

REPORT

Human resources in the context of regional development

Company skills survey

Summary report



European Training Foundation



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Villa Gualino, Viale Settimio Severo, 65, I-10133 Torino
Tel: (39) 011 630 22 22 / Fax: (39) 011 630 22 00 / email: info@etf.eu.int
Web: <http://www.etf.eu.int>

The European Training Foundation is an agency of the European Union which works in the field of vocational education and training in Central and Eastern Europe, the New Independent States, Mongolia and the Mediterranean partner countries and territories. The Foundation also provides technical assistance to the European Commission for the Tempus Programme.

This report was published with the financial assistance of the European Training Foundation. The views expressed herein are those of the author and do not necessarily represent any official view of the Foundation.

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January 2002

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1. Executive summary

1.1 Introduction

The aim of the project discussed in this report has been to assist National Observatories and regional representatives in five candidate countries to:

- undertake an in-depth demand-side qualitative assessment of emerging regional small and medium-sized enterprises skill needs;
- examine demand-side perspectives in the context of local supply-side infrastructure; and
- prepare the context for the development of intervention strategies.

The exercise has covered companies in a variety of sectors across five very different regions within economies that are at different stages of the transition process. The regions have per-capita GDP levels that range from 26% to 53% of EU15 levels with corresponding variation in employment profiles.

1.2 Observations

1.2.1 Trading environment and human resources development response

The majority of organisations have experienced an improved trading environment alongside substantial productivity growth. Human resources development responses to this changing environment have focussed prominently on job interchange and multi-skilling but the proportion of employers indicating that their workforce is a 'major strength' to their organisations is, at best, 40%. This suggests that a relatively large number of companies do not assign 'significant value' to the role and contribution of their workforce or have some dissatisfaction with their capabilities.

1.2.2 Labour turnover, skills and recruitment

Employers appear to have implicit concerns about the skills capability of their workforce and between 28% and 65% report skills shortages. These are not insignificant magnitudes and suggest that the competitiveness of firms in all regions is being constrained to some degree.

In most cases employers appear to take the view that they are key agents for skills development but that employees also have an important contribution to make. The role and responsibility of government in skills development is generally seen as limited.

The impact of difficult-to-fill vacancies on performance is primarily seen in lower profitability, bottlenecks and reductions in efficiency and reduced forward planning with responses dominated by an attempt to increase productivity and the job range of staff. The decision to undertake more training is relatively limited.

1.2.3 Training and human resources development

The proportions of companies reporting training and development activities (above and beyond routine induction and legislative requirements) are relatively high though this may be explained in some instances by supplier training accompanying capital equipment purchases. However, what evidence exists suggests that there may exist an element of skill-bias in some of the study areas – greater training being provided to those occupational groups with a relatively greater stock of initial skills.

Additional questions also indicate that the nature of training provision conforms to this general pattern with higher skilled workers tending to receive more formal and systematic training investment but that graduate and management training remains an area of relative under-investment across most of the regions.

Evidence from the survey exercise indicates the general absence of a coherent and integrated human resources development framework in most if not all of the regions. Despite the fact that the survey results clearly profile the connection between human resources development and growth, it remains the case that many organisations fail to bind together business development and human resources development policies.

1.3 Conclusions

The exercise reported in this document has represented a commitment of a large number of persons and organisations in the study regions. It has also been an important exercise for three primary reasons, namely it has:

- provided a coherent way of assessing demand-side skills and training issues ‘in context’;
- addressed the type of issues that will need to be considered in the progression towards Structural Funds Programming; and
- assisted the development of ‘evidence-based’ labour market intelligence needed to secure and access an adequate resource base for human resources development policy interventions.

Despite the variation in regions and sample sets, the exercise has provided a profile of demand-side considerations and attitudes that are broadly consistent across regions. The study has pointed to a number of potential deficiencies and inconsistencies in employer perspectives towards human resources development within their organisations and assisted regional organisations to form an initial set of recommendations designed to enhance opportunities for growth.

Analysis of the results also indicates that there exists an underlying rationality across the sample set in terms of patterns of responses to underlying difficulties. Skill shortages and training levels appear to be more pronounced in regional companies experiencing strong market and productivity growth as well as being positively related. This is a promising outcome but the evidence remains that large numbers of employers undervalue the potential contribution of employees and fail to adopt a structured approach to human resources development.

The challenge for regional bodies is to take the results of the exercise forward, to establish mechanisms to implement proposed recommendations through existing and new partnerships and to monitor progress and improvement. Other considerations include that of replicating the exercise within other regions and over time. All labour market intelligence is time limited in relevance as economic conditions, policy interventions and organisational development combine to alter the fundamentals of the labour market.

2. Introduction and background

2.1 *Introduction*

This report has been produced in the context of the European Training Foundation's 2001 work programme. The aim of the project has been to assist national observatories and regional representatives in five candidate countries to undertake an in-depth demand-side qualitative assessment of emerging regional small and medium-sized enterprises skill needs. The project follows on from previous exercises supported through the European Training Foundation work programme and managed by the respective national observatories.

Planning for the project was undertaken via two preparatory meetings in Turin during Autumn/Winter 2000. The first, attended by national observatory representatives, European Training Foundation and a EU expert, was convened to discuss the proposed survey instrument, operational details, reporting and dissemination arrangements. The second was broadened to include members of the survey team and organised to provide training activity and support. Additional written study guidance was provided by the European Training Foundation prior to the onset of the exercise.

Each national observatory subsequently held focus groups of employers to examine the wider validity of survey results before providing a draft report for comment to both the European Training Foundation and the EU expert. A variety of dissemination events were also held in the regions participating in the exercise.

The objective of this report is to draw together the broad findings of the project and to provide a reference point for future activity in the candidate countries. The summary is based on the individual reports produced by each project team rather than the source data. This complicates elements of the comparative exercise for although the same basic survey instrument is used in each country, different teams choose to emphasise different aspects of their projects and do not necessarily present identical information for any particular issue under discussion.

2.2 *Background*

The important role attributed to human resources development in promoting competitiveness and growth in regional economies is widely recognised. National observatory studies, supported by the European Training Foundation Phare Programmes, have placed great emphasis on evaluating skill levels and supply-side vocational education and training infrastructure in specific regions of the candidate countries. This exercise, alternatively, focuses on the demand side of the labour market and seeks to examine the role of small and medium-sized enterprises employers in the skills development process.

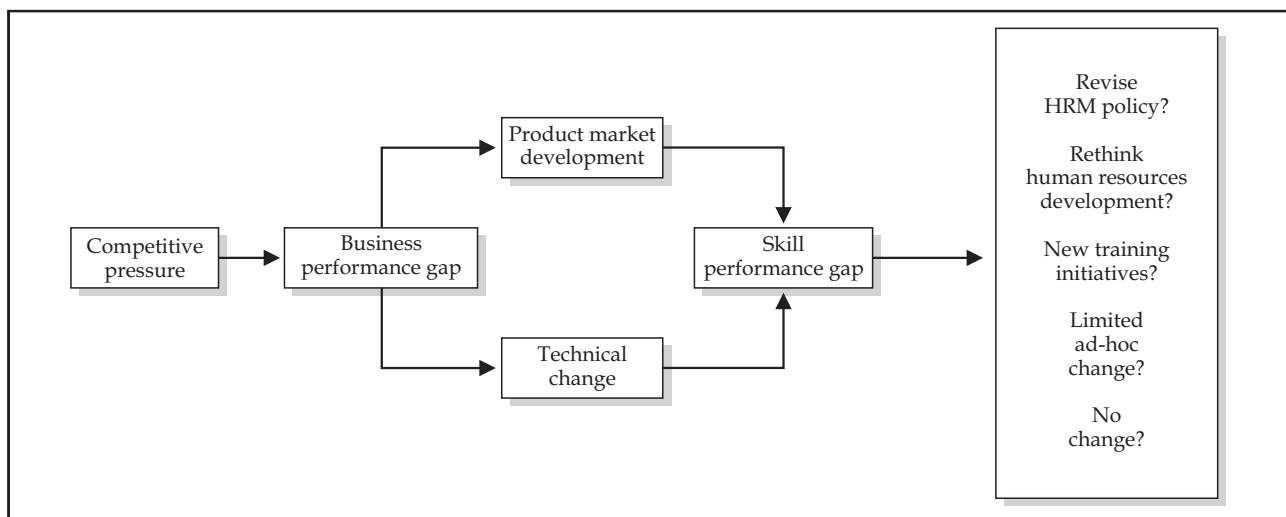
The study is based on the premise that the demand for skills, their deployment and use by employers within the productive process are all critical aspects of the wider regional development process. More fundamentally, however, it is based on the premise, illustrated in Figure 2.1, that any attempt to examine the 'attitude to skills' of employers in isolation from the commercial context in

which their businesses operate is likely to produce a misleading interpretation of their perspectives on human resources development.

Likewise, any human resources development intervention strategies that are being considered are much more likely to be effective if they are 'context sensitive' – if they take account of how employers relate/define skill needs to wider product market strategies and general economic performance. In addition, there is a risk that any analysis of skills shortages and gaps that ignores the views of firms may unwittingly attribute the origins of such difficulties to individuals who lack skills or on education institutions that fail to teach them.

There exist many shortcomings in firm behaviour that affect skill utilisation and performance - poor management, fear of empowering workers, pursuit of low-wage options and the depression of wages, benefits and working conditions. Employers often complain about 'skill shortages', but it not always clear what they really mean by this, and whether such shortages are caused by failures in the labour market as a whole or failure by employers themselves to invest in training their workforce.

Figure 2.1: Business performance and human resources development responses



More generally, the fact remains that, both within EU members and candidate countries, we still have much to learn about the way in which organisations deal with the issue of skills. We know that the concept of skills is interpreted very widely and that the notion of a skills shortage is viewed in a number of different ways.

We do not, in practice, know whether firms:

- ever take stock of the skills inherent within their workforce and, if so, the basis on which that judgement is made;
- ever consciously examine the skills of their workforce in relation to the development of the products they supply or the markets they serve;
- whether small and medium-sized enterprises actively consider skills as an element contributing to their competitiveness;
- consider the acquisition of skills by their workforce as a benefit or cost;
- fail to recruit graduates and school leavers due to lack of awareness, accessibility, cost, lack of work experience or other reasons; and
- respond to such issues differently depending on their particular size, sector or level of turnover.

It is important that we seek to find answers to such questions since the competitive position of any region will be seriously undermined if circumstances arise whereby a low-skill bad-job trap strategy is adopted by employers since a large proportion of the workforce will remain unskilled, firms will have little incentive to provide good (high skill/wage) jobs and, as a result, workers will have little incentive to acquire skills.

This exercise has been designed to investigate some of these issues through a primary research process involving detailed face-to-face interviews with a large number of organisations across five candidate countries' regions:

- Czech Republic: North West Bohemia;
- Estonia: South Estonia;
- Hungary: South Great Plain region;
- Lithuania: Lithuania; and
- Poland: Lubelskie Voivodship.

A simple description of the study is that it seeks to find out “how do employers obtain and maintain the workforce they need to be able to operate and compete?” It is therefore directly concerned with issues such as recruitment, retention, training, job mobility within organisations and whether the vocational education and training system produces people who have skills that are relevant to employers' needs and skill shortages in the context of small and medium-sized enterprises business development.

The exercise represents an attempt to understand how employers operate so that future support can be targeted better and more effectively. It is not an attempt to judge how employers are performing but to show that their importance in the regional economy is recognised and that information needs to be gathered to provide better help and assistance.

Remaining sections of this report outline the origins and nature of the survey instrument used and provide a summary of the primary findings. At the outset, however, it is important to place the study area in a wider comparative context to inform the interpretation of findings.

Figures 2.2 and 2.3 provide Eurostat details on comparative GDP performance and employment characteristics of the study areas. Per-capita GDP in each of the regions is at least 50% lower than that of the EU15 with North West Bohemia at the top and Lubelskie at the bottom of the range.

Likewise, North West Bohemia and Lubelskie provide the two reference points in terms of employment profiles. The former has the smallest, and the latter the largest, share of employment in agriculture across the study regions. North West Bohemia has the largest industrial workforce share but South Estonia has the largest service sector employment share.

Figure 2.2: GDP per head 1998 (EU15=100)

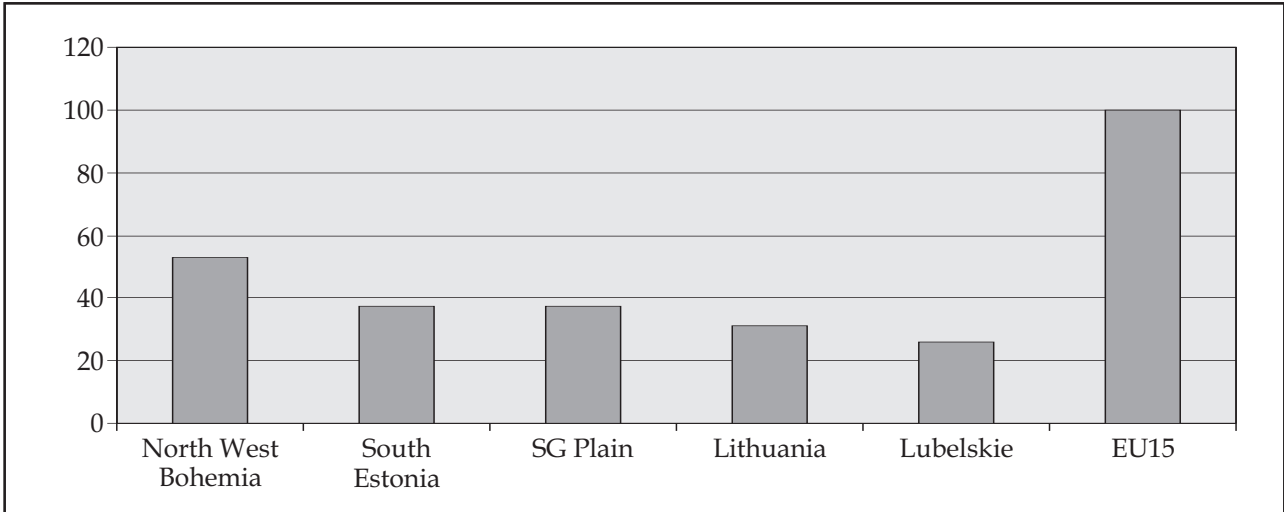
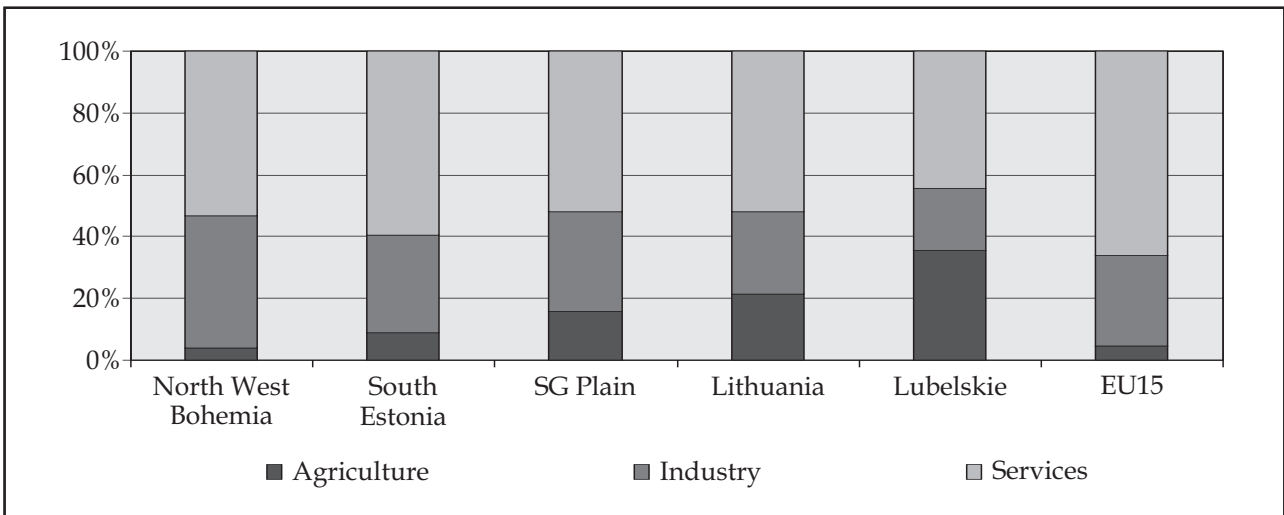


Figure 2.3: Employment by sector 1999 (% of total employment)



3. The survey instrument and sample base

3.1 *The survey instrument*

The origins of the survey instrument employed lie in a nationwide exercise carried out in the United Kingdom during the course of the 1990s called the Employers Manpower and Skills Practices Survey (EMSPS). This exercise fully piloted the basic survey and the fieldwork included face-to-face interviews with 1,700 companies. The tool was also used as the basis for additional study exercises in the North West of England and, through ETF, Kyrgystan.

The questionnaire is divided into 6 sections, outlined in Figure 3.1 and 3.2, and covers:

- the workforce and processes of change;
- turnover of employees;
- skills and recruitment;
- training and development activities;
- in-depth questions on the skill shortages in particular occupational groups;
- beyond the establishment – the business environment.

Sections A to D are concerned with the workforce as a whole, although a number of questions ask for details relating to each occupational group at the establishment. Section E seeks information on a maximum of two specific occupational groups displaying extensive skills shortages. Section G looks at general processes affecting the establishment, but with a focus upon external influences.

Figure 3.1: The survey instrument

<ul style="list-style-type: none"> ● Section A - Background <ul style="list-style-type: none"> * Contact details * Ownership * Size of workforce * Occupational change * Organisational development & training * Productivity ● Section B - Employee turnover <ul style="list-style-type: none"> * Rate & occupations * Recent/future redundancies & occupations/operational areas 	<ul style="list-style-type: none"> ● Section C - Skills & recruitment <ul style="list-style-type: none"> * Skill shortage by occupation & operational area * Skills assessments * Views on skills/future skills * Recruitment - internal, school-leavers, university graduates * Current/future DTF vacancies occupational/operational areas
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Figure 3.2: The survey instrument

- | | |
|---|--|
| <ul style="list-style-type: none">● Section D - Training & development<ul style="list-style-type: none">* Training levels* Training type (by-doing, open, place)* Multi skilling & retraining occupational/operational areas* Assessment* Facilities* Plans & budgets | <ul style="list-style-type: none">● Section G - Market/product issues<ul style="list-style-type: none">* Product development* Competitive factors* R&D* Sub-contracting* Design/development* Outside Links● Section E - Focussed skill shortages<ul style="list-style-type: none">* Job profiles/age/experience* Qualifications/qualities* Promotion/pay* Providers |
|---|--|

3.2 The sample base

3.2.1 Sector distribution profiles

In the course of the study exercise, some 952 firms were visited across the regions in the five participating countries. Figure 3.3 provides an indication of the sample distribution across each country as well as the distribution of the sample across sectors within each region.

Sector coverage has been relatively broad, though food processing, tourism, construction and the environment have been covered by at least two countries. Coverage of some sectors is relatively limited with the result that individual findings for such sectors will inevitably contain a greater risk of statistical imprecision. However, findings at regional level are likely to be more robust in most instances.

3.2.2 Size distribution profiles

Comparison of sample size distributions is complicated by different structures adopted in reports. It is possible to directly compare Lubelskie, South Great Plain and Lithuania by aggregating into three size bands – 1-50 persons, 51-250 persons and 250+ persons – and to directly compare the North West Bohemia and South Estonia via three different groups – 1-50 persons, 51-100 persons and 100+ persons.

The only way to compare all five sets of figures is to employ a simple definition with small firms defined as 1-50 persons and medium/large firms defined as 50+ persons. Figure 3.4 indicates the results of this classification and shows that in four out of the five participants, small firms represent over 60% of the sample distribution.

Figure 3.3: Sample profiles

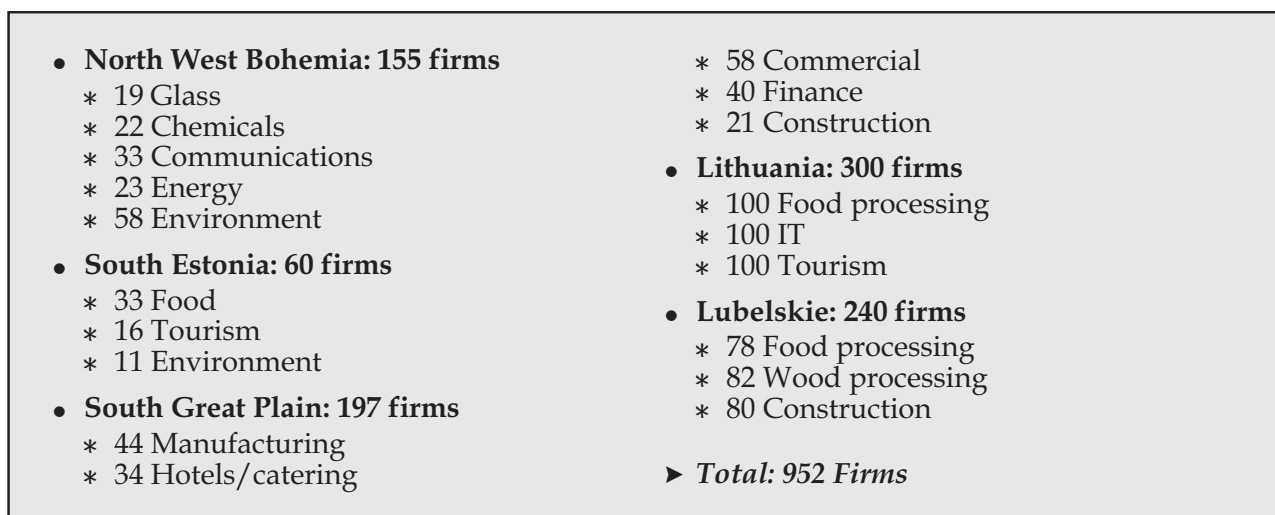
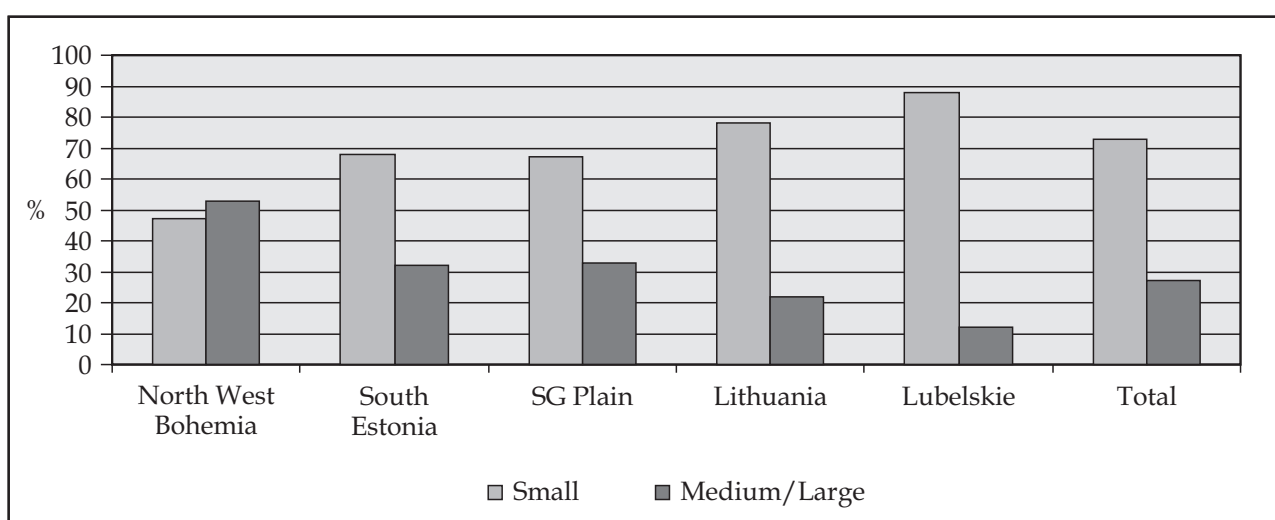


Figure 3.4: Sample size distribution



In the case of South Estonia and South Great Plain, firms with less than 51 employees account for just under 70% of the total sample. This proportion rises in the case of Lithuania and Lubelskie to just under 80% and 90% respectively. The distribution in the North West Bohemia is the only case where the number of firms with greater than 50 employees exceeds that for less than 50 employees. In terms of the overall sample, just over 70% of firms employ less than 50 employees.

4. The operating environment

In the course of interviews, firms were asked a number of questions designed to provide details about the trading and operating environment in which they function. A summary of key aspects of the information reported is contained in Annex 1.

4.1 *Market conditions and financial turnover*

In the two years prior to the exercise, the majority of organisations in the survey regions indicate a situation of expanding markets and turnover. The only exception, for the former, is in Lubelskie where the proportion of firms reporting market growth is some 30% in comparison to figures between 55% and 73% elsewhere. Figures for financial turnover also reflect a generally favourable trading situation with a majority of firms in each area reporting growth.

4.2 *Employment and productivity*

While the trading environment for participating companies has been relatively buoyant, follow-through to employment has been much more muted. Employment growth is reported by between 30% and 40% of firms across the regions but is balanced by similar proportions reporting employment loss. In the case of South Estonia and Lubelskie, the share of firms indicating decline is marginally higher than that reporting expansion.

Much of the employment loss has taken the form of redundancy with large numbers of firms reporting this form of separation over the course of the last two years. Prospects for the next two years are, however, somewhat brighter with significant reductions in expected redundancies (Figure 4.1).

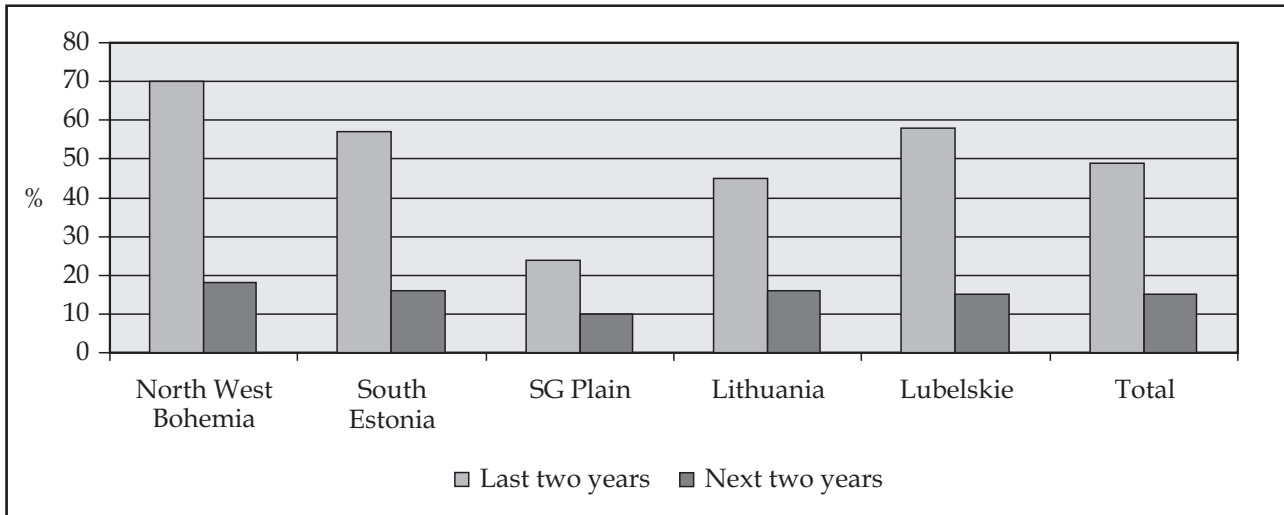
Another contributory factor for the employment profile is related to productivity growth which is cited as highly significant in all regions ranging from around 50% in Lubelskie and South Great Plain to over 70% in the case of South Estonia and the North West Bohemia. Figures of this scale will invariably have impacted to restrain employment growth in the face of market expansion. Some productivity decline is evident but is relatively limited.

4.3 *Competitive response*

There is evidence that firms in the surveyed regions have responded to the dynamics of the trading environment by attempting to improve their competitive position in the market place. There has been some attention to product design but more emphasis has generally been placed on product or service range and quality - between 50% and 71% of companies report attempts to increase their product or service range and 75% to 93% report increased attention to quality.

Some 70% to 80% of firms have introduced new products or services (the figure for Lubelskie is somewhat lower than elsewhere at 40%) though much of this activity has focussed on existing ranges or related fields. Significantly fewer numbers of firms have introduced completely new products/services despite four out of the five regions reporting more than 20% of organisations with some form of research and development activity on-site.

Figure 4.1: Redundancy patterns



Companies have also introduced changes in order to reduce costs, further promote productivity and improve quality. Between 70% and 80% have sought to lower costs and to increase productivity but between 80% and 90% have sought to improve quality. There is some variation across regions but the profiles are all consistent.

4.4 Competitive priorities

The importance attached to quality and quality improvements within survey organisations is reflected in the findings of questions that seek to elicit the relative weight attached to key competitiveness factors such as price, quality, responding to customers, marketing and advertising, product differentiation and availability/delivery.

Weighting the reported results by the numbers of firms in each region, the dominant factor is defined as quality with an average rating of 93%. This is followed by responding to customers (84%), price (75%), availability/delivery (71%), marketing/advertising (49%) and product differentiation (42%).

It is difficult to make observations with just five cases, but there is some evidence to suggest that while organisations in all regions attach great importance to quality, more importance is attached by those who export a higher proportion of their goods and services. There is no such evidence with regard to price or marketing/advertising, but some moderate evidence of links between exporting, product differentiation and availability/delivery.

4.5 Organisational change

Alongside more detailed questions about skills and training issues that are discussed in later sections, the initial review of trading context attempts to examine whether the variety of market pressures that organisations have been subject to have promoted any particular set of organisational changes. Overall, the most common form of change appears to have been job interchange though significant variation is present between regions. This is followed by introduction of total quality management, multi-skilling and job redesign. Adoption of just-in-time scheduling ranks low on the list of responses.

4.6 Human resources development response

Precisely how this profile of change feeds back into generic human resources development is investigated by another series of survey questions which invite organisations to indicate the nature of management focus on employee development. The dominant human resources development activity across the set of regions as a whole has been to develop employees for improved customer service. This is followed closely, however, by the desire to raise general competence and promotion of teamwork.

Asked to evaluate whether their general workforce meets their organisational needs, the proportion indicating that the workforce is a major strength lies in around 40% for South Great Plain and Lubelskie, 30% for North West Bohemia, 17% for Lithuania and 12% for South Estonia (Figure 4.2). Such figures would tend to indicate that **substantial numbers of employers across the regions believe that scope exists to improve the capabilities and contribution of their current workforce.**

Figure 4.2: Workforce quality

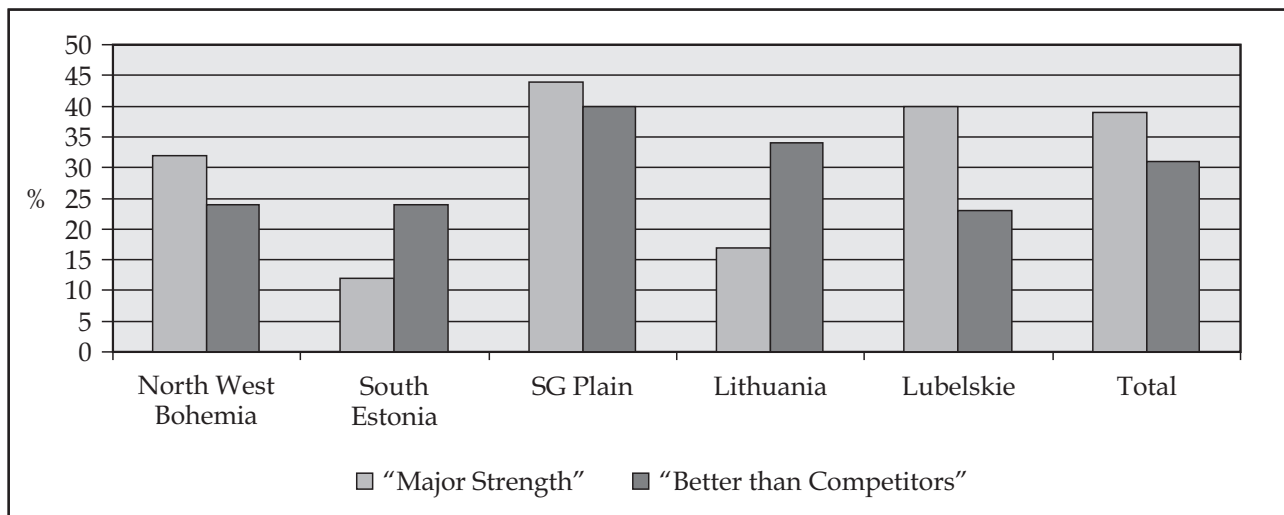


Figure 4.2 also reports the proportions of employers who perceive the quality of their workforce to be better than that of competitors. On the whole, this tends to be smaller than the proportion viewing their workforce as a major strength **indicating some concern over workforce quality.**

5. Skills and recruitment

Having established a series of contextual parameters, the survey instrument focuses on specific issues relating to skills and skills shortages. A summary of key aspects of the information reported is contained in Annex 2.

5.1 *Occupational change and labour turnover*

The nature of the profiles outlined in section 4 suggest that many organisations have been undergoing a sustained process of development in recent years. This is generally reinforced by the number of companies who report experiencing a change in the distribution of occupations internally within their organisations. Over 50% of companies in South Estonia, Lithuania and Lubelskie report such change though the figures for the South Great Plain and North West Bohemia are lower at 33% and 25%.

Employee turnover levels are relatively moderate in most instances but there is **evidence that some employers are facing difficulties**. Over 20% of companies in South Estonia and South Great Plain areas report labour turnover greater than expected. This is broadly double that in Lithuania and Lubelskie and North West Bohemia.

Problem occupations, in terms of turnover, appear remarkably consistent across all five regions. Elementary occupations, craft and plant and machine operators are the most common.

5.2 *Skill requirements and shortages*

There is widespread recognition among survey companies that the skills required of their workforces have increased over the last two years. A minimum of 80% and a maximum of 95% of firms acknowledge that demands placed on the skill-sets of employees have increased (Figure 5.1).

This is generally reinforced by the proportion of organisations ranking skills as ‘very important’. What is interesting, however, is to compare the difference between the proportion of firms ranking their workforce as a major strength and the proportion ranking skills as very important. Figure 5.2 shows that the latter generally exceeds the former by a significant margin suggesting that **employers have some concerns about the skills capability of their workforce**.

Confirmation of these concerns is given through estimates of skill shortages which are defined as situations where employers have not been able to identify anyone in the labour market with appropriate skills to undertake a specific task or have been ‘making do’ with existing but inappropriately skilled staff. Between 28% and 65% of employers report such shortages suggesting that between 1 in 4 and 1 in 2 employers are facing difficulties. Even at the lower end of the spectrum, **these are not insignificant magnitudes and suggest that the competitiveness of firms in all regions is being constrained**.

Figure 5.1: Increasing skill requirements

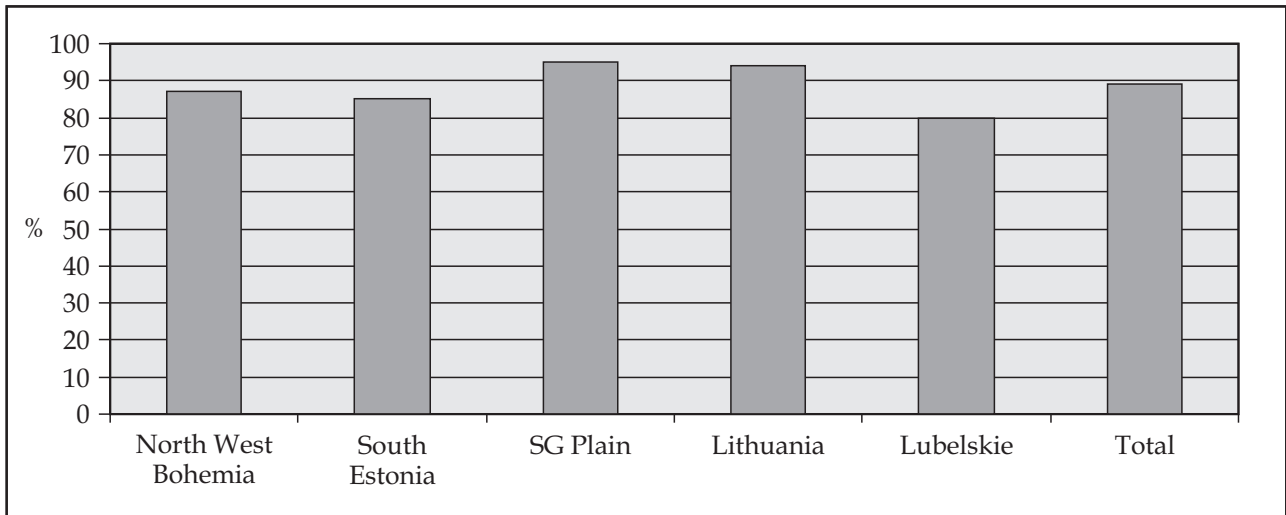
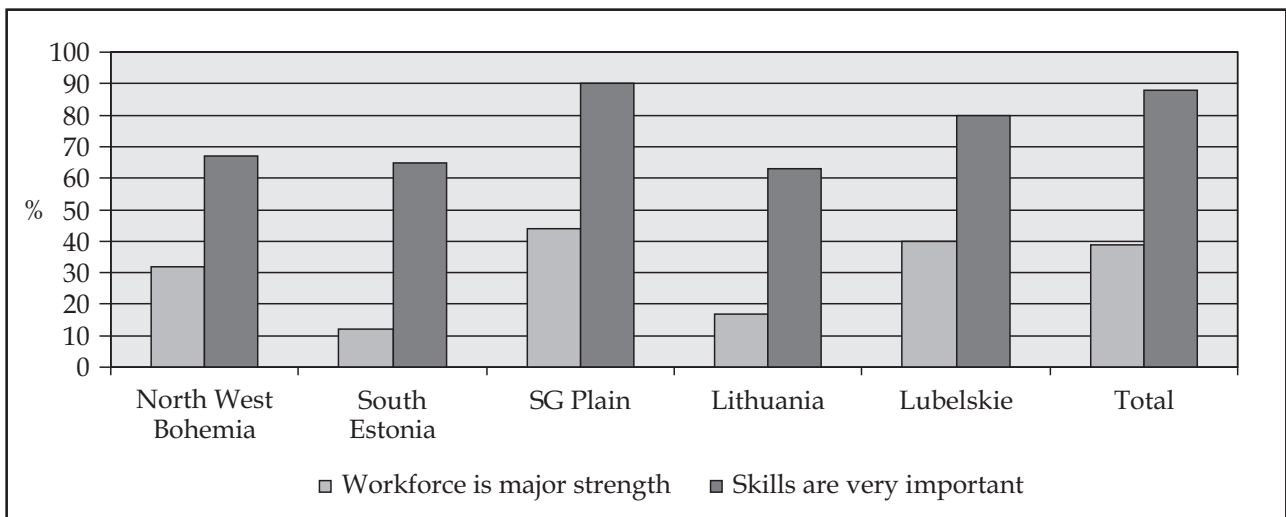


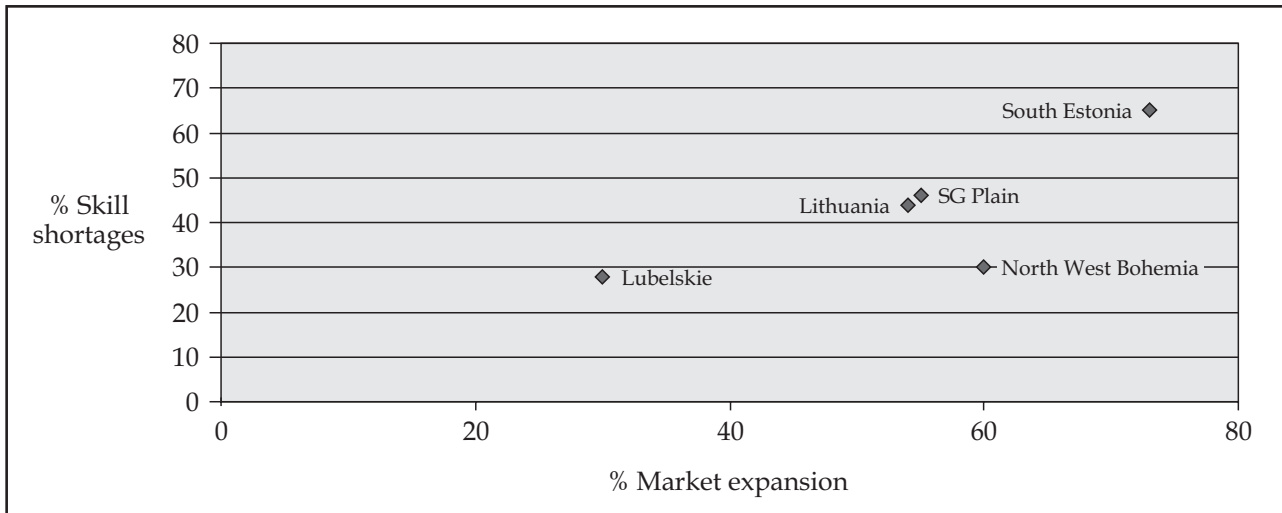
Figure 5.2: Workforce skills capability



The occupations creating difficulties are again relatively consistent across the set of regions participating in the exercise. Craft occupations are identified by four of the five regions, technical occupations are identified by three regions and service, sales and professional occupations are identified by two regions. The skills identified as being in particular short supply include technical skills, communication skills, language and creativity.

Figures 5.3 and 5.4 provide a simple cross-tabulation between the proportions of employers reporting skill shortages and the proportions reporting market and productivity growth. It is difficult with only five observations, and some care should be taken in assigning causality, but there exists prima-facie evidence that **skill shortages are more pronounced in organisations experiencing strong market and productivity growth**. Such a conclusion tends to be given a degree of support in those regional reports that undertake a similar exercise.

Figure 5.3: Skills shortage and market growth



5.3 Skills assessment

Organisations were asked to indicate whether, and the frequency with which, they undertake assessment of workforce skills. The results show some variation between regions. In the North West Bohemia, South Estonia and South Great Plain samples, some 80% to 90% of employers claim that they have previously assessed the skills of their workforce. In Lithuania the figure is 59% and in Lubelskie 17%.

Some of the focus group activity suggests that the high nature of some of these figures may reflect employer variation or misunderstanding of the concept of 'skills assessment' and indicates that *some care should be taken in interpreting this attribute*. Figure 5.5 suggests the not too surprising finding that more extensive skill shortages tend to be discovered as higher levels of skills assessments are performed.

Figure 5.4: Skills shortage and productivity growth

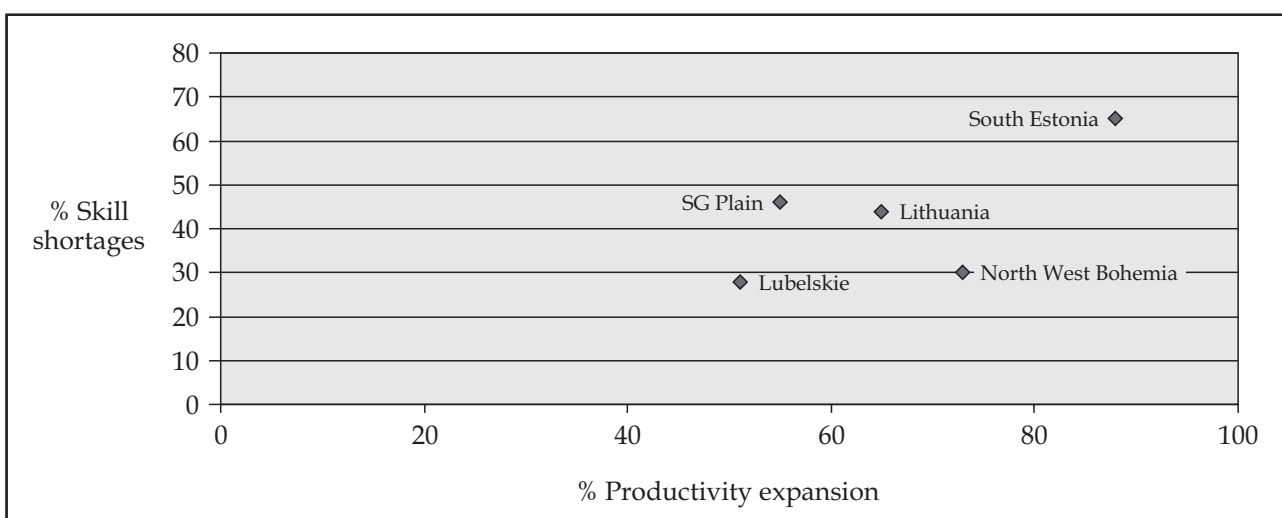
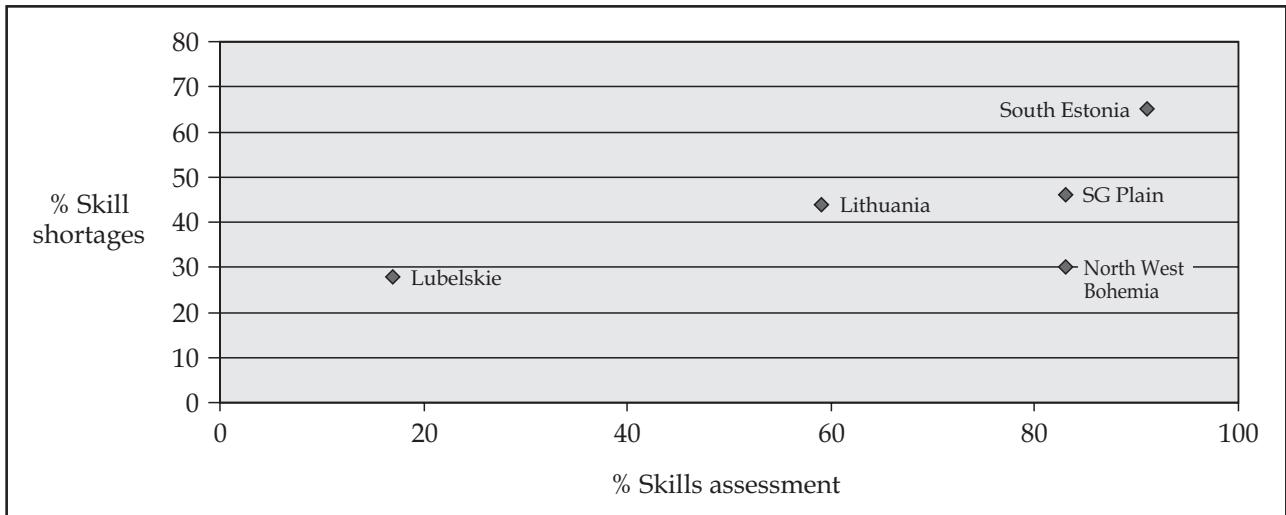
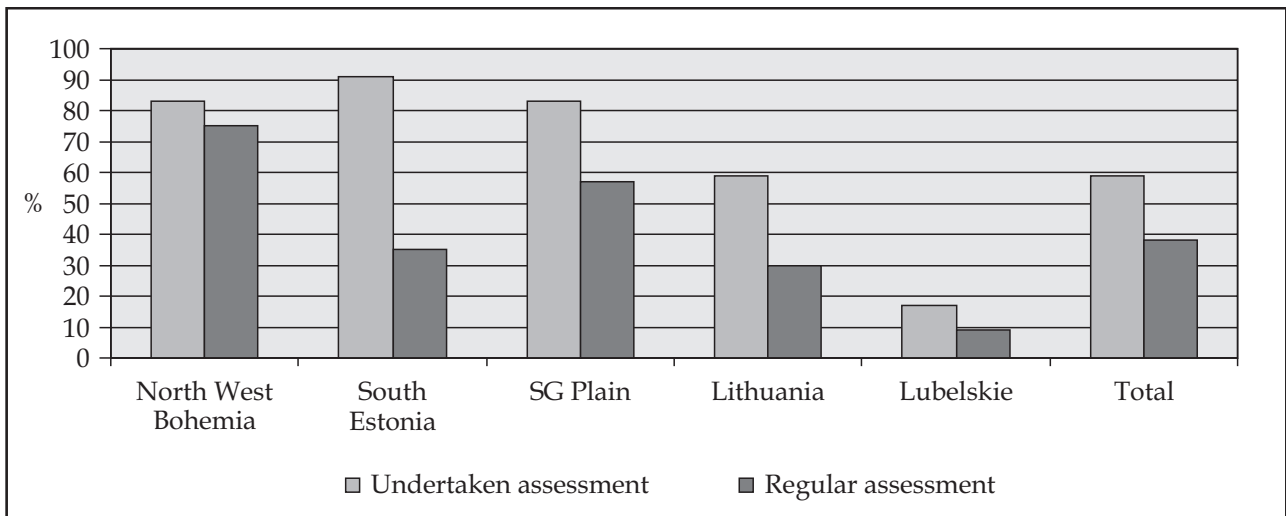


Figure 5.5: Skills shortage and skills assessment



It is instructive to note that the survey also enquires about the regularity with which employers undertake assessments. It is, of course, one thing to have undertaken an assessment but it is another to set in motion procedures to review skills development. Figure 5.6 shows that the proportion of companies undertaking regular assessments is generally lower than the proportion that have undertaken at least one assessment.

Figure 5.6: Skills assessment



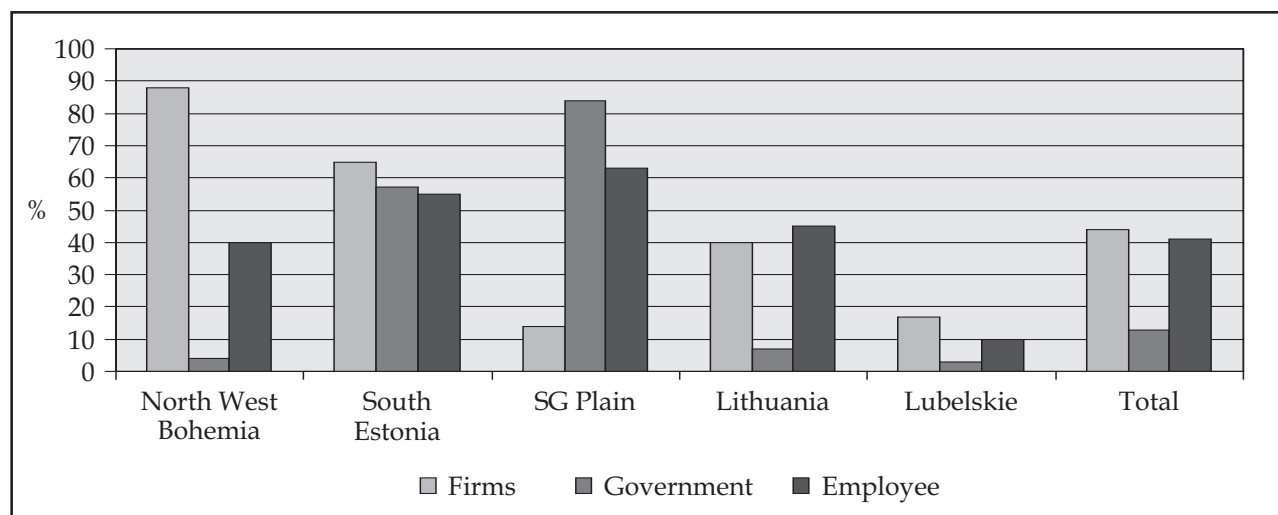
This is not a surprising finding but there do appear to exist substantial differences across regions. The differential is smallest for North West Bohemia where regular assessments are claimed by 90% of all those who have ever undertaken an assessment though again some care is required in the light of differing interpretations of ‘regularity’.

In terms of capacity to evaluate current and future skill needs, what evidence is available suggests that organisations that already had some experience in this area tend to feel that they have the internal capacity to address the issue and vice versa. Hence 83% of North West Bohemia firms have undertaken an assessment and 88% feel comfortable about capacity in this area whereas 17% of Lubelskie firms have undertaken an assessment and only 14% feel capable of so doing. It is also interesting to note that access to external intelligence on skills is very limited in the case of Lubelskie relative to other regions. Overall, there is some suggestion that **firms feel a little less secure about evaluating future skill needs** with positive response rates falling by between 10% and 20%.

5.4 Responsibility for skills development

With relatively large numbers of firms reporting some degree of prolonged skill shortage, the survey exercise invites employers to express their opinion as to the nature of responsibility for the development of workforce skills. Figure 5.7 provides the findings of this process.

Figure 5.7: Skills responsibility



Variation across the study regions is evident but in most cases employers appear to take the view that they are key agents for skills development. Over 80% of employers in North West Bohemia and South Great Plain areas cite themselves as bearing responsibility with figures of over 60% for South Estonia and around 40% for Lithuania. There is a marked drop in the response from Lubelskie where only 17% report in a similar manner. Such variation is not necessarily inconsistent with the differential nature of the latter area evident in other responses.

Alongside recognition of their role, employers also believe that employees have an important contribution to make to their own skills development. Over 50% of employers place some emphasis on employee own development in South Estonia, South Great Plain and Lithuania with figures of 40% for North West Bohemia and 10% in Lubelskie.

With the exception of South Estonia, the role and responsibility of government in skills development is seen as very limited.

5.5 Recruitment of school-leaver and graduates

Recruitment of school leavers is relatively widespread across all survey regions. When asked if they have recruited any school leavers over the previous years, most regions report a figure between 40% and 55%. South Great Plain is the exception in reporting a figure of some 78%. The same broad profile exists in terms of university graduate recruitment – most regions indicate a figure of some 20% to 25% while South Great Plain reports a figure of 51%.

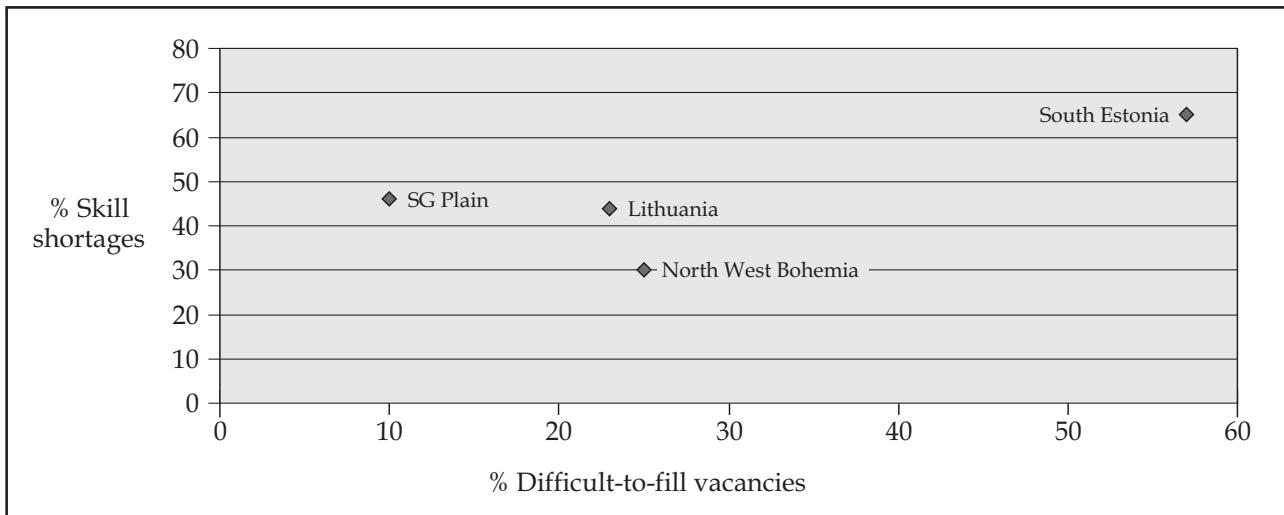
It is difficult to make generalisations but there are some signs that regions with greater skills shortages are relatively more likely to recruit school-leavers and university graduates. To balance this, there is no significant evidence of a relationship between productivity growth and school-leavers and graduates recruitment which may confirm the role of downsizing and capital development in the former rather than any supply-side skills improvement in the workforce.

5.6 Recruitment and vacancies

Information on whether vacancies have been difficult-to-fill presents an interesting contrast to data on skill shortages. It has been common, in many skill studies, for employers to interpret vacancies that are difficult-to-fill as evidence of skill shortage though they may equally reflect the nature and quality of employer attempts to secure appropriately qualified staff.

Figure 5.8 details the skills-shortage/ difficult-to-fill vacancy profile. Difficult-to-fill proportions for the North West Bohemia and South Estonia regions are relatively close to the skill-shortage proportions (25% compared to 30% for the former and 57% compared to 65% for the latter) with the result that one cannot rule out the role of difficult-to-fill vacancies in determining claims of skill shortages. In contrast, there exists a substantial difference for Lithuania (23% compared to 44%) suggesting a clear indication of a structural skills deficit among sampled organisations.

Figure 5.8: Skills shortage and difficult-to-fill vacancies



Firms reporting difficult-to-fill vacancies were also asked to indicate their impact on organisational performance. Among the subset of such firms, the highest response relates to lower profitability and is followed by bottlenecks or reductions in efficiency and reduced forward planning. Relatively few companies report any significant impact in terms of staff morale. Responses to the existence of difficult-to-fill vacancies is dominated by an attempt to increase productivity and the job range of staff – making existing staff achieve and produce more – followed at some distance by increased overtime. The decision to undertake more training is relatively limited.

6. Human resources development

Once the issue of skill shortages has been investigated, the survey instrument turns to the way in which organisations address training and general human resources development. In line with previous sections, a summary of key aspects of the information reported is contained in Annex 3.

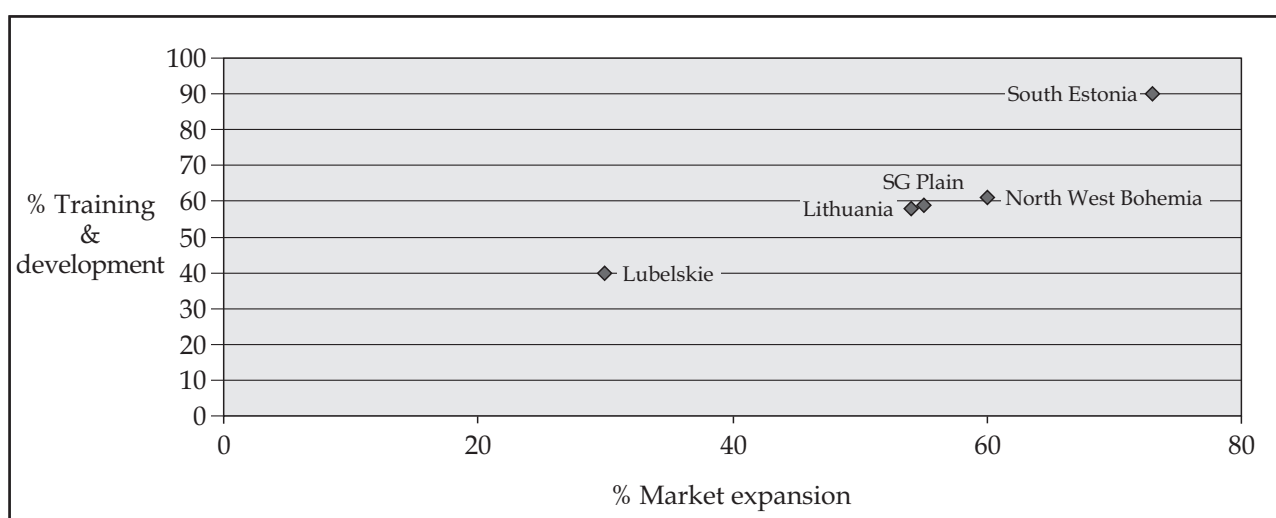
6.1 Training

Organisations were asked to report whether any training and development activities are provided for employees above and beyond routine induction and any activities that are required by specific legislative requirements. Responses are generally high, ranging from some 40% in the case of Lubelskie to some 90% in the case of South Estonia¹.

Figures 6.1 and 6.2, on the other hand demonstrate that the training profiles reported are broadly consistent with a-priori expectations. Figure 6.1 shows that the proportion of organisations providing training within sample regions increases in line with the level of market expansion. Figure 6.2 indicates that the same is broadly true in terms of productivity growth.

Figure 6.3 provides an additional perspective and shows, as one might expect, an inverse relationship between training provision and assessment of workforce quality. Where firms in sample regions feel that their workforce is weak they appear to invest in higher levels of training. Figure 6.4, finally, suggests that firms also tend to relate investment in training to the level of perceived skill shortage. Training proportions generally exceed skill shortage levels by a factor of some 30% to 40%, the only exception being North West Bohemia where the excess is some 100%.

Figure 6.1: Training and market expansion



¹ This figure may be connected to high import level of capital equipment with associated supplier provided training.

Figure 6.2: Training and productivity growth

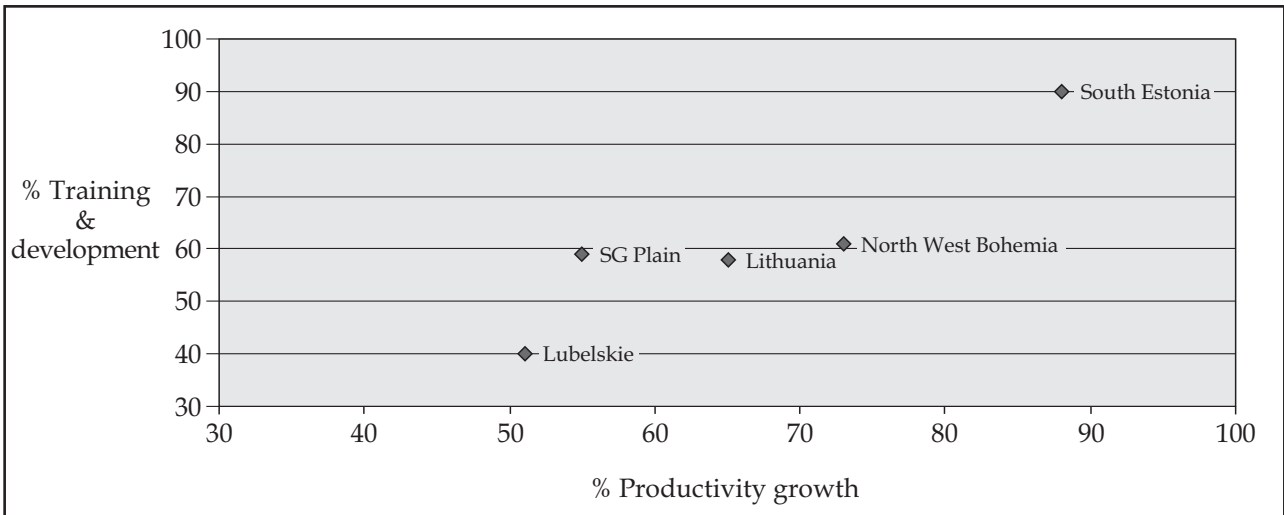


Figure 6.3: Training and workforce quality

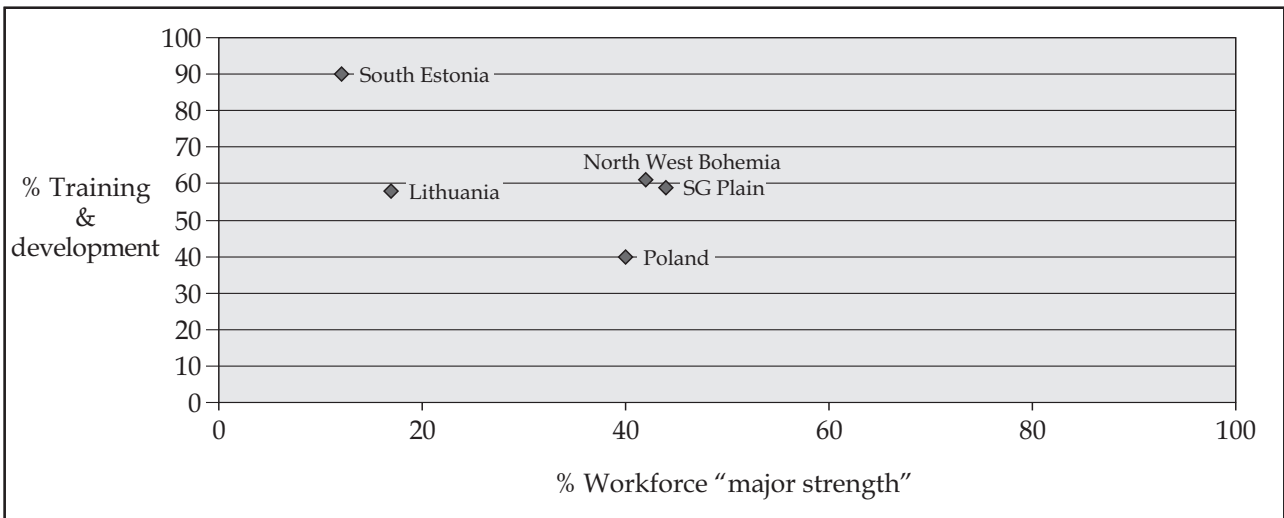
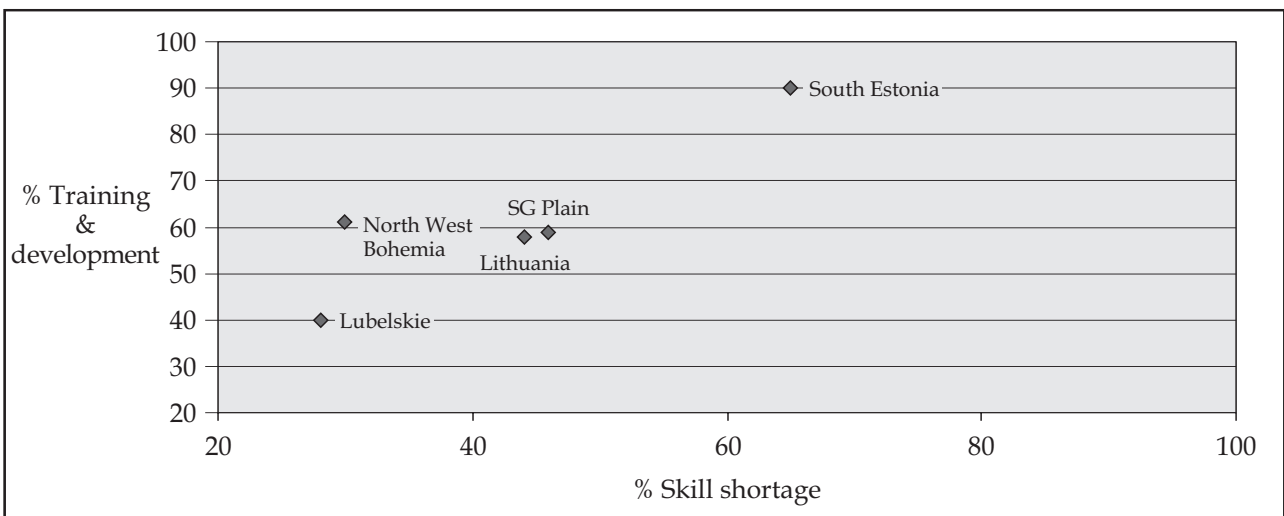


Figure 6.4: Training and skill shortage



6.2 *Training intensity*

As a balance against high reported training levels, the survey tool asks employers to detail the proportion of employees who have participated in such activities over the previous 12 months. Comparisons are difficult due to differences in regional reports but the evidence that is available suggests that:

- North West Bohemia - higher proportions of companies provide training for administration, technical and senior officials with highest number of training days provided for technicians and senior managers;
- South Estonia – senior, professional and craft occupations receive highest number of training days with lowest number for plant and machine operators and elementary workers;
- South Great Plain – highest number of training days allocated to administration with little variation elsewhere.

What evidence exists raises the suggestion that **there may exist an element of skill-bias in some of the study areas** – greater training being provided to those occupational groups with a relatively greater stock of initial skills. Additional questions also indicate that the nature of training provision conforms to this general pattern with higher skilled workers tending to receive more formal and systematic training investment.

6.3 *Graduate and management training*

The proportion of companies providing training for graduate entrants varies between regions. Figures for Lubelskie and South Estonia are equal to or less than 5% whereas that reported for South Great Plain is 20%. Management development structures are more prevalent than those for graduates but are still reported by only 30% of organisations at most. Such figures suggest that **graduate and management training remains an area of relative under-investment across most of the regions.**

6.4 *Performance and training assessments*

The proportion of firms undertaking assessment of employees shows a clear divide across the sample areas. At one end of the spectrum lie Lubelskie and South Estonia with responses around 90% and at the other lies Lithuania with 27%. The figure for Lubelskie is noticeably high in relation to some of the other responses cited elsewhere in the report.

Figure 6.5 provides further information on training provision, results and needs assessments. Three regions (North West Bohemia, South Estonia and South Great Plain) have a higher proportion of companies providing training than assessing training needs. In Lithuania there is a rough balance whereas in Lubelskie the proportion assessing needs vastly exceeds the proportion providing training support.

6.5 Integrated human resources development

The general responses of companies to questions regarding skills and training issues indicate that many employers are aware of the importance of these considerations in the context of growth and development.

Figure 6.5: Training profiles

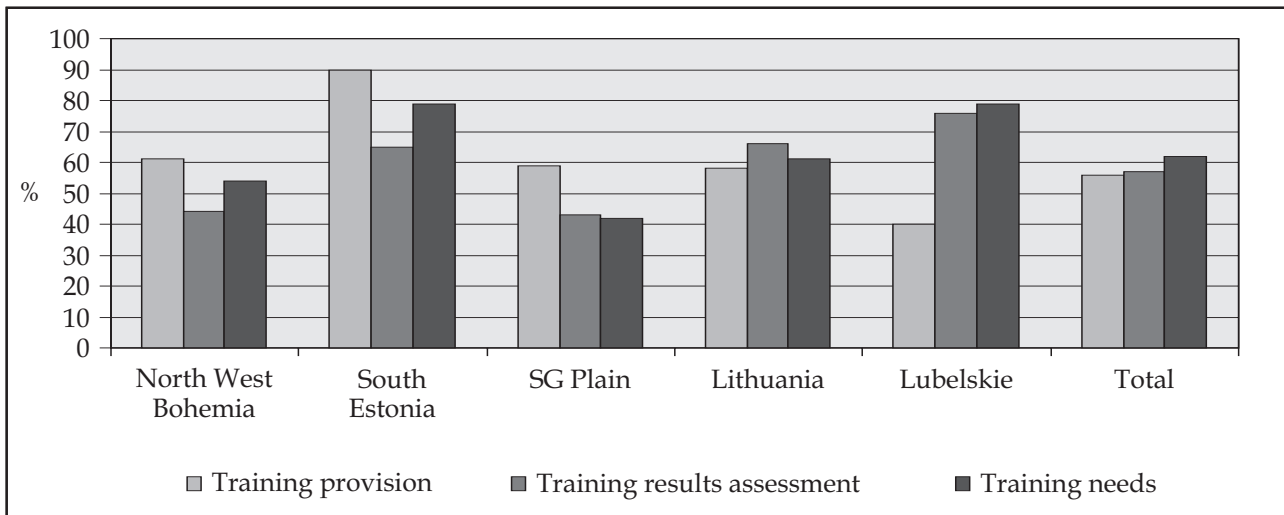
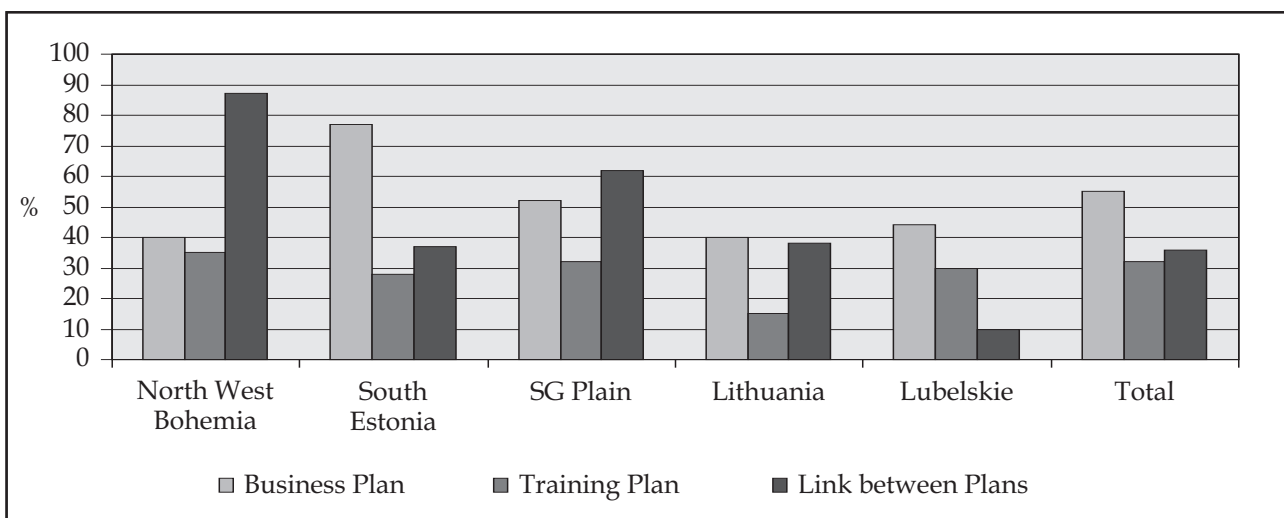


Figure 6.6: Integrated human resources development infrastructure



However, evidence from the survey exercise indicates the general absence of a coherent and integrated human resources development framework in many of the regions. Figure 6.6 reports the proportion of companies who claim that they have business or training plans and the proportion that cite that the latter is linked to the former. The proportion with training plans varies from just over 15% to just 35% and is lower than the proportion with business plans in all instances.

In terms of bringing together business and human resources development planning, and despite the fact that the survey results clearly profile the connection between human resources development and growth, **there is a variable performance in terms of organisations formally linking together business and human resources development policies.** This generally represents a significant lost opportunity and a major area of potential future activity.

7. Study team recommendations

In the light of the study exercise, each of the study teams have sought to provide a series of recommendations to address the weaknesses emerging from the overall project. Figures 7.1 to 5.5 provide a summary of the recommendations.

Figure 7.1: North West Bohemia recommendations

- Tax benefit structure should be redirected to strengthen incentives for both companies and individuals to increase investment into human capital.
- Companies need support to assess their workforce skills, to evaluate future skill needs and make their workforce more productive in combination with new technologies.
- Engage a broader range of regional agents in the formulation and implementation of measures and in the use of information and intelligence networks.
- Establishment of an agency to serve as consulting centre for regional companies to:
 - * support applications for EU financed projects;
 - * search for prospective participants in such projects and help with their implementation;
 - * coordinate efforts and activities of various local and regional agents in undertaking human capital development;
 - * disseminate best practice in skills and training (both domestic and foreign) in the regional business community.

Figure 7.2: South Great Plain recommendations

- Co-operation related to recruitment, training and skills assessment should be strengthened.
- Co-operation between companies and regional schools and universities should be strengthened.
- Regional information networks regarding workforce and skills should be set-up and operated.

Figure 7.3: South Estonia recommendations

- Need to encourage companies to give workforce issues parity of esteem with as important other area (finance, technical).
- Companies should be encouraged to prepare systematic training plans and to include these in business plans.
- Greater co-operation between enterprises, regional planners, training providers and vocational schools in workforce development issues.
- Closer contacts between enterprises should be increased, both in forms of informal networks, and through associations.
- More analysis of workforce issues for micro-enterprises and new business start-ups.
- More attention should be paid to social element of policy in future development plans.

Figure 7.4: Lithuania recommendations

- Further develop the qualification system and training of adults.
- Subsidise training companies to encourage competition among training providers and to develop the market of training services.
- Introduce incentives to encourage more extensive company contacts with training institutions.
- Increase training of IT specialists.
- Support training activities for managers of human resources.
- Support upgrading the qualifications of teachers.
- Initiate pilot programmes for the identification of skills and introduction of new teaching methods.
- Initiate pilot programmes for the joint development of training programmes involving employers and training institutions.
- Encourage group training activities to allow education and training service providers to focus their efforts on the development of specialised training programmes.

Figure 7.5: Poland recommendations

- Raise awareness of importance of continued skill upgrading of the workforce among owners and managers of companies and the influence of this activity upon company development and economic performance.
- Provide direct assistance to companies to aid assessment of workforce qualifications and prepare appropriate training plans linked to organisational development strategies.
- Partial co-financing of the training programmes for identified occupational groups in a given company.
- Develop a system of skill gaps identification (assessment of the most and the least needed qualifications on the labour market) and link to the assessment of vocational schools graduates.
- Establish good working co-operation between representatives of employers, local and regional self-governments and vocational schools with the aim to adjust vocational training to the employer and labour market needs.
- Promote life-long training among entrepreneurs and as one of the best ways of maintaining a well-qualified workforce.

8 Overview, observations and conclusions

8.1 Overview

Gaining an insight into the way in which many varied sets of organisations approach the evaluation and definition of skills needs is an important activity which not only complements consideration of the labour market supply side, but is vital to appreciating the wider human resources development context and the design of intervention strategies.

The aim of the project discussed in this report has been to assist national observatories and regional representatives in five candidate countries to:

- undertake an in-depth demand-side qualitative assessment of emerging regional small and medium-sized enterprises skill needs;
- examine demand-side perspectives in the context of local supply-side infrastructure; and
- prepare the context for the development of intervention strategies.

Demand-side studies are, however, rarely straightforward. They require access to organisations and the cooperation of individuals for whom responding to a series of structured surveys is both time-consuming and not an everyday event. The issues and interrelationships under investigation are complex and are difficult to examine other than on a face-to-face basis. Moreover, since face-to-face fieldwork and data collection is resource intensive, such studies are invariably constrained in terms of the numbers of employers that can be interviewed though the use of focus groups provides a mechanism for 'testing' findings among broader groups of employers.

This particular exercise has covered companies in a variety of sectors across five very different regions within economies that are at different stages of the transition process. The regions have per-capita GDP levels that range from 26% to 53% of EU15 levels with corresponding variation in employment profiles. However, despite such differentials many aspects of the demand-side profiles are broadly, if not completely, consistent. The scale of individual responses to particular issues may vary, but the nature of responses indicates much in common across the study areas.

8.2 Observations

8.2.1 Trading environment and human resources development response

The majority of organisations have experienced an improved trading environment alongside substantial productivity growth. This has been matched by muted employment growth with significant but improving redundancy conditions. Emphasis within organisations has clearly been placed on quality improvements though much of this activity has concentrated on existing

product/service ranges with more limited focus on new business areas (reflected in relatively low or moderate export activity in some areas) and little in the way of movement towards more integrated supply-chains.

Human resources development responses to this changing environment do vary across regions though job interchange and multi-skilling are prominent. Nevertheless, the proportion of employers indicating that their workforce is a 'major strength' to their organisations is, at best, 40%. It is difficult to benchmark this figure but it may suggest that **a relatively large number of companies do not assign 'significant value' to the role and contribution of their workforce or have some dissatisfaction with their capabilities.**

8.2.2 Labour turnover, skills and recruitment

While some change is to be expected within the context of change, some 10% to 20% of sample organisations report labour turnover to be higher than anticipated with remarkable consistency across regions in terms of problem occupations.

Comparisons of the difference between the proportion of firms ranking their workforce as a major strength and the proportion ranking skills as very important suggest that **employers have some implicit concerns about the skills capability of their workforce.** Between 28% and 65% of employers report skills shortages with relative consistency across regions. **These are not insignificant magnitudes and suggest that the competitiveness of firms in all regions is being constrained to some degree.**

In most cases employers appear to take the view that they are key agents for skills development but that employees also have an important contribution to make. **The role and responsibility of government in skills development is generally seen as limited.**

The impact of difficult-to-fill vacancies on performance is primarily seen in lower profitability, bottlenecks and reductions in efficiency and reduced forward planning with responses dominated by an attempt to increase productivity and the job range of staff. The decision to undertake more training is relatively limited.

8.2.3 Training and human resources development

The proportions of companies reporting training and development activities (above and beyond routine induction and any activities required by specific legislative requirements) are relatively high though maybe explained in some instances by supplier training accompanying capital equipment purchases. However, what evidence exists suggests that **there may exist an element of skill-bias in some of the study areas** – greater training being provided to those occupational groups with a relatively greater stock of initial skills.

Additional questions also indicate that the nature of training provision conforms to this general pattern with higher skilled workers tending to receive more formal and systematic training investment but that **graduate and management training remains an area of relative under-investment across most of the regions.**

Evidence from the survey exercise indicates the general absence of a coherent and integrated human resources development framework in most if not all of the regions. Despite the fact that the survey results clearly profile the connection between human resources development and growth, there is substantial variation between regions in terms of organisations linking together business and human resources development policies.

8.3 Conclusions

The exercise reported in this document has represented a commitment of a large number of persons and organisations in the study regions. It has also been an important exercise for three primary reasons, namely it has:

- provided a coherent way of assessing demand-side skills and training issues ‘in context’;
- addressed the type of issues that will need to be considered in the progression towards Structural Funds Programming; and
- assisted the development of ‘evidence-based’ labour market intelligence needed to secure and access an adequate resource base for human resources development policy interventions.

Despite the variation in regions and sample sets, the exercise has provided a profile of demand-side considerations and attitudes that are broadly consistent across regions. The study has pointed to a number of potential deficiencies and inconsistencies in employer perspectives towards human resources development within their organisations and assisted regional organisations to form an initial set of recommendations designed to enhance opportunities for growth.

Analysis of the results also indicates that there exists an underlying rationality across the sample set in terms of patterns of responses to underlying difficulties. Skill shortages and training levels appear to be more pronounced in regional companies experiencing strong market and productivity growth as well as being positively related. This is a promising outcome but the evidence remains that large numbers of employers undervalue the potential contribution of employees and adopt a structured approach to human resources development.

The challenge for regional bodies is to take the results of the exercise forward, to establish mechanisms to implement proposed recommendations through existing/new partnerships and to monitor progress and improvement. Other considerations include that of replicating the exercise within other regions (already the case in Hungary) and over time. All labour market intelligence is time limited in relevance as economic conditions, policy interventions and organisational development combine to alter the fundamentals of the labour market.

Annex 1.

Trading and organisational context

	North West Bohemia	South Estonia	South Great Plain	Lithuania	Lubelskie
Markets					
Expanding	60%	73%	55%	54%	30%
Declining	7%	14%	24%	28%	24%
Turnover					
Expanding	58%	76%	61%	56%	-
Declining	17%	10%	23%	27%	-
Productivity					
Expanding	73%	88%	55%	65%	51%
Declining	1%	7%	8%	2%	13%
Full-time employment					
Expanding	24%	27%	38%	34%	27%
Declining	37%	28%	30%	27%	34%
Export share	38%	33%	48%	9%	16%
Research and development on-site	22%	54%	22%	25%	7%
Market pressures producing:					
Increase in product range	67%	71%	55%	71%	50%
Improved design	42%	80%	42%	82%	42%
Attention to quality	81%	-	75%	93%	83%
Changes designed to:					
Reduce costs	77%	83%	75%	75%	68%
Increase productivity	61%	83%	82%	79%	77%
Improve quality	54%	92%	88%	90%	85%
Introduction of new products	62%	68%	72%	77%	40%
In existing range	74%	43%	65%	83%	84%
In related field	46%	56%	34%	47%	44%
Completely new	47%	23%	6%	22%	33%

	North West Bohemia	South Estonia	South Great Plain	Lithuania	Lubelskie
Competitive importance of:					
Price	67%	70%	83%	76%	74%
Quality	92%	92%	96%	88%	92%
Responding to customers	83%	-	95%	82%	77%
Marketing/advertising	39%	54%	57%	57%	38%
Product differentiation	40%	54%	48%	46%	29%
Availability/delivery	83%	-	75%	61%	74%
Collaboration through:					
Partnership	30%	27%	48%	57%	16%
Suppliers	45%	51%	66%	67%	51%
Franchise	6%	-	9%	4%	5%
Employer/industry groups	6%	36%	44%	18%	5%
Research bodies	24%	29%	6%	9%	10%
Universities	19%	32%	22%	34%	6%
Consultancies	29%	37%	34%	39%	7%
Change in occupational dist	25%	52%	33%	61%	55%
Changes implemented:					
Multiskilling	40%	36%	26%	33%	32%
Job interchange	44%	31%	35%	79%	29%
Job redesign	8%	46%	32%	24%	41%
Just-in-time scheduling	2%	27%	12%	20%	20%
Total quality management	3%	37%	23%	27%	56%
Corporate culture focus	1%	58%	29%	33%	27%
New management structures	2%	34%	29%	15%	18%
Change of ownership	2%	15%	13%	6%	8%
Management focus on developing employees to:					
Promote flexible working	68%	83%	79%	70%	40%
Promote teamwork	69%	40%	69%	73%	-
Improve customer service	84%	55%	73%	91%	68%
Raise product knowledge	52%	83%	73%	76%	-
Raise general competence	76%	75%	86%	71%	50%
Introduce new standards	41%	38%	64%	45%	-
Training to assist new:					
plant, machinery; equipment, IT applications, products, services	83%	82%	57%	61%	42%
Training sourced from outside	73%	77%	42%	58%	22%
Workforce is a major strength	32%	12%	44%	17%	40%

Annex 2.

Skills and recruitment

	North West Bohemia	South Estonia	South Great Plain	Lithuania	Lubelskie
Employee turnover					
Higher than expected	11%	22%	26%	11%	12%
Turnover problem occupations	Elementary PM op's	Elementary sales	Skilled	Craft clerical technical professional	Elementary craft PM op's
Redundancy:					
Last 2 years	70%	57%	24%	45%	58%
Next 2 years	18%	16%	10%	16%	15%
Skills seen as 'very important'	65%	65%	90%	63%	-
Increased demand on employee skills	87%	85%	95%	94%	80%
Skill shortage	30%	65%	46%	44%	28%
Occupations	Professional technical	Service/ sales craft	Service/ sales craft	Craft technical professional	Craft technical PM op's
Skills	Technical comm's languages	Technical comm's languages	Technical comm's creativity	Technical creativity customer	Technical production
Skills assessment:					
Regular basis	83%	91%	83%	59%	17%
In relation to:					
Existing products	75%	35%	57%	50%	9%
New products	89%	42%	55%	64%	12%
Technology change	26%	33%	19%	62%	9%
	19%	28%	17%	41%	8%

	North West Bohemia	South Estonia	South Great Plain	Lithuania	Lubelskie
Skills viewed as:					
Responsibility of firms	88%	65%	84%	40%	17%
Responsibility of government	4%	57%	14%	7%	3%
Responsibility of employee	40%	55%	63%	45%	10%
Responsibility of industry	3%	37%	-	9%	1%
Capacity to evaluate:					
Current skill needs	88%	94%	90%	43%	14%
Future skill needs	80%	77%	87%	41%	-
Access to external intelligence on skills needs	38%	47%	77%	61%	10%
Employer links to advise on:					
Recruitment issues	45%	23%	57%	40%	32%
Pay	20%	19%	14%	13%	29%
Training	48%	50%	59%	39%	50%
Recruitment of:					
School leavers	46%	52%	78%	25%	41%
Graduates	26%	25%	51%	54%	23%
Difficult-to-fill vacancies	25%	57%	10%	23%	-
Impact of difficult-to-fill vacancies (% of those with difficulty)	44%	35%	42%	43%	64%
Lower profitability	78%	5%	63%	33%	36%
Bottlenecks/lower efficiency	44%	20%	21%	46%	33%
Lower standard of service	22%	10%	32%	51%	36%
Reduced forward planning	16%	8%	26%	20%	14%
Lower morale	11%	5%	32%	9%	22%
Temporary staff costs					
Response to difficult-to-fill vacancies (% of those with difficulty)	33%	8%	16%	26%	22%
Reduce workload	50%	20%	100%	30%	31%
Increase overtime	55%	40%	89%	42%	100%
Increase productivity	17%	27%	21%	38%	44%
Increase training	44%	28%	100%	36%	75%
Increase job range of staff	5%	20%	26%	14%	56%
Recruit temporary staff	33%	8%	47%	20%	14%
Sub-contract	5%	15%	37%	20%	33%
Change organisational structure					

Annex 3.

Human resources development & training

	North West Bohemia	South Estonia	South Great Plain	Lithuania	Lubelskie
Training provisions	61%	90%	59%	58%	40%
Increase in training volume	32%	40%	40%	41%	-
Training for multiskilling	71%	-	29%	68%	33%
Retraining	28%	48%	15%	45%	30%
Graduate training	17%	3%	20%	51%	5%
Assess training results	44%	65%	43%	66%	76%
Assess employee performance	57%	91%	56%	27%	90%
Assess training needs	54%	79%	42%	61%	79%
Assist management development	26%	26%	30%	31%	-
Training supervisor	42%	72%	49%	45%	74%
Company business plan	40%	77%	52%	69%	44%
Training plan	35%	28%	32%	15%	30%
Related to business plan	87%	37%	62%	38%	10%
With separate budget	32%	20%	25%	17%	-

