEOR	Unemployment allowances
INCUNAOR	Additional payments of unemployment allowance
INCSICOR	Sickness, disability or invalidity allowances
	Technical items relating to the interview
REFYEAR	Year of survey
REFWEEK	Reference week
INTWEEK	Interview week
COUNTRY	Member State
REGIONOR	Region of household
DEGURBA	Degree of urbanisation
HHNUM	Serial number of household
TYPMEN	Type of household
TYPINST	Type of institution
COEFFYOR	Yearly weighting factor
COEFFQOR	Quarterly weighting factor
COEFFHOR	Quarterly weighting factor of the sample for household characteristics (in the case of a sample of individuals)
SEQNR	Sequence number of the survey wave
	Atypical work
SHIFTWK	Shift work
EVENWK	Evening work
NIGHTWK	Night work
SATWK	Saturday work
SUNWK	Sunday work

Annex 2 : Labour force survey variables



ROMANIAN LABOUR MARKET DIAGNOSIS

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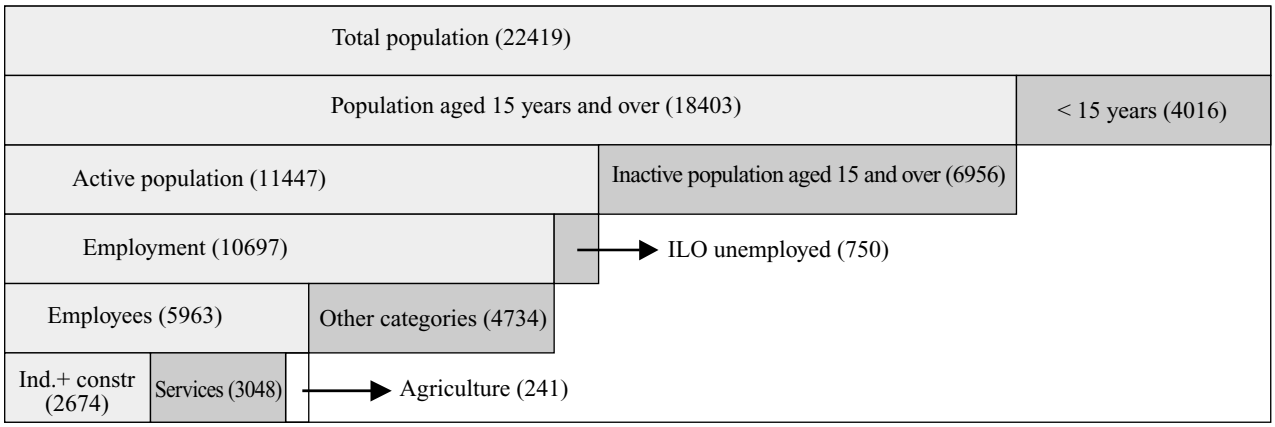
Transition to market economy had an impact on labour market characteristics, inducing significant changes in volume and structure of the main labour force indicators.

Labour Force Survey[1] results emphasise that during period 1994 - 2001, population distribution by main categories according to participation on economic activity suffered changes.

If, during the first four years, employment recorded close levels with a peak of over 11 million persons in 1995 and 1997, starting from 1998, the number of persons employed decreased slowly but continuously till 10.7 million persons in 2001.

Fig. 1. Categories of population in 2001

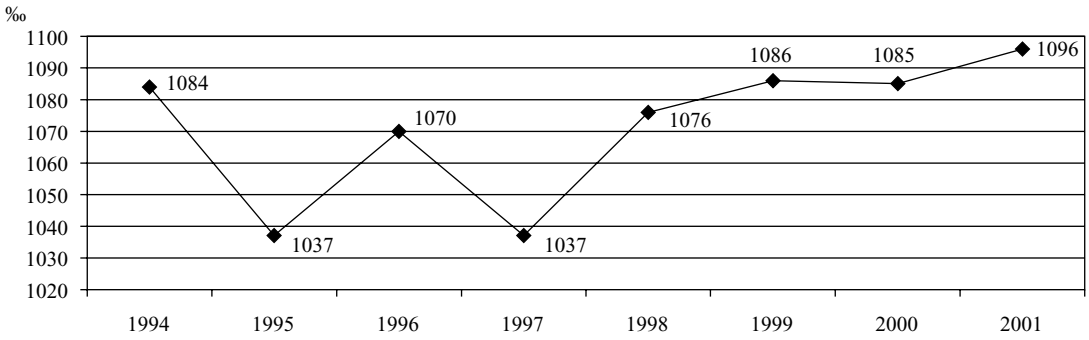


After a level of about 970 thou persons during first 2 years, among the following years, the ILO number of unemployed persons fall below 800 thou persons, increasing again in 2000 at over 821 thou unemployed persons. In 2001 the number of unemployeds dropped again to 750 thou persons.

Ratio of economic dependence (expressed as the number of non-occupied persons – unemployed and inactive – per 1000 employed persons) of 1084 ‰ in 1994 registered fluctuations over the following 3 years, with slight improvements in 1995 and 1997 (1037 ‰). During last years, the ratio followed an ascendant curve, with a peak of 1096 ‰ in 2001.

[1] In 1994 and 1995, Labour Force Survey was an annual survey with the reference period during March of every year; starting from 1996, the survey became quarterly, continuous.

Fig. 2. Evolution of ratio of economic dependence



Persons working in urban areas are much more disadvantaged according to the ratio of economic dependence. Thus, in 2001, in urban area, 1431 non-occupied persons were living on the basis of goods and services provided by 1000 occupied persons. In rural, the burden of occupied persons is much lower, the ratio of economic dependence being 800 ‰.

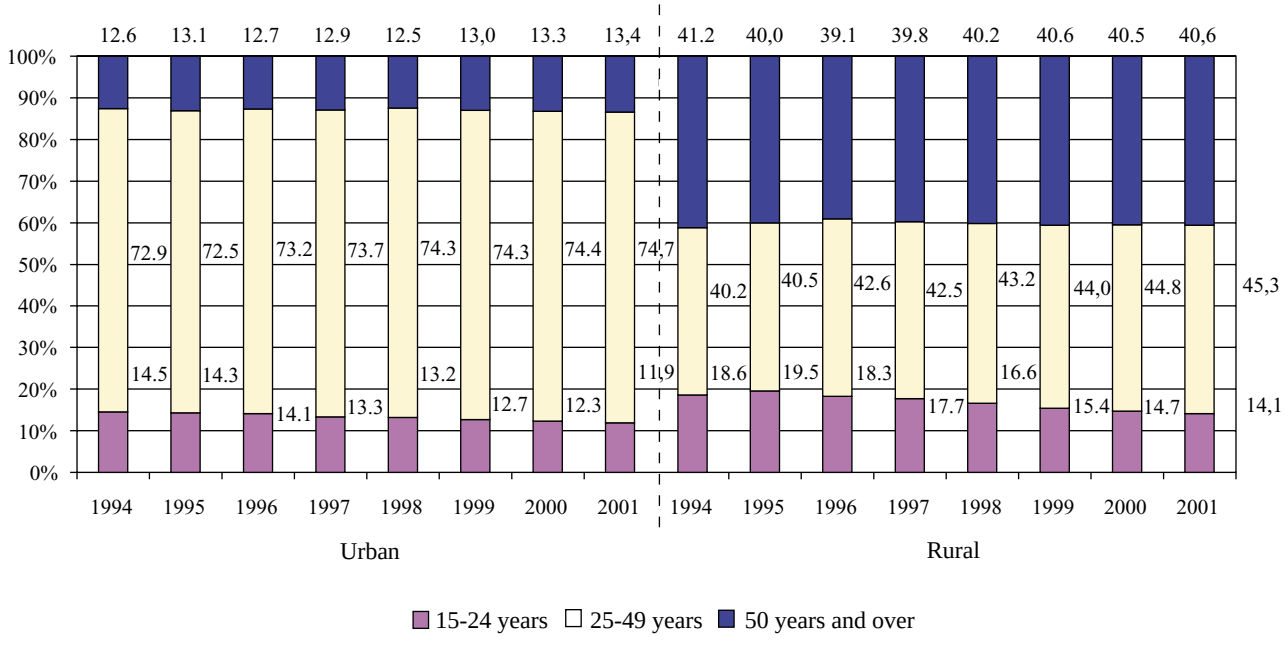
Men are representing the majority of labour force (54% in average for the period 1994 – 2001).

Persons with pre-university level of education (high school and vocational) are representing a significant proportion of total active population (more than 52% over last 4 years). Labour force distribution by age groups differs essentially between the two residence areas.

In urban area, persons aged 25 – 49 years old represent the major segment of active persons (over 70%), their proportion increasing continuously till almost three-quarters (74.7% in 2001). While the population from this category was increasing, it may be observed a constant decreasing of the proportion of young persons (age group 15 – 24 years old), from 14.5% in 1994 to 11.9% in 2001. Same time, the proportion of persons aged 50 years and over remains at a constant level, with only small fluctuations (between 12.5% in 1998 and 13.4% in 2001).

In rural area, persons aged 25 – 49 years and 50 years and over carry out the social and economic activities in almost equal proportions. Weights of active persons from the two large age groups are recording close values, around 40%. However, it can be noticed a slight tendency of increasing of population of 25 – 49 years old, from 40.2% in 1994 to 45.3% in 2001, while the proportion of young persons suffered a decrease from 18.6% in 1994 to 14.1% in 2001.

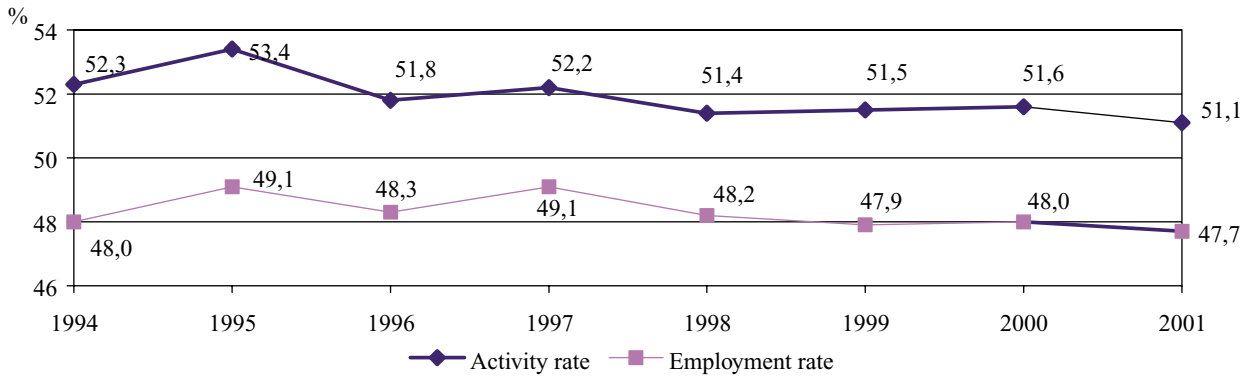
Fig. 3. Labour force distribution by age groups and residence areas



Global activity rate (proportion of active persons in total population of the country) reached a peak of 53.4% in 1995, higher for men (58.5%) comparing with the one for women (48.5%), with a maximum of 90.1% for the persons aged 35 - 39 years. Previous year (2001) was characterised by the lowest level of activity rate recorded during the last 8 years, i.e. 51.1% higher for male (56.2%) comparing with female one (46.2%) and for rural area (57.2%) comparing with urban one (45.9%).

Global employment rate (proportion of employed persons in total population of the country) followed general trend of global activity rate. After a peak of 49.1% in 1995 and 1997, level of employment rate fall to 47.7% in 2001, with a difference between gender rates of 8.8 percentage points (52.2% for male against 43.4% for female) and between residence areas of 14.5 percentage points (55.6% in rural against 41.1% in urban).

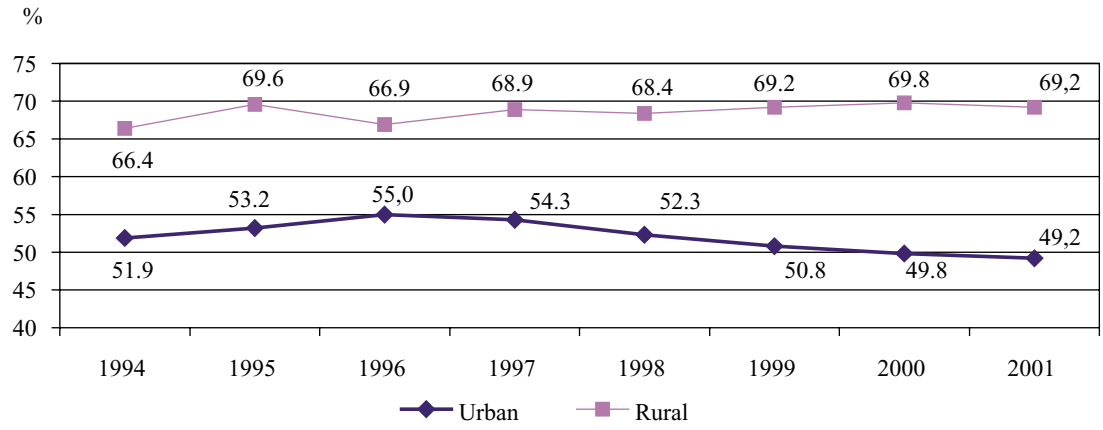
Fig. 4. Evolution of global activity rate and of global employment rate



Employment rate of population aged 15 years and over, after a minimum of 58.7% in 1994, kept a relatively constant level over the following years (around 60%), afterwards following a descending curve, reaching in 2000 almost same level recorded with 7 years ago, i.e. 58.8%. Previous year it dropped slightly to 58.1%. Highest level of employment rate was registered in 1998 for the persons aged 35 – 49 years old (81.6%).

The evolution of employment rate by the two residence areas followed different patterns. In urban, after a maximum of 55.0% in 1996, proportion of employed persons in total population aged 15 years and over followed a continuous decline, falling to 49.2% in 2001. In exchange, in rural, after an oscillatory trajectory (between 66% and 69%) over first 4 years, employment rate followed an ascendant curve, reaching 69.8% in 2000. Next year, in 2001, it dropped slightly to 69.2%.

Fig. 5. Evolution of employment rate for population aged 15 years and over



For persons aged 35 – 49 years, employment proportion is the highest for both residence areas: urban and rural. Extreme levels (minimum and maximum) over entire period were recorded in 2000, i.e. 77.2% in urban area and 84.4% in rural area.

Notable differences between the two residence areas are occurring for young persons (15 – 24 years) and persons aged 50 years and more. If in urban employment rate varied between 23.0% in 2001 and 29.0% in 1996, in rural, the rate is much higher, even double, between 49.9% in 1999 and 54.7% in 1997. For persons aged 50 – 64 years, the difference recorded for employment rate between urban and rural is placed on a scale from simple to double (35.4% in urban against 76.7% in rural in 2001). For elderly (aged 65 years and over), the difference of employment rate between the two residence areas is even more remarkable (4.0% in urban against 56.4% in rural in 2001), rural area in Romania being characterised by a very high employment rate due to the large segment of population occupied in agricultural sector.

Fig. 6. Employment status categories by residence areas in 2001

Over period 1994 - 2001, *employees* represented majority of employment. Highest proportion of employees within total employment (63.0%) was registered in 1994, followed by the one from 1996 (62.4%), afterwards continuing to fall constantly till 55.8% in 2001. In same year (2001), the largest part of employees was concentrated in services (51.1%), but also in industry and constructions (44.8%).

Employers represent a small proportion of total employment, between 1.0% in 1999 and 1.4% in 1995. Whole sale and retail is the preponderant activity where employers are often met, concentrating about two-thirds of them. It can be observed an increase of interest of this category for manufacturing industry (14.8% in 2000 against 10.0% in 1998) and for hotels and restaurants activities (from 3.5% in 2000 to 6.5% in 2001). In 2001, 6.6% of employers carried out their activity also in constructions.

Proportion of *self-employed* (without employees), after a peak of 22.4% in 1995, fall to 19.8% in the next year, afterwards registering a constant ascending trend, in 2000 representing 23.6% from the total employment. Highest proportion of persons from this category belongs to rural area (87.8% in 2001), mostly carrying out agricultural activities. Only a small number of persons can be found among the other activities (in 2001, 3.2% in whole sale and retail, 2.2% in constructions and 1.6% in manufacturing).

Majority of *contributing family workers* and of *members of agricultural associations and co-operatives* is also working in agriculture.

Over half of total employment has at least pre-university education level and about one-third is represented by those with gymnasium and primary education level and by persons without school graduated. Comparing to 1994, it can be observed an increase of proportion of population who graduated high school and a decrease of the proportion of those with gymnasium and primary school and of those without school graduated. Phenomenon may be understood by the entrance on labour market of "baby-boom" generation and by the reduction of school population after 1990. Weight corresponding to persons with university education remains during most of these years about 8.0%, exceeding 9% during last 2 years (9.1% in 2000 and 9.3% in 2001).

Employment distribution by activities of national economy shows that around 40% (42.3% in 2001) were occupied in agricultural branches, of which more than a half (51.6% in 2001) aged 50 years and over. From the non-agricultural sector, employed persons held significant weights in manufacturing and trade (32.8% and 15.4% in 2001). It is easy to notice over entire period of time the majority weights of women employed in several activities that reached the following levels in 2001: health and social assistance (79.1%), education (71.6%), financial, banking and insurance (67.9%), hotels and restaurants (65.2%), trade (55.5%), post and telecommunications (52.4%). For same year, women proportion working in agricultural sector was 50%.

Employment distribution by groups of occupations is pointing out that farmers and qualified workers from agriculture, forestry and fishing held the highest proportion (38.2% in 2001, most of them – 53.5% - aged 50 years and over), followed by qualified workers (16.1% for same year). Within the Major Group 1 (according to ISCO-COM 88), i.e. managers and officials, the number of men is much higher comparing with the number of women (in 2001, men exceeded women by 2.5 times). Figures of 2001 are showing the characteristics of the employment distribution by gender, a constant pattern over entire period. Women were predominant in group of clerks (71.6%), operative workers in services and trade (70.3%), technicians, foremen and similar (62.2%), farmers and qualified workers from agriculture, forestry and fishing (51.5%), specialists with intellectual and scientific occupations (50.5%). In 2001, from those who worked as farmers and qualified workers from agriculture, forestry and fishing, 38.7% were aged 15-24 years old.

Number of **unemployed persons registered** at National Agency for Employment according to national legislation had a spectacular evolution in 1991 – 1993 reaching a peak of 1.2 million persons in 1994. During the following years unemployment rate decreased, number of unemployed persons falling to 658 thou persons in 1996. Following period was characterised by an ascending trend, with a maximum of 11.8% in 1999. Next years registered unemployment rate decreased to 8.6% in 2001. Analysis of distribution of registered unemployment by gender shows that women were more affected by this phenomenon, their number exceeding men one till 1997, afterwards men exceeding constantly women in terms of proportion. In 1998, over one-third of unemployed were young people, aged under 25 years.

Fig. 7. Registered and ILO unemployment rates

ILO unemployment rate[2] recorded less spectacular variations, between 6.0% in 1997 and 8.2% in 1994. Minimum level reached in 1997 ended the period of descending trend of ILO unemployment rate followed starting from 1994. Over last 3 years phenomenon had an increasing tendency, reaching 7.1% in 2000, dropping again in 2001 by 0.5 percentage points. Distribution by gender and residence areas shows that men and persons residing in urban area are preponderant, representing 58.1% and respectively 77.9% from total ILO unemployment in 2001.

Fig. 8. Unemployment rate by residence areas

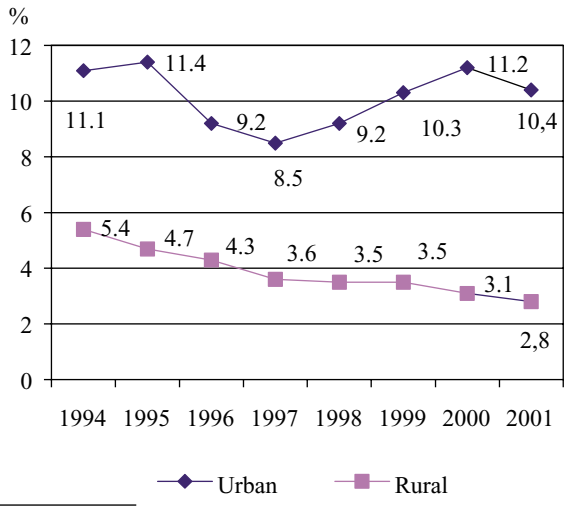
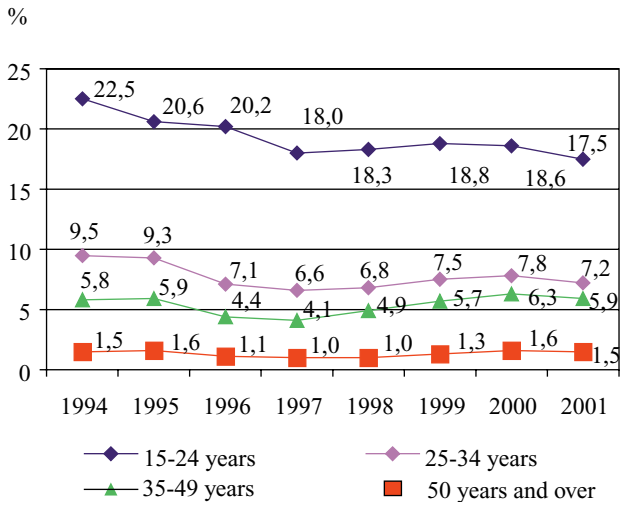


Fig. 9. Unemployment rate by age groups



[2] *Labour Force Survey*

Present constantly over entire period, excepting previous year, the gap between the two residence areas grew continuously after 1997.

Even if women proportion is lower than men one, during period 1994 – 1997, unemployment rate for female population exceeded the one for male population by about 1 percentage point (between 0.7 percentage points in 1997 and 1.1 percentage points in 1995). Starting from 1998, the report was inverse, in 2001 male unemployment rate exceeding the female one by 1.2 percentage points.

Table 1. Distribution of ILO unemployed persons by age groups

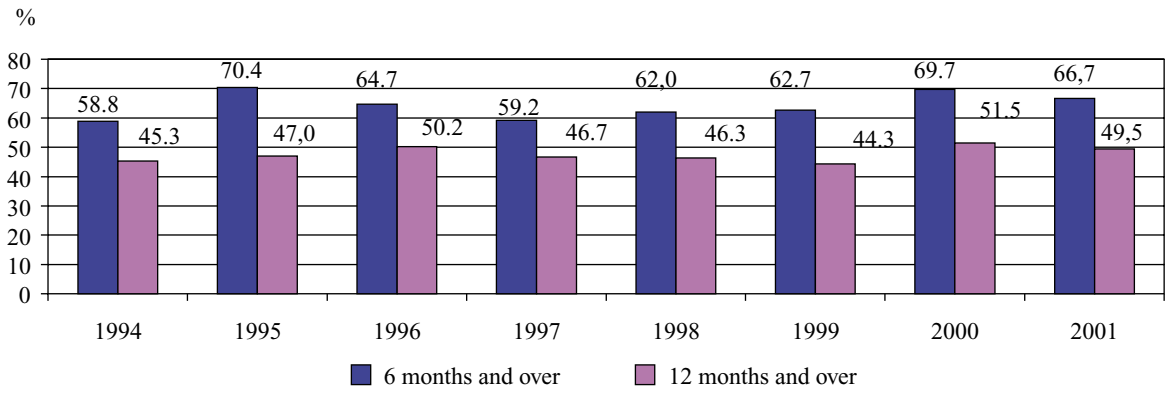
Age groups	1994	1995	1996	1997	1998	1999	2000	2001
15-24 years	45.8	43.8	48.4	46.4	43.1	38.9	35.5	34.9
25-34 years	23.7	25.8	24.8	25.6	26.2	27.5	28.8	29.5
35-49 years	25.4	25.0	22.5	23.5	26.5	28.5	29.4	29.3
50 years and over	5.1	5.4	4.3	4.5	4.3	5.2	6.2	6.3

Analysis of unemployed persons by age groups shows that young people are strongly affected by the phenomenon. 1996 was the worst year for youth in terms of their access on labour market, their proportion (48.4%) exceeding even the one corresponding to large group of persons aged 25-49 years (47.3%). Same time, youth unemployment rate followed a descending trend, after a maximum of 22.5% reached at the beginning in 1994, from 20.2% in 1996 to 17.5% in 2001. Starting from 1997, the gap between generations decreased constantly. In 2001 young people represented little over one-third (34.9%) while persons aged 25-49 years covered 58.8% of total ILO unemployment. Last year, 43.9% of the rural unemployed persons were young people while same proportion for urban area was 32.3%, although in urban were reported 259 young unemployed per 100 young unemployed in rural area.

Unemployment affects mainly persons with lower education level and less those with university education (3.3% in 1998 and 5.5% in 2001 from total ILO unemployment). High school graduated unemployed represented 44.9% in 1998 and 38.5% in 2001 from total unemployment, those with vocational education level 27.2% and respectively 31.0%, while persons without school graduated or only with primary school represented for same years 5.1% and 4.2%.

A special attention has to be shown to long term unemployed persons, i.e. unemployed for *12 months and over.*

Fig. 10. Incidence of long term ILO unemployment (as percentage of total number of unemployed)



For two years – 1996 and 2000 – the proportion of long-term unemployment represented majority of total unemployment (50.2% and respectively 51.5%). In 1999, same proportion recorded the lowest level (44.3%), men representing 53.2% and the proportion of the persons in unemployment for *2 years and over* reaching 58.5%.

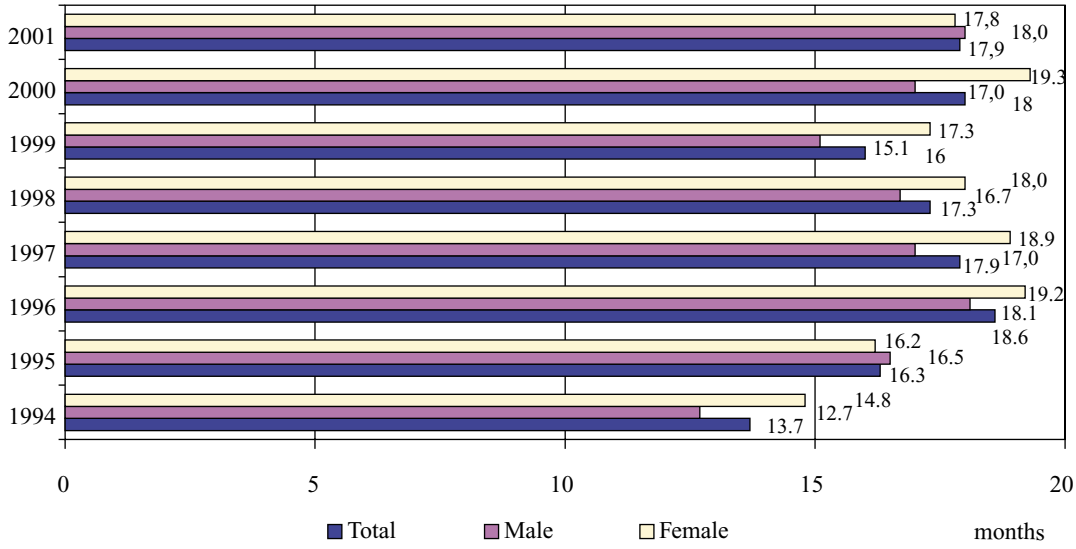
In 1995, proportion of those in unemployment *for 6 months and over* exceeded 70%. If in 1994 this proportion was the lowest from entire period of time (58.8%), during last two years, the unemployeds *for 6 months and over* represented over two thirds of total unemployed persons (69.7% in 2000 and 66.7% in 2001).

Most of the long-term unemployed persons are high school graduated: over one-third of male long term unemployed and over one-third of female long term unemployed. Women with university education in unemployment for 12 months and over represented in 2001 only 4.6% of total female long-term unemployment.

In 1994, the shortest unemployment duration was recorded (13.7 months), longer for female by 2.1 months comparing with the male one (14.8 months against 12.7 months).

Unemployment registered the longest duration in 1996 (18.6 months for both sexes and 18.1 months for male). For women, the longest period of seeking a job was registered in 2000, i.e. 19.3 months, by 2.3 months longer than for men.

Fig. 11. Average ILO unemployment duration by sex



Generally, men succeed to end unemployment period faster than women. Young people also are founding a job quicker due to a higher education level but also due to their capacity of adapting rapidly to labour market demands. Thus, in 2001, youth unemployment duration was 12.5 months comparing with 18.5 months for unemployed persons aged 25-34 years and 22.4 months for those aged 35-49 years.

Wage disparities

Average net earnings was 3019 thou lei in 2001, higher with 41% comparing to previous year. Against 1990, average net earning of 2001 was by almost 893 times higher.

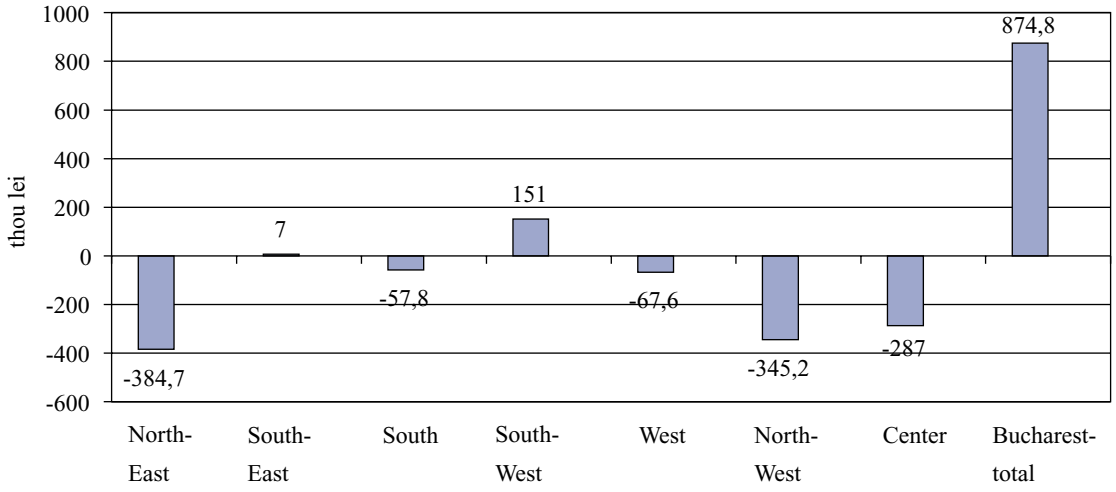
Starting from 1994, the increase of net earnings was accelerated. If in 1995 the increase of net earnings were 48% against the previous year and in 1996 was 52% (against 1995), in 1997 the net earnings were by 96% higher than in 1996. During the following years the rhythm of increasing slow down, 1999 recording an increase by 46% against the previous year. In 1998 and 2000 comparing to each previous year, the increase was by 65%.

In 2001, biggest increasings of average net earnings comparing to 2000, were registered in activities of: hotels and restaurants (53%), post and telecommunication (51%), health and social assistance and whole sale and retail (48%), financial, banking and insurance activities (41%).

Comparing to national average, 2001 net earnings was higher by 2.5 times in financial, banking and insurance activities, by 78.8% in post and telecommunication, by 38.9% in public administration and by 20.6% in transport and storage. Below the national average were recorded net earnings in following activities: hotels and restaurants (-30.1%), agriculture (-28.6%), whole sale and retail (-26.5%), constructions (-13.2%) and health (-13.1%).

By regions (NUTS2 level) only three out of eight regions recorded a level of average net earnings superior to the national average, region Bucharest being in top position by 29% over. From the remaining five regions with net earnings below the national average, on the lowest position was situated region North-East which registered only 87% from national average of net earnings.

Fig. 12. Deviations from national average of net earnings by regions in 2001



By ownership type, in 2001, as well as during the previous years, the highest average net earnings belong to state sector (4140.4 thou lei). Units of private sector are situated below national average (2375.1 thou lei).

Comparing the evolution of the report between average net earning from each activity and national average, two tendencies may be observed for the period 1994-2000:

Usually, in branches for which in 1994 the average net earnings exceeded national average, later on the gap continued to grow. This is the case for industry (+4.2 percentage points against national average in 2000, in mining and quarrying the gap growing to +71.9 percentage points), public administration (+42.3 percentage points), post and telecommunication (+ 67.5 percentage points), financial, banking and insurance activities (+ 145.8 percentage points). Constructions remain an exception, recording a decrease, being situated below the national average in 1998 and continuing to decrease constantly during the following years, in 2000 representing only 87% of national average.

Branches, which were situated below the national average in 1994, continued to remain on this position, deepening the gap more and more. Phenomenon is characteristic for agriculture, wholesale and retail, hotels and restaurants, health activities, for which, in 2000, net earning represented 71.7%, 70.2%, 64.6% and, respectively 82.7% of national average. An exception is education, which, only in 1998, exceeded a little the national average.

Deep differences may be noticed between industrial branches, the report against the national average being much above in mining and quarrying, electric and thermal energy, gas and water (+73.7% percentage points against national average in 2001), while the average net earnings in manufacturing exceeded slightly the national average only for two years, in 1996 and 1997.

Table 2. Average net earning comparing to national average by activities

%

	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001
Agriculture	85.2	82.1	79.5	81.0	79.1	75.4	73.4	76.5	71.7	71.4
Forestry and hunting	92.1	84.0	82.0	84.8	86.3	92.0	92.5	97.2	91.5	88.0
Total industry	101.8	104.5	103.6	107.6	109.0	111.3	105.0	102.1	104.2	103.2
- mining and quarrying	157.4	165.6	164.5	158.9	151.7	156.6	161.2	155.3	171.9	173.7
- manufacturing	93.6	94.6	93.0	98.4	100.7	100.9	92.8	91.2	92.0	90.9
- electric and thermal energy, gas and water	153.7	162.6	161.2	150.2	146.9	169.4	176.1	157.4	159.3	159.8
Construction	106.4	107.5	116.2	106.4	103.4	99.0	94.6	91.9	87.0	86.8
Whole sale and retail	89.7	88.3	87.4	79.8	77.9	73.7	68.9	70.1	70.2	73.5
Hotels and restaurants	73.3	70.4	69.1	68.8	67.4	66.2	63.6	61.8	64.6	69.9
Transport and storage	125.3	119.8	117.3	119.9	123.8	124.0	117.3	118.6	121.1	120.6
Post and telecommunication	97.3	109.6	114.6	125.8	120.1	145.3	159.7	166.4	167.5	178.8
Financial, banking and insurance activities	147.9	143.3	165.0	184.3	205.2	238.0	265.1	262.3	245.8	245.7
Real estate	104.5	99.1	97.7	107.0	106.0	111.1	101.9	99.8	100.9	99.1
Public administration	104.1	104.9	105.6	106.9	94.9	97.7	131.7	140.7	142.3	138.9
Education	93.0	91.0	93.2	92.1	85.8	86.7	100.9	93.0	95.7	95.5
Health and social assistance	98.1	92.2	88.9	76.3	71.5	74.4	81.6	98.9	82.7	86.9

Ratio between female and male wages earned registered contradictory evolutions, mainly determined by personnel lay-off and by redistribution of employees among national economy branches to new occupations and working places.

Employees distribution by gross wages earned in October 2001 shows that almost two-thirds of total employees earned gross wages up to average national level (approximately 4.3 million lei), 20% earned gross wages between 5 and 10 million lei and only 5.8% exceeded the limit of 10 million lei. At the level of minimum wage were remunerated 6.5% of total employees and below 0.4%.

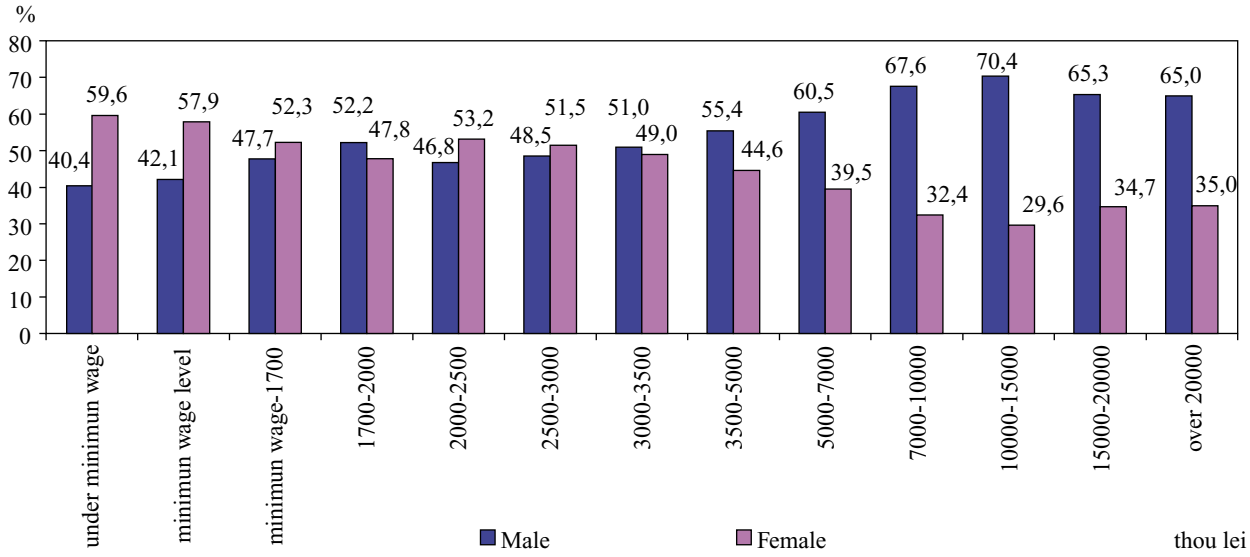
Table 3. Women per men gross earning ratio in October, by activities

%

	1994	1995	1996	1997	1998	1999	2000	2001
TOTAL	79	79	76	76	80	83	84	82
Agriculture	95	95	92	98	102	96	99	104
Forestry and hunting	97	94	86	87	9	92	80	78
Total industry	74	76	75	71	71	73	69	69
Construction	87	89	90	89	95	101	96	102
Whole sale and retail	87	85	85	75	80	81	81	77
Hotels and restaurants	79	77	79	74	74	88	67	75
Transport and storage	87	85	88	84	91	97	94	99
Post and telecommunication	91	98	88	86	89	90	102	86
Financial, banking and insurance activities	72	93	98	90	91	90	85	89
Real estate	91	89	89	88	93	107	110	106
Public administration	85	82	83	89	78	82	77	82
Education	86	87	85	91	87	89	87	85
Health and social assistance	90	91	85	86	87	92	88	83

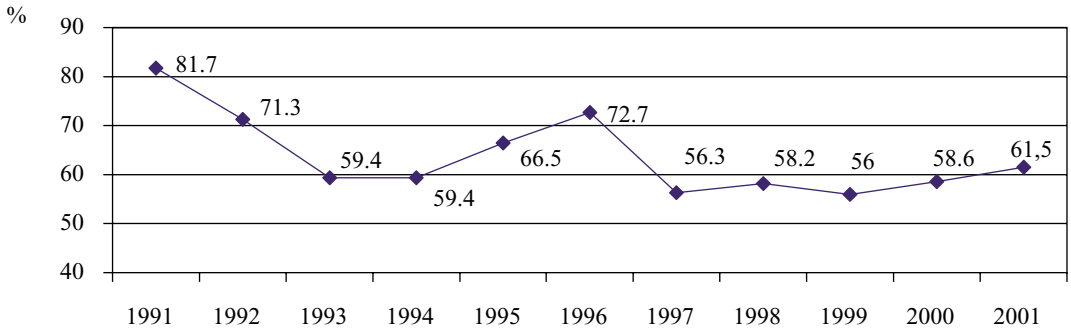
In 2001, as well as over previous years, women concentration on low wages area (up to 3 million lei) may be noticed comparing to men situation who are predominant on wage groups that exceed this limit. Among high wage groups of over 7 million lei, their number is twice comparing to women one.

Fig. 13. Employee's distribution by earned wage groups in October 2001



Wages have been permanently eroded by inflation, so that purchasing power of average monthly net earning over last decade did not reach 1990 level.

Fig. 14. Evolution of the report of net earnings index over consumer price index (1990=100%)



After 1990, the evolution of *the report of net earnings index over consumer price index* has been sinuous. In 2001 real earning represented only 61.5% of 1990 one. Earning purchasing power followed a descending trend after 1990, in 1993 and 1994 reaching the lowest level (59.4%). Over the next two years a period of recovering followed (72.7% in 1996), afterwards continuing to depreciate again.

Social protection of unemployed

Unemployment maintaining within relatively moderate limits, even under conditions of personnel lay-off, was a result of employment measure, some of which are described below:

providing incentives for physical and legal persons who hire graduates of education institutions;

granting loans for setting up of small and medium size enterprises;

qualification, re-qualification and vocational training of unemployed;

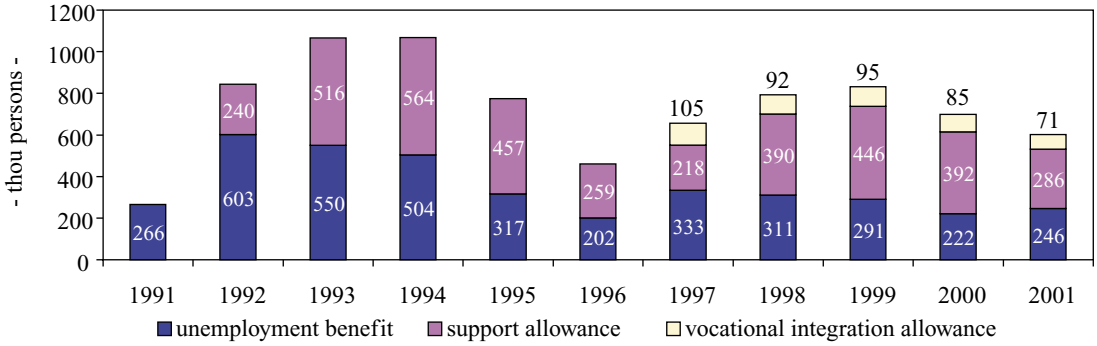
organisation of Job Exchange;

special program for employment of lay off personnel.

Passive protection of unemployed is accomplished by granting social indemnities such as: unemployment benefit, support allowance, vocational integration allowance and compensatory payments for personnel laid off in case of closing down or restructuring enterprises activity.

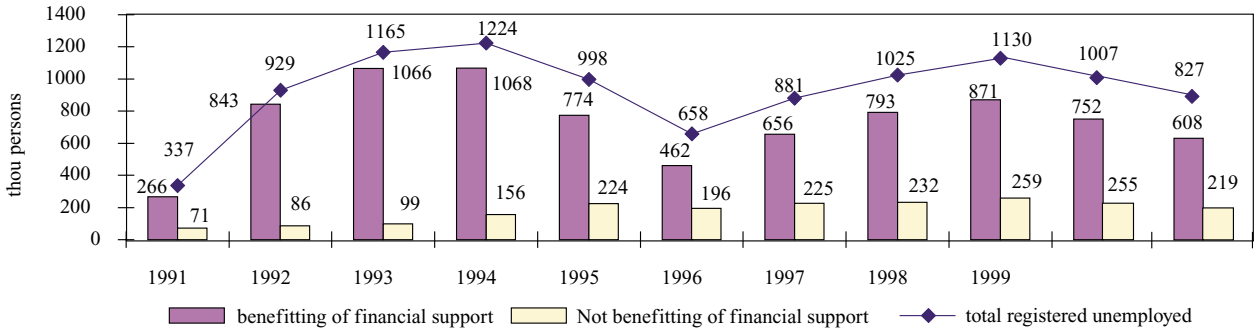
As unemployment becomes chronic, number of persons receiving support allowance increased significantly during 1993-1994.

Fig. 15. Number of beneficiaries of financial support for unemployment, by categories of support



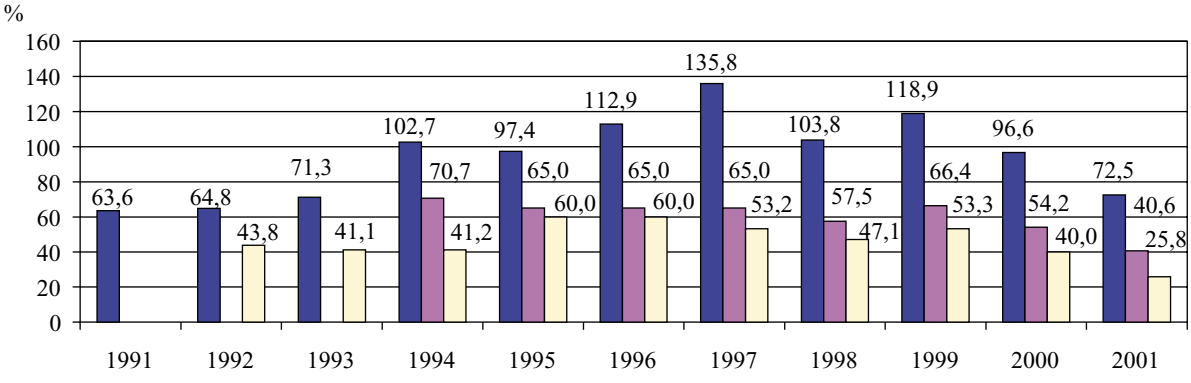
Most of registered unemployed is beneficiary of financial support (unemployment benefit, support allowance, vocational integration allowance). Increasing number of unemployed not receiving financial support is the result of expiring of period for which they were entitle to receive support and also of increasing of job seekers who never worked and who, according to national legislation, are not entitle to receive these type of financial support.

Fig. 16. Evolution of number of registered unemployed



Between 1994 and 1999, the ratio between average level of unemployment financial support and minimum wage was (excepting 1995 when it dropped little under 100%) in favour of unemployment benefit, in 1997 representing 135.8%. Following years it dropped, in 2001 descending to 72.5%. After expiring the period of 270 days during which, according to legislation, unemployed persons are entitled to unemployment benefit, for another period of 18 months support allowance is granted.

Fig. 17. Ratio between average level of unemployment financial support and minimum wage



Vocational integration allowance is granted starting from 1994 to the following categories of persons:

graduates of education institutions aged at least 18 years old who do not have own income resources at the level of at least half of minimum wage and who, during 60 days did not succeed to employ anywhere;

graduates of education institutions aged at least 16 years old without legal supporters or whose legal supporters can not afford to support them;

young people who before the military compulsory service could not find a job and who, could not employ within 30 days after ending of service;

graduates of special schools for disable who did not find a job.

Most favourable ratio between vocational integration allowance and minimum wage was registered in 1999, i.e. 66.41%. In 2001, the ratio was 40.6%.

Social security for pensions

In Romania, several social security systems are operating:

State social security (representing the largest share and covering all employees, irrespective of type of employer)

Social security for farmers;

Several smaller, independent systems, covering other categories, such as: lawyers, military personnel, personnel of religious denominations.

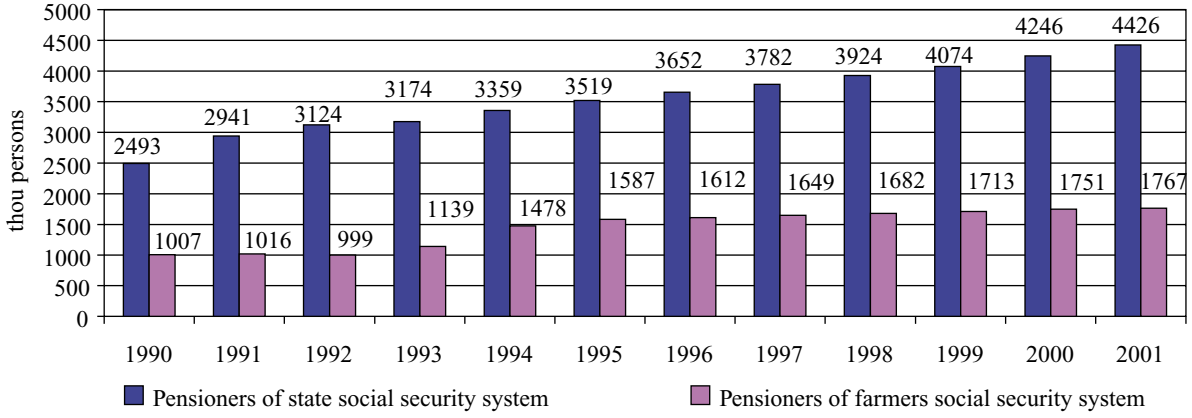
State social security covers following risks: old age, sickness, accident, maternity, disability, death.

Main categories of pensions are: for old age and full length of service and partial length of service, for disability in case of work accidents and diseases (occupational or ordinary), successors pensions, additional pensions.

In 2001, average number of pensioners in Romania was 6351 thou persons, out of which 6311 thou were covered by social security. From social security pensioners, 70.1% belonged to state social security system and 28.0% to farmers social security.

Evolution of number of pensioners from state social security system and farmers pensioners during 1990 – 2001 was continuously ascending. In 2001 comparing to 1990, pensioners number recorded an increase by 77.5% in case of first category and by 75.5% in case of second one.

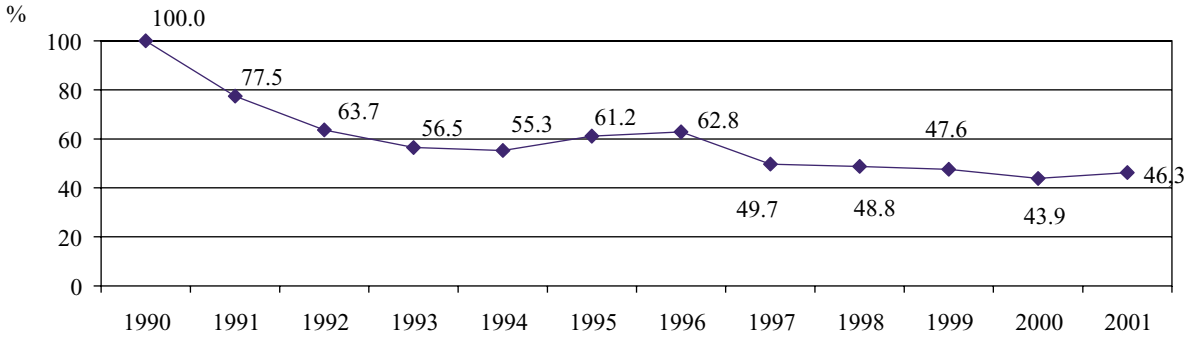
Fig. 2.19. Evolution of number of pensioners from state social security system and of farmers pensioners



Main category of pensioners, for old age and full length of service, increased by 1347 thou persons over past decade, encountering 3206 thou persons in 2001.

In 2001, **average nominal pension** provided by state social security system (including arm forces, Ministry of Internal Affairs and Romanian Service for Information) was 1305 thou lei, its purchasing power strongly eroding during same period, ratio between pension index and consumer price index representing only 46.3% against October 1990.

Fig. 2.20. Evolution of ratio between pension index and consumer price index of pensioners from state social security system



Social security policy was oriented on deep reforming of the system. In April 2001 entered into force new Law of public system of pensions and other social security rights, mainly focussed on setting up an unique system of public pensions, guaranteed by state, by compulsory inclusion of all natural persons who earn incomes from different activities. Contribution is paid by both, ensured persons and employers. In computing the pensions, contribution paid by ensured person during entire activity period is taken into account. Retirement age limits will increase gradually over next 13 years, up to 65 years old for men and up to 60 years old for women.

Persons having full (complete) contribution period according to legislation may choose for early retirement up to 5 years anticipation against standard age limits.

FREE MOBILITY OF LABOUR VIS-À-VIS THE ACCESSION COUNTRIES: WHAT DO WE NEED TO KNOW IN ORDER TO MAKE IT HAPPEN?

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1. Motivation

The motivation for this note is a substantive one, but there are huge problems involved in terms of data availability and methodological issues that are relevant for related research. The topic that I am going to address is how to monitor the processes of labour mobility and international migration expected to take place after EU Eastern enlargement. This subject is particularly relevant during the period of transition towards free mobility of labour established in the EU treaty, as the transitional arrangements envisaged in current negotiations may leave a lot of room for discretion to be exerted on a national level regarding aggregate numbers and individual profiles of migrants from Central and Eastern Europe who are admitted to enter the incumbent EU member states.

Many economists, when confronted with the question raised in the title, would tend to say that there is not much we need to know in advance before opening up the borders of current EU member states for workers from the accession countries. With competitive labour markets, international mobility of labour which is purely driven by existing productivity differentials raises aggregate output across both the sending and receiving countries and thus, neglecting the distributional issues involved, is unambiguously welfare enhancing.[1] Having clarified this as a theoretical proposition, one may therefore have to fix some institutional obstacles for the conclusion to hold true in practice – for instance, allow for sufficient flexibility of national labour markets, or remove any distortionary, fiscal incentives to migrate – and may then happily proceed to install free labour mobility across the larger union from the very first day after enlargement.

In the greater public, though, it appears that things are considered to be much more complicated. Politicians hesitate to lay hands on existing labour market institutions that contribute to the rigidities observed in many countries of Western Europe. Among other things they respond to the fear that, with increased competition in national labour markets, additional labour supply by immigrant workers will reduce the wage earnings of residents at least in some sectors of industry and for some professions and skill categories. As the reverse side of the same coin, as long as structural reforms are absent and adjustments in wages are limited, large-scale immigration is expected to add to current high levels of unemployment among the resident labour force. Part of this view is clearly protectionist, the fears that I mentioned being exaggerated or even ill-advised.[2] But for the remaining part, one may indeed have to seek for a new balance between flexibility and social protection when defining the legal framework for national labour markets in European countries. Seeking this balance can be time-consuming, which may justify the introduction of a period of transition before free labour mobility is applied to workers from the accession countries. In any case, decisions should be based on all pieces of empirical evidence that can be made available regarding labour mobility within an enlarged EU and its social and economic consequences.

[1] See, for instance, Borjas (1995). An application to the context of EU enlargement is presented in Sinn (2000).
[2] For a survey of the relevant US experience, see Gaston and Nelson (2000*a*; 2000*b*).

One of the problems involved in the arrangements for the transition period that have been drafted in 2001 is that many countries will go on controlling the in-flow of workers from Central and Eastern Europe simply because they are allowed to do so. As of today, it is highly likely that most Western European countries will stick to current restrictions on immigration from the accession countries for at least two years after enlargement.[3] Given the resulting lack of new experience and up-dated information, many of them may extend this period—based on unilateral notifications – for another three to five years because, once the first two years have elapsed, nothing much has happened which could be used to address existing public concerns. In this unfavourable scenario, collecting and exploiting all kinds of data on the restricted kind of migration that will be possible during the transition period will be a very important task for researchers. But also in the alternative case, when some countries move ahead in the direction towards free mobility of labour, the problems involved in collecting and processing data will not be fundamentally different.

In the following, I will go through a number of problems and issues that I think are relevant in this area.

2. The overall potential for migration

Let me start by a short digression, talking briefly about existing projections of the overall potential for migration from Central and Eastern Europe to current EU member states. This can be useful because, up to a point, it also introduces to some of problems that researchers are faced with when turning to the field of migration and labour mobility in an extended union.

Since movements of people across the relevant borders have been strongly controlled for more than five decades now, historical data on migration between the countries involved are largely useless in order to predict what will happen when restrictions are removed. In an attempt to overcome this obvious limitation, many researchers[4] have taken refuge to rough out-of-sample predictions based on econometric analyses of migration observed between Southern and Northern Europe in the 1960s to the 1990s, the main sending countries considered being Spain, Portugal, Greece – the countries of EU Southern enlargement – , and eventually Italy and Turkey. Researchers engaged in these exercises would be the first to admit that aggregate data used for this purpose (annual gross or net flows of migrants, cross-country differences in income, unemployment, *etc.*) offer just a poor foundation for analysing the dynamics of international migration. In addition, application of the results to the case of Eastern enlargement gives rise to a lot of intriguing questions, among others methodological ones.[5]

As time passes by, one would at least have to move to data taken from the set of countries involved in EU Eastern enlargement in order to follow this route any further. For this approach to be meaningful, however, it will be crucial whether migration continues to be legally restricted for the majority of countries affected or not. If only a few (small) countries in Western Europe switch to a regime of free labour mobility, one will have to deal with the possibility that those who migrate there are just choosing a detour, in fact waiting for access to other countries (to which they effectively might, or might not, migrate when further changes occur). If virtually no country opens its borders, looking at aggregate data will still be a blind alley. The only feasible alternative will be to study micro-level data for those who are allowed to migrate in spite of restrictions that are in place in order to see what can be concluded from this highly selected sample for the case of migration in a free mobility regime.

Before addressing in more detail the kind of data that might be useful for future research, let me also comment on an alternative approach to estimating the migration potential from an *ex-ante* perspective. From an economist's perspective, another strategy of coping with the lack of data on intra-European migration from East

[3] Germany and Austria – *i.e.*, countries expected to be most affected – have declared this openly. Other countries, like Denmark or the Netherlands, which announced at an early stage that they were willing to open up their labour markets at once have withdrawn this promise following changes in political majorities in their parliaments. So far, most countries are reluctant to indicate their precise plans, although they are asked to do so by the Commission until the end of 2002. In any case, it is unlikely that a limited number of (relatively small) countries will accept to take the lead in this area, serving as natural experiments for the majority of (larger) EU countries.

[4] For examples, see the estimates provided by Brücker and Franzmeyer (1997), Bauer and Zimmermann (1999), Boëri, Brücker *et al.* (2000), Hille and Straubhaar (2000), Straubhaar (2001), or Sinn *et al.* (2001). Note that results vary a lot even between different projections prepared by affiliated groups of authors at different points in time.

[5] Perhaps, one of the most important problems is how to deal with the fact that the set of countries from which historical data are taken differs from the set of countries for which simulations regarding future developments are made. In other words, to what extent is the introduction of country-specific fixed effects – the textbook standard in panel regressions of this kind – useful or misleading, and how could these effects be identified for the accession countries? See Alecke and Untiedt (2001), or the controversy between Brücker (2001) and Flaig (2001).

to West – building on special surveys conducted among the population or the labour force of the accession countries, asking people whether they wish to migrate to Western Europe once this is legally possible – is not very promising. The trouble with this approach is that it may be suited to uncover individual preferences, but it is certainly not capable of dealing with the host of constraints that are relevant for actual choices. Even if researchers try to distinguish between different probabilities of individuals to migrate through questions like "Do you wish to go", "Have you started to collect relevant information", or "Did you contact the embassy or other officials of one of the current EU countries", much of what is subsumed under tangible and intangible "migration costs" will not be taken into account.[6] In addition, building on this approach it is next to impossible to yield information regarding the timing of migration processes, including the possibility of return migration which can be very important in a European context.[7] To be sure, surveys can serve a lot of auxiliary roles when it comes to assessing the consequences of economic decisions. But they are of very limited use in mimicking the situation in which individual choices are taken.

3. What is a "migrant", what is "mobile labour"?

A point which has been made earlier on is that it is surprisingly hard to find a precise definition of "international migrants" which can be used to identify them in an empirical context.[8] The problem is not so much that statistical definitions vary across countries, even inside the current EU. This could be fixed through adopting a harmonised definition. (It is however less clear that this actually *should* be done at any rate, considering the discontinuities in longer time series created through changes in definitions. Perhaps, some mild approach to harmonising standards for future data collection, allowing for workable procedures of "translating" older data to the new concepts would be the right thing to look for.) What is more important in this context is that the status of being a migrant should not be confused with the status of being a foreign national: in countries where citizenship or nationality is primarily based on the *ius sanguinis*, there can be a substantial stock of foreigners who never immigrated,[9] while there may as well be quite a number of true immigrants who are not considered as foreigners.[10] (Note that the latter also have to be distinguished from those who were born outside their – or their parents' – country of residence merely by chance.)

Based on the idea that migration implies a change in "main" residence, irrespective of an individual's nationality, accounting for *flows* of migrants is relatively easy. One may have to define a lower time limit for a temporary residence to be considered relevant in this context. Also, there may be uncertainties as to the precise definition of (and proper reporting on) a main residence. But basically all kinds of legal migration should be measurable building on several sources of administrative data (which may or may not distinguish between migrants by domestic and foreign nationalities where this is thought to be useful).[11] However, disentangling migrants from foreigners is much more complicated when looking at *stock* data which, on the other hand, are far more important in order to analyse the living conditions of immigrants and the consequences of migration for the economy and the population of the receiving country. Here, keeping track of immigrants who are naturalised or already entered as nationals is very difficult but, at the same time, important.

Things are slightly different, though no less complicated, when the focus is on "labour mobility" rather than on changes in residence. "Commuters" who switch from one country to another on a day-to-day basis in order to get to their work-place are one form of labour supply which is internationally mobile, but there is no change in residence involved. Furthermore, between the two extremes of daily commuting and migrating (*i.e.*, choosing a new main residence in the country of the work-place) there is a continuum of possible solutions, with all kinds of weekly, monthly, or even annual "commuting" (going home for the summer, or returning to a foreign coun-

[6] Thus, it should not come as a surprise that survey studies of this variety often come up with enormous numbers of potential migrants, amounting to up to 20 % or even more than 50 % of the population of selected accession countries. See, for instance, Fassmann and Hintermann (1997) or International Organization for Migration (1998).

[7] Consider a case where, *ex ante*, 50 % of the Polish correctly have stated that they were willing to move to Germany, Austria, or France, while over a period of 10 years no more than 5 % are abroad at each point in time, with everyone returning after just one year. It should be clear that the impact on all the four countries involved would be very different from a scenario where 50 % of the population emigrate at once, or in an increasing proportion, without ever returning.

[8] See Salt *et al.* (2000, chapter 2).

[9] A well-known example is given by the case of Germany where, in spite of recent changes in naturalisation laws, there is a considerable number of people of foreign nationality who were born in Germany or even whose parents were born in Germany. Other examples from Eastern Europe are given by people with passports from Russia or other countries in the former Soviet Union living in the Baltic states.

[10] Again, the most prominent example may be given by ethnic Germans moving in from Eastern Europe where their ancestors have been living for several generations.

[11] See, for example, the data on migration published in Eurostat (2000, sections C and E; 2002).

try for seasonal employment on a next to regular basis) being actually practised. As long as there are work permits involved in any cross-border supply of labour – for commuters as well as for true migrants – there will be administrative procedures which can be taken as a source of information in themselves or which can help to identify mobile workers for further data collection. In the absence of any such procedures, it becomes really difficult to identify labour migration and mobile workers based on criteria other than nationalities, as it is mostly done in existing data sets covering a given country's labour force.[12] Thus, when using data of this kind one would have to encounter all the ambiguities mentioned before, including some individuals in the data who never migrated and excluding others who actually did.

Another point which can be the less neglected the more the enlarged EU becomes a single market is that daily commuting to an employer who is located in a different country – the case implicitly considered above—is not really an extreme. With an increasing amount of cross-border activities of firms located in the country of residence of their workers, there may even not be a change of employer or job, with or without a work permit, involved in the process of labour mobility. In other words, free trade of goods and services can become economically indistinguishable from free mobility of labour,[13] and it is an open question of how to deal with this phenomenon in current statistics in a meaningful way. A pragmatic definition of mobile labour, based on employment with a legal entity in another country (a new employer or a formal subsidiary of the old one) might be the only viable solution, considering that monitoring all sorts of short-term changes in actual work-places may be simply impossible. Building on this definition, another pragmatic distinction between commuters and migrant workers might be useful.

4. What do we need to know about "mobile workers"?

It may have become clear that the themes of monitoring migration and labour mobility in an enlarged EU have large overlaps – among other things because migrant workers may be accompanied or followed by relatives who are outside the labour force – but that they are not entirely identical. As the legal entitlement that is relevant after accession is basically given by the free mobility of labour, we may take this to be the more fundamental aspect. Given the imperfect identification of mobile and migrant workers in all existing data bases, a fresh start might be called for where either a new set of data is established or, perhaps more promising, existing survey instruments are augmented and deepened so as to yield more accurate and more comprehensive information.

Then, the question is what kinds of data are considered important for the case of workers who switch to another country of employment on a temporary or a permanent basis, either immigrating to this country or commuting at whatever frequency they think appropriate for their purposes. As we have seen, formal citizenship of the sending or receiving country plays a minor role here. (At best, foreign nationality is a week indicator whether someone is likely to have been internationally mobile.) Instead, what is most relevant is whether an individual has switched to the current country of employment from abroad, or moved to the current country of residence, at some point during his or her life.[14] Information regarding these characteristics are an important identifier even if mobility or migration have occurred long ago and the data collected are not longitudinal in their nature. For reasons to be explained later on, they may be of interest also for cases of "completed" temporary mobility in the past – when individuals have stopped to commute or migrants have returned home, that is.

By and large, the most prominent tasks of studying labour mobility will be (*i*) work conditions and living conditions of mobile workers (and their families) as compared to the resident work-force (and population), and (*ii*) the impact on the economy of the receiving countries and the domestic labour force. (Of course, comparisons with those who are immobile and stay abroad – instead of living in the receiving country before mobile workers arrive – or the impact on the economy of the sending countries can be considered no less important. But as

[12] See, for instance, Eurostat (2000, section D).—This is clearly one of the reasons why, when trying to take account of migration, "labour migration data are probably the most problematic" (Salt *et al.*, 2000, p. 15).

[13] This points, by the way, to an important reason why a "protectionist" approach to managing labour mobility in the context of EU enlargement is misguided. With the current combination of free flows of goods and services and free movements of capital, which have been largely adopted *vis-à-vis* the accession countries in existing pre-accession treaties, national labour markets in Western European countries are already exposed to much higher competition than before. Removing the barriers that remain in place regarding labour mobility simply allows for additional mechanisms of adjustment.

[14] When the focus is on labour mobility, one might consider the alternative of restricting attention to a given individual's working life. Yet, disregarding the period of schooling and formal professional training one could miss important features of the overall subject (like the problems involved in a "brain drain" for sending countries, or the situation in labour markets of the receiving country for those with qualifications from abroad). If including these periods is then thought sensible, the two concepts will tend to converge.

data on emigration are notoriously less reliable than data on immigration, a comprehensive data set for the enlarged EU might be helpful also for analytical purposes in this area.) This implies two things. First, commuters and immigrant workers should not be surveyed in a sample which is entirely separate from samples covering the resident, "immobile" labour force. Secondly, as the situation of mobile workers may change a lot over the years following mobility processes and the broader social and economic consequences of labour mobility may develop over time, the data collected should allow as much as possible for spanning the relevant time dimension.

Ideally, one might like to see the type of information emerging from labour force surveys with a true panel structure, encompassing a sufficient amount of household-level, not just individual, data. On the other hand, large-scale panel surveys are extremely costly in more than one sense. Besides, they raise major difficulties of their own in terms of how to deal with panel mortality which is particularly pressing in the context of migration.[15]

Therefore, a viable alternative might be to integrate data collection with regard to labour mobility in extended labour force surveys[16] where immigrants and mobile workers should be properly identified and over-represented in the usual way to allow for representative studies of this sub-group. In fact, even break-downs along important dimensions of heterogeneity within the group of mobile workers—most importantly, major ethnic groups or nationalities, main sectors of industry, skill categories, and effective occupations—should be feasible. Since periodic sampling would be essentially based on a cross-section, some amount of retrospective data collection would be clearly called for, at least in the case of mobile workers:[17] as we have seen, the sheer fact of being part of this group can be derived only from information regarding the, sometimes remote, past; also, some basic features of the respective individuals' situation prior to international movements (like formal qualifications, work experience, employment status), and the employment record for the time elapsed since then would be very helpful for investigating individual and aggregate dynamics related to labour mobility. Certainly, there are several limitations to the collection of retrospective data (which can be taken to be reliable). But this aspect should not be dropped altogether.

One reason is that monitoring labour mobility after EU enlargement simply cannot wait until linger time-series of annual data can be put together. It is clear that the statistical basis for research in this area will improve with the period of observation. But for preliminary results to obtain, between one and three sample periods might be enough, provided that the data recorded contain information also regarding earlier points in time.

Another, and more fundamental, problem involved in monitoring labour mobility is given by return migration and related phenomena. Once people stop commuting, return home, or move on to another country, they often drop out unobserved from any cross-section sample. (Even in longitudinal surveys, return migration will mostly lead to non-response and missing data in a way that is indistinguishable from other incidents of panel mortality.) At the same time, it appears that temporary mobility is very important in a European context, which is one aspect where intra-European migration may differ a lot from the US experience.[18] Learning more about the timing and structure of return migration would be also very important from the perspective of the countries of origin considering their existing fears regarding a "brain drain" through free labour mobility. In addition, if Western European countries will effectively advance towards free labour mobility at different speeds, "chain migration" from one foreign country to another may become a relevant phenomenon. For all these cases, collecting some amount of retrospective data among a country's current labour force might be the best way to get hold of relevant information.

So far, these considerations were mainly about the basic structure of data which would be useful and, at the same time, might be made available with reasonable effort: uniform surveys performed among the labour force of all EU countries, extended to fully capturing mobile workers as a distinct sub-group and augmented by some

[15] For these reasons, extending the existing European Community Household Panel (ECHP) in an appropriate way to cover commuters and immigrants for representative analyses would not appear promising. In any case, it could imply introducing new discontinuities in this data base which has been set up only during the last few years.

[16] For convenience, I use the term "labour force survey" (LFS) here, not necessarily meaning to imply that the current system of LFSs adopted in all EU member states as well as in the accession countries should be replaced by something else. Perhaps, these surveys could be extended on an annual basis in the directions sketched in the following.

[17] A strategy where additional survey questions are introduced for this sub-group only would have both advantages and disadvantages. In any case, it might be considered.

[18] See Sinn and Werding (2001, p. 40). Acknowledging the problems involved in existing data and their interpretation, Ifo has estimated that out of foreign immigrants to Germany observed in the past—no ethnic Germans, no asylum seekers—only 40 % were still living in Germany after 10 years and less than 30 % after 25 years.

amount of household-level and retrospective information. As an aside, I have already said something about what the data should cover in particular: some information on biographical aspects, identifying mobile workers in the first place, as well as on their education and employment record in the past. Without going into too many details, I will now try to list what further aspects should be reflected in appropriate data in order to be relevant for studying the consequences of labour mobility for the individuals involved, for the receiving countries as a whole and, *mutatis mutandis*, also for the sending countries.

Besides a lot of characteristics of an individual's labour force participation covered in conventional labour force surveys, information collected regarding current (gross) wages should be as accurate as possible, avoiding the definition of large earnings brackets, or unlimited categories and cut-offs at the upper end of the wage distribution. Data should also cover multiple job-holdings (and carefully register the number of hours worked in each job). Also, detailed information as to the occupational level of workers, to be compared with formal qualifications and skills acquired through earlier job experience, *plus* information on eventual (at least, recent) changes in employers would be needed in order to compare the career patterns and wage profiles of mobile workers to those of the receiving countries' original residents.

Regarding the mobile workers' families and households, a minimum of information necessary is of course given by marital status, number and age of children, and the country of residence of all these relatives. Beyond this, data on the employment status of family members and on (net) household income, roughly classified by typical sources, would be important. Next to the impact on wages, employment, and other aspects of economic development in the receiving country, the fiscal implications of labour mobility may be considered important.[19] Thus, more detailed information regarding taxes and social security contributions paid as well as regarding transfers received (related to sickness, spells of unemployment, children, housing, general welfare, *etc.*) or public services utilised (most importantly, health care and schooling) by the workers and their families would be of interest in order to measure the direct effects.[20]

Questions that could be tackled using the kind of data I have in mind are manifold. First of all, they can be helpful for studying the micro-economics of decisions to migrate or commute; for looking at channels through which mobile workers are integrated in the receiving country's labour market—perhaps, typically going through several stages of catching up to their formal qualifications and occupational levels held in their home countries; and for analysing the impact of labour mobility on wages, employment opportunities, and overall economic development in both receiving and sending countries in general. It may take some time (for real-world developments to take place and for data to be collected and processed) until long-term effects can be identified which may turn out to be more important, and less ambiguous, than short-term effects. But as I said earlier, given the current ignorance and lack of data a start must be made at some point in time.

The idea developed here, basically focusing on how to extend existing labour force surveys along several dimensions in order to monitor labour mobility in an extended EU, is not a cheap strategy. Clearly, the efforts needed can only be expected to pay if one thinks that labour mobility inside the EU will (potentially, *i.e.* if transitional restrictions were absent) increase as a consequence of EU enlargement. But, assuming that this is true, current statistics are not really capable of providing researchers and public administration with the information needed in order to understand the nature and consequences of free labour mobility which will have to be adopted *vis-à-vis* the accession countries in a few years at the latest. Besides the substantive matters mentioned in section 1, this is what motivates these reflections from the point of view of researchers.

[19] See Sinn *et al.* (2001, chapter 4) or Brücker *et al.* (2001) for preliminary investigations.

[20] In most countries, social security contributions (as well as future benefit entitlements related to these payments) can be easily simulated if information is given regarding gross wages. Things are much more complicated with respect to general taxation. But as long as sufficient data are provided as to public transfers received *plus* the relevant household structures, income taxes can often be simulated taking net household income as a point of departure. Sometimes, things are easier the other way round, *i.e.* when explicit information is available for gross household income, but comprehensive data of this kind are much harder to come by. As a matter of fact, it rarely pays to collect data on *all* the items mentioned here—gross income, taxes, benefits, and net income—because it often turns out in empirical work that the figures indicated are not consistent.

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LABOUR STATISTICS – TOWARDS ENLARGEMENT

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After the presentation of the political background and the related data needs in session 1, this presentation will focus on analytical data needs for employment analysis and policy evaluation in the European Commission. To this aim, it will focus on both recent results from the *Employment in Europe 2002* report and on future research projects in the field of employment analysis.

The *Employment in Europe* report has been published annually since 1989. Its main purpose is to contribute to policy evaluation and development through a rigorous and systematic analysis of employment trends in the European Union and its Member States. It also serves as analytical background document for the European Employment Strategy.

Since 1998, the report has regularly reported on the employment situation and employment trends in Central and Eastern Europe, since 2000 in the form of a separate chapter on employment trends in the candidate countries. Since 2001, the statistical annex of the report – both macroeconomic indicators and key employment indicators – further has fully covered the candidate countries, providing harmonised and comparable statistics on the basis of the European Labour Force Survey and other sources.

The 2002 report, in particular, provides a detailed analysis of the main employment trends in the candidate countries with a strong focus on the sectoral employment structure and the role of qualifications and further education for overall employment performance. The chapter goes on to discuss labour market characteristics of an enlarged Union, showing the likely effects of EU enlargement on key employment indicators such as employment rates in the light of the Lisbon strategy (see attachment).

As from next year, the *Employment in Europe* report will fully integrate candidate countries into the standard employment analysis, discussing employment trends and prospects in one single chapter together with the current Member States. This presentation will discuss more in detail the analytical and data needs emerging from this change. It will focus on some few selected areas such as macroeconomic employment performance, migration and mobility, regional employment patterns, and quality in work and productivity. In this context, it will discuss adequacy of existing databases and specify the need for further data.

EMPLOYMENT IN EUROPE 2002 - CHAPTER 5
EMPLOYMENT PERFORMANCE IN CANDIDATE COUNTRIES

Introduction

1. Recent economic and labour market developments

1.1 Economic developments

1.2 Employment developments

1.3 Participation and unemployment

2. Labour market characteristics in an enlarged EU

2.1 Employment rates in an enlarged EU

2.2 Temporary and part-time work

2.3 Sectoral characteristics

2.4 Occupational structure, education and training

2.5 Regional disparities

2.6 Demographic developments

Conclusions

Introduction

The Laeken European Council (December 2001) agreed that if the present rate of progress of the negotiations and reforms in the candidate countries is maintained 10 countries would be ready to participate in the European Parliament elections in 2004 as members. These countries would include Cyprus, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia, the Czech Republic and Slovenia. The Council also acknowledged the efforts made by Bulgaria and Romania and encouraged them to continue on that course.

Enlargement will imply an increase of about 106 million people in the EU - 75 million in a first phase and 31 million in a second phase – bringing the EU population to 484 million. Enlargement will bring with it significant changes to the employment profile and labour market structure of the EU. Despite having undergone important economic transformation as a result of their ongoing adjustment process, the continuation of structural reform is fundamental to help achieve the strategic goals set for the EU in the Lisbon European Council by 2010.

The agricultural and industrial sectors remain the main employers in the candidate countries. The restructuring process will have an important impact in their sectoral employment structure leading to higher employment in the service sector, which is significantly under-developed compared with the EU. Economic development, integration into a single market and increasing competition should also lead to an increase in income and to an increase in the demand for other services. These shifts in the sectoral employment structure will also increase the demand for a more qualified labour supply-one that matches the dynamics of labour demand.

To date economic restructuring has had a heavy impact on labour markets and 2001 was another challenging year as the candidate countries were all affected by the international economic downturn. Looking ahead more favourable economic conditions should translate into job creation within the medium term but the CCs continue to face important structural challenges in their labour markets.

1. Recent economic and labour market developments

1.1. Economic developments

GDP growth slowed down at the end of 2001 as a result of the deceleration in economic activity internationally, including in the EU, which is the main trade partner of the candidate countries (CCs). Over the forecasting period employment losses due to restructuring are expected to be offset gradually by job creation, which should lead to an improved labour market performance in 2003 (table 1).

In Bulgaria and Poland this upturn is not expected until 2003. The loss of jobs experienced in the Czech Republic since 1997 eased in 2001, but employment is not forecast to grow significantly over the 2001-2003 period. Employment growth in the Baltic States is forecast to pick up gradually but in Hungary job losses are expected in 2002 and 2003 despite an upturn in GDP growth. In 2001, employment contracted in Bulgaria, Lithuania and Poland. In 2002, job losses continued in Poland but employment is also projected to fall in Hungary and Romania. In Poland and Hungary, unemployment is projected to increase over the forecasting period

Table 1. GDP and employment growth in 2001-2003

	GDP growth			Employment growth		
	2001	2002	2003	2001	2002	2003
BG	4.3	4.0	5.0	-2.0	0.0	0.5
CY	3.7	2.5	4.0	1.9	0.5	1.0
CZ	3.3	3.4	3.9	0.4	0.0	0.1
EE	5.4	4.0	5.3	1.0	0.3	0.8
HU	3.8	3.5	4.5	0.3	-0.2	-0.3
LV	7.6	5.0	6.0	-0.1	0.5	1.5
LT	5.9	4.0	5.0	-4.0	0.4	0.7
MT	-1.0	3.9	4.0	1.1	0.7	0.7
PL	1.1	1.4	3.2	-2.3	-1.3	0.5
RO	5.3	4.2	4.9	0.6	-0.2	0.1
SK	3.3	3.6	4.2	1.0	0.5	0.6
SI	3.0	3.1	4.0	0.6	0.4	0.6

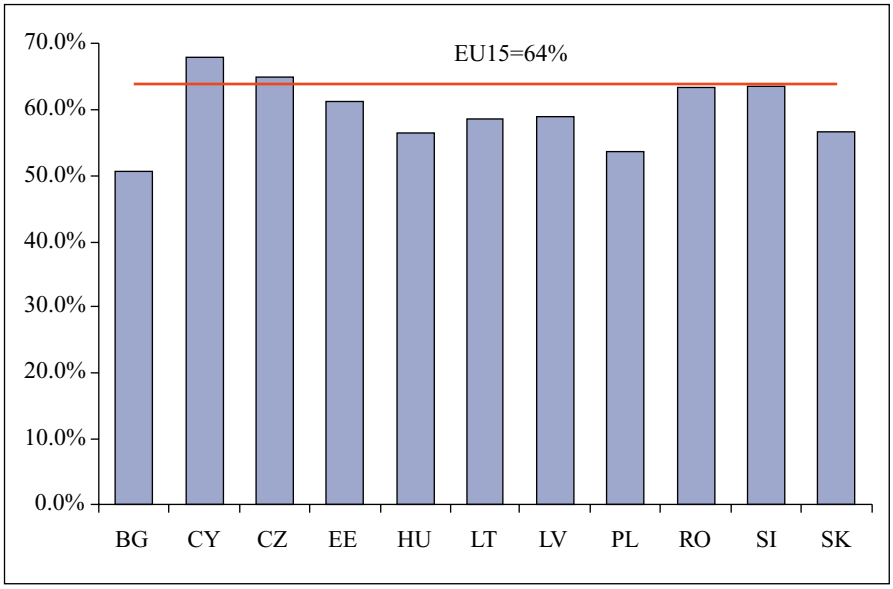
Note: BG (Bulgaria), CY (Cyprus), CZ (Czech Republic), EE (Estonia), HU (Hungary), LV (Latvia), LT (Lithuania), MT (Malta), PL (Poland), RO (Romania), SK (Slovakia), SI (Slovenia).

Source: Latest updates to 2002 Spring Forecasts, European Commission.

1.2. Employment developments

Across the region the employment rate has decreased and the unemployment rate increased since 1997. Participation had started to fall well before then. Before 1997, employment grew in parallel with falling participation, which led to a reduction of the unemployment rate. After 1997, employment fell more rapidly than participation and as a result unemployment picked up. Although employment in services has risen significantly, this has not compensated for the job losses resulting from the ongoing adjustments in the industrial and agricultural sectors.

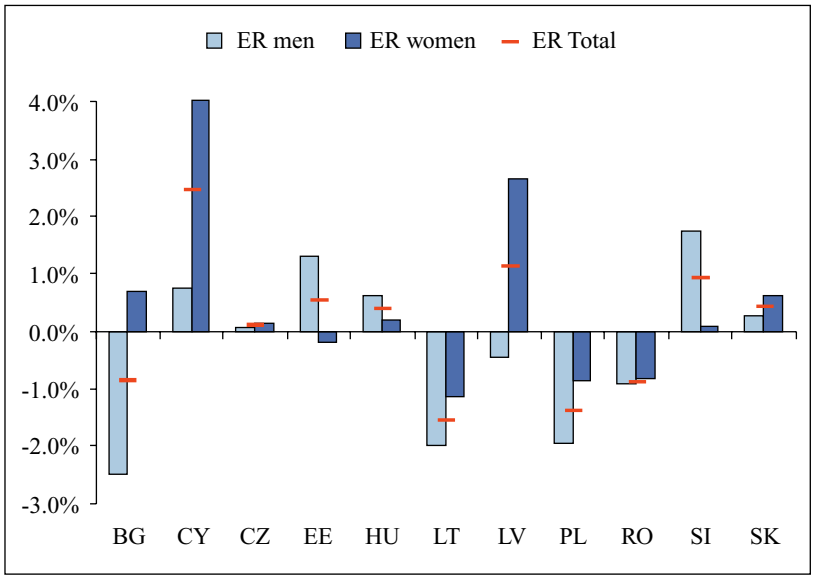
Graph 1. Employment rates in 2001 (% Population 15-64)



Source: LFS; QLFD for EU, Eurostat.

Labour Force Survey (LFS) results for 2001[1] show that, at present, only the Czech Republic and Cyprus have a higher employment rate than the EU average (graph 1). In this year, the employment rate fell in Bulgaria, Poland, Lithuania and Romania and increased in the remaining candidate countries. In all CCs, except Hungary, Slovenia and Estonia, the employment rate for women developed more favourably than that for men, either falling more slowly as in Lithuania, Poland and Romania or by increasing faster as in as in Bulgaria, Cyprus, the Czech Republic, Latvia and Slovakia (graph 2).

Graph 2. Change in the employment rate by gender in 2001 (percentage points of the employment rate)



Source: LFS, Eurostat.

Employment for those of working age (15-64) fell in Bulgaria, Poland, Lithuania, Latvia and Romania in 2001.

[1] LFS results for Malta had not been released by Eurostat at the time of the completion of this chapter. No comparable LFS data for Turkey is yet available. Therefore, the analysis presented will mainly refer to 11 candidate countries.

In Bulgaria, employment fell sharply in 2001. An increase in the employment of older workers did not offset the falls in the other age groups. Prime-age male employees accounted for the bulk of the fall in employment. Bulgaria's working age population shrank significantly, although by less than the fall in employment, leading to a decline in the employment rate.

In Poland, employment also fell in 2001. The net increase in employment for older workers was offset by steep drops in the employment of younger and prime-age workers, particularly men. There was also a net increase in the number of family workers, the same as the fall in self-employment, which together with sharp reductions in the number of employees led to an overall net fall in employment. As a result, the employment rate went down significantly (1.4 percentage points).

In Lithuania, employment contracted sharply during 2001, despite an increase in the number of family workers and self-employed. The fall in employment was mainly due to a reduction in the number of male employees in the younger and older groups. The employment rate fell sharply (by 1.6 percentage points) in the last year.

In Romania, employment of those of working age went down in 2001. Only among prime-age workers did the employment level rise. In contrast to the previous three candidate countries mentioned above, women lost more jobs than men and employment fell for family workers.

In Latvia, employment fell in 2001 but this was offset by a greater fall in the population in working age, which led to an increase in the employment rate. Employment for women increased but not by as much as employment for men fell. It was the only country in which overall employment fell despite a net increase in full-time jobs.

In Cyprus, the Czech Republic, Estonia, Hungary, Slovenia and Slovakia employment increased in 2001. In Cyprus this was mainly due to employment increases for prime-age workers, particularly women.

In the Czech Republic, there was a sharp fall in employment for younger workers which was more than offset by job creation for prime-age and older workers, both employees and self-employed. Despite an increase in overall employment the number of people in part-time jobs fell during this year.

In Estonia, employment increased for men but fell slightly for women. The net increase in employment is mainly accounted for by male employees aged 55-64. Self-employment also contracted in 2001.

In Hungary, as in the Czech Republic, the pronounced fall in employment for younger workers was offset by strong job creation for prime-age and older workers. Unlike in the Czech Republic, self-employment fell significantly during the year.

In Slovenia, increases in employment benefited men more than women, particularly those of prime-age, and it affected both employees and the self-employed. Employment fell only in the younger workers age group and the overall increase in employment was fully accounted for by full-time jobs.

In Slovakia, prime-age-female employees accounted for the bulk of the increase in employment. As in Slovenia, employment fell only for younger workers but in Slovakia the net increase in the number of employees is due only to temporary work, with permanent jobs falling slightly in 2001.

In all the candidate countries where total employment fell, there was a net increase in temporary jobs which was more than offset by the fall in permanent contracts. In all the countries where employment increased in 2001, full-time jobs increased more than part-time employment except in Estonia. Permanent jobs also increased more than temporary jobs everywhere except in Slovakia.

1.3. Participation and unemployment

Participation and unemployment rates continue to be adversely affected by the ongoing economic adjustment process. In 2001, activity rates fell significantly in the Czech Republic, Lithuania and Romania, for both men and women equally. In Estonia and Latvia, it increased strongly for women but also fell sharply for men. The sharpest participation increases were those experienced by Bulgaria and Cyprus, which were almost fully accounted for by women, and by Slovakia. In both Hungary and Poland, the activity rate remained fairly stable, although it fell slightly for women in Hungary, which already had an exceptionally low female participation rate (table 2).

Table 2. Employment, participation and unemployment in 2001

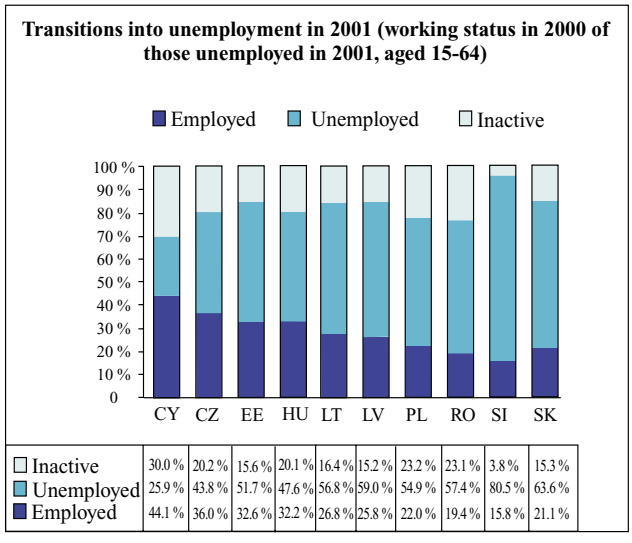
	Employment rate 15-64			Activity rate 15-64			Unemployment rate 15+			Youth unemployment rate	Long-term unemployment rate
	Total	Men	Women	Total	Men	Women	Total	Men	Women	Total	Total
BG	50.7%	53.6%	47.9%	63.3%	67.8%	59.1%	19.9%	20.8%	18.9%	39.3%	12.5%
CY	67.9%	79.7%	56.5%	70.8%	81.9%	60.0%	4.0%	2.7%	5.8%	8.4%	0.9%
CZ	65.0%	73.2%	57.0%	70.7%	78.5%	63.0%	8.0%	6.7%	9.6%	16.3%	4.1%
EE	61.1%	65.6%	56.9%	69.9%	74.5%	65.6%	12.4%	11.8%	13.1%	24.5%	5.8%
HU	56.3%	63.3%	49.6%	59.7%	67.6%	52.2%	5.7%	6.3%	4.9%	10.5%	2.5%
LT	58.6%	59.8%	57.4%	70.4%	74.5%	66.5%	16.5%	19.4%	13.5%	30.9%	9.3%
LV	58.9%	61.9%	56.1%	68.0%	72.7%	63.6%	13.1%	14.6%	11.5%	22.9%	7.7%
PL	53.8%	59.2%	48.4%	66.1%	71.6%	60.8%	18.4%	17.0%	20.0%	41.5%	9.2%
RO	63.3%	68.6%	58.2%	68.3%	74.3%	62.4%	6.6%	7.0%	6.0%	17.6%	3.2%
SI	63.6%	68.5%	58.6%	67.5%	72.5%	62.5%	5.7%	5.4%	6.0%	15.7%	3.6%
SK	56.7%	61.8%	51.8%	70.4%	77.4%	63.6%	19.4%	20.1%	18.6%	38.9%	11.3%
EU15	64.0%	73.0%	54.9%	69.2%	78.1%	60.2%	7.6%	6.6%	9.0%	15.3%	3.2%

Source: LFS; QLFD for EU, Eurostat.

This adjustment can also be seen in the reasons for leaving last job or business. Of those of working age in the region who had been in employment before but were unemployed in 2001, more than half on average were dismissed or made redundant. This compares to less than one third in the EU15. Unemployment rates remained very high in Bulgaria, Slovakia, Poland and Lithuania. These are also the only countries where the unemployment rate increased in 2001 - the increase was particularly strong in Poland and Bulgaria[2]. Unemployment for those aged 15-64 increased in these four countries with Poland experiencing a particularly sharp rise of 14%.

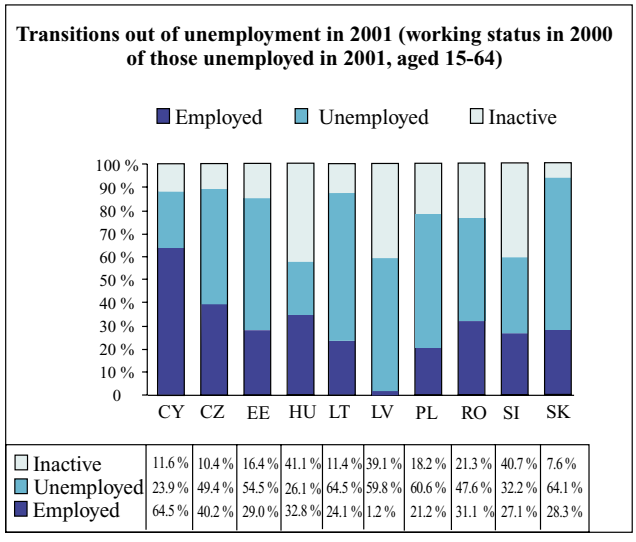
This increase is the result of higher inflows than outflows of unemployed in 2001. For instance, of those unemployed in Poland in 2001, 55% had also been unemployed in 2000 while 22% had been in employment and 23% inactive. Also, of those unemployed in 2000, 61% remained unemployed in 2001 while 21% were in employment and 18% left the labour force in this year. In Poland, Slovakia and Lithuania, transitions out of unemployment were relatively lower than in any other candidate country, with more than 60% of those unemployed in 2000 remaining unemployed in 2001. Cyprus, Hungary and Slovenia have low unemployment rates and also showed the highest transition rates out of unemployment. The latter two, however, also displayed the highest transitions into inactivity of those unemployed in 2000. Turnover was highest in Cyprus and the Czech Republic- with about 65% and 40% respectively, of those unemployed in 2000 in employment in 2001, although 44% and 36%, respectively, of those unemployed in 2001 had a job a year earlier (graphs 3 and 4).

Graph 3



Source: LFS, Eurostat.

Graph 4



Source: LFS, Eurostat.

[2] Bulgaria has an important break in unemployment between 2000 and 2001 due to changes in the LFS survey design (sampling and weighting). The impact has not yet been quantified by their National Statistical Institute and Eurostat. Therefore, this country has not been included in the calculations of transitions in and out of unemployment.

2. Labour market characteristics in an enlarged EU

2.1. Employment rates in an enlarged EU

Labour market developments in the CCs will have an impact on employment in the enlarged EU and reduce its current overall employment rate. This decline, however, does not fully justify mounting concerns that enlargement will jeopardise the attainment of the 70% employment rate target set by the Lisbon European Council.

The combined population of those of working age for the CC 10 is approximately 20% of the EU's (30% for the CC-12). This factor needs to be taken into account when assessing the impact of enlargement on the current EU employment rate, as 80% of the value of the employment rate in an EU25 (70% in an EU27) would depend on the employment performance of the existing EU15 Member States from now until 2010.

Should enlargement happen today, the inclusion of the 12 candidate countries[3] would reduce the current EU15 employment rate by about 1.5 percentage points to 62.4%. The reduction in the EU employment rate is similar for an enlarged EU-25 or for an EU-27. The effect on the employment rate for women is smaller than for men (table 3).

Table 3. Employment rates before and after enlargement in the EU in 2001

	Total 15-64			Women 15-64			Older workers 55-64		
	ER	EMP	POP	ER	EMP	POP	ER	EMP	POP
EU-15	63.8%	158100	247950	54.7%	67895	124012	38.2%	16095	42114
CC-10	56.8%	28756	50586	51.1%	13110	25633	31.0%	2241	7234
CC-12	57.8%	41148	71231	52.4%	18916	36096	34.5%	3608	10449
EU-25 (EU-15+CC-10)	62.6%	186856	298536	54.1%	81005	149645	37.2%	18335	49348
EU-27 (EU-15+CC-12)	62.4%	199248	319180	54.2%	86810	160108	37.5%	19703	52563
2010 Targets	Close to 70%			More than 60%			50.0%		

Note: CCs 10 includes: Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovenia and the Slovak Republic. CC-12 includes: CC-10 plus Bulgaria and Romania.

Source: Eurostat LFS 2001 results for both the EU15 and candidate countries, national LFS May-December 2000 for Malta.

Among the 10 CCs likely to join by 2004, Poland is the most significant in quantitative terms since it represents over a half of the working-age population of the CC-10 and over 1/3 of the CC-12). For this reason, of the CCs, employment developments in Poland will have the most impact on whether or not the increase in the employment rate required to meet the 70% Lisbon target is achieved in an enlarged EU.

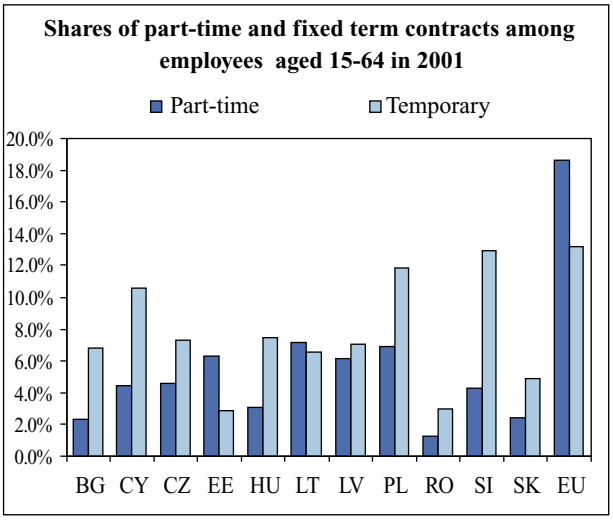
The slight reduction in the employment rate would occur despite the fact that employment rates in the candidate countries are on average significantly lower than in the EU, because of the restructuring that has been taking place since the early 1990s. Although GDP growth in the CCs superseded that of the EU, employment declined substantially. The process of industrial restructuring is not yet complete despite the profound reorganisation of industries and enterprises that has already taken place.

2.2. Temporary and part-time work

The CCs have rates of temporary work that are significantly below those in the EU with the exception of Slovenia and Poland, which have comparable ratios. Part-time work is also significantly less prevalent in all candidate countries than in the EU. Poland has one of the highest proportions of employees in part-time work (some 7%) but this compares to about 19% for the EU (graph 5). Among the EU Member States, Spain has a similar share of employees in part-time work as in Poland, which may reflect a relatively low employment rate for women. Hungary and Bulgaria, countries with female employment rates below 50%, also show very low part-time work levels among their employees. In employment generally, that is including the self-employed, the share is highest in Romania, although this is solely due to the high level of part-time workers among the self-employed.

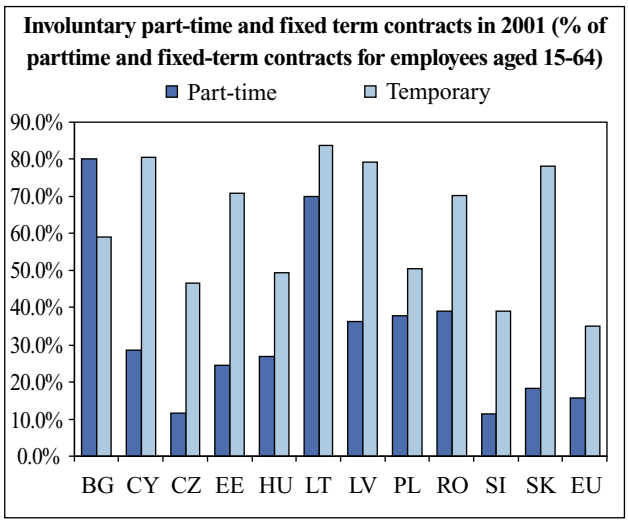
[3] No comparable data available for Turkey.

Graph 5



Source: LFS, Eurostat.

Graph 6



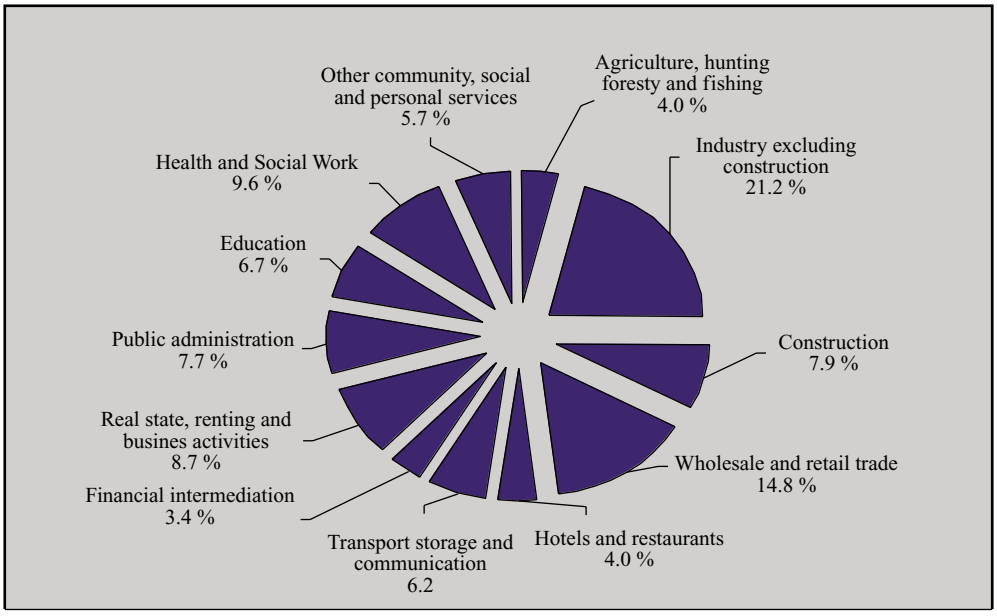
Source: LFS, Eurostat.

In many candidate countries the adoption of working time arrangements such as temporary work and part-time seems to be the result of the inability of workers to find full-time and permanent jobs (graph 6). The proportion of employees in involuntary part-time work is relatively higher than in the EU (particularly in Bulgaria and Lithuania). Moreover, the share of employees in involuntary fixed-term contracts is even higher. More than 70% of employees in fixed-term contracts in the Baltic States, Cyprus, Romania and Slovakia are so because they could not find a permanent job in 2001. Even though the share of temporary jobs in all candidate countries is lower than in the EU, the proportion of those which are involuntary is significantly higher.

2.3. Sectoral characteristics

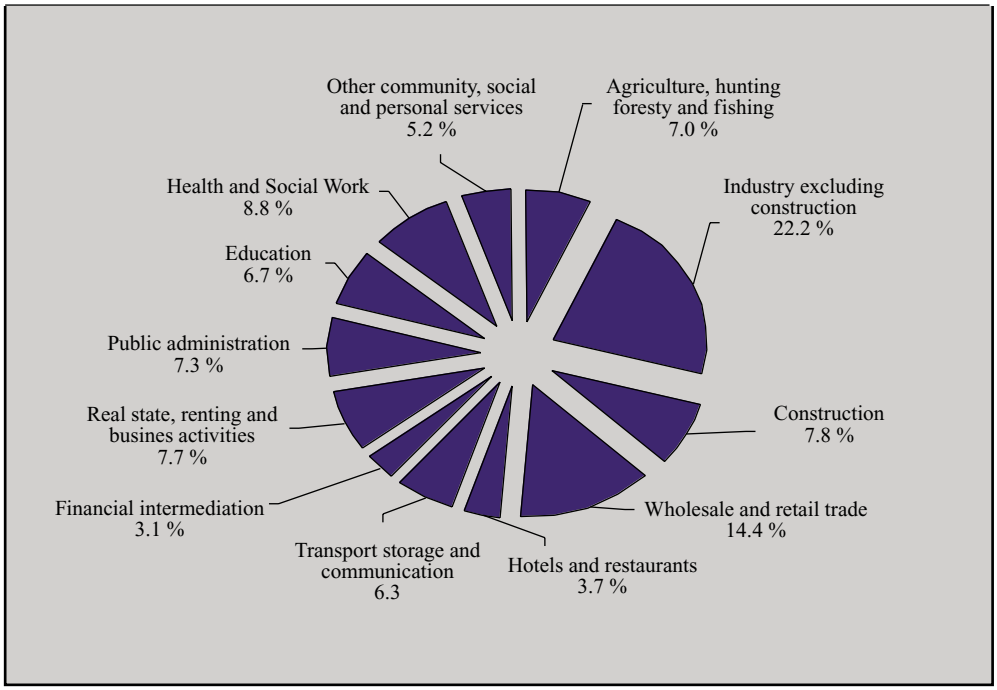
In the CCs on average, employment in agriculture and industry is currently over-represented to the detriment of the service sector. Following accession the sectoral structure of the EU will change (graph 7).

Graph 7. Sectoral employment structure in the EU15



Source: LFS, Eurostat. Data refer to 2001 for candidate countries and 2000 for the EU.

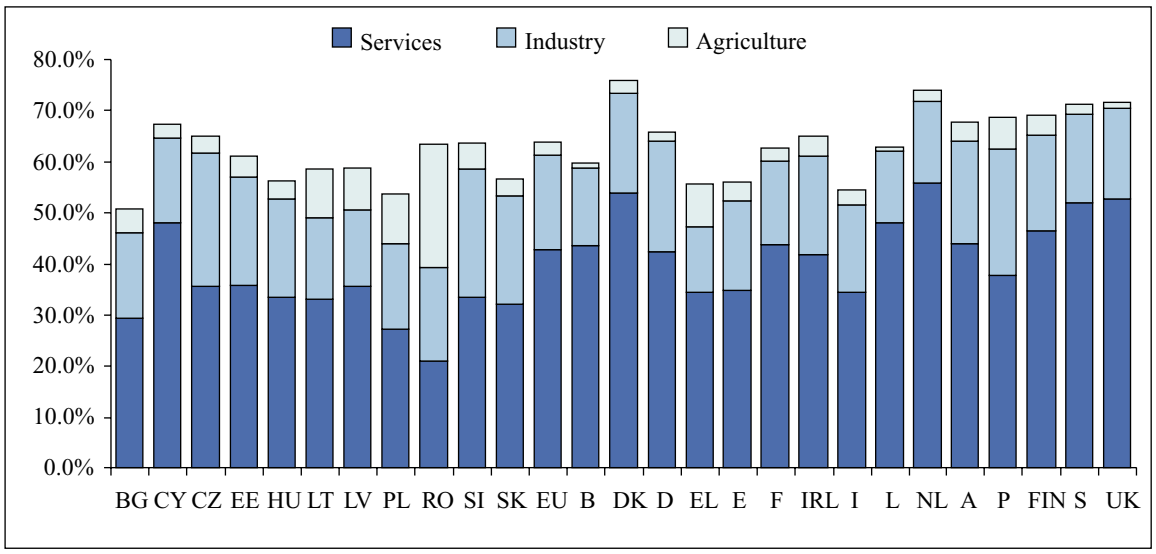
Graph 7. Sectoral employment structure in the EU enlarged



Source: LFS, Eurostat. Data refer to 2001 for candidate countries and 2000 for the EU.

As the effect on the EU employment rate would be weighted to the relative size of the CC's working-age population, the effect on the employment structure would also be determined by the relative size of employment in the CCs in relation to the EU's. The combined total of those of working-age in employment in the 12 candidate countries represents just above a quarter of employment in the EU. Therefore the observable differences between the two regions would be reduced fourfold in the new enlarged EU. This would translate today into increases of 3% in the share of agriculture and 1% in the share of industry. The share of the service sector would decrease particularly in sub-sectors such as "real estate, renting and business activities" and "health and social work", which are relatively under-represented in candidate countries.

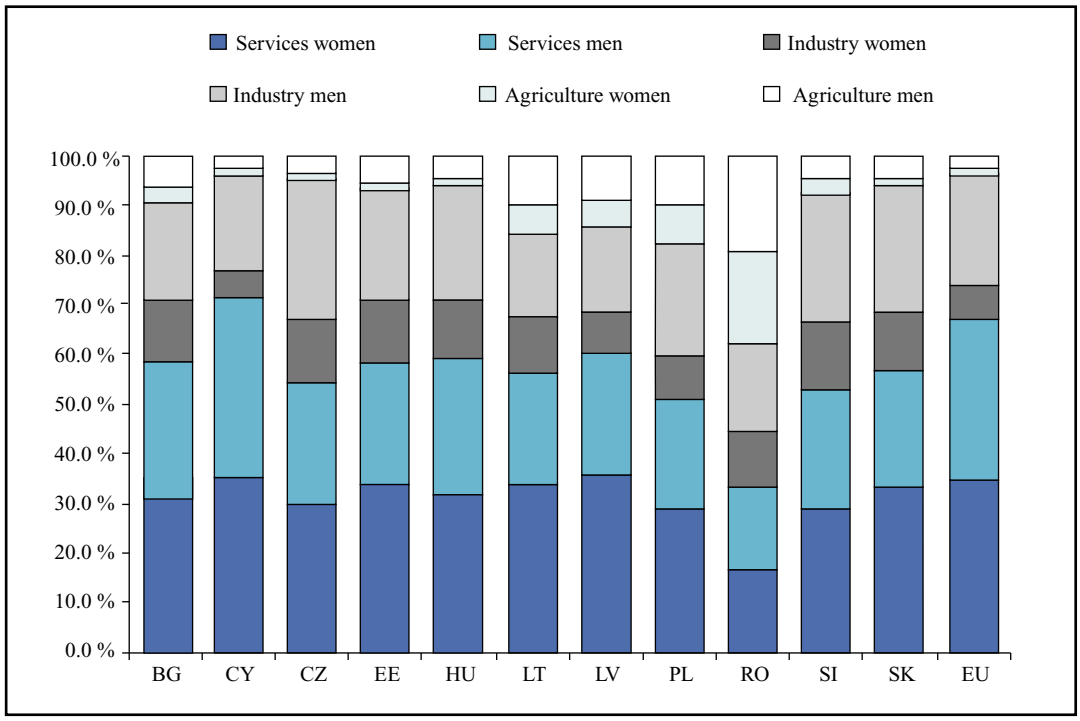
Graph 8. Sectoral contribution to the employment rate 2001 in the EU and the CCs



Source: LFS, Eurostat. 2000 for the EU (comparable data for all 15 Member States not available at the time of the completion of this manuscript).

In terms of sectoral employment structure, employment in agriculture is still significantly over-represented in most of the Central and Eastern European Countries compared to the EU. Differences are enormous between these countries, with Romania's agricultural sector accounting for about 45% of total employment, at the top, and the Czech Republic with similar shares to the EU, at the bottom. In between, Poland and Lithuania have some 18-19 % of their workforce employed in agriculture, 13-14% in Latvia and Bulgaria[4], 10% in Slovenia, and between 6-7% in Hungary, Estonia and the Slovak Republic (graphs 8 and 9).

Graph 9. Sectoral structure of employment (aged 15-64) by gender in 2001



Source: LFS, Eurostat. 2000 for the EU.

Except for in Lithuania, Latvia and Romania, employment in industry is significantly higher in the CCs than in the EU. This is particularly the case in the Czech Republic, Slovenia and Slovakia where between 37-40% are employed in this sector. No EU Member State matches these shares.

In all CCs, however, the service sector is relatively small compared to the EU, with the exception of Cyprus. The countries where employment in services is highest in the region are Hungary, Estonia and Latvia, although the share is still 8% below the EU's.

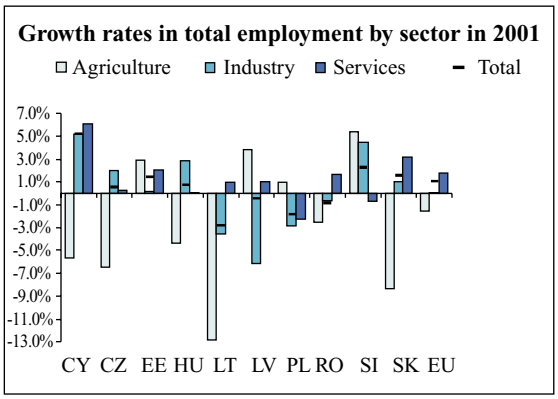
2.3.1. Agriculture

One of the particular differences between some of the CCs and the EU is employment in the over 65 age group and the large numbers of older workers working in agriculture, particularly self-employed and family workers. In the EU employment for persons over 65 years of age represents about 1% of total employment. In the CC region as a whole, this share increases fourfold (4%). This mainly reflects the large number of over 65 year-olds working in Romania (some 10% of their employment) who represent two thirds of all employment for this age-group in the whole region. Only 12% of these older workers are employees (36% in the EU) and some 85% work in agriculture. This again is very much the consequence of the Romania effect, where practically all those over 65 are self-employed or family workers in the agricultural sector- almost 1/4 of agricultural workers in Romania are over 65 years of age. (In the EU the bulk of older workers are employed in services and only 28% in agriculture)

[4] The share of employment in agriculture in Bulgaria from national accounts is about 26%, whereas results from the Community LFS point to a low 13%. Agricultural employment estimated by the Labour Force Survey refers to employed persons whose main activity is in agriculture. Due to the very high proportion of persons having agricultural activity in addition to another main occupation in Bulgaria, LFS does not provide an accurate estimate of total employment in this sector.

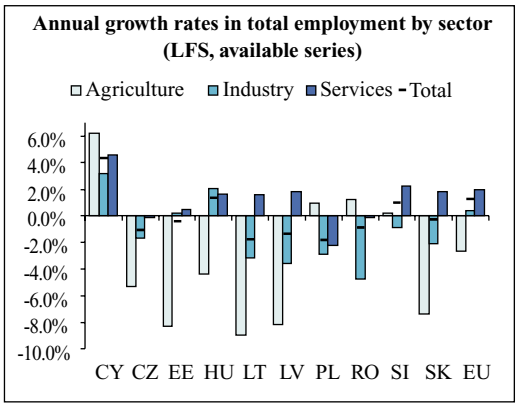
The effect of the restructuring process in agriculture is reflected in a lower number of agricultural workers now than at the beginning of the 1990s. According to ILO data, both the number of people employed in agriculture and the shares of agriculture in total employment fell across the region up to 2000, except in Bulgaria and Romania. According to Eurostat's LFS, employment growth in agriculture was positive, however, in Estonia, Latvia, Poland and Slovenia in 2001 (graphs 10 and 11). The shares in total employment also increased as employment growth in agriculture outpaced that in industry or services.

Graph 10



Source: LFS, Eurostat. Bulgaria under revision.

Graph 11



Important note: The current availability in time series to calculate sectoral changes from the Community Labour Force Survey is: 1996-2001 (SL, HU), 1997-2001 (CZ, EE, RO), 1998-2001 (LT, LV), 1999-2001 (CY, SK), 2000-2001 (PL). The changes in this chart refer to annual changes in the available period. Bulgaria under revision.
Source: LFS, Eurostat.

Although the total agricultural sector in the candidate countries is 20% bigger in terms of employment than the EU's it is significantly smaller in absolute economic terms. It currently represents about 12% of the EU's combined gross value-added in agriculture. In an enlarged EU following accession, total agricultural output will increase but it will not modify significantly the actual contribution to gross value added in the EU's total GDP. Although its economic impact will be somewhat diluted after accession, agriculture still contributes substantially to GDP in the CC region, accounting for 5% of GDP on average compared to about 2% in the EU. Although this contribution is higher for any candidate country than in the EU as a whole, there are very large differences among them. Agriculture is disproportionately large in Bulgaria and Romania, followed well behind by Lithuania and Estonia, whose contribution to GDP is, however, lower than in Greece. In the remaining CCs, the economic importance of agriculture accounts for less than 5% of their total GDP[5].

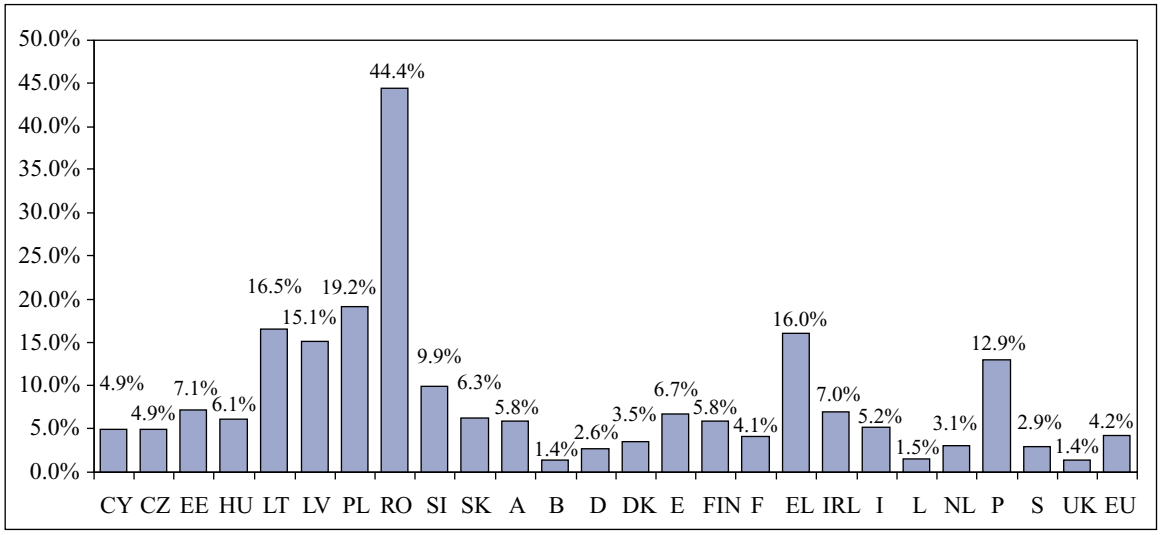
If the impact on the structure of GDP in an enlarged EU is not significant, the effect on employment will be substantial. On the basis of available 2001 data, following enlargement, the EU employment share in agriculture would go up from about 4% to 7%. Given the very low productivity of the agricultural sector in most of the candidate countries, restructuring is likely to continue. In most of the candidate countries employment in agriculture is already falling, but in Romania there has been very strong growth as a result of a fall in urban employment.

The high share of agricultural workers in many of the candidate countries (graph 12) is, however, not reflected in a proportionally higher share of gross value added. One of the particular features of agricultural output that distinguishes some of the candidate countries from the EU is the prevalence of subsistence farming, as employment in agriculture in some of the CCs acts as an «employer of last resort». This explains to some extent the greater contribution of agriculture to GDP and also the much lower productivity

[5] Eurostat, Statistics in Focus 13/2001.

levels. The latter is partially reflected in the high levels of consumption of own-produced goods, such as potatoes, fruit and vegetables, which makes a significant contribution to total agricultural output[6].

Graph 12. Total employment in agriculture (% total employment) in 2001



Source: LFS, Eurostat.

Labour productivity in the agricultural sector is highest in Slovenia, the Czech Republic and Hungary, which are countries with the lowest employment shares in the region. Productivity is lowest in Poland, Latvia, Lithuania and Romania, where agricultural employment is over-represented. Romania is also the only candidate country whose productivity has fallen since 1995.

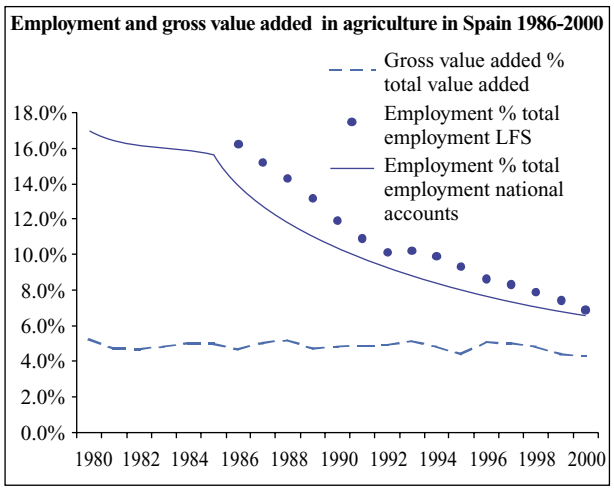
The challenge facing some of the CCs of restructuring the agriculture sector is not unknown to EU Member States. When Spain joined the EU in 1986, for instance, about 16% of its total employment was accounted for by the agricultural sector. On the basis of growth in national accounts data, the share in 1980 was around 19%, the same as Poland has today (according to the LFS). The Spanish share dropped to below 7% by 2001, thanks particularly to falls in the number of self-employed and family workers. More employment in services, however, has not led to a reduction in the importance of agriculture in the economy and the actual contribution to total gross value-added has remained at between 4-5% for the past 20 years (graph 13). Greece and Portugal had agricultural employment shares in 1986 of about 29% and 22% respectively, which fell to 16% and 13% in 2001.

In Poland employment in agriculture has been falling quite remarkably throughout the late 1980s and the 1990s. Employment, based on national accounts, however, has remained relatively unchanged during the 1990s while its contribution to total gross value added has decreased. This seems to reflect significantly lower productivity increases than in other economic sectors. The differences between LFS and national accounts seem to reflect a lower number of persons in employment in this sector whose main job or activity is agriculture. Additionally, the stability of the shares in national accounts suggests, nevertheless, the persistence of small jobs in agriculture in this country (graph 14).

Seemingly reversing a long-term trend, the employment share in agriculture in Poland has increased in the last two years by over 1 percentage point to 19.2%, equivalent to over 2.7 million people. Labour productivity in the agricultural sector in Poland is very low. In Spain in 1980, productivity in agriculture was about twice that of Poland today. In 20 years this differential has increased to over 6-1, which suggests that restructuring in agriculture would be expected to continue in Poland over the coming years.

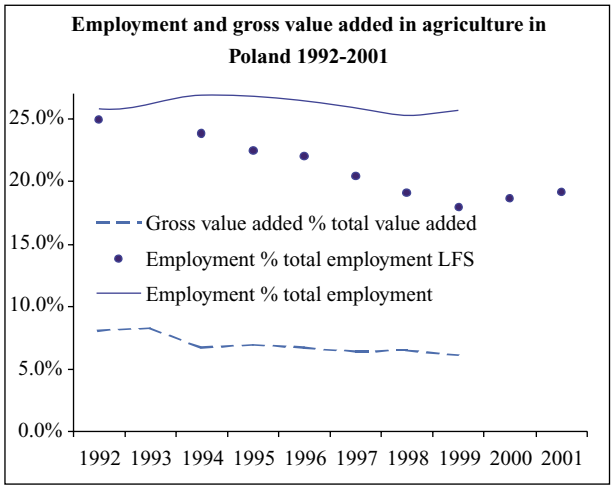
[6] Eurostat, Statistics in Focus 16/2001.

Graph 13



Source: LFS, Eurostat. Ameco for national accounts.

Graph 14

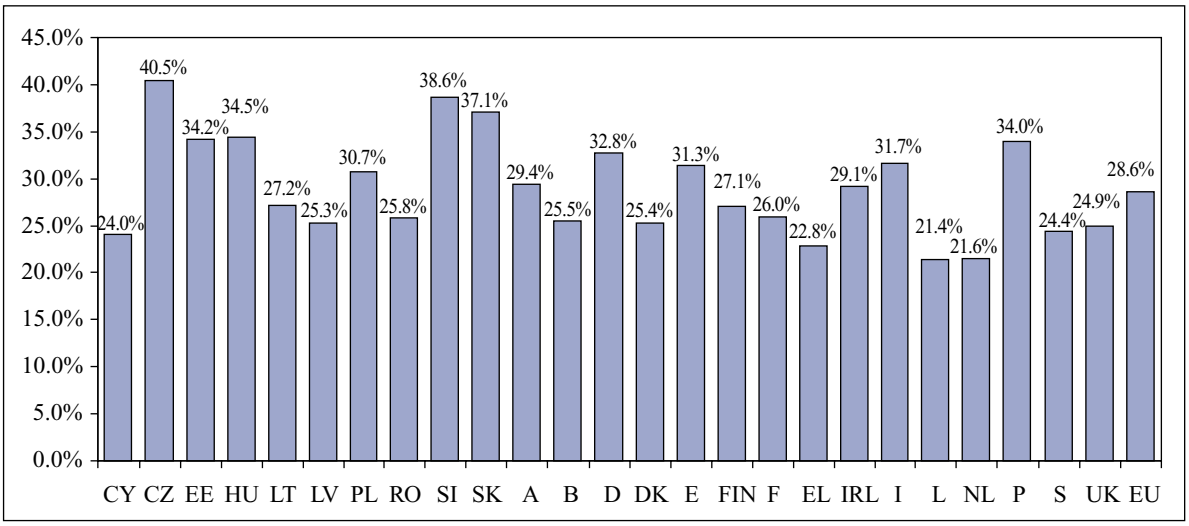


Source: LFS, Eurostat. Ameco for national accounts.

2.3.2. Industry

The reform process and structural adjustments led to sharp falls in output and employment. In 2001, the share of people employed in industry in the Czech Republic, Slovenia and Slovakia still remained significantly above Germany, which is the EU country with the highest workforce in industry (graph 15).

Graph 15. Total employment in industry (% total employment) in 2001



Source: LFS, Eurostat.

The manufacturing industry has been one of the more dynamic sectors in most Central European countries, although employment was weak or continued to decline despite growth in output. The United Nation's Economic Survey of Europe has analysed changes in manufacturing employment in individual industries between 1993-2000 in the Czech Republic, Hungary, Poland and Slovakia. According to this report, the weak labour response in net job creation in the sector may have been due to the rapid growth in labour productivity due to restructuring and technological innovation. Also, the share of manufacturing in total employment remained generally stable, or declined in the Czech Republic and Poland, reflecting, in part, excess employment at the beginning of the economic transformation.

At the individual branch level, rubber & plastics and electrical & optical equipment had the highest rates of job creation. By contrast, the sharpest declines occurred in textiles and clothing (including leather), petroleum, machinery and equipment. The increases in expanding sectors in these countries could not, however, offset the falls in declin-

ing sectors except in Hungary. The growth in manufacturing output was particularly significant in the more skill-intensive engineering industries, largely due to inflows of Foreign Direct Investment (FDI) into the region.

These developments resulted in major shifts in the structure of manufacturing employment over 1993-2000. The scale of the shifts was considerable compared to the EU experience, underlying the radical structural changes that have taken place in a relatively short time. Change was especially pronounced in Hungary. As a result of these sub-sector dynamics there has been some convergence to the EU and significant changes in the specialisation of the workforce have resulted (table 4).

Table 4. Main features of employment specialisation in 2000

Specialisation A	Under-representation B
Czech Republic	
Metal products C D Transport equipment C Machinery and equipment C	Food products Wood products Petroleum products Leather products
Hungary	
Leather products Petroleum products C Electrical/optical equipment C D	Wood products Non-metallic minerals Furniture/recycling
Poland	
Wood products C Furniture/recycling	Electrical/optical equipment
Slovakia	
Leather products C D Petroleum products C D Electrical/optical equipment C	Food products Wood products Rubber/plastics Furniture/recycling

Note: A (specialisation ratio of more than 120), B (specialisation ratio of less than 80), C (same specialisation as in 1993), D (notable increased level of specialisation).

Source: Economic Survey of Europe 2002, No 1, United Nations.

Box 1: Candidate countries' trade with the EU

In 2000, the candidate countries grouping was the EU's second biggest trading partner, after the United States (US). The EU is the CC's leading trade partner, accounting for over 65% of total trade. Trade between the EU and the CC rose strongly throughout the 1990s. In 2000, imports and exports soared by 27%, with every country increasing its total trade with the EU. Their trade deficit with the EU also increased, except in the Baltic republics, Bulgaria and Poland. Poland, the EU's leading partner in the region, has a sizeable trade-balance deficit. In the EU, about 40% of total trade with the CCs was accounted for by Germany. Some 90% of the items traded are manufacture goods, among which machinery and transport equipment accounts for 44%. This product grouping also recorded the biggest trade deficit with the EU, primarily due to strong imports of road vehicles. Conversely, the CCs recorded a trade surplus in miscellaneous manufacturing, particularly in clothing and furniture[7].

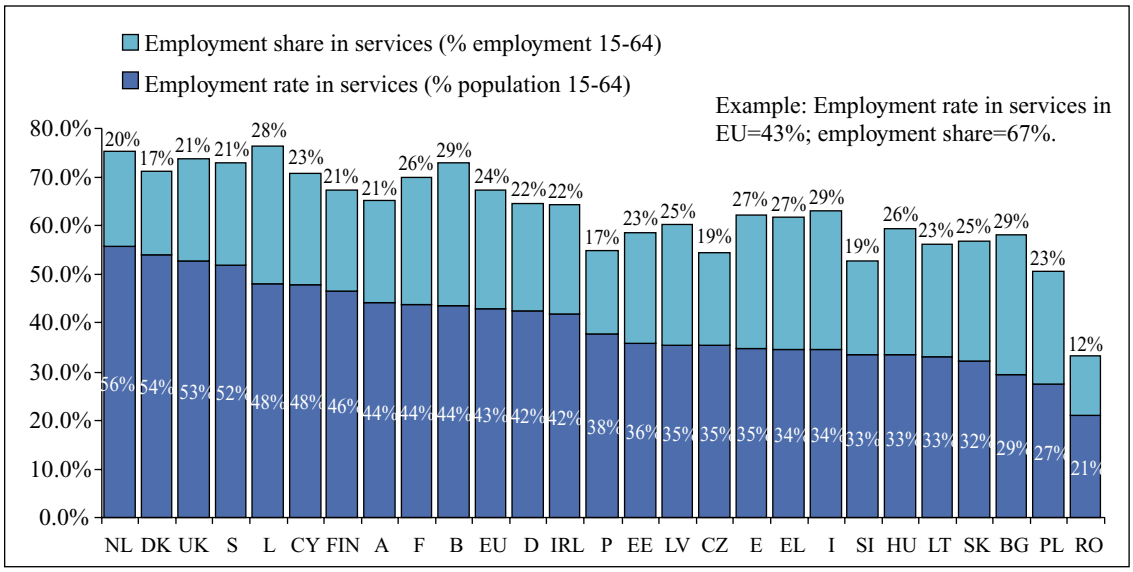
All the CCs have a comparative advantage in the trade of clothing. Several CCs also specialise in furniture (Estonia, Slovenia, Poland, Romania) and footwear (Romania and, Malta), all of which are labour-intensive. Some of them also specialise in capital-intensive manufactured products such as road vehicles (Slovakia, the Czech Republic and Slovenia), other transport equipment (Cyprus), office machines and power generated machinery (Hungary), telecommunications equipment (Estonia, Hungary) and electrical machinery (Malta, Slovenia). The Baltic States (Estonia, Latvia and Lithuania) stand out for their specialisation in raw materials and petroleum refining. Finally, in the manufacturing of goods by material, specialisation occurs in rubber manufactures (Malta), cork and wood (Latvia, Estonia), iron and steel (Bulgaria, Slovakia) and non-ferrous metals (Bulgaria) and production of fertilisers (Lithuania)[8].

[7] Eurostat, Statistics in Focus 8/2001.

2.3.3. Services

The service sector is the main driving force in employment creation in candidate countries. The share of employment in services in total employment has been increasing in the last years, but it remains significantly higher in the EU than in any candidate country, except for Cyprus (graph 16).

Graph 16. Employment in services in 2001



Source: LFS, Eurostat. 2000 for the EU.

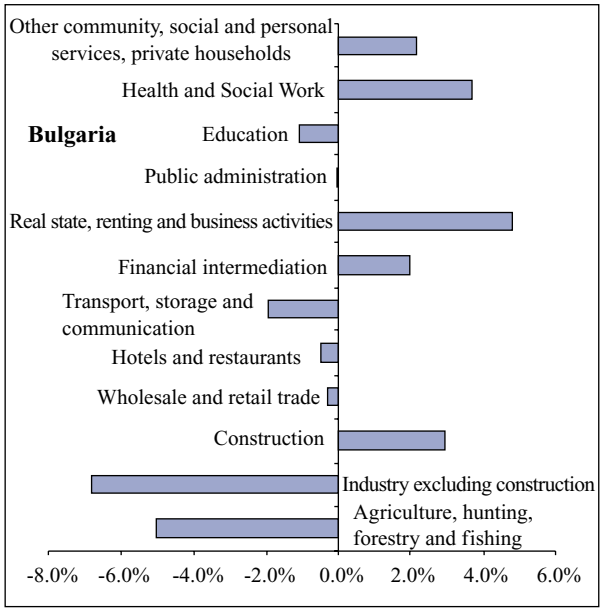
Looking deeper it is clear that the main difference between candidate countries and the EU in the service sector is the significantly higher proportion of employment in the EU in 'real estate, renting and business activities', on the one hand, and 'health, social work and personal services', on the other. Job creation in these sectors has been strong in the EU with the former creating jobs at a rate of 6% a year between 1995 and 2000. It is also a sector that employs one of the highest number of high-skilled employees in the economy. The underrepresentation in service sectors in the CCs is also significant in 'financial intermediation' and, with the exception of Cyprus, 'hotels and restaurants'.

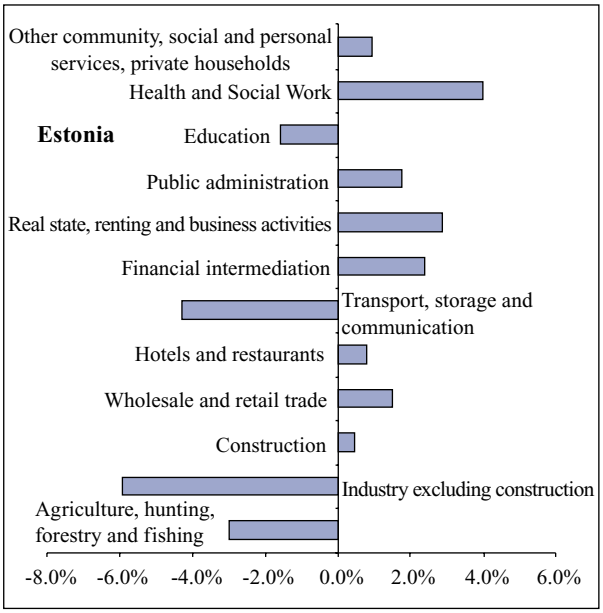
Households in candidate countries spend a significantly higher proportion of their budget on food and non-alcoholic drinks than in the EU, as well as showing a lower level of equipment. In Bulgaria, Lithuania, Romania and Latvia the share of food in household expenditure is more than double the 17% of the EU. Furthermore, the share in recreation and culture in household expenditure is significantly lower except for in the Czech Republic. These features help to explain lower activity in the service sector and the over-representation in agriculture.

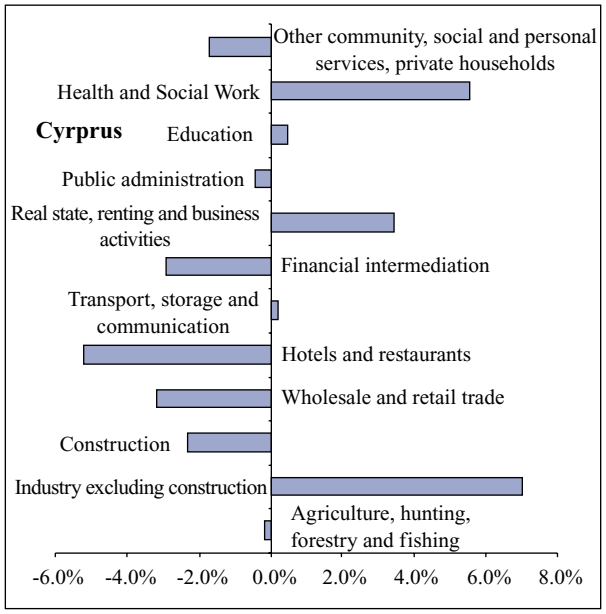
The restructuring process underway in the CCs will have an important impact on their sectoral employment structure, which will translate into higher employment in the service sector. The dynamics within the service sector will also be affected by economic development, integration into a single market and increasing competition. Enlargement to the EU should also lead to rising incomes in these countries, reducing, therefore, the existing large gap with the EU. Increasing wealth should also result in higher demand for services such as financial and business activities, hotels and restaurants and health and social work. As in the EU, the importance of child care provision, that becomes more important in the light of increasing female participation and population ageing, which exerts further pressure on i.e. recreational activities and health care respectively should also play a major role in increasing demand for these services. These shifts in the sectoral employment structure will also increase the demand for a more qualified labour supply - one that matches the dynamics of labour demand.

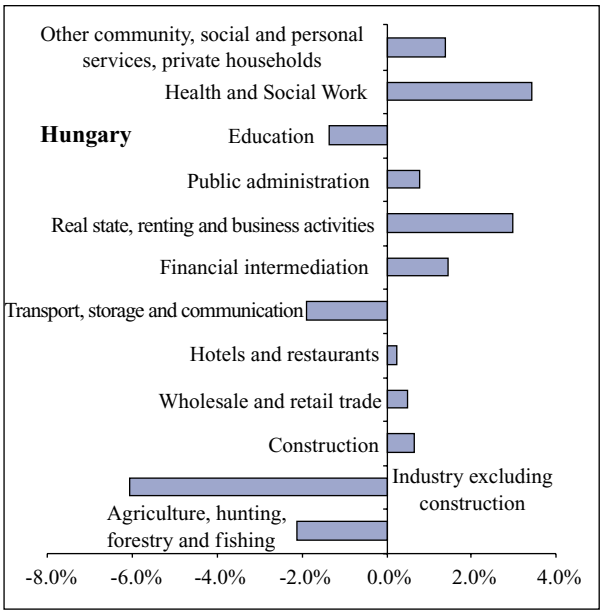
Graphs 17.1 to 17.27 below, show the difference in the employment structure, as measured by Eurostat's LFS, between the EU15, as a whole, and each individual candidate country as well as each individual Member State.

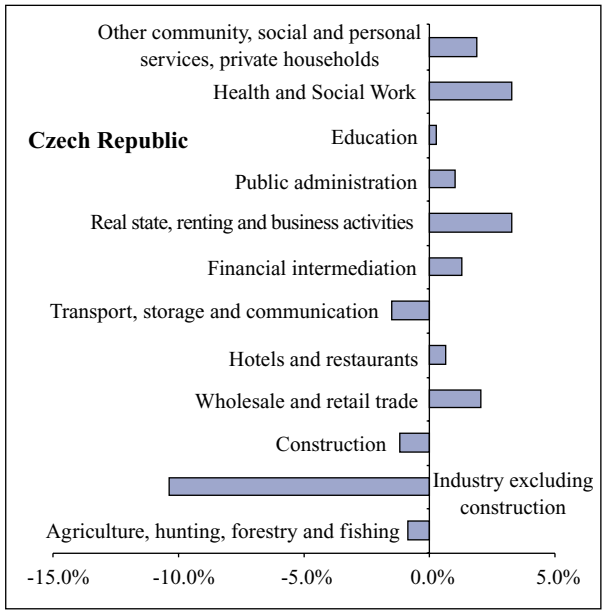
[8] Eurostat, Statistics in Focus 6/2001.

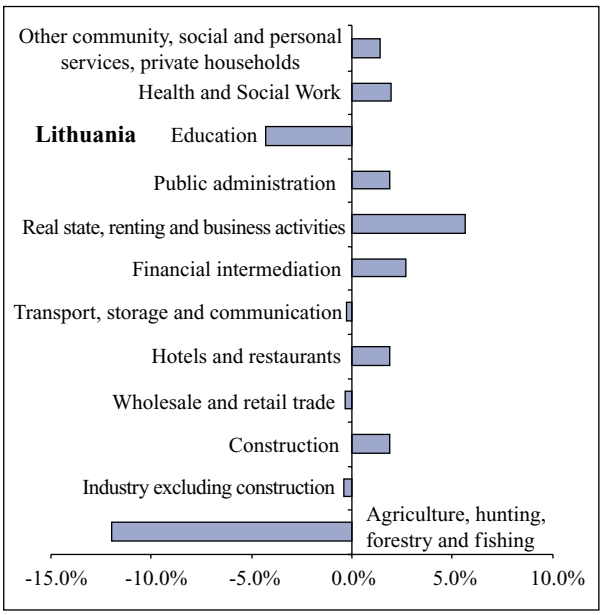

Bulgaria
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-8.0% -6.0% -4.0% -2.0% 0.0% 2.0% 4.0% 6.0%

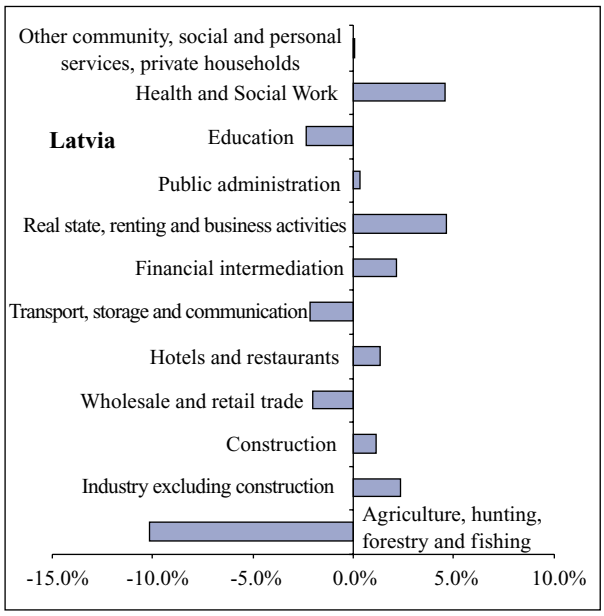

Estonia
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-8.0% -6.0% -4.0% -2.0% 0.0% 2.0% 4.0% 6.0%

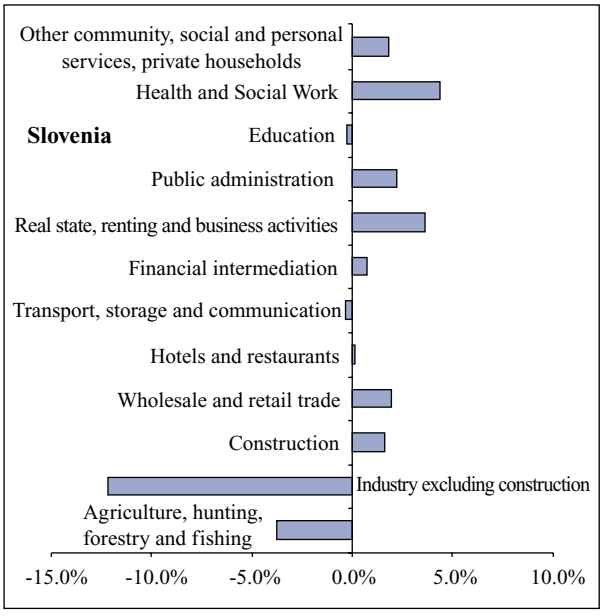

Cyrprus
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-6.0% -4.0% -2.0% 0.0% 2.0% 4.0% 6.0% 8.0%

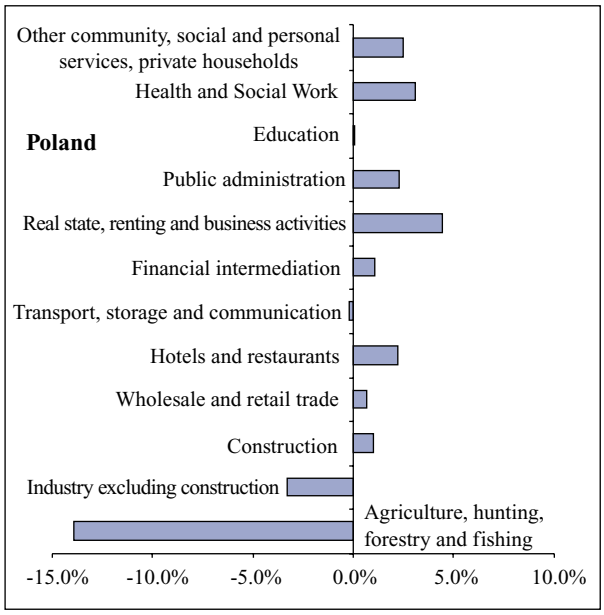

Hungary
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-8.0% -6.0% -4.0% -2.0% 0.0% 2.0% 4.0%

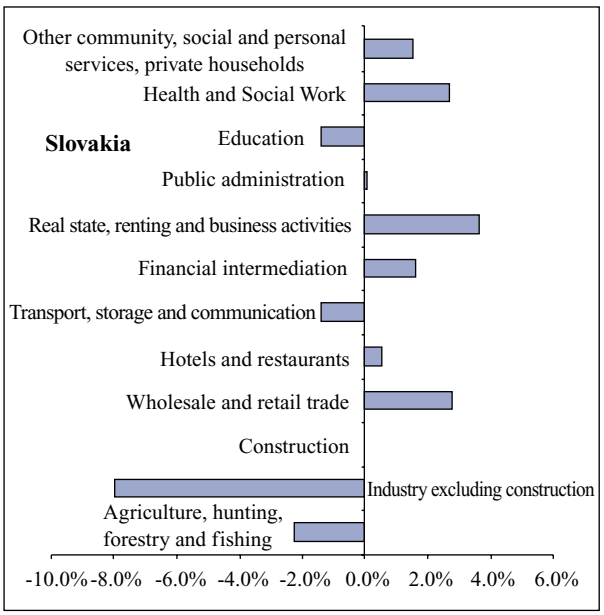

Czech Republic
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-15.0% -10.0% -5.0% 0.0% 5.0%

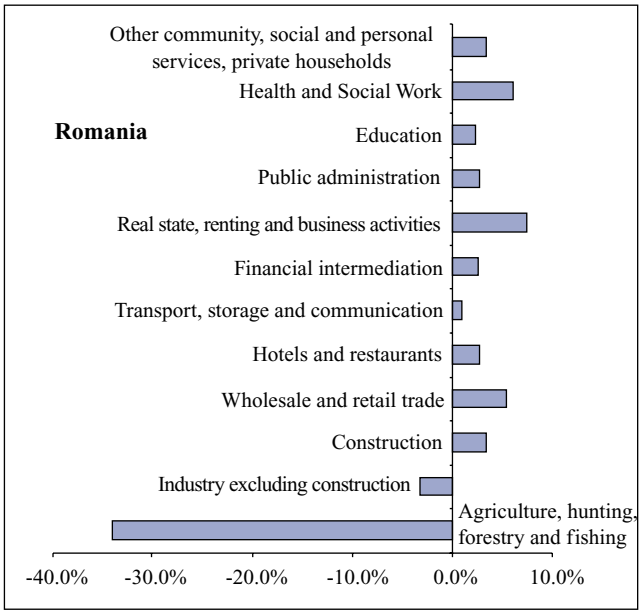

Lithuania
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-15.0% -10.0% -5.0% 0.0% 5.0% 10.0%


Latvia
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-15.0% -10.0% -5.0% 0.0% 5.0% 10.0%


Slovenia
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-15.0% -10.0% -5.0% 0.0% 5.0% 10.0%


Poland
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-15.0% -10.0% -5.0% 0.0% 5.0% 10.0%


Slovakia
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-10.0% -8.0% -6.0% -4.0% -2.0% 0.0% 2.0% 4.0% 6.0%


Romania
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
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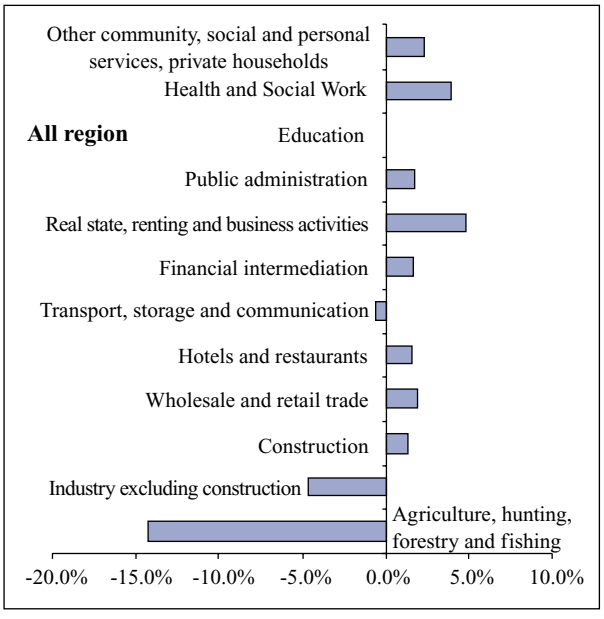
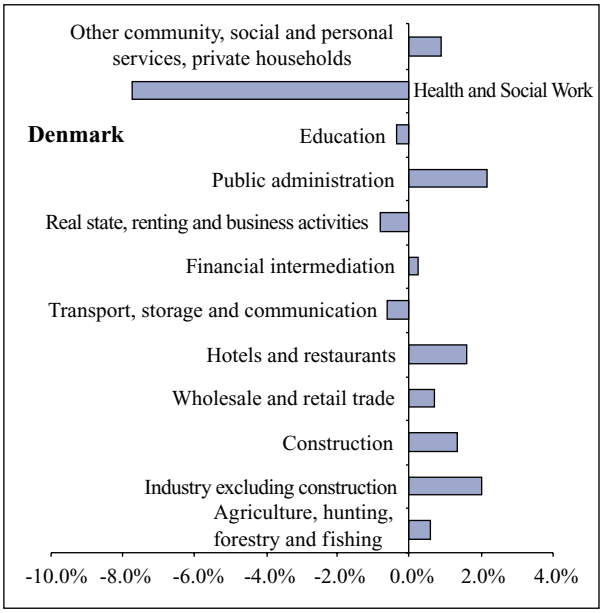
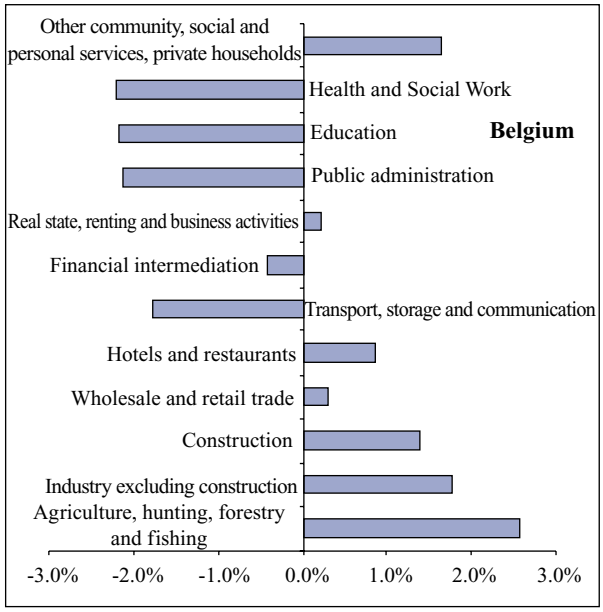
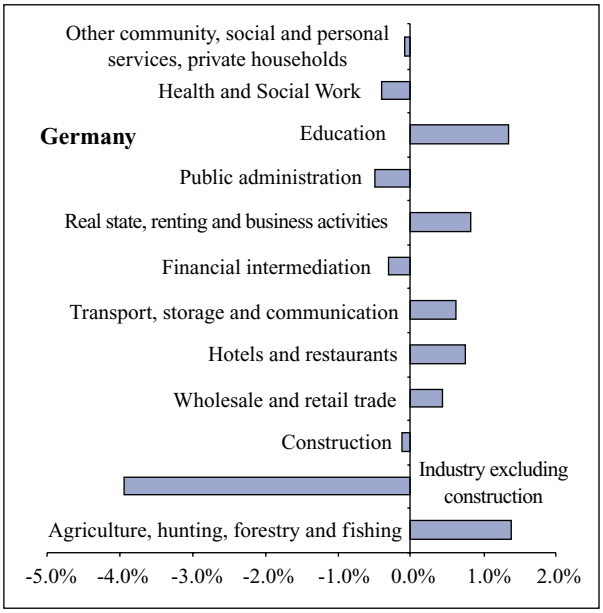

All region
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-20.0% -15.0% -10.0% -5.0% 0.0% 5.0% 10.0%


Other community, social and personal services, private households
Health and Social Work
Denmark
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-10.0% -8.0% -6.0% -4.0% -2.0% 0.0% 2.0% 4.0%


Other community, social and personal services, private households
Health and Social Work
Education
Belgium
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-3.0% -2.0% -1.0% 0.0% 1.0% 2.0% 3.0%


Other community, social and personal services, private households
Health and Social Work
Germany
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
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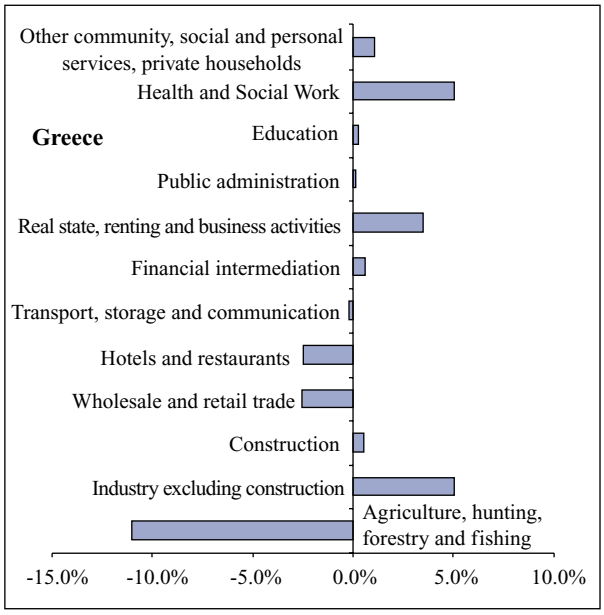
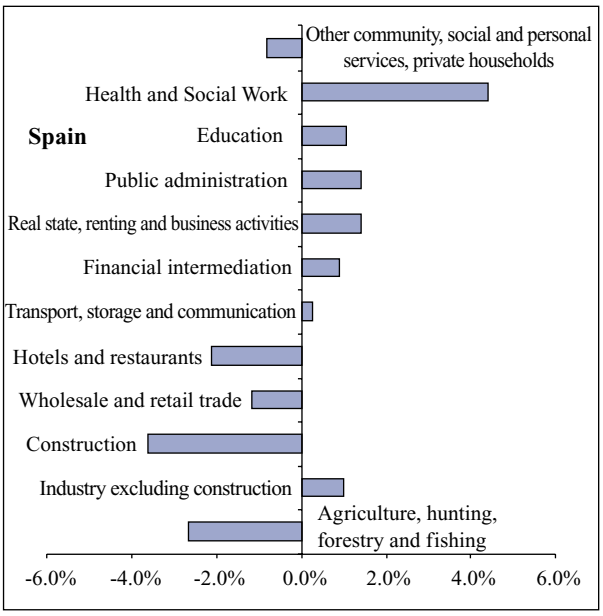
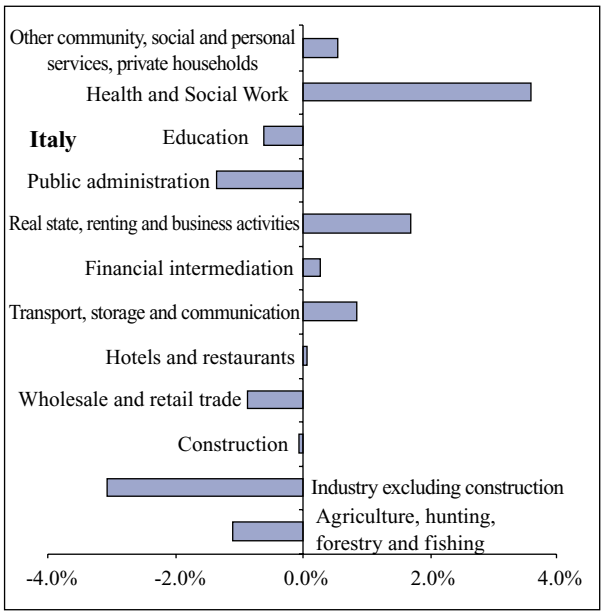
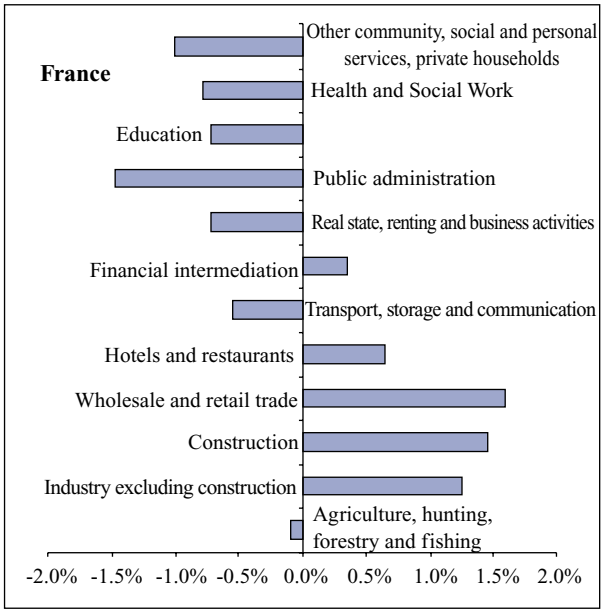

Other community, social and personal services, private households
Health and Social Work
Greece
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-15.0% -10.0% -5.0% 0.0% 5.0% 10.0%

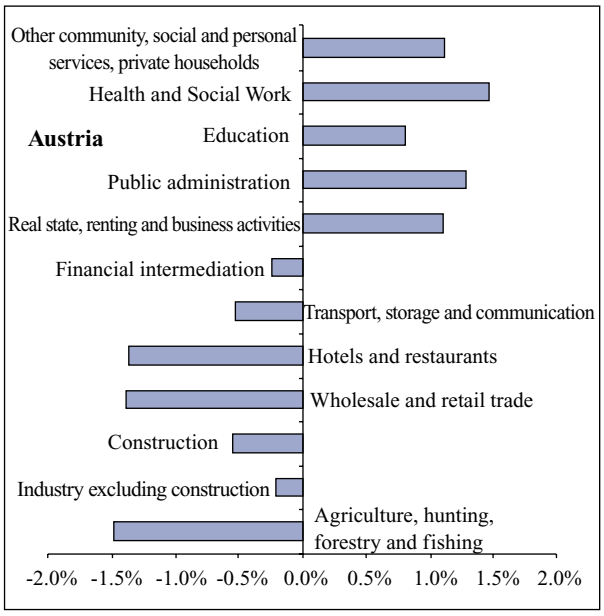

Other community, social and personal services, private households
Health and Social Work
Ireland
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-4.0% -3.0% -2.0% -1.0% 0.0% 1.0% 2.0% 3.0% 4.0%


Other community, social and personal services, private households
Health and Social Work
Spain
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-6.0% -4.0% -2.0% 0.0% 2.0% 4.0% 6.0%


Italy
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-4.0% -2.0% 0.0% 2.0% 4.0%


France
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-2.0% -1.5% -1.0% -0.5% 0.0% 0.5% 1.0% 1.5% 2.0%


Luxembourg
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-10.0% -5.0% 0.0% 5.0% 10.0%


Austria
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
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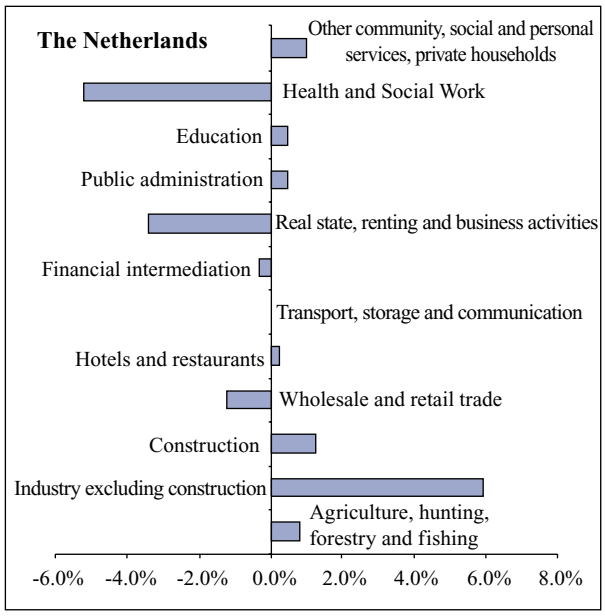
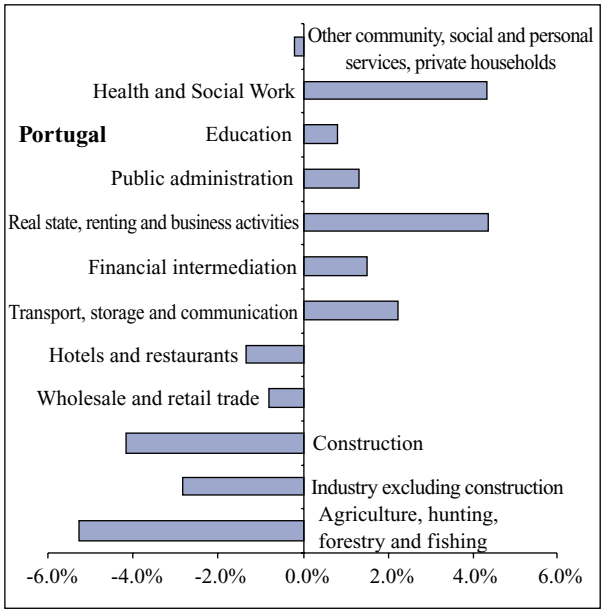
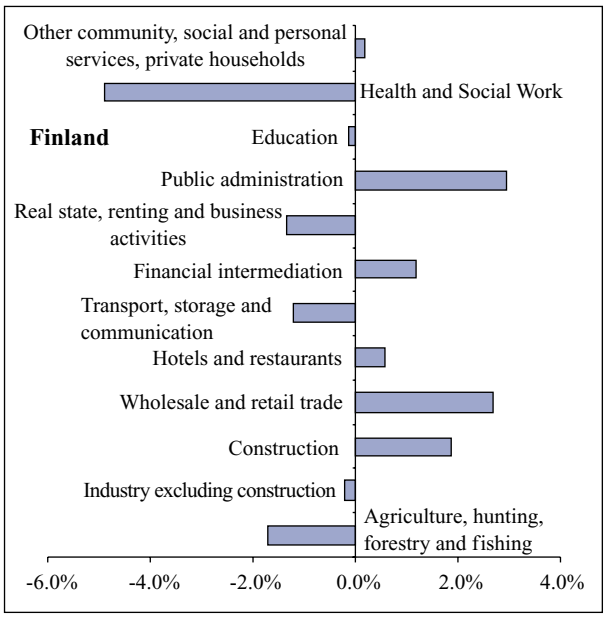
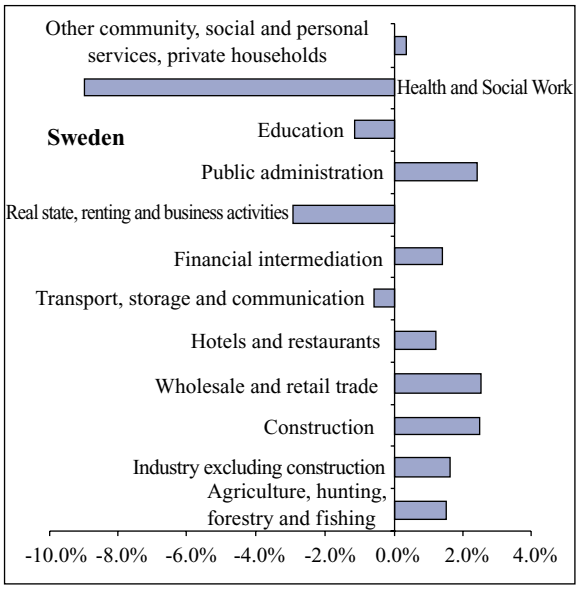
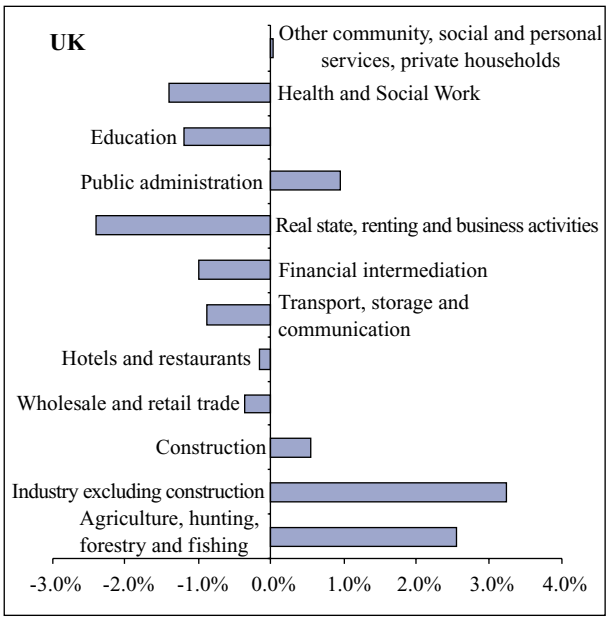

The Netherlands
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-6.0% -4.0% -2.0% 0.0% 2.0% 4.0% 6.0% 8.0%


Portugal
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-6.0% -4.0% -2.0% 0.0% 2.0% 4.0% 6.0%


Finland
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-6.0% -4.0% -2.0% 0.0% 2.0% 4.0%


Sweden
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-10.0% -8.0% -6.0% -4.0% -2.0% 0.0% 2.0% 4.0%

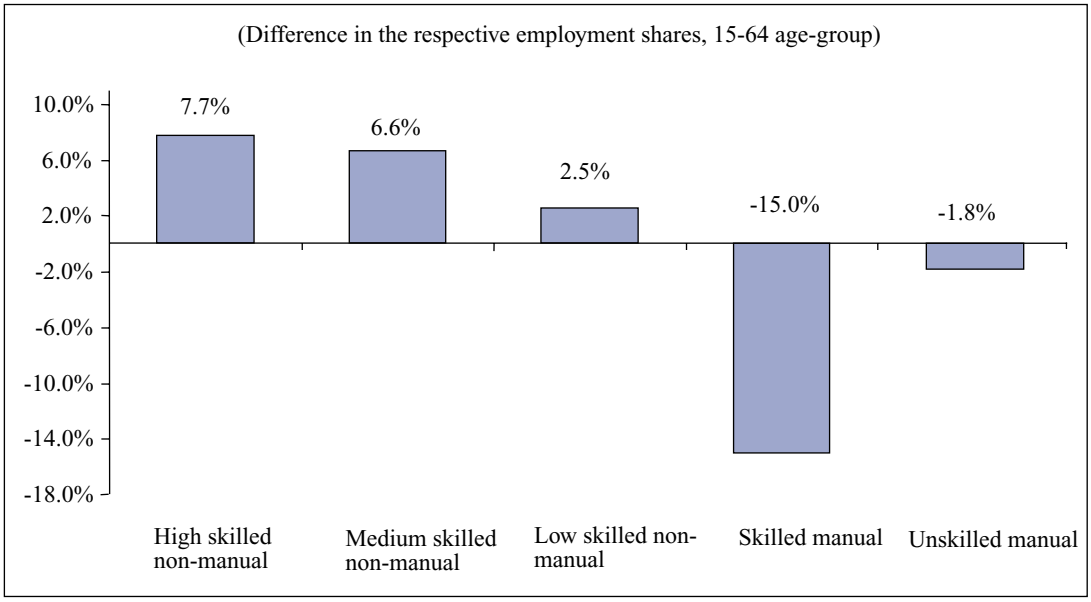

UK
Other community, social and personal services, private households
Health and Social Work
Education
Public administration
Real state, renting and business activities
Financial intermediation
Transport, storage and communication
Hotels and restaurants
Wholesale and retail trade
Construction
Industry excluding construction
Agriculture, hunting, forestry and fishing
-3.0% -2.0% -1.0% 0.0% 1.0% 2.0% 3.0% 4.0%

2.4. Occupational structure, education and training

2.4.1. Occupational structure of the occupied population

A close look at the occupational structure of the employed in the CCs reveals that, compared to the EU, there is an over-representation in manual occupations and an under-representation in high-skilled non-manual occupations[9] (graph 18). The latter has been responsible for much of the employment growth that the EU has seen over the past years.

Graph 18. Occupational structure of the employed in the EU and the CCs



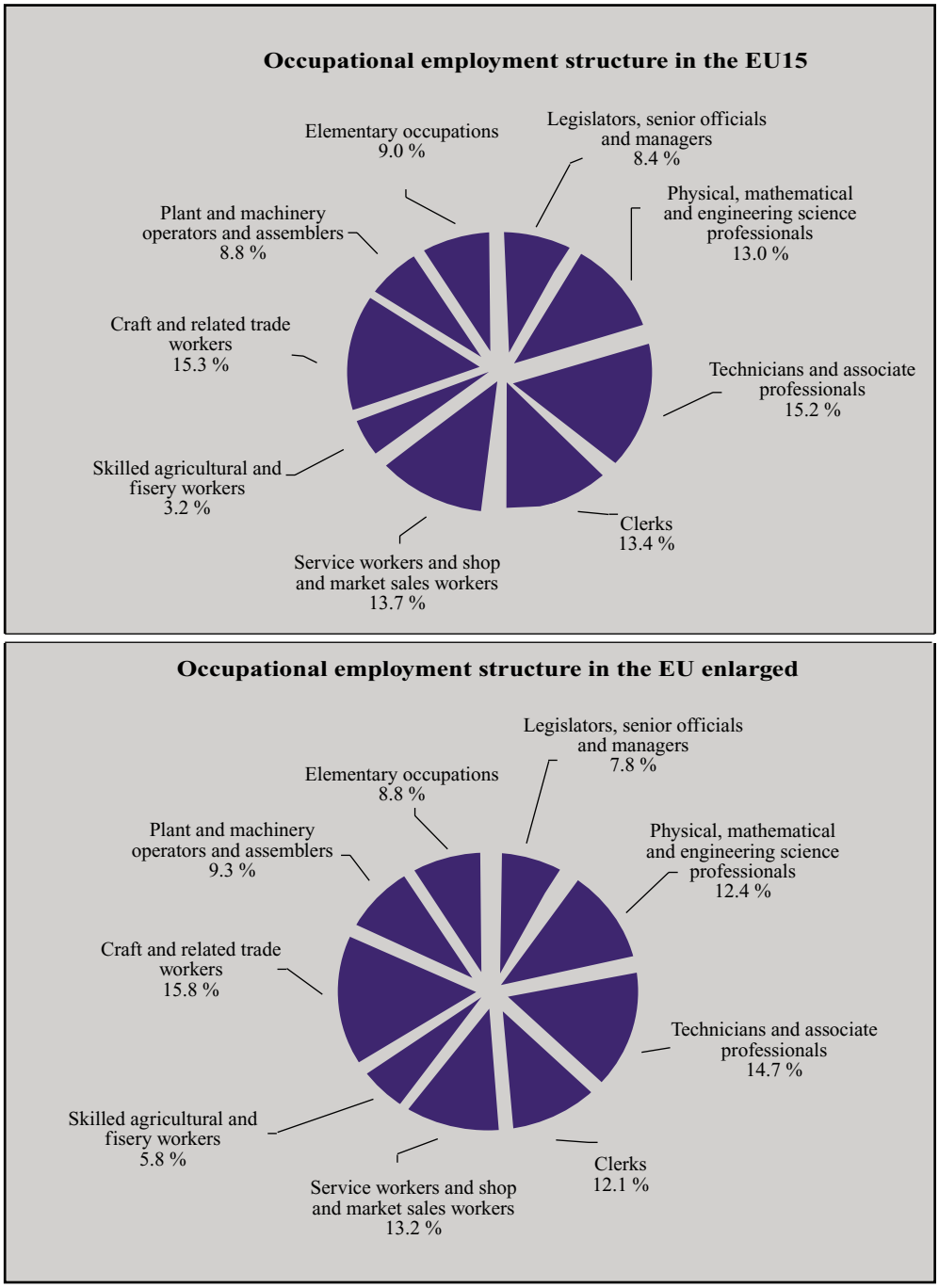
Source: LFS, Eurostat. Data refer to 2001 for candidate countries and 2000 for the EU.

The five categories presented in the chart are based on the International Standard Classification of Occupations ISCO-88. The aggregation has been done at the 1 digit level (the highest level of aggregation. The five categories are (coding in brackets):

- High skilled non-manual (100 + 200 +300). Legislators, senior officials, and managers (100); professionals (200); technicians and associate professionals (300).
- Medium skilled non-manual (400). Clerks (400).
- Low skilled non-manual (500). Service workers and shop and market sales workers (500).
- Skilled manual (600 + 700). Craft and related trade workers (700). These include building trade workers, metal and machinery workers, glass makers, wood, textile and precision metal workers, among others. Skilled agricultural workers and fishery workers (600).
- Unskilled manual (800 + 900). Plant and machinery operators and assemblers (800); elementary occupations (900).

[9] The strictly formal educational level is differentiated from the professional structure of the economy. The former is measured by the ISCED educational classification while the latter is measured by the ISCO occupational classification.

Graph 19



Source: LFS, Eurostat. Data refer to 2001 for Candidate countries and 2000 for the EU.

Following enlargement, the occupational structure of the employed in the EU will also change, with a significant increase in manual occupations. This new landscape will also reflect the more agricultural/industrial and less service-sector oriented activity of the Central and Eastern European countries compared to the EU (Graph 19).

2.4.2. Formal educational outcomes

It is often argued that candidate countries are characterised by high levels of formal education. In general, however, participation rates in education of students in age of leaving the educational system is lower in the CCs than in the EU (table 5). Enrolment for higher education of people aged 18-24 is also generally below the EU level and the length of compulsory schooling is generally shorter.[10]

[10] Eurostat, Statistics in Focus 14/2000.

Table 5. Participation rates in education of students aged 15 to 20 (1999/2000)

Country	15	16	17	18	19	20
B	99.6	98.8	97.0	84.9	73.7	62.7
DK	96.3	90.8	81.6	76.8	58.8	44.9
D	99.2	97.6	92.6	85.8	67.4	49.9
F	98.1	96.8	92.3	81.5	67.9	54.3
IRL	100.0	92.6	82.3	72.7	51.2	42.3
I	88.9	82.9	73.0	67.1	45.9	35.7
L	91.1	87.1	80.5	70.1	40.6	23.8
NL	100.0	100.0	93.3	78.4	53.0	56.0
A	94.9	91.7	89.2	67.2	40.4	28.5
FIN	99.3	95.4	93.7	87.3	46.8	48.4
S	97.7	97.6	97.4	95.5	45.4	46.6
UK	100.0	84.4	73.2	55.5	51.0	46.2
EU	98.3	92.2	84.2	74.6	59.3	48.9
EL	93.4	94.0	65.5	93.5	91.0	64.6
E	99.8	90.2	80.1	68.7	60.3	55.1
P	100.0	87.7	86.8	69.2	54.2	47.0
CZ	100.0	100.0	97.8	70.1	40.8	28.6
HU	97.3	94.7	84.6	77.3	56.2	45.1
PL	96.0	94.1	89.9	77.5	62.1	54.8
SL	99.5	96.3	92.1	77.7	62.4	44.7
BG	87.7	82.5	68.8	46.2	30.0	29.5
EE	98.0	97.3	89.0	73.8	65.1	50.8
LT	96.1	99.3	88.0	72.3	57.2	46.5
LV	96.0	91.1	84.2	68.6	51.7	41.5
RO	80.2	75.8	64.5	48.6	31.5	27.1

Source: Education statistics, Eurostat.

A recent study[11] shows that the capabilities of current pupils and students in the Central and Eastern European countries fall short of the skills of their counterparts in the OECD. Also, it would seem that the quality of vocational training at upper secondary level is in many cases outdated and is failing to respond efficiently to the demands of a dynamic and modern economy. The study concludes that while human capital endowments in these countries are gradually converging to the standards of the EU, the gap is still marked in secondary and higher education levels.

According to the OECD's International Adult literacy Survey (IALS)[12], formal educational attainment is the main determinant of literacy proficiency (other important factors being occupation and age)[13]. Individuals in the labour force show higher literacy skills than those who are inactive. The unemployment rate for those with low literacy skills also tends to be higher. Those in employment with low literacy skills also tend to receive less training, with high-skilled occupations showing higher levels of literacy. As with formal education, younger cohorts show higher literacy scores than their older counterparts.

The results from the OECD's study shows that the countries with the highest levels of literacy skills have successfully increased the literacy levels of the more disadvantaged groups, particularly in initial education. However, countries differ in their efforts to update the skills that the population acquire through this initial education, concluding that refreshing the skill-stock for adults is also needed.

[11] The impact of eastern enlargement on employment and the labour market in the EU member states, DG Employment.

[12] http://www.nces.ed.gov/surveys/all/ials_results.asp

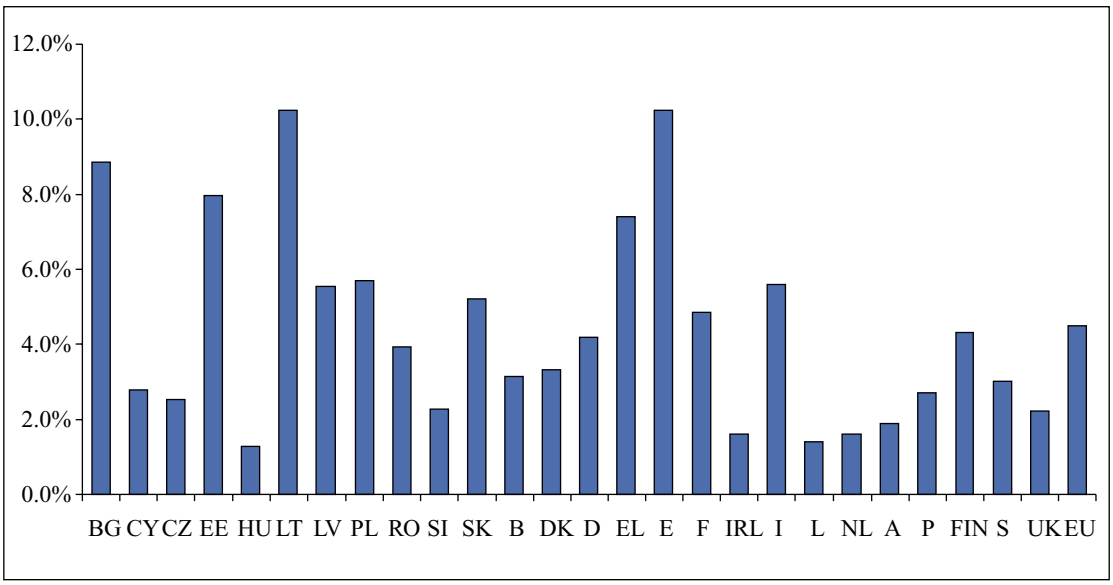
[13] Literacy scores are measured through three different variables: prose literacy, document literacy and quantitative literacy. Of the four candidate countries surveyed (Poland, Hungary, Slovenia, Czech Republic), the Czech Republic literacy scores are similar or above those of EU Member States (particularly in the quantitative literacy scale) although they are very low for the other 3 countries. The report suggests that the high literacy score of Czech youth is in large part due to a cumulative reduction over time in socio-economic inequality, measured by the effect of parents' education on the average level and range of literacy scores. The OECD's Pisa study (http://www.nces.ed.gov/surveys/pisa/) also shows that the scientific literacy of 15-year olds in the Czech Republic is above the OECD average.

According to the Survey, four factors would help skill acquisition after initial education: labour force participation and occupational status; use of literacy skills in the workplace which is related to differences in occupational and industrial structures; participation in adult education and training, and finally social demand for the use of literacy skills at home.

These findings point to the need for substantial improvements in skills through education and training to facilitate structural shifts to skilled non-manual occupations and to reduce unemployment. This is all the more important since a significant part of the adult population with low skills remains detached from life-long-learning policies. While there are some positive developments in CCs, more policy focus and resources are required to open training opportunities for the bulk of the low skilled.

It appears evident that the low-skilled in candidate countries are in a disproportionately worse situation compared to their high-skilled counterparts and even more so than in the EU, where differences are already large.

Graph 20. Unemployment rate of high skilled in the EU and the CCs in 2001

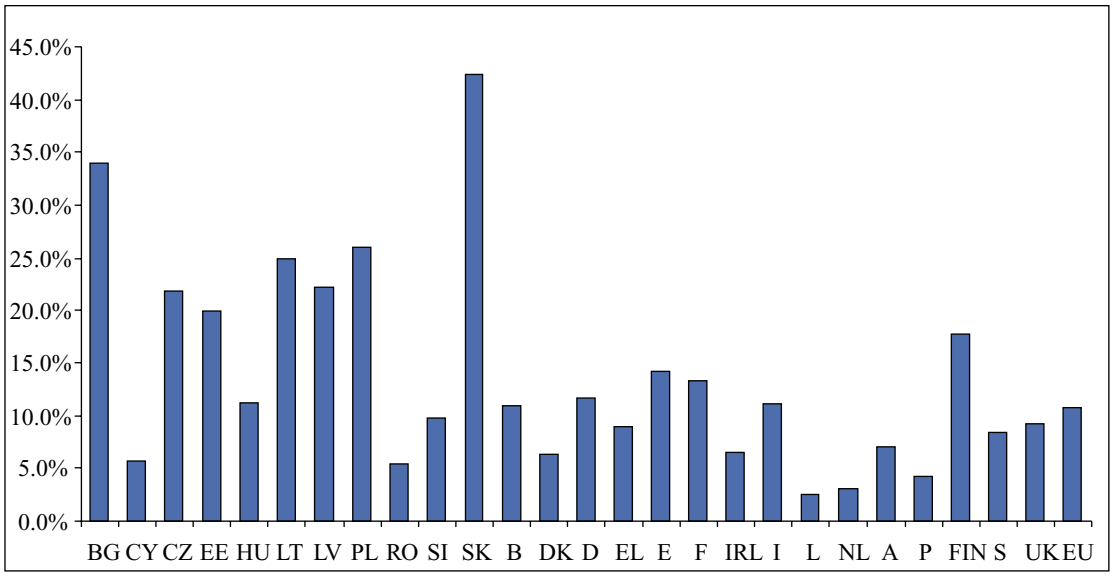


Source: LFS, Eurostat. 2000 for the EU.

The unemployment rate for the high-skilled is above 5% in the Baltic States, Bulgaria, Poland and Slovakia. In the existing Member States only Spain, Greece and Italy have comparable rates. Hungary is the country with the lowest unemployment rate for the high-skilled, which at about 1% is comparable with that of Ireland, Luxembourg or the Netherlands. In an enlarged EU, there would be no striking differences in the rates between countries, as the relatively high unemployment rate for the high-skilled of some countries partly reflects overall high unemployment rates. For the low-skilled, the situation is quite different. The unemployment rates for the low-skilled are not only higher than in any EU Member State in Slovakia, Poland, Bulgaria, the Czech Republic, Latvia and Lithuania, but the gap between high- and low-skilled is also wider, suggesting a stronger dual labour market in these countries.

Not only are unemployment rates much higher for the low-skilled, but also their employment rate is much lower (graphs 20 to 23). In terms of unemployment, this is particularly visible in Bulgaria and Slovakia, but the effect is proportionally larger in Hungary and the Czech Republic.

Graph 21. Unemployment rate for low skilled in the EU and the CCs in 2001

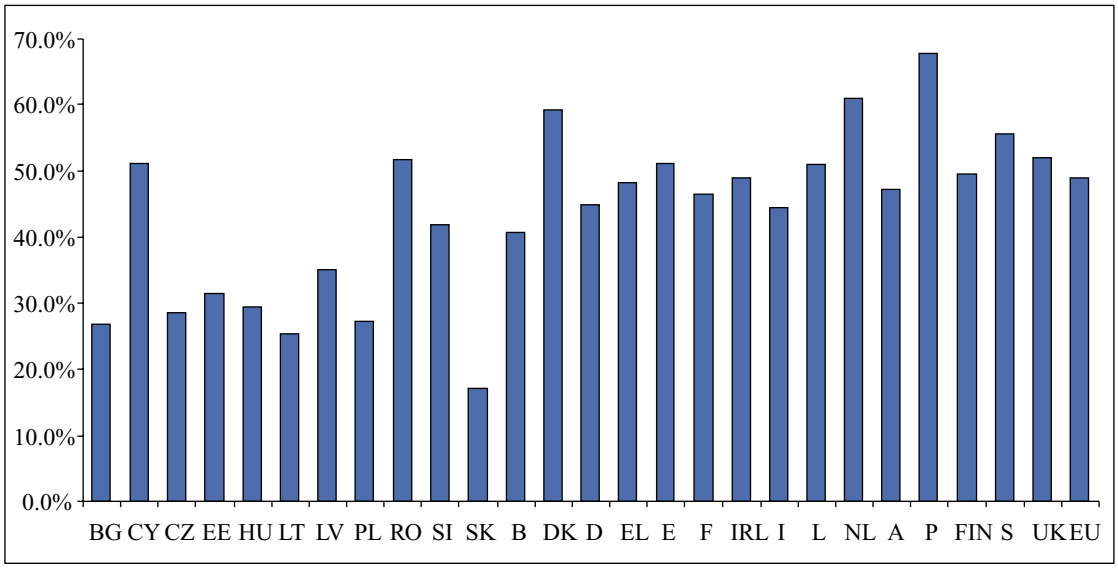


Source: LFS, Eurostat. 2000 for the EU.

Graph 22. Employment rate for high skilled in the EU and the CCs in 2001

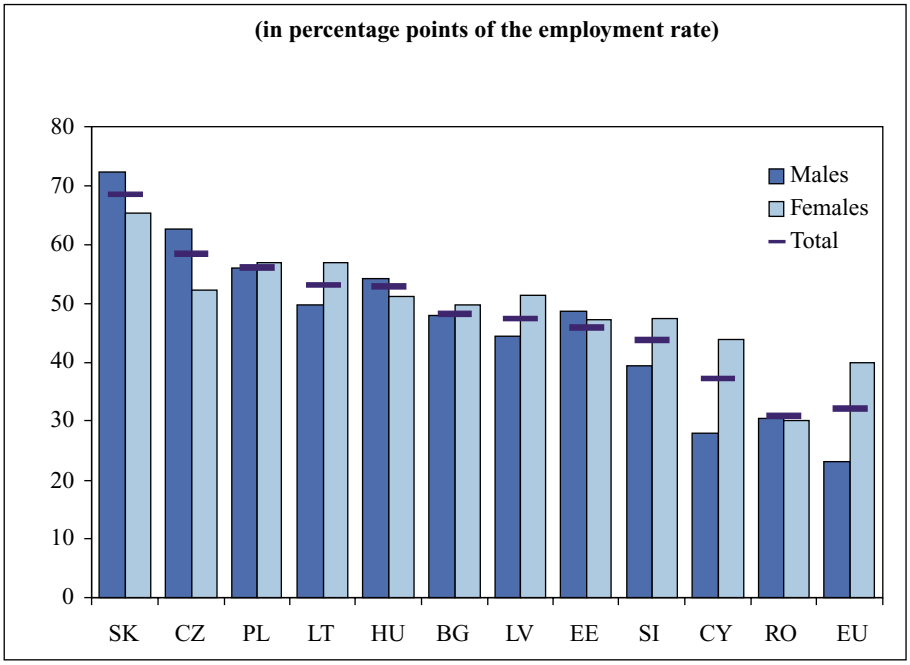
Source: LFS, Eurostat. 2000 for the EU.

Graph 23. Employment rate for low skilled in the EU and the CCs in 2001



Source: LFS, Eurostat. 2000 for the EU.

Graph 24. Difference in the employment rate by educational attainment levels: High and Low in 2001



Source: LFS, Eurostat. 2000 for the EU.

In terms of employment, the differences between the employment rate of the high-skilled and low-skilled in CCs is above that in the EU. That is, the dual labour market is stronger in the candidate countries, with the low-skilled showing extremely low employment rates except for Cyprus and Romania. The effect of formal education in employment opportunities is largest in Slovakia, the Czech Republic, Poland and Lithuania. The employment rate for the low-skilled in Slovakia is only 17%, compared to 86% for the high-skilled (graph 24).

In an enlarged EU, the employment rates for the high-skilled will be similar but will differ significantly more than in the already varied EU15 for the low-skilled. The difference in the employment rate for the high-skilled would range from 90% in Portugal to 75% in Bulgaria. Thus, the range for an enlarged EU today would be 15 percentage points, only 1 percentage point higher than for the EU15. However, the difference in the employment rate for the low-skilled will widen significantly. In today's EU15, the range is 27 percentage points, between the highest low-skilled employment rate of Portugal (68%) and the lowest of Belgium (41%). Following enlargement, Slovakia would take Belgium's place at the bottom, resulting in a sharp increase in the employment rate gap for the low-skilled to more than 50 percentage points.

2.4.3. Training

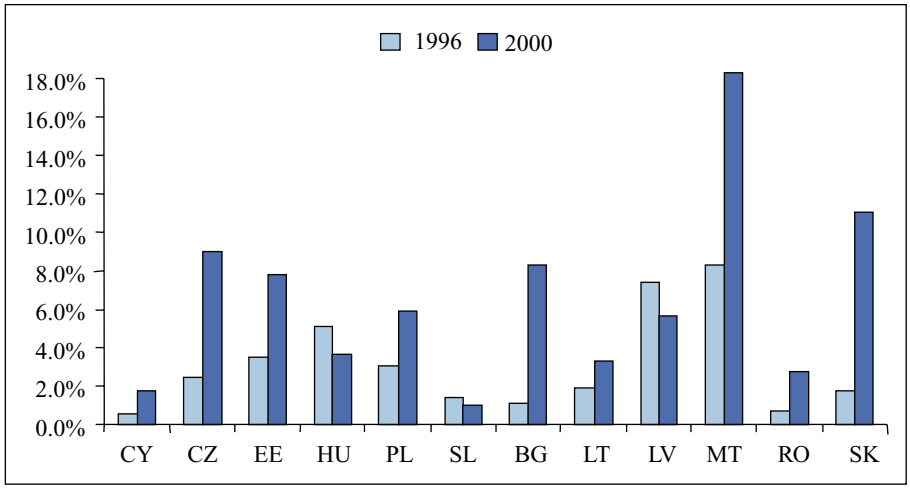
In general, the candidate countries are characterised by relatively high levels of upper secondary education, particularly of a technical nature. The performance is less positive at university level. There are shortcomings in other important aspects of human capital formation, such as on-the-job training or the quality of the educational systems. According to the EBRD survey[14], these countries arguably have relatively educated labour forces, but they also have important additional training needs if they are to match workers in the EU of the same education level.

Broadening and updating skills are of great importance also in the context of attracting FDI, which has risen steeply since 1996 (Box 2). The ERBD survey shows that foreign investors list the local availability of relatively cheap skilled labour as one of the most important factors influencing their decision to invest in the CCs. Investors in general do not find problems in hiring skilled staff, although 37% have difficulties in finding local managers and so employ expatriates instead. The main deficiencies quoted refer to the lack of general flexibility and ability to learn and adapt, although these diminish slightly at the higher educational levels. Lack of IT skills among workers with vocational and secondary education is also a frequently cited source of concern. This suggests that the quality of the educational system is one the main challenges for these countries in the medium term.

Box 2 FDI and R&D

Since 1996, FDI flows to the CCs increased strongly to double their contribution to GDP to an average of 4% in 2000. The EU is the main source of FDI capital, mostly in manufacturing activities, with Poland, the Czech Republic and Hungary receiving about 75% of the total investment[15]. The contribution of FDI to GDP was highest in Malta, Estonia, the Czech Republic, Bulgaria and Slovakia, with the latter two, also showing the greatest increases since 1996 (graph 25).

Graph 25. The evolution of FDI in the candidate countries (%GDP)



Source: Eurostat.

[14] The 2000 Transition Report among foreign investors in Eastern Europe, European Bank for Reconstruction and Development (EBRD).
[15] Eurostat, Statistics in Focus 3/2002.

The traditional forces behind FDI (large markets, natural resources, low labour costs) seem to be losing ground, particularly in the fast growing industries, in favour of factors such as trade/investment liberalisation, technical progress and management practices focusing on core competencies. This shift seems to be leading to a concentration of FDI at the regional level to benefit from networking activities that result in the formation of industrial clusters[16]. Arguably, one key element for these clusters would be the availability of a high skilled labour force.

With the CCs advancing to a knowledge-based economy, more pressure will be put in the development of more skill-intensive activities. However, expenditure on research and development (R&D) in all candidate countries is significantly below the EU's level of 1.86% of GDP. Only in Slovenia and the Czech Republic it is above 1%. Moreover, the number of people engaged in R&D is also lower in all CCs than in the EU. Only Slovenia, Hungary and Estonia have more than 1% of their labour force in R&D activities, compared to 1.27% in the EU. Between 1994 and 1998 R&D personnel contracted in all CCs except for the Czech Republic, Poland and Hungary which experienced growth rates above the EU's[17]. This reduction in R&D personnel is partly related to major downsizing in applied research, accompanied by the collapse of industrial activity and the privatisation of public enterprises[18]. Therefore, the capacity to train high skilled people needs to be improved to meet the demands of a more dynamic knowledge economy.

To reach the productivity of graduates in Western Europe, 15% of university graduates in the CCs would require more than a year's additional training. These shares increase to about 20% for medium- and low-skilled workers. On average, employees in the CC region would require some six months of training to reach the productivity levels of Western Europe. On-the-job training would ensure that the skills of the employees adapt to fast technological changes.

Table 6

	Percentage of employees participating in CVT courses		**Hours in CVT courses**	
Country	All enterprises	Only enterprises with CVT courses	Per participant	Per employee (all enterprises)
B	41	54	31	13
DK	53	55	41	22
D	32	36	27	9
F	46	51	36	17
IRL	41	52	40	17
I				
L	36	48	39	14
NL	41	44	37	15
A	31	35	29	9
FIN	50	54	36	18
S	61	63	31	18
UK	49	51	26	13
EL	15	34	39	6
E	25	44	42	11
P	17	45	38	7
CZ	42	49	25	10
HU	12	26	38	5
PL	16	33	28	4
SL	32	46	24	8
BG	13	28	35	4
EE	19	28	31	6
LT	10	20	41	4
LV	12	25	34	4
RO	8	20	42	3

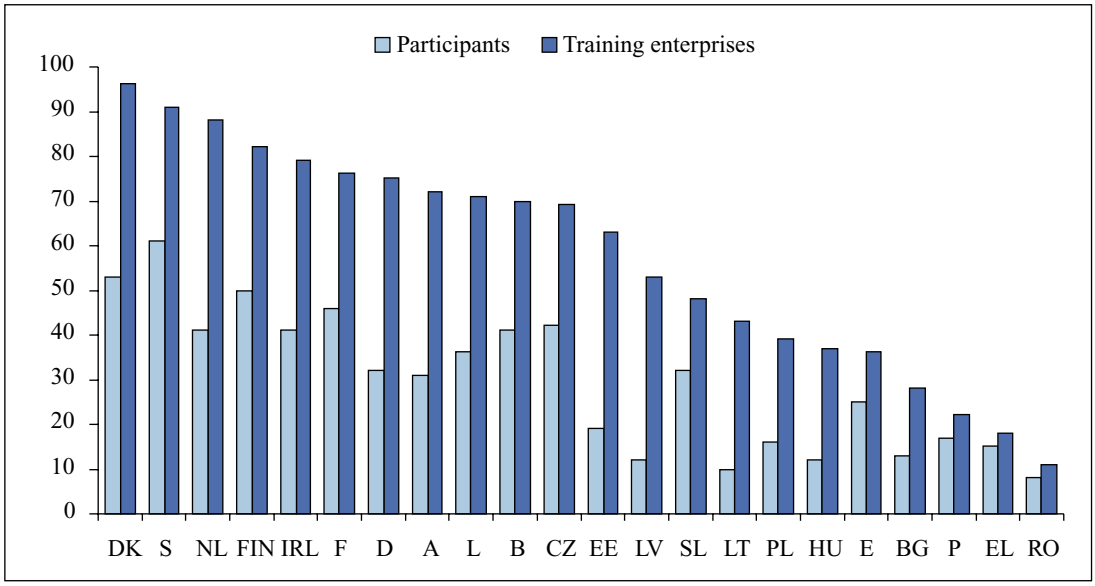
Source: CVTS 2 , Eurostat.

[16] UNCTAD World Investment Report 2001.
[17] Eurostat, Statistics in Focus 3/2000.
[18] Enlargement Futures Project, Synthesis Report. Forum Bled, December 2001. IPTS, Seville, October 2001.

The need for training is also shown by the relatively low number of training enterprises and the lower number of participants in continuous vocational training courses (CVT) in the CCs compared to the EU (graph 26 and table 6). In the nine CCs participating in the survey[19], an average of 40% of companies provided continuing vocational training in 1999. This share is significantly lower than the average of 57% for the 12 EU Member States in the first CVTS survey in 1993. The overall figure hides important differences among the CCs, with the Czech Republic and Estonia at the top of the table and Bulgaria and Romania, with much lower numbers of training enterprises, at the bottom.

The number of participants in CVT courses is also, on average, significantly lower than in the EU. Participation rates in the region are very heterogeneous, ranging from the 42% in the Czech Republic to the 8% in Romania. In addition, the first CVT survey showed that about 25% of the enterprises in Western Europe that provided no continuing training in 1993 had given such training in the previous two years. In candidate countries, the share of enterprises that offered no training in 1999 or in the previous two years was considerably higher.[20]

Graph 26. Percentage of employees participating in CVT courses and training enterprises as a percentage of all enterprises in 1999

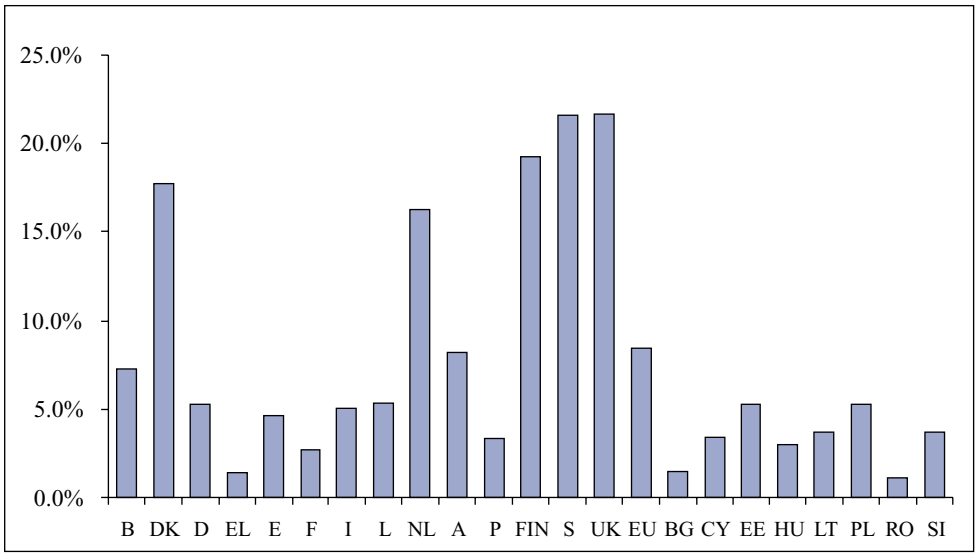


Source: Second Survey on Continuous Vocational Training in Enterprises (CVTS 2), Eurostat.

According to the LFS, the share of the adult population (aged 25-64) having participated in education and training during the previous 4 weeks is also lower in the CCs than in the EU (graph 26).

[19] CVTS2, Survey on continuous vocational training in enterprises, Eurostat, 2002.
[20] Eurostat, Statistics in Focus 2/2002.

Graph 27. Participation in education and training 4 weeks previous to the Survey in 2001



Source: LFS, Eurostat. Population refers to those aged 25-64. In France, information on training is collected only if it is under way on the date of the survey.

In general companies in the candidate countries that had not provided training in the reference year (according to the CVTS Survey) argued that the skills of their employees corresponded to the needs of the enterprise, or that they had recruited people with the required skills (table 7).

Table 7. Percentage of all non-training enterprises, by reason for not providing CVT

	Percentage of all non-training enterprises, by reason for not providing CVT							
	No need (existing skills of employees correspond to the needs of the enterprise	No time	Too expensive	People recruited with the skills needed	Initial training suficient	Investment recently made; no need this year	Difficult to assess enterprise's needs	Other reasons
BG	82	13	37	71	14	1	9	4
CZ	86	6	14	48	12	3	5	6
EE	69	17	41	54	30	2	7	4
HU	83	12	22	70	39	3	5	3
LT	54	5	45	50	1	3	9	1
LV	79	9	16	42	13	5	11	1
PL	82	14	37	27	36	3	0	4
RO	77	11	29	63	40	1	3	4
SL	60	16	22	59	27	2	11	27

Source: Second Survey on Continuous Vocational Training in Enterprises (CVTS 2), Eurostat.

2.5. Regional disparities

2.5.1. General characteristics

As discussed previously, on average 21% of total employment in candidate countries in 2001 were agricultural workers (compared to about 4% in the EU) and workers over the age of 65 accounted for over 3% of total employment. In 2000, only five regions within the CCs had a lower agricultural share than the EU as a whole. Three of these, Praha, Bratislavsky and Közép-Magyarország, also have employment shares in services significantly above the EU's 67%. Regions in Romania show, on average, less than 30% of employment in the service sector and about 45% in the agricultural sector. Agriculture in the Sud-Vest and Nord-East regions of Romania represents some 60% of total employment in these two regions.

More than two thirds of the regions in candidate countries have an industrial sector which is larger than the EU's share of 29%. All regions in the Czech Republic had employment shares in industry above 40%, with the sole exception of Praha. Similarly, in Slovakia all the regions except for Bratislavsky had about 40% of total employment in industry. The two northwestern regions in Hungary (Közép-Dunántúl, Nyugat-Dunántúl) also exhibit over 40% of total employment in the industry sector. The most industrialised region in the CCs is found in Poland (Slaskie), which accounts for almost a half of all employment in that region.

Twenty regions in the CEECs show a strong agricultural profile in employment terms. They share common characteristics such as high self-employment, high employment rates for older workers, lower unemployment rates overall but high rates among young people and generally low educational attainment levels in their populations[21]. In addition, many of these regions show practically no access to metropolitan labour markets due to poor transport services. Many of the younger high-skilled prefer self-employment in SME start-ups or employment in foreign-owned enterprises in urban areas, to working for former state enterprises, which offer lower earnings potential[22].

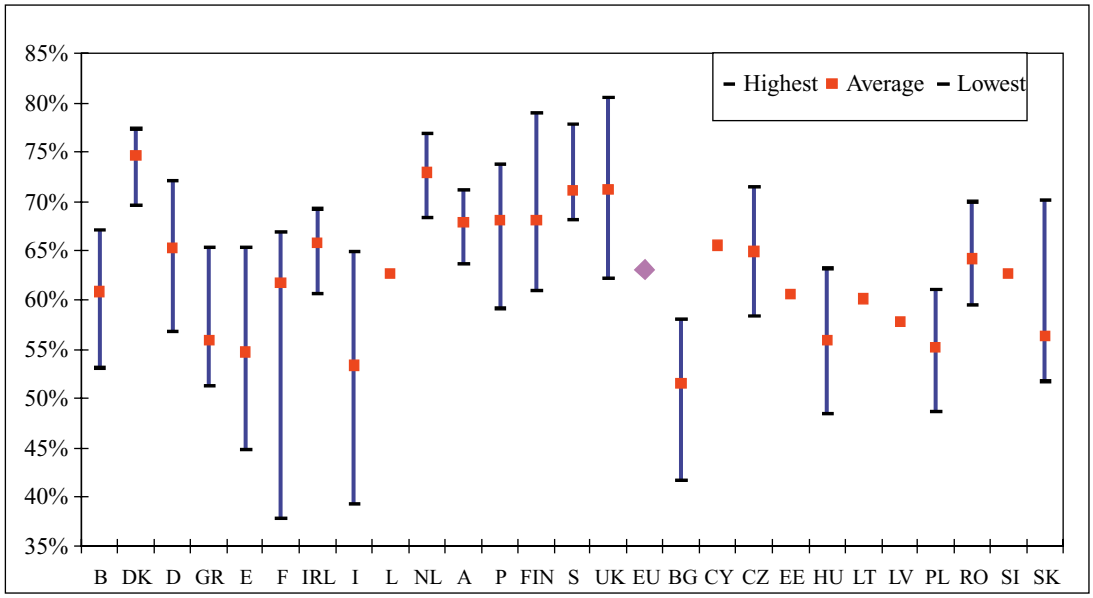
These problems are exacerbated by inadequate innovation and educational facilities in these regions, with universities and technical colleges located in the main urban areas and capital cities. Regional disparities in the provision of education and training have also widened as a consequence of unequal distribution of financial resources to local authorities[23], with reports suggesting falling educational quality and increasing learning costs.

Better social protection systems can provide a safety net against poverty to enable agricultural workers to seize other opportunities in the labour market. In addition, investing more in education can also provide a guarantee against exclusion from the labour market, particularly in agricultural regions, which will bear most of the adjustment in an enlarged EU and where skills are lacking.

2.5.2. Disparities in employment

Regional disparities in employment in the candidate countries are lower than in the EU, but remain substantial. In the candidate countries[24], regional disparities in the employment rate (as measured by the coefficient of variation) are greatest in Slovakia and in Bulgaria and to a lesser extent in Hungary. In the former, the difference between the employment rate of Bratislavsky kraj and Vychodné Slovensko was 19 percentage points in 2000. In Bulgaria, the variation was 16 percentage points between Yugozapaden (the highest) and Severozapaden (the lowest). However, in contrast to Spain or Italy, these variations are heavily influenced by the effect of the two extreme values in Bulgaria and by the very high employment rate of Bratislavsky kraj in Slovakia (about 70%) (graph 28).

Graph 28. Regional disparities in employment rates in the EU and the CEECs



Source: 2000 LFS results at NUTS2 level, Eurostat. National LFS at NUTS3 level for DK and IRL.

[21] Enlargement Futures Project, Synthesis Report and Expert Panel on Employment and Societal Change. IPTS, Seville, October 2001.
[22] Enlargement Futures Project, Synthesis Report. IPTS, Seville, October 2001.
[23] Enlargement Futures Project, Synthesis Report and Expert Panel on Technology, Knowledge and Learning. Based on UNDP (2000b), p. 72 and World Bank Institute «Decentralising Education in Transition Societies: Case Studies from Central and Eastern Europe (2001)».
[24] LFS data at NUTS 2 level in the CEECs exists for Bulgaria, Czech Republic, Hungary, Poland, Romania and Slovakia.

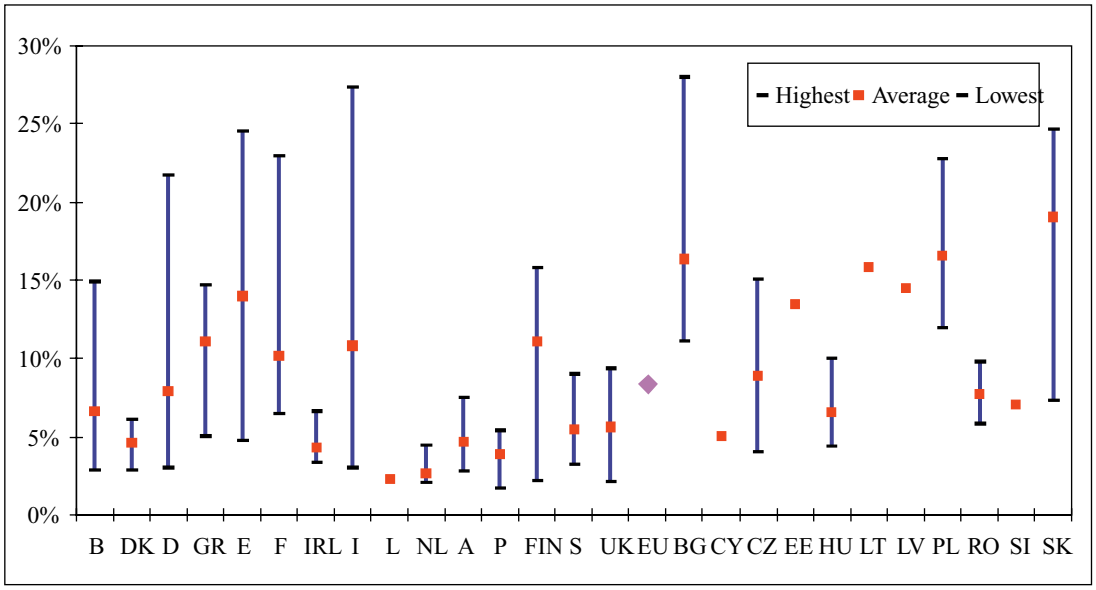
At the overall level looking at all regions together, disparities in the employment rate for those aged 15-64 in the EU in 2001 were slightly higher than in the candidate countries, with coefficients of variation (from the mean employment rate in the whole area) of 12.4% and 12% respectively. Following enlargement, the variation would, nevertheless, rise to 13.1%. The difference between the highest and lowest employment rate would remain as in the current EU15. However, the employment rate for an enlarged EU would be lower and the differences of each region to the mean employment rate is likely to increase at the upper end, particularly for EU regions with high employment rates.

2.5.3. Disparities in unemployment

If measured by the coefficient of variation, regional variations are much larger in terms of unemployment rates. One of the drawbacks of interpreting disparities in unemployment is that one understates the extent of labour market imbalances as the unemployment rate fails to illustrate patterns in labour force participation. It is also true that countries with large disparities in employment rates also show important variations in unemployment rates, particularly for young people. Not only, therefore, are employment rates lower but also unemployment rates are higher, pointing to more serious regional imbalances.

In the CCs, unemployment has been increasing over the past years and has overtaken EU levels. Simultaneously labour force participation has been falling which has, to some extent, restricted the increases in the unemployment rate.

Graph 29. Regional disparaties in unemployment rates in the EU and the CEECs



Source: 2000 LFS results at NUTS2 level, Eurostat. National LFS at NUTS3 level for DK and IRL.

The range in regional unemployment rates is highest in Slovakia and Bulgaria, although in the former this is due only to the relatively low unemployment rate of Bratislavsky kraj. These two countries plus the Czech Republic and Hungary have sizeable disparities in unemployment at the regional level, but the variation is less than in Italy, Spain, Germany or Belgium. In Slovakia, the much lower unemployment rate of its capital increases disproportionately (twofold) the coefficient of variation. Although regional variations in unemployment are relatively low in Poland, the actual unemployment rates, while similar, are very high (graph 29).

At the overall level (all regions together), disparities in the unemployment rate for those aged 15-64 in the EU in 2001 were higher than in the candidate countries, with coefficients of variation from the mean unemployment rate in the whole area of 65.9% and 52.8%, respectively. Following enlargement, the variation will, nevertheless, rise to 68.5%. The region with the highest unemployment rate would be in Bulgaria and the gap to the lowest (in Portugal) would widen. The unemployment rate of an enlarged EU would be higher while, at the same time, the differences of each region to the mean unemployment rate is likely to increase at the lower end, particularly for EU regions with low unemployment rates.

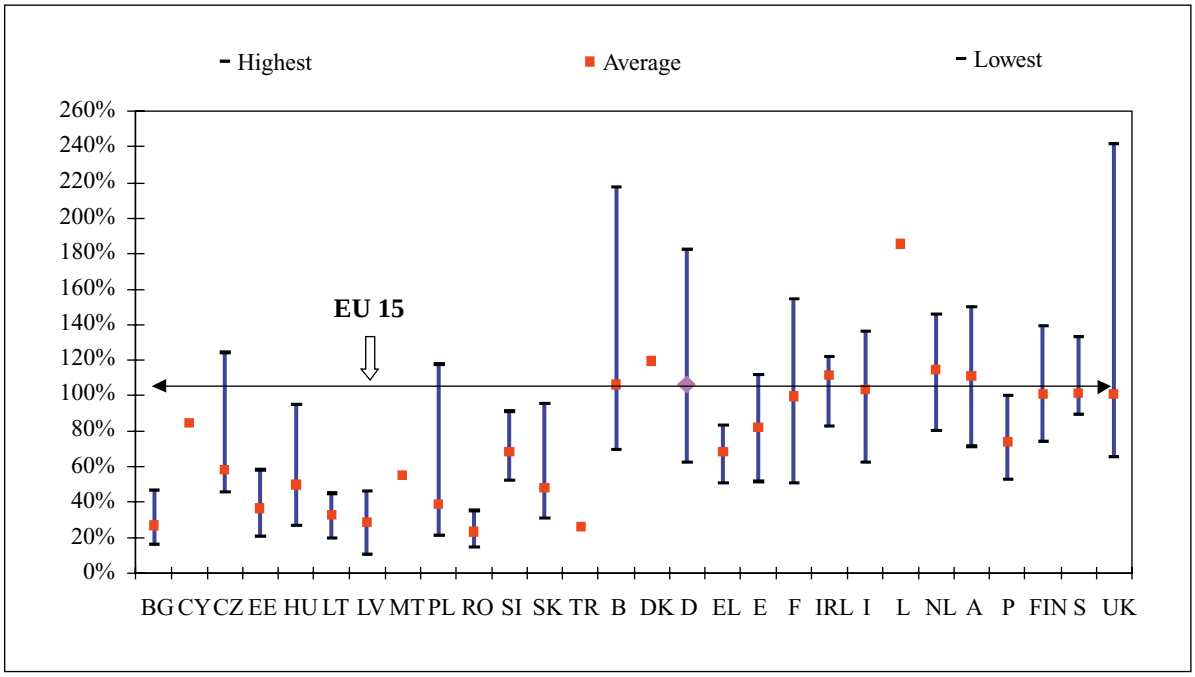
It is likely that regional disparities in employment and unemployment will increase in the medium-term following accession. As restructuring and the ongoing adjustment in labour markets proceed, unemployment should increase in some regions more than in others, particularly in agricultural or heavily industrialised regions. In addition, job creation in services in the capital cities could extend the gap in employment between these regions and the more agricultural or industrial ones.

2.5.4. Disparities in income

Accession will have an immediate effect on real income in the EU. Regional disparities in GDP per capita will increase dramatically in an EU25, and even more so in an EU with 27 members. Such a widening of disparities in wealth at the EU level has no precedent in any previous enlargement. This is not only due to significantly lower per capita levels in the candidate countries than in the EU, but also because of the size of the population that the EU will need to absorb (graph 30). In moving from 15 members to 25 or 27, average GDP per head in the EU will fall by 13% or 18% respectively. Even though, the long-term growth rate of the candidate countries has tended to exceed the EU's, the wide disparities in levels of income are unlikely to be reduced appreciably in the short or medium-term[25].

If enlargement occurred today, there would be a doubling of the income gaps between countries and regions in an EU27. At the national level over a third of the population would have an income per head of less than 90% of the EU27 average compared to a sixth in today's EU15. This is the current threshold for eligibility for aid under the Cohesion Fund. At regional level, the bottom 10% of the population of the least prosperous regions would be 31% of the EU27 average, which compares to 61% in the present EU15[26].

Graph 30. Regional disparaties in GDP per capita in the CEECs (EU=100, GDP in purchasing power parities per inhabitant)



Source: NUTS3 level for the candidate countries, NUTS2 level for the EU. Data refer to 1999, Eurostat.

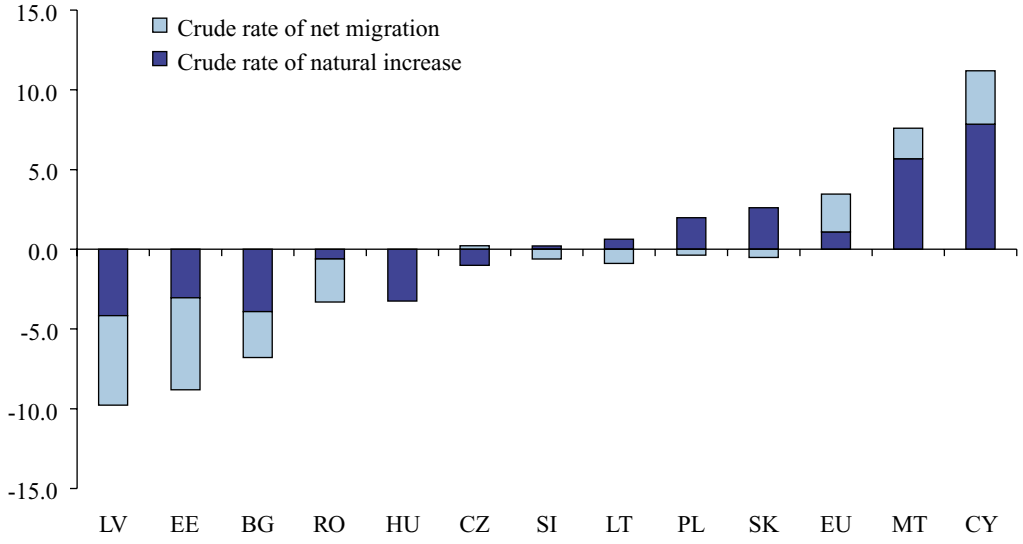
[25] Commission Communication. First progress report on economic and social cohesion.
[26] Second report on economic and social cohesion, European Commission, 31-01-2001.

2.6 Demographic developments

In 2000, the combined population of the 12 candidate countries was 105.7 million (about 75 million in CC-10), equivalent to 28% of the existing EU's population (about 20% for CCs 10). Thus, enlargement to include the 12 CCs will mean the total population of the EU will increase to 484 million inhabitants (about 454 million for a EU 25). Its share of the world population would rise from 6.2% to 8%.

There have been some important changes in the demographics of candidate countries in the past decade. Population in the region grew at a relatively high rate in the 1970s and 1980s, due to high fertility rates and increasing life expectancy. This came to a halt in the 1990s, with a sharp drop in fertility rates, lower life expectancy and significant outward migration. Populations declined in all the candidate countries except Poland, Slovakia, Malta and Cyprus, between 1990-99. The crude rate of natural increase was negative (deaths higher than births) in Latvia, Estonia, Bulgaria, Romania, Hungary and the Czech Republic. Net migration flows were negative in the three Baltic States (particularly Latvia and Estonia), Bulgaria, Romania, Slovenia, Poland and Slovakia Republic. Thus, population growth started falling earlier in most of these countries than in the EU. In less than 10 years, these countries have lost 1.3 million people, equivalent to 1.2% of their 1990 populations[27] (graph 31).

Graph 31. Demographic developments over the 1990s



Source: Eurostat.

In most EU regions population is still rising and in those where it has started falling, the rates are not as high as in the candidate countries. This situation is particularly worrying in Bulgaria, Estonia, Latvia and Slovenia. In many of these regions, this is the combination of higher death than birth rates as well as outward migration. Põhja-Eesti (Tallinn's region) recorded natural decreases during the 1990s. Outward migration, mainly of Russian military personnel, had a strong demographic impact in Latvia's Riga and Kurzeme. Also, negative net migration in Slovenia's Spodnjeposavska can be attributed to emigration of non-nationals who before independence were part of the wider metropolitan area of Zagreb. Praha experienced the sharpest drop in the country and Bratislavsky kraj was the only Slovak region whose population fell, albeit only slightly[16].

The EU's total population will continue to show positive growth for some years, mainly due to positive net migration and increasing life expectancy. In the candidate countries, life expectancy at birth is much lower than in the EU. Life expectancy for men of about 65-68 is lowest in the Baltic States, Hungary, Romania and Bulgaria (compared to 75 in the EU). For women, life expectancy for these six countries ranged between 74-78, which contrasts with 81 for EU women. More importantly, both natural increase and net migration are currently negative, which will bring forward the point at which the total population declines in an enlarged EU to about 2015 - eight years earlier than in EU15.

[27] Eurostat, Statistics in Focus 12/2001.
[28] Eurostat, Statistics in Focus 6/2001.

The average age of the population in the CCs is currently lower than in the EU. The proportion of children under 15 is higher than in the EU in all candidate countries except Bulgaria, Czech Republic and Slovenia, but it is also declining significantly faster. Furthermore, the share of the over 65 year-olds in candidate countries is below the EU's at present, except in Bulgaria, and the drop in fertility rates in the 1990s will only be felt in the long-run. Enlargement of the EU would, therefore, slow the ageing of the population in the short and medium term.

The EU's current working-age population (15-64) is projected to start declining from 2010. In candidate countries this will occur slightly earlier. In the EU the share of children (below 15) and old people (over 65) to the working-age population (15-64) has remained stable in recent years. The drop in the number of children (less young dependency) and the increase in elderly (more old dependency) have offset each other resulting in little change in the total dependency ratio. In candidate countries the total dependency ratio is much lower than in the EU and is also declining faster, particularly due to fewer births in the 1990s. Therefore, although the total dependency ratio in the EU will be reduced following enlargement, it will start increasing from about 2010 as a result of declining working-age populations in both regions.

Conclusions

Enlargement is now within sight. Up to ten countries may join in 2004 and two more at a later date. The prospect has led many to start questioning the impact of this expansion on the EU's employment targets. Evidence suggests that the negative impact on the EU's employment rates will not be as important as some feared, since the working-age population of these twelve countries represents 30% of the current EU's.

Regional disparities in employment and unemployment will increase in an enlarged EU. The ongoing restructuring is likely to affect some regions more sharply than others, particularly those heavily dependent on agriculture or industry. Disparities in income in an enlarged EU will increase drastically. As economic development improves, rising incomes should contribute to an increase in the demand for services, which are underdeveloped in most regions of the Central and Eastern European countries.

It is clear that the candidate countries must continue to adjust their economies to become fully integrated in the EU and to compete in the world economy. Key challenges include reducing their dependence on agriculture and boosting their service sectors. Success in this endeavour depends to a large extent on achieving the right skills base within their labour force. Low-skilled individuals are at a great disadvantage in most of these countries and additional education and training needs have been identified if they are to increase their productivity to the levels required to be competitive in an enlarged EU.

The Structural Funds that candidate countries will receive upon accession, and in particular the Social Fund, should help them adapting their labour markets and improving their employment performance.

Membership of the EU should improve the prosperity of the Central and Eastern European region and it is clear that the future will be one of dynamic change. The candidate countries must ensure now that they are preparing their economies and labour forces for the opportunities and challenges that lie ahead.

LABOUR MARKET FLEXIBILITY: THE ROLE OF THE INFORMAL SECTOR IN THE CONTEXT OF EU-ENLARGEMENT AND THE NEED FOR A SYSTEMATIC STATISTICAL BASE

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Introduction

Labour market behaviour is changing rapidly in developed and developing countries under the impact of globalisation, social change, technological innovations and knowledge-intensification of production. A by-product of these changes is a general trend towards informal sector production of goods and services and the creation of jobs and incomes in the non-observed economy, both in developing and developed countries (OECD 2002, ILO 2002). The ILO claims that the bulk of new employment in recent years, especially in developing and transition countries, has been in the informal sector. (ILO 2002: 1) Currently some 10% to 20% of GDP is produced (and employment created) in the informal sector in EU member countries (Schneider & Enste 2000, SAMLEG 2002, Biffl 2002), and some 30-50% in the transition countries (Musiolek 2002), which are to join the EU by 2004 (EC 2002a). Thus, informal sector production plays a significant role in employment creation, income generation and poverty reduction.

Reliable data on the size and characteristics of the informal sector and its contribution to GDP are necessary for policy making. Today, it is not clear to the user of official statistics, to what extent output and employment trends are biased by economic activities missing from the statistics. Informal sector activities may expand when the formal economy is contracting; lack of data on the extent of interlinkage between formal and informal activities may lead to wrong conclusions about changes in the wellbeing of the society, and thus to policy mistakes.

The estimates of the extent and value of the output produced in the informal sector depend on the definitions and methods used. In order to be able to make meaningful cross-country comparisons, a more systematic statistical data base is needed in order to formulate a coherent policy for dealing with the informal sector. This is particularly important in the context of Eastern European Enlargement, when monetary contributions made to the EU budget are based on GDP, and when financial contributions from the European Social Fund or other EU-funds to the new member countries, are based on formal sector poverty and employment/unemployment relationships.

[1] I would like to thank Julia Bock-Schappelwein for her competent research assistance and Joe Isaac for helpful comments and remarks.

Table 1: The share of the informal sector in terms of GDP and employment

	Informal sector in % of GDP				Informal sector in % of employment
	Ø 1989-90	Ø 1990-93	Ø 1994-95	Ø 1999	Ø 1999
Austria*)		4.5		8.5	10.0
Bulgaria	24.2	26.3	32.7	33-35	33.1
Czech Republic	6.2	13.4	14.5		
Estonia	20.2	23.9	18.5		
Germany			15.0	18.0	
Hungary	28.2	30.7	28.4		
Latvia	13.2	24.3	34.8		
Lithuania	11.2	26.0	25.2		
Poland	18.2	20.3	13.9		
Romania	16.2	16.0	18.3		
Slovakia	7.2	14.2	10.2		

S: Schneider — Enste, 2000. Musiolek, 2002. — *) Statistics Austria.

What is the informal sector?

To begin with, it is necessary to be clear on the concept and the function of the 'informal sector' in the economy and on its definition. There is a growing convergence on the view of what constitutes the informal sector. The dualist model, which was proposed in the early 1970s by the ILO (1972), is losing ground against the formal-informal continuum model (MacGaffey 1991, Kurkchiyan 2000). According to the first model, the informal sector is associated with unregistered and unregulated small-scale activities at the margin of the economy which generates income for the poor. The second model takes a more comprehensive view. It sees formal and informal activities not as separate and independent segments of the market but as interdependent activities, one feeding into the other, i.e. informal work is subordinate and dependent on developments in the formal sector work. The ILO has now moved to this model and has adopted the view that 'formal and informal enterprises and workers coexist along a continuum' (ILO 2002:4) Thus, the informal sector may be likened to a sponge, which can soak up labour from the formal sector as well as release labour into the formal sector, depending on the prevailing economic and social forces. It is neither a temporary nor a residual phenomenon and the group of workers and enterprises in that sector have diversified in the wake of internationalisation and flexibilisation of labour markets. It consists of employers, workers on own-account and wage workers. But unlike their counterparts in the formal sector, they are not subject to the legal and social protection, the workers are not unionised and are more likely to be exploited, and their work and income are unrecorded.

In order to formulate appropriate policy in relation to the growth of informal activities, it is important to understand the formal-informal employment relationship. To discover the extent of value added/income generated by informal activities, so far, no standard calculation technique has been established. Depending on the method employed, the estimate of the contribution of the informal sector to GDP may range from 4% to 22% of GDP for USA in 1976 (Frey & Pommerehne 1982). In the case of Austria the estimates range from 8.5% of GDP (Statistik Austria 1999) to 15.5% (Schneider 2000) in the mid to late 1990s. Therefore, the OECD proposes, in its Handbook on the Non-Observed Economy (2002), a set of definitions and calculation procedures which should ensure comparisons across countries and over time.

At the outset, the OECD suggests to conceptualise the informal economy as an element of a larger set of economic activities, namely the Non-Observed Economy (NOE). The latter encompasses underground, illegal, and informal sector activities as well as household work for own consumption. The OECD proceeds with the definition of informal sector production which was agreed upon by the United Nations, OECD, ILO and Eurostat

(SNA 1993, OECD 2002:12), saying that it comprises "those productive (economic) activities conducted by unincorporated enterprises in the household sector that are unregistered and/or are less than a specified size in terms of employment, and that have some market production." This definition is narrow and does not include the production of legal goods and services in medium to larger enterprises which are deliberately concealed from the authorities to avoid payment of taxes or complying with regulations — the latter being part of the underground economy[2].

Reasonably reliable statistical information on the magnitude of all elements of the NOE is necessary for policy guidance. However, to be realistic, we could not expect complete accuracy for such information from this source any more than could be expected from the informal sector. For our purposes of understanding the driving forces for the rising share of informal labour in employment creation, we focus on the activities as defined by the OECD (2002, chapter 10), which is essentially the ILO definition agreed upon at the 15th International Conference of Labour Statisticians in January 1993 (ICLS 1993).Under this definition, the core element of the informal sector is the unincorporated enterprise, where one is working either on one's own account or as small scale employer. From a legal standpoint one may distinguish between registered and non-registered own-account enterprises and registered and non-registered enterprises of small scale employers (with at least one continuously employed person). From the point of view of social protection, i.e. the vulnerability of the persons working in that sector, and from the point of view of the role that sector plays in the production of goods and services, the registered and unregistered sector often share the same characteristics.

As to the availability of data, it is often unsatisfactory, given that small enterprises, employing 15 or fewer persons, are not or not fully covered in employer surveys. Because of the limited information available on the informal sector, the OECD suggests supplementary questions to labour force surveys and household income and expenditure surveys, i.e. by data in the discretionary power of the EU (Eurostat guidelines). Questions may be addressed to all respondents, irrespective of their status, on hours worked by type of enterprise (government agency, public enterprise, private enterprise, own account, paid and unpaid family help etc…), for main job and secondary jobs, declared and undeclared. In order to find out, if children work in the informal sector, the age limit in surveys of the economically active population should be lowered. Since informal work may be very volatile in the course of the year, quarterly (or monthly) surveys would have to be envisaged.

As to the household income and expenditure survey, questions on expenditure by point of purchase (supermarket, formal shop, street stalls etc...) could be included, thus providing information about the final consumption expenditure on informal sector products.

The link between formal and informal labour

Industrial restructuring and the relative expansion of the services sector in the formal economy, is linked to the growing practice of outsourcing and subcontracting to smaller enterprises, many belonging to the informal sector. But this is not the complete picture. The rising share of informal labour in total employment has been associated with other elements of greater flexibility in the formal labour market generated by the forces of demand and supply. (Standing 1999, OECD 1994, ILO 2002). These flexibility elements are compatible with what already prevails in the informal economy – workers employed by informal enterprises, domestic workers, outworkers, homeworkers, part-time and casual workers – and thus facilitate the movement from one economy to the other.

The implications of this trend for the wellbeing of societies are not straightforward. While labour market flexibility may increase competitive power and thus economic and employment growth at a macro level, for many countries, it has been associated with a reduction in employment security for a rising portion of the working population, and a widening in the distribution of income and earnings. Informal sector work may also be a 'survival tool', e.g., in the form of subsistence farming for laidoff workers in some CEECs; or a means of additional income for persons, who are well covered by social security arrangements – e.g., early retirement and disability pensioners in Austria.

Informal activities differ from formal sector jobs both in terms of supply and demand. This has important implications for policy. One question to be answered is to what extent the driving forces for informal sector work differ between old and new EU member countries; another question relates to the probability of a transfer of informal sector work (through migration) and products (petty trade) from new to old Member States. Further,

[2] The dividing line between the underground and informal economy is not clear-cut and self-evident at times.

we also need to know what drives the movement of labour between the formal and informal sectors. In order to answer these questions and to better understand the underlying processes, we need standardised concepts and norms in the definition and collation of data on the informal sector.

Comparable data on the pattern of and the driving forces behind informal activities, will enable us to judge the potential impact of EU enlargement on product and labour markets in the enlarged EU. A better understanding of the functional mechanisms at work will facilitate the extension of co-ordinated employment policy to the new member countries (Biffl 2001), in particular, the objective of increased socio-economic inclusion of the people of working age and the fight against poverty. Since the prospective member countries have adopted institutions similar to those in the EU, such co-ordination should not be hampered by enlargement. However, this raises the question of the extent to which institutional arrangements may affect employment and unemployment levels, their composition and their inherent dynamics.

One point to be followed up is the potential impact of increased formalisation of work in the prospective Eastern European member countries on visible employment and unemployment. It may well be that both will rise. Further, the current practice of including an estimate of the informal sector production in the System of National Accounts (ESA95), i.e. in GDP, without including clandestine or informal labour in the official labour accounts/statistics, understates the actual labour input into the production of GDP and thus overstates labour productivity in countries with a high share of unrecorded labour. Thus, greater formalisation of work may increase the recorded labour input and show a reduced productivity growth. This compositional change may lead to false policy conclusions. A slow-down in recorded productivity growth may not correspond to the actual productivity growth while the increase in recorded employment numbers may not involve a corresponding rise in real income flows. The declining proportion of the informal economy may, however, increase taxes and thus the social dividend and, by the token, increase employment security and welfare protection of the workforce.

In what follows, the reasons for the growth in informal labour in developed countries and countries in transition, the implications for institutional change and the need for specific data, will be considered. The implications of developments in the formal labour market on the informal sector will also be noted.

Socio-economic changes which have boosted informal work in the developed world

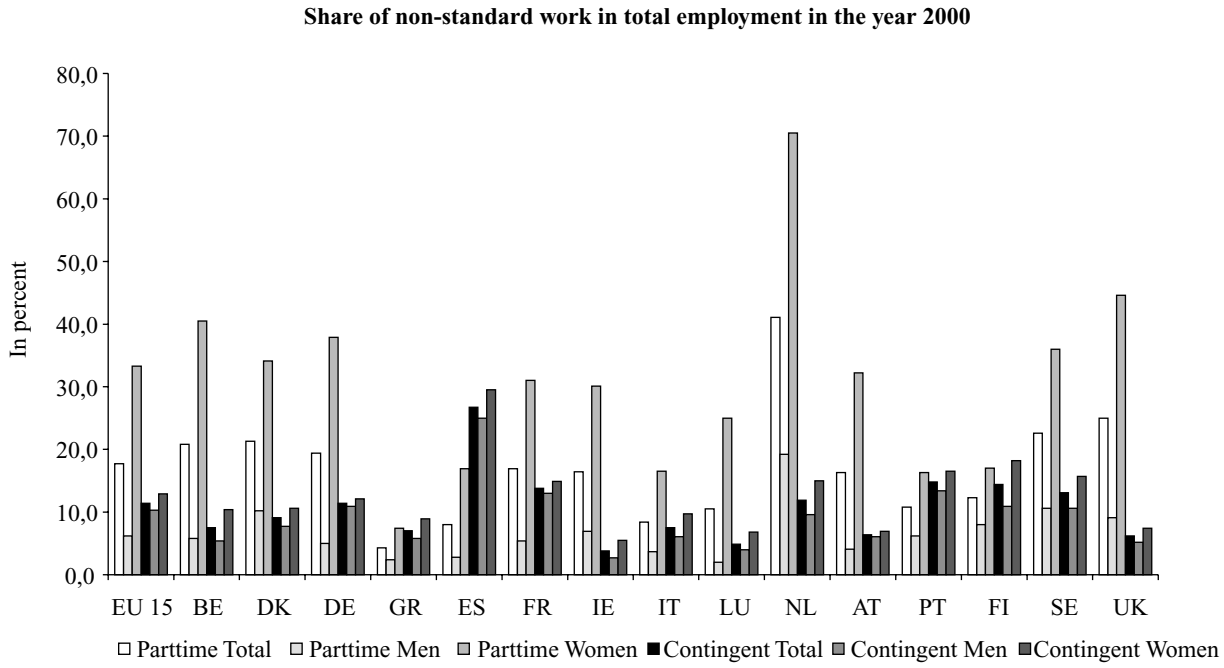
More flexible work patterns as well as the changing pattern of family life are contributing to increased informal work in developed countries (Sorrentino 1990).

The traditional norm of jobs as being full-time and life-time, is gradually waning in the wake of globalisation, technological innovation, macroeconomic restructuring, global relocation of production (Van Liemt 1992), and micro-economic reforms.

Financial considerations are the major driving force behind outsourcing of services from the highly unionised industrial sector to the less organised services sector. Outsourcing is not only cost-efficient as a result of economies of scale of service providers, but also because of large wage differences between industries. The latter may in some cases be the result of institutionalised wage bargaining (unionised versus non-unionised sectors), in others, the result of differing market power or technical progress. While technological development has a dynamic of its own (endogenous technological progress), its implementation in work processes is also driven by financial considerations. As a consequence, standardised tasks are taken over by automation and computers, resulting in the total productive system undergoing change and renewal.

The implementation of a production system of flexible specialisation has resulted in the introduction of measures to increase the flexibility of labour markets. Comparable forms of labour market flexibility have occurred in most industrial societies despite different labour market institutions and traditional methods of employment regulation. Thus, for instance, since the 1980s, there has been a growth in contingent labour on temporary contracts and temporary work, and in the dispersion of earnings and incomes (Atkinson et al 1995), accompanied by declining job security in the highly regulated and formalised Austrian labour market as well as in the labour markets of the Anglo-Saxon countries which are less formal and less regulated. In the competitive world, the need for flexibility is generally unquestioned (OECD 1999); it is merely a matter of the extent to which the various labour market flexibility processes are applied. (Graph 1) But there are wide variations between the countries. While in Ireland less than 5% of all work is on a contingent basis, 27% of workers have a contingent job in Spain. Netherlands, on the other hand, uses part-time work to a larger extent than any other EU country to satisfy its labour needs.

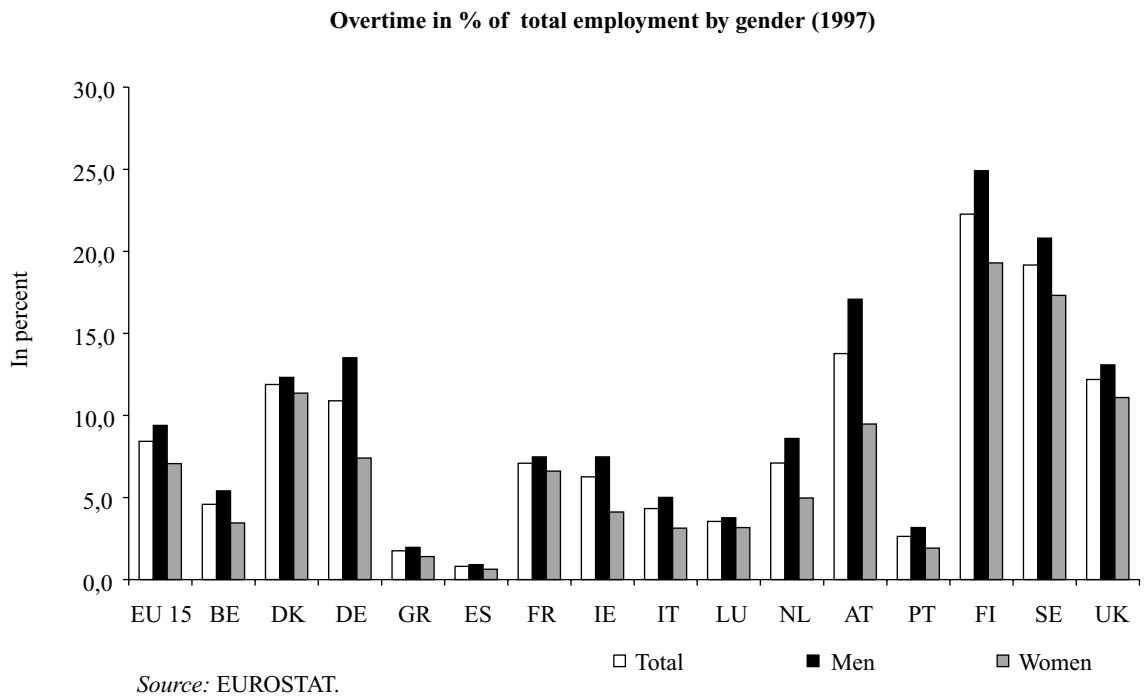
Graph 1: Share of non-standard employment in total employment in the EU (2000)



Source: EUROSTAT.

The choice of flexibility measures depends on many factors, e.g. industry, size and locality of the enterprise, relative wage rates, and the regulatory mechanisms of the labour market. Thus internal (to the firm) and external forces impact on the type and degree of flexibility measure used. Strong corporatism and an effectively structured system of industrial relations, as in the case of Austria, tends to favour working hours flexibility. The relatively large amount of overtime in Austria indicates that fixed labour and recruitment costs, i.e. transaction costs, are high and tend to be a barrier to entry into the formal sector of the labour market (Biffl 2000). In the year 1997, for example, 14% of all employees were working overtime in Austria (men: 17%, women 9%), while only 8% (men: 9% , women: 7%) did so in the EU15 on average. In contrast, countries with a larger proportion of flexible employment relationships (contingent work), e.g., Spain (ES in graph 2), do not resort to this source of flexibility to the same extent.

Graph 2: Overtime as a means to gain flexibility

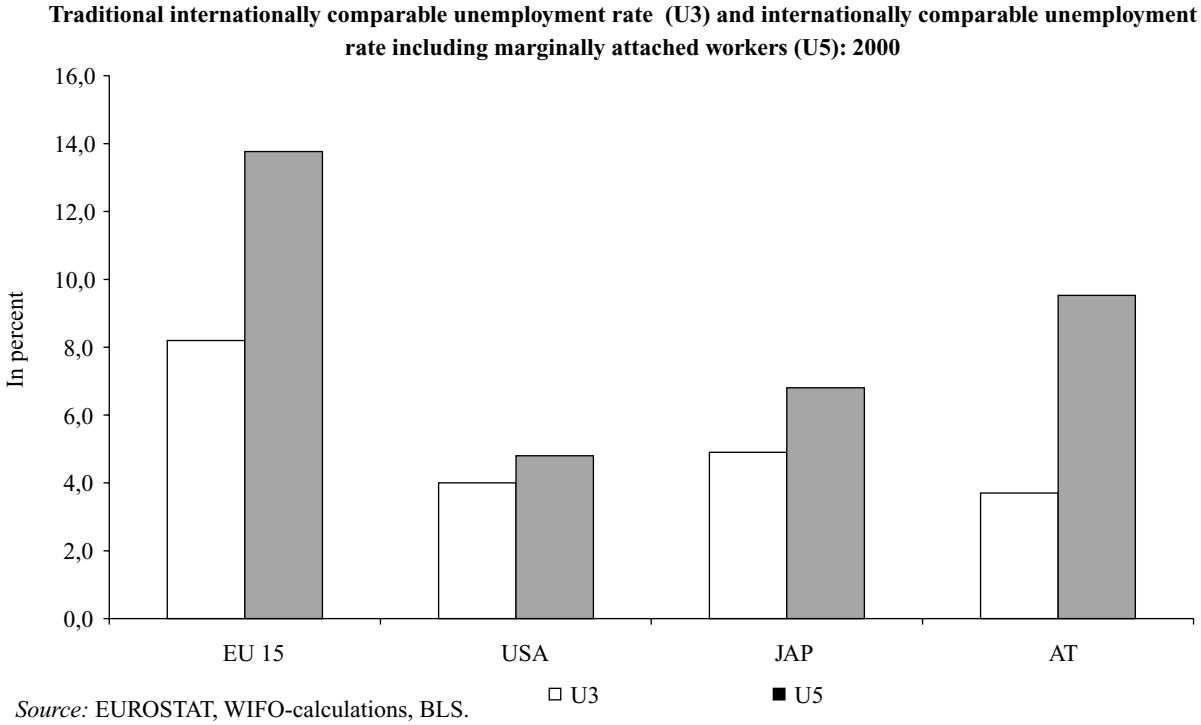


Source: EUROSTAT.

The changing labour market requirements result in a departure from standard age-status transitions. People frequently move from school into work, then into training, re-training or further education, back into work with intermittent phases of unemployment and informal sector work. Thus, lines of economic dependence may be reversed between men and women and even between young and old as non-traditional employment relationships, which often carry no or only limited social security coverage, become more prominent. As a result of increased labour turnover, the proportion of marginally attached persons to the labour market increases, and a rising number of people is not covered by the traditional social safety nets.

The strong increase in employment turnover is not adequately captured in the traditional unemployment rate (U3). U3 is based on the belief that there is a duality in the sense that a person is either employed or unemployed. The rest of the population are considered to be out of the labour force and covered by some sort of social insurance or assistance programme. The greater fluidity between the different statuses implies, however, that there are many people in the assumed non-active population who access the labour market on a more or less temporary basis to increase their income, at times on the formal and at others on the informal segment of a continuum of labour markets. This is to say that U3 takes a very narrow view of unemployment. Anybody who works for one hour or more per week is counted as employed. Apart from the fact that this definition is most likely to understate the magnitude of involuntary unemployment, no distinction is made in the survey whether the type of work undertaken is in the formal or informal sector of the economy. The relatively large number of people working very short hours may reflect their wish to remain in contact with the labour market; they may accept less than their normal desired working hours, even casual work, and hope to find more and better jobs at some later stage. Moreover, anybody who has given up searching for a job, i.e., who is not actively searching in the survey week – because of an economic downturn in which one does not expect to find an adequate job (discouraged workers) – may temporarily turn to unpaid work in the household sector (care for sick or elderly) or to informal work. The latter is the more probable and makes up the larger proportion of the informal sector output in GDP.

Graph 3: Unemployment rates including the marginally attached workers, selected countries/regions (2000)



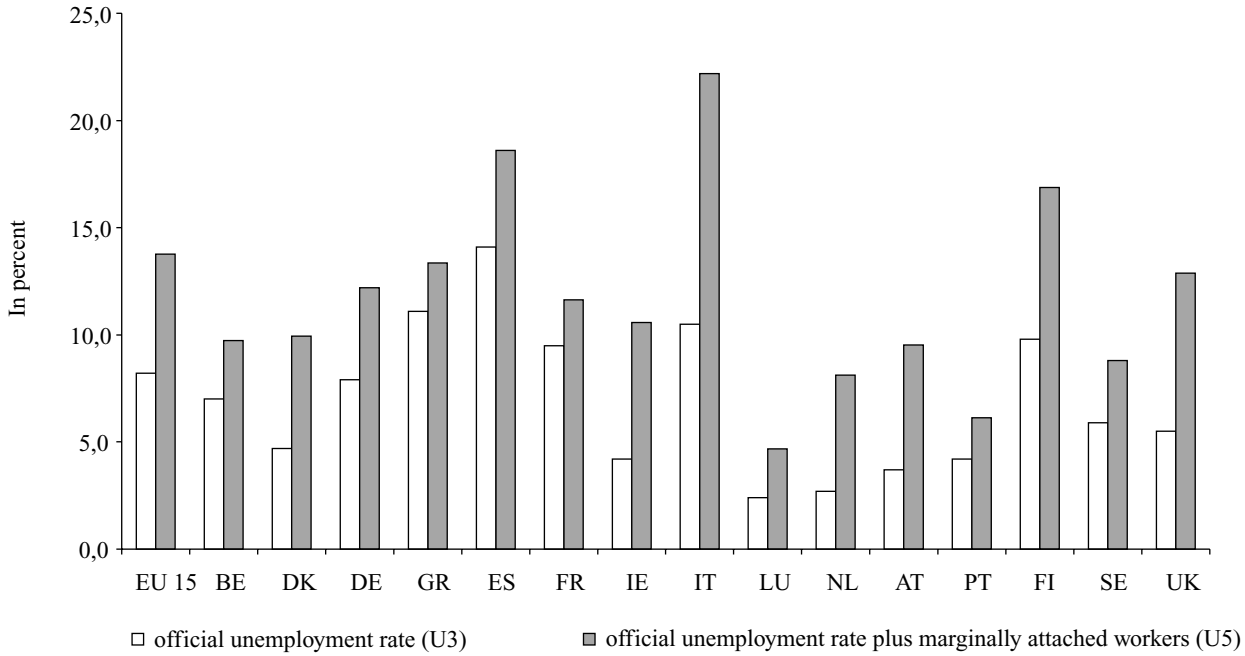
Source: EUROSTAT, WIFO-calculations, BLS.

If we include the marginally attached workers, who say that they would like to work but are not currently searching actively for work because they are discouraged from doing so, among the unemployed (U5), we get a broader and more complete measure of unemployment and maybe some insight into the formal-informal employment link (Bregger & Haugen 1995, Castillo 1995, Sorrentino 1995, 2000). In the case of Austria, U5 is more than double U3 — 9.5% versus 3.7% in 2000. This result would confirm the earlier point that, judging by the high propensity for overtime work, entry into the formal sector labour market is rather difficult in Austria. U5

does not only convey a better picture of the extent of unused labour resources than U3, it is also a more reliable indicator of changes in disposable income and thus of pending poverty.

In the EU15, there are pronounced differences between the degree of integration of the unemployed as measured by U3 and U5. While Austria scores number three – behind Luxembourg and the Netherlands – in the case of U3, it is only number 5 – behind Portugal and Sweden – if the marginally attached work force is also taken into account. On the U5 measure, the unemployment rate in the EU15 is 13.8%, i.e. the unemployment rate is not twice as high than in the United States but almost three times as high (4.8% in USA).

Graph 4: Unemployment rates including the marginally attached workers in the EU15



Source: EUROSTAT, WIFO.

To sum up, it can be said that two sets of forces driving flexibilisation, have gained prominence under the competitive pressures of globalisation in harness with technological and social changes. One is the growing practice of sub-contracting and outsourcing of services of the rapidly expanding services sector, to small enterprises and to workers in the informal economy. The other enables enterprises to keep a portfolio of different types of employment (contract labour, temporary workers, flexworkers, homeworkers, casuals, consultants, core workers) some of whom may be in the informal sector, in order to spread risks and increase flexibility, analogous to a firm or an individual holding a portfolio of different types of assets. The wage system becomes complex and spans from the 'capitalist' top level management, who get paid in stock options, to the consultant, who has performance related pay components, and the worker, who gets paid piece rates or an hourly wage with or without social security coverage. These circumstances provide the basis for movements of labour between the formal and informal sectors.

Socio-economic factors affecting informal work in transition countries

The informal economy is not new to transition countries. Numerous studies recount the different types of legal and illegal elements of an economy parallel to the formal economy (the 'second economy' according to Los, 1990) consisting of private, unregistered and untaxed activities (Braithwaite 1994, Grossman & Trebl 1987, Los 1990, Shelly 1990, Kurkchiyan 2000). However, the breakdown of the command economies has brought about a different extent and structure of the informal sector. On the one hand, privatisation of state enterprises in the course of the 1990s introduced flexible employment relationships into the formal sector, which reduced not only job security but also workers rights and social protection compared to the old order[3]. On the other hand,

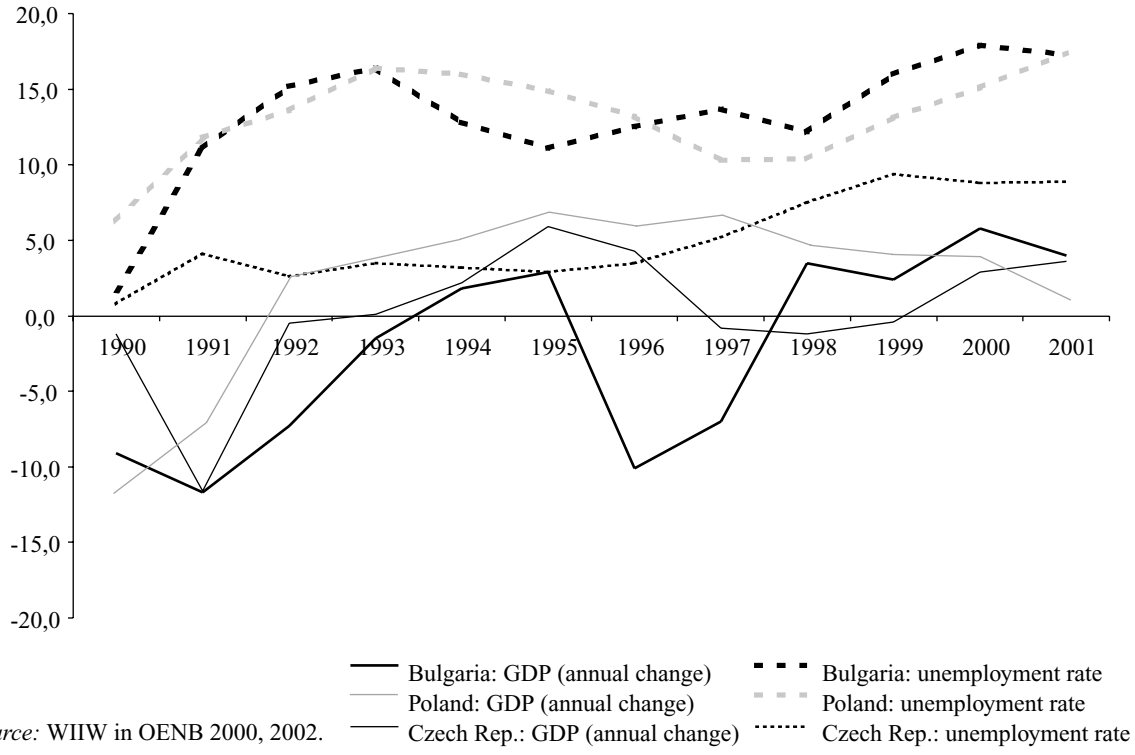
[3] Musiolek (2002) points out that the CEECs have high standards of labour rights by the letter of the law, from the times of the command economy, the enforcement of these rights and the decent work concept is, however, limited.

'second economy' enterprises (in particular services) entered the arena of the formal sector, thus recording elements of former informal employment and income, and thereby increasing the number of workers with social protection of the market economy type. These processes, i.e., flexibilisation of work in the former formal sector and legalisation of former informal enterprises, are responsible for the development of similar formal-informal sector interlinkages as in the EU15.

The large proportion of informal work in GDP and in total employment is not only the result of a legacy of informal work practices and a lack of experience with a whole set of new institutions typical for market economies (for example, managerial capacity), but also of the massive impoverishment of large segments of the population in the wake of transition to a market economy. Transition from a command to a market economy went hand in hand with substantial output declines in manufacturing, mining and agriculture and with an increase in services. The reallocation of labour was associated with a rise in unemployment and an corresponding loss of benefits traditionally provided by enterprises. A feature of the communist system of full and life-time employment was to top up wages by generous universal benefits, e.g. family allowance, pensions, subsidised food, housing and heating. The welfare system was thus linked to employment in the formal sector. The loss of formal sector jobs and the slow implementation of western style welfare institutions, like unemployment benefit systems, retirement pay, health provision, often made work in the informal sector a survival strategy.

In the CEECs, one may discern two types of labour adjustment patterns following the breakdown of the command economy; in the first case a strategy of rapid transition to a market economy, in the second, a strategy of slow transition to a market economy (Musiolek 2002). In the first case, employment declined sharply as productive output collapsed, leading to both open and disguised unemployment, e.g. the case of Bulgaria, Poland and Hungary. According to this strategy, it was necessary to set labour free in the declining sectors before it could move to more dynamic industries. At times, open unemployment subsequently declined rather quickly, not as a consequence of employment uptake in the growing sectors but largely as a result of early retirement schemes and/or the expiry of unemployment benefits, which led to the withdrawal from the formal labour market, i.e. decline in labour force participation, in particular of women and older workers.

Graph 5: GDP growth and unemployment in countries with a rapid transition strategy (Poland, Bulgaria) and a soft transition strategy (Czech Republic)



Source: WIIW in OENB 2000, 2002.

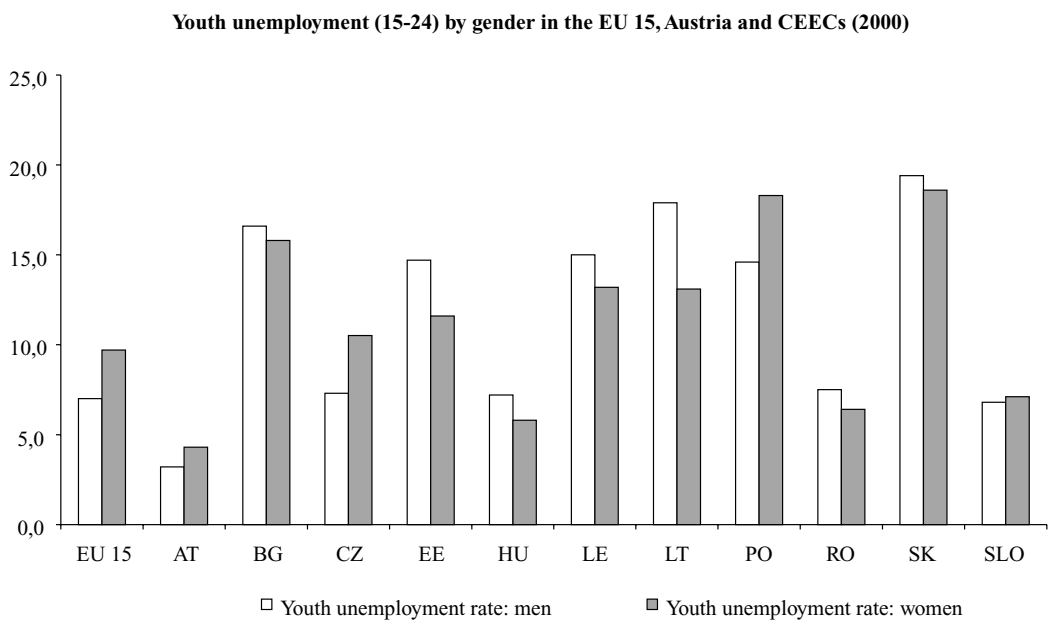
In the second case, employment remained relatively unaffected by output declines in the early stages of transition, e.g., the Czech Republic or Russia; workers remained with their employer, even without work and wages, in order to continue to enjoy enterprise benefits, in the main benefits in kind like food and heating material. The latter strategy of underemployment mitigated impoverishment in the face of a slow process of implementation of a new welfare system. (Graph 5)

Informal sector work supplemented household income in the case of underemployment and open unemployment alike. (Boeri et al 1998, OECD 1997)[4]

Informal sector work may be a rational coping strategy in a world of scarce formal sector jobs. However, there is a risk of permanent deskilling of workers that are effectively excluded from formal employment. This may seriously impair the productive potential of a country. Therefore, in order to devise effective employment policies, it is important to learn about the structure of informal work – the demand side, – and about the characteristics of the workers in the informal sector – the supply side. In the current state of affairs of statistics, high youth unemployment could serve as an indicator of barriers to formal sector jobs of newcomers. We do not know, if and to what extent young people are working in the informal sector; nor do we have systematic and comparable information on the type of jobs in the informal sector. Graph 6 shows that youth unemployment rates are substantially higher in most CEECs than in the EU15. The danger of deskilling of youth due to their high underutilisation in the formal labour market, is particularly pronounced in Slovakia, Poland, Bulgaria, and the Baltic States.

There is a growing concensus that increasing flexibility in the western style formal economy, together with the legacy of a second economy in the transition countries provide strong incentives for a large informal sector production in CEECs (Kurkchyian 2000, Thomas 1992, Sik 1992). By drawing these countries into the EU, the expansion of informal sector activities will be reinforced – at least for the period of time in which free labour movement is not allowed between the EU15 and the new member countries. Labour movement will be restricted to regulated cross-border labour movement and labour migration. In that situation it can be expected that migrants and cross-border workers from CEECs will be pulled into the formal-informal continuum of labour markets as we know it today. EU countries bordering on accession states may expect an increased supply of informal sector labour as a result of migration on the one hand and through petty trade with informal sector products from CEECs, given the large differences in wages and consumption possibilities. In the long run, i.e. when free mobility of labour will be extended to the Eastern EU member countries, integration into the formal sector will be facilitated thus reducing the incentives for and the extent of informal work.

Graph 6: Youth unemployment rates (15-24) in the EU15, Austria and CEECs (2000)



Source: EUROSTAT.

[4] It cannot be said that unemployment was an efficient way to promote restructuring. As Jackman has said (1998, p.152): "Unemployment is not the route by which workers move from the declining state sector to the private sector. Unemployed workers are less attractive recruits for private firms than the workers in state firms, and a policy leading to higher unemployment may thus have restrained rather than encouraged the growth of the private sector."

Data requirements and suggestions for further steps

As has been pointed out previously, lack of coverage of economic activities causes imbalances in the internal consistency of the national accounts. E.g. household consumption may include expenditures on goods and services produced in the informal sector, i.e. of goods and services which are neither adequately accounted for in the production accounts nor in the employment statistics. In order to provide consistency between national accounts (European System of Accounts – EAS95) and labour market statistics, an extension of ESA95 by labour accounts should be envisaged and developed into Social Accounting Matrices (SAMs). The SAM would provide the statistical framework for a comprehensive analysis of the formal-informal sector linkages[5]. An extended system of ESA95 has a clear advantage over indicators derived from a single survey, as the indicators are harmonised and mutually consistent, as they ensure full coverage and provide the linkage between supply and use tables on the one hand and employment on the other. A SAM combines detailed labour accounts (employment in the formal and informal sector) with labour income by type of labour and household. It clarifies that production of goods and services creates value added which is to be distributed among the workforce, unemployed, retired and the marginally attached and non-active population. Thus the analytical framework of the SAM allows a comprehensive analysis of the link between labour markets, the distribution of income and macroeconomic issues like GDP and productivity growth, the inflation rate, the budget deficit and the balance of payments[6]. It clarifies the interdependence between production, distribution, factor endowment and use thus increasing the transparency of economic and social processes in an economy.

Such an objective is probably rather ambitious and unrealistic in the immediate future; but it is one which should be aimed at and progressively refined as an important aid to policy.

Concluding observations

This paper has attempted to sketch in outline the complexity of labour market developments in recent years. In particular, the changing nature of work and its skill requirements, the flexibility of employment contracts, working hours and pay systems, and the practice of outsourcing and relocation of work, all driven by technological developments and competitive pressures on the demand side; and on the supply side, the changing characteristics of workers arising from social changes and their greater mobility within the EU, have a profound effect on interaction between the formal and informal economies. Further, the workforce must be considered as a flexible entity which should include those who are marginally attached to it, as well as those in the informal sector.

It is to be expected that EU enlargement consisting of countries with relatively larger informal economies, will be phased into the context of these changes. The ILO (2002:5) sees the desirable policy strategy as one which promotes the movement of labour from the informal economy with its decent work deficits, into the formal economy where such labour could be expected to enjoy the potential of a higher standard of living. But whatever the strategy, to ensure that appropriate economic and social policy may be formulated for all the countries involved, the existing EU as well as the new EU Member States, a reasonably precise knowledge is required, not only about the forces which affect the movement of labour between the formal and informal economies, but also about the numbers involved and their impact on the production process and on social welfare. The numbers involved require a systematic statistical base, covering both the formal and informal economy, which at present is inadequate. The complexity of the labour market and its changes will obviously need to be reflected in such a data base. The OECD and the ILO have provided guidelines for the collection of standardised and comparable data between the countries. However, this may not be sufficient: the integration of labour accounts into a system of national accounts (a SAM) may be necessary. It would provide the statistical and analytical framework for a systematic analysis of the changes of socio-economic processes currently underway.

To sum up: in the context of EU enlargement, sustainable economic growth, increased social inclusion and the fight against poverty maybe facilitated by the explicit inclusion of informal sector activities, their market production and their role in the creation and distribution of income. Such an outcome would be greatly assisted by a data base established through a comprehensive statistical framework like the SAM.

[5] The Handbook on Social Accounting Matrices and Labour Accounts (SAMLEG 2002:1) defines the SAM as "the linkage between the (mainly) macro-statistics of national accounts with the (mainly) micro-statistics of the labour markets and households".

[6] As a second step in the development of statistics one may envisage the extension of a SAM into a SESAME (System of economic and social accounting matrices and extensions). The extension may detail the accounts expressed in money values (particularly labour income) with non-monetary information, e.g. poverty indicators and indicators of socio-economic exclusion.

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LABOUR STATISTICS – FROM THE CONSULTANTS' VIEW

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Introducing myself

I'm a director of a small international consulting company, specialised in Labour Market and Human Resources Development. My company, Nehem International, is mainly engaged in EU and Dutch financed programmes in Central/Eastern Europe and the Middle East. Personally, I was engaged in the strengthening of Public Employment Services in Belarus, Armenia and the United Arabic Emirates. Furthermore, I participated in the establishment and strengthening of vocational training centres in Belarus and Moldova and managed different redeployment (Labour Pool) projects in Egypt and Czech Republic. Stimulation of Self-Employment was initiated in Hungary, Belarus and Egypt.

Before I became a consultant I worked for the Dutch Ministry of Social Affairs and Employment from 1982 until 1989 as a Deputy Head of a Policy Department.

Summarised, I'm neither a researcher, nor a statistician. I'm a consultant who often is confronted with labour statistics by the beneficiaries I assist.

Labour Statistics from a political point of view

My father always said that "nothing is lying as much as statistics does" and working as a consultant I need to agree with him. Statistics are often used for politically motivated purposes. During my work I've met cases, where labour statistics were misused by politicians or by higher civil servants.

Let me give you examples:

Netherlands 1982: Our prime minister during those years announced that he would resign in case the amount of unemployed exceeds 1 million.
At the Ministry we were told to take measures to avoid this possible increase: the unemployed older than 57_ were deducted, the participants of active labour market programmes were deducted and pregnant unemployed women as well. In other words: the definition of an unemployed was changed and the gradual increase came to a halt. I never read any remarks concerning this fact in a newspaper.

Denmark 1988: In the eighties Denmark used two statistics to calculate unemployment: one counting the unemployed registered at the Labour Offices and the other by counting the paid benefits. The Conservative Minister of Labour that time, who promised to reduce unemployment, cancelled the first statistics and at the same time made the rules more strict to apply for an unemployment benefit.

Armenia 1999: The official unemployment rate in that year was 11%. But to be considered as unemployed, people needed to have at least one year of work experience. Due to this restrictive definition the official figures are much lower than "real" unemployment in Armenia.
Another interesting example is number of people in working-age. Armenian statistics don't

count migration. By now it is estimated that at least 700.000 Armenians left the county, mainly for Russia, while the labour statistics still count them as working population. The real amount of Armenians in Armenia is unknown.

Czech Rep. 2000: The calculation of unemployment rate is based on the unemployed registered at the Public Employment Offices. Unemployed who do not fulfil their legal obligations, like actively applying for jobs, are deleted from the register and don't count anymore. Unemployed mothers are not calculated during the first three years after giving birth.

Belarus 2002: The official unemployment rate increased during one year from 2,2% to 2,8%. This figure is based on the number of registered unemployed. In the country where the average unemployment benefit is $ 8,— per month and the bureaucracy is high, many unemployed don't bother to register. The hidden unemployment in the state owned enterprises is substantial and by some institutes estimated at over 30%.
Another example is the amount of private farmers. Many kolkhoz farms are under so called 'privatisation', but the issued shares are given to a foundation which is totally managed by the former Kolkhoz management and the individual farmer has no private entrepreneurial rights at all. But the statistics show an increasing amount of private farmers and successful privatisation.

Slovak Rep. 2002: The unemployment rate among the Roma population varies in the statistics from 60% (registered unemployed) up to 100%. A substantial amount of Roma is expected to work in the informal economy, like seasonal agricultural jobs. The real amount of Roma citizens in the Republic is unknown.

The examples above show that one should always look behind the statistics to understand their value. Don't misunderstand me, statistics are needed and labour statistics are, together with production statistics, the most important indicators for policy and policy change. But statistics can be manipulated. Therefore, I consider it very important that Eurostat and ILO/STAT promote their classification standards among all the countries in the World and to monitor the usage of these standards. The examples concerning Holland and Denmark, I mentioned before, are nowadays not possible anymore. The accessing countries are currently in the process of changing their statistical systems and consequently implementing the general "Labour Force Survey" as the current EU members did. The Labour Statistics in CIS countries and the Middle East are unfortunately unreliable and often politically manipulated.
It means that, for our work in these countries, we often have to make our own short surveys.

But Labour Statistics are not only biased by politicians. Another important disrupting element is the "grey or black economy".

Grey economy

Different words are used to define the phenomenon like "unofficial" or "shadow", "grey", "black", "hidden" or "informal" economy. In fact we can distinguish two types of activities: legal activities which are not reported to the tax authorities and illegal activities which, needless to say, are not reported to the state either. Based on different surveys[1] the following unreliable estimations were made concerning the share of the grey economy in GDP:

USA	15%	Hungary	30%
Germany	15%	Bulgaria	35%
Italy	23%	Russia	40%
Czech Rep.	23%	Georgia	62%

The share of grey economy is related to the deterioration of the authority of the state (like in the former Soviet Union) and the level of poverty (level of GDP per capita).

One has to be aware that grey economy has important functions and cannot be considered totally bad, in particular for a transition period. Firstly, a part of the black money is legally reinvested in the country and therefore stimulates National economy. Secondly, grey economy is a cash economy, it is liquid and fast. It injects much needed foreign (hard) currency into the economy. Thirdly, grey activities often step efficiently into market niches to fulfil an existing demand, mainly through small and medium sized enterprises. Fourthly, some absolutely

[1] Based on untaxed earnings. *Source:* European Commission, Interpol, National Central Banks, National Bureaus for Statistics, IERC, Schneider and Enste (2000), Lackó (1999).

necessary economic activities are done in the grey sector, simply because there is no demand if market price is to be paid. Last but not least, it gives people an opportunity to survive: black salary is better than no salary.

The disadvantage is off course that no taxes are paid and that contribution to public services is zero. However, it is interesting to see that in countries with a high share of informal economy those public services are often managed by bureaucrats who have a tendency to abuse these resources to their own benefit (including corruption).

Please note that I'm not advocating or promoting the grey economy. I only want to make it clear that the grey economy is related to the development stage of society and that it does fulfil different economical functions.

Working as a labour consultant I need to know, at least to some extent, how the grey sector works, for the simple reason that the grey labour market is always competing with the white labour market. Unemployed, who are looking for jobs, estimate advantages and disadvantages of white and black jobs, before choosing. The efficiency of the Public Employment Services is partly depending on the competing position of the white economy against the grey economy.

I would strongly recommend to implement internationally standardised research methods to investigate the grey economy. The gathered data provides interesting information about the stage of transition, more realistic employment and production figures, the functioning of the labour market, level of poverty, money flows, etc. In fact, this data concerning the grey economy will make Labour Statistics more reliable and valid and consequently policy decisions more effective.

Conclusions and Recommendations

My personal conclusion is that Labour Statistics can be biased by three reasons:

- Absence of statistical means and know how;
- Political manipulation;
- Grey or Black Economy.

As far as I know, all research and survey methods are available for each country. There is no reason not to implement these standards. If necessary, there are enough researchers who can assist with the implementation of those instruments.

Concerning the political manipulation, my view on Labour Statistics has gradually become more optimistic for the EU member states thanks to the harmonising initiatives of Eurostat. The EU accessing countries are on the right track and their labour statistics are also becoming more and more reliable. The CIS and Middle East countries are still lagging behind and each labour consultant should be aware of politically manipulated and therefore misleading statistics. Those countries will be taken more seriously by potential investors when they would also apply to the standards of Eurostat and ILO.

The grey economy plays a role in each country. To my knowledge, instruments for measuring the grey economy are not harmonised yet and therefore incomparable. However, this information is extremely relevant for the policy makers and subsequently for the consultant who advises the policy makers. All labour statistics are biased by the grey economy, and hence mapping the grey economy is a pre-condition for obtaining the most reliable and valid labour statistics.

My recommendations are:

- Don't use Public Employment Services for data collection, the information doesn't reflect the real unemployment situation and is too much dependent on local rules and conditions.
- Each country should apply to the Labour Market Survey as it is offered by Eurostat and the employment statistics by ILO (ICSE).
- As a user of statistics, always check them and try to see how and what information is gathered.
- Labour Statistics must provide detailed data on vacancies, skill demand, remuneration, part time work, self-employment, hidden unemployment, hidden employment and migration.
- Labour Statistics must include a qualitative and quantitative view on the extent and functioning of the grey economy.
- Involve international institutes to monitor the Labour Statistics in order to avoid any political biases.

THE UNEMPLOYMENT STATISTICS – A PRODUCER'S VIEW METHODOLOGIES AND COMPLEMENTARITIES OF OFFICIAL SURVEY DATA AND REGISTERED DATA

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Unemployment is a phenomenon of large and varied consequences. Measuring it is not an easy task. Since statistics became a science of its own that people try to measure unemployment more and more accurately. These numbers are of utmost importance to many researchers all over the world. Politicians are particularly interested in accurate and timely statistics as many governmental economic and social policies depend on them. Of course, unemployment is most serious for the people who are in that situation. National Statistics Institutes (NSI) are at the beginning of a chain. For any policies to be successful, all decision processes must start based on clear and correct premises. It seems reasonable for the NSI's to conduct the necessary processes in order to devise the correct number of unemployed people and their actual situation. The world is changing fast and with it the people's needs. In order to fight unemployment, correct figures in all multitudes are essential. In fact, the National Statistical Institutes have the *know-how* and the technology to study this phenomena in a comprehensive way.

Nevertheless, in Portugal, there are two different ways of obtaining figures on unemployment and these are through the numbers published by the national statistical institute (INE) or through the numbers published by a governmental agency. The main question is which one to use. The answer lies in knowing what one needs the numbers for. The two entities measure different but still highly interconnected phenomena. Advantages and disadvantages of each source will be discussed and a case for the survey method will be made.

Notions and concepts. The nature of the sources

The Portuguese Statistical Institute has the main goal of producing statistics. There are inside users of the information but our focus is in production. The official unemployment rate is calculated by the Institute based on a quarterly survey.

The Employment Survey (Inquérito ao Emprego – hereafter, IE), from which the official unemployment rate is calculated, has the main goal of portraiting the population and its behaviour towards employment. Thorough analysis of the labour market is also intended in order to make it easy to define socio-economical policies. Information for the survey is collected through direct interviews to the individual or to another member of the household, if the aimed individual is not present and the other is considered fit for answering. Data is entered in digital support at the time of the interview with the software CAPI (computer assisted personal interviewing). Two different levels are considered in the survey: the household and the individual. Information is collected for all individuals in the same household.

Moreover, the basic sampling unit considered is the household. The usual probability multi-stage sampling method was chosen.

On the other hand, the Institute for Employment and Professional Training (Instituto do Emprego e Formação Profissional – henceforth IEFP), collects data based on registrations. The statistics are a secondary result of administrative processes, namely the management of job requests by candidates who voluntarily register on Em-

ployment Centres (Centros de Emprego - CE). Registration is required in order to get access to the unemployment subsidy. IEFP does not aim to collect all these statistics – they are a side product. However, they may constitute a useful source for researchers.

Anyway, policies of the CE's may decisively influence the number of unemployed people who actually show up in the centres and register. As a consequence, the volume of registered unemployment may be biased when compared to the official numbers. This kind of events does not happen in a survey like IE, given its very specific characteristics. There are no carrots in a survey and hence, the probability of extrapolating results obtaining, therefore, accurate statistics is high. Even at this level, it is possible to establish relevant differences which allow the discrepancy of results given the two different sources. It would not be surprising to conclude that IEFP statistics are basically unreliable when one considers a specific definition – there are carrots which create a *selection bias*.

The notion of unemployment

In this section, the main differences between the two distinct concepts will be pointed out. Of course, INE publishes the official statistics following EU rules. The notion of official unemployment should be exactly the same for every country. Nevertheless, it is insightful to present the definitions in order to better compare with the institutional rules followed by IEFP.

In first place, there is the question of the targeted population. Any person who considers herself unemployed can, *a priori*, be part of the statistic. However, there are some restrictions at this level. Only people who are resident in Portugal for, at least, three months or that do not have a residence in a foreign country are considered in the survey. On the other hand, IEFP bounds its target population to people who seek a job as employees within the physical borders of the country.

Secondly, the periods considered in the definitions are also different. As mentioned before, the collection of data by INE is made quarterly, but along the quarter. IEFP collects data daily as people show up when they want to.

In third place comes the reference period (concerning the period for which the individual is classified as unemployed). In the IE, the individual is classified having as reference the week prior to the interview. IEFP classifies the individual when he shows up for registration, which is intimately related to the availability criterium.

Fourthly, the implicit geographical scope of the sources – in one case, it depends on the sample design and in the other on the regional distribution of the employment centres.

Finally, let us consider the unemployment definition itself. An unemployed person (see also the IE methodology) is every individual with a minimum age of 14 and who, in the reference period, has no job, seeks a job and is available to work. There are great differences between IE and IEFP's registered data because the reference period is different and also because the definitions of not having a job, seeking a job and being available to work are different. Therefore, in IE:

a. Not having a job means not having worked for a salary or not having worked at all, at least for an hour during the reference period.

b. Being available means the considered individual may start working within the next 15 days.

c. Seeking a job implies that an individual does actually have to make diligences to find a job, paid or not, in the 30 days prior to the interview. It is not enough to be registered in an Employment Center (this actually counts as a diligence if it is only done in the mentioned 30 day period).

As, on the other hand, for the IEFP:

a. Not having a job means the candidate assured he hadn't any at the time of the registration or he wouldn't have any in the following days.

b. Being available refers to a 30 day period.

c. It is enough to be registered in an Employment Center and show up in the interviews arranged by the CE's. It is then considered that the individual is really seeking a job. Also, the individual must seek a job in which he is an employee, for obvious reasons.

The concept of unemployment by international rules

It includes all people older than 14 (in the case of Portugal), who, during the reference period, were:

- *Without a job*, *i.e.*, people who do not have a paid or even unpaid job.
- *Available to start working* in a paid job or even for unpaid work, during the reference period.
- *Seeking a job*, *i.e.*, people who made concrete diligences, in a defined recent period, to find a paid or unpaid job.

In this framework, it is shown that both statistical sources try to be compliant with these rules. Obviously, IEFP, with its institutional and social facade, does relax some of these conditions.

The theoretical impact of relevant differences in unemployment level estimated by each of the entities

Almost every difference mentioned earlier leads to the conclusion that the number of estimated unemployed people must be higher when considering the IEFP rules, which are:

- The definition of not having a job is broader in the criteria defined by IEFP;
- The availability period is also larger by IEFP's criteria;
- Definition of diligences to find a job is more restrictive in IE.

On the other hand, the IE counts all unemployed, may them be self-employed or employees. In this case, the expected unemployment rate would be higher. Still, there are more aspects to consider and which could explain the observed discrepancies favouring larger numbers by IE:

- Firstly, the fact that registration in a CE is voluntary (although the fact that for a person to be classified as unemployed in the IE, she must actively seek a job, namely register in a CE).
- The way the CE's are geographically distributed may certainly discourage some registrations.
- In the cases in which the individuals cannot get access to unemployment benefits, they will certainly show less interest in registering.
- Doing a "reduced activity" may count as unemployment for IEFP.

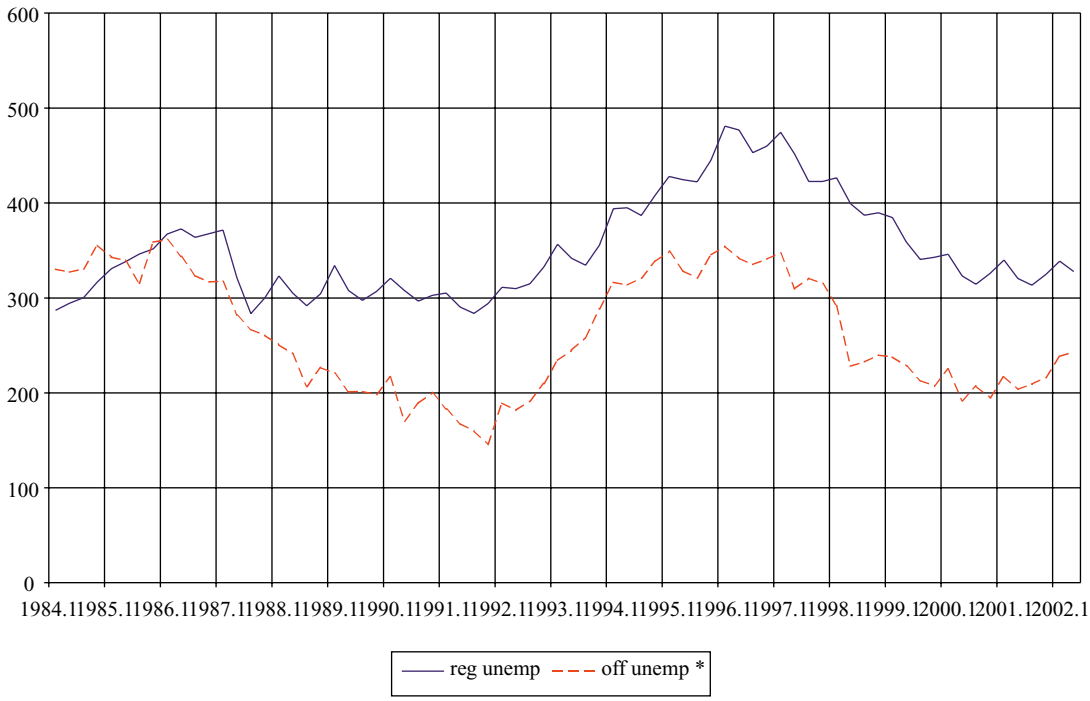
In hindsight, despite the fact there are no clear reasons to expect a statistic to be consistently larger than the other, the fact is that it seems more plausible to think that numbers published by IEFP should be higher. The causes for it seem undoubtedly stronger.

Comparison between the IEFP's registered unemployment and INE's official unemployment statistics

General evolution of unemployment

Having for reference the unemployment series of INE, it can be easily seen that evolution of both statistics tend to show similar behaviours, especially from the third quarter of 1988 on. The most noticeable fact is the widening of the distance between series beginning in that same year and, later, the stabilisation of the difference between the series around 1996.

Graph 1. Evolution of unemployment according to INE and IEFP (thousands of people)



In graph 1, reg unemp stands for registered unemployment, the figures published by IEFP. Correspondingly, off unemp refers to INE's published figures[1]. Concerning the evolution of the statistics themselves, one can conclude that after a period of marked growth in the number of unemployed people, it has been decreasing in the last few years. The periods considered broadly correspond to the years commonly believed and accepted as recession years followed by expansion years.

A further comment on the verified discrepancies. The value on registered unemployment is consistently higher than the value of official unemployment, as expected.

There is a light sinusoidal behaviour of the unemployment curve before 1992. The reason lies on methodological criteria in the gathering of information. It is a process that is ultimately reflected in the official data. The series based on the survey until 1991 had as background a sample of households which were inquired alternately in odd and even quarters. Combined with seasonal factors affecting the labour market, it seems clear why the phenomenon happened. The adopted new survey rules mitigated this feature creating, at the same time, greater confidence in the coherence of the new data. It is now possible to take a sample of the population in a given week or month allowing easier and more comparable data from both sources. The new methodology will also allow people and, specifically, researchers to believe that some specific data, as disaggregated values for regions or statistics by age and gender, are now more reliable.

An interesting result is the gap between statistics when considering some restrictions. For example, the gap between the women series is wider and it may result from the fact that some women are engaged in a partial or temporary activity while they are also registered in CE's. On the other hand, some other disaggregated statistics do not differ much between themselves, as it happens in the cases of unemployed people looking for the first job or for a new job and in the cases of disaggregation of unemployment by age classes.

[1] In fact, these are partially my own calculations. The figures from 1998 onwards are the officially released. Before 1998, the published figures only refer to mainland Portugal. Having full access to the databases from 1992 on, I calculated gross unemployment from 1992 to 1998. In 1992, there was a break in the series so, for earlier figures, I applied a backward quarterly rate of change based on an older series.

Still, some questions remain. The gap between series was tentatively explained but an in-depth analysis is needed. Also, it would also be benefitial if there was some evidence that both series were reliable or, at least, coherent.

A closer look at unemployment series

Let us first take a look at graph 2. The new series (*inquired reg*) is calculated using the data of the IE and it meaures the number of inquired people who say that are registered in an Employment Centre. The period considered was reduced to the years of 1994 to 2001[2].

Graph 2. Evolution of official unemployment, registered unemployment and inquired registrations on employment centres

If data are to be credible, and taking into account that the IE sample is supposed to be representative of the whole population, then the new series should follow aproximately the series of registered unemployment. As it can be seen, it happens so. The difference between series range from –11% to 14% of registered unemployment, which is not much if we take into consideration the fact that unemployment rate ranged between 3.8% and 7.5%.

Now, using just the same tools and crossing information, it is possible to determine the probable causes of the gap. In the next graph, the first series (*inq – ns – na*) consists of the people who, when inquired for the survey, say they are registered, looking for a job and available to start working in the following two weeks. Having the same source, it can be compared with the official unemployed data. The diference is enormous. This means that, of all the people who are registered or say they are, around a third of them (until 1998) did not look for a job in the previous month or, even if they did, they were not available to start working in the defined period. That is, a third of the registered people cannot be considered unemployed by the IE's criteria.

[2] Access to full databases was only possible from 1992 on. As there was some desbelief in some weights for the first quarters, I opted to present statistics of 1994 onwards.

Graph 3. Evolution of official unemployment and subsets of inquired registrations on employment centres

The second series (*inq. * unemp*) correspond to the IE's inquired people who are simultaneously unemployed (by IE's criteria) and registered. This new series follows closely the former one. Now, combining graphs 2 and 3, a main conclusion can be drawn. The most important causes for the difference between official and registered unemployment lie on the fact that people who are registered do not fulfill some requirements to be considered unemployed, namely the ones just mentioned above.

Advantages and drawbacks of each method

Survey methods have long been studied and their efficiency and reliability compared to censuses. Surveys present clear and straightforward advantages, being the first which comes to mind the wide information one can access to at a very reduced cost. Results can always be accurate enough to be useful with relatively small sized samples.

In this particular case, a comprehensive analysis of the labour market is possible, extremely useful and reliable. This is the main point favouring the survey approach. Another much publicised advantage, greater speed in the obtainment of data, may be discarded for this concrete case. Of course, for some variables, the number of people inquired in the survey is so small that results may show a large bias, even more than what is affordable. In those situations, an exhaustive *enumeration* is preferable. For example, take the present case of unemployment. The foundations are set and by an administrative way, it is possible to strive and do a census on the unemployed almost without new or growing costs. The rules set, it is easy to get the actual statistic on this subject as most work has been done. However, where we gain in accuracy, reliability and even speed, we lose in diversity of inquired variables and exploratory analysis. As always, there are no free lunches. Nonetheless, and depending on the variables, even a sample may be more accurate than a complete enumeration.

A particular nuisance here is that unless enter and exit rates to unemployment in the quarter are similar, the numbers by IE may well come biased. Surely, the stock at the end of the month, as long as registrations are kept up-to-date, has advantage on this point – keeping in mind that IEFP is measuring a different phenomenon, its statistics are very reliable.

What measure of unemployment should then be used?

It is clear there is not a more correct statistic. Each one stands for a certain distinct reality but with obvious connections between themselves.

Basically, registered unemployment comes from administrative sources and consists simply in counting the people who go and register in CE's. In the case of INE, unemployment is a statistic calculated based on a survey and therefore its final value is obtained by extrapolation.

These measures may often be complementary. It can even be possible to forecast the official unemployment rate based on the numbers of registered unemployment, since the latter are published in a more regular basis and smaller time delay.

Consider the following example. Until very recently, data collected by hospitals were not used in newborn statistics. To every baby that is born the foot's test[3] must be done. This procedure leads to the monthly collection of data by hospitals indicating namely the number of newborns. The data is available within few days after the end of the month. The Portuguese Statistical Institute only collected data much later and had to rely on forecasts if it wanted to disclose statistics that soon. The fact is that around 99% of the babies do the test and the information revealed by hospitals are extremely reliable. Noticing that, the way to proceed was simple. We just need to estimate a resizing factor and then release the statistic with the new forecasts. It was empirically verified that proceeding in this way led to very accurate forecasts. Therefore, it may be argued that it is possible to use the data of IEFP in order to release monthly statistics on unemployment. They would be forecasts but a monthly series would be at the disposal of researchers and politicians. In the present day, official statistics on unemployment are only released on a quarterly basis. The unexploited potential of registered data should be checked more consistently.

Concluding remarks

Statistics on portuguese unemployment rate come from two different sources. It has been argued that there are important complementarities which should be taken into account despite the notorious discrepancies of the statistics. These differences are a result of different methodologies and defitinions, reinforcing the conclusion that the two institutions are measuring different phenomena.

Careful analysis revealed that those differences are chiefly explained by two simple facts. The first is that many registered people are not actively seeking a job and the second is that, even if they are, they would not be readily available to work. This simply means those people cannot be considered unemployed by international official rules.

Finally, it is important to stress that, due to the resemblance of the behaviour of the two most important statistics, the possibility of predicting monthly official unemployment rates based on the registered data should be further investigated. There are certainly synergies yet to be explored.

[3] The foot's test is mandatory within the first week of life and it is used in order to check if the baby suffers of some general diseases.

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Cochran, W. (1977), *Sampling Techniques*, 3rd ed., Singapore: John Wiley and Sons.

Data Annex

	off. unemp *	reg. unemp	inq. unemp	inq. - ns - na	inq. * unemp.
1994.1	316520	393902	340822	194695	198664
2	313731	394824	349368	197586	198170
3	321063	386858	370644	208639	205997
4	338413	408298	382890	214963	211613
1995.1	349153	427849	395604	230521	220078
2	328602	424459	387575	214370	207961
3	321063	422346	393592	212296	201855
4	345332	445130	419630	228642	216801
1996.1	354626	480935	425286	231416	216895
2	341820	476879	429874	241491	219357
3	335211	453075	442358	231148	213600
4	340994	459960	456499	233827	217870
1997.1	347500	474486	471817	242424	227464
2	309704	451409	461895	228770	207859
3	320960	422853	456812	224220	205591
4	315177	422730	454448	222185	206446
1998.1	291912	426533	434375	213193	190476
2	227874	399266	347770	165052	150728
3	232402	387126	332490	161565	150613
4	239591	389722	334677	170030	162254
1999.1	237857	384679	347911	173464	163482
2	228225	359072	350311	176037	161275
3	212878	340456	307427	147746	136676
4	207720	342897	297114	148012	136243
2000.1	224844	345979	317147	158329	152957
2	191800	323170	300565	138522	132244
3	207326	314669	300091	139927	133699
4	194818	325917	293259	131325	128113
2001.1	217266	339947	332590	156962	147461
2	203571	320486	323769	141971	134532
3	208956	313458	348839	133722	132340
4	216135	324846	350736	143405	135574

The Comparison of the Data on Employment and Unemployment Between Labour Force Survey and Administrative Sources in Slovenia

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For successful social economic policy-making of a country and for timely and efficient interventions on the labour market, rapid, timely and reliable data are needed. The growing needs for information are inversely proportional to available financial resources. On the other hand, the pressure of reporting units on the Statistical Office to decrease their burden dictates new methods of data collection, i.e. the use of existing administrative and statistical sources.

In Slovenia, there are many different sources of data on labour force and the Statistical Office of the Republic of Slovenia is the biggest data supplier in this field. The question arises whether all the data coming from different sources are really necessary or maybe there is a possibility to limit our needs to certain data only.

The data on labour force, used in the Labour Statistics Department at SORS can be split into a few groups according to the source of data:

Household statistics:

- Labour Force Survey,

Enterprise statistics:

- Monthly Report on Earnings and Persons in Paid Employment in Enterprises, Companies and Organisations (ZAP-M),

Registers:

- Statistical Register of Employment,
- Register of Unemployed Persons.

Labour Force Survey

The Slovene LFS is carried out in compliance with the International Labour Organisation (ILO) guidelines for labour force statistics, adopted at the 13th International Conference of Labour Statisticians, and with Eurostat requirements that refer to the harmonised EU survey. This enables the comparability of our country with other countries that carry out the LFS and at the same time also the comparability of data with previous LFSs.

Observation units are all individuals usually living in the selected households. A household is a single person or a group of persons who live together and share expenses related to common living and eating. Temporarily absent members of the households without any other habitual residence were also included in the household. Persons living in institutions (army, hospital, prison, etc.) for a total period exceeding six months, students living away from home and persons living permanently or temporarily in other countries were excluded from the survey.

The definition of the target population follows the criterion for the resident population, i.e. all persons whose usual place of residence is on the territory of Slovenia. The survey covers only the population living in private households. The source for the number of population is the Central Population Register.

Respondents are included among persons in employment, unemployed or inactive persons according to their activity in the week preceding the interview (from Monday to Sunday). The survey is carried out continuously through the whole year. Possible disproportionate distribution of surveys in different time periods is corrected with weighting.

The Labour Force Survey was an annual survey from 1993 to 1996 and was carried out in May. Since April 1997 it has been a continuous survey. Data are published quarterly. The survey is carried out by about 50 interviewers. Each quarter about 7,000 household or about 20,000 persons is interviewed.

Monthly Report on Earnings and Persons in Paid Employment in Enterprises, Companies and Organisations (ZAP-M)

The survey covers persons in paid employment who have employment contracts, irrespective of whether they are employed for fixed or unspecified period of time and whether they work full time or part time. Persons working under contract of work, persons in paid employment in private enterprises with one or two employees, individual private entrepreneurs and persons employed by them, and citizens of the Republic of Slovenia working in Slovenian enterprises, on construction sites, etc. abroad are not covered.

Data are collected with the monthly business survey called the Monthly Report on Earnings and Persons in Paid Employment in Enterprises, Companies and Organisations (ZAP-M), which companies, enterprises and organisations have to fill in every month on the basis on the National Statistics Act.

Every month about 22,000 enterprises with 3 or more employees report their data to SORS.

Statistical Register of Employment (SRE)

The SRE was set up on the basis of the material collected with the census of workers in associated labour as of 31 December 1986. The basic source for updating the SRE is the so-called 'M form' – i.e. Registration of Data for the Introduction and Keeping of the Central Record of Pension and Disability Insurance, Health Care and Employment.

The SRE contains employment data on persons in employment on the individual level, such as school education, occupation, type of wok and tasks, shift work, labour relation, working hours (weekly), etc. It also contains the personal identification number, which allows matching data on the individual level with the Business Register of Slovenia and the Central Population Register.

Data on activity, municipality, type of organisation and ownership of the business subject or business unit in which the person in paid employment works are taken over from the Business Register of Slovenia.

Data on permanent residence (municipality, settlement, street, house number), marital status and Slovenian citizenship are for persons in paid employment with permanent residence in Slovenia taken over from the Central Population Register. For foreign citizens with temporary residence in Slovenia and for daily migrants we do not have these data, expect the data on citizenship (country of origin).

Like ZAP-M, the SRE covers only persons in paid employment and self-employed persons with the employment contracts.

Register of Unemployed Persons

This register is kept by the Employment Service of Slovenia.

Registered unemployed persons are persons aged 15 to 60 years (women) or 15 to 65 (men) whose health enables them to accept employment, are registered at the employment office and are willing to accept within 14 days employment which corresponds to their educational attainment, knowledge and capabilities. In addition, they are not retired, imprisoned for more than 6 months, already employed, owners or co-owners of enterprise with which they created income in the last calendar year and which they could use to support themselves or in-

come they created does not exceed the guaranteed earnings. Registered unemployed persons do not perform independent activity as a regular job, are not owners, sharecroppers, renters or other users of agricultural or forest areas or real estate which can provide a living.

Since 1997 the data on persons in employment as a combination of existing sources are published. These data are called «registered data» and are published every month in a special publication. Data on persons in paid employment in enterprises, companies and organisations with three or more employees are taken from the ZAP-M survey. The source for persons in paid employment with less than 3 employees, for self-employed persons (except farmers) and for persons in paid employment employed by self-employed persons is the Statistical Register of Employment, while the source of data on the number of farmers is the Labour Force Survey.

Methodological differences between the register data and the data obtained by statistical surveys of persons in employment

Register data and data obtained by statistical surveys differ regarding:

***Source**:* register data are based on the ZAP-M survey and the Statistical Register of Employment, while survey data are obtained by the Labour Force Survey. In register data we have full coverage, while Labour Force Survey results are estimates based on the statistical sample.

Reporting period: register data are extracted on the last day of the month, while survey data refer to the activity of the respondent in the week before the interview (from Monday to Sunday).

Observation period: register data are extracted on the last day of the month, while the Labour Force Survey is carried out quarterly.

Categories included in persons in employment: register data cover only persons in employment with employment contracts, while the Labour Force Survey also covers unpaid family workers and persons working under contracts for work or for direct payment, i.e. persons who in the week (from Monday to Sunday) before the interview performed any work for payment (in money or in kind), profit or family gain.

Publication: register and survey data are published in two separate issues of Rapid Reports. Register data are published monthly in Rapid Reports: Labour Force, while survey data are published quarterly in Rapid Reports: Labour Force Survey Results.

Methodological differences between the register data and the data obtained by statistical surveys of unemployed persons

Register data and data obtained by statistical surveys differ regarding:

***Source**:* register data are obtained from the Register of Unemployed Persons, which is kept by the Employment Service of Slovenia, while survey data are obtained by the Labour Force Survey. In register data we have full coverage, while Labour Force Survey results are estimates based on the statistical sample.

Reporting period: register data are extracted on the last day of the month, while survey data refer to the activity of the respondent in the week before the interview (from Monday to Sunday).

Observation period: register data are extracted on the last day of the month, while the Labour Force Survey is carried out quarterly.

Definitions of unemployed persons: registered unemployed persons are persons who are registered by the employment office and fulfil all criteria defined by the employment office. According to the Labour Force Survey, unemployed persons are people who in the week (from Monday to Sunday) before the interview did not perform any work for payment (in money or in kind), profit or family gain but have been actively seeking work in the last four weeks before the interview and are prepared to accept it in two weeks. Unemployed persons are also those who found work and will start working shortly after the interview.

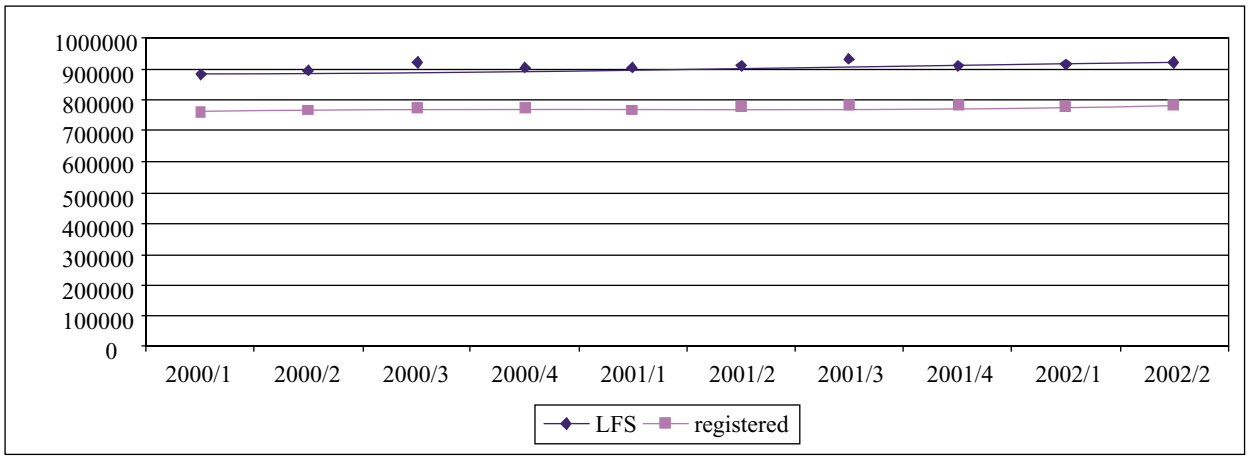
Publication: register and survey data are published in two separate issues of Rapid Reports. Register data are published monthly in Rapid Reports: Labour Force, while survey data are published quarterly in Rapid Reports: Labour Force Survey Results.

Table 1: The comparison of the definition of persons in employment among the Labour Force Survey (LFS), Statistical Register of Employment (SRE) and Monthly Report on Earnings and Persons in Paid Employment in Enterprises, Companies and Organisations (ZAP-M)

	LFS	SRE	ZAP-M
Employee in an enterprise, company or organisation	√	√	√
Employee at an individual private entrepreneur (artisan)	√	√	-
Employee at a farmer	√	√	-
Employee at a freelance	√	√	-
Works in own enterprise, does not employ other people	√	√	-
Works in own enterprise, employs other people	√	√	-
Individual private entrepreneur (artisan), does not employ other people	√	√	-
Individual private entrepreneur (artisan), employs other people	√	√	-
Farmer, does not employ other people	√	√	-
Farmer, employs other people	√	√	-
Freelance, does not employ other people	√	√	-
Freelance, employs other people	√	√	-
Unpaid family worker on a family farm, in a family enterprise or trade (does not receive wages)	√	-	-
Contract work (work contract)	√	-	-
Contract work (authorship)	√	-	-
Cash in hand work	√	-	-
Work via a student employment office	√	-	-
Work via public works	√	√	-

As shown by Table 1, there are - due to a more relaxed definition of persons in employment in the LFS - much more persons in employment covered by the Labour Force Survey than by the other two data sources. This is obvious from Chart 1, too, where the difference between data from the Labour Force Survey and the Statistical Register of Employment is shown.

Chart 1: Persons in employment, Slovenia, 1st quarter 2000 – 2nd quarter 2002



Despite the fact that different definitions as well as different ways of collecting data were used, it seems both data describe the situation on the labour market in a similar way. The movement of both data seems very similar, which can be seen in Charts 2, 3 and 4, too. Not only the total number of persons in employment, but also the structure of the data show the same situation in the Slovenian labour market. Both the total number and the structure of data as well as the trend is important for good policy making at a given moment.

Chart 2: Persons in employment by sectors of activity, Slovenia, end of year 2001

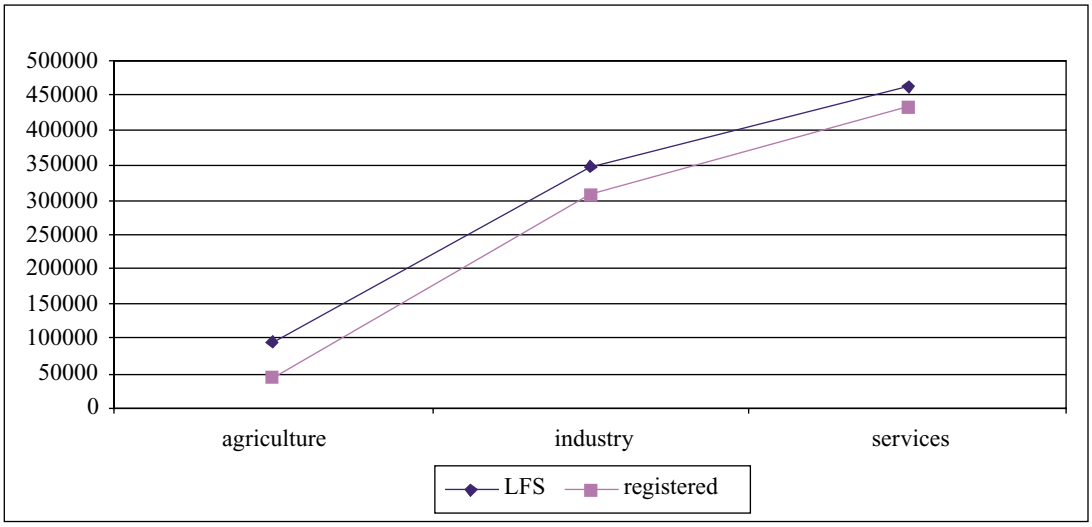


Chart 3: Persons in employment by major groups of occupation (in %), Slovenia, end of year 2001

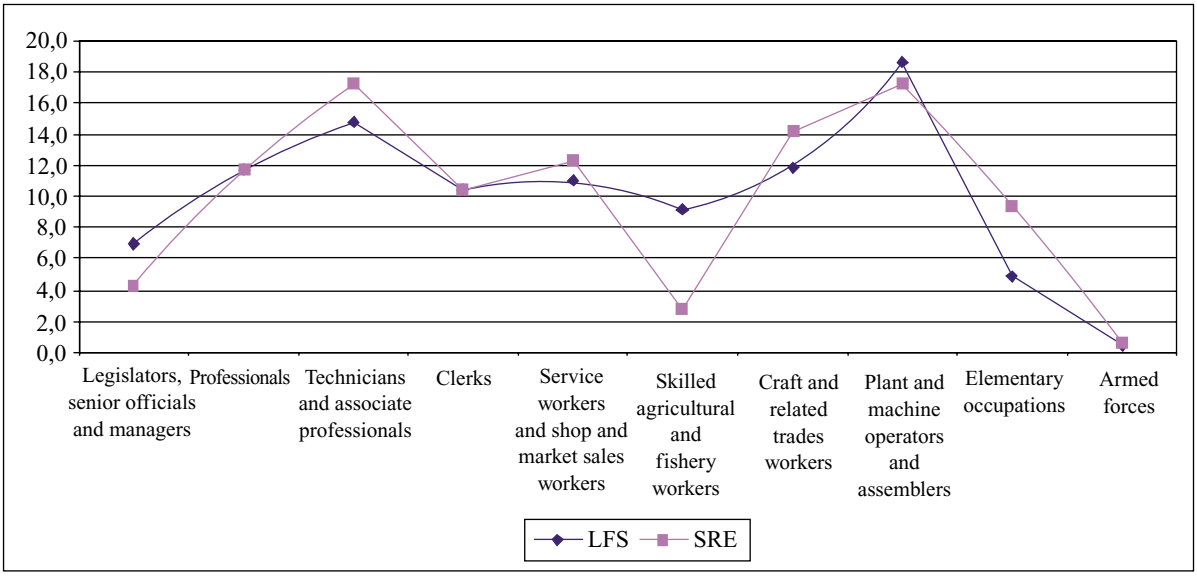
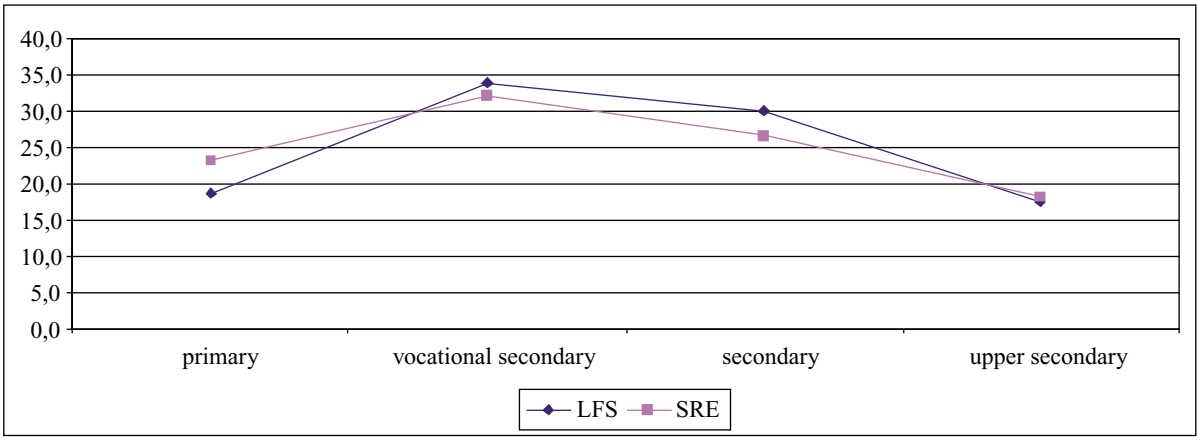


Chart 3 shows the share of persons in employment by occupation out of all persons in employment. The greatest difference can be noticed in the group »skilled agricultural and fishery workers«. In this group the main difference in the definition of both sources appears as the majority of persons not covered by the registers but covered by the Labour Force Survey works in agriculture. They can be mainly classified among the unpaid family workers.

The other differences can be explained by the way coding is done. Data on occupation coming from administrative sources are coded in enterprises, while data coming from the Labour Force Survey are coded at SORS on the basis of the description made by the interviewer.

Chart 4: Persons in employment by school attainment (in %), Slovenia, end of year 2001



It is just the opposite when we take into account the data on unemployed persons. There are much more registered unemployed persons than unemployed persons according to the Labour Force Survey. The definition as we use in the Labour Force Survey is very strict and this is only one of the reasons why there are much more registered unemployed persons in Slovenia. There some benefits people gain when they are looking for a job and they register themselves at the Employment Service of Slovenia. Under certain conditions they have the right to receive an unemployment benefit or unemployment allowance for a fixed period, further on all registered unemployed persons get the basic health insurance. Registration at the Employment Service of Slovenia is one of the conditions for getting the social support. And, of course, the main task of the Employment Service of Slovenia is to match the demands and supplies of the labour market.

The difference in the number of unemployed persons according to both sources is shown in Chart 5 and the difference in unemployment rates is shown in Chart 6. The situation is similar as in the case of persons in employment. There are different levels of the data (or rates), but the same movement of the data can be observed.

Chart 5: The number of unemployed persons, Slovenia, 1st quarter 2000 – 2nd quarter 2002

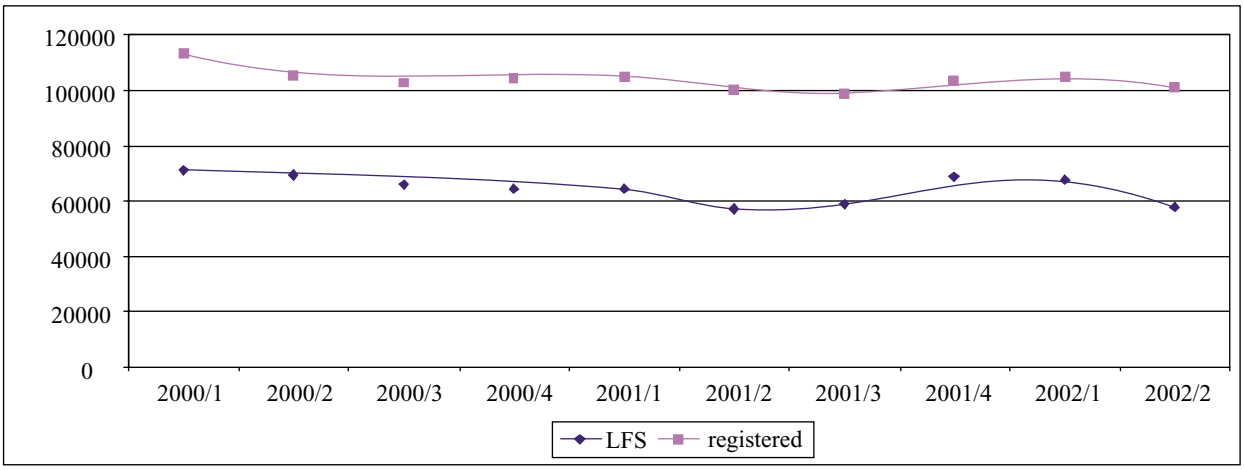
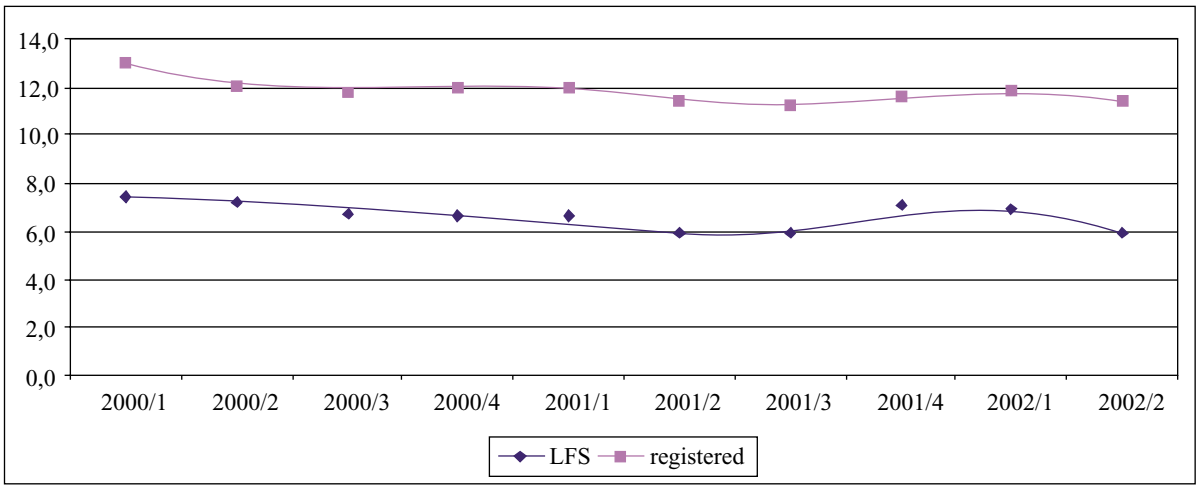


Chart 6: The unemployment rates, Slovenia, 1st quarter 2000 – 2nd quarter 2002



As mentioned at the beginning of the article, there is a question whether all these data sources are needed. There are some benefits and some weaknesses of each source. The greatest benefit of the Labour Force Survey is the international comparability, which is fulfilled by following international definitions and Eurostat requirements. More and more demands from various international organisations for the data from the LFS have been received. Besides, these data are very important at the time of Slovenia's accession to the European Union and will be a must also when Slovenia becomes an EU Member State. The greatest weakness is the sample size, which allows analysis only at the state level. This fact doesn't match many demands for data at regional level (or at the level of local units or municipalities). The data broken down by regional level and at the same time on some other indicator (most usually by activities) are very important for making decisions at regional level, for local government and are the basis for sustainable regional development.

The quality of the data coming from the Labour Force Survey are of insufficient quality to make regional breakdowns. Table 2 shows some basic indicators, such as the coefficient of variation and confidence intervals in the case of unemployment rates by regions.

On the other hand, the registered data are not internationally comparable as the Slovenian laws are followed in the process of gaining them. But due to the register we have, these data allow many very detailed breakdowns, which is very useful for many of our data users.

Table 2: Unemployment rates by statistical regions, Slovenia, 2nd quarter 2001

	estimation	cv(p)	confidence interval	
Slovenia	5,9%	4,6%	5,4%	6,5%
Pomurska	7,9%	14,6%	5,6%	10,1%
Podravska	8,6%	9,1%	7,1%	10,2%
Koroška	5,1%	24,3%	2,7%	7,6%
Savinjska	6,4%	13,2%	4,7%	8,0%
Zasavska	8,0%	25,4%	4,0%	12,0%
Spodnjeposavska	6,5%	23,4%	3,5%	9,4%
Jugovzhodna Slovenia	3,9%	21,5%	2,3%	5,6%
Osrednjeslovenska	4,5%	10,5%	3,6%	5,4%
Gorenjska	5,5%	15,6%	3,8%	7,2%
Notranjsko-kraška	6,4%	29,5%	2,7%	10,2%
Goriška	3,3%	32,5%	1,2%	5,4%
Obalno-kraška	6,2%	21,0%	3,7%	8,7%

References:

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Rapid Reports; Labour Force, April 2002, No. 189, 22 July 2002
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STATISTICS ON EMPLOYMENT AND UNEMPLOYMENT: INTERNATIONAL COMPARABILITY AND NATIONAL NEEDS

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The need for the Labour Force Survey and administrative statistics

It is important to know whether unemployment is higher at home than elsewhere and how it has changed. Over the past few years, the EU countries have shown greater interest than before not just in unemployment, but also in the level and pattern of employment. Internationally comparable data on these subjects can be obtained only from the Labour Force Survey (LFS).

Over the past few years in particular, production of statistics in the EU has been harmonised. However, there are still differences between the various countries (Eurostat, 2002), and this obviously reduces confidence in comparability. Furthermore, the definitions that guarantee international comparability may seem odd in a national context, because each country's social setup differs from that of the next. I will return to this question later.

The fight against unemployment calls for detailed information on the characteristics of the unemployed, such as their age, their level of education, where they live and how long they are out of work, their participation in active labour-policy measures and how this affects their employability. Generally speaking, this information is not collected in the LFS and, even if it is, the size of the sample means that the data cannot be analysed with any degree of reliability. National administrative statistics are needed. These statistics are generally collected by the employment service from its customers and constitute the Jobseekers' Register (*Työnvälitysrekisteri*). As for employment, the need for national administrative statistics is not so great. The number of people in work in the LFS sample is far greater than the number out of work, so a more detailed analysis can be made.

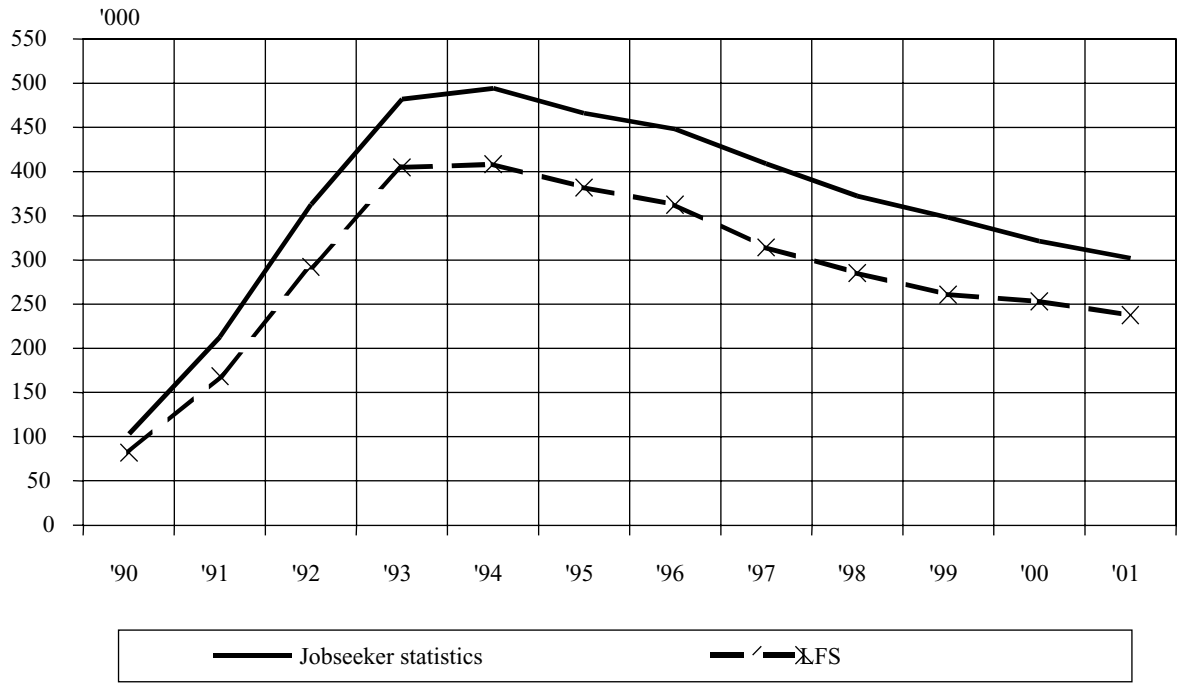
The international comparison of administrative data is difficult. Indeed, even the numbers of unemployed differ considerably between the Labour Force Survey and the administrative statistics. In the majority of EU countries, the number of registered unemployed is greater than the number of unemployed shown in the LFS. However, in almost a third of the countries for which data are available, the reverse is true, i.e. the number of unemployed in the LFS is greater (European Commission, 2001).

Action based solely on administrative statistics can therefore readily lead to the wrong conclusions. For example, such an essential indicator as the activation rate, i.e. people who have participated in active labour-policy measures as a proportion of the sum of the registered unemployed plus those participating in active measures, does not necessarily reflect just the level of activation, but may also be affected by, for example, the strictness of the unemployment scheme. Generally speaking, a strict scheme will mean that not all the unemployed register with employment exchanges, which pushes up the activation rate (on paper). LFS data are not sufficient for policy development - administrative statistics are needed. On the other hand, administrative statistics are not sufficient and need to be backed up by LFS data.

Numbers of unemployed and trends

The simultaneous use of LFS and administrative statistics is often necessary and useful. However, the existence of several sets of statistics may also cause trouble. Unemployment statistics are published once a month. However, the numbers of unemployed shown in the LFS and in administrative statistics (employment service's statistics) are not the same. On average over the year, the numbers of unemployed attending employment exchanges in Finland are over 25% higher than the number of unemployed in the LFS. Naturally, this puzzles the public. However, annual changes in unemployment follow a similar pattern in both sets of statistics (cf. Fig. 1.)

Fig. 1. Number of unemployed according to the LFS and unemployed jobseekers according to the Jobseekers' Register, Finland, 1990-2001.

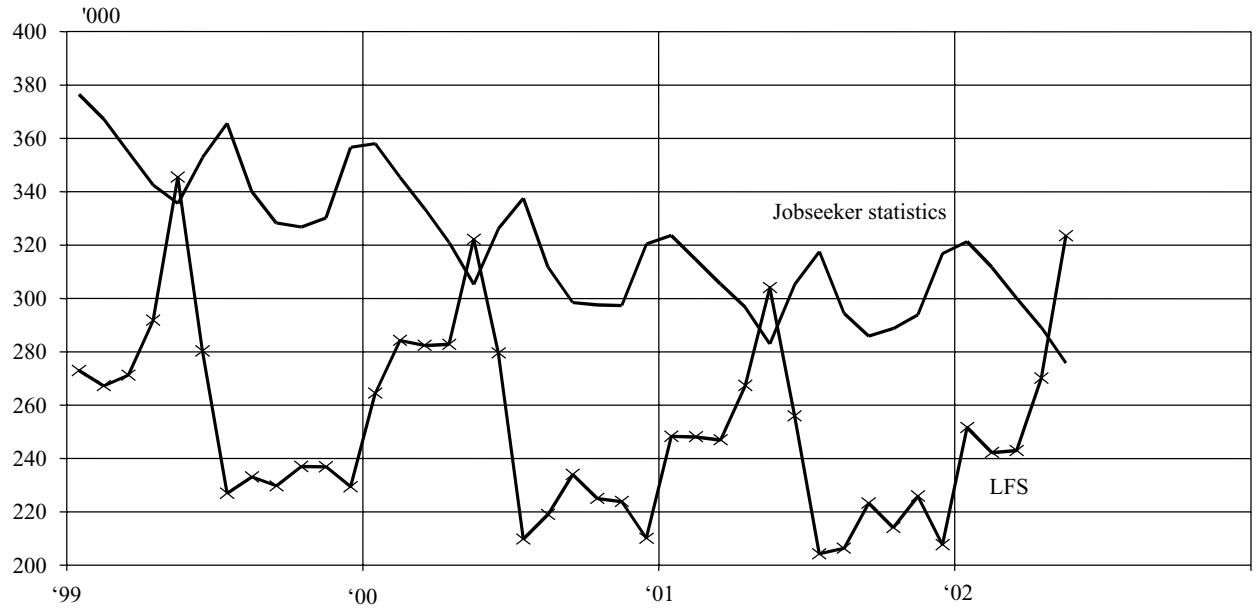


The monthly changes, however, do not follow the same pattern at all, as can be seen from Fig. 2. This is another source of confusion. The number of unemployed according to the LFS is at its highest in May – when employment exchange figures show the number of unemployed jobseekers to be at one of its lowest points in the year. There is generally one month over the course of the year when LFS unemployment is higher than unemployment in the jobseeker statistics. July is one of the months when the number of unemployed jobseekers is at its highest. By contrast, the number of unemployed in the LFS is then at its lowest.

However, although the monthly variations in the number of unemployed in the LFS and in the jobseeker statistics differ from one another, they are quite regular. Over the past few years, however, the trend in LFS figures has been more irregular. Could the reason be that, since 2000, LFS data have been collected for each week of the month? Whatever the reason, the authorities should be able to provide an explanation.

I shall examine below the reasons for the differences in the figures in the Finnish statistical system. The analysis is based on the fact that in Finland it is possible to carry out quite unique analyses, thanks to the unique material in statistical registers. It is hoped that the findings will prove at least to some extent to be of more general significance.

Fig. 2. Number of unemployed according to the LFS and of unemployed jobseekers according to the employment service by month, Finland, 1990-2002



Reasons for the discrepancies

Where do the discrepancies between the LFS unemployed and the employment service's unemployed jobseekers really come from? There are numerous possible explanations: the LFS is a sample-based survey, data from the LFS and the Jobseekers' Register are for different days of the month, etc. The most compelling way of explaining the differences is to start with the criteria for unemployment. It then becomes clear that the difference in the level of unemployment, i.e. the quantitative difference, is also caused by differences in the structure of unemployment, i.e. qualitative differences.

The point of departure for defining a person as unemployed in both of Finland's statistical systems is the ILO definition: a person is unemployed if he is out of work, available for work and actively seeking work (cf. Statistics Finland, 1989). However, to a certain extent, this point of departure finds different expression in each of the statistical systems.

An unemployed person must be out of work. Employment is defined more broadly in the LFS than in the jobseeker statistics, in other words the definitional criteria for unemployment are stricter in the LFS in this respect.

In the LFS, the interviewee is asked whether he or she did any work in the week preceding the interview. A person is recorded as employed if he or she is over the age of 14 and did even a small amount of paid work during the week prior to the interview (one hour or more) or helped in a family business or farm. A person is classified as employed in the LFS even if work for the family is unpaid. Persons temporarily absent from work (because of illness, holiday, strike, parental leave etc.) are likewise in work according to the LFS.

If a person has been out of work for 39 hours of the week but in work for an hour, he or she is classified as employed for the purposes of the LFS. The broadness of this interpretation of employment has been the cause of some surprise. However, the jobseeker statistics interpret employment in very much the same way. They regard a jobseeker as in employment if he or she has been continuously in work for at least one day per week (at least four hours) or works as a family helper for at least one third of normal working time.

Secondly, in the LFS, an unemployed person must be available for work for the two weeks following the interview. The Jobseekers' Register imposes no such absolute time limit on an unemployed jobseeker.

The third central criterion of unemployment concerns the search for a job. The statistics differ in terms of the strictness of the definitions, but not consistently.

The LFS allows the following as job-hunting methods: contacting public or private employment agencies, asking an employer directly for a job, advertising in the press or monitoring advertisements in the press, asking ac-

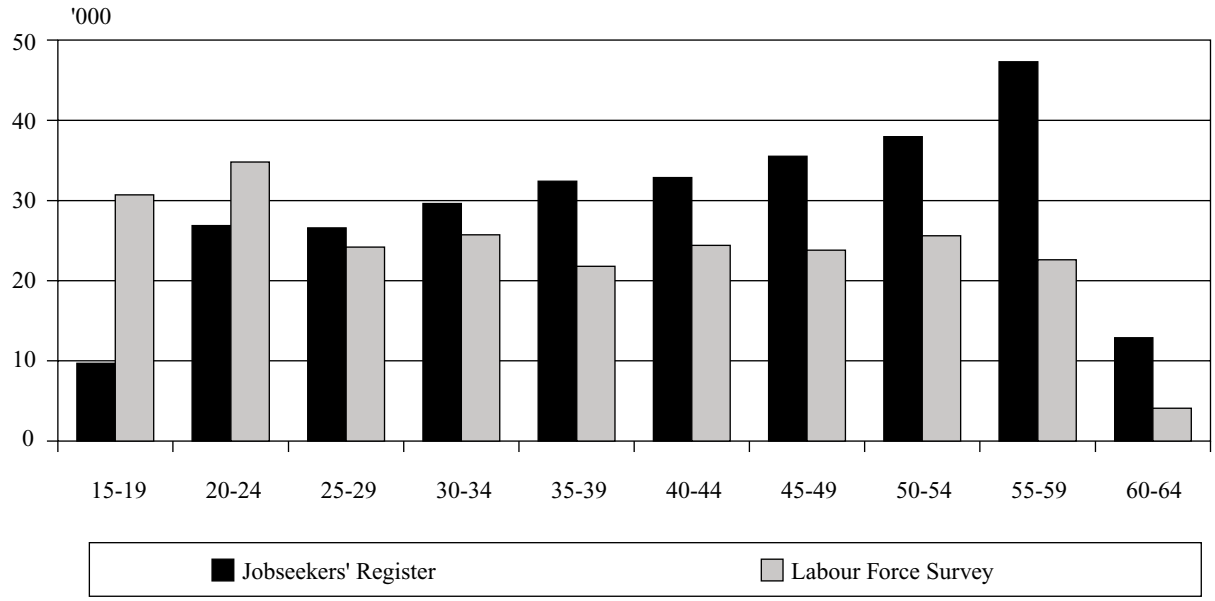
quaintances for work, or preparatory work for setting up a business. These are broad criteria. For example, monitoring advertisements in the press is sufficient as a criterion of unemployment in itself, in other word monitoring advertisements need not lead to anything – such as contacting an employer. The employment service's statistics, for their part, require that a jobseeker turns up at the employment exchange. No other type of job search will do.

Though the jobseeker statistics are stricter in terms of the type of job search, the LFS is more demanding with regard to the length of the search. An unemployed person must have been seeking employment at least once during the four weeks prior to the interview. The LFS began to apply this time limit in 1998 as part of the statistical reform at the end of the last decade. Prior to that, the time limit was three months. The employment service, for its part, requires that the unemployed person be a jobseeker at an employment exchange. He or she must register with an employment exchange within the time limit it lays down.

The employment service's definition of unemployment is also stricter than that of the LFS, in that it excludes certain groups of people. Pensioners, including those receiving unemployment pensions, are excluded, as are full-time students and pupils. The LFS, by contrast, regards as unemployed all those who meet the three abovementioned unemployment criteria (Statistics Finland, 1997; 1998.)

The significance of these criteria can only be assessed by presenting the results of both sets of statistics by age group, as in Fig. 3 below.

Fig. 3. Unemployed jobseekers and LFS unemployed by age group in Finland, 2001.



For the over-25s, the employment service's number of registered unemployed is higher than the LFS figure. This is particularly noticeable for the 55-59 age group, where the number of unemployed jobseekers is over twice the number unemployed in the LFS. One plausible explanation for the discrepancies is that one LFS unemployment criterion is that the unemployed person must have been looking for work for the four weeks prior to the interview. Obviously, very few individuals aged 55 or over will be visiting an employment exchange. They are not therefore regarded as unemployed for the purposes of the Labour Force Survey.

By contrast, the figure in the Jobseekers' Register for the under-20s is barely one third that of the LFS. The reason for this is that the employment service does not consider students as being unemployed jobseekers, not even during the summer holidays. The definition derives from the link between the administrative definition and unemployment benefit, for which an unemployed jobseeker recognised by the employment service may apply. The background to excluding students is that unemployment benefit is not meant to solve the problems of student grants. There are strong social-policy arguments behind this thinking. However, it must be conceded that the jobseeker statistics as a means of depicting unemployment *per se* is not in line with the ILO definition in this respect.

On the other hand, the LFS definition of unemployment can be considered too broad. Many students registered at educational institutions are regarded as unemployed even during termtime. This is also apparent from the LFS peaks in May in Fig. 2 – students are looking for jobs. The LFS gives the impression that Finland has a major youth unemployment problem which is exceptional by international standards. Only Spain and Italy have more of a problem (Eurostat, 2002.) However, without wishing to play down Finland's unemployment problems, it must be said that the image conveyed by the LFS does not reflect reality. Sweden has solved the problem by not classifying students as unemployed in the national LFS but including them in international statistics. (SCB, 1999).

It is clear from the above that the differences between sets of statistics affect not just the level of, and trends in, unemployment, but also its structure. By nature, administrative statistics yield results which, if left as they stand, lead to misconceptions. However, the LFS also yields peculiar results, in spite of the fact that Finland is endeavouring to apply the EU's definition of unemployment. I am referring in particular to the gloomy picture of youth unemployment, which is not an accurate reflection of the true state of affairs at national level.

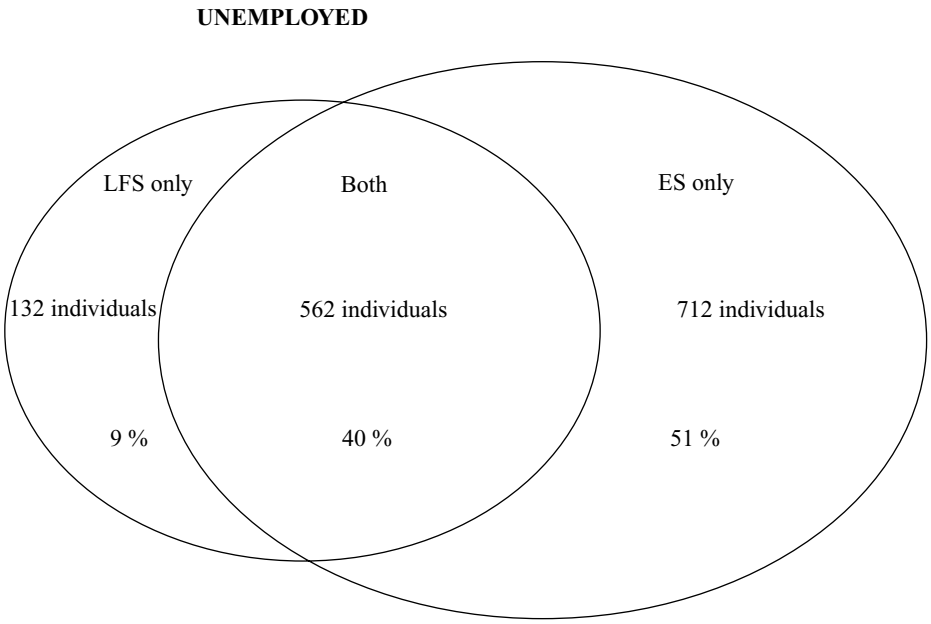
Different statistics, different people unemployed

The above analysis is still, to some extent, speculative. However, there is no need to stay at this level. At international level, Finland is somewhat uniquely able to explain the real causes of differences in data. Finland uses administrative registers to collect comprehensive information on the principal activity of individuals. Generally speaking, this is not possible in other countries owing, for instance, simply to privacy protection rules. In addition to national values and traditions, Finland's special position can be explained by technically advanced methods and the fact that great store has been put on preventing the misuse of statistics and promoting their correct use (cf. Valkonen, T. –Koskinen, S. – Martelin, T. (ed.), 1998).

Statistics Finland has developed a system of employment statistics built up by combining registers. The target group of employment statistics is the population permanently resident in Finland as shown by population register data. It can thus be seen whether a person is in work, out of work, a pensioner, a student or otherwise outside the labour force. The differences in unemployment between the LFS and the jobseeker statistics can be explained, since unemployed people as shown in the employment statistics are the Jobseekers' Register's unemployed jobseekers. One consequence of combining registers is that employment statistics lag a year behind other unemployment statistics (cf. Sihto and Myrskylä, 1999.)

It has also been possible to clarify the status of all 12 770 individuals in the December 1998 LFS sample using the employment statistics. The following analysis is based on the study by Sihto and Myrskylä (Sihto and Myrskylä, 2000). Fig. 4 shows the results of a cross-tabulation of the LFS and the employment statistics. The LFS sample covers the week of 15 December, whilst the employment statistics cover the last working day of the month.

Fig. 4. Persons recorded as unemployed according to employment statistics, the LFS and in both. LFS sample December 1998 (total 12 770, no response1650).



The following analysis uses specifically the original classification of the sample individuals in the different sets of statistics, so that in addition to «employed», «unemployed» and other classes of the LFS, there is also a «no response» class. In the final statistics, the "no response" class for unemployed jobseekers (N=231) is eliminated and distributed between the remaining statistical classes. The significance of the precise sampling figures is also shown as numbers of individuals obtained by grossing up the sample figures to the December 1998 LFS and employment-service populations.

The main findings shown in the figure are as follows:

1. Only 40% of all those classified as unemployed are classified as such in both sets of statistics. Even if the effect of non-response is eliminated, the percentage is still below 50.
2. Four fifths of the LFS unemployed are also unemployed according to the jobseeker statistics.
3. Only 45% of the unemployed in the jobseeker statistics are also unemployed according to the LFS. Those recorded as unemployed jobseekers by the employment service but not as unemployed in the LFS accounted for 51% of all persons recorded as unemployed.

The following table shows how the other set of statistics classified those classified as unemployed in only one set of statistics.

Table 1. Classification in the LFS of individuals classified as unemployed only in employment statistics and in the employment statistics of individuals classified as unemployed only in the LFS. LFS sample for December 1998.

	Unemployed only in LFS (sample size 132), classification according to employment statistics		Unemployed only in employment, statistics (sample size 712), classification according to LFS	
	Sample	Gossed up for total population	Sample	Gossed up for total population
In work	32	10000	163	52000
Student	64	20000	28	9000
Pensioner	3	1000	36	12000
Otherwise outside the labour force	33	11000	254	81000
No response	-	-	231	74000

- The main reason for the statistical differences is that unemployed jobseekers in the jobseeker statistics are regarded in the LFS as being outside the labour force for reasons other than being students or pensioners. These are mostly people who do not meet the criterion of seeking work in the four weeks prior to the interview. This fact is generally advanced as the explanation of the statistical differences, and this view holds true.

- The second most important reason is non-response. Efforts are being made in the LFS to get this under control.

- The third most important factor is that unemployed jobseekers are classified in the LFS as being in work.

- The fourth reason, which is far less significant, concerns LFS unemployed whom employment statistics classify as students. However, in annual terms the significance of students as a source of statistical discrepancies is greater. For the 15-24 age group, the number of LFS unemployed in December is one of the year's lowest. According to the monthly LFS figures, the number of unemployed young people was more than three times higher in May 1998 than in December, hence the May peak in unemployment in Fig. 2.

The statistical discrepancies were also of the same magnitude and type at the end of 1997 as in the above analysis of 1998. In 1996 the reasons for the statistical discrepancies were somewhat different. Then the main reason was being in work, followed by non-response and then "otherwise outside the labour force" (Monitoring system for the National Age Programme…, 1999.)

The above analysis shows that the statistical discrepancies are qualitative as well as quantitative in nature. To a large extent, different people are unemployed in the different sets of statistics.

Differences in statistics do not necessarily create problems if the reasons for these differences can be explained. If a person classified in the LFS as outside the labour force is also an unemployed customer at an employment exchange, the information in the administrative statistics is essential. However, the basis for the LFS definition, i.e. the active search for employment, is justifiable.

Applying the LFS sometimes causes problems. Thus, for example, some of the "unemployed" in the LFS are full-time students. Some of the unemployed are looking for work and available for work. It is perfectly justified to consider them unemployed according to the ILO definition. However, how can we find a better way than at present of eliminating job searches that are not intended to lead directly to employment? This is a problem, in Finland at least.

International comparability can sometimes pose an even greater problem. It was stated above that the reliability problems arising from the sample size in the LFS primarily affected statistics on the unemployed, not those on employment. However, the definition of employment is problematic in international comparisons. It was shown above (cf. Table 1) that an unemployed jobseeker recorded by the employment statistics can be classified as being in work in the LFS. Taking one hour's work as a basis for classifying someone as being in work was also a significance factor. The result is surprising, because it is rare in Finland for people to do work of short duration. In 1998, those working fewer than 10 hours per week accounted for just two percent of the persons in employment in Finland (Sihto and Myrskylä, 1999). In the new EU Member States, work of short duration will certainly be much more common. There is thus a real danger that the LFS will put a gloss on the employment situation and play down the significance of unemployment. Is there no way of fitting in with the old ILO criterion?

Conclusion

The open method of co-ordination is going to be of increasing importance. This means pressure to develop ever new indicators. At the same time, it is essential to develop the statistics on which indicators are based. Eurostat's work to create a job vacancy survey and to improve the comparability of definitions of unemployment is important. Likewise, improving the basis and comparability of administrative statistics is a challenging project. EU enlargement is certain to bring fresh challenges for statistics and their development.

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LABOUR MARKET STATISTICS IN ESTONIA: COMPARISON OF LABOUR FORCE SURVEYS AND ADMINISTRATIVE STATISTICS

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Introduction

During the transition period labour market has been one of the most dynamic fields of economy in Estonia. In the conditions of socialism there was practically full employment as jobs were guaranteed for all those who wished to work. Employment rates were high for both men and women, unemployment as a social and economical problem did not exist.

The transition to market economy with economic reforms in the 1990-s during regained independence resulted among other things in the emergence of unemployment. During economical changes the inefficient jobs mainly in industry and agriculture were the first to be cut down for the number of employed had clearly been over extended in these fields. Many companies whose production had been oriented to the eastern market went bankrupt. Changes in the labour market influenced the economical and social development of Estonian counties and increased the differences among regions even more.

A changed situation resulted in a need for more thorough analyses of the processes in the labour market. Only with adequate information it is possible to determine which social groups and regions have fallen into the most difficult situation during the transition period and which policies should be applied to help them. To achieve that the collection of data corresponding to international definitions and methods was started. The Labour Market Board and a network of regional employment offices were formed, which started to register the unemployed and provide labour market services. Labour force surveys based on ILO methodology were started.

Labour market data are gathered mainly from two sources: labour force surveys and registered statistics. Statistics gathered from different sources is not and cannot be identical for different groups of population are covered. The differences between registered unemployment and the data from labour force surveys are not characteristic to Estonia only but appear in all countries. These differences can be bigger or smaller and unemployment according to labour force surveys isn't always higher than that of registered unemployment statistics. In almost half of the countries in the European Union there are more registered unemployed than the labour force surveys show (Employment Observatory, 1998).

The purpose of the article is to show the differences, the plusses and minuses of the two main sources of data used in Estonia according to the need of working out a labour market policy. The main focus is on the comparison of unemployment statistics because employment and inactivity are analysed based on one source mainly: the labour market surveys data.

1. The sources of labour market statistics

1.1. Labour force surveys

Both in working out labour market policy and in scientific research labour force survey data are used, which enables to get many-sided information about the working aged population. From the point of view of labour market policy the dynamics of three economic statuses should be observed: employment, unemployment and inactivity. As the survey's questionnaires and the definitions used correspond to the ILO standards, the results can be compared to those of other countries.

The first labour market survey with a sample of 10 000 people was carried out by the Estonian Statistical Office from January to April in 1995. The survey is especially valuable because it had retrospective part, which led back to the year 1989. This enables us to get data about both the pre reforms period (1989-1991) and the years that followed the reforms. The next survey (sample 5500) was in 1997 II quarter (retrospective part up to 1995). From 1997 labour force surveys have been carried out annually. The surveys of 1998 and 1999 were already more extensive (sample 13 000) and enabled to get unemployment indicators also on the county level. From 2000 the survey is conducted through the year and the results are published about quarters and the year. The survey comprises 8800 families, while all family members aged 15-74 are questioned, which means ca 4000 people in a quarter.

1.2. Statistics of registered unemployment

The first job seekers in Estonia were registered in 1991. The first comparable time series date from the year 1993, starting from which labour Market Board issues monthly data about the registered unemployed including unemployment benefit receivers. There are 16 employment offices in Estonia: one in each county and Tallinn. In addition there are 36 smaller bureaus in counties where the unemployed are registered.

According to the Social Protection of the Unemployed Act a person is considered a registered unemployed if he or she has total or partial capacity for work, is aged from 16 to pension age, is not employed, is ready to commence work immediately and seeks employment. A person seeks employment if he or she reports to an employment office at least once in 30 days, wishes to start working immediately and is ready to participate in employment training.

As the registered unemployed register is yet to be completed, the using of registered unemployment statistics is severely limited. Monthly data are published according to the unemployed number, gender, age (16-24, 25-49, 50- pension age), education (basic, secondary general, secondary special, higher) and language (Estonian, Russian speaking). Unlike the labour force surveys, the Labour Market Board calculates the unemployment rate from the unemployed out of the population from age 16 to pension age.

Administrative statistics comprises only the job seekers that have been registered in employment offices, which means that these job seekers who have not been registered are left out of this database. This is why the number of the registered unemployed is one third smaller than the labour force surveys show. Despite of that administrative statistics is important because of its operability and analysing unemployment at county level, which the labour force surveys do not enable due to a small sample. Administrative statistics is also free of sample mistakes, which the labour force surveys inevitably have.

1.3. Other sources

Besides administrative statistics and labour force surveys it is possible to get data about labour market from population censuses, reports of companies gathered by Statistics Office, business register, living conditions surveys, surveys conducted by market survey firms, etc.

The last population census in Estonia was conducted in 2000. For the number of population was smaller than expected according to the census, also the numbers of population in the years between censuses were revised. This in turn influenced the data of the labour force surveys, whose absolute figures were reduced after recalculation. The new revised labour force surveys figures were published in August 2002 and are also available on the Internet.

In the autumn of 1994, within the framework of the NORBALT project, the Estonian Statistical Office in cooperation with Fafo Institute for Applied Social Research (Norway) conducted a living conditions survey,

which also had a labour force chapter, which was composed according to ILO standards and therefore internationally comparable. The Living Conditions Survey was the first survey that gave an adequate picture of the processes in the labour market for the first labour force survey was conducted only in 1995 (Marksoo, 1996). The Living Conditions Survey was repeated in the autumn of 1999 and the preliminary results were published in 2000. Besides Estonia the same survey was also conducted in Latvia and Lithuania, which makes the comparison of the Baltic States possible.

2. The comparison of labour force surveys and registered statistics

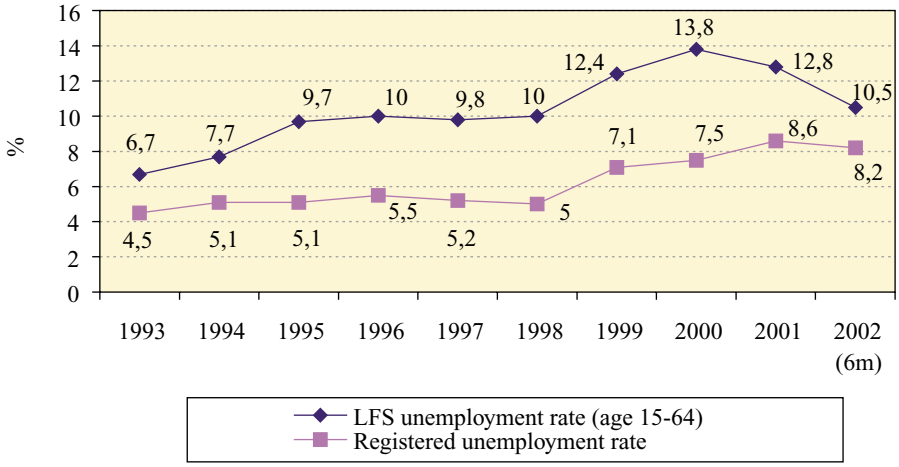
In many countries the figures of registered unemployment statistics are higher compared to those of labour force surveys. In the Baltic States however so far the registered unemployment has been significantly lower. Often it is not only the case of a lower unemployment rate, but also different trends. Therefore the users of statistics should carefully look, which sources the data comes from and what are the reasons for differences. Usually registered unemployment is not comparable by countries, due to differences in legislation and the rules by which the unemployed are registered.

In the following section we will look at the differences in the unemployment statistics in Estonia. Do different sources only give smaller or bigger figures, or are there also differences in the structure and dynamics of the unemployed?

According to the 2001 labour force survey, there were 83,1 thousand unemployed and the unemployment rate in the age group 15-64 was 12,8%. In the employment offices 136 861 unemployed were registered during 2001. On average in one month there were 54 116 registered unemployed, which is 6,5% of the population aged 16- pension age and 8,6% of the labour force. This means that the registered unemployed make 65% of the total unemployed.

According to labour force surveys only 46% of the unemployed turned to employment offices. The gap between the unemployment of labour force surveys and the registered unemployment has always been big. Starting from 2000 however due to changes in legislation this gap has started to reduce. If as a rule registered statistics followed the same dynamics compared to labour force surveys, then 2001 was an exceptional year: according to the labour force surveys unemployment reduced, whereas registered unemployment increased (table 1). In the first half of 2002 both ILO unemployment and registered unemployment decreased due to the economic growth.

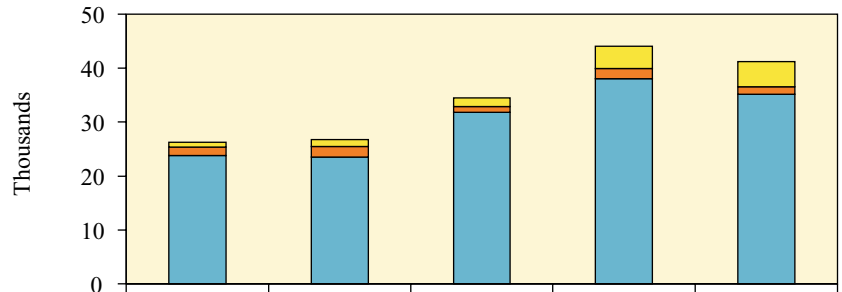
Fig. 1. Unemployment rates in 1993-2002



The differences in the figures come from the fact that the data of the two sources coincide only partly. The labour force survey's data includes unregistered jobseekers, who seek for a job through friends and relatives, while the registered data may include the unemployed, who were working during the reference week and on the other hand the inactive persons, who are registered but do not seek for a job (Mehran, 1995).

Figure 2. gives an overview of distribution of the registered unemployed according to economic status based on the labour force surveys. The figure shows that in recent years the importance of the inactive among registered unemployed has grown.

Fig. 2. Registered unemployed by economic status according to the labour force surveys (in thousands)



	1997	1998	1999	2000	2001
inactive	0,9	1,3	1,6	4,2	4,6
employed	1,6	2	1,1	1,9	1,4
unemployed	23,8	23,5	31,8	38	35,2

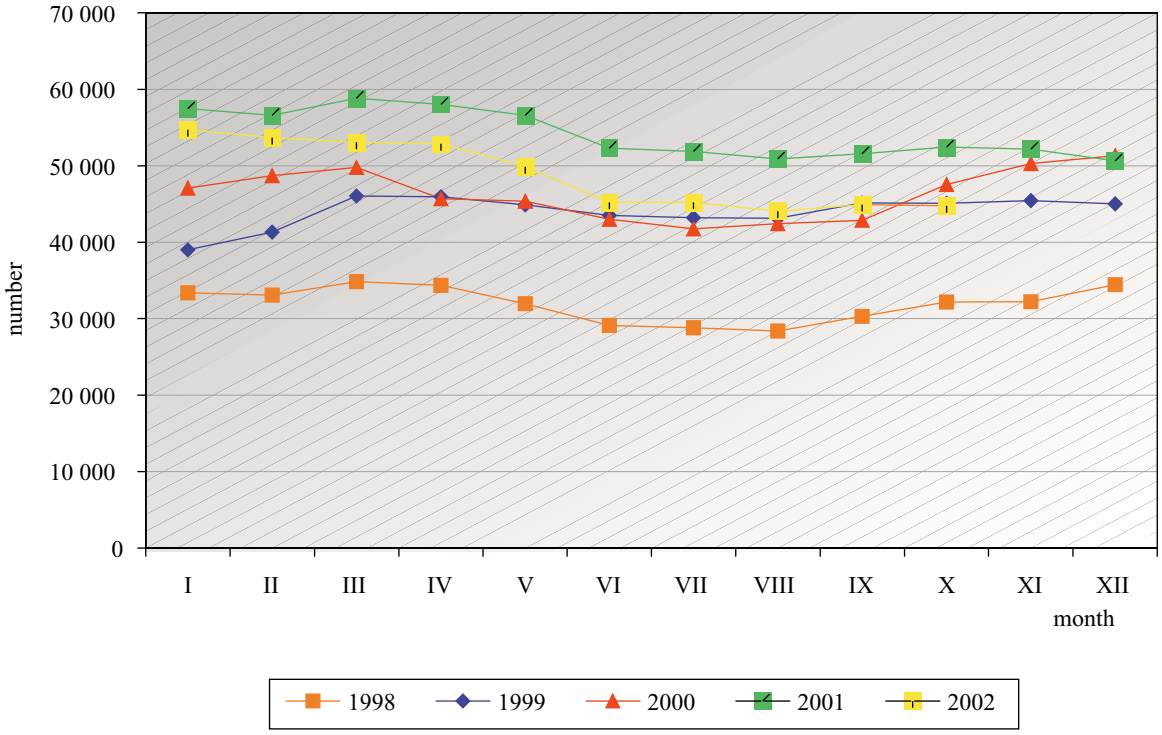
Many people register themselves in order to receive subsistence benefits[1] not to seek for a job. The jobs offered are often with minimum wages, which means that the unemployed person might not have the motivation to work, because the sum received from social benefits could be about the same size. Going to work would also mean transportation costs, which are quite high.

One of the reasons why many unemployed don't officially register and seek for a job independently is the lack of vacancies offered by employment offices and unsuitability for their qualification. For example in 2001 only 14 991 vacancies were received by employment offices, while at the same time more than 23 thousand registered unemployed became employed. The amount of vacancies offered depends both on the general amount of free job places in the region and on the activeness of employment offices in communicating with employers. If there is a lack of vacancies, the role of employment offices as job mediators is reduced. Employers often acquire necessary labour force by themselves or by using recruitment firms, for it are thought that you couldn't get qualified labour force through employment offices. For example young school graduates are more eager to seek for jobs via advertisements and private employment agencies, because the employment offices usually don't have good jobs for people with higher education. This is why there are less young people among registered unemployed. To improve the situation vacancies have been made available on the Internet in order to see the available vacancies all over Estonia. For the time being the system is yet in the beginning stage and covers only a small part of vacancies.

Second factor that influences registered unemployment statistics is the present legislation. For example in October 2000, the number of registered jobseekers went up significantly due to the fact that the new Employment Service Act, that had come into force, enabled all registered unemployed to apply for all labour market services. Up to that the circle of labour market service receivers had been limited to those, who qualified as unemployed (unemployment benefit receivers). Starting from the year 2000, the registered jobseekers and the registered unemployed are not distinguished and both are called registered unemployed. The new Social Protection of the Unemployed Act also extended the unemployment benefit receiving time from 6 to 9 months, which as well increased the number of registered unemployed. The registered unemployed number compared to the previous year decreased for the first time in 2002 (figure 3). In the circumstances of a favourable economic growth unemployment according to labour force surveys decreased as well. In second quarter 2002 the unemployment rate was only 9,4%.

[11] Among other requirements the applier must be registered as unemployed in the employment office to receive subsistence benefits.

Fig. 3. Number of registered jobseekers in 1998-2002



One of the stimuli starting from 2003 for people to register themselves after becoming unemployed could be the enforcement of Unemployment Insurance Act in 2002. The first payments from Unemployment Insurance Fund will be made starting from January 2003. The present unemployment benefit in Estonia is extremely low (400 EEK per month) and doesn't depend on the previous salary.

According to labour force surveys the primary job seeking method is turning to relatives and acquaintances, followed by turning directly to the employer and only in the third place lays turning to employment office to register as unemployed. The higher the level of education, the more actively different options are used. Besides qualification, people with higher education have a wider circle of acquaintances, which gives more opportunities for finding a job.

Gender-age structure

Unemployed women (53%) tend to turn to employment offices more often then unemployed men (40%), non-Estonians more often (50%) than Estonians (43%). Out of young unemployed (15-24 year-olds) only 37% registered as unemployed in 2001. This is why the gender-age structure of the registered unemployed differs from the results of labour force surveys (tables 1 and 2).

Table 1. Unemployed by gender in 2001

Labour Market Board data			Labour force survey data		
	Number (1000)	Share of the unemployed %		Number (1000)	Share of the unemployed %
Men	24,4	45	Men	43,7	53
Women	29,9	55	Women	39,3	47
Total	54,3	100	Total	83,1	100

If we compare men's and women's unemployment then according to labour force surveys starting from 1995 men's unemployment has been 1-2 percentage points higher than women's. The smallest difference was in 2001 when men's unemployment reached 12,9% and women's 12,2%. If we look at the data of registered unemployment, then the situation is quite the opposite. There are significantly more women among the registered unemployed. They make up more than half of the jobseekers and about 2/3 of the benefits receivers. This can be explained firstly by the fact that women turn more often to employment offices after becoming unemployed and secondly by the present legislation, which enables women who raise a less than 8-year-old child, to register repeatedly (after 6 months) as unemployed. This means that raising children is an activity equal to work and gives right to apply for unemployment benefits.

Looking at other countries in transition, in most countries we can see higher unemployment among men compared to women. For example in 2000, women's unemployment was higher than men's only in Czech, Poland and Slovenia. At the same time registered unemployment was higher among women in almost all countries, except Lithuania and Slovakia (European Commission, 2001).

Table 2. Unemployed by age groups, 2001

Labour Market Board data			Labour force survey's data		
Age group	Number (1000)	%	Age group	Number (1000)	%
16-24	9,6	17,8	15-24	17,8	21,7
25-49	34,2	62,9	25-49	49,1	59,8
Over 50	10,4	19,3	50-64	15,2	18,5
Total	54,3	100,0	Total	82,1	100,0

By age groups the biggest difference is in young people's unemployment (almost two times), because many of them seek for job without using the public employment service system. If as a whole there are more men among unemployed, then among younger people it is the opposite. In 2001 young men's unemployment rate reached 19,3% and women's 26,4%.

Level of Education

The labour force survey's data also enables us to bring out the education levels of the employed and unemployed. It turns out that the education level of the unemployed is significantly lower, which shows that a higher level of education is an important protection against becoming unemployed. At the same time the education level of the registered unemployed is even lower than the jobseeker's on average. Thus people with a lower level of education turn to employment offices more frequently. People with a higher level of education tend to seek for a new job through relatives and acquaintances, turn directly to the employer or use the help of personnel recruitment firms.

If among the employed there are 10% of people with up to basic education, then among the unemployed it is accordingly 19%, including the registered unemployed with 28%. Out of the employed people about 1/5 have a higher education, of the unemployed 8,5% and of the registered unemployed 7,2%. In the data issued by the Labour Market Board the unemployed are divided according to four levels of education, therefore a comparison with labour force survey's data, which are published according to ISCED qualification, is not possible. The gathering and publishing of data based on international classification will be done after the register of the unemployed is completed.

Long-term unemployment

Long-term unemployment is a serious problem in Estonian labour market, being one of the most constant and severe social problems. Statistics for long-term unemployment is mainly taken from labour force surveys. Up to 2001, a person was considered to be long-term unemployed if he had been seeking for a job for more than 12 months. Starting from 2002, people who have been seeking for a job for 12 months are included as well.

Previous years have also been recalculated. In 2001, the long-term unemployed made up 48% of all the unemployed. Unfortunately due to a small sample we can only use labour force surveys for characterising long-term unemployment on a country or regional level, not on a county level.

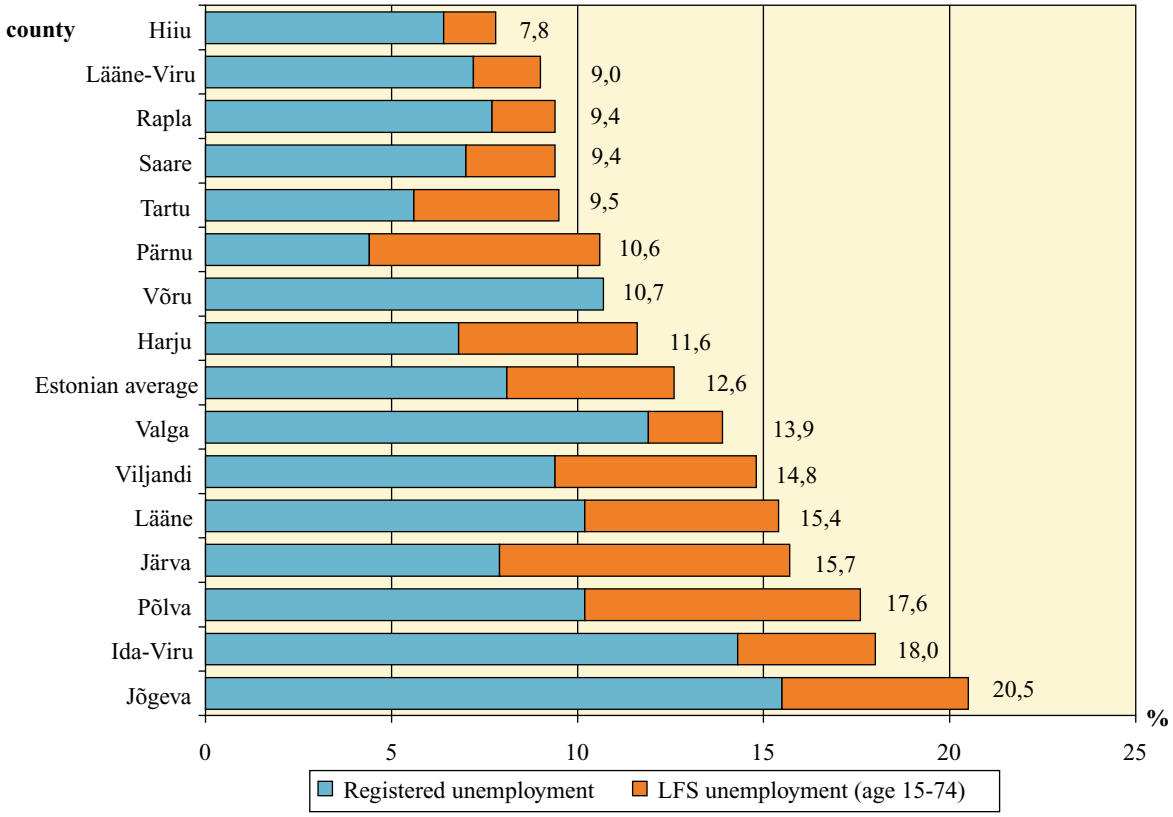
Registered unemployment enables us to do an analysis on a county level, but it only comprises _ of the total long-term unemployed. The definition of a long-term unemployed varies as well. A registered long-term unemployed is a person who has been registered as unemployed in an employment office over 12 months. So the time before registering does not count. Already for this fact the number of registered long-term unemployed is smaller. Secondly, because unemployment benefits are only paid for 9 months, then many of the unemployed quit being registered after that for they have lost hope to get a job through employment office. Some of them go on seeking for a job independently, but some of them give up seeking and become inactive. These persons are another reason, why registered long-term unemployment is smaller. At the same time state can only help those unemployed, who have been registered in employment offices.

Place of residence plays an important role too. Transportation problems may make it more difficult to find a job or registering in employment offices for people living far from centres. Going to work from periphery to centre or seeking for a job may be problematic due to expensive bus tickets or closing down several bus and train lines. All this makes the period of job seeking longer and is one of the reasons, why people don't register or quit being registered in employment offices.

Regional unemployment

Comparing the unemployment figures in different counties, we can see quite big differences. There are two regions in Estonia, where unemployment has been high all through the transition period. According to both labour force surveys and registered statistics these areas are industrial North Eastern Estonia (East-Virumaa county) and the agricultural South Eastern Estonia (mainly Jõgeva and Põlva counties) (figure 4).

Figure 4. Regional unemployment rates in 2001 (%)



As a rule unemployment is higher according to labour force survey's data than registered unemployment. The only exception (more registered unemployed) is Võrumaa county that lies on the southern border of Estonia. In counties with big cities (Tallinn, Tartu, Pärnu) usually the total unemployment is about two times higher than registered, because in these regions the possibilities for finding a job independently as well as the qualification of the unemployed are higher. Therefore the registered unemployment by counties could be significantly different from the unemployment according to labour force survey's statistics.

Although the labour force surveys allow us to get the real extent of unemployment, it is not possible to do a more thorough analysis by counties. Many counties are relatively small, therefore survey's sample are small and doesn't even enable to bring out the sex-age structure for counties, not mentioning municipality level. Of course regional differences in unemployment do not only occur county wise but for several reasons there could also be internal differences. The further away from county centre and the capital, the bigger the number of unemployed and discouraged persons. Therefore, when a more thorough analysis for some county is needed, then the data of registered statistics should be used although it doesn't comprise the whole contingent of the unemployed. Other options would include conducting an additional survey or doing an additional sample for the labour force survey.

3. Using labour market statistics in labour market policy making

In Estonia labour market policy is worked out by the Ministry of Social Affairs in cooperation with other ministries, Labour Market Board and social partners. To get an overview of the situation in the labour market mainly labour force survey's data are used, although in comparison always the registered statistics is shown as well. Labour force survey's data give complete picture of peoples economic activity and bring forth risk groups, for whom special measures should be worked out in order to integrate them into the labour market. So for example a decrease in unemployment doesn't necessarily mean an increase in employment, because the unemployed could simply have given up job seeking and turned inactive. An increase in inactivity is characteristic for all countries in transition and in Estonia too, the number of inactive people has increased both absolutely and relatively. But the registered statistics only reflects the dynamics of unemployment not the movements between employment-unemployment-inactivity. At the same time labour market policy measures can be used only by using the registered statistics, because the measures must be applied to concrete people. Registered statistics is also used for making next year's budget and planning active labour market policy. Employment and unemployment prognosis based on labour force survey's data are used as background information.

Starting from 2000, in Estonia every year an Employment Action Plan is made, which as one part contains a labour market analysis based on both the labour force survey's and registered statistics. Both sources of data are also used for making the National Development Plan and other strategic documents.

Labour force surveys are conducted quarterly, so if a quick overview of an actual problem is needed, then an additional module is added to the questionnaire. Since 2001, the Estonian Labour Force Survey questionnaire includes an ad hoc module, the contents of which vary from year to year. The module is compiled in accordance with the relevant EU regulations. The aim of the added module is to gather detailed information about an aspect of life directly relevant to the labour market. The 2001 survey addressed issues relating to length and patterns of working time (Estonian Statistical Office, 2001). To the questionnaire of 2002 questions about satisfaction with the labour market services offered, duration of unemployment and young people's economic activity were added. Both, the young and the long-term unemployed belong to the priority risk groups of the Employment Action Plan and need special measures to be worked out to integrate them into the labour market. For example the LFS 2002 I quarter revealed that during the last 10 years from the 15-74 aged population about _ (260 000 people) have been unemployed for a shorter or a longer term. 28% of them have been unemployed for more than once and 46% have been unemployed for 12 months and more.

Availability and using of statistical data should shortly become more intensive, because more and more statistics is made available on the Internet and the register of the registered unemployed should soon be completed. Labour force survey's statistics is available on the Statistical Office's homepage (http://www.stat.ee), where you can compile and save tables according to year, gender, age group, etc. Every year a collection of statistical tables of labour force surveys is published, which also include trends about previous years.

The situation with registered unemployment statistics is more complicated, because so far due to an inadequate info system the usage has been limited. Every month a Statistical Office's monthly "Eesti Statistika" is pub-

lished, where registered statistic's general figures about the registered unemployed and benefit receivers by counties are included. The same information is available on web site of the Labour Market Board (http://www.tta.ee). In addition the Labour Market Board forwards more precise data to the Ministry of Social Affairs (gender-age structure, education level, speaking language, duration of job seeking, participation in active labour market measures, etc of the unemployed) by e-mail. Only after the completion of info system in 2002, it is possible to analyse unemployment more thoroughly and make different inquiries in the database.

Summary

To sum up, information about labour market in Estonia is gathered mainly from two sources. Firstly from labour force surveys, which are conducted by the Statistical Office since 1995 and secondly from registered statistics (published time series since 1993.)

The questionnaires of the labour force surveys are composed according to ILO definitions, which means that the data are internationally comparable. Registered statistics depends on local legislation and therefore is not internationally comparable.

Speaking of labour market statistics in Estonia, one should always keep in mind whether you're dealing with labour force survey's statistics or administrative statistics, because the results are significantly different. In 2001, the unemployment rate in age group 15-64 according to labour force surveys was 12,8%, registered unemployment rate at the same time was only 8,6%. According to labour force survey's data men's unemployment is higher, according to registered unemployment it is women's that is higher.

In Estonia mainly labour force survey's data are used while analysing the labour market, because it gives a more adequate overview and characterises the entire 15-74 year-old population's economic status (employment, unemployment, inactivity). Several indicators are only available from labour force surveys. The main shortcoming is the smallness of the sample, which doesn't enable to do a more detailed analysis (for example by age groups) on a county level.

Many of the unemployed don't register themselves in employment offices; therefore the registered unemployment only covers a part of the total unemployed. Compared to the unregistered people, there are more women, older people and people with a lower level of education among the registered. In addition the possibilities to use registered statistics have been extremely limited so far as the unemployed register is yet to be completed. Despite of that administrative statistics is important for its operativity. Registered statistics is used in applying labour market policy measures, which requires a personal approach.

In order to get quick information about actual labour market problems, it is useful to add additional modules to labour force survey's questionnaires. In Estonia this possibility has been used for example to study satisfaction with offered labour market services, duration of unemployment and young people's economic activity.

Internet should be used as much as possible to make labour market statistics available and more easily usable. As a positive example Statistical Office's homepage should be noted, where you can compile tables using labour force survey's statistics according to your own wish.

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LABOR FORCE SURVEY IN THE REPUBLIC OF BULGARIA – A STRATEGIC SOURCE OF INFORMATION ON LABOR MARKET

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The countries from Central and Eastern Europe have been implementing large-scale reforms in all spheres of public life for twelve years. Labor market reformation is one of this process and at the same time key element in EU accession negotiation. Information on labor market performance, the effective handling of labor force supply and demand, and the policies in support of these processes is of key importance in this respect.

With regard to this, conditions have been created for labor market monitoring and elaboration of an assessment of active labor market policy in the Republic of Bulgaria.

A key component of this monitoring system is the Labor Force Survey /LFS/ conducted by the National Statistical Institute. LFS has been carried out under a methodology in compliance with the international requirements since 1993. The basic methodological concepts used in the LFS were approved that same year by the management of the National Statistical Institute and the Ministry of Labor and Social Policy.

The Labor Force Survey is aimed at providing up-to-date information on the economic activity of the Bulgarian population. This information is of essential importance for labor market policy development and overall socio-economic development of the country.

Since the Survey is collecting individual data for the persons under observation it also provides an opportunity for examining the relations among the demographic, social and economic characteristics of the different categories of the population. This provides real opportunity for the application of differential approach to the implementation of defined and targeted policy. The Survey ensures a relatively good accuracy /reliability of results/ not only of national level data, but also regional level data – on the six geographic regions (NUTS2 Level) and 28 country regions. The Survey allows for international comparability of data.

The main characteristics of the Labor Force Survey in Bulgaria may be presented as follows:

- The main definitions are in compliance with the ILO and Eurostat requirements.
- The Labor Force Survey covers the whole resident population of Bulgaria.
- The basic unit for the Survey is the household.
- Surveyed units are all persons aged 15 years and over who are members of the sample households
- The first LFS in Bulgaria was conducted in September 1993. Up to 1999 the Survey has been conducted irregularly irregularly - twice or three times a year (usually in March, June and November). The reason for this was the lack of finance. Since year 2000 the Survey has been carried out quarterly. In that way labour market trends could be studied more precisely. Both employed and unemployed persons participated on labour market. The employed switched over to the group of unemployed and vice versa. That movement could be followed by LFS. (**Annex 1 –** Conducted surveys)
- The reference period (the period to which data refers) is a fixed calendar week.

- The Survey sample comprises 24 000 households. The LFS uses a probability sample that is based on a stratified (region, town, village) two-stage cluster design. The clusters of the first stage are the census areas, and of the second – the households. The Survey uses a rotating panel sample design. Half of the households of each survey (six from each cluster) are included in the next Survey, and the outgoing households are replaced by households in the same census area.

After this rotation scheme each sampled household is interviewed in two successive Surveys, the next two quarters (surveys) rests, and after that is interviewed twice. So overall each sampled household is interviewed four times.

- Currently about 800 interviewers from the regional statistical offices and a number of outsiders are involved in the Survey.
- The Questionnaire consists of two parts – Questionnaire for the household and Questionnaire for the person.
- The share of the households which agreed to participate in the interview is approximately 85% of the sampled households. Actually non-response to the LFS averages about 15% of eligible households.
- The LFS results are released about 50 days after the completion of data collection period.
- Estimates of Survey data make use of the current demographic statistics for the country's population with reference to regions, place of residence, sex, and three age groups – 15-24, 25-49, 50 and over (altogether 336 groups).
- The LFS data are published in a number of statistical publications; tabulated data are presented on the National Statistical Institute's on-line electronic database (www.nsi.bg) as well as the methodology of the Survey in Bulgarian.

Data from the Survey provide information on the following main indicators:

- **Labor force, employed, unemployed, and not in the labor force and rates of economic activity (labor force/working age population), employment (employed/working age population) and unemployment (unemployed/labor force)** – with reference to sex, place of residence, age groups, level of completed education, regions;
- **Employed persons** – by their labor status, economic activities, types of professions, number of hours per week usually worked, full-time and part-time work, permanent and temporary work; type of work contract;
- **Unemployed persons –** by reasons for leaving last job, the duration of unemployment, methods used to find work;
- **Persons not in the labor force /inactive/** - by reasons for inactivity.

Following the methodology of the LFS the population 15 years of age and over is divided into three mutually exclusive classifications – employed, unemployed and not in the labor force.

Regarding data on employed persons, the LFS is comparable to the Enterprise Survey.

Differences between data on employed and self-employed persons provided by LFS and Enterprise Survey.

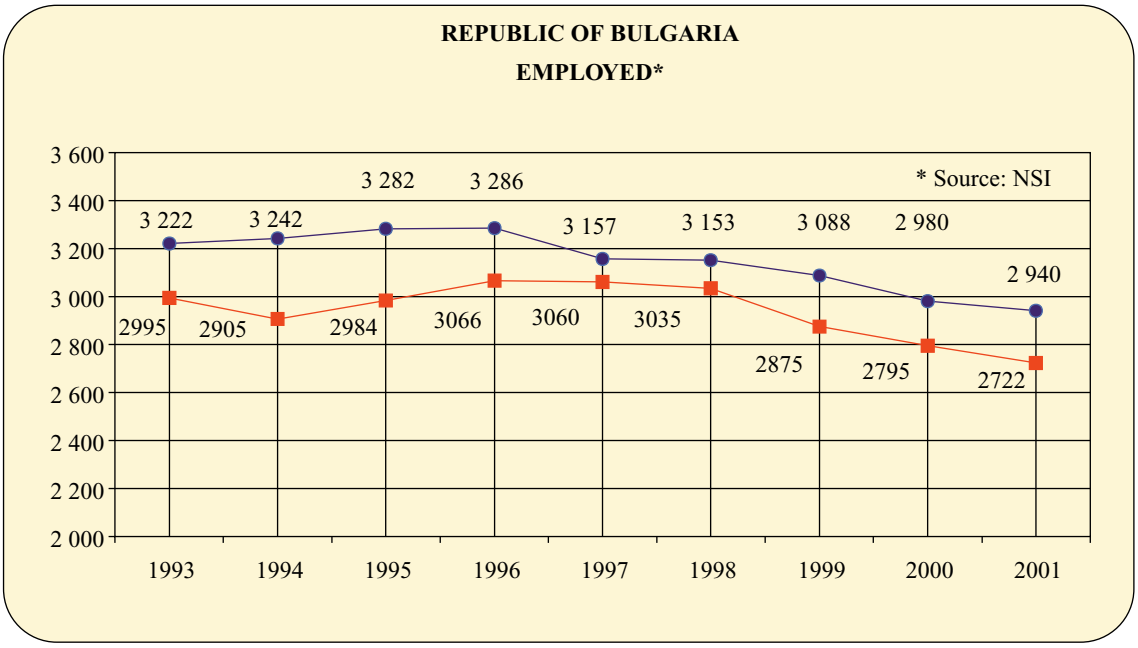
Enterprise Survey provides monthly data on employed persons and yearly data on self-employed persons.

- The reference period for the surveys is different – for the LFS this is a fixed calendar week, and for enterprise survey – the last day of the month (quarter of the year) or the average for the period (month, quarter, year)
- The LFS covers all employed persons, that is, it also includes the employed under work contracts of limited duration or other specifics, as well as the workers without any written contract. At the same time, the Enterprise Survey covers only persons working under employment contracts.

- The LFS covers all working persons, no matter whether their activity is officially registered or not, while the Enterprise Survey comprises only the persons employed in registered enterprises. The variance is most obvious in economic activities such as construction, trade & repair, hotels & restaurants.
- The LFS data includes the Armed Forces and the Security Forces both of which are excluded from the Enterprise Survey.
- The LFS treats the persons on maternity leave as employed only for the period during which they receive their full-time remuneration rate (135 calendar days), and the persons on unpaid maternity leave are regarded as economically inactive.
- The LFS regards as employed also the agricultural growers who sell even a small amount of it, as well as the persons who do not sell but use their produce to satisfy the largest share of their household consumption. The annual data on the number of the employed in the agriculture are an assessment based on different sources.

During the period 1993-2001 the average annual number of employed according to Enterprise Survey (ES) is higher than those of employed according to LFS. That trend is natural, because the reference period of the two surveys is different. At the beginning of the examined period the average annual number of ES employed was higher with 7.6% than LFS employed. After 1996 ES employed declined with 4% while LFS employed staid

Graph 1.



stable. In result of that in 1997 ES data on employed were higher only with 3.2%. After that the number of employed according the two sources of survey declined and in 2001 ES employed were more with 8.2% than LFS employed.

Regarding data on the unemployed and the level of unemployment, the LFS data are comparable to data from the administrative statistics of the National Employment Service.

Data discrepancy regarding /inconsistencies on/ the registered unemployed

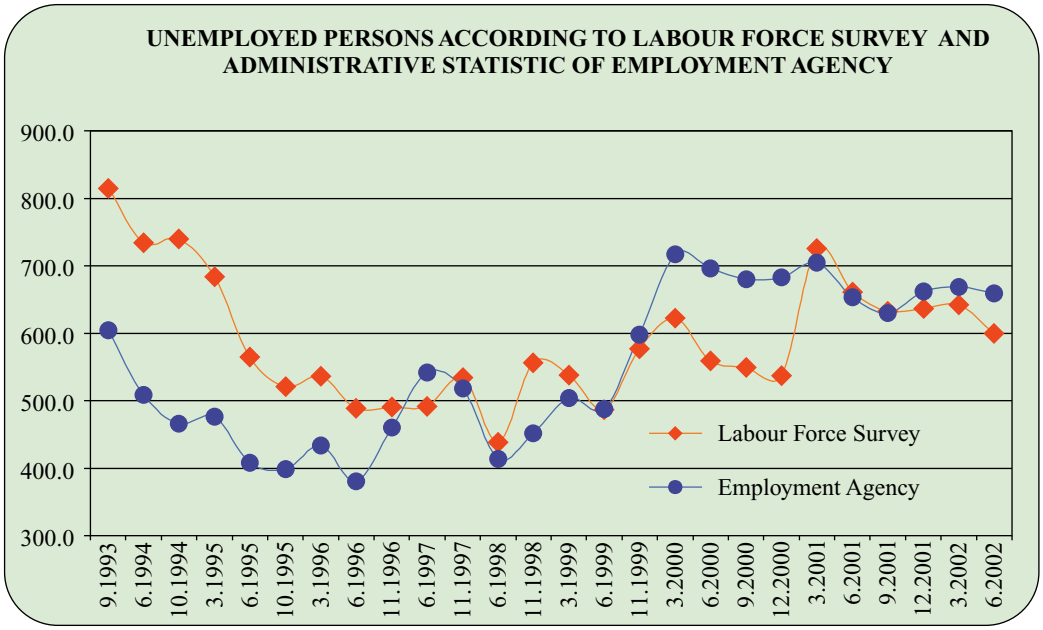
- The LFS data refers to a fixed period of time, i.e. data are characteristic of the persons' status only during a reference calendar week;
- Not only the persons recorded in the local Labor Office register are considered to be unemployed, but also the persons seeking employment using another methods – placing or answering ads, contacting employers directly, looking for the assistance of friends or relatives; at the same time, persons registered as unemployed in the Labor Offices but engaged in work of some kind, including the agriculture are considered to be employed according to the Survey methodology;

- The LFS does not set an upper age limit for a person to be defined as unemployed, and also the Survey does not cover the population under 15 years of age. For the recorded unemployed the lower age limit is 16 years, and the upper age limit is identified in compliance with the normal pension age.
- Schoolboys/girls and students, who look for a job and think they can also work, are also considered as unemployed by the LFS.
- The LFS data on the unemployed are assessments based on a sample and therefore related to certain reliability intervals. For assessments of smaller entities, for example on regional level, these intervals are relatively longer.
- When the National Statistical Institute calculates the unemployment ratios for a fixed period it uses data on the economically active persons (i.e. sum total of employed and unemployed) collected by the Labor Force Survey (LFS) for this same period. The National Employment Service calculates the level (ratio/rate) of unemployment of the registered unemployed using constant/fixed data provided by the 1992 population Census;
- The LFS data are dependent to a larger extent on seasonal factors;
- Data on the registered unemployed depend directly on the changes in legislation and normative acts;
- The existence of hidden employment can be noted when comparing the two sources of information.

The availability of two data sources on employment and unemployment is necessary and useful because /by/ comparing them we receive mutually complementary information on the labor market, especially on the scope of phenomena such as "hidden employment", "potential unemployment", etc.

The examine period (March 1993-June 2002) could be divided to several cycles during which the proportion between the number of registered unemployed and unemployed according to LFS changes in different way. During the first one (since 1993 till 1996) LFS unemployed are much more (with 34.7% average for the period) than registered unemployed. A possible reason for these are not well developed labour office services at that time. During the second cycle (1997-1999) the difference between unemployed persons from the two data sources is not so big. The unemployed according to LFS are with 3.1% more than unemployed registered in

Graph 2.



labour offices. During the third cycle (March-December 2000) the number of registered unemployed is 22.5% more than that of LFS unemployed. That shows the presence of "hidden employment", which is due to that registration in labour offices is necessary as an entrance in other social systems such as social assistance, health care and etc.

The LFS gives information of the so called effect of "discouraged" persons – persons, who want to work but don't seek for a job actively, because they think that it is impossible to find any. Since March 1995 till June 2002 the number of discouraged persons, who are not in labour force stayed comparatively high (average number about 335 persons). (**Annex 2 –** Unemployed and discouraged)

Raising public awareness of the causes of data inconsistencies will lead to a better understanding of current labor market processes.

The cooperation between the Ministry of Labor and Social Policy and the National Statistical Institute will continue in order to further develop and improve the data base of both sources of information:

An assessment will be made of the opportunity for introducing in Bulgaria the definition of employment approved in Commission Regulation _ 1897/2000. The difference from the used now by the LFS definition of labor force refers mostly to the treatment of persons registered in the local Labor Offices – according to the regulation only the persons who were in contact with the Labor Office /in order/ to find work are considered as unemployed. Another difference is the consideration of "studying job advertisements in newspaper, magazines and other" as an active method of job seeking.

The introduction of a continuous quarterly LFS is envisaged in our country also, in compliance with the requirements of Eurostat (Council Regulation _ 577/1998), which will provide average assessments monthly and yearly.

Pending on the availability of funds the envisaged by the regulations complementary modules to the LFS will be carried out. "Life-long learning" module is planned for 2003, which comprises indicators related to the participation of population in different training activities – type, goal, sphere and duration of training, etc.

COMPARATIVE LABOUR FORCE STATISTICS – A USER'S VIEW

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Introduction

Labour Economics is an expanding branch in economic science. One reason is the emergence of search theory of unemployment in the 1970s (Mortensen 1986, Holmlund 1998). Search theory is particularly useful, because it can explain the existence of unemployment without making assumptions about market failure or general disequilibrium. Various policy options can be modelled and tested. Another reason is that the empirical verification of economic theory – in particular search theory - has improved substantially. Improvements in data processing capabilities and econometric techniques enable us to test ideas in a way not possible ten years ago. A necessary condition for the exploitation of new techniques and technological possibilities is the availability of data. Data is the fuel that powers the engine of labour market research. Because this research is highly relevant for policy making, public institutions as data producers should have a genuine interest in providing high-quality data for scientific use.

General Aspects

For the researcher, there are three main aspects to labour market data: availability, quality and access. Availability is of course the necessary albeit not sufficient condition for empirical research. Without data, labour market economics will be little more than an academic discussion group with no real relevance to policy makers, business or the general public. For the purpose of this paper, it is useful to distinguish between aggregated data provided by public institutions like labour or statistical offices (i.e. macro data) and individual data sets provided by public, private and/or scientific institutions (i.e. micro data). The availability of micro data is of great importance for research, because it allows the analysis of flexible combinations of different individual characteristics. In contrast, macro data restricts analytical possibilities to the patterns in which the data is published by the producer. For example, if a researcher wants to know how many temporary employees are in part-time employment in various European countries, he'll run into trouble because Eurostat's annual labour force survey results do not contain such a cross-tabulation (see Office for Official Publications of the European Communities 2001).

Even if it is available, labour market data won't be of much use if the researcher cannot trust it. There is no reason to believe that data producers – intentionally or not – would provide false information. Thus, the quality aspect focuses on two subjects: transparency and comparability. Transparency means that sources and methods underlying published data must be made public. Sources should be mentioned according to scientific standards. Methods should be explained in context with the data, alternatively a reference can be given. For example, it is certainly not sufficient to characterise data as 'seasonally adjusted' without even mentioning the procedure used for adjustment. Another example of a lack of transparency is given in the 2002 OECD Employment Outlook. On page 18, the unemployment rate for Spain in 2001 is 10.5 percent. In the statistical annex on page 303, it is 13.0 percent for the very same year. While the latter figure is a 'standardised' unemployment rate, it is ev-

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erything but clear how this substantial difference is to be explained. Comparability is an important aspect when making international comparisons or cross-sectional analysis. In the European Union, labour market statistics have reached a good degree of international comparability. The crucial point is to produce data according to internationally recognised standards, e.g. classifications of economic activity or occupation and labour force concepts. In the context of EU eastern enlargement, it is necessary to ensure that data producers in new member countries will follow the guidelines in use in existing member countries.

The access to available data is an aspect for labour market researchers of ultimate importance and a source of considerable controversy. This is especially true for micro data. Public institutions (e.g. labour offices) collect individual data based on mandatory questionnaires or an obligation of individuals to provide information. Therefore, the data collector has a genuine interest to protect the privacy of his sources. On the other hand, science has an interest to use the data. There are ways to consider the interests of all parties involved. Micro data sets can be produced that do not contain unique identifiers such as name, address or social security number (so-called scientific-use or public-use files). Another option is to provide data sets in centralised locations. Researchers may work in those data centres and the results to be published may be controlled for violations of privacy. In general, however, scientific-use files are a much more efficient way to analyse complex data.

In addition to these legal issues there are two main aspects to the accessibility of data: pricing and bureaucracy. Since labour market research is done predominantly in universities and/or non-profit research institutes, the cost of data access is of great importance. Some data producers follow an average-cost pricing strategy. This sometimes entails huge fees that most researchers cannot afford. This is especially true for micro data. An example of a prohibitive pricing strategy is Eurostat. Access to the New Cronos database theme 3 ("population and social conditions") is 63,000 Euro p.a. – excluding VAT.[2] Clearly no researcher except for those in commercial enterprises would be able to work with this source. In Germany, data producers such as the federal statistical office recently introduced a pricing strategy based on marginal cost. This is an option for existing data sets. For data that isn't yet produced, other financial sources must be found. Additional funding will be necessary for documentation and maintenance. Since labour market research is beneficial for policy makers, public funding is a possibility.

I called my second point "bureaucracy". With this I mean the question how much effort a researcher must invest to gain access to the data he's interested in. A common procedure is that the researcher sends an inquiry to the data producer, where the aim of the project and the required variables are specified. If the inquiry is approved, the producer will provide the requested data. It's not uncommon that the data must be destroyed or deleted after the project is finished. This procedure of data access is very labour intensive for the researcher, time consuming and therefore unsuitable for many ideas. For example, if there's a discussion whether or not to reduce the duration of unemployment benefit payments from, say, 24 to 12 months, it would be interesting to know the financial implications of this idea. Clearly, we would need micro data to make a good estimate. But if a researcher would have to write an application, wait for approvement of his inquiry, learn how to work with the database, and finally analyse the data then the discussion will be most certainly outdated when the researcher is ready to present his findings. A much more efficient way of data access would be if the researcher can access a scientific use file at his workplace. He may begin the analysis without tedious applications. He may find whether or not the data is suitable for the question he's asking. If these steps are taken, there's still time to consult the data produces to approve the use of the data.

Where do we stand?

Labour market macro data for the purpose of international comparison is available from a wide variety of sources. Producers are the OECD, Eurostat, the ILO, Worldbank, United Nations, International Monetary Fund and many others. In addition, there are commercial providers. Most producers have reached a very high degree of comparability and usually a satisfactory degree of transparency – at least on a European level. For statistics on employment and unemployment, it is important to produce data according to common definitions. This sometimes entails different figures for the same subject. Germany is an example for this phenomenon, where the difference between national and internationally comparable statistics occasionally leads to confusion. Unemployment statistics in Germany are based on the labour offices' definition of unemployment. According to this, unemployed is a person who registered with the office. It is also possible that an unemployed works up to 15 hours a week without

[2] This is the price for a dissemination license. From Eurostat's website, it did not became clear to me whether or not this is also the price for simple access. On the other hand, this leads directly to my second point: easiness of access and bureaucracy.

losing his unemployment status. Obviously, this definition is in contrast to the ILO's definition which defines as unemployed a person who is not employed (regardless of working time), available and actively looking for a job. Thus, the unemployment rate by national definition is 9,6 percent, while Eurostat's rate is 8,3 percent. Similarly, long-term unemployment by national definition is about 36 percent while the OECD says it's about 50 percent. Two different unemployment rates may be a problem that can be dealt with. But the opposing definitions also prevent comparisons of the structure of unemployment (as published by the labour office) and the structure of employment (as published by the statistical office based on a labour force concept). This discrepancy strongly supports the view that labour market data should be produced according to international standards from the very start.

While there's little room for improvement in availability, quality and access to macro data, the picture looks different if micro data is concerned. While many European countries provide access to official micro data, terms of access, cost and support are quite different. Table 1 is an overview of researcher's assessment of selected data sources. As can be seen, in most countries the dissemination of official data from public institutions to science may be improved. If data access is possible only in statistical offices or data analysis centres, foreign researchers have almost no opportunity to gain access, limiting severely the possibilities of international comparison.

Table 1: Researcher Assessment of Data Access, Costs, and User Support (official micro data)

Data Access	Costs	User Support
Netherlands		
• Restrictive • Bureaucratic • Time consuming	• Too high for occasional use	• Insufficient documentation • Missing user support
Denmark		
• Comprehensive • Data use only in statistical office	• Moderate fees in data analysis centre	• Professional
Sweden		
• Satisfactory	• Too high (particularly for students)	• Minimal
France		
• Comprehensive • Difficult access to data from ministries	• Moderate through associated institutes • Too high otherwise	• Depending on data provider
Great Britain		
• Comprehensive	• Minimal fees	• Good

Source: Kraus and Schimpl-Neimanns 2002, p. 41.

While cross-sectional micro data is very useful for labour market research, there are questions where longitudinal analysis is required. For example, to assess the effect of active labour market policies, detailed information of job biographies is necessary. Longitudinal information is provided by panel data sets. Fortunately, we have such a panel data set for various European countries – the European Community Household Panel (ECHP). Unfortunately, it is somewhat difficult to gain access. Searching for about an hour on Eurostat's web site, I was unable to find any information on how to gain access to the ECHP. The Eurostat Data Shop Berlin's web site yielded a similar result. Performing a Google search, I found a commission document where I at least learned that a contract with Eurostat is required and the fee is 6,000 Euro for two waves plus 2,000 Euro per wave for upgrading (see Eurostat 1999). This access policy would not be suitable to promote science's use of this potentially valuable data source.

What do we need?

In seminars and workshops where the informational infrastructure between science and statistics is discussed, data producers frequently ask 'what data do you need?'. The answer is very easy and always the same: 'as much

as possible'. Science provides valuable insights to underlying mechanisms, policy effects and the general understanding of the labour market. But science can accomplish this task only if we have the necessary tools. Therefore, the following points should be considered:

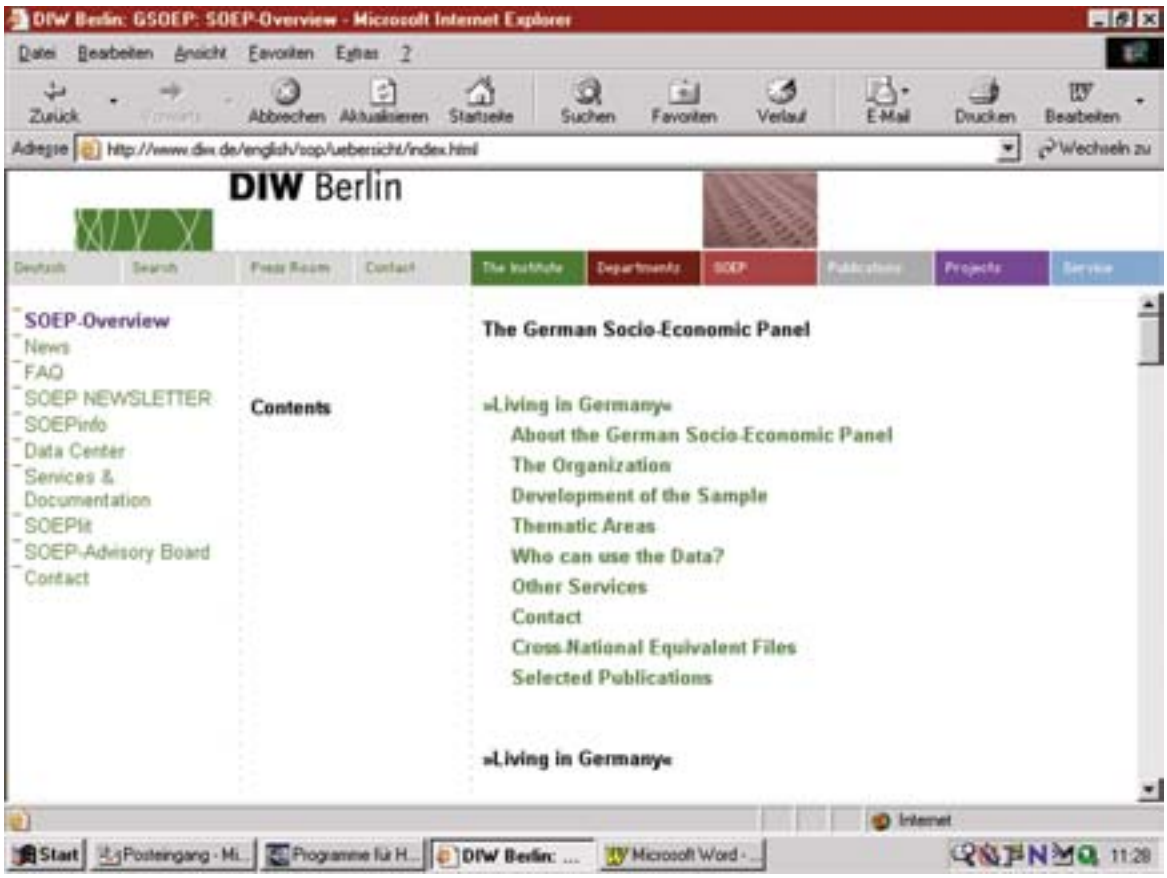
- Science should have access to official micro data on employment and unemployment, preferably through scientific-use files.
- Data user contracts for scientific-use files should contain an option for using the data for research projects other than specified in the contract. The publication of data in context with the second project may be conditional on an additional or modified contract.
- Scientific-use files should be distributed preferably by internet, to ease the access for foreign researchers.
- Documentation and user support should be available online in English language for the same reason.
- If scientific-use files are impossible due to legal considerations, data analysis centres should be established.
- Access to micro data through Eurostat should become easier.
- The marginal cost principle should be applied.

Access to micro data: best practices

a) *The German Socio-Economic Panel*

The German Socio-Economic Panel is a household survey that is carried out since 1984 by the German Institute for Economic Research (DIW, see SOEP Group 2001). In the future, the GSOEP will be part of the ECHP. All questions concerning data access are documented on the Institute's website – in German and in English (see screenshot #1). Access to data is granted for universities and research institutions. In order to work with the full data set, a user contract is required. The contract specifies a project, but can be easily extended by simply dropping a note to the DIW. The documentation is available in German and in English. The distribution is by CD-

Screenshot #1: The German Socio-Economic Panel Homepage



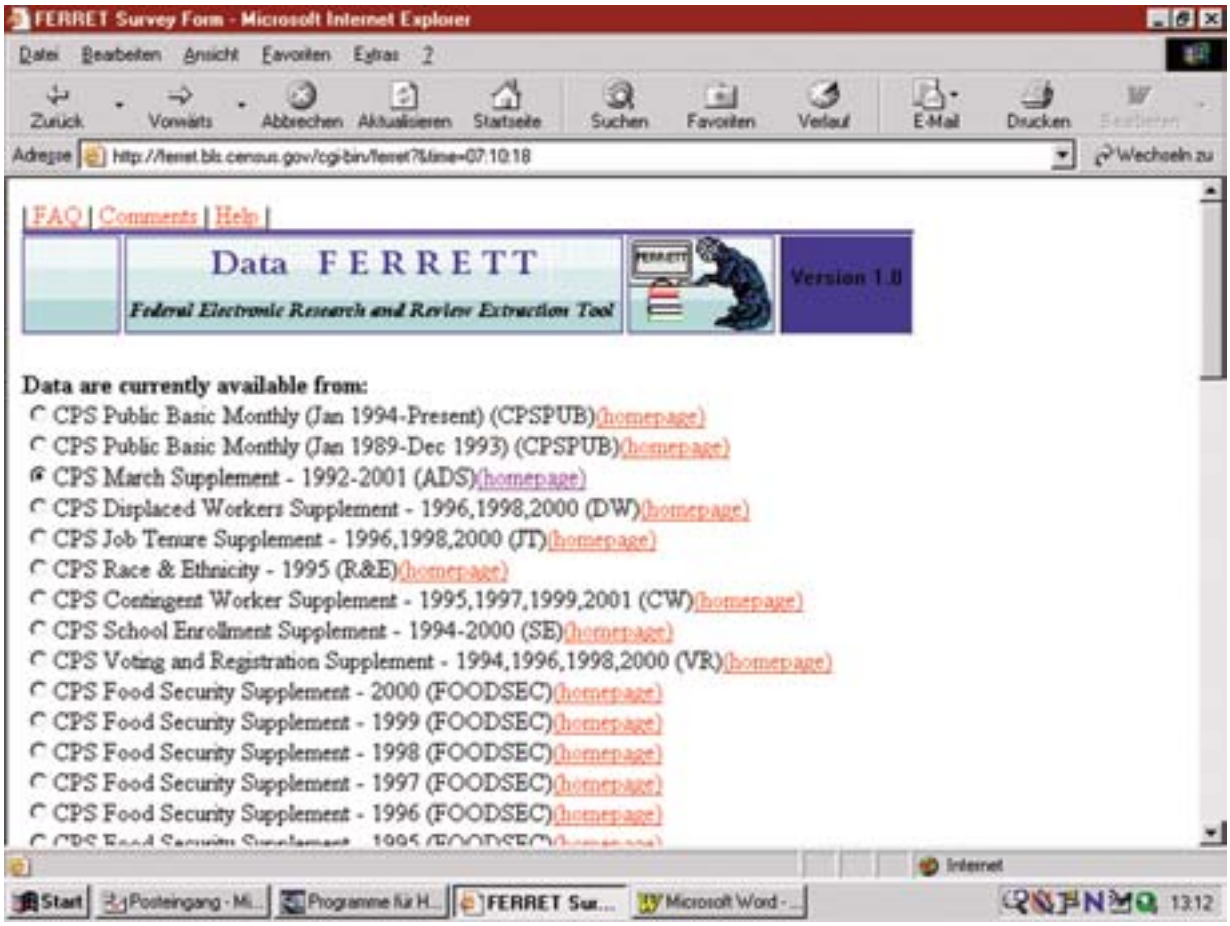
ROM, which contains data of all waves, documentation and tools such as an information system to search for variables and a literature database. The cost is very low, about 25 .

Because of the rather small sample size of about 13,000 individuals in 6,000 households, the GSOEP is not an optimal data source for many questions. However, the possibility of longitudinal analysis, easy access, low cost, comprehensive documentation and efficient user support via mailing list makes it extremely popular amongst the scientific community. The literature database lists some 1,800 publications that were based on GSOEP data. Amongst them are publications in renowned journals such as the Economic Journal or the Journal of Labor Economics.

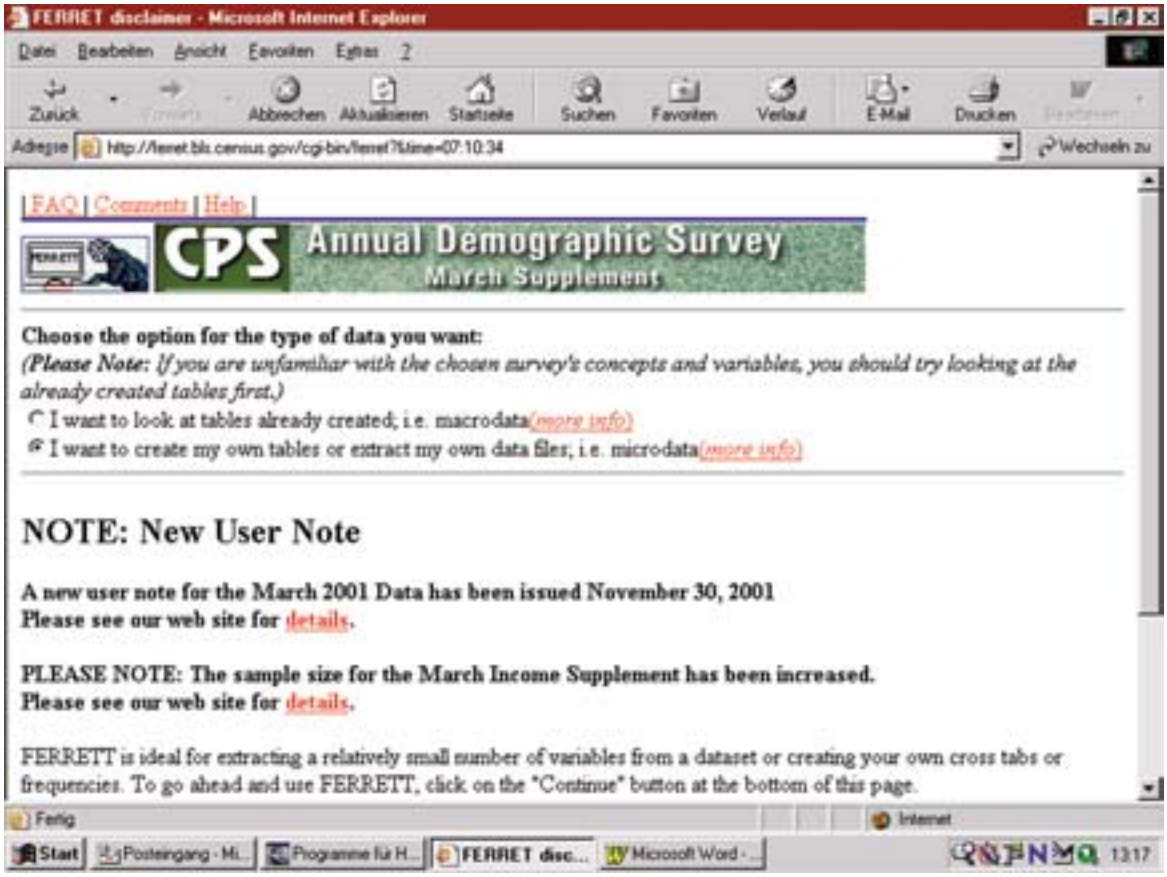
b) *BLS data*

An extremely easy and comfortable way to provide access to micro data is offered by the U.S. Bureau of Labor Statistics: the data is downloadable free of charge from the internet. Available for downloading is a wide array of data sets, amongst them the Current Population Survey and the Displaced Workers Survey (see screenshot #2). After selecting the data set, variables may be searched by keyword and selected for retrieval. One may choose whether to view prepared tables, create custom tables or download the micro data (see screenshots #3 and #4). It is also possible to download an entire data set. The documentation is comprehensive and accessible on the internet. User support is minimal, but the BLS staff tries to answer questions even from abroad.

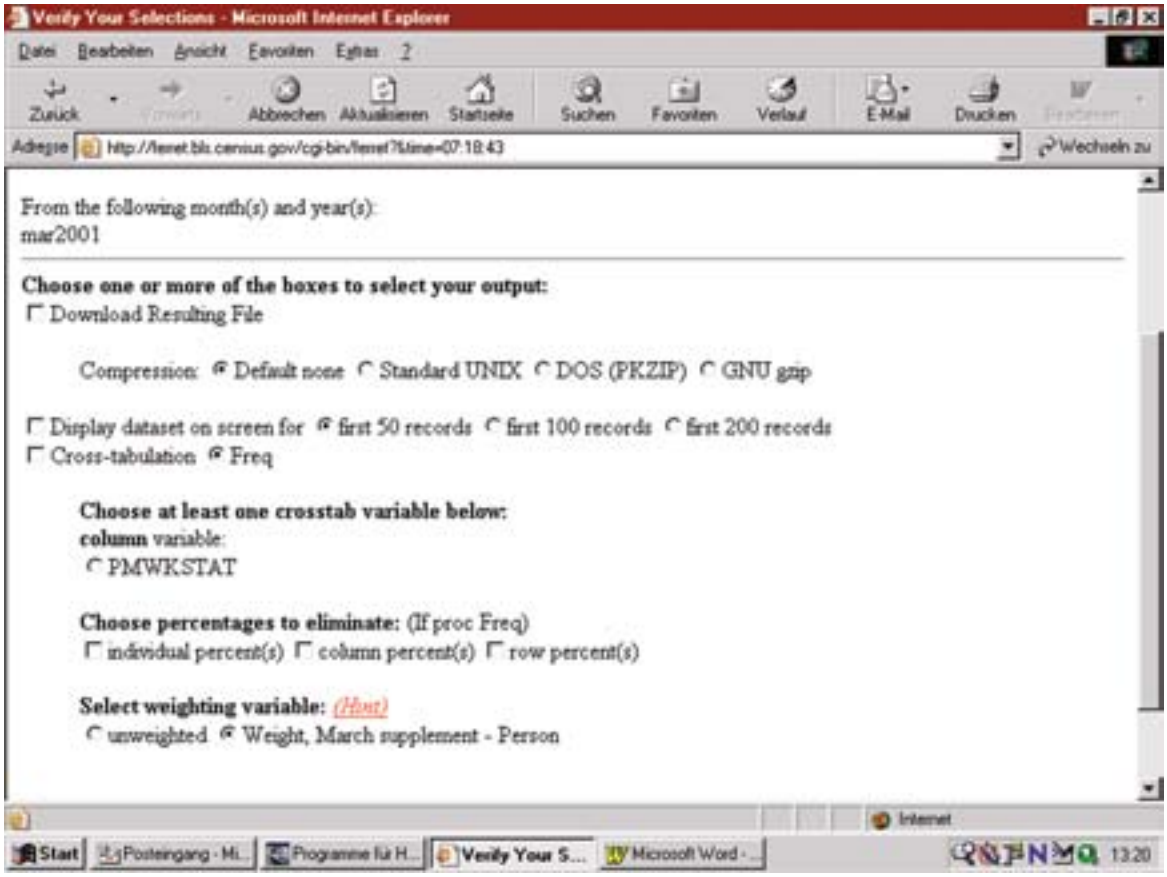
Screenshot #2: BLS/Census database selection



Screenshot #3: Data type selection



Screenshot #4: Download selection



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20. CEIES SEMINAR

LABOUR STATISTICS – TOWARDS ENLARGEMENT

SUMMING UP

Enlargement of the European Union is an enormous challenge for European labour market statistics. If we are to monitor developments on the labour market in the candidate countries and Member States and the effects of enlargement on labour markets as a whole, reliable data are crucial. The results of statistical analyses serve as a basis for making and judging political decisions. For this reason, the European Statistical System has to update its instruments for measuring structure and dynamics in the fields of employment, unemployment and non-activity and adapt them to the changing environment. Above all, however, it has to be possible to analyse the potential effects of enlargement and measure progress resulting from employment strategy.

Over the past few years, the candidate countries have made enormous efforts to install the statistical instruments of the European Union - the Labour Force, Labour Costs and Structure of Earnings surveys, for example - in their countries. Since 2000, the Labour Force Survey has been carried out in all countries. In almost all, it is already quarterly and continual. In many cases compliance with the stipulated 12-week deadline for delivery of data to Eurostat is better than in the Member States of the European Union. The same applies to the Labour Costs Survey. Solutions are expected in 2002 (2004 for Poland) for most of the outstanding problems of introducing these surveys.

The seminar concentrated primarily on the conceptual framework of ***labour supply: labour demand*** was treated rather as a poor relation. This was deliberate, to retain an overall view and to provide depth.

The discussions focused on the three areas:

The informal sector labour mobility the Labour Force Survey.

In view of the globalisation of the economy and the labour market, the **informal sector**, i.e. those fields in which employees work for their own account – with contracts for particular pieces of work, as freelancers or as jobbers, for example – is increasing in importance. Many new jobs are springing up in this area. In many candidate countries, the informal labour market accounts for a substantial share of the total labour market. For the development of effective labour market policies, it is crucial that we improve our stock of information on the informal sector, on both its structure – the demand side – and the special circumstances of those in this type of employment - the supply side.

One fundamental problem with investigating **mobility** processes in the labour force arises as soon as attempts are made to find a usable definition of *mobile workers.* Restrictions on access to the formal labour market in many of the old Member States during the years immediately after enlargement will have a considerable influence on the dynamics of the formal labour market and the size of the informal market and its production.

Many contributions stressed the key importance of the **LFS** for the comprehensive monitoring of labour markets.

The CEIES Subcommittee for Social Statistics had set itself the objective of holding a CEIES seminar with the candidate countries on a topic of universal relevance. The composition of the participants and contributors shows clearly that this aim was achieved. Over 40% of the more than 80 participants came from the candidate countries, although the accession countries were slightly underrepresented, at 36%, in terms of those contributing papers.

20TH CEIES SEMINAR «LABOUR STATISTICS - TOWARDS ENLARGEMENT» REACTION FROM EUROSTAT

1. Introduction

Several topics were raised that are addressed below. Some issues, will need further study as well as consultations with data producers (Member states) and international organisations, OECD and ILO.

2. The description of a flexible and accessible labour market should be improved

The description of a flexible and accessible labour market with a steady employment growth requires data to describe working time patterns, new forms of employment, education and lifelong learning (LLL).

– New working time arrangements and forms of employment: ad hoc modules are carried out to collect these data. Data for 2001 are available now. A similar module will be repeated in 2004 (agreed by the 47th SPC in November 2002). These ad hoc modules meet the demands of the 5th CEIES seminar in 1998.

– LLL: an ad hoc module will be implemented in 2003 to collect detailed data on participation in continuous education and training, distinguishing regular education, courses outside the regular education system and non-taught learning. This ad hoc module meets the demands of the 10th CEIES seminar in 2001 on education and training statistics. The education and training variables in the regular LFS will be adapted to the distinction applied in the 2003 ad hoc module (Commission regulation agreed by the SPC in September).

3. The accurate description of processes, viz. changes between employment, unemployment and inactivity, requires transitions or gross flows

Year-to-year transitions require appropriate tools, e.g. panels or a calendar activity measurement (main activity each month) within a panel design. The main objective of the LFS is to provide statistics on the level, pattern and trends of labour participation. The design of the LFS is therefore not an appropriate panel design. The harmonisation of the rotation schemes of the LFS is likely to be one of the most important future developments to be dealt with after 2005.

4. Standard tools and concepts need to be developed to capture the shadow economy.

– The shadow economy is an important topic with political implications. The non-declared or non-observed economy is estimated to be 2 - 15% of GDP. This could easily push the employment rates - key indicators for policy monitoring - upwards, to the extent that the distinction would affect the statistical measurement.

– Illegal production (for example, purchases and sales of drugs), the underground economy (deliberately concealed to avoid taxes (including VAT), social security contributions, certain legal and administrative obligations…) (SNA 93, §6.30-34) and the informal sector (defined by the 15th ICLS, '93) should be distinguished.

– Informal sector enterprises are unregistered, small size, with little division between the production factors of labour and capital and owned by individuals or households. The problem here is the coverage of these informal production units in the sampling frame of the business register.

– Informal employment is in principle included in the LFS (for example, informal jobs such as casual jobs, jobs of contributing family workers, paid domestic workers, minor jobs with hours of work or wages below a certain threshold and clandestine workers). However, additional problems concern the correct identification of informal employment and the measurement of the volume of hours worked in household surveys. Main and second job as well as the hours actually worked in both jobs are available from the LFS, third and

more jobs could be included in the LFS but further reflection is needed. The LFS is not necessarily the best source for all demands.

– Specific studies are needed. The Delhi (city) group has dealt with the improvement of the measurement, in particular the identification of the informal sector. Co-operation of Eurostat with OECD and ILO is needed to develop concepts and measurement. A study commissioned by DG EMPL has been completed one year ago about policies to combat undeclared work in the EU15 with attention to its causes. Work will continue next year.

– Concerning the LFS the following elements should be retained:

  • Comparison of different sources: the comparison of the LFS with social security data is useful to describe the labour input in the informal sector compared with the formal sector but data on monetary transactions would also be needed.

  • Add data on monthly wages and salary: data on wages and salary allow to analyse how wages and salaries accrue to different categories of employees as a result of their involvement in different types of paid employment. In a preliminary stage, test of an appropriate data collection will be carried out. Wages and salary have a more limited content than income data (including transfers and property income), SILC will be a better source for complete income data.

  • Child labour: specific surveys (instead of the LFS) are required to identify child labour with self-reported data collected from parents and children (instead of partial proxy responses).

5. Mobility should be better analysed

– An international (long-term) migrant is defined as a person born abroad who settles for a period of at least 1 year in a country other than which he or she used to reside (UN 1998). This excludes daily or weekly cross-border commuters. In this case, special studies are needed. The variables to identify migrant workers in the LFS are country of residence one year before the survey and years of residence in a Member state. The category of migrant workers could be restricted to non-EU nationals on the basis of nationality. The list of nationalities will be adapted to take into account new countries of origin in the case of CC.

– An assessment of LFS data on employment of non-EU nationals is carried out and will be completed by March 2003.

– The database of international labour migration is loaded on the basis of a joint ILO-Eurostat-ECE-Council of Europe questionnaire of 13 tables but this database is incomplete and sometimes a simple copy of LFS data.

6. Access to micro-data should be improved

In May 2002, a Commission Regulation has been adopted about the access to micro-data from surveys, in particular the LFS and CVTS. The next step is to define and agree the anonymisation criteria. This issue is put on the agenda of the working party on Employment Statistics in January. A verification is needed of the apparently expensive price setting.

7. Sources, household surveys, business surveys and registers should be combined.

– Account systems are an integration of data from different sources. The calculation of employment in national accounts needs to be clarified (Phare 2002 project on the reconciliation of employment data).

– An integrated system on earnings and labour cost statistics is proposed, including detailed structural statistics (LCS and SES), annual updates and quarterly short-term statistics (LCI).

– A good example of the combined use of survey and register data is the unemployment rate on the basis of quarterly survey data updated with monthly register data.

8. Quality standards (e.g., impartiality, reliability, relevance, efficiency, confidentiality and transparency, statistical law, CC Regulation 322/97, art. 10) must be met.

Quality assurance is a key commitment of Eurostat. Besides applying quality standards, a hierarchy of the quality standards needs to be established. Which are the most important. The basis for out statistics is that they are produced to meet a user demand (when there is no demand, statistics become redundant). This implies that a

user must trust the figures. To meet user demands, statistics must be relevant, timely, clear and accessible with an eventual trade-off between timeliness and accuracy.

9. More general reactions

Eurostat welcomes the recommendations from the CEIES as a useful tool to meet user demands from our society. A reflection is needed on the statistical instruments to meet these demands. The following constraint should be taken into account: to overload the labour force survey will jeopardise its current quality. For this reason only some recommendations concerning the informal sector can be implemented in the labour force survey (data on wages and salaries, adapted and extended list of nationalities and data on hours worked). Other recommendations require alternative sources. Eurostat supports the integration of sources as a way to improve data quality.

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