

The Value of Food and Farming in Lincolnshire

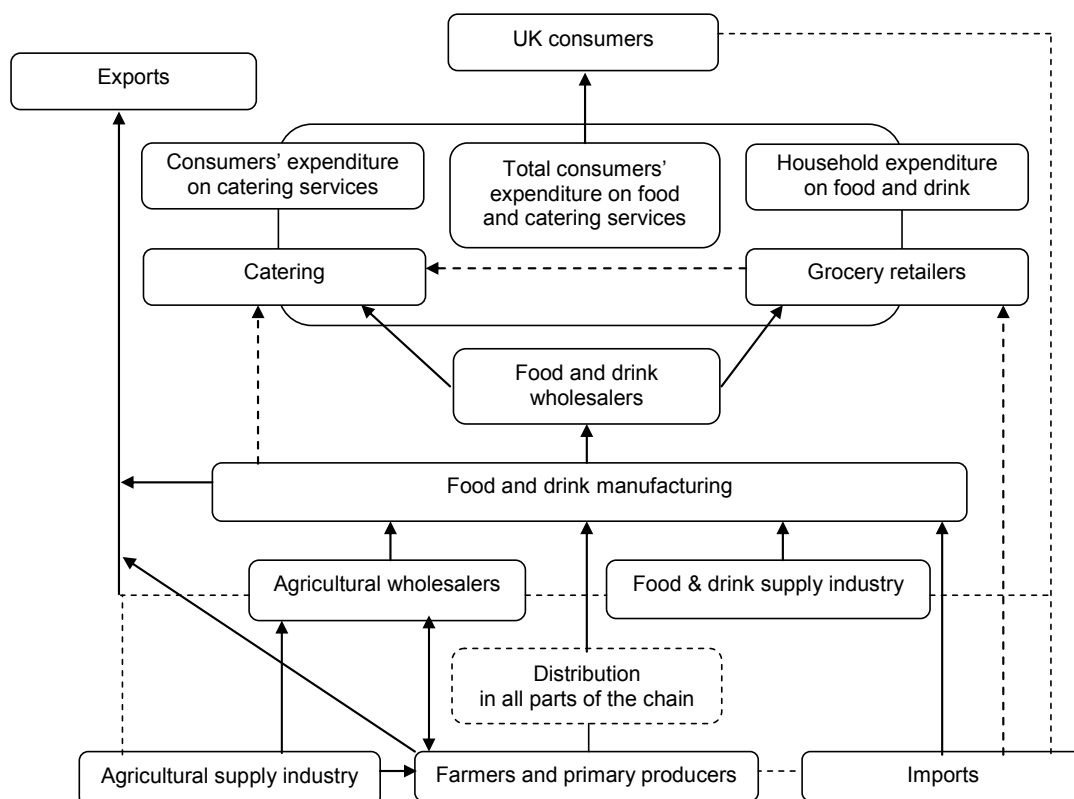
Introduction

In recent times the spotlight has been shining increasingly on the importance of Agriculture and the Food Industry to the British economy and on its economic contribution in addition to its other roles. The National Farmers' Union has responded to this pressure by launching a 'Why Farming Matters' campaign, which aims to reassess the importance of British agriculture and horticulture in the context and circumstances of the 21st century.

This report investigates the value and importance of Lincolnshire's agricultural and food production activities, both nationally and to the local economy, how this has changed over recent years and challenges for the sector in the future.

The agricultural and food industries are referred to together in this report under the banner of Food and Farming. This is because in many cases the two sectors are intrinsically linked so that it is almost impossible to define the value and importance of one sector alone, the two being highly dependant upon each other in Lincolnshire.

Figure 1. The Food Chain



In all cases the information used is the latest available however, due to time lags in the release of Government data, especially in Gross Value Added (GVA), nationally available data has been augmented with data from a leading forecast company, namely Cambridge Econometrics.

Use of the Local Economy Forecasting Model (LEFM) developed by Cambridge Econometrics has also allowed us to provide a vision of how industry sectors within the Lincolnshire economy might change in the future.

Importance to local area

British farmers and growers produce 60% of the UK's total food supplies and nearly 75% of all foods consumed in the UK that can be grown in our climate. In 1996 we produced more of our own food than at any other time since the mid-nineteenth century, however, that level of self-sufficiency has been falling due to lower UK production, reduced exports and increased imports¹.

There are mixed reasons for these changes including the sourcing strategies of large retail companies and consumer demand for round the year availability of seasonal produce has led to increased imports, which then compete with local produce in-season.

A recent report by the NFU found that since 1998, food prices have risen by just 8.5% compared to an increase of 22% in retail prices generally, and prices to farmers have actually fallen over the same period, by 9%.

Agriculture and horticulture contribute more than £5 billion Gross Value Added (GVA) to the UK economy each year and employ more than half a million people, mostly in rural areas. In Lincolnshire more than 1 in 10 people are currently employed in food and farming, and together they contribute nearly 13% of the county's GVA, which equates to more than £1 billion each year².

The county's food and farming sector is not just of importance to the people of Lincolnshire, nearly a quarter of all land used for horticulture in England is in Lincolnshire and for peas, beans, vegetables and salads the proportion is higher.

For a very long period of time, farming has provided a relatively stable contribution to the local economy which in turn has led to the establishing of many related industries such as food processing and distribution activities with the result that Food and Farming provide a substantial amount of financial value and employment to the county as illustrated in figure 2.

The table shows Gross Value Added (GVA) for a range of industrial sectors in Lincolnshire and how these have changed over time from 1981 to the present, and how they are projected to change in the future, a projection based on recent trends. The table is shown in descending order of industry GVA in 2006 and is rounded to nearest £10m.

¹ Defra, Agriculture in the United Kingdom 2006.

² Cambridge Econometrics, Local Economy Forecasting Model (LEFM) 2006.

Figure 2

Sector	Gross Value Added (£m) ¹		
	1981	2006	2020
Government & Other Services	1,160	2,050	3,000
Distribution, Hotels & catering	750	1,920	2,540
Food and Farming	620	1,050	1,010
Non- food Manufacturing	670	930	1,100
Financial & business Services	410	860	1,270
Construction	280	790	990
Transport & communications	240	530	820
Mining & Energy	100	110	140
Lincolnshire Total	3,910	8,140	10,700

Figures are shown rounded to the nearest £10m.

Some slight changes are projected in the position of certain sectors over the period to 2020, with Financial and Business Services projected to move above Manufacturing and Food and Farming by 2020 in terms of GVA.

The proportion that each industry sector's GVA makes up of the total for the county is shown alongside figures for the UK in Figure 3. The table is shown in descending order of the sectors' relative value within the Lincolnshire economy.

Figure 3

Sector	Gross Value Added (%)		
	Lincs	UK	UK = 100
Government & Other Services	25%	24%	104
Distribution, Hotels & catering	24%	17%	141
Food and Farming	13%	3%	433
Non-food Manufacturing	11%	13%	88
Financial & business Services	11%	26%	42
Construction	10%	6%	166
Transport & communications	7%	9%	78
Mining & Energy	1%	1%	0

As can be seen from the table, the contribution Food and Farming make to the county's economy is more than 4 times that of its contribution in the national economy highlighting the higher dependency the county has on this industry.

Information from the Local Economy Forecasting Model (LEFM) has also been used to illustrate employment within major sectors of the Lincolnshire economy. These estimates are shown in figure 4 and include both employees and the self-employed.

The table is shown in descending order of industry employment in 2006, and shows the sectors of Government and Other Services and Distribution, Hotels and Catering to be the largest employers in 1981 and 2006, as well as in projected employment figures for 2020.

The Food and Farming sector, made up of agriculture and food and beverage production activities was estimated to employ more people than the Construction, Financial and Business Services and Non-food Manufacture sectors in 2006.

¹ Figures are from the LEFM and for 2006 / 2020 are estimates / projections. Sector figures do not sum to the Lincolnshire total as estimates for 'unallocated GVA' are not included.

Figure 4

Sector	Employment (000's) ¹		
	1981	2006	2020
Government & Other Services	54	93	112
Distribution, Hotels & catering	56	77	90
Food and Farming	50	32	21
Construction	14	30	29
Financial & business Services	19	29	32
Non-food Manufacturing	40	27	25
Transport & communications	11	15	16
Mining & Energy	2	1	1
Lincolnshire Total	246	304	324

Figures are shown rounded to the nearest 1,000.

It should be noted that although the Food and Manufacturing Sectors create a large proportion of the value added for the county (figure 3) their numbers of employees have fallen quite rapidly since 1981 and are expected to continue to fall in the future, should trends continue unchecked.

The proportion that each industry sector's employment makes up of the total for the county is shown along side figures for the UK in Figure 5. The table is shown in descending order of employment rate within Lincolnshire.

Figure 5

Sector	Employment (%)		
	Lincs	UK	UK = 100
Government & Other Services	31	32	97
Distribution, Hotels & catering	25	23	112
Food and Farming	11	3	362
Construction	10	7	143
Financial & business Services	9	20	47
Non-food Manufacturing	9	9	98
Transport & communications	5	6	81
Mining & Energy	0	1	66

Again, the reliance on Food and Farming is highlighted, with the employment rate of this sector in the county being nearly 4 times the national rate. In the cases of Distribution, Hotels and catering, Food and Farming and Construction, these sectors contribute a higher proportion of value within the Lincolnshire economy as well as employing more people, than nationally. However, the difference in value is the greater, perhaps suggesting that these sectors are of higher than average value added per worker in Lincolnshire than the UK average.

In the case of Non-food Manufacturing, although the proportion of people the sector employs is higher than average the proportion of value it contributes is lower than average, suggesting lower value per worker than nationally.

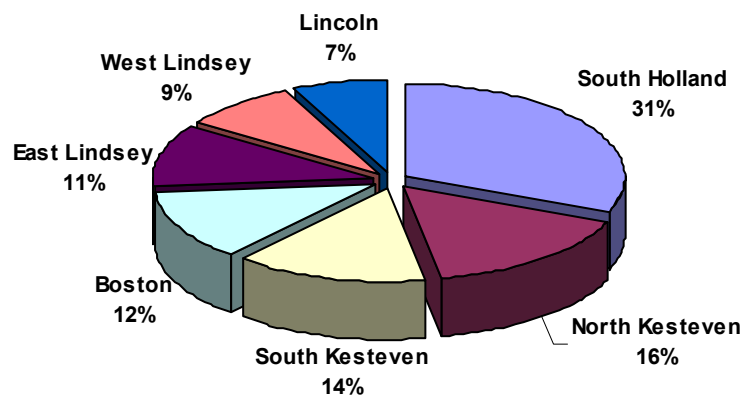
Food and Farming is estimated to contribute £1 billion to the economy of the county. In terms of both value and employment the sector is the third biggest in Lincolnshire and the county's economic reliance on food and farming production and manufacture is four times higher than the national average.

¹ Figures are from the LEFM and for 2006/2020 are estimates/projections. Figures may not sum due to rounding.

Reliance on the Sector at District Level

Within Lincolnshire, some Local Authority Districts (LAD) are much more reliant on the Food and Farming sector than others both in terms of the value it contributes and the employment it provides. Figure 6 shows the proportion that each district's Food and Farming Sector is estimated to contribute to the Lincolnshire total.

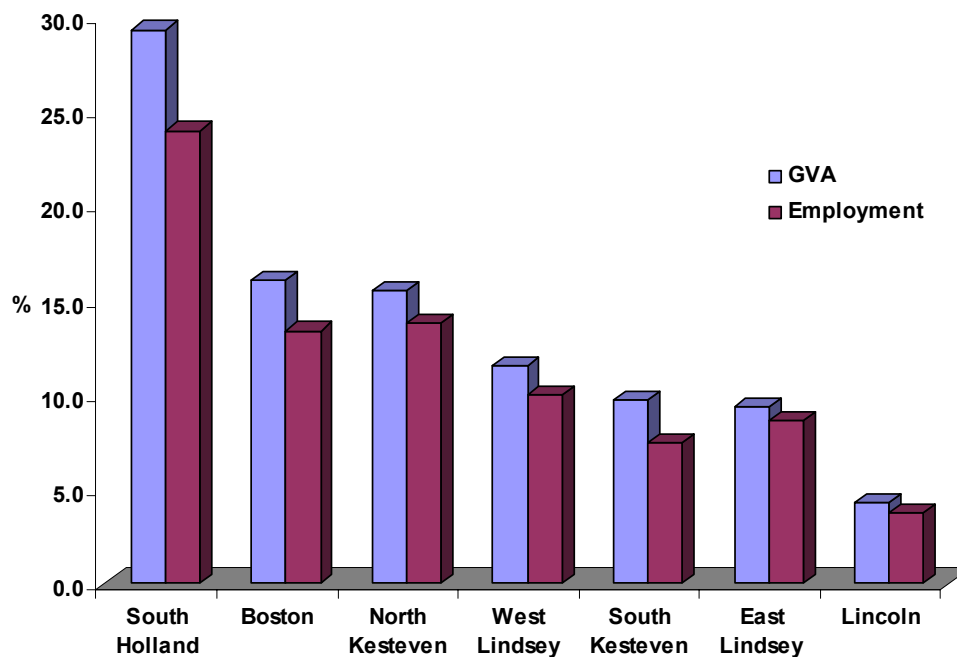
Figure 6. District contribution to the County Food and Farming Sector 2006



The chart covers both employment and Gross Value Added as the percentages are very similar for all. As can be seen, around a third of Lincolnshire's Food and Farming value and employment is generated from within South Holland.

As a further illustration of the importance of the Food and Farming sector to certain Local Authority Districts within the county, the following chart highlights the contribution it makes to each of the local areas in respect of GVA and employment.

Figure 7. Contribution of the Food and Farming Sector to Lincolnshire's Districts



The chart highlights the importance of Food and Farming to the economy of South Holland, with nearly 1 in 4 people employed in the sector in 2006 and a third of GVA estimated to come from the Food and Farming Sector.

Looking to the future, employment is projected to fall across all the districts with those most reliant experiencing the largest reduction as illustrated in figure 8 which shows employment trends for the Food and Farming sector for all Local Authority Districts from 1981 to 2020.

Figure 8

District	Employment (000's)					
	1981		2006		2020	
	No.	% of Area	No.	% of Area	No.	% of Area
South Holland	13	44	9	24	6	16
North Kesteven	7	29	5	14	3	9
Boston	6	18	4	13	3	8
Lincolnshire	49	20	32	11	21	7
West Lindsey	8	30	3	10	2	6
East Lindsey	10	23	4	9	3	5
South Kesteven	4	9	4	7	3	5
Lincoln	2	4	2	4	2	2

Figures are shown rounded to the nearest 1,000.

Farming Land Use in Lincolnshire

As a large rural county, Lincolnshire not only has a high reliance on Food and Farming as a source of economic value and employment but is also of major importance to agricultural production nationally.

Whilst it is difficult to access local level data on production levels, information on land use for certain agricultural purposes is available from Defra. This data has been used to examine types of land use concentrated within areas of Lincolnshire as well as the importance of Lincolnshire production nationally. The proportion that Lincolnshire's land use makes up of the total for England is shown in figure 9, for all uses where the county's land accounts for more than 10% of the England total. The table is ordered from the highest national reliance on Lincolnshire at the top and shows a wide range of crops.

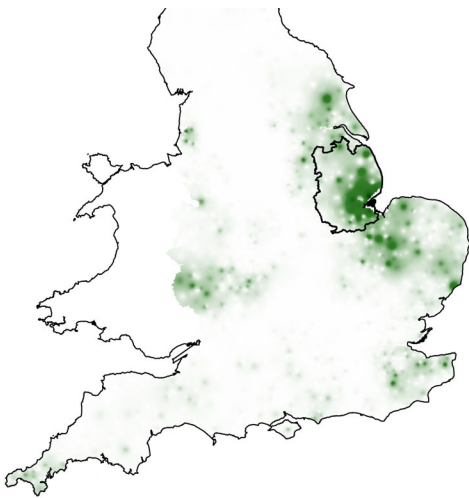
Figure 9

	Land Use (hectares 000's) ¹		
	Lincolnshire	England	% of national use
All Horticulture	32	148	22
- bulbs & flowers	2	5	38
- peas & beans	12	38	32
- other veg & salad	18	68	26
Sugar beet	21	130	16
Linseed	5	32	16
Potatoes	13	105	13
Wheat	184	1709	11
Oilseed rape	50	463	11

Figures are shown rounded to the nearest 1,000 hectares.

¹ Defra Agricultural Census, 2006

Figure 10. National Horticultural Land Use¹



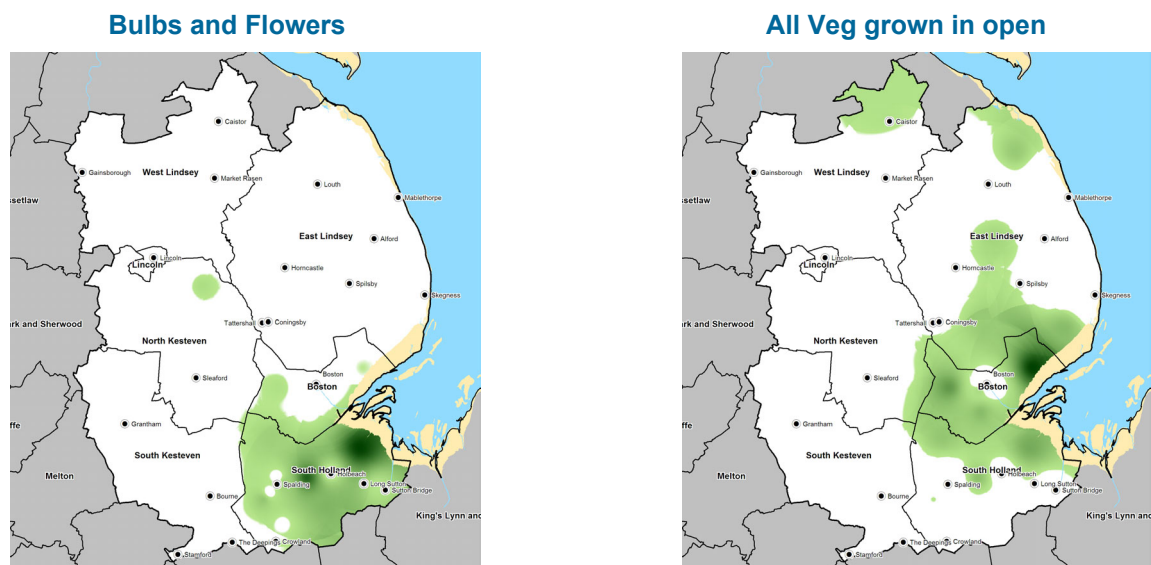
Over a fifth of all land used for horticulture is in Lincolnshire and this dominance can clearly be seen in figure 10, which also shows that use is particularly concentrated in the eastern districts of East Lindsey, Boston and South Holland.

By far the largest land use in Lincolnshire is for cereals (particularly wheat) and from the maps in figure 11 it can be seen that East Lindsey and West Lindsey have concentrations of cereal land use as well as of land used for oilseed rape production. It is not surprising that these crops, which require large amounts of land in their production, are concentrated in these large rural districts.

In terms of other land usage, the county holds 16% of the land used for sugar beet and a similar amount of the land used for Linseed production. Lincolnshire is heavily relied upon for the production of vegetables within which, both pea and bean production and the production of other vegetables and salad crops feature prominently.

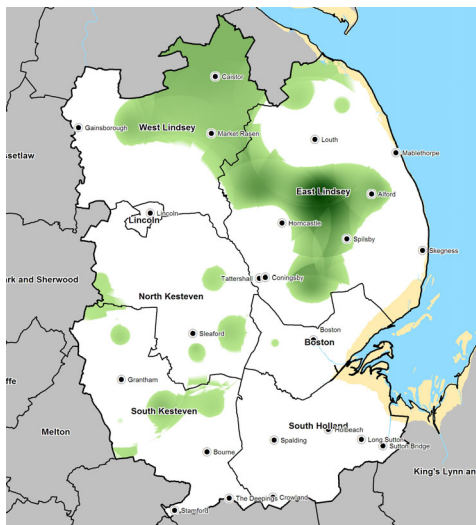
It is worth noting that in the cases of horticulture and cereals, Lincolnshire is the largest single county producer in England and, within horticulture, more than a third of the land used for the production of bulbs and flowers is in Lincolnshire (primarily in the district of South Holland). In many cases this reliance has grown up not only because of the size and rural nature of the county itself but because of the soil quality that exists, with nearly half of all agricultural land in the county classified as being of Grade 1 or 2. The maps in figure 11 highlight areas of the county in which growing of some of the main crops is concentrated.

Figure 11. County Farming Land Use

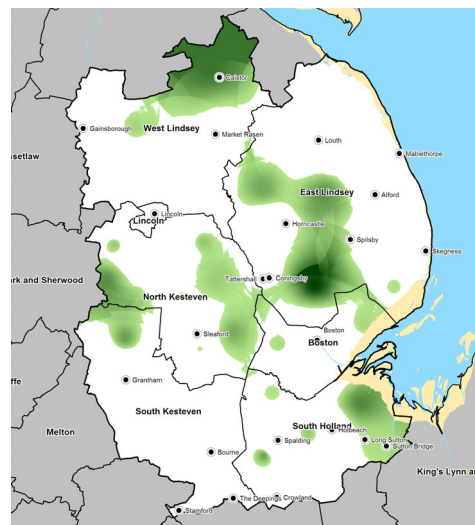


¹ Data mapped at Lower Super Output Area level from the Agricultural Census (2004)

Total Cereals



Sugar Beet



Challenges for Lincolnshire

This report has described the current situation and provided an indication of how situations have changed over time using the latest information available. It has also tried to present a vision of the future, should trends continue unchecked; however this vision is based on just that – recent trends. External influences can cause the direction of trends to change. These include policy changes, interventions, global markets and environmental influences, amongst others, and suggest that continuous monitoring of the situation will be required to ensure that effective policies and plans continue to be developed in the future.

It is expected that the monies available to farmers through the Single Payment Scheme will be reduced over time due to modulation. This means that funds will increasingly be transferred from farming subsidies to agri-environment and other rural development schemes. More money will be made available to farmers for environmental, quality or animal welfare programmes by reducing direct payments for bigger farms. This is likely to be an issue for Lincolnshire, with the 3rd highest number of farms of over 100ha in the country (1,393 holdings in 2006).

A further topical issue that could affect growers in the county is the ongoing reform of sugarbeet subsidies. As the second largest producer in England, after Norfolk, any reforms could effect the sector in terms of holdings, production levels and prices.

There is also the issue of global warming to consider. Some researchers are suggesting that in the future, global warming could change some of the aspects of growing seasons, pest and water management and perhaps even change the types of crops which it is possible to grow. Also, rising sea levels pose a risk to all low lying counties, including Lincolnshire.

Should these changes happen, they may bring opportunities as well as challenges for Lincolnshire's Food and Farming sector. In addition to considering the causes of such change, policy changes may require preventative measures to be taken in certain industries to reduce contribution to such situations.

Appendix A - Definition of the Main Industry Sectors

Food Industry

- 01 : Agriculture, hunting, etc
- 02 : Forestry, logging, etc
- 05 : Fishing, operation fish hatcheries/farms
- 15 : Manuf food products and beverages

Mining & Energy

- 10 : Mining coal/lignite; extraction of peat
- 11 : Extraction crude petroleum/natural gas
- 12 : Mining of uranium and thorium ores
- 13 : Mining of metal ores
- 14 : Other mining and quarrying
- 40 : Electricity,gas,steam/hot water supply
- 41 : Collection,purification/distri of water

Manufacturing

- 16 : Manuf tobacco products
- 17 : Manuf textiles
- 18 : Manuf apparel;dressing/dyeing fur
- 19 : Tanning/dressing of leather, etc
- 20 : Manuf wood/products/cork, etc
- 21 : Manuf pulp, paper and paper products
- 22 : Publishing,printing,repo recorded media
- 23 : Manuf coke, refined petroleum products
- 24 : Manuf chemicals and chemical products
- 25 : Manuf rubber and plastic goods
- 26 : Manuf other non-metallic products
- 27 : Manuf basic metals
- 28 : Manuf fabricated metal products, etc
- 29 : Manuf machinery and equipment nec
- 30 : Manuf office machinery and computers
- 31 : Manuf electrical machinery/apparatus nec
- 32 : Manuf radio, tv/communications equipment
- 33 : Manuf medical,precision instruments,etc
- 34 : Manuf motor vehicles,trailers,etc
- 35 : Manuf other transport equipment
- 36 : Manuf furniture; manufacturing nec
- 37 : Recycling

Construction

- 45 : Construction

Distribution, Hotels & catering

- 50 : Sale,maintenance/repair motor vehicles
- 51 : Wholesale trade/commission trade, etc
- 52 : Retail trade, except of motor vehicles
- 55 : Hotels and restaurants

Transport & communications

- 60 : Land transport; transport via pipelines
- 61 : Water transport
- 62 : Air transport
- 63 : Supporting/auxilliary transport,etc
- 64 : Post and telecommunications

Financial & business Services

- 65 : Financial intermediation, etc
- 66 : Insurance and pension funding, etc
- 67 : Act auxilliary financial intermediation
- 70 : Real estate activities
- 71 : Renting machinery/equipment, etc
- 72 : Computing and related activities
- 73 : Research and development
- 74 : Other business activities

Government & Other Services

- 75 : Public admin/defence; compulsory SS
- 80 : Education
- 85 : Health and social work
- 90 : Sewage/refuse disposal, sanitation, etc
- 91 : Activities membership organisations nec
- 92 : Recreational, cultural and sporting
- 93 : Other service activities
- 95 : Private households with employed persons
- 99 : Extra-territorial organisations/bodies

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