Forecasting Skills and Labour Market Needs
Statements and Comments

Rob Wilson
Institute for Employment Research University of Warwick

Introduction

The UK, like most other developed economies, is facing challenges arising from globalisation and an ageing population. Technological developments (especially related to ICT) and demographic change are key drivers. Policy makers are trying to find ways of reconciling pressures to maintain economic growth and prosperity, while at the same time avoiding problems of social division and exclusion. Skills are generally regarded as a key part of the solution to these problems, although not a panacea.

The focus on skills has resulted in increased emphasis on trying to anticipate future skill needs. Attempts to anticipate changing skill needs have been a feature of the UK scene for over 30 years, generally funded by the national government. This paper provides a brief summary of the way the UK has approached these matters, highlighting similarities and differences compared with the Finnish approach. It is in three main sections, following the template provided for the review. It has been revised to reflect some of the discussion during the meeting.

1. Context and background

In a number of respects the UK is very similar to Finland. It is a democratic, market orientated, open, developed economy, highly dependent on international trade. The UK is however a much larger and more diverse economy, less specialised than is the case in Finland. The UK population is now around 60 million and (depending on precisely how these things are measured) the UK is somewhere in the lower half of the top ten countries worldwide in terms of GDP. Its performance in terms of productivity is rather less impressive, the UK having been more successful than many other countries in maintaining high employment levels, but at the expense of lower productivity levels and rates of increase.

Over the past two decades, UK governments of all persuasions have adopted a very market orientated approach to economic policy, with much less emphasis on intervention and planning than was the case in the past (or than is practiced in some other countries). This applies to the education and training system as well, where individuals and education and training providers have considerable freedom of choice over the course of study they follow.

The institutional and legal framework in this area has seen considerable change in recent years, with many new institutions and frameworks being set in place by the Labour Government first elected in 1997. This has included the setting up of the Skills for Business (SfB) network, which is intended to provide employers with a voice in the skills arena, as well as the Learning and Skills Council (LSC), which (with its 47 local arms) is responsible for the delivery of the bulk of post-school education and training (other than that provided by Universities).

Each of these organisations has been charged with trying to anticipate future skills needs as part of their remit. There has therefore been considerable interest in approaches to anticipating future skill needs in the UK in recent years. This is beginning to have an impact on the data collected.
2. Transferability and application to the UK

The Finnish approach to anticipating changing skill needs has many similarities as well as some differences compared with how things are done in the UK.

The UK government has recognised the need for some kind of regular assessment of labour market prospects for over 30 years. Unlike Finland, and some other countries such as the US, it has chosen not to do this ‘in house’ within a ministry or government department, but to commission others to do it, on its behalf. This is seen as having certain advantages. It allows the government and others to distance themselves from the results. It also means that those producing the projections do not need to be quite so concerned about the political sensitivities of any results produced. It has also led to the establishment of a range of organisations competing to provide such services. However, while the latter may have some advantages it also tends to result in pressures to cut costs which can impinge on the quality of the work undertaken. The commercial competitive approach works best when the intellectual property rights associated with the outputs can be protected. It is less successful when the aim is to widely disseminate the results as a ‘public good’. This tends to undermine the market for those providing such results. The Finnish model provides some lessons for the UK in terms of the benefits of centralised government support for such work and the benefits of a long term approach.

The methods used in the UK have been documented in detail elsewhere. Wilson (2005) provides a technical description of the sources and methods used to generate the set of occupational employment projections presented in Working Futures 2004-2014 (Wilson et al., 2006). These are the latest projections produced on behalf of the UK government. They were prepared by the Warwick Institute for Employment Research (IER) and Cambridge Econometrics (CE) on behalf of the Sector Skills Development Agency (SSDA), which is part of the Skills for Business network. They update an earlier set produced in 2003 (Wilson, 2003). Wilson (2005) summarises the methodological approach employed to generate the projections, which are the most detailed and comprehensive ever published in the UK (involving the projection of over half a million time series on employment alone). Other projections are also produced in the UK, by, and on behalf of, a variety of organisations. These are too numerous to detail here, but they generally adopt similar methods (for a review see Wilson et al., (2004)).

In general terms the details of the methodological approach used in the Working Futures work are similar to those used in Finland. A multisectoral macroeconomic model is used to produce an assessment of the prospects for sectors at a detailed level. They distinguish some 41 sectors, defined using the UK Standard Industrial Classification (SIC). This is broadly consistent with international systems. This approach attempts to reflect the various drivers affecting the prospects for each sector, including the world environment, international competitiveness and government policy.

Implications for skills are derived from an analysis of differences in occupational requirements within sectors and how these are changing over time. Information on occupations is complemented by data on qualification patterns within occupations. The occupational assessment also recognises the need to measure replacement needs as people leave the workforce for whatever reasons. Occupations are classified using the Standard Occupational Classification which is compatible with ISCO. Qualifications are measured using a new national Qualifications Framework (NQF) developed by the Qualifications and Curriculum Authority (QCA). The UK systems of classification are designed to try to differentiate sector, occupation and qualification dimensions. The supply side is focused upon gender, age and qualifications.
The projections produced are generally seen as providing useful information and intelligence for all labour market participants. This includes individuals making career choices, education and training providers, and employers, as well as policy makers. They are not used in a prescriptive fashion to set quotas for types of courses. Mechanistic workforce planning is generally regarded as not a practicable proposition in a freely operating, market economy. The projections are seen as providing broad brush information about the current position, and possible future developments, which all these groups can use in making decisions.

The main emphasis is on the medium term, although there has been a tendency in recent years to look rather further ahead. For example, the Leitch Review of the UK “optimal skill needs”, which is being undertaken at the behest of the Chancellor of the Exchequer, has involved extending the Working Futures projections forward to 2021 (see Leitch, 2005 and Beaven et al., 2005).

Most of the officially funded projections over the past 30 years or so have focussed upon presenting a single benchmark projection rather than developing a range of scenarios. This is not because either the sponsors or the producers of the projections think that they can predict the future with any great precision, rather that there is a great interest in the detail for its own sake and providing alternative scenarios for very detailed forecasts risks confusing rather than helping the user.

Nevertheless, there has been considerable interest in recent years in developing more qualitative scenarios, which can be seen as a complementary approach. Such non-quantitative methods are especially well suited to situations where the underlying historical data base is weak. For example, a number of the newly formed Sector Skills Councils (SSCs), which are part of the SfB network, are not content with the SIC based data available for their sectors. They are beginning to develop data more suited to their needs but in the meantime are exploring the use of more qualitative approaches.

Despite such concerns, the general consensus is that the UK is relatively well served with data in this area, although relatively few of the most important data sets which are used were designed with this kind of use in mind. Some new surveys have been developed in recent years which attempt to address the problems that this causes and there is still considerable scope for further improvement. However, the existing data allow fairly sophisticated and detailed analysis, along similar lines to that carried out in Finland.

There seems little doubt that, in general terms, the models of forecasting skills and labour market needs used in Finland and the UK are transferable to other situations and other countries in Europe. Indeed, this has already happened in many cases, with varying degrees of sophistication. However, as in most complex problems, the devil lies in the detail. What is possible tends to be constrained by both the institutional and legal infrastructure but also by what might be termed the statistical and modelling infrastructure that exists. In countries like the UK and Finland, where the latter is relatively strong, it is possible to adopt similar approaches, and in most cases this is already underway. In other cases less ambitious objectives may need to be set.

Extending this kind of approach to Europe more generally requires certain minimum data requirements. These were set out in some detail in Wilson and Lindley (2005). This was in the context of an event organised by CEDEFOP which was concerned with the feasibility of developing a Pan European approach to skill needs forecasting.

CEDEFOP, and its network Skillsnet, could provide an appropriate international framework to be used for this kind of anticipation. The present network is a fairly loose arrangement. It involves both academics and governments, as well social partners and some other institutions engaged in anticipating skills needs in their respective countries. The EU could play a key role by providing funding to help nurture this network and gradually to develop more consistent and compatible approaches.
In the short-term it is possible to envisage some initial steps based on information and models currently available. While these might be less sophisticated than those already available in some countries, this would enable a consistent and comprehensive picture for the whole of Europe to be produced for the first time. The next CEDEFOP expert workshop is being jointly organised by the Warwick Institute for Employment Research and the Research Centre for Education and the Labour Market (ROA) from Maastricht University in the Netherlands. This will take place in Warwick on November 2nd and 3rd, 2006. It will include presentations of some preliminary results for all 25 countries now in the EU, based on using a consistent data set drawn from the Labour Force Survey, combined with sectoral projections using the E3ME macroeconomic model.

3. Key current issues in the UK and concluding remarks

A number of issues which are the subject of current debate in the UK can be highlighted, some of which have already been introduced above. These include:

- **The need to focus on the demand for skills by employers** rather than (as in the past) just meeting the demands from individuals. The SfB network is beginning to make a difference here, but there are still significant issues about how to persuade employers to adopt ‘high skill’ strategies, as well as more practical concerns within the SSCs about how to go about anticipating future skill needs for the employers they represent, including limitations of the existing data.

- **Concerns about productivity performance** and the need to identify the UK’s “optimal skill requirements” (the Leitch Review). This reflects a view that in order to maintain living standards and full employment the workforce will need to be appropriately equipped with the skills needed in a 21st century economy. The debate about how to ensure this remains unresolved.

- **Increasing emphasis on key, core and generic skills** and competencies, as opposed to occupations and formal qualifications. Employers increasingly emphasise the need for communication, customer handling and team working skills, rather than more technical and academic ones. However, there are problems in how to adequately measure these.

- **The increasing importance of migration** and the changing mix of the workforce by ethnic group, with related concerns about social exclusion and polarization. Until relatively recently migration has not been a very significant issue on the political and economic agenda in the UK. With the expansion of the EU and the much greater ease of transport movements, this has now become a major issue, with the net flow of migrants rising very significantly. While in proportionate terms the numbers remain quite small, their political significance is huge, and these problems are likely to increase.

It is clear from the discussion at the meeting that the issue of migration is a key one in many other countries, especially the smaller ones and for some of those who have only recently joined the EU. This raised some interesting questions in the debate about the extent to which it is feasible to model supply and demand at an individual country level, given the opening up of national borders to labour market movements within Europe. In many cases, young people in particular are looking well beyond the borders of their own country of birth when making career choices. This increases the weight of argument in favour of a Pan European approach to such issues and the need for the EU to play a more active role, complementing what is being done by individual States, but providing a broader overview of changing skill needs across all countries.
The Finnish approach offers a number of useful lessons as to how to approach such matters, although few other countries would probably regard such work as providing such a direct input into decisions about educational provision as is the case in Finland. While the discussion in the meeting was in broad agreement that some kind of regular forecasting of skill needs is both desirable and useful, few would argue that it should be used to manage the process of trying to match supply and demand precisely. It is necessary to build flexibility into systems of educational provision, including recognising the importance of lifelong learning (as opposed to simply focusing upon initial education and training for young people).

References


