

people:skills:jobs:



Department for
**Employment
and Learning**
www.delni.gov.uk

REVIEW OF LABOUR MARKET INFORMATION

FOREWORD



We are living in an information age. Computer technology, the internet and the media can process and deliver information in quantities and timescales that were unfathomable just a few years ago. Wider and freer information can enrich our lives in many ways. A key area that my Department has been focusing on is how information can help us all make better choices as we interact with the labour market. Reliable, up to date and easily accessible information can help us make more informed choices about which careers to pursue, which courses to take and where to work.

I was pleased to have the opportunity recently to see, first hand, how labour market information was making a profound impact on the US economy and on the State of North Carolina in particular. North Carolina has, like Northern Ireland, experienced a downturn in the fortunes of many of its traditional industries. A key ingredient to their successful response to that challenge has been the development and use of comprehensive and accurate labour market information. They use that information in innovative ways to ensure that people can gain a clear understanding of what labour market opportunities exist, both now and in the future, and what is required of them to avail of those opportunities.

The **Success through Skills** Strategy recognises the importance of understanding the demand for skills and the opportunities for Northern Ireland in the global market. It announced a review of labour market information to determine how the demand for skills can be better understood, communicated and harnessed. This document sets out the outcomes of the review and what needs to be done in order to understand clearly the demand for skills, to help us seek out future economic opportunities and to provide clear, dependable advice and guidance to the people of Northern Ireland so they can take advantage of those opportunities.

Sir Reg Empey MLA

Minister for Employment and Learning

CONTENTS	PAGE NO
Abbreviations	5
Executive Summary	6
1. Introduction	13
2. Labour Market Information - Availability and Use in NI	16
3. Use of Labour Market Information Elsewhere	23
4. The NI LMI System – The Way Forward	34
5. Summary and Conclusions	45
Annex 1: Research Report: The use of Labour Market Information in Customer Choice, National Center on Education and the Economy	49

ABBREVIATIONS

AJB	America's Job Bank
ASHE	Annual Survey of Hours and Earnings
CV	Curriculum Vitae
DEL	Department for Employment and Learning
DETI	Department of Enterprise, Trade and Investment
ERINI	The Priority Skills Unit in the Economic Research Institute
ETI	Education and Training Inspectorate
FE	Further Education
GB	Great Britain
HE	Higher Education
HECSU	Higher Education Careers Services Unit
HESA	Higher Education Statistics Agency
INI	Invest Northern Ireland
IT	Information Technology
JBOs	Jobs and Benefits Offices
LFS	Labour Force Survey
LMI	Labour Market Information
NCEE	National Centre on Education and the Economy
NI	Northern Ireland
NISRA	Northern Ireland Statistics Research Agency
QES	Quarterly Employment Survey
QNHS	Quarterly National Household Survey
RoI	Republic of Ireland
SEG	Skills Expert Group
SOC	Standard Occupational Classification
SSCs	Sector Skills Councils
UK	United Kingdom
US	United States
WDFs	Workforce Development Forums

EXECUTIVE SUMMARY

The Department for Employment and Learning's (DEL) "Success through Skills"¹ strategy emphasises Government's desire to ensure that people are enabled to progress up a skills ladder in order to raise the skills levels of the whole workforce. This in turn will help deliver higher productivity, increased competitiveness and secure NI's future in a global marketplace.

The strategy recognises that achieving these ambitions will require a clear understanding of both the current and future demand for skills and that learners and education and training providers are facilitated to respond to that demand based on accurate and timely labour market information (LMI). It announced a review of LMI to determine how it could be used to understand better the demand for skills in NI and improve the planning of provision.

LMI Review Objectives/Terms of Reference

The LMI Review has been led by DEL's Analytical Services with the following objectives:-

- to identify how LMI is used currently to influence policy, delivery and customer choices;
- to assess what better use could be made of the information already available; and
- to identify gaps in current LMI and how those might be filled.

The review has been underpinned by a comprehensive range of studies. These have included an extensive consideration of what LMI is available in NI and how it is used. It has looked beyond NI to see what can be learned from practice elsewhere. Departmental analysts examined how LMI was being developed and

¹ www.delni.gov.uk/skills_strategy_2006.pdf

used in other countries of the United Kingdom (UK) and the Republic of Ireland (RoI). The Washington based, National Centre on Education and the Economy (NCEE) was commissioned to examine and report on international models of best practice in the use of LMI to inform choice. This work has been reinforced by detailed research into the LMI model that exists in North Carolina, a model which is regarded as world leading in many respects.

In addition to examining best practice elsewhere, pilot projects were established and evaluated to examine how LMI could be used better to inform and influence customer choice. Finally, the review team has undertaken extensive consultation to ensure that the focus of the review is appropriate and the recommendations coming forward are consistent with other strands of work flowing from the Success through Skills strategy.

Availability and Use of LMI in Northern Ireland

A very wide range of information relating to the labour market is available in NI. It covers key areas such as: numbers in employment; unemployment; inactivity; earnings; qualifications; hours worked; redundancies and numbers in education and training. This is augmented by an extensive and growing body of research, analysis and evaluation work which enhances understanding and promotes the use of LMI in NI. However, the extent to which detailed analysis can be conducted is often constrained in NI by the relatively small sample sizes underpinning the statistics.

The review has found evidence of extensive good practice in the use of LMI in NI particularly in relation to its influence on shaping skills policy. However, evidence on it being used to influence the career and course choices of those in society is more limited and sporadic.

Use of LMI Elsewhere

The review has found that other parts of the UK and Ireland are actively considering how LMI could be used more effectively to shape choices and to deliver a more efficient labour market.

The review of global best practice has found that regions that lead the way in LMI development and application possess the following three key characteristics:

They work to ensure comprehensive data availability

- they develop a comprehensive core set of labour market data;
- they use administrative sources to get access to “near population” based LMI where possible;
- they have access to comprehensive earnings data; and
- they develop strong longitudinal data sets to underpin high quality labour market and policy analysis.

They are effective in understanding and meeting customer needs

- they develop good systems to ensure that customer needs are clearly understood;
- they engage labour market intermediaries (eg Careers Advisers and JBO/Jobcentre staff) to ensure they promote the use of LMI and can tailor its delivery to meet their clients’ needs;
- they develop a core set of LMI that can be readily updated and design systems to draw from these data which are tailored to meet the needs of different customer groups; and
- they design simple to use IT and web enabled delivery systems that are key to effective LMI dissemination.

They develop Integrated Labour Market Systems

- they integrate LMI into other customer focused systems (including Information Technology (IT) and web enabled job search, course search and careers advisory systems)
- they use the integrated systems as a source of LMI.

The Way Forward

The review finds that, in order to deliver the Success through Skills strategy, NI LMI needs to move even more centre stage and learn from best practice elsewhere. It sets out a vision of a NI LMI system which is world class in relation to data availability and how that data are used in an integrated way to meet customer needs.

This review has brought forward a number of challenging actions which will begin the process of attaining a world class system. It points to the need for thorough, periodic monitoring of implementation and an assessment of what more needs to be done to retain momentum towards achieving the LMI Review's vision. The table on the next page summarises the initial actions with associated timescales for implementation.

LMI REVIEW RECOMMENDATIONS – SUMMARY

	Data Availability	Timescale
1.	Work towards capturing real time, near population based LMI in NI which can give much greater granularity and precision to analysis (including longitudinal analysis) than is currently possible. As a first step in this process, work with other NI Departments and UK Administrations to examine the conditions under which administrative data sources could be harnessed and linked to capture the required information.	First step to be commenced by March 2008. Review progress by end 2008.
2.	Provide support for both the planned HECSU and HESA longitudinal surveys of NI HE students so that data on the labour market experiences of HE students continue to be enhanced.	Overall UK findings from HECSU survey available in June 2008, with additional analysis for NI to be agreed. Initial high level HESA survey results were published in Autumn 2007.
3.	Conduct a scoping study to examine the possibility of tracking a cohort of leavers from FE who had enrolled on professional and technical education and training courses. The scoping study will examine whether progression routes and labour market outcomes can be assessed in a comprehensive and consistent manner across FE and work based learning.	Scoping study to be initiated by Spring 2008 with results expected to be available in Autumn 2008.

4.	Commission the first NI Youth Cohort Study in order to track individuals' education, training and labour market experiences more effectively.	Developing and Piloting Questionnaire by end 2008. First main sweep to be completed by end 2009 with results available in 2010.

Meeting Customer Needs

5.	Ensure that LMI is deployed in a consistent, informative and joined up way to: assist the SEG develop the Regional Employment and Skills Action Plan; ensure the new WDFs are well informed about local demand and supply issues; and provide the SSCs with information to assist their assessment of demand and supply in their respective sectoral footprints.	First wave of LMI to be provided by March 2008 and update at least annually thereafter
6.	Appoint "LMI Champions" within the Careers Service and Employment Service. The Champions will play a number of crucial roles. They will work to ensure that the Careers Service and Employment Service are aware of the available LMI and how to use it effectively. They will provide feedback to labour market analysts, IT specialists and other relevant partners, articulating their customers' LMI needs, give guidance on how best to present the information to maximise impact and ensure that customer LMI needs are being met effectively. Finally they will work with staff trainers	Careers Service and Employment Service LMI Champions to be in post by March 2008.

	and labour market analysts to design and develop appropriate training to ensure Employment Service and Careers Service staff can use LMI confidently and appropriately as part of their advisory toolkit.	
7.	Responding to the needs identified by the LMI Champions, ensure that LMI is presented in a manner that is accessible and can be understood easily by the Careers Service and Employment Service and their clients.	First wave of LMI to be provided to the Careers Service and Employment Service by June 2008.
8.	Review the DEL Research Agenda 2004-07 to ensure it is meeting objectives and that the research flowing from it is being used to influence policy and programme delivery. The review will examine whether the research dissemination process is fitting customer needs.	Review of Research Agenda to be completed by Spring 2008.

Labour Market Systems

9.	As part of the roll out of the Department's IT strategy, appraise the opportunities for integrating Employers Online, Jobs and Benefits Online/Job Centre Online, Careers Service Online, Learndirect and LMI. The appraisal should examine the impact a comprehensively linked system would have on the efficiency of the NI labour market and the extent to which it could act as a source of LMI.	Appraisal to be undertaken by Summer 2008
----	--	---

1. INTRODUCTION

1. The Department for Employment and Learning's (DEL) "Success through Skills"² strategy emphasises Government's aim to ensure that people are enabled to progress up a skills ladder in order to raise the skills levels of the whole workforce. This in turn will help deliver higher productivity, increased competitiveness and secure NI's future in a global marketplace.
2. The strategy recognises that achieving these ambitions will require a clear understanding of both the current and future demand for skills and that learners and education and training providers are facilitated to respond to that demand based on accurate and timely LMI.
3. Success through Skills sets out a detailed implementation plan with actions grouped into four broad themes. It recognises that the availability of comprehensive and up-to-date LMI will underpin and facilitate delivery of each of these themes.
 - **Theme 1. Understanding the demand for skills** – Success through Skills requires that a Regional Employment and Skills Action Plan be developed which will articulate the skills needs at the local and regional levels and determine NI's priority skill areas. Robust LMI will be central to ensuring that this Skills Action Plan and other key policy decisions at the regional and sub regional levels are based on sound evidence.
 - **Theme 2. Improving the skills levels of the workforce** – there is evidence of skills mismatches and of students dropping key subjects too early. Relevant LMI, disseminated in an effective way, is needed to influence subject and career choices. In this regard, LMI is particularly relevant to the work of the NI Careers Service.

² www.delni.gov.uk/skills_strategy_2006.pdf

- **Theme 3. Improving the quality and relevance of education and training** – effective implementation of the Success through Skills strategy will depend critically on the extent to which the education and training sectors can respond to meet the skill needs of the economy. Their responsiveness, in turn, will be dependant upon the quality of LMI and it being presented in a manner that can be used to influence planning, promotional activity and curricular content.
- **Theme 4. Tackling the skills barriers to employment and employability** - there is recognition that LMI will play a central role in the more targeted approach of the Employment Service so that appropriate labour market advice can be offered to clients in Jobs and Benefits Offices (JBOs)/Jobcentres.

Review Objectives/Terms of Reference

4. The Success through Skills strategy announced a review of LMI to determine how it could be used to understand better the demand for skills in NI and improve the planning of provision. The LMI Review has been led by DEL's Analytical Services with the following objectives:-
 - to identify how LMI is used currently to influence policy, delivery and customer choices;
 - to assess what better use could be made of the information already available; and
 - to identify gaps in current LMI and how those might be filled.
5. The review has been underpinned by a comprehensive range of studies. These have included an extensive consideration of what LMI is available in NI. Analysts examined how this LMI is currently used with particular

reference to the four themes underpinning the Success through Skills strategy. The review has looked beyond NI to see what can be learned from practice elsewhere. For example, Departmental analysts examined how LMI was being developed and used in other countries of the UK and the RoI. The Washington based, NCEE was commissioned to examine and report on international models of best practice in the use of LMI to inform choice. This work has been reinforced by detailed research into the LMI model that exists in North Carolina, a model which is regarded as world leading in many respects.

6. In addition to examining best practice elsewhere, pilot projects were established and evaluated to examine how LMI could be used better to inform and influence customer choice. Finally, the review team has undertaken extensive consultation to ensure that the focus of the review is appropriate and the recommendations coming forward are consistent with other strands of work flowing from the Success through Skills strategy.
7. The next section of this report examines what LMI is currently available in NI and how it is used. Section 3 looks at how LMI is used elsewhere and focuses particularly on global best practice. Section 4 establishes a vision of a world class NI LMI system, provides an assessment of what more needs to be done to achieve that vision and sets out a range of actions for the way forward.

2. LABOUR MARKET INFORMATION – AVAILABILITY AND USE IN NORTHERN IRELAND

LMI Data Availability

8. A very wide range of information relating to the labour market is available in NI. This covers key areas such as: numbers in employment; unemployment; inactivity; earnings; qualifications; hours worked; redundancies and numbers in education and training. NI LMI is derived largely from sample surveys, particularly the Labour Force Survey (LFS), although other surveys contribute to the overall picture eg Annual Survey of Hours and Earnings (ASHE), Quarterly Employment Survey (QES) and the biennial Census of Employment. Information from each of these sources is published and is available from the Statistics and Economic Research section of the Department of Enterprise, Trade and Investment (DETI) website³.
9. Data in relation to the unemployed and those claiming other benefits are derived from administrative sources and are published on the Statistics and Research section of the Department for Social Development website⁴. Information about the general population is derived largely from the decennial Census of Population. It not only provides basic demographic information, but also provides information relating to the labour market. Census and related population data are available from the NI Statistics Research Agency (NISRA) website⁵. Information on enrolments and the types of courses studied in tertiary education and training is available from the DEL. The Department also provides information on numbers participating on the New Deal programme for the unemployed and their subsequent destinations⁶. The Higher Education Statistics Agency (HESA)

³ www.detini.gov.uk

⁴ www.dsdni.gov.uk

⁵ www.nisra.gov.uk

⁶ www.delni.gov.uk

produces information on employment and earnings of recent Higher Education (HE) graduates. Longitudinal data sources, which track the labour market experience of HE graduates over time are also being developed by HESA and the Higher Education Careers Services Unit (HECSU). These have the potential to be very valuable.

10. In most cases, the data available from these sources permit meaningful, high level, secondary analysis. For example, it is possible to examine the probability of being inactive according to qualification level. However, because the bulk of NI LMI is derived from sample surveys, sample sizes act as a constraint on the level of detail that can be provided. Information is collected, for example, in the LFS on employment by industrial sector, qualifications gained and on earnings. However, sample size constraints mean it is not possible to investigate, with reliable statistical accuracy, earnings levels by qualification level for each sector.

LMI Based Research, Analysis and Evaluation

11. There is an extensive and growing body of research, analysis and evaluation work which enhances understanding and promotes the use of LMI in NI. Much of this work is summarised and reviewed annually within the DEL Labour Market Bulletin⁷ and the DETI NI Economic Bulletin⁸. It is referenced also on the Careers Service NI's web site⁹. This work includes a growing body of literature investigating the link between skills and earnings; forecasts of occupational and sectoral employment change; comparisons of NI labour market performance with other regions; research into migrant workers and evaluations of government programmes which intervene in the labour market.

⁷ www.delni.gov.uk/labour-market-bulletin-20.pdf

⁸ http://www.detini.gov.uk/cgi-bin/get_builder_page?page=3185&site=4

⁹ www.careersserviceni.com

12. There is also a significant body of research looking at specific sectors in NI to assess current and future labour demand, supply and skills gaps. The Priority Skills Unit in the Economic Research Institute of Northern Ireland (ERINI) has, for example, delivered high quality studies into the priority skill areas in NI. This work is being augmented currently by research taken forward by the Sector Skills Councils (SSCs) in NI as they develop their Sector Skills Agreements. As part of that process, each SSC is required to examine current and future demand and supply of skills in their sector and identify gaps that need to be addressed.
13. The DEL Research Agenda¹⁰ sets out the medium term research needs of the Department. It provides a conduit through which the body of skills and labour market research can be updated and expanded into new relevant areas in a planned and cohesive way. The Department also reviews regularly research work that has been undertaken outside NI and is relevant to policy development and service delivery within the region¹¹.

Use of LMI in Northern Ireland

14. The following maps out how LMI is used in NI in relation to the four themes that underpin the Success through Skills strategy. It draws on evidence captured in a questionnaire which was administered to relevant branches and divisions within DEL to gauge LMI use and a review of usage outside the Department. Issues in relation to gaps in LMI or usage are not discussed in this section but are instead considered later in the report after international best practice has been examined.

¹⁰ <http://www.delni.gov.uk/researchagenda0709final.pdf>

¹¹ <http://www.delni.gov.uk/index/statistics-and-research/stats-research/quarterly-research-review.htm>

Theme 1. Understanding the demand for skills

15. The previous section pointed to the significant volume of LMI data, research, analysis and evaluation work that is available in NI. The review has found compelling evidence that this material is being used extensively to understand the demand for skills and, in turn, shape policy. It has, in the past, been used to inform selection of the NI priority skill areas. It has provided an underpinning for recent strategic reviews including the development of Success through Skills, Further Education Means Business and the Essential Skills Strategy. It is also clear that LMI in this area has been used as evidence to support Departmental bids for additional funding to address skill needs. The body of work available to understand the demand for skills in NI is growing, bolstered by the work of the SSCs. In tandem, the demand for and utilisation of this information is expanding driven largely by the Success through Skills strategy. There is evidence too that LMI is used by DETI and Invest Northern Ireland (INI) when providing advice to potential investors in the local economy so that their consideration can be based on sound analysis of the relevant labour market conditions.

Theme 2. Improving the skills levels of the workforce

16. There is a growing appreciation within NI of the key role that LMI can play in helping people make informed and effective choices in relation to careers or courses. It is clear that individuals do respond to labour market signals. For example, the downturn suffered by the global IT industry has resulted in a significant drop in enrolments to courses related to that area. There is a need to ensure that messages about the labour market are accurate and put across appropriately to avoid unhelpful over or under reaction.

17. Currently, the Careers Service NI uses a range of LMI to assist individuals make career choices. For example, the Careers Service's web site provides a suite of information on a wide range of occupations including current wage rates (albeit largely at the UK level), prospects and qualification requirements. It also provides links to the NI Job Centre Online database, to education and training providers and to much of the LMI research and analysis referred to previously.

18. Evidence was also provided where LMI was being used at the HE level. For example, the Department has provided sponsorship for road shows, using labour market and other information, to encourage pupils to consider HE as an option. The objective here was primarily to help widen access.

Theme 3. Improving the quality and relevance of education and training

19. In terms of LMI, improving quality and relevance is related closely to themes 1 and 2 above. For example, improvements in the relevance of education and training require a clear understanding of the demand for skills and students that wish to take up courses in those areas of skill need. There is evidence here too that LMI has been used to good effect to shape provision. In the Further Education (FE) sector LMI has been used to shape the funding streams allocated to FE Colleges (additional funding weights are applied for enrolments in priority skill areas). In addition, there is evidence of FE Colleges using local LMI, often gathered from small local skills surveys, to develop vocational provision, although this varies from college to college.

20. There was also evidence that the local universities increasingly use LMI to publicise and market courses being offered in their prospectuses. For

example, many include information about the earnings and employment status of former undergraduates so that prospective students are better informed about labour market prospects when choosing HE courses.

Theme 4. Tackling the skills barriers to employment and employability

21. There is a clear acceptance of the value of LMI within the Employment Service and a commitment to use it to serve better its clients, including job seekers, the unemployed, the inactive and employers seeking to fill vacancies. For example, JBO/Jobcentre Clients are enabled, via the Job Centre Online service, to access the Careers Service NI website referred to above and also, where appropriate, to contact Careers Advisers. However, the use of LMI by DEL staff within the JBOs/Jobcentres is less formal and often relies more on the accumulated knowledge of staff.
22. In order to support this review, two pilot studies were established to examine how LMI could be used more effectively to improve the advice being offered at JBOs/Jobcentres.
23. The pilot exercise in the two offices highlighted that most staff in local offices have little experience and no training in the use of LMI. This has been recognised in the ongoing review of Frontline Services where it is intended that part of the new training regime for staff will include training in the use of LMI. The exercise also showed that, in order to get staff to engage with LMI, it is necessary for them to have some ownership of the information in terms of what is useful to them and to clients.

LMI Pilot Work – JBOs

Following discussions within DEL it was felt that the availability of local LMI to staff in JBOs and JobCentres would enable the more effective and informed delivery of services to customers. As a result, two offices, Lisburn and Lisnagelvin, were selected to test the usefulness of a range of core local LMI, to identify gaps and to provide suggestions for additional information that staff felt would be beneficial.

Staff from the Department's Analytical Services Group visited both offices to explain the purpose of the pilot and to show staff the information that was available to them via the DEL intranet. Staff were asked to examine the information and assess its usefulness in relation to their interaction with customers. Subsequent feedback from the office managers indicated that staff felt that while the information was interesting, it was of little direct use to them in their day-to-day dealings with customers. Most staff felt that they had sufficient knowledge of the local labour market through other means (local press, contacts with employers, etc). Further discussions with Regional Operations Support Branch have suggested that some of the information may be of benefit to office managers, giving them an overview of their area and the wider NI context.

3. USE OF LABOUR MARKET INFORMATION ELSEWHERE

24. This section examines how other regions and countries use LMI to understand the demand for skills, to inform choices and shape education and training provision.

Availability of LMI in Great Britain (GB) and Ireland

25. In terms of labour market data availability, other countries of the UK are in a very similar position to NI. This reflects the requirement for consistency in data collection systems across the UK so that outputs can be aggregated to give national statistics. However England, and to a lesser extent Scotland, can derive greater benefit from LMI sources that are drawn from sample surveys. They have larger populations than NI which means that, for the same cost per capita, a greater number of individuals can be included in surveys. In turn those larger samples can provide more detailed analysis whilst retaining statistical reliability. In statistical terms, it is the size of the sample that matters. England and Scotland's critical mass in terms of population also means that, for the same cost per capita, a significantly greater volume of research and analysis can be conducted on LMI issues than in NI.
26. In terms of information gaps, England, Scotland and Wales have access to a wider range and have a longer history of collecting longitudinal data than is the case in NI. Longitudinal, or cohort surveys, track the labour market experiences of individuals over time and can be used to examine how these experiences differ according to qualification levels or characteristics. While NI is now investing more heavily in longitudinal surveys of this type, it will take some time before these can provide high grade LMI. For example, the NI Millennium Cohort Study, introduced in 2000, has collected information

on a large number of children born that year. However it will be 10-15 years before these young children are actively engaged in the labour market.

27. There are a number of notable differences in the RoI in terms of LMI data collection. One of the main vehicles for collecting LMI is the Quarterly National Household Survey (QNHS), a large scale nationwide survey of households. The QNHS is designed to produce quarterly labour force estimates that include the official measure of employment and unemployment. Some 39,000 households are interviewed each quarter for the survey. The equivalent survey in NI is the LFS carried out by DETI. However, the scale of the LFS is much smaller than the QNHS, with a sample of 3,000 addresses each quarter.

Use of LMI in Great Britain and Ireland

Wales

28. Contact with the Welsh Assembly Government reveals that it is in a very similar position to NI in terms of LMI. The Welsh are also developing their systems. Future Skills Wales produces some LMI material relating to skills shortages.

England

29. The picture is similar in England although in relation to Jobcentre Plus offices a CD-ROM based system has been developed for staff which is linked to their training and development programmes. In the context of learning, the CD-ROM guides staff members through data sources and how they can be used to underpin an approach to managing and using LMI.

Scotland

30. Scotland's approach has been to develop local labour market reports for Careers Service Areas and Economic Development Areas. The work has been carried forward by Futureskills Scotland and contains supply side (eg population, qualifications) and demand side information (eg employment; vacancies and occupational breakdown). An example can be found online at¹².

31. The Scottish approach is, in fact, similar to that which was adopted in NI when piloting the use of LMI via JBOs/Jobcentres. However, the Scots have developed the presentation style so that it is much easier to understand. It adopts a common format which makes comparisons across sub regions much more straightforward.

Republic of Ireland

32. The RoI is engaged proactively in considering how to make better use of its LMI to ensure career choices are well informed. A report from the Irish Expert Group on Future Skills Needs on careers and labour market information (July 2006) has concluded that there is a low level of awareness of the available information. It shows that many groups (including students and women returners) are not aware of the information available and how to access it. It recommends the creation of a central careers portal site. The report can be accessed via the Skills Ireland website¹³

33. It is envisaged that a central careers portal of that type would draw on valuable information developed by FÁS, the RoI's national training and employment authority. Its National Skills Bulletin¹⁴ provides a detailed

¹² <http://www.futureskillscotland.org.uk/nmsruntime/saveasdialog.asp?IID=414&SID=337>

¹³ www.skillsireland.ie

¹⁴ http://www.fas.ie/information_and_publications/slmru/National_Skills_Bulletin_2005.pdf especially Chapter 7 pp 24-31

analysis of the Irish Labour Market and seeks to summarise key information about each occupational area in a succinct manner

Availability and Use of LMI Outside the UK

34. In addition to its own examination of LMI in the UK and Ireland, the Department commissioned the Washington based NCEE to undertake a wider study. As part of that, the NCEE examined best practice in the United States (US) and a number of English speaking countries regarding the use of LMI. An executive summary from that report is attached at Annex 1.
35. The NCEE has identified the LMI requirements of seven different customer groups. These are:
 - Youth (10-16);
 - Teens and Young Adults (16-24);
 - Adults (24+);
 - Employers;
 - Economic Development Professionals;
 - Intermediaries (School Guidance Counsellors, Job Centre Staff, Careers Counsellors); and
 - Education and Training Providers.
36. For each group, the NCEE described: (1) the specific LMI needs for each of these customer groups; (2) the type of system(s) required to fulfil their needs including data collection or adaptation and display (electronic or hard copy); and (3) details on the current US State level, national and international systems that target customer need effectively.
37. A number of common themes emerged from the NCEE consideration of best practice which are very relevant to this review. They are:

Comprehensive Data Availability

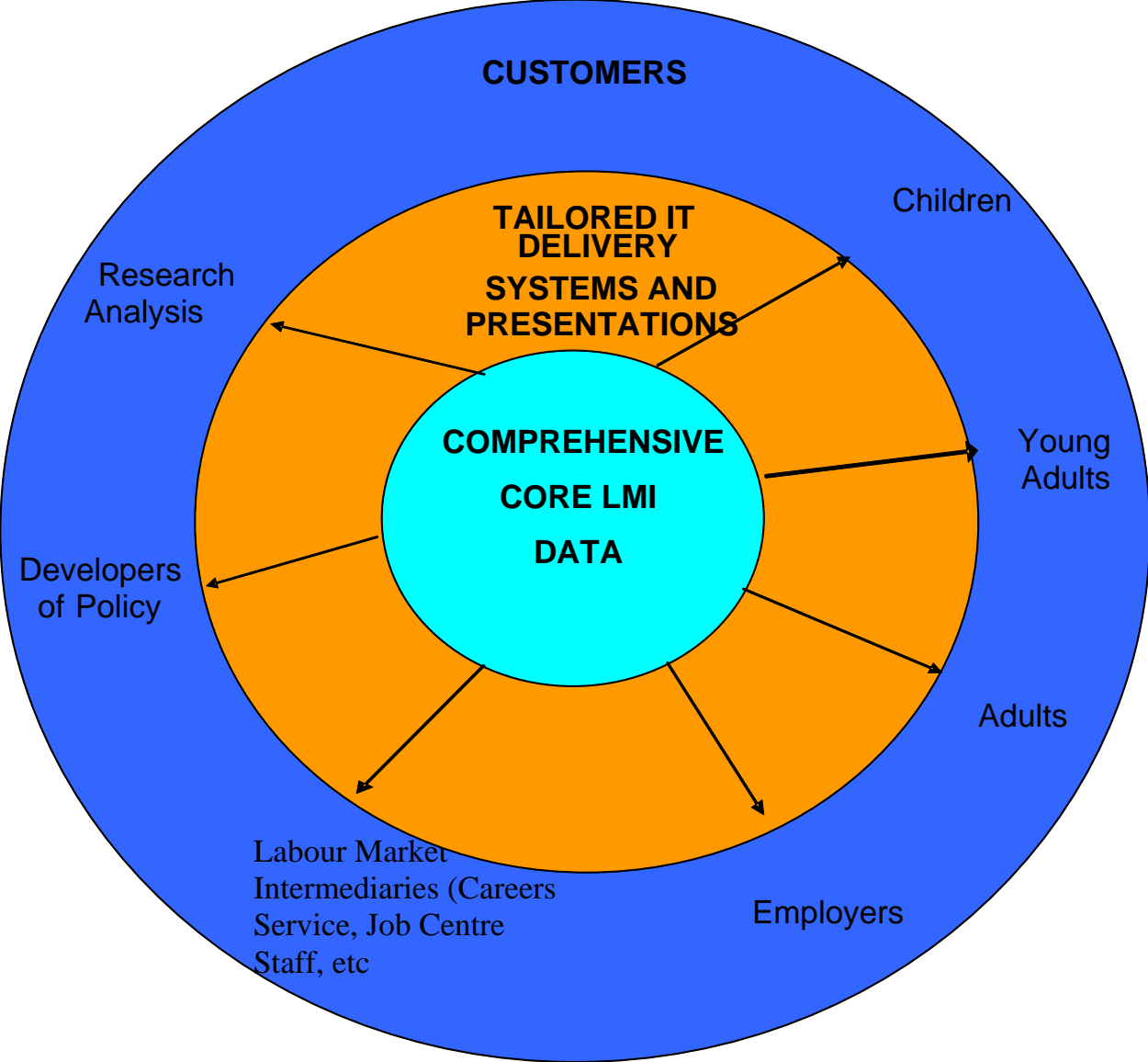
38. NI has access to extensive LMI across a wide range of indicators. Indeed, the types of LMI available in NI are not significantly different from what is available in countries and regions elsewhere. However, the extent to which the NI data can be used to provide detailed analysis is often constrained by sample size.
39. In other countries, notably the US, there are examples of administrative systems being used to provide data across entire populations on a real time basis. For example, by using information from the US taxation system detailed earnings analysis by industrial sector and occupation can be conducted at a level that would not currently be possible in NI. This rich seam of information can be applied to provide a clearer understanding of the demand for skills. This acts as a credible source of influence on decision making and can shape education and training provision. The NCEE report provides good examples of how this information is used to provide careers guidance and advice to state government about education and training priorities.
40. The near population earnings data is of particular value and is used in these regions as a barometer of labour market demand and supply across occupations and sectors. For example, if labour demand is increasing more rapidly than labour supply, this generally causes wages to rise. Policy makers and education and training providers can react quickly to this real time earnings information and encourage additional participation in skill shortage areas. In addition, job seekers and students can use that earnings information to inform career selection and subject choice. This quality of information has the potential to add significantly to the efficiency of the labour market.

41. When utilising this near population data there is evidence of effective linking between a range of administrative data systems using a unique identifier for each individual. The unique identifier tends to be based on social security numbers (in the UK the National Insurance number is broadly equivalent). Linking of this type can harness effective longitudinal data which track individual labour market experiences and permit analysis at a level of detail which would not be possible using sample data.

Tailoring Data and Delivery Systems to meet Customer needs

42. The seven customer groups identified by the NCEE are very relevant to DEL and there are a number of lessons that can be learned from the NCEE report. There is evidence that a number of the countries and regions develop a core set of comprehensive data. They then examine how that core data can be tailored so that it is delivered effectively and presented to each customer group. Figure 1 illustrates this approach.

Figure 1: Tailoring LMI Data to meet Customer Needs



43. In those regions that are most successful at tailoring data effectively to meet customer needs, there are a number of central ingredients to their success. They are particularly adept at understanding the LMI needs of a wide range of customer groups. They are creative in ensuring that the relevant data are presented in a manner which can engage those customers and address their needs in a meaningful way. Finally, they use carefully designed IT systems to provide a central platform to present LMI and engage with different customer groups effectively.
44. The systems are user friendly, customer focused (avoiding a one size fits all approach) but they draw from the same central core LMI data set. For example, in the US there are examples of the same core LMI being used to serve the differing needs of policy makers and labour market analysts on the one hand and job seekers and job changers on the other. Researchers and economic development professionals typically seek LMI on a core set of high level indicators which are up to date and provide consistent historical trends. These indicators act as a barometer of labour market performance. Researchers also require the ability to conduct their own, often unique analysis. This requires access to much more detailed data in a manner that permits statistical analysis to be conducted.
45. The needs of this group contrast significantly with the needs of job seekers/changers who will typically be looking for LMI that is relevant to their specific situation, is available at the press of a button and is easily understood. This customer group will typically be seeking answers to questions such as: what can you earn in certain occupations?; what earnings can be achieved in one region compared to another?; and is a particular industry expected to grow over the next number of years?.
46. In the US, different systems have been developed to meet these quite distinct needs, but they are designed to feed off the same core set of data.

That adds significantly to cost effectiveness. It means that once the core data set is updated the data available to a wide range of different customers are updated automatically.

47. There is evidence elsewhere of strong, well developed, communication and feedback channels and responsiveness to meeting identified customer needs.
48. For example, labour market intermediaries (such as Careers Officers and Jobs and Benefits/Job Centre staff) play a critical role in understanding and addressing their customers' LMI needs. In North Carolina, labour market intermediaries regard LMI as a central part of their advisory toolkit. They have established a central "LMI Champion" who assists in providing training to colleagues in the application of LMI, demonstrating how it can be used effectively alongside other advisory tools. This LMI champion works closely with the statisticians and IT analysts to ensure that LMI and delivery systems are designed to meet customer needs.
49. It is, nevertheless, important to understand the context in which the North Carolina service is delivered. Their employment service is delivered to a clientele, most of whom are already in employment. For those who are on benefits, the length of time that they can claim unemployment related benefit is time-limited which injects a greater degree of urgency to job search activities than might otherwise be the case. Employment consultants are educated to at least degree level and working at a higher level requires a postgraduate qualification in careers guidance.

Integration of LMI into other Systems

50. There is evidence from around the globe of countries making increasing and effective use of IT enabled labour market systems. In North Carolina, for

example, an innovative job seeker/employer matching system, Job Connector, is being developed. It is being designed to enable a job seeker to construct and place their Curriculum Vitae (CV) online. At the same time it will allow employers to post vacancies electronically.

51. Using an advanced coding framework for skills and occupational competencies¹⁵, the Job Connector system will allow electronic matches of job seekers to vacancies. Not only has this potential to add to the efficient operation of the North Carolinian labour market, it could also provide a valuable stream of real time LMI on difficult to fill vacancies and reasons for those vacancies not being filled. It will be possible to examine how long it takes to fill vacancies in different occupations or industrial sectors. It will also be possible to examine the vacancies that have not been filled and identify which of the required skills could not be found amongst the available job seekers. It is envisaged that this information will be particularly valuable to education and training providers as they design curricula to meet local labour market needs.
52. The system is being designed to allow job seekers to match their skills set to the occupations they would wish to pursue. Where they find their skills are deficient, Job Connector will provide links through to relevant education and training providers that can address those issues. The system will also provide easy to follow and well integrated links through to LMI on occupations and industries at a state and sub state level. These will enable job seekers to examine the occupations that are growing or expected to grow. In addition the system is likely to facilitate more informed and fluid labour mobility by allowing job seekers to compare earnings in particular occupations across regions.

¹⁵ see <http://online.onetcenter.org> for further details on the O*NET coding framework

Characteristics of best practice elsewhere

53. The above analysis has found that the regions that lead the way in LMI development and application possess three key characteristics.

They work to ensure comprehensive data availability

- They develop a comprehensive core set of labour market data;
- they use administrative sources to get access to “near population” based LMI where possible;
- they have access to comprehensive earnings data; and
- they develop strong longitudinal data sets to underpin high quality labour market and policy analysis

They are effective in understanding and meeting customer needs

- they develop good systems to ensure that customer needs are clearly understood;
- they engage labour market intermediaries (eg Careers Advisers and JBO/Jobcentre staff) to ensure they promote the use of LMI and can tailor its delivery to meet their clients’ needs;
- they develop a core set of LMI that can be readily updated and design systems to draw from these data which are tailored to meet the needs of different customer groups; and
- they design simple to use IT and web enabled delivery systems that are key to effective LMI dissemination.

They develop Integrated Labour Market Systems

- they integrate LMI into other customer focused systems (including IT and web enabled job search, course search and careers advisory systems)
- they use the integrated systems as a source of LMI.

4. THE NORTHERN IRELAND LMI SYSTEM – THE WAY FORWARD

54. The previous section identified the key characteristics that mark out models of best practice in terms of availability and application of LMI. In order to deliver the Success through Skills strategy, NI needs to develop those same characteristics. The following section begins by setting out a vision of a world class LMI system for NI. It looks at how the region currently matches up to that vision. It establishes a number of actions designed to begin the process of moving NI from its current position towards one which can be regarded as world class.

The Vision

55. *By 2015 NI has access to extensive, near population LMI data, harnessed from administrative sources, including the taxation system. That information is used to provide a detailed, accurate, real time understanding of the demand for and supply of skills. Near population earnings data is of particular value and is being used extensively as a barometer of demand pressures and easements across industrial sectors, occupations and sub regions of NI.*
56. *Unique personal identifiers have been harnessed in NI allowing a wide range of data sources to be linked. This enables researchers to produce detailed longitudinal analysis of labour market experiences and how these differ according to the education and training route followed.*
57. *Policy evaluation and development is heavily influenced by this rich source of information. The data are key to the improved responsiveness of education and training providers. Accurate forecasts of the future demand for skills are helping shape regional and sub regional skills priorities. The Careers Service and Employment Service are using the data confidently to*

provide more accurate and relevant advice to their clients. LMI is held in high regard by pupils, students, parents, job seekers, job changers and those more distant from the labour market and they use it to take informed subject and career choices. Users are engaged in a structured way in the development process so that LMI continues to meet their needs effectively.

58. *Cutting edge web enabled platforms have been developed so that comprehensive NI LMI can be delivered in a user-friendly manner to meet user needs. Those LMI platforms are integrated comprehensively with other NI labour market systems, including Careers Online, Employers Online, Job Centres Online and Learndirect. That sophisticated integration allows students, job seekers and job changers to examine growth sectors and occupations, relevant job vacancies, how their skills set fits with those vacancies, where they can enhance their skills if required and to obtain detailed careers information.*

ACHIEVING THE VISION

59. The above vision is compelling and fits closely with the direction of the Success through Skills strategy. It is right that the Department commences work now to begin the process of turning the vision into reality. However, in doing so it must recognise the evidence from best practice regions that achieving a world class LMI system requires investment of considerable time and resource.
60. The following compares how NI is performing currently against the above vision and establishes a number of key actions required to begin the process of moving NI from its current position to a position of best practice.

DATA AVAILABILITY

61. There is a significant volume and variety of LMI available in NI and evidence of this already being used effectively to understand the demand for skills in the region and to shape policy. However, when the current position is mapped against the vision above, a number of challenges remain. The extent to which comprehensive labour market analysis can be conducted in NI is constrained because data are often drawn from sample surveys. The constraint that this places on the analysis of earnings information is a particular limitation. Current sample sizes in NI do not permit meaningful analysis of earnings within industries and occupations and cannot, therefore, be used as an effective barometer of labour demand and supply.
62. The vision set out above requires much more effective harnessing and linking of administrative data sources. However, UK data protection legislation places restrictions on the use of data sets for purposes other than what they were originally collected for. Nevertheless, there is value in working with other NI departments and UK administrations to examine the conditions under which near population data, particularly in relation to earnings, could be made available for labour market analysis.

Action 1.

Work towards capturing real time, near population based LMI in NI which can give much greater granularity and precision to analysis

(including longitudinal analysis) than is currently possible. As a first step in this process, work with other NI Departments and UK Administrations to examine the conditions under which administrative data sources could be harnessed and linked to capture the required information.

Timescale:

First step to be commenced by March 2008. Review progress by end 2008.

63. This review has found a particular need to develop robust longitudinal data so that the labour market experiences of those in the workforce over time can be tracked. While there have been recent improvements in data coverage, particularly in tracking those with HE level qualifications, NI continues to lag behind other UK countries and best practice regions elsewhere. Ultimately, the aim in NI is to develop world leading longitudinal information by linking relevant administrative datasets using unique identifiers. The feasibility of that approach will be explored as part of Action 1 above. However, improved outcome data is required more immediately to inform the choices of a wide range of customers (including DEL policy, the Skills Expert Group (SEG), Workforce Development Forums (WDFs), SSCs, the Education and Training Inspectorate (ETI), universities, colleges and other training providers). The Department must move to tackle this information gap by other means in a more immediate timeframe.

64. This review proposes that the Department should build on the high quality outcome data that already exist for HE and provide support for the planned HECSU and HESA longitudinal surveys of NI HE students.

Action 2.

Provide support for both the planned HECSU and HESA longitudinal surveys of NI HE students so that data on the labour market experiences of HE students continue to be enhanced.

Timescale:

Overall UK findings from HECSU survey available in June 2008, with additional analysis for NI to be agreed. Initial high level HESA survey results were published in Autumn 2007.

65. For those enrolled on professional and technical courses at FE colleges and private training organisations it is proposed that the Department should commission a scoping study to examine the possibility of tracking a cohort of leavers from FE and work based learning. That scoping study would assess whether progression routes and labour market outcomes can be assessed in a comprehensive and consistent manner across FE and work based learning.

Action 3.

Conduct a scoping study to examine the possibility of tracking a cohort of leavers from FE who had enrolled on professional and technical education and training courses. The scoping study will examine whether progression routes and labour market outcomes can be assessed in a comprehensive and consistent manner across FE and work based learning.

Timescale:

Scoping study to be initiated by Spring 2008 with results expected to be available in Autumn 2008.

66. Building on this work and looking to the medium term, it is proposed that, for the first time, a comprehensive Youth Cohort Study be introduced in NI. Youth cohort studies provide detailed individual level information on young people over time, on their family and schooling backgrounds. They track individuals when they finish compulsory education through further education and training and on into the adult labour market. As it is not viable to continuously collect such detailed information from all young people because of the costs involved, youth cohort studies survey representative samples of young people from different year groups (cohorts) periodically. By comparing young people of the same age, but across different cohorts, the effects of changes over time in the labour market, in the curriculum and in education policy can be assessed. This in turn provides a crucial evidence base to shape provision for the future.

Action 4.

Commission the first NI Youth Cohort Study in order to track individuals' education, training and labour market experiences more effectively.

Timescale:

Developing and Piloting Questionnaire by end 2008. First main sweep to be completed by end 2009 with results available in 2010.

Meeting Customer Needs

67. This review points to evidence of LMI being used to good effect in NI to influence relevant policy decisions. However, as a result of the Success

through Skills strategy, the landscape is changing. It places much greater emphasis on the need for a clear understanding of the demand for skills and an education and training system that can address that demand. In order to achieve these aims it establishes roles for a range of bodies including the SEG at the regional level, the six WDFs at the sub regional level and the 25 SSCs. These bodies require access to comprehensive LMI to operate effectively.

Action 5.

Ensure that LMI is deployed in a consistent, informative and joined up way to: assist the SEG develop the Regional Employment and Skills Action Plan; ensure the new WDFs are well informed about local demand and supply issues; and provide the SSCs with information to assist in their assessment of demand and supply in their respective sectoral footprints.

Timescale:

First wave of LMI to be provided by March 2008 and update at least annually thereafter.

68. In addition to shaping policy and education and training provision, achieving the vision above requires LMI to be used more effectively to inform the NI Careers and Employment Services and their respective customers.
69. The NCEE report pointed to the many strengths of the NI Careers and Employment Services and singled out the design of the Careers Service NI web site for particular praise. However, the LMI disseminated by the Careers and Employment Services would benefit from further careful

tailoring to meet customer needs. In addition, this review has found that Careers Service and Employment Service staff would benefit from high quality training to ensure they are confident using LMI as part of their professional toolkit. The Department's review of Careers Education, Information, Advice and Guidance will shape the way the NI Careers Service engages with its customers. Similarly, the Employment Service has engaged in a number of pilot studies to examine how LMI can be used more effectively. A group has been established comprising Employment Service, Careers Service and Analytical Services staff to develop LMI that will provide Advisers with additional information to help clients make informed labour market choices.

70. However it is clear, both from the review of how LMI is used in NI and evidence of best practice elsewhere, that if customer needs are to be met effectively, the Careers Service and Employment Service must have a clear understanding of their customers' LMI needs. They must also articulate those needs clearly so that Statisticians can provide appropriately tailored information and IT specialists can design effective dissemination systems. Achieving this goal requires proper training and strong feedback channels from front line advisers back to the IT and Statistical professionals. The following actions are designed to address those needs.

Action 6.

Appoint “LMI Champions” within the Careers Service and Employment Service. The Champions will play a number of crucial roles. They will work to ensure that the Careers Service and Employment Service are aware of the available LMI and how to use it effectively. They will provide feedback to labour market analysts, IT specialists and other relevant partners, articulating their customers’ LMI needs, give guidance on how best to present the information to maximise impact and ensure that customer LMI needs are being met effectively. Finally they will work with staff trainers and labour market analysts to design and develop appropriate training to ensure Employment Service and Careers Service staff can use LMI confidently and appropriately as part of their advisory toolkit.

Timescale:

Careers Service and Employment Service LMI Champions to be in post by March 2008.

Action 7.

Responding to the needs identified by the LMI Champions, ensure that LMI is presented in a manner that is accessible and can be understood easily by the Careers Service and Employment Service and their clients.

Timescale:

First wave of LMI to be provided to the Careers Service and Employment Service by July 2008.

71. Continuing on the theme of meeting customer needs, the review has found that the Department has put in place a forward looking Research Agenda which articulates its future research needs, including those in relation to LMI. However, there is a need to ensure that the research and evaluation effort of the Department continues to be appropriately focused and that the outcomes of that work influence policy development and service delivery.

Action 8.

Review the DEL Research Agenda to ensure it is meeting objectives and that the research flowing from it is being used to influence policy and programme delivery. That review will examine whether the research dissemination process is fitting customer needs.

Timescale:

Review of Research Agenda to be completed by Spring 2008.

Labour Market Systems

72. There is clear evidence from international best practice that the effectiveness of labour market services to employers, job seekers and Careers Service clients is improved when there is significant integration in delivery systems. The North Carolina Job Connector system is one prime example where employers and employees can be linked electronically and job market activity is enhanced by links to high quality LMI, careers advice and to information on where relevant skills can be developed. Strong IT systems have already been developed in these same areas in NI including, Employers Online, Jobs and Benefits Online/Job Centre Online, the Careers Service Online and Learndirect's directory of education and training courses. Links are provided between these various systems but only at a

high level. In order to match best practice in other regions there is a need to link these systems in a much more comprehensive way both to each other and to relevant LMI data.

73. In order to deliver the vision set out above, the aim should be to develop a linked system in NI where an individual can, based on sound careers advice and LMI, identify a promising career to which they are well suited. Having identified that career choice, the system should enable them to identify which education and training establishments provide courses relevant to that area and examine what jobs are currently available. Alternatively a job seeker should be able to examine what jobs are available and, as they search, be able to identify what education and training is required for that job and where they can undertake that training if required. They should be enabled to examine future prospects for their chosen career based on relevant LMI and access career information online to ensure that they understand the nature of the work required and whether they are well suited to it. An integrated system of this type would require extensive programming and coding and is likely to require significant investment of time and resource. However, it has the potential to add considerably to the efficient operation of the NI labour market and deliver a new, rich source of LMI.

Action 9.

As part of the roll out of the Department's IT strategy, appraise the opportunities for integrating Employers Online, Jobs and Benefits Online/Job Centre Online, Careers Service Online, Learndirect and LMI. The appraisal should examine the impact a comprehensively linked system would have on the efficiency of the NI labour market and the extent to which it could act as a source of LMI.

Timescale:

Appraisal to be undertaken by Summer 2008.

5. SUMMARY AND CONCLUSIONS

74. This review provides a comprehensive analysis of the LMI that is available in NI and how it is currently being applied to lead to more informed choices across a wide range of users. It has found that, in many respects, NI has good data coverage and there is clear evidence of good practice in using that information effectively.
75. However, in order to deliver the Success through Skills strategy, LMI now needs to move even more centre stage and learn from best practice elsewhere. Success through Skills requires that the demand for skills is assessed in a more accurate and timely manner. It has introduced new structures to ensure that LMI is used to shape education and training provision to meet those demands effectively. It seeks to ensure that LMI is used more effectively to inform the career and course choices of those in society.
76. To that end, this review sets out a vision of a NI LMI system which, by 2015, would be regarded as world class. It has brought forward a number of challenging actions to commence the process of realising that vision. These actions are summarised in the table below. However, there also needs to be careful, periodic monitoring of implementation and an assessment of what more needs to be done and what resources need to be secured to maintain momentum in achieving the LMI review's vision. For example, Action 1 requires interaction with a range of NI and UK departments to identify how administrative data sources could be harnessed to bolster LMI. If this work stream enables access to a wider range of data, consideration will need to be given to what further action is required to harness the information to meet customer needs effectively. It is therefore recommended that the Department conduct an annual review of progress towards the achievement

of the LMI Review actions. Armed with that information, it should assess what further actions are possible and required to realise the LMI Review vision.

LMI REVIEW ACTIONS - SUMMARY

	Data Availability	Timescale
1.	Work towards capturing real time, near population based LMI in NI which can give much greater granularity and precision to analysis (including longitudinal analysis) than is currently possible. As a first step in this process, work with other NI Departments and UK Administrations to examine the conditions under which administrative data sources could be harnessed and linked to capture the required information.	First step to be commenced by March 2008. Review progress by end 2008.
2.	Provide support for both the planned HECSU and HESA longitudinal surveys of NI HE students so that data on the labour market experiences of HE students continue to be enhanced.	Overall UK findings from HECSU survey available in June 2008, with additional analysis for NI to be agreed. Initial high level HESA survey results were published in Autumn 2007.
3.	Conduct a scoping study to examine the possibility of tracking a cohort of leavers from FE who had enrolled on professional and technical education and training courses. The scoping study will examine whether progression routes and labour	Scoping study to be initiated by Spring 2008 with results expected to be available in Autumn

	market outcomes can be assessed in a comprehensive and consistent manner across FE and work based learning.	2008.
4.	Commission the first NI Youth Cohort Study in order to track individuals' education, training and labour market experiences more effectively.	Developing and Piloting Questionnaire by end 2008. First main sweep to be completed by end 2009 with results available in 2010.

Meeting Customer Needs

5.	Ensure that LMI is deployed in a consistent, informative and joined up way to: assist the SEG develop the Regional Employment and Skills Action Plan; ensure the new WDFs are well informed about local demand and supply issues; and provide the SSCs with information to assist their assessment of demand and supply in their respective sectoral footprints.	First wave of LMI to be provided by March 2008 and update at least annually thereafter
6.	Appoint "LMI Champions" within the Careers Service and Employment Service. The Champions will play a number of crucial roles. They will work to ensure that the Careers Service and Employment Service are aware of the available LMI and how to use it effectively. They will provide feedback to labour market analysts, IT specialists and other relevant partners, articulating their customers' LMI needs, give guidance on how best	Careers Service and Employment Service LMI Champions to be in post by March 2008.

	to present the information to maximise impact and ensure that customer LMI needs are being met effectively. Finally they will work with staff trainers and labour market analysts to design and develop appropriate training to ensure Employment Service and Careers Service staff can use LMI confidently and appropriately as part of their advisory toolkit.	
7.	Responding to the needs identified by the LMI Champions, ensure that LMI is presented in a manner that is accessible and can be understood easily by the Careers Service and Employment Service and their clients.	First wave of LMI to be provided to the Careers Service and Employment Service by June 2008.
8.	Review the DEL Research Agenda 2004-07 to ensure it is meeting objectives and that the research flowing from it is being used to influence policy and programme delivery. The review will examine whether the research dissemination process is fitting customer needs.	Review of Research Agenda to be completed by Spring 2008.

Labour Market Systems

9.	As part of the roll out of the Department's IT strategy, appraise the opportunities for integrating Employers Online, Jobs and Benefits Online/Job Centre Online, Careers Service Online, Learndirect and LMI. The appraisal should examine the impact a comprehensively linked system would have on the efficiency of the NI labour market and the extent to which it could act as a source of LMI.	Appraisal to be undertaken by Summer 2008
----	--	---

Annex 1

**THE USE OF LABOR MARKET INFORMATION
IN CUSTOMER CHOICE**

EXECUTIVE SUMMARY

NATIONAL CENTER ON EDUCATION AND THE ECONOMY

WORKFORCE DEVELOPMENT STRATEGIES GROUP

Prepared for:

NORTHERN IRELAND DEPARTMENT FOR EMPLOYMENT AND LEARNING

MAY, 2006

Introduction

The National Center on Education and the Economy (NCEE) is pleased to present this Executive Summary on the use of labor market information in NI customers' choice. Since late March 2005, NCEE has worked closely with officials from DEL's Analytical Services Division to provide a better understanding of how labor market information (LMI) is used in the US and in several English speaking countries, and to highlight best practice. The objectives of this review are to identify:

- What LMI systems operate in various states and countries?
- Who the various customer groups are;
- How the customers' needs are met; and
- The cost and effectiveness of the various tools and systems.

NCEE started this review identifying seven broadly defined customer groups and for each, described the LMI information needed. We surveyed and identified services and information to address these needs, scanning all 50 states and key US national systems. We performed a similar survey of LMI systems in six additional countries that appeared to offer approaches and systems relevant to NI. We also reviewed NI labor market related systems and aligned them with the same set of customer needs. We learned that the NI Careers Service is a world-class foundation for delivering services. We found many interesting approaches to the challenge of providing labor market information to various customer groups, including several that may prove valuable for DEL's consideration. This report is a synthesis of NCEE's findings about LMI presentations and approaches, including those that DEL and its sister agencies may find of great interest.

NCEE would like to acknowledge the useful insights, information and advice provided by DEL officials, Victor Dukelow and Tom Gardiner. We greatly appreciate their candor and their contributions to the themes and suggestions in this executive summary. NCEE also would like to thank other members of DEL's Analytical Services Group and others interested in this LMI review who provided comments and information during this study. All of these individuals are to be complimented for their commitment to achieving more and better use of LMI to inform customer choices.

This Executive Summary report, following this introduction, provides:

- A description of analytical framework used to align customer needs with the practices in the US and other countries;
- A discussion of the strengths of NI's system and challenges it faces in

- moving to world class delivery of career and labor market information to its customers;
- The identification of five common themes that organize suggested approaches for consideration in shaping LMI policies and investments to enhance customer choice; and
 - A short list of possible next steps as the formal LMI review moves forward.

Analytic Framework and Approach

To answer the question, “What information do various customer groups need?”, NCEE identified seven broadly defined customer groups in Working Paper One. (See Appendix.) For each group, NCEE described an ideal LMI service suite, and the description for each group begins with a vignette. The seven customer groups are:

- Youth (10-16);
- Teens and Young Adults (16-24);
- Adults (24+);
- Employers;
- Economic Development Professionals;
- Intermediaries (School Guidance Counselors, Job Centre Staff, Career Counselors); and
- Education and Training Providers.

For each group, NCEE described, using a matrix form: (1) the specific labor market information needs for each of the customer groups; (2) the system(s) needed to fulfill those needs -- specifically including data collection or adaptation and display (electronic or hard copy); and (3) the current US State level or national systems that target the customer need.

For the review of US LMI tools and practices, NCEE also identified private sector examples where they provide the service on behalf of a public entity. NCEE provided a short description of the US system for generating employment related statistics, and presented US best or promising LMI practices and products by state for 11 States.

NCEE selected six countries – Australia, Canada, New Zealand, Republic of Ireland, Singapore, and (other parts of) the UK -- because their approaches and systems were the most likely to be compatible with those used in NI. Because these countries approach solving problems of gathering labor market data, organizing it into useful information, and presenting it in a coherent, user-friendly manner differently, we believed they offered some interesting options for DEL consideration. NCEE also identified best practice LMI products or services in each of the six countries that address specific customer labor market needs. In

addition, NCEE identified functional areas such as data collection, learning exchange, or data sharing that appeared to be particularly interested, and presented the details of each approach as part of the individual country summaries.

Strengths and Challenges

This section takes a brief look at the strengths of the NI system and the challenges that system faces in order to serve the people of NI and its economy.

Strengths

The NI Careers Service is a world class delivery system¹⁶. The virtual tours of occupations contained in the website are unique and powerful. For example, the tour of the car maintenance facility is so realistic you can almost smell the grease. The core career information delivery system allows users multiple paths to reach the same underlying database of information. The linkage to the job bank to reach current vacancies also adds power to the system. And from a customer's viewpoint, the ability to save information means the individual is more likely to see the labor market tools as on-going resources.

Several elements of the UK system also are world class and in some cases, unique. The Learn Direct database of courses is the largest in the world; no other system is even a close second. The Job Centre Plus job bank is experimenting with tools to allow database to database transfers of job postings (the key element in the America's Job Bank (AJB) size and coverage). The Higher Education Career Services Unit¹⁷ produces tracking studies on graduates that are unique in the world.

Challenges

One key challenge for every LMI system in the world is the relative isolation of information. Good information -- industry and occupational projections, career paths of graduates, even the massive Learn Direct database -- often remains in research reports such as "Working Futures" on a shelf somewhere, or as a single purpose website. As powerful as Learn Direct is, it does not allow customers to conduct an occupation-based search. Creation of such a search tool could tie the Learn Direct database into both the Careers Service tool and the Job Centre Online. A current customer who is looking for a specific job or who has found his ideal career does not have an easy time to find the training needed to turn dream into reality.

Combined with the isolation of the information, the lack of database/system integration makes it harder for frontline staff to know where all the relevant

¹⁶ www.careersserviceni.com/Cultures/en-GB/Homepage.htm

¹⁷ www.hecsu.ac.uk

information can be found. It makes it nearly impossible for an unsophisticated self-service user to find their way.

The relative positioning of the public labor exchange presents another challenge. Because relatively few of the high skilled jobs are posted, the exchange can not operate as effectively as a forum for disseminating information gathered through the Sector Skills Council process. The labor exchange also is missing the talent or CV database that is common in most of the public banks in the English speaking world and almost universal in the private sector. The lack of searchable CV database means that job seekers are only “lookers” and not “direct contributors” to the vitality of the exchange. The CV database is a critical component in building a transaction-based information tool since workers are often much more descriptive and complete about entries on their resumes/CVs than employers are with job postings. A more robust public labor exchange also produces the density of information needed to spot trends from emerging industries and occupations.

Finally, the fact that the benefits payment system, the employment service and the careers information systems have developed separately and have only recently begun to come together means that considerable potential to maximise opportunities remains. The unemployed may delay a serious job search for a while even though finding a new job is often easiest in the beginning of the jobless period: indeed most new claims for benefit are only of short duration suggesting that, in most cases, information flows are happening without the need for intervention. The flow of customers into the benefits system is a major opportunity to share information about jobs, career options and training if developed appropriately, especially for those at risk of becoming excluded from the labor market.

Emerging Themes, Suggestions and Cost/Benefit Discussions

Exploring labor market tools and systems across seven English speaking countries (Australia, Canada, New Zealand, the RoI, Singapore, the US and other regions of the UK, NCEE spotted several approaches that could prove valuable for NI consideration. These approaches are organized by five themes and arrayed in terms of relative ease of accomplishment. The first few approaches naturally build on themselves. The themes are

- Code everything, link everything, cross walk everything and borrow what you can.
- Use natural points of entry to engage customers and to expand the customer base.
- Partner with private sector players in ways that are mutually beneficial.

- Use administrative and transaction data to generate real time information, and push that information to customers to get them more engaged.
- Adapt the occupational and skills projections systems from the US to fill an information void.

The first theme recognizes that information is much more powerful when it is linked together so non-experts can find it. That generally requires unglamorous work behind the scenes, coding items (so their relationship to other items will be clear) and making the link in context so all the information needed to make a choice is just a mouse click away. The second theme recognizes that government in its many roles touches large fractions of the population every day; but unlike a commercial enterprise, government is not very good at “cross selling” its products. This theme explores suggestions for ways that the very good career information produced by the Careers Service can find a wider audience and how the coverage of the NI labour market systems can be expanded. The third theme recognizes that the public sector is not in the labour market business alone; it is one player among many. In many instances, sharing of data can advantage both the private and public sectors. The fourth theme recognizes that surveys, the traditional way of collecting labour market information, have some significant limitations in terms of costs and timeliness. Our suggestions for this theme focus mainly on the creation of information from the streams of jobs and resumes that move through the public system. The building of the customer base described in the second theme and the partnerships with the private sector described in the third theme help to make the flow of jobs and resumes more robust and more representative of the entire NI economy. Extracting usable and useful information from those data streams means customers and policy makers can know more about the labour market in real time. We did not cover the use of administrative records, because the examples from the US, New Zealand, and Singapore required access to social benefit tax filings which do not appear to be available in NI. The final theme looks at the possibility of adapting the US occupational projection system to NI.

The chart beginning on the following page represents a summary of those themes, specific suggestions, brief discussions of costs and benefits and a notation of the example in one or more of our study countries.

Themes, Suggestions, and Cost/Benefits Discussion

Broad Theme	Specific Suggestion	Cost/Benefit	Country/State Examples
Code everything, link everything, cross walk everything and borrow what you can	Bi-directional link between Careers Service and Job Centre Online	<p>Cost – very low provided that the job bank shares the same coding scheme as the Careers Service</p> <p>Benefit – dramatic increase in the use of career information</p>	Bi-directional link between AJB and America’s Career Information Network (See Working Paper One)
	Incorporate the projections from Working Futures and local NI sectoral projections efforts into Careers Service.	<p>Cost – very low provided that the coding structures are the same and the underlying projections data are in a database format</p> <p>Benefit – dramatic increase in the utility of the projections research and potentially useful information in the hands of consumers</p>	Occupational level projections are a feature of all US national and state labor market information delivery systems. The Occupation Outlook Handbook produced by the US Bureau of Labor Statistics is incorporated into numerous public and private career information systems. (See Working Paper

Broad Theme	Specific Suggestion	Cost/Benefit	Country/State Examples
			One.)
	Adapt and incorporate the “paths” from the “graduates study” into Careers Service.	<p>Cost – low, some analysis of the data would need to be done since paths into career areas are many to one and paths from courses of study are one to many.</p> <p>Benefit – the placement of this unique data within the Careers Services online delivery system will dramatically increase its usage and provide younger youth and their parents a much better sense of the multiple paths to success through education.</p>	The UK systematic study of graduate outcomes appears to be unique in the world
	Cross walk Standard Occupational Classification (SOC) 2000 to O*NET and then borrow, adapt, and incorporate the O*NET database within the Careers Service and Job Centre Online.	<p>Cost – relatively low, would require 150 to 300 expert hours to generate the cross walk, the O*NET database and related tools are free of charge; additional costs are associated with creating the necessary interfaces between the databases and the NI applications; and there always is a potential risk that the US may reduce its investment in updating and maintaining O*NET.</p> <p>Benefit – NI will be able to take advantage of the millions of dollars the US spends to update and expand O*NET each year for the cost of maintaining the cross walk and the interfaces.</p>	Australia has followed a similar path to augment its career information (See Working Paper Two)
	Adapt and incorporate the career videos from the US and Canada.	<p>Cost – very low to relatively low depending on whether the voice over is changed. Geared to the US SOC/O*NET so that the cross walk can do double duty. The US videos themselves are licensed without charge.</p>	Career videos have been inserted within most US national and state labor market information

Broad Theme	Specific Suggestion	Cost/Benefit	Country/State Examples
		<p>Benefit – allows individuals to get a visual sense of jobs; supplements the virtual career tours.</p>	<p>delivery systems. The Spanish language versions of the videos are simply new recordings of the voice over. (See Working Paper One.)</p>
	<p>Cross walk, borrow, adapt and incorporate the skills standards, assessments and training from other English speaking countries into the NI Sector Skills Council efforts.</p>	<p>Cost – medium, since there would be a requirement to cross walk country occupational coding schemes and in some cases national qualifications frameworks. There may be licensing costs associated with the courses and the assessments.</p> <p>Benefits – NI would be able to leverage millions of pounds/dollars of investment in the various assessments and courses tied to specific skills and skill standards.</p>	<p>While a detailed analysis of the various national skills standards efforts was beyond the scope of this study it is reasonable to assume that both public and industry representatives borrow ideas and approaches across borders. Linkages to the assessments, training and standards for Canada, the UK, New Zealand and Singapore are included in Working Paper Two.</p>

Broad Theme	Specific Suggestion	Cost/Benefit	Country/State Examples
<p>Use natural points of entry to engage customers and to expand the customer base</p>	<p>Make entry into any part of the public system entry into the entire system. Create a CV bank within Job Centre Online. Connect the job seeker account to the Careers Service account structure. Make establishing an account and creating a CV part of the application for benefits. Match benefit applicants with jobs at the point of initial application and every time they make a fortnightly return visit. <i>The creation of the CV bank and its integration in the process/requirements for receiving a job seeker or other unemployment allowance are policy choices that would need to be made by the</i></p>	<p>Cost – medium to high (depending on the sophistication of the search engine and “bells and whistles” incorporated with the system). It would involve the creation of the CV bank and licensing of the appropriate search tools. (There are several private and public models that could be easily adapted,) Assuming program policy support, it would involve changes to the process associated with applying for and continuing to qualify for the job seeker allowance. Such changes may include the automation of the job match and follow-up portions of the interaction with the benefits office. Ideally, the CV account would incorporate the career exploration and career information tools within the Careers Service account structure. Because this approach represents a substantial change in the way that benefits staff and career advisory staff will interact and in the way customers will interact with the system, there will be staff training costs, marketing costs and procedure redesign costs. Benefit – are many: First, on-going savings from the more rapid reemployment of the individuals receiving allowances could be 5 to 20 times the cost of building and maintaining the system; second, creation of the CV means that individuals may come to career advisers not as a</p>	<p>The linkage between the Michigan Talent Bank and the Michigan unemployment insurance system is the closest example. (See Working Paper One for details.) It should be noted that the majority of public job banks in the English speaking world have searchable CV banks. (See Working Paper One and Two for details on the CV banks in the US, Canada, Australia, and the Republic of Ireland)</p>

Broad Theme	Specific Suggestion	Cost/Benefit	Country/State Examples
	<i>appropriate NI authorities.</i>	blank slate, but with some homework done; third, the automatic and continuous matching of CVs and jobs should make the job bank itself more attractive to employers; fourth, the CV database is the foundation for a transaction analysis system; and finally, the CV database itself can become an economic development tool – a way to present a specific pool of talent to a prospective employer rather than a vague promise of a skilled and educated workforce.	
	Create a version of this job/talent/career information system that can be “branded” as the placement office for every institution engaged in education and training related to the national qualifications framework.	Cost – low once the combined CV and Job/ Career Information bank has been linked. Benefit – the high quality career and labor market information already produced and displayed within the Careers Service should find a new audience. The CV bank will get a constant supply of new, educated talent. The placement and guidance functions of the institutions will be improved. Finally, the tools can become a formal bridge between the Sector Skills Council effort and the institutions they are seeking to influence.	There is no specific example of the public labor exchange becoming the placement operation for the higher education institutions. There are examples of community colleges in the US acting as one stop centers responsible for a number of services, including placement for students and the more general public) The process of creating “branded”

Broad Theme	Specific Suggestion	Cost/Benefit	Country/State Examples
			versions of the labor exchange tools is a common practice in AJB and has several “association” versions including one for the Department of Defense (military to civilian transition) and Department of Veteran Affairs (employment after vocational rehabilitation). The ERISS product (e.g. Jacksonville) is built to be “branded” to the various local workforce boards. (See Working Paper One for details.)
Partner with private sector players in ways that are mutually beneficial	Utilizing the vehicle being created by the UK Job Centre Plus or one created in NI, makes it possible for job boards, large employers, staffing	Cost – low to medium (depending on the availability of UK tool) to create the process for sharing. If sharing is done, there will need to be staff assigned to manage the process and the relationships with the private sector partners. Benefit – substantial increase on the total	AJB currently obtains more than half its job vacancy listings through such sharing arrangements. Numerous US states

Broad Theme	Specific Suggestion	Cost/Benefit	Country/State Examples
	<p>companies and newspapers to share their job orders with Job Centre Online. (There are policy issues that will need to be addressed in order to make these public/private partnerships work.)</p>	<p>number of jobs available to users of the public system. Perhaps as important, the job offerings will become more representative of the entire economy. There is a substantial benefit for the private sector players who will have a larger audience for their own postings. There is a further private sector benefit if the connection to the benefits process is implemented. Job posting from these private sector sources could be presented to newly unemployed persons within moments of their application for benefits (usually weeks before the individual would begin an active search that would include those sources). Inviting the private sector in may, in fact, forestall concerns about public sector competition with the private sector because the public sector will become an ally.</p>	<p>piggyback on the national effort by bi-directional sharing with AJB. The Australian Job Bank gets many posting through its association with its network of Job Placement Organizations (often staffing companies and private employment bureaus). See Working Paper One and Two for details,</p>
	<p>Create a mechanism to share CVs bi-directionally with the same groups. To alleviate fears about privacy, individuals would need to be asked for their permission to share their own CV with other organizations.</p>	<p>Cost – low to medium depending on the sophistication of the search match engine purchased to run the CV bank; the more sophisticated engines include vehicles for auto coding resumes and for reformatting them using multiple style sheets. (A common style sheets is HRXML which is the international standard for electronic resumes.) The more sophisticated engines also facilitate the creation of the real time labor market information analysis. There also will be costs associated with staff time that will need to be devoted to managing the</p>	<p>The Burning Glass tools which have been recently purchased to power a revision to the Minnesota job/talent bank have the auto-coding and resume reformatting capacity. AJB experimented with bi-directional transfer</p>

Broad Theme	Specific Suggestion	Cost/Benefit	Country/State Examples
		<p>relationship with the private sector boards.</p> <p>Benefit – for the public system, sharing CVs from job seekers with enterprises in the business of finding new workers for employers likely will to help individuals become reemployed faster and lower costs to the government. For private sector firms, receiving the CVs can potentially add to their customer base without the cost of recruiting new job seekers (a substantial part of their current marketing budget). For private sector firms, sharing their CVs may require that the job seeker contact information be stripped so that “their” customer cannot be easily stolen. Mechanisms can be created, akin to use of “confidential” resumes in current job boards, allowing the resume to be searched any place; however, contact of the job seeker is handled through the job board that brought the jobseeker “to the party”. For public sector purposes, even a non-searchable CV generates significant value if it is included in the database used for transaction analysis.</p>	<p>of resumes but never implemented it. The One Stop Operating System used by 6 states (NY, NJ, KY, ND, HI, NV) to manage their workforce investment systems includes the bi-directional transfer mechanism. See Working Papers One for details,</p>
<p>Use administrative and labor exchange transaction data to generate real time information; push that information to</p>	<p>Data contained within the expanded CV and jobs databases should be mined for information at three separate levels of analysis – counts of macro activity, trends in</p>	<p>Cost – medium. The more sophisticated the search/match engine is for the CV bank, the more it can be used to power the data mining effort. There will be both start up costs associated with building the reports and analysis structures, and on-going costs for running the reports as well as doing additional analysis</p>	<p>Utah, Alabama, Florida, Kansas and Vermont have elements of a transaction analysis system in operation. The ERISS salary</p>

Broad Theme	Specific Suggestion	Cost/Benefit	Country/State Examples
customers to get them more engaged	detailed requirements, and emerging trend analysis.	<p>(particularly to identify emerging trends). There also will be costs associated with turning the reports into customer friendly tools so that the information generated have more than just a research product.</p> <p>Benefit – the level of analysis possible using the transaction flow will create a unique customer and a policy resource. For customers, knowing what skills are emerging and what the current market is for salaries should dramatically increase their success in navigating the labor market. For policy makers and public managers, it will produce a detailed look at the real time dynamics of the labor market in a way not possible before. It will be a powerful tool for the SSC, helping them ground their work in the current market while giving them a window into the market that is emerging. The wealth of information potentially generated could add considerably to the authority with which the SSC speak.</p>	<p>scanner (Jacksonville) uses information derived from transaction analysis to create the salary trend data. Perhaps as interesting, the automated e-mailing of that trend data to some 2,000 Jacksonville employers on a monthly basis generates the posting of some 25,000 job vacancies a year, without any staff intervention. (See Working Paper One for details)</p>
	Turn continuously mined information into products and services that students (youth, teens and young adults), adults (job seekers), employers, economic development	<p>Cost – low to medium. Cost-sharing in the development of some tools is a possibility if the tools have market potential outside of NI.</p> <p>Benefits – the use of the information as a way to attract new customers and to cement relationships with current customers is a powerful benefit. The right set of tools also can make the task of the SSC easier by delivering</p>	<p>The ERISS salary scanner and e-mail program is one example. (See Working Paper One for details)</p>

Broad Theme	Specific Suggestion	Cost/Benefit	Country/State Examples
	professionals, intermediaries (school guidance counselors, (Job Centre staff, Career Counselors), Education and Training Providers, and policy makers can use.	their message constantly in the form of “news people can use”.	
Adapt the occupational and skills projections systems from the US to fill an information void	Adapt the US industry occupation matrix to allow for a more granular (detailed not aggregate) projection of occupations.	<p>Cost – high. Nevada, the lead state in the multi-state projections consortium, estimates that the adaptation of the US matrix to a different occupational and industry coding scheme would cost 300-400,000 US dollars. Once the conversion is done, NI would be able to use the full power of the projections software. There may be approaches that would lower that cost. For example, a project of this magnitude might be done in collaboration with the rest of the UK. There’s a risk that some number of occupations and the necessary skills, abilities, and knowledge to perform them may differ in NI.</p> <p>Benefits – having the ability to project detailed occupations into the future would be a significant benefit to both customers and policy makers. For customers, projections can help guide both career and education choices. For policy makers, it allows for a much more sophisticated analysis of future trends since skill needs vary</p>	<p>The matrix itself is a collaborative effort to which many US states and the federal government contribute. (See Working Paper One for details)</p> <p>Also note that the US is the process of developing tools that will project skill demands in addition to projecting occupations.</p>

Broad Theme	Specific Suggestion	Cost/Benefit	Country/State Examples
		among occupations that are now grouped within the broad clusters of occupations that can be projected with the tools NI now has available.	

Next Steps

In reviewing the review findings and suggestions, some key DEL considerations likely may include:

- Exploring in more depth, those practices or tools that appear to have the most potential benefit for the various customer groups;
- Reviewing the findings with DEL and other sister agency staff and others, including Sector Skill Councils and Careers representatives, to bring forward recommendations about the practices or tools that will best meet the needs of all or the highest priority customer groups, including the preparation of cost benefit analysis and timelines as appropriate;
- Based upon the above, determining whether there is additional need for information about approaches or their implementation or for further discussions with NCEE or others; and
- Reaching final agreement about the practices or tools that will be adapted for use by NI LMI customers and the resources that will support this effort.

For further information:

Telephone: 028 90 257609/257683

Fax: 028 90 257696

E mail reb@delni.gov.uk

Web: www.delni.gov.uk

people:skills:jobs:



Department for
**Employment
and Learning**
www.delni.gov.uk



INVESTOR IN PEOPLE

THE DEPARTMENT:

Our aim is to promote learning and skills,
to prepare people for work and to support
the economy.

This document is available in other
formats upon request.

FOR FURTHER INFORMATION

Telephone: 028 90 257609/257683

Fax: 028 90 257696

E mail reb@delni.gov.uk

Web: www.delni.gov.uk