

Dounreay Socio-Economic Baseline Study

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A Report by



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EXECUTIVE SUMMARY

- DTZ Piedad Consulting were commissioned by UKAEA to undertake a baseline study describing current conditions in the Dounreay local economy within the wider context of the Highlands as a whole. The study outlines the role that UKAEA itself plays as a major employer in the area and provides a baseline position against which the economic impact of the individual projects of the Dounreay Site Restoration Plan can be assessed.

Dounreay Area Profile

- Throughout this profile the Dounreay local area is defined as covering the two Travel to Work Areas of Thurso and Wick. This area is illustrated in Map 2.1.
- The population of the Dounreay local area was estimated at 26,000 people in 2000. This represented a drop in population of around 1,600 people between 1991 and 2000. 60% of the population of the area is concentrated in the two main centres, Thurso and Wick;
- The age profile of the area is slightly older than the Scottish average, with a higher percentage of people aged 45 and over
- 10,600 jobs were located in the Dounreay local area in 2001;
- The employment structure of the area is not typical of other remote rural areas in Scotland. The area has a high percentage of employment in advanced manufacturing and business services (driven by the presence of UKAEA) and a high proportion of full time employment;
- The unemployment rate has fallen steadily over the period 1997 to 2003. In February 2003 the rate fell below the Scottish average for the first time during the charted period;
- Compared to other parts of the Highlands the Dounreay local area is not a major tourism centre. The Caithness area, for instance, in 1999 was estimated to account for only 3% of all tourism in the Highlands (by value), compared to the 14% share accounted for by Sutherland.

Social Infrastructure

- Overall, the Caithness draft structure plan considers that the region enjoys a “good range of medical and community facilities, even in remoter parts”. The plan notes however that the viability of rural services are constantly under pressure from factors such as expansion of large stores, higher prices in rural areas, health and safety legislation and demographic factors. Caithness and Sutherland Enterprise (CASE) also note that the area has significant local difficulties in attracting key staff to the area in professions such as General Practice, Dentists, Planning and so on.

Economic Impact

- Table 1 summarises the total employment impact of UKAEA Dounreay.
- The activities of UKAEA Dounreay are estimated to support a total of 2,050 jobs in the local Dounreay area (1,200 are direct employees of UKAEA). These jobs generate total retained income in the area of £41m;
- Given the total of 10,600 employee jobs estimated to be located in the local area (see Section 2), UKAEA Dounreay can be said to support some 19% of total employment in the region;
- UKAEA employees receive salaries which are almost 50% higher than average earnings for Caithness and Sutherland as a whole;
- Across Scotland as a whole the total employment impact of Dounreay is estimated at 2,930 jobs, only some 870 of which are located outside the local area; and,
- A further 1,740 jobs are supported across England and Wales. As such, in total the activities of UKAEA are estimated to support 4,670 jobs across the UK as a whole.

	Employment			Total	
	Direct	Indirect	Induced	Employment	Income (£)
Dounreay	1,214	610	220	2,050	40,982,100
Other Highland	8	10	2	20	404,600
Other Scotland	0	550	310	870	18,261,500
TOTAL SCOTLAND	1,222	1,170	540	2,930	59,648,100
England and Wales	0	1,470	270	1,740	34,341,200
TOTAL UK	1,222	2,550	810	4,670	93,989,400

Source: UKAEA, DTZ Pidea Consulting estimates

- The decommissioning of UKAEA Dounreay will continue to provide significant employment opportunities in the local area over the next 15 to 20 years at least. Beyond such employment impacts, Caithness and Sutherland Enterprise note opportunities for establishing the area as a skills-based centre of excellence for the nuclear decommissioning sector. The decommissioning process further provides an opportunity to diversify the economy of the region through inward investment and indigenous business growth.

1 INTRODUCTION

1.1 DTZ Pidea Consulting were commissioned by UKAEA to undertake a baseline study describing current conditions in the Dounreay local economy within the wider context of the Highlands as a whole. The study outlines the role that UKAEA itself plays as a major employer in the area and provides a baseline position against which the economic impact of the individual projects of the Dounreay Site Restoration Plan can be assessed.

1.2 The study is structured as follows:

- **Section 2** provides a profile of demographic and economic trends in the Dounreay area relative to the Highlands and Scotland as a whole;
- **Section 3** profiles the social infrastructure of the area in terms of housing stock, educational and health facilities; and
- **Section 4** assesses the economic impact of UKAEA at Dounreay in terms of direct, indirect and induced employment effects.

2 DOUNREAY AREA PROFILE

INTRODUCTION

- 2.1 This section provides a profile of the demographic and economic characteristics of the Dounreay area in relation to the rest of the Highlands and to Scotland as a whole. Unless stated otherwise, the Dounreay Local Area is defined in this analysis as covering the two Travel-To-Work-Areas (TTWAs) of Thurso and Wick (see Map 2.1 overleaf). Lines shown in red in map 2.1 refer to the boundaries of these two TTWAs. This area corresponds broadly to the Caithness region of Highland Council and comprises part of the Caithness and Sutherland Enterprise (CASE) area of Highlands and Islands Enterprise.
- 2.2 In general, TTWAs are defined as a zone in which the bulk of the resident population of the area also work in that area. Broadly speaking it is estimated that 75% of working age population living in each TTWA also work in that area. In terms of UKAEA Dounreay (as section 4 will discuss in more detail) it is estimated that some 97% of all direct employees of the site are resident within the local area defined here.

DEMOGRAPHICS

- 2.3 The population of the Dounreay local area was estimated at just over 26,000 people in 2000, representing around 12% of the total population of the Highlands. More than half of the population of the area was concentrated in the two main towns Thurso (7,900 people) and Wick (7,450).
- 2.4 As Table 2.1 shows, over the period 1991-2000 the population of the Dounreay local area fell by some 6% (1,600 people) compared to a slight rise recorded across the Highlands as a whole.

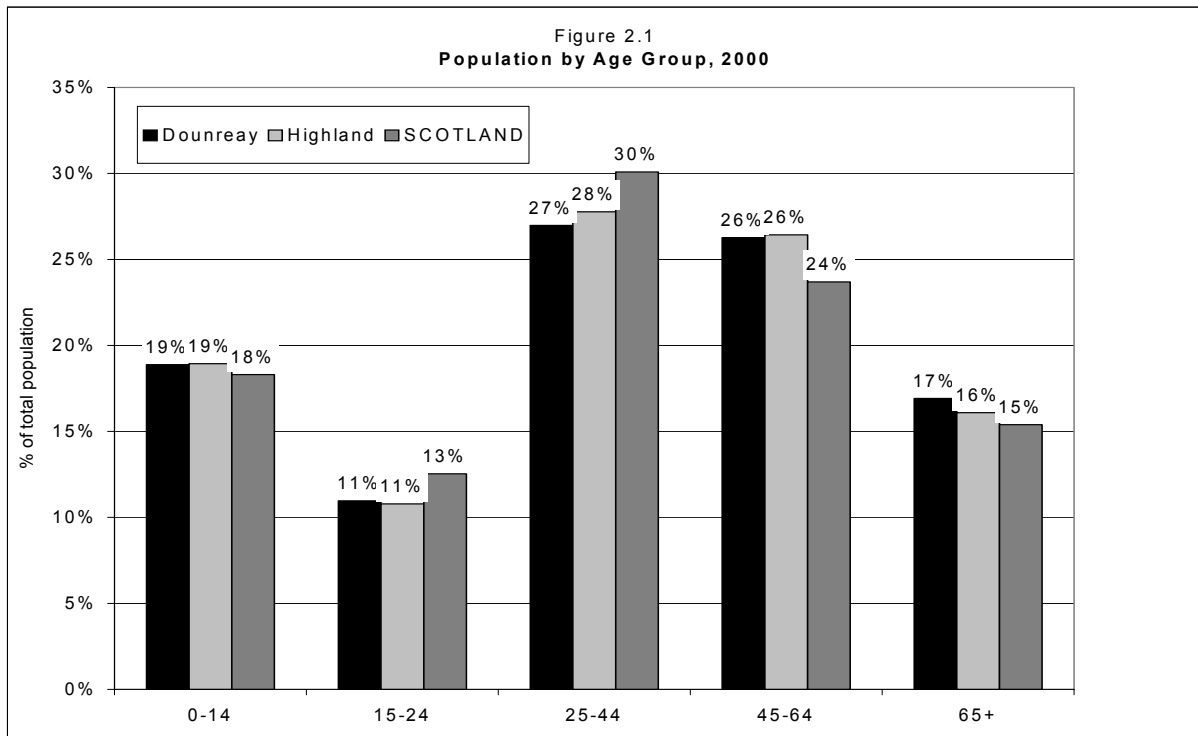
	1991	2000	Change	%
Dounreay	27,739	26,149	-1,590	-6%
Highland	204,100	208,600	4,500	2%
Scotland	5,107,000	5,114,600	7,600	0%

Source: GROS Mid year population estimates

- 2.5 No data are available on components of population change in the Dounreay area, but Table 2.2 provides a profile of change across the Highlands as a whole. Over the period 1991-2000 the Highlands region experienced positive population growth as a result of natural change (more births than death) as well as in-migration of almost 4,000 people.

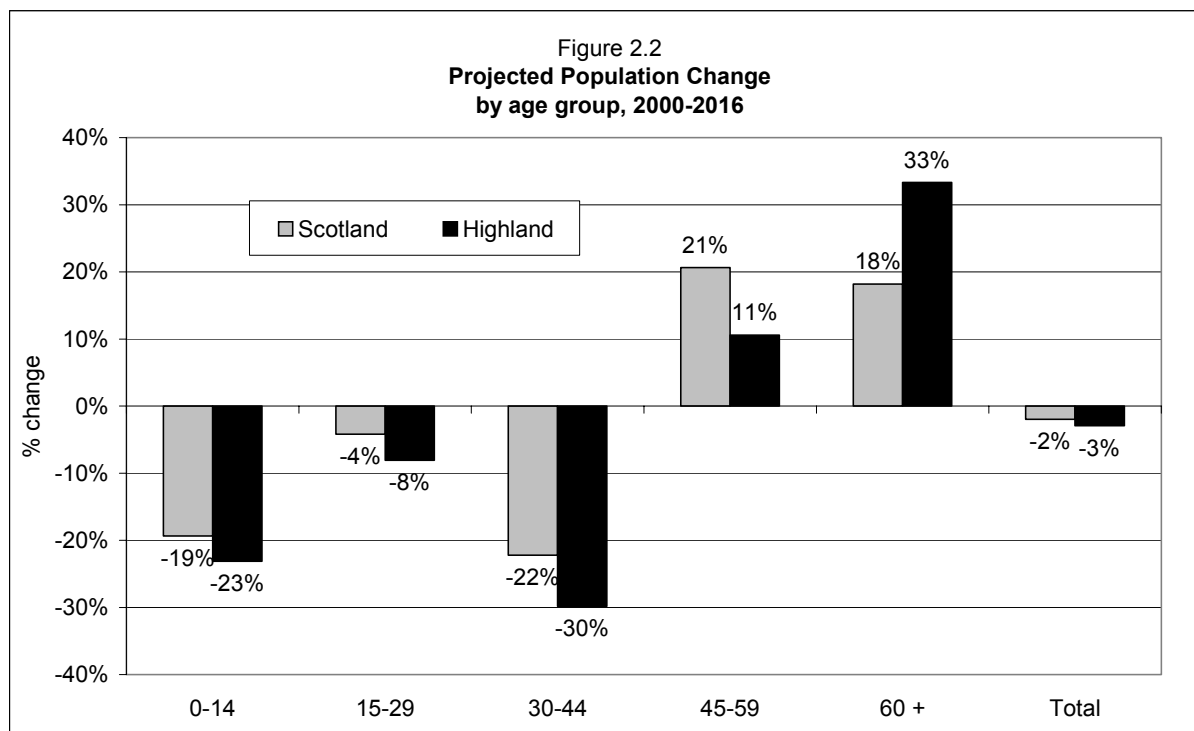
	Highland	Scotland
Estimated Population, 1991	204.1	5,107.0
<i>Births</i>	<i>22.0</i>	<i>542.7</i>
<i>Deaths</i>	<i>21.5</i>	<i>545.1</i>
Natural change	0.6	-2.4
Migration and other changes	3.9	10.0
Estimated Population, 2000	208.6	5,114.6
Change	4.5	7.6
% change	2.2%	0.1%
Source: GROS Mid year population estimates		

- 2.6 Figure 2.1 illustrates the age structure of the Dounreay area population. Overall, the age profile of the area matches closely that of the Highlands as a whole. Relative to the Scotland average both areas have a slightly older profile, with a lower proportion of the population aged 15-44 and a higher share aged over 45.



Source: GROS

2.7 This age profile is likely to continue over the next 15 years. During 2000-2016, the population of the Highlands is forecast to fall by 3%, a similar rate to that seen across Scotland as a whole. Population growth is expected to be strongest in the over 60's age group, while the population aged under 44 is projected to decline. Over the period shown, the share of the population aged 15-60 in the Highlands is expected to drop from 60% to 55%. Across Scotland as a whole that proportion remains steady at around 60%. This is shown in Figure 2.2.



Source: GROS 2000-based population projections

2.8 The forecasts shown in Figure 2.2 are based on the General Register for Scotland’s (GROS) mid year 2000 based population projections, and represent the most detailed information available i.e. there are no projections for areas below Highland using the 2000 base. Table 2.3, however, shows more detailed population projections based on the GROS 1998 based projections. Over the period 1998-2016 the population of the Caithness area (which corresponds closely to the boundaries of the defined Dounreay local area) is projected to fall by 10% compared to little net change across the Highlands. As such, the population of Caithness is projected to drop more quickly than any other Highland district.

	1998	2006	2011	2016	% change
Badenoch & Strathspey	11,310	11,792	11,930	12,093	7%
Caithness	25,730	24,824	24,068	23,174	-10%
Inverness	64,910	66,491	67,292	68,083	5%
Lochaber	19,620	19,336	19,301	19,204	-2%
Nairn	11,030	11,185	11,235	11,276	2%
Ross & Cromarty	50,640	50,656	50,481	50,003	-1%
Skye & Lochalsh	11,980	12,443	12,607	12,790	7%
Sutherland	13,080	12,581	12,238	11,873	-9%
Total	208,300	209,308	209,152	208,496	0%

Source: GRO Population Projections, 1998 Base

EMPLOYMENT STRUCTURE AND CHANGE

- 2.9 Table 2.4 shows employees in employment by status and gender in 2001. Employment in the Dounreay local area was estimated at 10,600 jobs in 2001 (does not include self employment), representing 12% of the total number of jobs across the Highlands as a whole. Some 71% of jobs in the Dounreay area are full time, a share slightly higher than those estimated for the Highlands and Scotland as a whole. In this way the Dounreay area is atypical of remote rural areas in Scotland, which are normally characterised by higher than average levels of part time employment.

	Male	Female	Total		Male	Female
Dounreay Area	5,200	5,400	10,600		49%	51%
Highland	42,800	42,300	85,100		50%	50%
Scotland	1,146,100	1,162,500	2,308,600		50%	50%
	Full time	Part time	Total		Full time	Part time
Dounreay Area	7,500	3,200	10,600		71%	30%
Highland	56,000	29,200	85,100		66%	34%
Scotland	1,603,100	705,500	2,308,600		69%	31%

Source: Annual Business Inquiry, ONS © Crown Copyright
NB: Data are rounded to nearest 100, so columns and rows may not sum precisely

- 2.10 No data are available on self employment in the Dounreay local area. In general, however, self employment rates in rural areas of Scotland are slightly higher than the national average. Across the Highlands, for instance, self employment accounted for 10% of total employment in 2000, compared to 8.5% across Scotland as a whole. If this ratio were applied across the Dounreay area, then self employment in the region would total some 1,100 jobs.
- 2.11 Table 2.5 shows average annual earnings in the Highlands in 2002. Across the Caithness and Sutherland area as a whole, average annual earnings were estimated at £313 per week, some 6% below the average for the Highlands, and 12% below the level for Scotland as a whole. Given the presence in the Dounreay area of UKAEA and support industries for the site it is expected that average earnings within the more local area would be slightly higher than this average.

	Male (£)	Female (£)	All Persons (£)
Caithness and Sutherland	438	231	313
Highlands	433	250	332
Scotland	448	273	357
Highlands as % of Scotland Average	97%	91%	93%

Source: New Earnings Survey

2.12 Table 2.6 illustrates employment in the Dounreay area by industry sector. The following key points can be made:

- Employment in the Dounreay area is dominated by four sectors – distribution, hotels and catering, business services¹, public administration and manufacturing;
- Relative to the Scottish average, the area is significantly over-represented (i.e. has a higher than average share of employment) in manufacturing and business services; and
- The area is relatively under-represented in transport and communications and public administration.

2.13 The source from which this data has been drawn (the Annual Business Inquiry carried out by National Statistics) does not allow employment in individual organisations to be identified. However, given the activities carried out at UKAEA Dounreay, the majority of direct employees at the site are likely to be classified here as manufacturing and business services.

2.14 In terms of the structure of employment, the Dounreay local area is, again, not typical of a remote rural area in Scotland. Such areas are typically characterised by high concentrations of employment in tourism and primary activities with low levels of employment in advanced manufacturing and business services. By contrast, the Dounreay area has a large concentration of employment in advanced manufacturing and accounts for almost a quarter of the total manufacturing employment in the Highlands. At the same time, the share of employment in the area taken by business services (23%) is higher than the Scottish average. Indeed, Dounreay has a far higher share of employment in business services than Dundee (10%) and a similar share to that seen in Aberdeen city.

¹ In this dataset 'business services' covers a wide range of activities from banking and financial services, architectural or engineering consultancy, IT services to industrial cleaning services.

**Table 2.6
Employees in Employment by Industry, 2001**

	Dounreay		Highlands		Scotland	
	No.s	%	No.s	%	No.s	%
Agriculture, forestry and fishing+	100	1%	4,700	6%	39,100	2%
Energy and Water	*	*	1,000	1%	44,900	2%
Manufacturing	1,900	18%	9,100	11%	294,200	13%
Construction	600	6%	4,600	5%	116,200	5%
Distribution, hotels and catering	2,600	24%	26,800	31%	541,400	23%
Transport and Communications	500	5%	5,300	6%	129,600	6%
Business services	2,500	23%	10,200	12%	395,200	17%
Public Administration	2,100	20%	18,100	21%	618,500	27%
Other Services	400	4%	5,300	6%	129,700	6%
Total	10,700	100%	85,100	100%	2,308,600	100%

Source: Annual Business Inquiry, ONS ©Crown Copyright

* Data suppressed by ONS for reasons of confidentiality

+ ABI data significantly understates the level of employment in Agriculture activities at geographical levels below Local Authority.

NB: All data are rounded, so rows and columns may not sum precisely

2.15 Over the period 1996 to 2001 employment in the Dounreay area increased by 1,500 jobs (16%), compared to growth seen across the Highlands (3%)². Employment in Scotland as a whole showed a 10% increase over the same period. This is illustrated in Table 2.7.

2.16 The only industry showing a drop in employment in the area was:

- Public administration (a fall of 200 jobs);

2.17 Key industries showing an increase in employment included:

- Manufacturing (an increase of 800 jobs);
- Business services (500 jobs)
- Distribution, hotels and catering (100 jobs).

² Caithness and Sutherland Enterprise suggest that much of this local growth in employment is due to expansion in key local employers such as BT, Manpower, AGM Batteries and Norfrost.

**Table 2.7
Employment Change by Industry, 1996-2001**

	Dounreay		Highlands		Scotland	
	no.s	%	no.s	%	no.s	%
Agriculture, forestry and fishing	*	*	#	#	#	#
Energy and Water	*	*	*	*	1,000	2%
Manufacturing	800	82%	900	12%	-20,900	-7%
Construction	*	*	-1,100	-20%	-2,600	-2%
Distribution, hotels and catering	100	6%	2,300	10%	43,500	9%
Transport and Communications	*	*	1,100	27%	19,300	18%
Banking, finance and insurance	500	26%	-1,100	-10%	92,600	31%
Public Administration	-200	-9%	-3,900	-18%	51,600	9%
Other Services	100	20%	1,800	53%	24,900	24%
Total	1,500	16%	2,700	3%	213,400	10%

Source: Annual Business Inquiry, ONS ©Crown Copyright

* Data suppressed by ONS for reasons of confidentiality

- 1996 data not comparable

NB: All data are rounded, so rows and columns may not sum precisely

KEY EMPLOYERS

- 2.18 Key employers located in the Dounreay local area are listed in Table 2.8. According to Yellow Pages databases, some 13 companies in the area employ more than 100 people. UKAEA Dounreay are identified as a key employer in the region, while (as section 4 discusses in more detail) a number of the companies listed here are important suppliers/contractors for the site's activities.

**Table 2.8
Key Employers in the Dounreay Area**

Company	Town	Sector	No. Employees
Norfrost Ltd	Thurso	Electric Consumer Goods	200+
UK AEA Dounreay	Thurso	Public Administration	200+
Caithness Glass Ltd	Wick	Manufacturing	100 to 199
Johnson Controls Ltd	Thurso	Business Organisations and Consultants	100 to 199
AEA Battery Systems	Thurso	Electric Components and Equipment	100 to 199
Royal Hotel	Thurso	Hotels and Restaurants	100 to 199
J.G.C Engineering & Technical	Halkirk	Metal Working	100 to 199
Safeway Stores plc	Thurso	General Retailers	100 to 199
Halliburton Subsea	Wick	Oil and Petroleum	100 to 199
The Scottish Co-op	Thurso	General Retailers	100 to 199
Source: yell.com			

2.19 In addition to companies listed in Table 2.8, CASE identify the following as key employers in the local area:

- Highland Council;
- NHS Trust;
- BT;
- Manpower plc;
- Rolls Royce Associates;
- RWE NuKem.

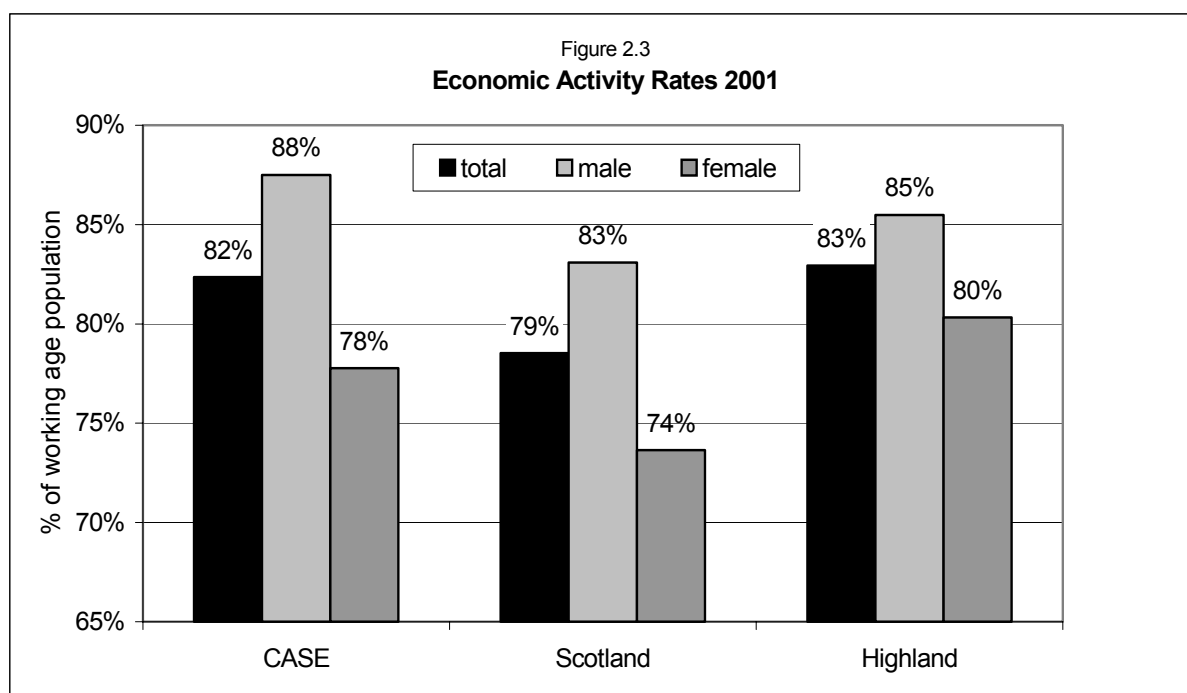
2.20 Table 2.9 summarises the corporate structure of the Dounreay area by size of enterprise. In common with the Highlands as a whole, a high proportion of companies in the area have fewer than 10 employees. Relative to the wider region, however, the Dounreay area also has high proportion of companies with more than 200 employees.

Table 2.9						
Enterprises by employment sizeband, 2001						
	Dounreay		Highlands		Scotland	
no. of employees	Number of companies	% of total	Number of companies	% of total	Number of companies	% of total
1 – 10	826	86%	7,889	85%	131,867	79%
11 – 49	111	12%	1,142	12%	26,552	16%
50 – 199	19	2%	195	2%	6,124	4%
200 +	7	1%	34	0%	1,367	1%
Total	963	100%	9,260	100%	165,910	100%

source: ABI Workplace Analysis ONS © Crown Copyright

UNEMPLOYMENT AND ECONOMIC ACTIVITY

2.21 Economic activity rates measure the percentage of the total working age population who are either in employment or actively seeking work. Across the Caithness and Sutherland Enterprise area (CASE)³ as a whole economic activity rates are similar to those seen across the Highlands as a whole and slightly higher than the Scottish average. This is shown in Figure 2.3. In total, however, some 22% of the working age population of the CASE area are out of work but not actively seeking a job. Many of these are likely to be persons in early retirement, but across Scotland as a whole around a third of those recorded as inactive in the labour market are persons who do want to work but are not actively seeking a job⁴.



Source: Labour Force Survey

2.22 Table 2.10 shows claimant count unemployment in the Dounreay area. In total there were 610 unemployment claimants in the area in Feb 2003, with all but 132 of these being men. As a percentage of total workforce, the unemployment rate in the area falls marginally below the averages for the Highlands and Scotland as a whole.

³ Data are not available for the Dounreay local area itself.

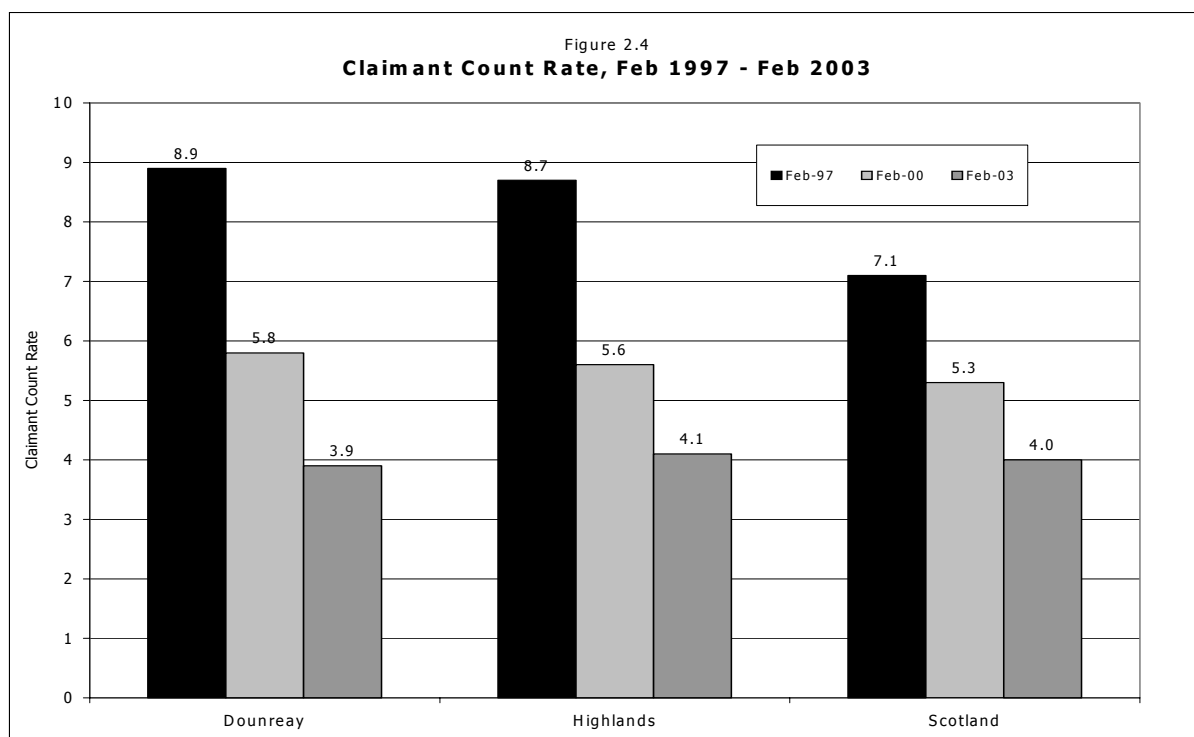
⁴ Scottish Executive, Scottish Economic Statistics

Table 2.10
Claimant Count Unemployment, Feb 2003

	Dounreay		Highland		Scotland	
	No. Claimants	Rate	No. Claimants	Rate	No. Claimants	Rate
Male	478	5.4	3,600	5.7	85,400	5.7
Female	132	1.9	1,200	2.3	25,200	2.0
All	610	3.9	4,800	4.1	110,600	4.0

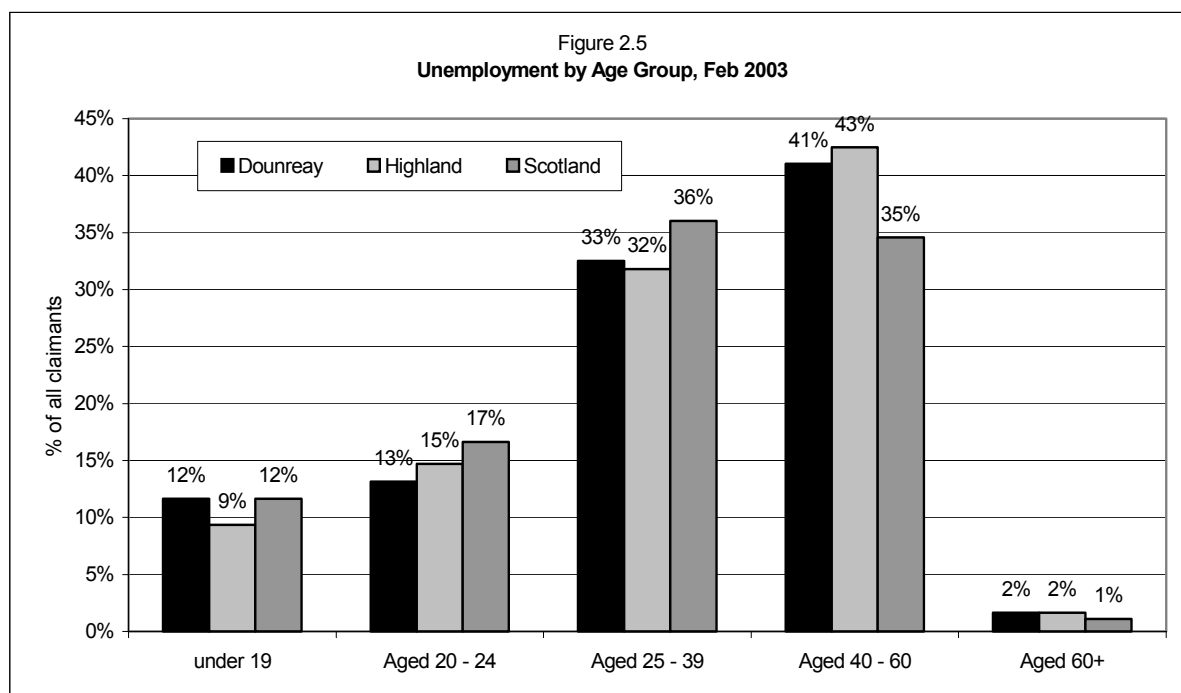
Source: SEELD

2.23 As Figure 2.4 illustrates, the unemployment rate throughout the Dounreay local area has been falling steadily over the past 6 years at a faster rate than the average across Scotland and the rest of the Highlands. During 2002 unemployment rates in the Dounreay area fell below those of the Highlands and Scotland for the first time over the period since 1997.



Source: ONS Claimant Counts (NOMIS) ©Crown Copyright

2.24 Some 25% of unemployment claimants in the Dounreay area are aged under 24, a far lower proportion to that observed in the rest of Scotland. Overall the age profile of unemployment claimants in the area is similar to the Highlands average with a significantly higher than average (compared to the rest of Scotland) share of claimants aged 40-60 years. This is shown in Figure 2.5.



Source: ONS Claimant Counts (NOMIS) ©Crown Copyright

2.25 As Table 2.11 shows, some 178 claimants in the Dounreay local area had been unemployed for more than 6 months as at Feb 2003. As such, long term claimants in the area represented nearly a third of the total number of claimants. The long term unemployment rate in the Dounreay area remains above the observed averages for the Highlands and Scotland as a whole.

	Dounreay		Highland		Scotland	
	No. Claimants	% of total claimants	No. Claimants	% of total claimants	No. Claimants	% of total claimants
Feb 97	590	53%	3,800	41%	85,700	48%
Feb 03	178	29%	1,000	22%	30,500	28%

Source: ONS ©Crown Copyright

2.26 Only 7% of unemployment claimants in the Dounreay area are seeking higher level management, professional or associated professional occupations, a slightly lower proportion than the average across the rest of the Highlands and Scotland as a whole. By contrast, the area has a far higher than average proportion of claimants seeking lower skilled elementary occupations.

SOC (90) Major Group	Dounreay	Highland	Scotland
Managers/Administrators	2%	3%	3%
Professional Occupations	2%	2%	3%
Associate Professional/Technical	3%	5%	6%
Clerical/Secretarial Occupations	11%	10%	12%
Craft/Related Occupations	15%	23%	14%
Personal/Protective Service Occupations	6%	8%	8%
Sales Occupations	4%	4%	8%
Plant/Machine Operatives	6%	9%	11%
Other Elementary Occupations	52%	37%	34%
Total	100%	100%	100%

Source: ONS, ©Crown Copyright

2.27 Fewer than 150 vacancies were registered at Job centres in the Dounreay local area in February 2003⁵. Compared to the Highlands and Scotland as a whole, there were a higher than average number of vacancies in the area in the following categories (see Table 2.13):

- Elementary occupations; and
- Managers and Senior Officials, Professional Occupations.

2.28 Occupations in which there were a fewer than average number of vacancies included:

- Sales and Customer Service Occupations; and
- Personal Service Occupations (at least in comparison to the Highlands average).

⁵ It should be noted that job centre vacancy statistics only provide a sample of the total number of vacancies or engagements in the local economy and are likely to exclude the requirements of a number of local employers who do not advertise through job centres. National Statistics estimate that only around a third of all vacancies are notified to Job Centres. Nevertheless, and bearing this caveat in mind, for the purposes of this study it is felt that the data provides a useful snapshot of employer's requirements.

Table 2.13
Job Centre Vacancies by Occupation
February 2003

SOC (2000) Major Group	Dounreay		Highlands		Scotland	
	No. vacancies	%	No. vacancies	%	No. vacancies	%
Managers and Senior Officials	5	3%	39	2%	520	2%
Professional Occupations	3	2%	20	1%	782	2%
Associate Professional and Technical Occupations	4	3%	226	13%	2,514	7%
Administrative and Secretarial Occupations	11	8%	154	9%	3,652	11%
Skilled Trades Occupations	31	21%	190	11%	3,401	10%
Personal Service Occupations	11	8%	281	17%	3,531	10%
Sales and Customer Service occupations	15	10%	249	15%	6,926	20%
Process, Plant and Machine Operatives	9	6%	122	7%	3,294	10%
Elementary Occupations	57	39%	406	24%	9,810	29%
Total	146	100%	1,687	100%	34,430	100%

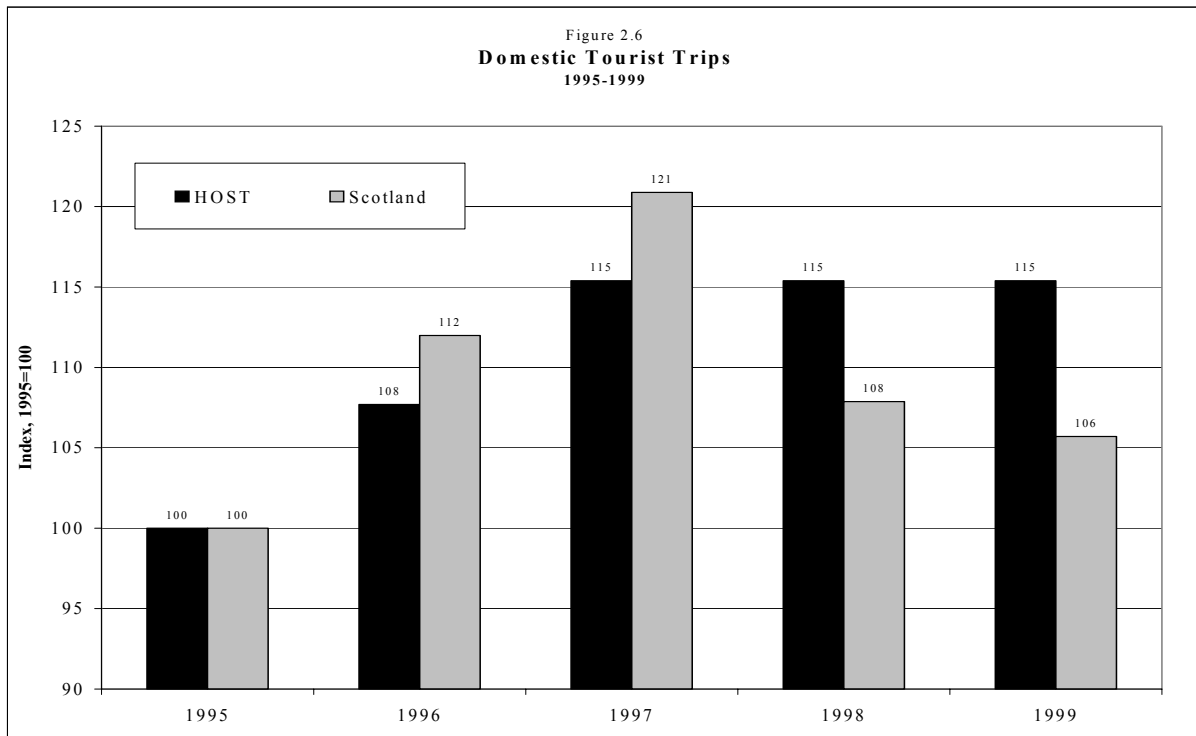
Source: ONS, ©Crown Copyright

TOURISM

- 2.29 Tourism is one of Scotland's most important industries, employing around 9% of the total workforce (193,000 jobs) and generating £3.9bn for the Scottish economy. In the Highlands the industry is of particular importance. Tourism accounts for around 17% of all employment in the region with visitors generating £530 million of expenditure in 2001 (excluding day visitors).
- 2.30 Table 2.14 illustrates the distribution of tourism in Scotland in 2001 by number of trips and total tourism spending. The Highlands of Scotland area (HOST) accounted for 14% of all trips and 14% of tourist spending made in Scotland in 2001, making the area the third most popular tourist destination in the country after Edinburgh and Glasgow.

Table 2.14 Distribution of Tourism in Scotland, 2001				
	Trips (mn)	Spend (£m)	Trips	Spend
Aberdeen and Grampian	1.7	328	8%	8%
Dundee and Angus	0.6	88	3%	2%
AILLST	2.4	409	12%	11%
Ayrshire and Arran	1.3	232	6%	6%
Dumfries and Galloway	0.9	130	5%	3%
Edinburgh and Lothians	4.6	986	22%	25%
Greater Glasgow and Clyde Valley	3.7	774	18%	20%
Highlands of Scotland	2.9	553	14%	14%
Fife	0.8	140	4%	4%
Perthshire	1.0	168	5%	4%
Scottish Borders	0.4	72	2%	2%
Total	20.4	3,880	100%	100%
Source: Visit Scotland, Tourism in Scotland 2001.				
NB: Includes both Domestic and Overseas Tourism, but excludes leisure day visits.				

- 2.31 While little official data are published by VisitScotland covering tourism volumes in the Dounreay local area itself, a study commissioned by Highlands and Islands Enterprise in 1999 did make estimates of the extent of tourism in the region by LEC area. For the CASE area the study estimated a total of 295,000 overnight tourist trips in 1999. Total tourism spending in the area was estimated at £108.2 million, although the majority of this was estimated to be concentrated in the Sutherland area rather than Caithness. Overall, Caithness was estimated to account for around 3% of total tourism in the HOST area (by value), with Sutherland accounting for almost 14%.
- 2.32 Figure 2.6 illustrates the trend in domestic tourism trips to the Highlands and Scotland as a whole over 1995 to 1999 (the UK tourism survey methodology was changed in 2000, hence 1999 is the most recent data for which comparable trend data are available). Domestic tourist trips to the Highlands followed the Scottish trend of steady growth over 1995 to 1997. While trips to Scotland as a whole fell off sharply thereafter, however, tourism trips to the Highlands remained steady over 1997-1999.

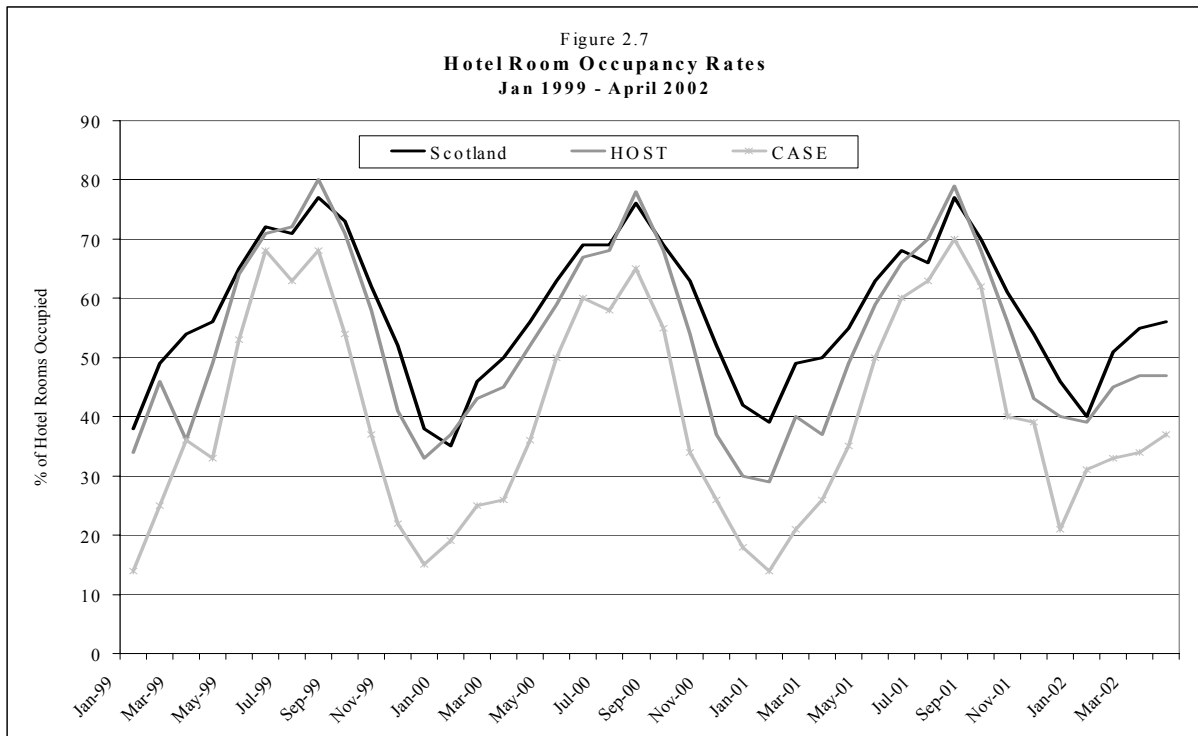


Source: Visit Scotland

2.33 Again, little information is available concerning the number of tourism accommodation providers in the Dounreay local area. Highlands of Scotland Tourist Board have been able, however, to provide information on the number of tourist board member businesses in the broad region. Throughout the East North Highlands region (covering the east coast of Highlands region from the Black Isle to Caithness), a total of 293 accommodation providers are registered with HOST. These businesses can be broken down by type as follows:

- Serviced Accommodation (B&Bs & Hotels) - 168;
- Self Catering – 95;
- Holiday Caravans – 12;
- Caravan & Camping Parks – 11;
- Hostels & Bunkhouses – 7.

2.34 Figure 2.7 illustrates hotel room occupancy rates in the Caithness and Sutherland area. Throughout the period 1997 to 2002 occupancy rates in Caithness and Sutherland have been below the average for Highlands and Scotland as a whole and show a far stronger than average seasonal fluctuation.



Source: HOST

LOCAL BUSINESS SURVEY

2.35 In November 2002, Hall Aitken undertook a survey of 300 local businesses in the Caithness and Sutherland area (96 responses were received). The main findings were as follows:

- The key recruitment issue identified by the majority of respondents was a lack of suitably skilled people;
- Demand for unskilled manual workers remains high, accounting for a quarter of current vacancies. There has also been a recent increase in the demand for skilled manual workers;
- There is currently no evidence of recruitment problems putting upwards pressure on wages;
- Staff turnover is generally lower than the Scottish average, with small companies registering the highest rates;
- Sales / marketing and customer care are the most common skill areas which local businesses want to improve upon.

2.36 Futureskills Scotland carried out a further survey of Scottish employers in August 2002. The sample included 188 companies in the Caithness and Sutherland area. An analysis of the survey was included in the Autumn 2002 Hall Aitken Labour Market Intelligence Report, the main findings of which are summarised as follows:

- An estimated 26% of employees in Caithness and Sutherland had skills gaps (i.e. were not considered fully proficient to carry out their jobs) – a figure almost four times higher than the Scottish average;
- Business regulations, attracting skilled staff and cash flow were identified as the key challenges facing employers. Competition with other businesses was a relatively unimportant factor when compared with the results for Scotland as a whole;
- The importance of small businesses to the local economy means that fewer local companies are actively involved in recruitment;
- The isolated nature of the labour market means there is a lower turnover of employees in Caithness and Sutherland than in the rest of the Highlands. Low employment turnover rates are generally positive, but very low rates can limit innovation and skills development.

SUMMARY

2.37 The key points from this analysis can be summarised as follows:

- The population of the Dounreay local area was estimated at 26,000 people in 2000. This represented a drop in population of around 1,600 people between 1991 and 2000;
- 60% of the population of the area is concentrated in the two main centres, Thurso and Wick;
- The age profile of the area is slightly older than the Scottish average, with a higher percentage of people aged 45 and over;
- 10,600 jobs were located in the Dounreay local area in 2001;
- The employment structure of the area is not typical of other remote rural areas in Scotland. The area has a high percentage of employment in advanced manufacturing and business services (driven by the presence of UKAEA) and a high proportion of full time employment;
- Employment increased by 1,500 jobs (16%) between 1996 and 2001;
- Small businesses (those with fewer than 10 employees) account for a higher proportion of total enterprises in the Dounreay area and the Highlands than in Scotland as a whole;
- Economic activity rates in the area are similar to the averages across the Highlands and Scotland as a whole;

- In February 2003 there were 610 unemployment claimants in the area, 478 of which were men;
- The unemployment rate has fallen steadily over the period 1997 to 2003. In February 2003 the rate fell below the Scottish average for the first time during the charted period;
- Just under a third of all claimants have been unemployed for more than 6 months. As such, the long term unemployment rate in the area is significantly higher than the averages across the Highlands and Scotland;
- Tourism is a particularly important industry in the Highlands, supporting around 17% of all employment in the region as a whole. Compared to other parts of the Highlands, however, the Dounreay local area is not a major tourism centre. The Caithness area, for instance, in 1999 was estimated to account for only 3% of all tourism in the Highlands (by value), compared to the 14% share accounted for by Sutherland.

3 SOCIAL INFRASTRUCTURE

INTRODUCTION

- 3.1 This section considers the social infrastructure of the Dounreay local area. Topics covered include the region's transport infrastructure, housing stock, educational facilities and health facilities. Such facilities are vital for the area to provide a good quality living environment for local communities.
- 3.2 Overall, the Caithness Structure Plan considers that the region enjoys a "good range of medical and community facilities, even in remoter parts". The plan notes however that the viability of rural services are constantly under pressure from factors such as expansion of large stores, higher prices in rural areas, health and safety legislation and demographic factors. It is emphasised that:
- "Present service levels must be maintained and improved. Reductions in standards offer no incentive for people to stay and raise a family [in the area]"*
- 3.3 Since the Structure Plan was completed, Caithness and Sutherland Enterprise note that there has been a decline in the number of GP's and Dentists in the area and that replacements are proving difficult to recruit.

TRANSPORT

- 3.4 Economic activity in the Dounreay area is heavily reliant on access to and from Inverness and the rest of Scotland. As such, investment in improved accessibility by road and by rail is considered an essential part of promoting the competitiveness of the area.
- 3.5 The Caithness structure plan notes that investment in recent years in the A9 road to the south of the area has led to significant improvements in travel times between the Dounreay area and Inverness. Average daily traffic flows on this route were estimated at 1,609 vehicles per day in August 2001, with heavy goods vehicles accounting for some 15% of traffic.

- 3.6 While the road network in the local area is considered to be of reasonable standard, providing good connections between the main settlements, the structure plan does note specific areas of particular concern which require development. These include the Ord of Caithness to Helmsdale section of the A9 and the road infrastructure in the Newtonhill, Halkirk and Canisbay areas. Funding for improvements on this route was approved by the Scottish Executive in Spring 2002 with construction on the first phase due to begin in Spring 2003.
- 3.7 Accessibility by rail is of particular importance to the development of the Dounreay area. In addition to providing access to the region for tourists in the summer months, use of the rail network is becoming increasingly important for carrying freight across the Highlands. At present the Caithness structure plan suggests that scope exists to increase transport of timber and mineral products to the area via rail. Key objectives identified for improvement of the network would include the development of a freight terminal at Georgemas Junction to promote freight transport and development of a Dornoch rail link to shorten journey times.
- 3.8 As at March 2003 there are three daily passenger rail services between Inverness and Wick/Thurso (no direct service on Sundays). The average journey time (one way, Inverness to Wick) is almost 4 hours.
- 3.9 Accessibility to the area by air is provided through Wick airport. The airport provides connections for business and leisure travellers to central Scotland and on to other destinations across the UK and beyond and is considered an important support facility for the work carried out at UKAEA Dounreay. Oil-related helicopter operations are regularly attracted to the airport and a number of ferry flights which use Wick as a stop-over on the route to and from Europe via Iceland.
- 3.10 Some 18,000 passengers were carried through Wick airport in 2001. This figure was significantly down on the 28,000 passengers carried during 1996. Table 3.1 lists the destinations served by scheduled flights from the airport.

Destination	Airline	Aircraft
Aberdeen	Eastern Airways	J32
Edinburgh	Loganair	Saab 340
Kirkwall	Loganair	Saab 340
Norwich via Aberdeen	Eastern Airways	J32
Teesside via Aberdeen	Eastern Airways	J32
East Midlands via Aberdeen	Eastern Airways	J32
Humber side via Aberdeen	Eastern Airways	J32
Source: Highlands and Islands Airports Ltd		

- 3.11 The final key component of the area's transport infrastructure to be considered here are the main sea harbours at Wick and Scrabster. As from October 2002 Northlink Ferries operate the Scrabster to Stromness passenger ferry route throughout the year. In 2000 almost 158,000 passengers were carried on this route, these were in addition to 47,100 cars and 46,300 commercial vehicles. Traffic on the route in 2001 appears to have been seriously affected by the outbreak of foot and mouth disease in Scotland. No data is available on ferry traffic from other local ports at John O' Groats and St Gill's.
- 3.12 The Caithness structure plan suggests that improvements to both main local ports are important to improve the competitiveness of the region. In particular it is suggested that strengthening the harbours may open up opportunities in the area for a number of industries including fish processing, cruise liner business and oil supply vessels.

HOUSING STOCK

- 3.13 Information on the number of dwellings in the Dounreay area (which, for ease of data collection, is defined in this section by the former Caithness local authority boundary) is taken from the council tax register and shown in Table 3.2. The council tax register estimates that there are almost 12,300 dwellings in Caithness, representing 12% of the total number of dwellings across the Highlands region as a whole. Occupied dwellings account for 92% of the total stock in the area, broadly comparable to the Highlands average.

Table 3.2

Properties on the Council Tax Register as at 21/11/01

	Total CT Stock	Exemptions (void)	Second / holiday homes	Total Occupied Stock
Caithness	12,261	386	605	11270
Highland	101,613	2777	7224	91612

Note: Exemptions include agricultural properties, demolitions, nursing care homes, repossessions, under repair.

Source: Highland Council

- 3.14 The most recent available data on housing tenure in Caithness is shown in Table 3.3 and is taken from the 1991 Census (2001 Census data are not yet available). As at 1991 Caithness had a higher than average share of housing in the Council rented sector when compared against the Highlands average and a slightly lower share in the owner occupied sector.

Table 3.3

Housing Tenure Profile, Census 1991

	Caithness	Highland
Owner Occupied	50%	56%
Council Rented	34%	28%
Housing Association Rented/SH rented	4%	4%
Private Rented	8%	7%
Rented with a job or business	5%	4%
Total	100%	100%

Source: Highland Trends

- 3.15 Almost 600 new private sector houses were completed in Caithness over the period 1990-2001 (see Table 3.4). This represented 5% of total completions across the Highlands, a lower than average share when compared with the area's relative population and size of housing stock. While the majority of new completions were built in the main settlements in the area, the structure plan notes a steadily increasing number built in the countryside.

Table 3.4 Private Sector Completions 1990 to 2001			
Area	Completions		Ave pa
	Total No	% of Highlands	
Caithness	594	5	57
Highlands	10,860	100	922

Source: Highland Council

- 3.16 Table 3.5 shows Highland council estimates of the amount of housing development land required in the area over the next 10-15 years. These estimates are based on the council's own household and population projections and represent the maximum allocation required in each area. In Caithness the structure plan identifies a requirement for some 1,400 housing units in the period 1998-2017. Over 900 of these units are estimated to be allocated in the Thurso and Wick areas.

Table 3.5 Housing Allocations, 1998-2017				
Area	Current stock	1998-2007	2007-2017	1998-2017
Caithness	11,941	650	750	1,400
Highland	97,437	13,600	12,600	26,200

Source: The Highland Council

- 3.17 Almost 370 private sector house sales were made in the Caithness area in 2001 (see Table 3.6). This represented 9% of all such house sales across the Highlands and a 54% increase in the number of sales recorded in 1990.

	1990	1996	2001	% change 1990 – 2001
Caithness	238	287	367	54
Highland	2,738	2,987	3,914	43

Source: Highland Council

- 3.18 Average house prices in the region are illustrated in Table 3.7. Mean house prices in Caithness were estimated at some £49,200 in 2000, almost 20% below the average for Highlands region as a whole.

	Mean	Median
Caithness	49,193	43,100
Highland	58,193	52,025

Source: The Highlands and Islands Housing Market Context Statement: Technical Appendix

- 3.19 The Caithness structure plan states that affordable housing is a key issue for the region to be addressed through a number of policies. Some of the particular issues facing the area are identified as follows:
- 30% of local households remain unable to afford even the cheapest houses on the market;
 - there is a mismatch at the local level between household size and house size;
 - there is a need for new affordable housing to meet projected demographic changes in the region;
 - there is a shortage of suitable housing to rent for incoming workers; and
 - there is a shortage of suitable land within settlements for new house building, particularly in the Thurso housing market area.

EDUCATIONAL FACILITIES

- 3.20 Table 3.8 lists the school rolls of the 18 primary schools in the Caithness area. Across the area the total school roll for session 2002/03 was some 2,256 pupils. These pupils are spread across a wide range of types of school from the very small (Dunbeath) to the relatively large (with 338 pupils, Miller Academy is the second largest primary school in the Highlands outside Inverness).

Table 3.8 Caithness Area Primary School Rolls, Session 2002/03	
Name	School Roll
Bower	27
Canisbay	54
Castletown	148
Crossroads	37
Dunbeath	20
Halkirk	129
Hillhead	181
Keiss	52
Lybster	93
Miller Academy	338
Mount Pleasant	171
North (Wick)	222
Pennyland	255
Pulteneytown	216
Reay	59
South Wick	176
Thrumster	24
Watten	54
Caithness Total (18 Schools)	2,256
Highlands Total (185 Schools)	18,157

Source: Highland Council

- 3.21 Two similarly sized secondary schools serve the Caithness area. Together, Thurso High and Wick High have a combined school roll of 1,803 students, some 12% of the total number of secondary school students across the Highlands region.

Table 3.9 Caithness Area Secondary School Rolls, Session 2002/03	
Name	School Roll
Thurso High	912
Wick High	891
Caithness Total (2 Schools)	1,803
Highlands Total (29 Schools)	14,779

Source: Highland Council

- 3.22 School attainment levels are illustrated in Table 3.10 and reveal a marked difference between the attainment levels of students at Thurso High compared to those from Wick High. While 82% of S4 students at Thurso High go on to achieve 5 or more awards at level 4 or above (well above the Scottish average), only 72% of students at Wick High achieve the same results (below the Scottish average).

	2000	2001	2002
Thurso High School	85	85	82
Wick High School	87	74	72
Highland	86	85	82
Scotland	77	77	76

Source: Scottish Executive

- 3.23 Similarly, Table 3.11 reveals the differences between school leaver destinations from the two High Schools in the area. The school leaver profile from Thurso High, for instance, closely matches the average for the Highlands as a whole with a high proportion of students entering higher education. School leavers from Wick High show a lower than average rate entering higher education, but a far higher than average rate entering employment.

	Higher Education	Further Education	Training	Employment	Other Known	Unknown
Thurso High School	33	17	**	34	**	9
Wick High School	25	20	**	37	10	**
Highland Council	32	18	2	32	9	8
Scotland	32	20	6	23	16	3

Source: Scottish Executive
** - No. leavers is less than 5%

- 3.24 Higher and further education services are available in the area primarily through the North Highland College. The college has campuses in Thurso and Wick (as well as Alness and Dornoch) and aims to offer flexible outreach and education opportunities across the area. The college is a partner organisation in the UHI Millennium Institute (UHIMI) providing first class University level courses in the Highlands region. In 2001-2002 some 359 UHIMI students attended higher education courses based at the college, representing 6% of the total number of students attending the institute⁶. University level courses available from UHIMI through North Highland College in 2001 and validated by the Open University Validation Service included the following⁷:

- BSc Mechanical Engineering;

⁶ UHI Millennium Institute Key Statistics 2001-02

⁷ "UHI Millennium Institute: An Overview", August 2001

- BSc Marine Science;
- BA Golf Management;
- BSc Environment and Heritage Studies.

HEALTH AND OTHER FACILITIES

3.25 Table 3.12 lists the hospitals and health centres based in the Dounreay local area and operated through NHS Highland. The Caithness General Hospital has 86 staffed beds and employs some 300 staff. Accident and Emergency facilities are available at both Caithness General Hospital and Dunbar Hospital (reinstated in February 2003).

Table 3.12 Hospitals and Health Centres in Dounreay Local Area	
<i>Highland Acute Services NHS Trust</i>	
Caithness General Hospital	Wick
<i>Highland Primary Care NHS Trust</i>	
Town and County Hospital	Wick
Mental Health Centre	Wick
Dunbar Hospital	Thurso
Community Health Centre	Thurso
Rose Street Clinic	Thurso
Dunbeath Health Centre	Dunbeath
Halkirk Surgery	Halkirk

3.26 Alongside these services, a total of ten GP practices are spread across the area, four NHS registered dentists, two opticians and six pharmacists. Of these pharmacists one acts as a needle and syringe exchange and one provides methadone dispensing services.

Table 3.13 Other Health Facilities in Dounreay Local Area								
	Thurso	Wick	Halkirk	Canisbay	Dunbeath	Lybster	Castletown	TOTAL
General Practices	2	3	1	1	1	1	1	10
Dentists	3	1	0	0	0	0	0	4
Opticians	1	1	0	0	0	0	0	2
Pharmacists	3	3	0	0	0	0	0	6
Source: NHS Highlands NB: data refers to number of practices, not individuals								

3.27 Table 3.14 finally provides an overview of the sports and recreation facilities available in the Caithness area as at 1999. The Caithness Structure plan identifies the following issues as key deficiencies in the region at present:

- A lack of purpose built indoor sports facilities;
- A lack of local multi-purpose community buildings;
- A lack of community/arts centres in the region.

Table 3.14
Sports and Other recreation facilities, Highland, 1999

	Parks and open spaces	Sport and Leisure centres	Swimming Pools	Libraries	Museums	Misc facilities
Caithness	86	0	2	3	4	7
Highland	588	10	15	55	14	70

Source: Highland Trends, 1999

4 ECONOMIC IMPACT OF DOUNREAY

INTRODUCTION

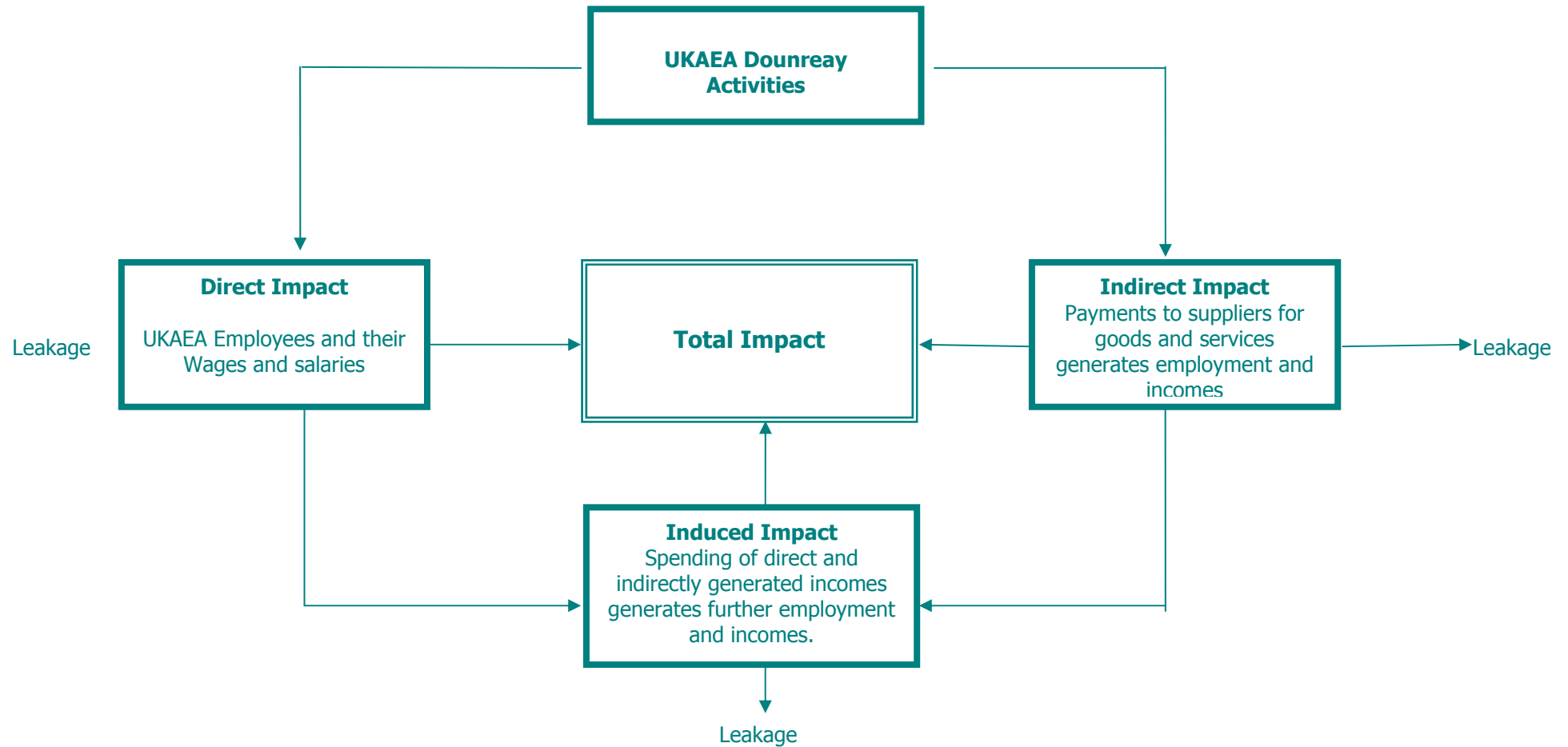
- 4.1 The impact of UKAEA Dounreay on the economy of the local area can be examined in terms of the income and employment created in the area as a result of activities carried out at the site. In addition to such impacts this section also considers the wider, more qualitative impacts of the site on the local area.

EMPLOYMENT IMPACT

- 4.2 The impact of Dounreay on local incomes and employment arises from three key areas:
- **Direct Impact:** arising from direct employees of UKAEA based at Dounreay and their wages and salaries;
 - **Indirect Impact:** employment and incomes supported in businesses which supply the goods and services purchased by UKAEA Dounreay; and,
 - **Induced Impact:** employment and incomes in businesses supported by the spending of wages and salaries generated by Direct and Indirect impacts.
- 4.3 Figure 4.1 shows the flow of expenditure from UKAEA Dounreay's activities and the resulting impacts. The direct impact measures the employment and wage/salary incomes created by people working for UKAEA Dounreay.
- 4.4 The indirect impact is based on non-wage and salary expenditure of UKAEA in support of its day-to-day operations at Dounreay. For the purposes of this report such expenditure has been examined geographically to assess its impact on the local Dounreay area, Scotland, England and Wales and the UK as a whole. At each of these geographical levels some of the expenditure will be on locally sourced goods and services and some will represent leakages from the economy i.e. payment of taxes and goods purchased from outside the area. Indirect impacts are not restricted to the "first round" effect of purchases by UKAEA. Suppliers to UKAEA will purchase some of their inputs from other suppliers and so on, with leakages of expenditure at each stage in the process.

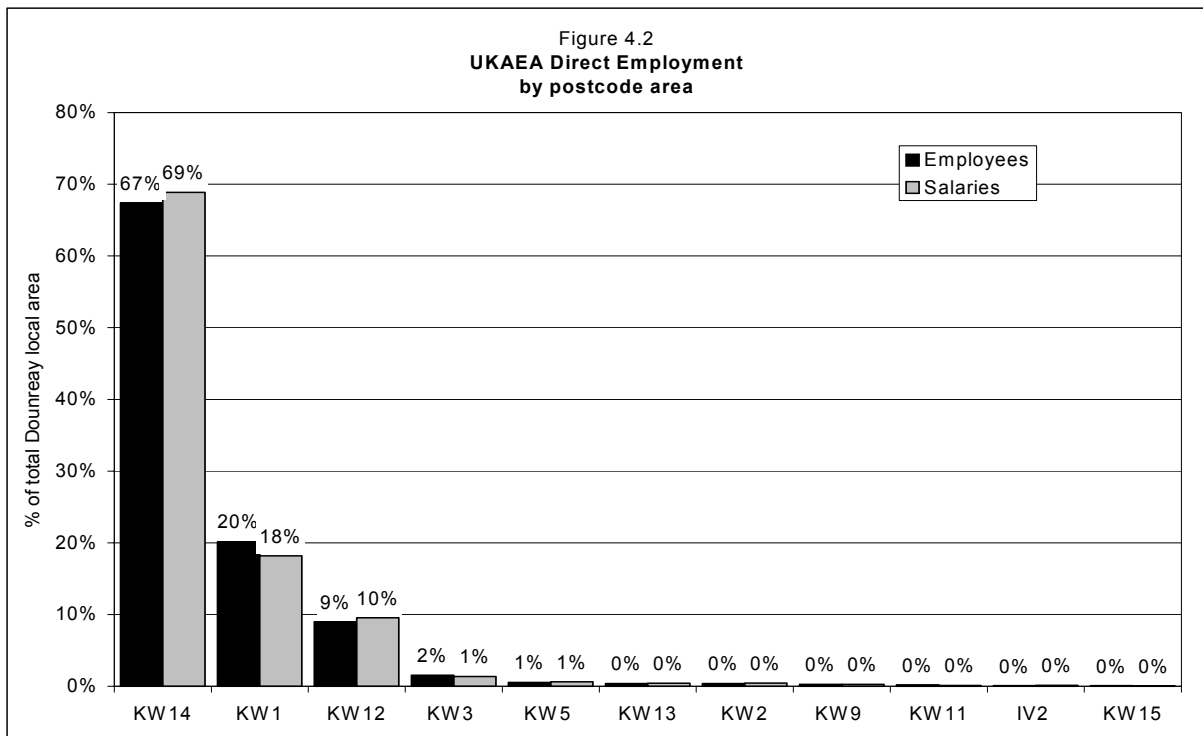
- 4.5 The process by which UKAEA's expenditure creates income for its suppliers and its suppliers' suppliers can be estimated using input-output tables. Input-output tables show the flows of expenditure which take place between sectors of the economy and allow the impact on income and employment of a given level of expenditure to be calculated.
- 4.6 Following the direct and indirect impacts there is a further chain of 'induced' impacts on the economy. People employed directly and indirectly will spend part of their incomes within the economy e.g. purchasing food, clothing, entertainment etc. which represents an additional source of employment. As with indirect income and employment creation, there are further "leakages" of expenditure from the local economy in the form of non-local purchases, savings and national taxes.

Figure 4.1: Economic impact of UKAEA Dounreay



Direct Impact

- 4.7 As at January 2003 UKAEA employed some 1,222 direct employees at the Dounreay site and provided wages and salaries of over £29 million. The majority of these employees (1,214 staff, wages and salaries totalling £29.2m) were resident within the Dounreay local area defined in section 2.
- 4.8 Figure 4.2 illustrates the distribution of direct Dounreay employment by postcode area. When defined by postcode the Dounreay local area described in Section 2 corresponds to the following areas: KW1, KW2, KW3, KW5, KW6, KW7, KW12, KW13, KW14.
- 4.9 Approximately two thirds of employees at Dounreay live in the Thurso area (KW14). The Wick area (KW1) accounts for a further 20% of employees, while 9% of employees live in the Halkirk area (KW12). Together these three regions account for 97% of all Dounreay direct employees. Less than one percent of all employees (some 8 people) are resident outside the immediate Dounreay local area.



Source: UKAEA

- 4.10 Table 4.1 provides a breakdown of direct employment by occupational grouping. Over half of all staff (657 jobs) employed by UKAEA Dounreay fall into managerial or professional occupational groupings. As such, the site is clearly an important source of relatively high skilled, high salary jobs in the area.
- 4.11 Across all occupations average salaries among UKAEA Dounreay employees is estimated at some £24,000 pa. This represents average earnings some 48% above the average for Caithness and Sutherland as a whole and almost 30% above average annual earnings across Scotland in 2002.

Occupational Group	Employees	Total Salaries	Average Salaries
Managers & administrators	441	14,544,100	33,000
Professionals	25	645,600	25,800
Associate professional & technical	191	4,547,600	23,800
Clerical & Secretarial	175	2,517,600	14,400
Craft & related	108	1,868,300	17,300
Personal & protective services	37	765,100	20,700
Plant & machine operatives	170	2,761,200	16,200
Other occupations	75	1,703,900	22,700
TOTAL	1,222	29,353,300	24,000

Source: UKAEA
NB: Data are rounded. Rows and columns may not sum precisely.

Indirect Impact

- 4.12 Indirect employment impacts are generated by the non-wage expenditure UKAEA Dounreay makes on suppliers and service providers.
- 4.13 Table 4.2 shows total non-wage expenditure made from the site during the financial year 2001/02 broken down by geographical area. Expenditure on suppliers and contractors based in the Dounreay local area was estimated at some £33.9m spread across a total of 86 companies. Analysis of this expenditure shows that Dounreay has expenditure links with a number of the organisations identified as key local employers in Section 2, including:
- AEA Technology
 - J.G.C. Engineering Services Ltd;
 - Norfrost Ltd;
 - Johnson Controls Ltd;
 - Rolls Royce Nuclear (now taken over by Mitsui Babcock).

- 4.14 Local expenditure represented some 37% of the site's total non-wage spending in 2001/02. From total non-wage expenditure of almost £91m, some £42.7m was spread across a total of 267 contractors across Scotland as a whole, alongside £46.5m of expenditure to 721 contractors based in England and Wales. Only £1.7m of expenditure was made to overseas contractors in 2001/02.

	Expenditure (£)	No. Suppliers
Dounreay local area	33,913,700	86
Other Highland	829,900	42
Other Scotland	7,995,300	139
TOTAL SCOTLAND	42,738,900	267
England and Wales	46,515,400	721
TOTAL UK	89,254,300	988
Overseas	1,730,700	22
TOTAL	90,985,100	1,010

Source: UKAEA
NB: Data are rounded. Rows and columns may not sum precisely.

- 4.15 To estimate the impact on income and employment arising from this expenditure, this study adopts Type I multipliers derived from 'Scottish Input-Output and Multipliers 1999'. Using appropriate multipliers for the key activities supported by UKAEA spending, the proportion of supplier expenditure retained in each region as income is estimated. Income impacts are converted to estimates of employment supported by applying an estimate of average earnings in each area.
- 4.16 The indirect employment arising from this expenditure is shown in Table 4.3. From supplier expenditure made in the Dounreay local area some £8.2m is retained in the area as incomes, supporting an estimated 610 jobs in the region. Across Scotland as a whole, expenditure from UKAEA Dounreay generates some £20.8m in retained income, supporting an estimated 1,170 jobs. When expenditure made in England and Wales is included, Dounreay's non-wage expenditure across the UK is estimated to indirectly support a total of 2,550 jobs.

	Employment	Income (£)
Dounreay	610	8,241,000
Other Highland	10	201,700
Other Scotland	550	12,328,400
TOTAL SCOTLAND	1,170	20,771,100
England and Wales	1,470	28,318,800
TOTAL UK	2,550	49,089,900

Source: DTZ Pieda Consulting estimates
NB: Data are rounded. Rows and columns may not sum precisely.

Induced Impact

- 4.17 Induced impacts of UKAEA Dounreay's activities arise from incomes and employment in businesses supported by the spending of wages and salaries generated by direct and indirect impacts. Induced income impacts are here estimated by applying Type II multipliers derived from 'Scottish Input-Output and Multipliers 1999' to the direct and indirect impacts estimated above. Income impacts are converted to estimates of employment supported by applying an estimate of average earnings in each area.
- 4.18 As Table 4.4 illustrates, the activities of UKAEA Dounreay are estimated to support a total of 220 induced jobs in the local area, generating income of almost £3.6m. In total induced effects from the activities of the site are estimated to support 540 jobs across Scotland and 810 jobs across the UK as a whole.

	Employment	Income (£)
Dounreay	220	3,555,500
Other Highland	2	35,100
Other Scotland	310	5,933,000
TOTAL SCOTLAND	540	9,523,600
England and Wales	270	6,022,500
TOTAL UK	810	15,546,100

Source: DTZ Pieda Consulting estimates
NB: Data are rounded. Rows and columns may not sum precisely.

Total Employment Impact

- 4.19 Total direct, indirect and induced employment impacts are summarised in Table 4.5. The key findings can be summarised as follows:
- The activities of UKAEA Dounreay are estimated to support a total of 2,050 jobs in the local Dounreay area. These jobs generate total retained income in the area of almost £41m.
 - Given the total of 10,600 employees estimated to be located in the local area (see Section 2), the activities of UKAEA Dounreay can be said to support some 19% of total employment in its local area;
 - Across Scotland as a whole the total employment impact of Dounreay is estimated a total of 2,930 jobs, only some 870 of which are located outside the local area; and,

- A further 1,740 jobs are supported across England and Wales. As such, in total the activities of UKAEA are estimated to support 4,670 jobs across the UK as a whole.

**Table 4..5
Total Employment Impact**

	Employment			Total	
	Direct	Indirect	Induced	Employment	Income (£)
Dounreay	1,214	610	220	2,050	40,982,100
Other Highland	8	10	2	20	404,600
Other Scotland	0	550	310	870	18,261,500
TOTAL SCOTLAND	1,222	1,170	540	2,930	59,648,100
England and Wales	0	1,470	270	1,740	34,341,200
TOTAL UK	1,222	2,550	810	4,670	93,989,400

Source: UKAEA, DTZ Piedad Consulting estimates
NB: Data are rounded. Rows and columns may not sum precisely.

WIDER IMPACTS

- 4.20 It is difficult to overstate the importance of UKAEA to the economy of the Dounreay local area given that the site has been a major source of direct and indirect employment in the region for the past 40 years. While the focus of work carried out at Dounreay has now changed from the development of the fast reactor and its fuel cycle to the decommissioning and environmental restoration of the area, the scale of work to be undertaken will ensure the site remains a major employer in the area.
- 4.21 The current impact of Dounreay on the local economy can be summarised as follows:
- The activities of the site support some 2,050 local jobs in the area, accounting for around 19% of total employment across the Dounreay area;
 - Some £41m of income is retained in the local area as a result of the activities at UKAEA Dounreay;
 - A number of key employers based in the local areas act as contractors to UKAEA while other local service providers benefit from the spending power generated by UKAEAs activities;
 - While not the only major employer located in the area, the presence of UKAEA contributes to the unusual employment structure of the Dounreay area. Rather than appearing typical of a remote rural area (high concentration of employment in tourism, traditional manufacturing, low share of full time jobs), the employment structure of the Dounreay area is more akin to a small urban region (high concentration of employment in advanced manufacturing and business services, high share of full time jobs).

4.22 Over the next 15 to 20 years at least, the work generated by the decommissioning of Dounreay is likely to continue to generate significant opportunities for the area, particularly in sectors such as:

- Construction;
- Environmental management and restoration;
- Health and safety;
- Engineering; and,
- Other industries associated with decommissioning.

4.23 Beyond the employment generated by such activities, the decommissioning of Dounreay offers further long term benefits for the region. In particular, Caithness and Sutherland Enterprise note opportunities to establishing the area as a skills-based centre of excellence for the nuclear decommissioning sector. The decommissioning process further provides an opportunity to diversify the economy of the region through inward investment and indigenous business growth.

4.24 Taking full advantage of such benefits will require investment in the skills development of the local workforce and development of available business space in the area. Overall, the Caithness draft structure plan identifies a number of area improvements which would assist the region in taking advantage of the opportunities offered by decommissioning. These include:

- More private housing to rent and purchase, particularly in the west Caithness area;
- Improved community facilities;
- Road improvements, notably to the A9, A836 and completion of a Thurso by-pass;
- Improved air links from Wick;
- Maintenance and improvement of the rail network, particularly for freight;
- Improved bus services; and,
- Upgrading of the Shebster water supply.