

## 17. REGIONAL DISPARITIES IN SPECIALISATION

Regional specialisation varies considerably among OECD countries. Specialisation is measured as the ratio between an industry's weight in a region and its weight in the country overall. A region is specialised in an industry when the index is above 1 and it is not specialised when the index is below 1. Comparable regional data on employment by industry for 25 OECD countries on a detailed sector classification are available only for the real economy and market services (i.e. the financial sector and industries dominated by non market production such as public administration, education, health and defence are excluded).

Almost 90% of the total employment in OECD countries in 2005 for real economy and market services was accounted in five major industries. More than one-fourth of the total employment was in the wholesale, retail and trade sector; both the manufacturing (which could be disaggregated into 14 sectors), and the real estate, renting and business sector accounted for more than 20% of total employment, while both the construction sector and the hotel and restaurant sector accounted each for 10% of employment.

The degree of regional specialisation in the wholesale, retail and trade sector was very different: Turkey, the United States, Spain and Germany recorded the highest regional range and a value of the most specialised region of 1.5-1.7 (Figure 17.1).

Variation in regional specialisation is higher in some activities than in others. Natural endowments play an important role in some manufacturing activities and weather and the environment can facilitate the development of tourism infrastructure as well as transport services.

Germany, Mexico, Turkey, Portugal, Italy and Spain presented the highest variation in regional specialisation in the hotels and restaurants sector, while Iceland, the Netherlands and Belgium had very little regional variation (Figure 17.2).

The construction sector did not display large regional variation in the specialisation index. With the exception of Turkey, where Ankara recorded a specialisation index of 3.6, in all the countries considered the range between the most and the least specialised regions was smaller than 1.5 (Figure 17.3).

In 2005 the range in regional specialisation of the real estate, renting and business services sector was the widest in Mexico, the United States, Turkey and the Czech Republic (Figure 17.4).

In almost one-third of the OECD countries considered the difference between the region with the highest and the lowest degree of specialisation in the manufacturing sector was no less than 1 (Maps 17.5-17.7).

The range in the degree of specialisation among OECD regions in different sub-sectors of the manufacturing sector is shown in Table 17.8.

### Definition

Regional specialisation in an industry is measured as the ratio of the industry's share of employment in a region to the industry's share in the country (Balassa-Hoover index, see Annex C for definition). A value of the index above 1 shows greater specialisation than in the country as a whole and a value below 1 show less specialisation.

Industries are defined according to the International Standard Industrial Classification (ISIC) Rev. 3.1. Regional data are available and comparable among countries on a detailed sector classification (20 sectors) only for the real economy and market services. This classification therefore excludes the financial sector and industries dominated by non market production such as public administration, education, health and defence (see the list of sectors in Annex B).

### Source

OECD Regional Database, <http://dotstat/wbos/>, theme: Regional Statistics.

See Annex B for data sources, country related meta-data and definition of employment sectors.

### Reference years and territorial level

2005; TL2

No regional data for Denmark, Korea, New Zealand and Switzerland.

### Further information

United Nations Classification Registry, <http://unstats.un.org/unsd/cr/registry/>.

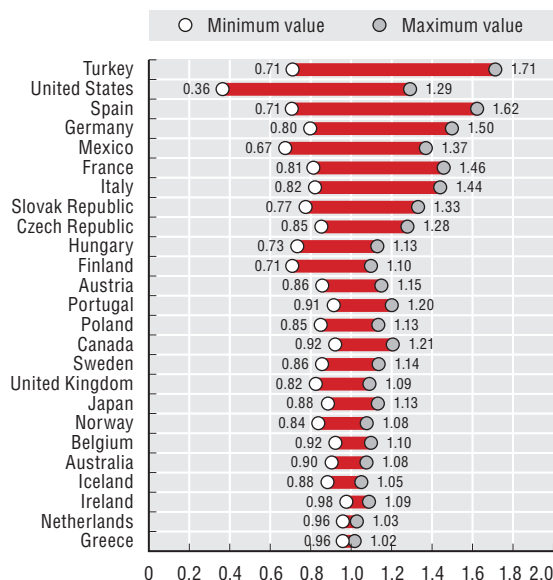
### Figure notes

Figures 17.1 to 17.4: Available data: Australia and Canada 2007; Japan 2006; Belgium and the Netherlands 2004; Mexico 2003 and Turkey 2002.

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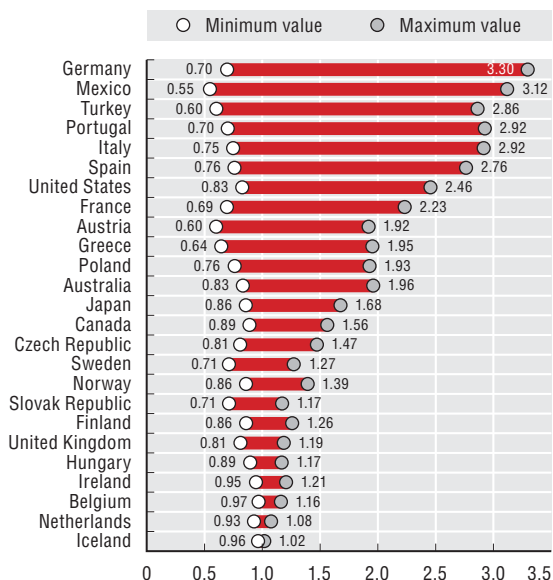
### 17.1 Range in degree of specialisation in wholesale, retail and trade sector across TL2 regions, 2005

In 2005, Turkey had the largest regional difference in the degree of specialisation in the wholesale, retail and trade sector.



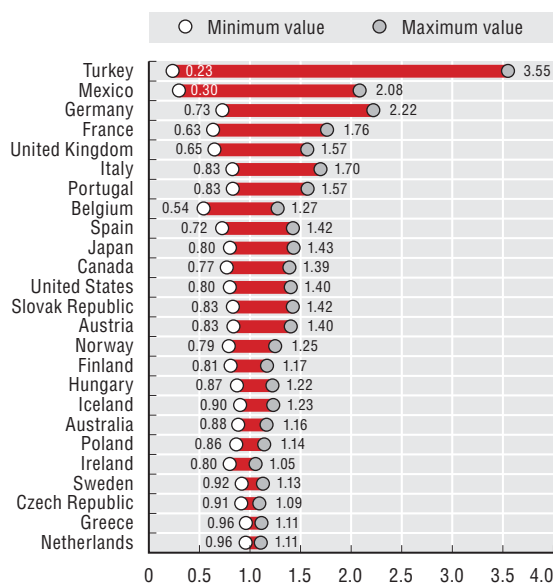
### 17.2 Range in degree of specialisation in hotel and restaurant sector across TL2 regions, 2005

In 2005, Germany and Mexico had the highest levels of regional specialisation in the hotel and restaurant sector.



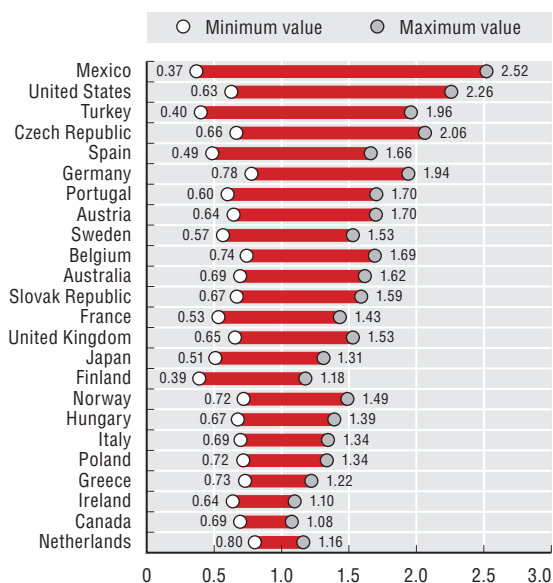
### 17.3 Range in degree of specialisation in construction across TL2 regions, 2005

In 2005, Turkey, Mexico and Germany had the highest levels of specialisation in the construction sector.



### 17.4 Range in degree of specialisation in real estate, renting and business activities sector across TL2 regions, 2005

The range of regional specialisation in real estate, renting and business activities was the largest in Mexico and United States.

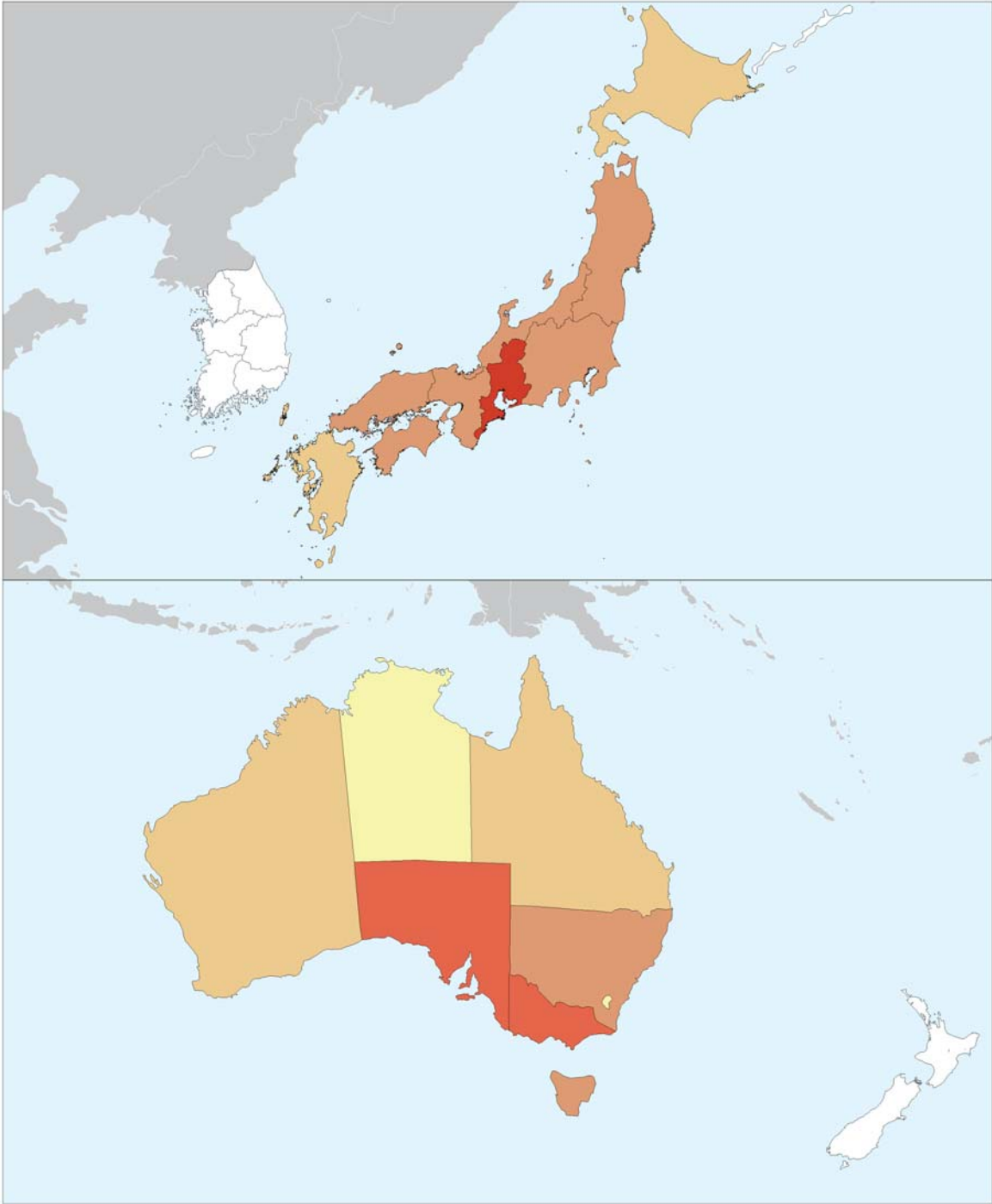


StatLink <http://dx.doi.org/10.1787/524026650468>

17.5 Specialisation in manufacturing: Asia and Oceania

Specialisation index, TL2 regions, 2005

- Higher than 1.5
- Between 1.3 and 1.5
- Between 1.2 and 1.3
- Between 0.9 and 1.2
- Between 0.5 and 0.9
- Lower than 0.5
- Data not available

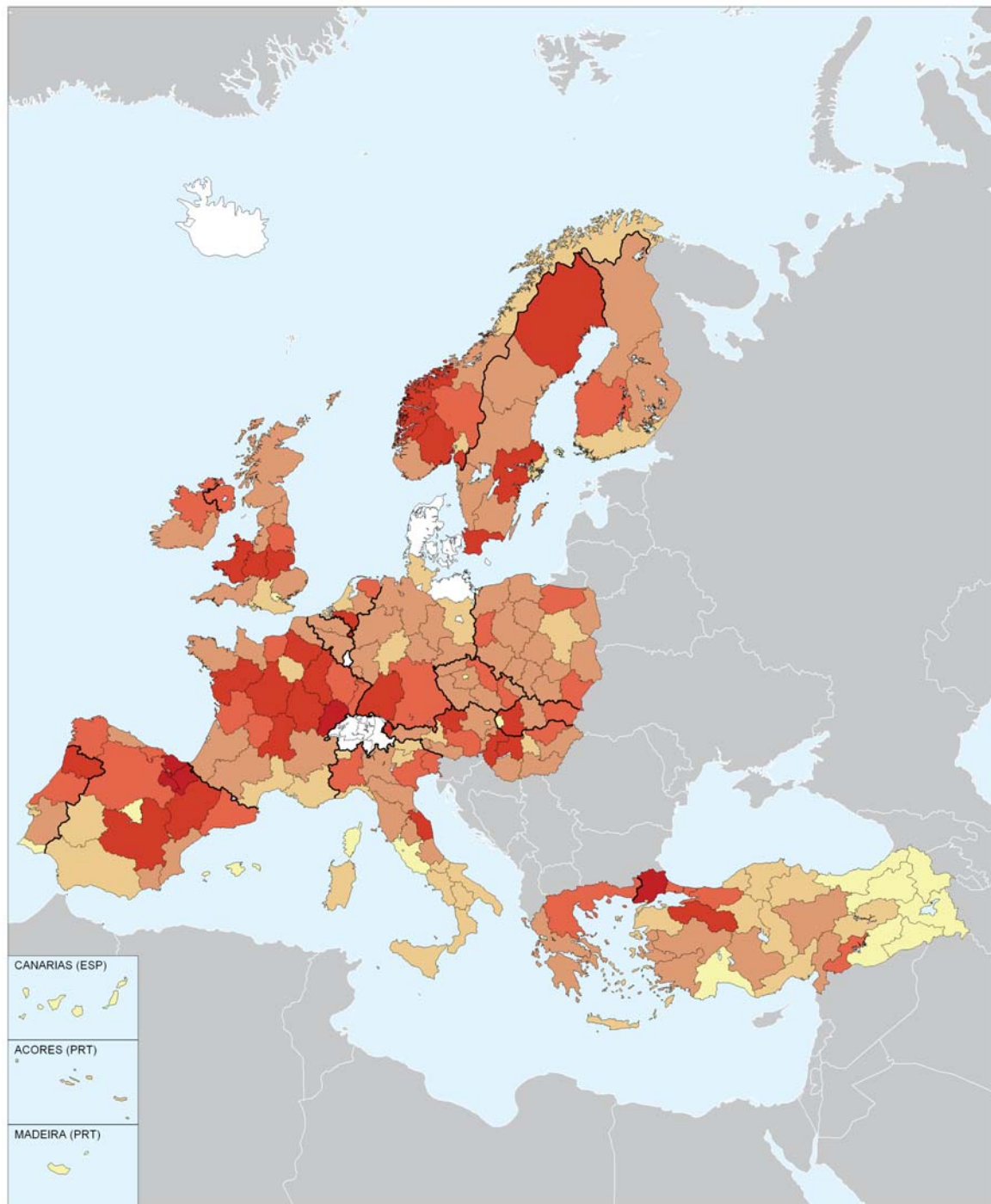



StatLink  <http://dx.doi.org/10.1787/524750152221>

### 17.6 Specialisation in manufacturing: Europe

Specialisation index, TL2 regions, 2005

- Higher than 1.5
- Between 1.3 and 1.5
- Between 1.2 and 1.3
- Between 0.9 and 1.2
- Between 0.5 and 0.9
- Lower than 0.5
- Data not available



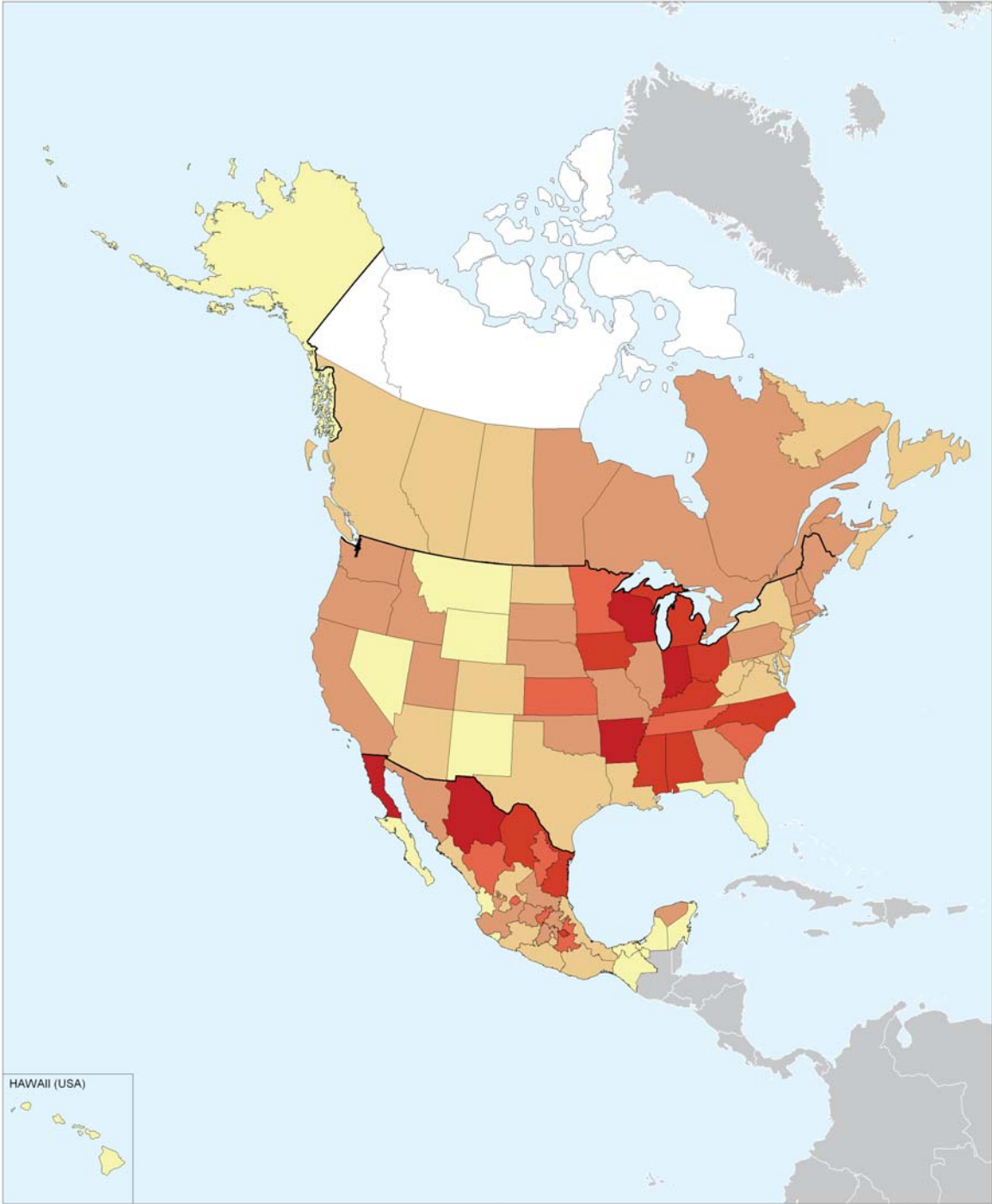
StatLink  <http://dx.doi.org/10.1787/524750152221>



17.7 Specialisation in manufacturing: North America

Specialisation index, TL2 regions, 2005

- Higher than 1.5
- Between 1.3 and 1.5
- Between 1.2 and 1.3
- Between 0.9 and 1.2
- Between 0.5 and 0.9
- Lower than 0.5
- Data not available



### Regional specialisation and size of industries across OECD regions

The specialisation index compares the proportion of regional employment in an industry over the total regional employment to the proportion of the national employment in that industry over total national employment. A region is specialised in an industry when the index is above 1.

Table 17.8 shows the most specialised TL2 regions in OECD countries with respect to the classification of real economy and market services into 20 sectors. In 2005, Campeche (Mexico) was the most specialised region among OECD regions in the mining and quarrying industry with a specialisation index of 15.7; three regions in Turkey were the most specialised in traditional manufacturing sectors: Trabzon (food products), Kastamonu (wood products) and Zonguldak (basic metals). Baja California Norte (Mexico) was the most specialised region in the high-technology sector of “electrical and optical equipment”, while District of Columbia (United States) and Aland (Finland) were the most specialised regions in knowledge-intensive services, of “real estate, renting and business activities” and “transport, storage and communications” (for a complete description of regional variation in employment in the high-technology and knowledge-intensive sectors see Chapter 7) (Table 17.8).

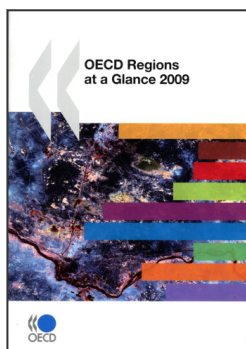
Besides the degree of a region’s specialisation in a certain industry, the share of regional employment in that industry gives an indication of the extent to which the regional economy can benefit from spill-over effects and linkages among firms. Almost 70% of the District of Columbia (United States) workers are employed in real estate, renting and business activities, compared to 20% in Quintana Roo (Mexico). Almost 64% of employment in Agri (Turkey) is in wholesale and retail trade, repair of motor vehicles and households goods and 50% of employment in Aland (Finland) was in transport, storage and communication (Table 17.8).

#### 17.8 Most specialised TL2 regions and share of employment by sector, 2005<sup>1</sup>

*Campeche, Mexico, was the most specialised OECD region in mining and quarrying, with 13.5% of workers employed in this sector*

Sectors	Most specialised region (specialisation index)	Per cent of employment in the sector over total regional employment	Second most specialised region (specialisation index)	Per cent of employment in the sector over total regional employment
Mining and quarrying	Campeche (15.7) – Mexico	13.51	Wyoming (14.9) – United States	12.47
Food products, beverages and tobacco	Trabzon (4.8) – Turkey	27.22	Arkansas (3.4) – United States	5.82
Manufacture of textiles, wearing apparel and tanning	Vorarlberg (6.1) – Austria	6.21	North Carolina (4.3) – United States	3.15
Manufacture of wood and of products of wood and cork, except furniture	Kastamonu (4.9) – Turkey	7.79	Oregon (4.4) – United States	2.76
Manufacture of paper and paper products	Maine (4.3) – United States	2.09	Sør-Østlandet (4.1) – Norway	2.39
Publishing, printing and reproduction of recorded media	Karnten (2.7) – Austria	0.86	Vorarlberg (2.7) – Austria	0.85
Manufacture of energy products, chemicals, rubber and plastic	Auvergne (3) – France	10.71	Kocaeli (2.8) – Turkey	9.38
Manufacture of other non-metallic mineral products	Swietokrzyskie (3.2) – Poland	5.54	Manisa (3) – Turkey	7.97
Manufacture of basic metals	Zonguldak (10.7) – Turkey	15.23	Asturias (7.1) – Spain	3.90
Manufacture of fabricated metal products, except machinery and equipment	Franche-Comte (3.1) – France	9.11	Pais Vasco (2.9) – Spain	8.16
Manufacture of machinery and equipment n.e.c.	Pais Vasco (3.3) – Spain	4.85	Navarra (3.2) – Spain	4.69
Electrical and optical equipment	Baja California Norte (5.5) – Mexico	16.08	Chihuahua (4.3) – Mexico	12.49
Manufacture of transport equipment	Michigan (5.5) – United States	7.15	Indiana (4.7) – United States	6.15
Manufacturing n.e.c. recycling	Border, Midlands and Western (4.7) – Ireland	1.29	Kayseri (3.6) – Turkey	8.51
Electricity, gas and water supply	Lazio (5) – Italy	3.83	Erzurum (3.6) – Turkey	6.95
Construction	Ankara (3.6) – Turkey	15.85	Mecklenburg-Vorpommern (2.2) – Germany	7.82
Wholesale and retail trade; repair of motor vehicles, and household goods	Agri (1.7) – Turkey	63.80	Ciudad Autónoma De Melilla (1.6) – Spain	39.85
Hotels and restaurants	Mecklenburg-Vorpommern (3.3) – Germany	21.32	Quintana Roo (3.1) – Mexico	26.61
Transport, storage and communications	Aland (4.1) – Finland	50.66	Distrito Federal (2) – Mexico	12.54
Real estate, renting and business activities	Quintana Roo (2.5) – Mexico	18.46	District Of Columbia (2.3) – United States	68.78

1. ISIC Rev. 3.1 sectors. Last available year Australia and Canada 2007, Belgium and the Netherlands 2004, Japan 2006, Mexico 2003, Turkey 2002. No data available for Denmark, Korea, New Zealand and Switzerland.



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