

1. *Employment*

INTRODUCTION

The Employment part of the 2001 Strategic Forecasts for Aberdeen City and Aberdeenshire is divided into five main sections:

- Methodology
- Economic Overview
- Sector Assumptions
- Summary
- Detailed Forecasts Tables

The first section describes the methodology used to compile the employment forecasts. The overview section comprises a brief examination of recent economic trends at local and national levels and highlights potential future trends. ‘Sector assumptions’ details the main assumptions by broad employment sector ie oil and gas, primary, manufacturing, construction, services and self employment sectors which have been applied in the projection of future employment levels in Aberdeen City and Aberdeenshire. A summary section describes the key employment forecast trends over the period 2000 to 2016. Finally, *Appendices 1, 2 and 3* contain detailed tables of employment forecast for each geographic area and by main and sub employment sectors.

METHODOLOGY

The Elements

Forecasts of *total jobs* are arrived at by the addition of three main components:

- Total oil employment
- Total non oil employment
- Self employment

This measure of total jobs is then adjusted to take account of the residency of oil employees. All offshore oil workers whose usual place of residence is *outwith* the Aberdeen City and Aberdeenshire area are excluded from the total jobs tally. This results in a bottom-line *Total Employment* figure for each of the forecast years and for each geographic area. Projections are also made for those on 'special training schemes', although they are not included in the total employment forecast.

The Employment chapter details the methods and assumptions involved in determining current and future levels of employment for the three elements. The methods and subsequent employment forecasts relating to the first of these elements (oil employment) are covered in more detail in the companion report to

this set of forecasts: *Oil and Gas Prospects 2001 Update*, also published jointly by both Councils. A summary of the key assumptions relating to oil sector employment is, however, contained in this chapter.

Employment Classification

The total employment figures which appear in this report are derived and aggregated from a much more detailed sectoral breakdown. This corresponds to a number of industries or activities based on the Office for National Statistics' *Standard Industrial Classification (SIC92) of economic activities*.

For forecasting purposes the 17 sections (or 99 divisions) in SIC92 classifies to 20 industries/activities in the *2001 Strategic Forecasts for Aberdeen City and Aberdeenshire (Figure 1.1)*. Oil and gas extraction (SIC division 11) and associated onshore support activity is treated separately and as previously stated is covered in the *Oil and Gas Prospects 2001 Update* report.

Database and Base Year Construction

The database acts as the framework to the assessment of future employment trends. It consists of a range of source material, input data and consultations against which assumptions are applied to forecast employment. The 2001 employment forecasts use a new base year, 2000. This provides the starting point to review assumptions and projections of employment trends. The new base updates the previous 1999 forecasts' base year of 1998.

To date there is no single comprehensive Government or Scottish Executive source of detailed employment breakdown for the year 2000, for either national or sub-national geographic areas. This necessitates the compilation of new base data from a range of sources and is a major task to ensure a solid, albeit estimated, base is drawn up for each employment sector.

The database and base year construction is outlined for the three main elements:

- **Oil employment**

The methodology is detailed in the *Oil and Gas prospects 2001 Update*. In summary, levels of *offshore* employment are derived from the overall forecast of field development; in turn influenced by offshore construction, production levels and decommissioning of production facilities. This is augmented by interviews with key offshore operators to assess offshore bedspace occupancies. *Onshore* employment is of necessity driven by offshore activity. Current and future onshore employment estimates are assisted by company interviews and focus groups.

Figure 1.1 - Classification System (excluding Oil and Gas) used in the Employment Forecasts

Industry/Activity Description	Standard Industrial Classification Division (and Group) (SIC92)
1 Agriculture	01
2 Fishing	05
3 Forestry	02
4 Mining, Quarrying and Building Products	10, 12, 13, 14, 26 (4,5,6,7,8)
5 Boatbuilding and Repairing	35 (1)
6 Engineering	28, 29, 30-35(2,3,4,5), 37
7 Fish Processing	15 (2)
8 Other Food Processing	15 (1,3,4,5,6,7,8,9)
9 Textiles	17-19
10 Paper & Paper Products	21, 22
11 Other Manufacturing	16, 20, 24, 25, 26(1,2,3) 27, 36
12 Construction	45
13 Electricity, Water and Gas	40, 41
14 Wholesale Distribution	51
15 Retail Distribution	50, 52
16 Hotels and Catering	55
17 Transport and Communications	60-64
18 Financial and Other Services	65-74
19 Public Sector & Armed Forces	75-90
20 Social and Personal Services	91-95

In addition, the Councils commissioned Aberdeen University Petroleum and Economic Consultants (AUPEC) to advise on some current pan-industry issues and future field development profile.

- **Non oil employment**

While the oil employment database compilation is consistent with previous oil and gas prospects reports, some new methodological features have been applied to the non oil element of the employment forecasts set. These include greater consultation, including service sector company and construction sector interviews, on the main assumptions to be applied, and likely trends and prospects; a reconciliation exercise of input data in the construction of the base year; an assessment of the employment multiplier effects of oil and gas upon non oil employment, particularly the non oil service sector; and a review of employment forecasts prepared by other organisations. The database and base year construction sources and influences are outlined as follows:

- ***Consultation***

As an important input to assessing future employment trends in the service and construction sectors fifteen companies and organisations were interviewed individually during the first quarter of 2001. They all have a direct involvement in either the service or construction sector and were drawn from both Aberdeen City and Aberdeenshire. The key aim was to review and forecast key trends in their particular business or sector which could have an impact on employment. This is the most comprehensive survey undertaken by the forecast team in relation to non oil employment forecasts, especially for the service sector.

At various stages during the construction of the employment forecasts several representative organisations have also been consulted on the main assumptions to be applied in forecasting employment. These bodies included the North East Scotland Economic Development Partnership (NESED), now superseded by Aberdeen and Aberdeenshire Local Economic Forum (AALEF), and the North East Housing Planning Alliance (NEHPA).

- ***2000 Base Construction***

As a key input to the construction of the base year data the most recent employment survey data from central government ie the Office for National Statistics (ONS) was analysed. This is available at both national and sub-national levels, down to local authority areas. In previous years this has taken the form of the Annual Employment Survey and its predecessor, the Census of Employment. This year ONS has replaced the Annual Employment Survey (AES) with the Annual Business Inquiry (ABI) and provides employment data for the years 1998 and 1999. Due to major differences in employment totals between the two datasets, even for the same year, and particularly for Aberdeen City, a reconciliation of the Government datasets with the

Councils' previous 1998 base had to be undertaken. As a result new 2000 bases have had to be constructed for several sectors which creates a discontinuity with the previous 1998 base for some sectors. Following correspondence, ONS has revealed errors in its new ABI methodology and intends to re-run its estimates next year. The reconciliation has kept change from the 1998 base to a minimum, although obviously economic factors will also have an important influence. The base year construction will not affect the assumptions applied in the forecasting exercise.

- ***Oil and Gas Employment Multiplier***

It has long been recognised that the fortunes of the North East economy are tied closely to the performance of the oil and gas economy. But how close is this relationship? The 2001 forecasts attempt to quantify the multiplier effects of oil and gas employment upon the local economy. The Scottish Executive *Input-Output Tables and Multipliers for Scotland 1998* provide a starting point in the assessment. A simple application of the oil and gas extraction employment multiplier (2.51) together with an estimate of the likely impact locally gives some magnitude to the indirect and induced effects of oil sector job losses in the Aberdeen and Aberdeenshire areas. This will be explored later in the chapter under the service sector assumptions.

- ***Review of Other Employment Forecasts***

Other sets of forecasts known to both Councils have been checked for comparability with the 2001 forecasts. Few agencies actually forecast to the level or timescale as these forecasts and there are obviously definitional, base year and methodological differences. Despite these caveats, the bottom-line employment totals have been compared and are referred to in the summary section.

- ***Other Inputs***

In addition to the above activities which clearly attempt to better inform the employment forecasts, the two Councils undertake regular information gathering and economic monitoring. This takes the form of daily monitoring of press, trade press and company reports; analysis of monthly labour market statistics including unemployment trends; obtaining national and local economic and labour market reports.

In the compiling of the database and the key assumptions, recognition is made not only of national or sectoral policies and trends, but also key local economic policy initiatives and strategies, for example the Councils' economic strategies, the role of Scottish Enterprise Grampian and the Aberdeen and Aberdeenshire Local Economic Forum.

- **Self employment**

Accurate figures for self employment are generally more difficult to obtain. The Office for National Statistics' (ONS) main employment surveys - Annual Business Inquiry (ABI) and its previous Annual Employment Survey (AES) - only provide information on employee jobs, excluding self employed. The most reliable and recent source of data on self employment totals is ONS' Labour Force Survey (LFS). This is a continuous residence based sample survey carried out throughout the UK by interviewing people about personal circumstances and work. The LFS provide figures for total self employed at the sub-national level. Latest available annual figures are for 1999. These have been used directly in the 2001 Strategic Forecasts to determine the new 2000 base.

ECONOMIC OVERVIEW

More detailed sectoral assumptions relating to the main employment sectors in Aberdeen and Aberdeenshire are covered in the next section of the 2001 Employment Forecasts. However, as a wider context, it is worth highlighting some macro-economic trends by key indicators in terms of recent developments and future prospects. These are presented in this section at both national ie UK, Scotland and North East Scotland levels. These build upon the earlier 'recent trends' chapter. As stated earlier in this report, the economic impact on the world economy caused by recent terrorist attacks in the USA, is uncertain at the time of writing, although in the immediate short term, economic slowdown is expected to ensue.

UK Macro-economic Trends

Despite the recent global slowdown, the year 2000 was on the whole a successful year for the UK economy. Gross Domestic Product (GDP) growth increased to 3.0% due to strong growth in domestic demand, including a 3.7% rise in household consumption. More recently the UK economy has started to show signs of slowing down. GDP growth in early 2001 was the lowest since 1998. Year-on-year growth rates fell to 2.5% in the first quarter of 2001 compared with 2.6% the previous quarter and 3.0% for 2000 overall.

The slower UK growth comes alongside a period of concern over the performance of the global economy, particularly that of the US. As the US economy slows down, worsened considerably by the attacks on the WTC, job losses and profit warnings are becoming commonplace in Information and Communications Technology related industries and other sectors, including travel and tourism. These sectors are proving to be most vulnerable to the sharp slowdown in the US and the cut in technology spending. Although much is made of the two-speed economy with manufacturing lagging service sector growth, the squeeze has also affected tourism and global business services including computing services. The outbreak of foot and mouth disease (FMD) will also have an impact on output

growth in the immediate short term, especially on tourism and rural businesses. The National Institute for Economic and Social Research estimates that FMD will lower UK GDP growth by about 0.2% to 0.3% in 2001.

The Chancellor of the Exchequer in his March budget report set out prospects for the UK economy. Treasury GDP forecasts show an easing back from the 2000 growth to an assumed trend of 2.25% to 2.75% in 2001 through to 2003. However, some economic commentators have revised down their own short term GDP projections. Cambridge Econometrics, for example, forecast UK GDP growth to slow to around 2.0% this year and remain subdued at 2.0% in 2002. It should be noted that these organisations are likely to further revise downwards their short term growth forecasts in the wake of the WTC attacks.

In the medium to longer term a pick-up in world activity, recovery of the US stock market and export growth, together with a recovery in investment and household spending growth may well support renewed GDP growth, although the economy will do well to sustain levels of growth seen in 2000. At a macro-policy level low inflation is being sustained by the Government, interest rates have fallen and there is still scope for further falls if the world slowdown continues.

In terms of the labour market the indicators are fairly positive with declining levels of unemployment and rising employment in recent years. Since the end of 2000 there has been a gradual levelling out of these trends attributed to a gentle slowing of activity in the labour market and the economy more generally. Independent forecasts of change in employment and unemployment in the short term are shown in *Figures 1.2 and 1.3*. The Institute for Employment Research (in conjunction with Cambridge Econometrics) has prepared longer term forecasts of employment change, predicting UK growth of 0.7% per annum from 1999 to 2010.

Figure 1.2 - Independent Forecasts of the Change in Employment in the UK and Scotland, 2001-2002

	2001				2002			
	Scotland		UK		Scotland		UK	
	'000s	(%)	'000s	(%)	'000s	(%)	'000s	(%)
BSL¹ (Spring 2001)	-4	(-0.2)	+18	(+0.1)	+9	(+0.6)	+212	(+1.0)
CE² (Feb 2001)	+6	(+0.3)	+230	(+0.8)	+2	(+0.1)	+115	(+0.4)
FAI³ (Jan 2001)	+6.5	(+0.3)		(+0.3)	+9.9	(+0.5)		(+0.3)

¹ Business Strategies Ltd

² Cambridge Econometrics

³ Fraser of Allander Institute

Source: *Scottish Economic Report, June 2001, Scottish Executive*

Figure 1.3 - Independent Economic Forecasts of Claimant Count Unemployment Rates in the UK and Scotland, 2001-2002

	2001		2002	
	Scotland (%)	UK (%)	Scotland (%)	UK (%)
BSL ¹ (Spring 2001)	4.2	3.4	3.8	3.2
CE ² (Feb 2001)	5.2	4.0	5.6	4.2
FAI ³ (Jan 2001)	4.6	n.a.	4.3	n.a.

¹ Business Strategies Ltd

² Cambridge Econometrics

³ Fraser of Allander Institute

Source: Scottish Economic Report, June 2001, Scottish Executive

• Scotland Macro-economic Trends

Scottish economic growth strengthened during 2000 at 1.5%, but was still below the long term trend and well below UK growth at 3.0%. Over the period 1995 to 2000 Scotland underperformed the UK economy, with growth averaging 2.2% pa, compared with 2.8% in the UK. At a sectoral level it is the service sector in Scotland, which accounts for 63% of total GDP, that has contributed mainly to the growth. Even here though Scotland's service sector growth underperformed the UK performance. The comparative performance of the Scottish manufacturing sector is worse and the downward pressures have continued into this year.

The outlook for the Scottish economy in the short term will be clearly influenced by the external 'risks' highlighted above in the UK overview. However, these need to be set in context as the domestic economy is still robust and consumer confidence and retail sales remain strong. In relation to the US slowdown risk which is impacting upon trade and investment, Scotland as a net exporter of goods is more exposed than the UK overall. This has been evident recently in the closure of 'branches' in Scotland in the ICT and telecomms market. The second risk of foot and mouth disease means that rural areas will suffer and therefore Scotland will be affected more than the UK overall. The Royal Bank of Scotland has estimated that FMD could negatively impact upon Scottish GDP growth by 0.6% this year.

Figure 1.4 reveals Scotland lagging the UK in the short term in GDP growth. Recently some commentators have revised down this year's growth figures. FAI for example are now projecting a 1.6% growth in 2001 rising to 1.9% in 2002. They are still below the historical trend for Scotland. As stated earlier, these growth figures may be subject to further revision following assessment of the potential economic impact of the terrorist attacks in the United States, and possible depressing effect on consumer confidence worldwide in the short term.

Figure 1.4 - Independent Forecasts of GDP Growth Scotland and the UK, 2000-2002

	2001		2002	
	Scotland (%)	UK (%)	Scotland (%)	UK (%)
BSL (Spring 2001)	2.0	2.6	2.6	2.6
CE (Feb 2001)	2.6	3.0	1.9	2.3
FAI ¹ (Jan 2001)	2.0	2.5	2.6	2.6

¹ FAI produces forecasts for GDP, whereas CE and BSL produce forecasts of Gross Value Added. UK excludes continental shelf. For 2001 and 2002 FAI quotes forecasts monitored by HM Treasury.

Source: Scottish Economic Report, June 2001, Scottish Executive

The labour market position in 2000 and beginning of 2001 has continued to perform strongly, with employment reaching its highest recorded level since 1960 and claimant count unemployment reaching its lowest level since 1976. Short term employment forecasts indicate slower employment growth than the UK and possibly even a decline this year in total employment (*Figure 1.2*). Unemployment will remain above UK averages. Over the longer term Institute for Employment Research (in collaboration with Cambridge Econometrics) forecast a 2.0% increase in employment between 1999 and 2010 in Scotland compared to 5% for the UK overall.

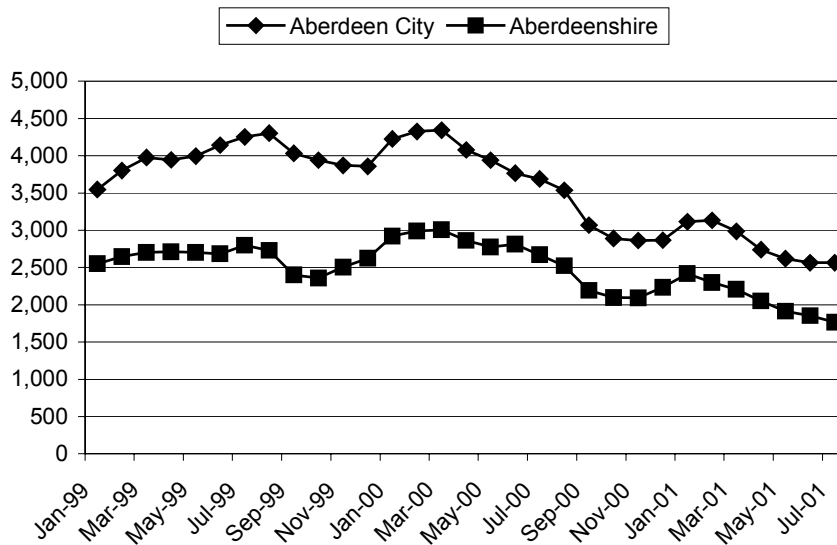
North East Scotland Economic Trends

Sub-national economic output (GDP) figures are more difficult to estimate. Both Mackay Consultants and Fraser of Allander Institute (FAI) estimate that GDP growth in the North East of Scotland fell during 1999, primarily due to the downturn in the oil and gas economy at that time. FAI actually estimated that output had fallen in consecutive years between 1996 and 1999. Since 1999 economic growth has turned round in line with the improved oil price, business confidence and ensuing investment, with FAI estimating an increase of 2.0% in GDP between 2000 to 2001 and Mackay Consultants a higher rate of growth at 3.6% in 2000. The global issues facing the electronics sector have not had the direct impact on North East Scotland compared to other areas of the country.

GDP projections in the short term are more positive for North East Scotland according to FAI and Mackay Consultants and are likely to be above the Scottish average growth rates, although moving closer to the Scottish average in the medium term. The influence of the oil and gas sector is again the major economic driver of output.

Unemployment is a good indicator of short term changes in the local economy. The chart (*Figure 1.5*) shows declining numbers of unemployed for both Aberdeen and Aberdeenshire since January 1999. While there have been difficulties in the traditional primary and manufacturing sectors, the pattern of unemployment in North East Scotland clearly reflects the performance of the oil and gas sector in turn influencing the economic growth pattern. The higher unemployment evident in 1999 and early 2000 coincides with the oil economy downturn at that time.

Figure 1.5 - Unemployment in North East Scotland, 1999-2001



Source: ONS (Nomis)

Employment changes and forecasts are of course the subject of this chapter and assumptions and detailed forecast employment levels are described in the following sections. Alternative sets of employment forecasts for the local area are prepared by other economic commentators. This is acknowledged in the summary section and comparisons have been made between a selection of other forecast methods and their outputs with the two Councils' employment forecasts for Aberdeen and Aberdeenshire.

SECTOR ASSUMPTIONS

This section sets out the main assumptions used in the employment forecasts for the three elements which make up total employment in Aberdeen City and Aberdeenshire - oil, non oil and self employment. The non oil element is subdivided to primary, manufacturing, construction and service sectors.

Oil Employment Assumptions

The assumptions and methodology are fully documented in the *Oil and Gas Prospects 2001 Update*. A summary of the key assumptions is set out below:

- Since the Councils' last full *Oil and Gas Prospects 1999 Update* and the *1999 Structure Plan Area Forecasts* the oil industry has become not just more competitive, but also more collaborative. This 'new spirit' is founded upon a significant improvement in oil price, greater focus on cost competitiveness and much more co-operation - across the industry, and with Government. These have aided the industry in 'turning a significant corner' and looks set for a more solid future, certainly in the short to medium term.
- The UK Continental Shelf is recognised as at 'half-time' in terms of production and field life. It still has a significant reserve base to be exploited; UK waters are still perceived as core business to most international oil companies; and Aberdeen remains acknowledged as the 'Offshore Energy Capital of Europe'.
- The North Sea is characterised by ageing infrastructure, mature basin, smaller field size, often in commercially and technically complex prospects. Even with crude oil currently trading at comfortable levels, in the mid \$20 per barrel the UK offshore sector is not underestimating the challenges presented by oil price volatility, increasing maturity of the North Sea and worldwide competition for investment.
- There are currently 130 fields in production or under development. By 2016 it is forecast that a further 110 fields could come onstream.
- Even with a higher field forecast, technical and cultural changes will still control total oil related employment. Coupled with restructuring in the global energy industry this could lead to a decline of 9,000 oil related jobs between 2001 and 2016: a slower decline than forecast previously.

Figure 1.6 shows oil related employment change which is distributed between the geographic areas as shown and also shows how oil employment is divided between onshore and offshore jobs.

Aberdeen and its surrounding area will continue to account for the bulk of oil related employment, not only in Aberdeen City itself but also in the surrounding ring of Aberdeenshire settlements such as Portlethen, Westhill, Inverurie and Ellon. Oil employment further north continues to be associated with the level of activity at the St Fergus terminal and base operations associated with Peterhead Bay.

Virtually all onshore workers live in the Structure Plan Area, but only around 30% of the offshore workforce. It is forecast that the proportion of resident offshore workers will remain roughly the same over the forecast period, although the actual numbers will be lower.

Figure 1.6 - Oil Related Employment: Onshore and Offshore and by Area

	2000	2001	2006	2011	2016	Change 2000/16
Fields in Production	115	121	142	135	115	0
Offshore Employment	17,000	18,000	16,800	15,000	12,000	-5,000
Onshore Employment	22,000	23,000	23,200	22,000	20,000	-2,000
TOTAL	39,000	41,000	40,000	37,000	32,000	-7,000
TOTAL (Aberdeen City)	35,200	36,800	36,100	33,600	29,600	-5,600
TOTAL (Aberdeenshire)	3,800	4,200	3,900	3,400	2,400	-1,400

Between 2000 and 2016 it is forecast that there will be a reduction of around 5,000 offshore jobs. The pressure on offshore workforce levels due to technology, the need to be competitive and industry restructuring is expected to have knock-on effects on the onshore workforce which is forecast to decline by 2,000 by 2016. The rate of change amongst onshore workers is less, as it is assumed the area will expand its global role and prospects for onshore employment will not just be driven by activity in the North Sea. This compares to the rate of change between 1991 and 1998, when the area lost more than 1,000 jobs per annum. The result of losses in oil related jobs will be mainly in Aberdeen City, with Aberdeenshire forecast to lose less than 2,000 of the total 7,000 jobs. This is a much slower decline than forecast in the last set of forecasts due to a more confident business environment predicted over the longer term forecast period. This trend should outweigh short term volatility in the market place caused by recent world events.

Non Oil Employment Assumptions

- **Primary Sector**

This sector is characterised by continuing structural adjustment, driven to a large extent by macro-economic policy at European Union level. The key assumptions and trends applied to the 2001 forecasts of primary sector employment are:

- Phasing out of production based support subsidies as a result of the Common Agricultural Policy Agenda 2000 reforms and movement to a broader 'rural' based support package.
- Declining farm incomes and full-time labour; increasing use of family and part-time workers.
- Moves towards larger farm units and amalgamations.
- Increasing co-operation, for example machinery rings.
- Shorter term impact of Foot and Mouth Disease.

- European Union (EU) imposed policy of fishing fleet reduction (Multi-Annual Guidance Programme) to match catching effort to stock sustainability.
- EU Total Allowable Catch and quota restrictions.
- Recent temporary closures of North Sea and West Coast fishing grounds zones.
- £25 million Scottish Executive decommissioning package to cut catching capacity.
- Local forest expansion assisted by £1.0 million challenge funding committed by Scottish Executive to Grampian Forest; Forest Enterprise targets to encourage investment by processors and local harvesting companies under medium to longer-term contracts to enhance economic value of Scotland's forests.
- Scottish Executive core funding due to be increased in short term to Forestry Commission to mitigate effects of low global timber prices.

The assumptions point towards a continuation of the established long-term decline in primary employment, despite a minor improvement in forestry employment. Over the period 2000 to 2016, a 17.7% fall in primary sector employment is forecast, from 4,800 to 3,950. The rural and coastal areas of Aberdeenshire will be most affected due to their employment dependency upon agriculture and fishing industries.

• **Manufacturing Sector**

The manufacturing sector in North East Scotland is diverse in its make-up. In employment terms it contributes 10% of total employment in the combined Aberdeen City and Aberdeenshire areas. The largest sub-sectors are engineering, fish and food processing and paper. This diversity has, to an extent, protected the North East's manufacturing sector from the global cost-cutting affecting the electronics manufacturing and components industry in other parts of Scotland. The Scottish Council for Development and Industry *Survey of Grampian Manufacturing and Exports 1999/00* indicated a 2.4% rise in exports, although the previous year's growth was higher at 8.5%. Food and drink in particular showed strong growth pre-foot and mouth disease. The local manufacturing sector does however remain faced with similar macro pressures experienced by the rest of the country's manufacturing industry.

The key assumptions applied to the 2001 forecasts of employment in the manufacturing sector are:

- Downward pressures on competitiveness of manufacturing sector as a result of currency exchange, increasing globalisation of the market-place, overseas competition and lower labour costs abroad in some sectors. Virtually all sub-sectors will be affected by these pressures, but particularly engineering, paper and textiles, in some cases made more vulnerable by foreign ownership. Recent job losses in the paper industry confirm the seriousness of such influences.
- The indirect and induced effects of the improved activity levels in the oil economy will in the short to medium term assist mechanical engineering, metal manufacturing and fabrication locally and mitigate some of the global pressures on these sectors.

- Fishing industry problems may affect fish processing and boatbuilding sectors, although fish imports may help prevent more employment losses.
- Upstream impact of foot and mouth disease together with restricted export market and cheaper imports are key challenges for the food, particularly meat, processing sector, although the North East is renowned for quality products and recent expansion investment within this sector should help sustain employment levels.

From the 2000 base the 2001 forecasts project a decline of 2,300 employees in manufacturing to 2016, representing a 10% fall. The main losses are expected to be in fish processing, paper and textiles with some losses in engineering in Aberdeen City towards the end of the forecast period. The employment loss is predicted to be relatively even between Aberdeen City and Aberdeenshire. By sub-sector there may be some variation spatially as engineering is relatively more important in Aberdeen, while food and fish processing are more significant in Aberdeenshire.

• **Construction Sector**

The construction industry is highly sensitive to the state of the local economy. In the early 1990s, the UK construction industry was badly affected by the economic recession. In Aberdeen and Aberdeenshire, however, a range of factors ensured that activity remained at a relatively high level. This was largely due to the steady demand for housing and industrial units and activity relating to the oil and gas industry and the service sector, especially retailing. The construction sector in North East Scotland is a highly competitive one, but has a good range of company sizes, both national chains and independents, contributing to robustness.

The key assumptions applied to the 2001 forecasts for construction sector employment are:

- Lower interest rates creating a background conducive to creating a demand for housing. Generally lower interest rates are usually linked to stimulating increased economic activity.
- Buoyant housing market in North East recently with local construction companies investing throughout Aberdeen and Aberdeenshire, as well as other parts of Scotland.
- More confident oil industry with direct commercial property construction benefits as well as indirect, through housing demands.
- Large infrastructure projects include sewage and water treatment works in Aberdeen and smaller scale plants in Aberdeenshire.
- Local company plans to expand into other parts of the UK property market.
- Skills shortages and recruitment difficulties across all trades, with bricklayers and joiners especially scarce. Increased labour costs could threaten profit margins in short to mid term.

The Construction Employment and Training Forecast 2001-2005 prepared by the Construction Industry Training Board (CITB) forecasts steady employment nationally, but also identifies skill shortages and labour requirements as areas to address. The CITB predict Scotland as having the lowest growth rate of construction output in Great Britain at 1.5% per annum between 2001 and 2005, as well as highlighting the recruitment and skills issues.

In Aberdeen and Aberdeenshire the 2001 employment forecasts for the construction sector over the next 10-15 years are more optimistic as a result of greater confidence in the local economy, especially the oil and gas sector. The 2001 forecasts expect a 4% increase in construction employment to 2011/2016 combined with increasing output particularly in short to medium term. The employment benefits are likely to be spread between Aberdeen and Aberdeenshire.

- **Service Sector**

The non oil service sector in Aberdeen and Aberdeenshire is large and varied and can be broken down to a further eight sub-sectors. It accounts for approximately 60% of total employment in the area. The indirect and induced effects of oil employment impacts upon the service sector and is a key assumption to consider. Due to its diversity and the functions it performs, the service sector is subject to a wide range of influences and is a very dynamic component of the employment forecasts. Therefore, it is generally more difficult to assess future employment prospects for this sector. Increasingly the service sector is becoming a source of self-generation of employment, as the previous causal relationship with manufacturing and primary economic sectors becomes less rigid. In terms of future employment opportunity the service sector offers most scope for growth. This has been recognised by policy makers at a national, as well as local level.

As a result of this dynamism much more research has been undertaken into the key macro and local drivers of change affecting the service sector in North East Scotland. An important part in this has been the consultations with service sector companies and organisations, particularly those in retailing, tourism, finance and public sector health and education. The output from these interviews has directly informed the key assumptions applied to these 2001 updated employment forecasts for the service sector. The assumptions can be divided into macro factors or drivers of change and local factors/drivers:

Macro Factors

- Globalisation, in terms of the competitive market place has been brought about through the development and application of information and communications technology (ICT). This can have both opportunities and threats for service sector companies in North East Scotland. Currently there is still some volatility in relation to employment linked to ICT. The recent market performance of technology stocks and the telecomms market has resulted in some company cost-cutting measures and local redundancies. However, these are offset to an

extent by recent announcements of call centre employment by high profile companies and organisations in the North East. Until very recently the growth of call centre activity has been limited to other parts of the country. On balance the nature of the local economy, high skills base and international nature of much of the North East service sector makes it well placed to benefit from ICT linkages, in terms of e-commerce and e-tailing in relation to the retail sector. This is already happening with the financial and business services sectors. But the opportunities have yet to be fully exploited by the tourism, retailing and personal service sectors. Strategically the role of ICT will increasingly make a positive impact on employment. Pressure will increase on the Scottish Executive for rolling out access to broadband networks to encourage high speed information exchange and faster access to the Internet.

- The growth of retail multiples, particularly supermarket food chains, is an increasing trend. This has affected both Aberdeen City and Aberdeenshire's main towns. The negative employment aspects arising from these developments and trends can relate to displacement and pressure on profitability of smaller often independent outlets. However in projecting employment the major multiples can outweigh these impacts, by significant employment creation much of which is part-time, shift work related to extended opening hours and in related fields of supply and distribution. Their growth has been stimulated by continuing consumer confidence and high spending levels across the country.
- The trend of increasing centralisation, consolidation, mergers and acquisitions occurring in the financial services sector, particularly insurance and banking services clearly act as threats to future service sector employment levels. The developments of ICT, for example call centres and growing use of e-business, to encourage efficiency and cost centre reductions, facilitates this trend. However, the intense competition and predatory nature of this sector are the key macro drivers of change here.
- Government policies will help direct future economic strategy, in turn influencing employment growth. The Scottish Executive's *Framework for Economic Development in Scotland (FEDS)* published in 2000 emphasises the role of knowledge and skills in sustainable economic development. FEDS also highlights ICT business connectivity as a means to underpin enterprise productivity and a contributor to economic growth. The strategy for enterprise *A Smart Successful Scotland* published this year is one of the economic development policy statements envisaged in FEDS. The strategy sets priorities for Scottish Enterprise and lays out the foundation for sustained improvement in economic performance by focusing on three key challenges for raising productivity: encouraging entrepreneurship; raising skill levels; and connecting Scotland globally. A key mechanism in local delivery is the creation of *Local Economic Forums* intended to lead to better co-ordination of local economic development services.

In 2000 the Executive published *Our National Health: a plan for action, a plan for change*. This plan provides a statement of the national priorities for health and for the NHS in Scotland. At the local level it will manifest itself in moves towards community health care through the creation of Local Health Care Co-operatives with employment opportunities on implementation and delivery phases.

- Defence cuts by the Ministry of Defence are part of a national rationalisation programme of defence activities. Under the UK Air Defence Ground Environment the number of Control and Reporting Centres are being reduced. The decision to reduce employment at RAF Buchan is a direct effect of this policy.
- The Government's pledge to invest in public services may stimulate employment growth in areas of health and education, although it remains to be seen whether public administration will benefit and the spending squeeze reversed.
- The impact of foot and mouth disease, vehicle excise duty and the strength of sterling are macro factors which have affected tourism recently. *VisitScotland*, the successor to the Scottish Tourist Board, has a major challenge to counter these issues and reinvigorate this sector.

Local Factors

- As stated previously, the oil and gas sector is a major economic driver in North East Scotland. In terms of employment its influences extend beyond direct employment in the oil and gas industry. The direct wealth, together with high disposable incomes, generated by the sector can clearly support a buoyant service sector, particularly in areas of retailing, finance and social and personal services. Conversely, if there is significant jobs decline and ensuing loss of income then the service sector can be affected negatively. The indirect and induced effects of oil employment upon the wider economy and specifically the service sector can be estimated through the application of the employment multiplier.

The Scottish Executive Input-Output Tables and Multipliers for Scotland 1998 provide employment multipliers by sector for Scotland. Applying the oil and gas employment multiplier (2.51) gives some magnitude to the indirect and induced effects of forecast oil employment reduction in North East Scotland. Assuming that 75% of the effects will fall in the Aberdeen and Aberdeenshire area, a projected decline in oil employment jobs of 7,000 over the forecast period could result in an estimated loss of over 8,000 additional indirect and induced jobs from the non oil sector - the bulk of which would be service sector related. This is significant, but in reality it is not a simple deterministic effect due to time lapse, the ability of the economy to generate 'replacement' employment and the capacity of the service sector to self-generate employment. However, the size of the multiplier and the inter-relatedness of the oil/non oil relationship

demonstrates that the loss of oil jobs, although less than forecast previously, will have some effect on service sector growth.

- Local labour market issues can act to influence the rate of growth of the service sector, as well as other sectors. Unemployment in the area has declined consistently over the last two years and has contributed to a tight local labour market. This may have recruitment implications. For some sectors, for example financial services, graduate recruitment is a concern and can force up recruitment costs. As well as the basic numbers of graduates competition for jobs elsewhere in the UK are issues facing North East companies. The increasing use of part-time employment, for example in retailing and double-jobbing are continuing trends which results in more jobs being created.
- Local policies are being implemented to ensure a long term sustainable future for the local economy. Economic diversification is increasingly important to ensuring future economic prosperity. The various economic dependencies in the North East of Scotland, particularly on oil in Aberdeen has encouraged agencies to initiate strategies for diversification. Added to these strategies will be the effects of policies contained within *North East Scotland Together* (the Aberdeen and Aberdeenshire Councils' Structure Plan) which seek to build upon the North East's competitive business base and stimulate employment opportunities. These will increasingly impact upon future forecasts of service sector employment. A tourism strategy for the Aberdeen and Grampian area has been drawn up by local agencies with a key aim of developing and marketing a quality product to encouraging high spending visitors and business visitors, although this may not result in significant employment creation.

Tourism is clearly a sector which could be affected by a reduction in travel arising from the WTC terrorist attacks. Travel by visitors from the US could be particularly affected. In the Aberdeen and Grampian area domestic (UK) tourists account for 85% of all tourist trips, and the bulk of tourist expenditure in the area. The US market contributes 3.2% of Aberdeen and Grampian's tourist trips and 4.6% of total spend. Both of these proportions are less than for Scotland overall. While there may be a short term effect caused by a reduction in US visitor expenditure (estimated to be £9 million per annum in Aberdeen and Grampian) the longer term employment trend in tourism is unlikely to be significantly affected. Collaboration amongst key public agencies in the form of the Aberdeen and Aberdeenshire Local Economic Forum should contribute towards a positive economic future with employment implications.

The impact of these assumptions is to present a more positive scenario for service sector growth than previously forecast. A combination of macro and local factors will benefit employment opportunities for some sub-sectors, particularly retailing, some business services and personal services. The key role of the oil and gas sector, the opportunities presented by ICT, the demands of the population and the implementation of economic policies locally and nationally should provide a more optimistic outlook for service sector employment in Aberdeen and Aberdeenshire. Other sectors may not experience the same levels of growth, for example public sector activities. The 2001 Forecasts predict a 3.6% (+4,800) increase in service

sector employment between 2000 and 2016. This turns round a slight fall in service employment forecast two years ago when a significant oil employment reduction of 19,000 jobs was anticipated over the same time period.

SELF EMPLOYMENT ASSUMPTIONS

The flexible labour market encourages people into self employment. The increasing trend towards outsourcing or contracting-out in both the oil and non oil sectors in the Aberdeen and Aberdeenshire area, will also stimulate self employment. Labour Force Survey figures reveal that the rate of self employment in North East Scotland is typically higher than in Scotland overall, reflecting the scale of the oil and gas sector and the rural economy. Total self employment in Aberdeen and Aberdeenshire accounts for around 11% of total employment, compared with 9% of Scotland's total employment. Self employment in Aberdeen and Aberdeenshire is forecast to rise by around 4,000 (+15.4%), from the new 2000 base of 26,000 to 30,000 by 2016. As workers become displaced from the oil sector it is expected that the self employment share of the total will increase to around 13%. Within the North East, self employment has greater importance in Aberdeenshire, particularly in the primary and construction sectors. Primary sector self employment may be adversely affected, but the service sector, for example finance and brokerage services, will continue to encourage growth in self employment.

GOVERNMENT TRAINING SCHEMES

The number of people on special training schemes is relatively small. Over the forecast period little change in the numbers is expected. These figures represent those non-employed persons on training programmes, such as Skillseekers and New Deal. These are primarily designed to assist young people and the long term unemployed into employment. These training schemes tend to be centrally and politically driven. The figures are not included in the final total employment forecasts. However, participants could enter the formal local labour market at a future date and therefore reference is made to this category in the employment forecasts.

SUMMARY EMPLOYMENT FORECASTS

Based upon the application of the foregoing assumptions to the new 2000 base and the economic overview, the employment forecasts can be seen both in an aggregated and disaggregated form. These are detailed in *Appendices 1-3*.

In overall employment terms, a more optimistic scenario is presented for the Aberdeen and Aberdeenshire area, compared with that forecast two years ago. While there is some uncertainty caused by the attacks on the WTC with the possible effect on consumer confidence in the immediate short term, the wider economic indicators in the North East of Scotland point to an improving economic performance in the last two years and this is forecast to continue. A major reason for this improved outlook is the performance of the oil and gas sector with positive benefit for the non oil sector, particularly service sector. Total resident employment in the Aberdeen and Aberdeenshire area is projected to increase by 0.8% between 2000 and 2016 (*Figure 1.7*). Most of the growth is expected to be in the period to 2006 with total employment growth of over 2%. Thereafter a slight slowdown is expected to 2016. Previous forecasts in 1999 projected a fall in total employment of over 6% between 1998 and 2016.

By area, Aberdeen is expected to experience most growth, where the oil sector and services sector is larger and more concentrated. Aberdeenshire will also experience some employment growth, but at lower rates, with greater dependencies on more traditional primary and manufacturing sectors. The previous 1999 forecasts had shown Aberdeen City as suffering from total employment loss between 1998 and 2016, more than in Aberdeenshire. This was at a time of much reduced optimism regarding the local economy. Policy is facilitating that much of the employment growth in Aberdeenshire will take place in the commuter ring of towns around the City.

Figure 1.7 - Total Employment Summary

	2000	2001	2006	2011	2016	Change 2000/16
Total Non Oil Employment	174,900	176,000	177,100	177,450	177,050	+2,150
Total Self Employment	26,000	26,500	27,700	28,900	30,000	+4,000
Total Oil Employment (excl. non-resident oil and gas jobs)	27,500	28,700	28,600	26,300	23,200	-4,300
Total Employment	228,400	231,200	233,400	232,650	230,250	+1,850
Aberdeen City Total	140,050	142,300	144,150	143,200	141,750	+1,700
Aberdeenshire Total	88,350	88,900	89,250	89,450	88,500	+150

In terms of the three main employment components the main trends forecast are:

- Resident oil employment is projected to reduce by 15.6% over the forecast period. This compares with a 43% decline in oil employment forecast two years ago.
- Non oil employment is more positive with a forecast rise of 1.2%. This improves on previous forecast figures of a 3.5% fall in non oil employment.
- Self employment growth is expected to continue with a predicted increase in 4,000 self employed by 2016 representing an increase of 15.4%, slightly higher than projected in 1999.

The oil employment trends are presented earlier in the chapter. *Figure 1.8* illustrates the forecast non oil employment trends by the main sectors and areas. The traditional primary and manufacturing sectors are expected to continue to follow established trends. These sectors show respective falls in employment of 17.7% and 10.1% over the 16 year period. Construction employment is forecast to be more positive as the overall economy improves. With stronger local economic conditions service sector employment growth is expected to increase by 3.6% to 2016, offsetting the employment reductions in manufacturing and primary industries. Local and national policy combined with an improved oil and gas performance are key influences in this improved forecast position. This turns round the 1999 service sector employment forecasts which anticipated a slight decline. Retailing, distribution, financial and other services and personal services are expected to generate most employment growth. The detailed forecasts by sub sector are contained in *Appendix 2*.

Figure 1.8 - Non Oil Employment: by Main Sector

	2000	2001	2006	2011	2016	Change 2000/16
Primary	4,800	4,600	4,300	4,100	3,950	-850
Manufacturing	22,800	22,500	21,600	21,150	20,500	-2,300
Construction	12,800	13,000	13,200	13,300	13,300	+500
Services	134,500	135,900	138,000	138,900	139,300	+4,800
TOTAL NON OIL EMPLOYMENT (Structure Plan Area)	174,900	176,000	177,100	177,450	177,050	+2,150
TOTAL NON OIL EMPLOYMENT (Aberdeen City)	107,350	108,600	109,550	109,700	109,650	+2,300
TOTAL NON OIL EMPLOYMENT (Aberdeenshire)	67,550	67,400	67,550	67,750	67,400	-150

As a comparison, sets of forecasts prepared by other economic commentators have been looked at. Reference to national projections has already been made in the economic overview section. At the sub-national level there are more difficulties in making direct comparisons due to differences in definitions of employment bases, sectors, areas, time scales and methodology. Although statistically ‘top-down’, known local forecasts are produced by the Fraser of Allander Institute (FAI) and Business Strategies Ltd (BSL).

At a basic level and given the caveats in comparing different forecast sets (most of them over a short term period), it does appear that, at the time of writing and before the full economic impact of the terrorist attacks is known, other forecasters' changes in total employment appear to be broadly in line with the Councils' 2001 employment forecasts.

DETAILED FORECAST TABLES

The *Appendices* which follow, set out in tabular form the detailed results by sector, year and area of the 2001 forecasts of employment:

1 Employment by Main Sector

- Aberdeen City, Aberdeenshire and Structure Plan Area

2 Employment Breakdown by Main and Sub-Sectors

- Aberdeen City, Aberdeenshire and Structure Plan Area

3 Summary Tables of Key Elements of Employment

- Aberdeen City, Aberdeenshire and Structure Plan Area

Appendix 1

Employment by Main Sector

- Aberdeen City, Aberdeenshire and Structure Plan Area

PRIMARY

	<i>2000</i>	<i>2001</i>	<i>2006</i>	<i>2011</i>	<i>2016</i>	<i>2000-16 change</i>
Structure Plan Area	4,800	4,600	4,300	4,100	3,950	-850
Aberdeen City	300	300	250	150	150	-150
Aberdeenshire	4,500	4,300	4,050	3,950	3,800	-700

MANUFACTURING

	<i>2000</i>	<i>2001</i>	<i>2006</i>	<i>2011</i>	<i>2016</i>	<i>2000-16 change</i>
Structure Plan Area	22,800	22,500	21,600	21,150	20,500	-2,300
Aberdeen City	11,950	11,850	11,350	11,000	10,650	-1,300
Aberdeenshire	10,850	10,650	10,250	10,150	9,850	-1,000

CONSTRUCTION

	<i>2000</i>	<i>2001</i>	<i>2006</i>	<i>2011</i>	<i>2016</i>	<i>2000-16 change</i>
Structure Plan Area	12,800	13,000	13,200	13,300	13,300	+500
Aberdeen City	7,800	7,900	8,000	8,000	8,000	+200
Aberdeenshire	5,000	5,100	5,200	5,300	5,300	+300

SERVICES

	<i>2000</i>	<i>2001</i>	<i>2006</i>	<i>2011</i>	<i>2016</i>	<i>2000-16 change</i>
Structure Plan Area	134,500	135,900	138,000	138,900	139,300	+4,800
Aberdeen City	87,300	88,550	89,950	90,550	90,850	+3,550
Aberdeenshire	47,200	47,350	48,050	48,350	48,450	+1,250

SELF-EMPLOYED

	<i>2000</i>	<i>2001</i>	<i>2006</i>	<i>2011</i>	<i>2016</i>	<i>2000-16 change</i>
Structure Plan Area	26,000	26,500	27,700	28,900	30,000	+4,000
Aberdeen City	9,000	9,200	9,900	10,600	11,300	+2,300
Aberdeenshire	17,000	17,300	17,800	18,300	18,700	+1,700

OIL EMPLOYMENT

	<i>2000</i>	<i>2001</i>	<i>2006</i>	<i>2011</i>	<i>2016</i>	<i>2000-16 change</i>
Structure Plan Area	39,000	41,000	40,000	37,000	32,000	-7,000
Aberdeen City	35,200	36,800	36,100	33,600	29,600	-5,600
Aberdeenshire	3,800	4,200	3,900	3,400	2,400	-1,400

TOTAL EMPLOYMENT

	<i>2000</i>	<i>2001</i>	<i>2006</i>	<i>2011</i>	<i>2016</i>	<i>2000-16 change</i>
Structure Plan Area	228,400	231,200	233,400	232,650	230,250	+1,850
Aberdeen City	140,050	142,300	144,150	143,200	141,750	+1,700
Aberdeenshire	88,350	88,900	89,250	89,450	88,500	+150

Appendix 2

Employment Breakdown by Main and Sub-Sectors

- Aberdeen City, Aberdeenshire and Structure Plan Area

STRUCTURE PLAN AREA

NON OIL EMPLOYMENT	2000	2001	2006	2011	2016
Agriculture	2,950	2,800	2,600	2,500	2,400
Fishing	1,600	1,550	1,400	1,300	1,250
Forestry	250	250	300	300	300
Primary	4,800	4,600	4,300	4,100	3,950
Mining, Quarrying and Building Products	750	750	750	750	700
Boatbuilding and Repairing	500	500	500	450	450
Engineering	6,500	6,600	6,500	6,500	6,350
Fish Processing	4,400	4,100	3,900	3,700	3,500
Other Food Processing	3,700	3,700	3,600	3,600	3,600
Textiles	1,050	1,000	900	800	750
Paper and Paper Products	3,350	3,300	2,950	2,850	2,750
Other Manufacturing	2,550	2,550	2,500	2,500	2,400
Manufacturing	22,800	22,500	21,600	21,150	20,500
Construction	12,800	13,000	13,200	13,300	13,300
Electricity, Water and Gas	2,100	2,100	2,100	2,000	1,900
Wholesale Distribution	9,000	9,200	9,400	9,500	9,600
Retail Distribution	25,600	26,500	27,700	28,600	29,200
Hotels and Catering	15,000	15,000	15,200	15,300	15,300
Transport and Communications	11,100	11,100	11,200	11,300	11,400
Financial and Other Services	17,000	17,500	18,500	19,000	19,500
Public Sector & Armed Forces	46,000	45,500	44,500	43,500	42,500
Social and Personal Services	8,700	9,000	9,400	9,700	9,900
Services	134,500	135,900	138,000	138,900	139,300
TOTAL NON OIL EMPLOYEES	174,900	176,000	177,100	177,450	177,050
SELF EMPLOYED	26,000	26,500	27,700	28,900	30,000
TOTAL OIL EMPLOYMENT	39,000	41,000	40,000	37,000	32,000
TOTAL JOBS	239,900	243,500	244,800	243,350	239,050
Non-Resident Oil and Gas Jobs	11,500	12,300	11,400	10,700	8,800
TOTAL JOBS (excluding Non-Resident Oil and Gas)	228,400	231,200	233,400	232,650	230,250
TOTAL EMPLOYMENT	228,400	231,200	233,400	232,650	230,250
<i>Special Training Schemes</i>	<i>850</i>	<i>800</i>	<i>750</i>	<i>700</i>	<i>700</i>

ABERDEEN CITY

NON OIL EMPLOYMENT	2000	2001	2006	2011	2016
Agriculture	150	150	100	50	50
Fishing	100	100	100	50	50
Forestry	50	50	50	50	50
Primary	300	300	250	150	150
Mining, Quarrying and Building Products	300	300	300	300	300
Boatbuilding and Repairing	100	100	100	50	50
Engineering	3,900	4,000	4,000	4,000	3,850
Fish Processing	1,700	1,600	1,500	1,400	1,300
Other Food Processing	1,550	1,550	1,550	1,550	1,550
Textiles	700	650	600	500	500
Paper and Paper Products	2,500	2,450	2,150	2,050	2,000
Other Manufacturing	1,200	1,200	1,150	1,150	1,100
Manufacturing	11,950	11,850	11,350	11,000	10,650
Construction	7,800	7,900	8,000	8,000	8,000
Electricity, Water and Gas	1,500	1,500	1,500	1,400	1,350
Wholesale Distribution	6,000	6,200	6,300	6,400	6,450
Retail Distribution	16,000	16,600	17,400	18,000	18,400
Hotels and Catering	10,000	10,100	10,200	10,300	10,300
Transport and Communications	8,300	8,300	8,400	8,400	8,500
Financial and Other Services	11,000	11,400	12,000	12,300	12,600
Public Sector & Armed Forces	29,000	28,750	28,150	27,550	26,950
Social and Personal Services	5,500	5,700	6,000	6,200	6,300
Services	87,300	88,550	89,950	90,550	90,850
TOTAL NON OIL EMPLOYEES	107,350	108,600	109,550	109,700	109,650
SELF EMPLOYED	9,000	9,200	9,900	10,600	11,300
TOTAL OIL EMPLOYMENT	35,200	36,800	36,100	33,600	29,600
TOTAL JOBS	151,500	154,600	155,550	153,900	150,550
Non-Resident Oil and Gas Jobs	11,500	12,300	11,400	10,700	8,800
TOTAL JOBS (excluding Non-Resident Oil and Gas)	140,050	142,300	144,150	143,200	141,750
TOTAL EMPLOYMENT	140,050	142,300	144,150	143,200	141,750
Special Training Schemes	550	550	500	500	500

ABERDEENSHIRE

NON OIL EMPLOYMENT	<i>2000</i>	<i>2001</i>	<i>2006</i>	<i>2011</i>	<i>2016</i>
Agriculture	2,800	2,650	2,500	2,450	2,350
Fishing	1,500	1,450	1,300	1,250	1,200
Forestry	200	200	250	250	250
Primary	4,500	4,300	4,050	3,950	3,800
Mining, Quarrying and Building Products	450	450	450	450	400
Boatbuilding and Repairing	400	400	400	400	400
Engineering	2,600	2,600	2,500	2,500	2,500
Fish Processing	2,700	2,500	2,400	2,300	2,200
Other Food Processing	2,150	2,150	2,050	2,050	2,050
Textiles	350	350	300	300	250
Paper and Paper Products	850	850	800	800	750
Other Manufacturing	1,350	1,350	1,350	1,350	1,300
Manufacturing	10,850	10,650	10,250	10,150	9,850
Construction	5,000	5,100	5,200	5,300	5,300
Electricity, Water and Gas	600	600	600	600	550
Wholesale Distribution	3,000	3,000	3,100	3,100	3,150
Retail Distribution	9,600	9,900	10,300	10,600	10,800
Hotels and Catering	5,000	4,900	5,000	5,000	5,000
Transport and Communications	2,800	2,800	2,800	2,900	2,900
Financial and Other Services	6,000	6,100	6,500	6,700	6,900
Public Sector & Armed Forces	17,000	16,750	16,350	15,950	15,550
Social and Personal Services	3,200	3,300	3,400	3,500	3,600
Services	47,200	47,350	48,050	48,350	48,450
TOTAL NON OIL EMPLOYEES	67,550	67,400	67,550	67,750	67,400
SELF EMPLOYED	17,000	17,300	17,800	18,300	18,700
TOTAL OIL EMPLOYMENT	3,800	4,200	3,900	3,400	2,400
TOTAL JOBS	88,350	88,900	89,250	89,450	88,500
TOTAL EMPLOYMENT	88,350	88,900	89,250	89,450	88,500
Special Training Schemes	300	250	250	200	200

Appendix 3

Summary Tables of Key Elements of Employment

- Aberdeen City, Aberdeenshire and Structure Plan Area

STRUCTURE PLAN AREA

	<i>2000</i>	<i>2001</i>	<i>2006</i>	<i>2011</i>	<i>2016</i>
Non Oil Employment (1)	174,900	176,000	177,100	177,450	177,050
Oil Employment (2)	39,000	41,000	40,000	37,000	32,000
Self Employment (3)	26,000	26,500	27,700	28,900	30,000
Total Jobs [(1)+(2)+(3)]	239,900	243,500	244,800	243,350	239,050
Non Resident Oil & Gas Jobs	11,500	12,300	11,400	10,700	8,800
TOTAL EMPLOYMENT	228,400	231,200	233,400	232,650	230,250

ABERDEEN CITY

	<i>2000</i>	<i>2001</i>	<i>2006</i>	<i>2011</i>	<i>2016</i>
Non Oil Employment (1)	107,350	108,600	109,550	109,700	109,650
Oil Employment (2)	35,200	36,800	36,100	33,600	29,600
Self Employment (3)	9,000	9,200	9,900	10,600	11,300
Total Jobs [(1)+(2)+(3)]	151,550	154,600	155,550	153,900	150,550
Non Resident Oil & Gas Jobs	11,500	12,300	11,400	10,700	8,800
TOTAL EMPLOYMENT	140,050	142,300	144,150	143,200	141,750

ABERDEENSHIRE

	<i>2000</i>	<i>2001</i>	<i>2006</i>	<i>2011</i>	<i>2016</i>
Non Oil Employment (1)	67,550	67,400	67,550	67,750	67,400
Oil Employment (2)	3,800	4,200	3,900	3,400	2,400
Self Employment (3)	17,000	17,300	17,800	18,300	18,700
Total Jobs [(1)+(2)+(3)]	88,350	88,900	89,250	89,450	88,500
Non Resident Oil & Gas Jobs	0	0	0	0	0
TOTAL EMPLOYMENT	88,350	88,900	89,250	89,450	88,500