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RESOURCE AREA STATISTICS

Invited paper submitted by Statistics Denmark*

Summary

The resource area statistics should be regarded as a supplement to the more traditional business statistics, including the agricultural statistics in the form of, not least, the surveys subjected to EU regulations and the World Census with respect to agricultural and horticultural surveys.

Until now, efforts have been centred on the derived effects at macro level in connection with the impact from the various economic policy measures taken with respect to employment, economic growth, inflation and balance of payments, but there is now a new angle, where it has become a central feature to look at the derived activity originating from the primary industries, and thereby a derived activity in relation to the manufacturing industries and the service industries, etc. and within the geographic area.

The classification of resource areas runs transversely to the conventional classification of industries, and thereby the interdependent relationship between the various types of industries, e.g. farms engaged in the production of pigs, slaughtering of pigs and auxiliary and service industries are analysed. The industrial basis used for the resource areas is the EU nomenclature of industries at 4-digit level NACE Rev. 1.1.

* Paper prepared by Mr. Kristian Hjulsager, Statistics Denmark.

The next steps to be taken are the inclusion of the industrial classification of the national accounts statistics, for the purpose of showing contributions of the resource areas to total gross value added – and to incorporate the special accounts statistics for the agricultural sector – known as the FADN/RICA statistics – into a close relationship with the general accounts statistics for main groups of industries.

I. INTRODUCTION

1. Traditionally, the business structure is horizontally described, where the increased attention is focused on rural development and rural area policies, which make it useful to supplement by means of statistics on the business structure compiled according to the vertical principle.
2. Consequently, it is important to study the derived effects at micro level and thereby the relationship between the primary industries, the secondary and tertiary industries. This is an aspect, which is also of importance in the context of globalisation, including outsourcing of elements in the production process.
3. Until now, efforts have been centred on the derived effects at macro level in connection with the impact from the various economic policy measures taken with respect to employment, economic growth, inflation and balance of payments, but there is now a new angle, where it has become a central feature to look at the derived activity originating from the primary industries, and thereby a derived activity in relation to the manufacturing industries and the service industries, etc. and within the geographic area.
4. In the following sections of this paper, the business structure is divided into 8 real resource areas and the resource area, *Other industries*, where the latter consists of a number of industries, which cannot be directly referred to a single resource area.
5. The summary table below show figures for Denmark, which cover these resource areas with respect to the number of enterprises, full-time employees, turnover and exports. At the level of main industrial grouping, the table shows the areas from NACE (Nomenclature generale des Activités économiques dans les Communautés Européennes), which are included in each individual resource area. For reasons of space, Appendix A only includes the detailed list of industrial sectors coded to the resource area "Food". Data were coded at 4-digit level NACE Rev. 1.1.

II. RESOURCE AREAS

6. As already mentioned, 8 real resource areas are applied as well as the area *Other industries*, comprising a number of industries, which cannot be directly referred to a single resource area.
7. The classification of resource areas runs transversely to the conventional classification of industries, and thereby the interdependent relationship between the various types of industries, e.g. farms engaged in the production of pigs, slaughtering of pigs and auxiliary and

service industries are analysed. The industrial basis used for the resource areas is the EU nomenclature of industries at 4-digit level NACE Rev. 1.1.

8. A resource area, such as Food thus comprises industries differently located in the chain of production.

9. In principle, a resource area consists of 4 sub-areas:

- primary industries, industries producing raw materials;
- manufacturing industries;
- auxiliary industries producing investment goods;
- service industries.

10. For a more detailed industrial delimitation of the areas at the level of summary, see the summary table below. For a detailed description of Food, see Appendix A.

III. DELIMITATION

11. The present statistics only cover enterprises engaged in a real market production, i.e. enterprises without or only insignificant activities are excluded from the statistics.

Where is the threshold?

12. On the basis of the recommendations adopted under the auspices of the EU, Statistics Denmark does not include the smallest enterprises, but only enterprises engaged in real activities during the whole year or part of the year.

13. The recommendations aim at including enterprises with a performed workload comprising at least 0.5 man-years. The recommendations are operational in such a way that the general enterprise statistics forming the basis for the present statistics, only cover enterprises which have made payments to the Danish Labour Market Supplementary Pension Scheme, on behalf of their employees, corresponding to 0.5 man-years and/or have had estimated earnings of a certain amount. Earnings are estimated on the basis of turnover.

Delimitation of the resource area, Food

01.	Food
011.	Primary industries, food products
012.	Manufacturing industries, food products
013.	Auxiliary industries, food products
014.	Service industries, food products

The EU nomenclature of industries at 4-digit level NACE, Rev. 1.1 is used as industrial basis for the resource areas. See Appendix A for the detailed classification.

IV. PRIMARY DATA

14. The statistics are predominantly based on already existing statistics. They are the statistics on employment in businesses, accounts statistics and the statistics on purchases and sales by enterprises.

15. The workplace is the unit applied in the statistics on employment in businesses. The statistics cover all private as well as all public workplaces. The Central Business Register includes information on the relationship between workplaces and enterprises.

16. For industries not covered by accounts data, this applies to, e.g. the agricultural sector, which is covered by means of its own EU harmonised accounts statistics, known as the FADN/RICA statistics, turnover from the statistics on VAT payments made by enterprises is included, which consequently constitutes the source for information on turnover in agriculture, horticulture and fishing.

17. The export amounts of enterprises are derived from the statistics on purchases and sales by enterprises, and are therefore defined in relation to the Danish VAT legislation.

V. VARIABLES

18. The following variables are contained in the statistics on resource areas and sub-areas:

Number of enterprises defined on the basis of the legal unit. The industry is incorporated as background variable in the Central Business Register.

Number of full-time employees is used to reflect the total workload performed by the employees of the enterprise during a single year.

Turnover indicates the income derived from sales of products and services resulting from the primary operation of the enterprise. Turnover also includes work performed on own account.

Exports are defined in relation to the Danish VAT legislation, where the principal rule implies that domestic sales are subject to VAT, while exports are exempted from VAT. This results in a data source for compiling statistics on exports on the basis of turnover, while the harmonized external trade statistics are compiled on the basis of commodities, crossing the border.

VI. STATISTICS FOR 2002

19. The summary table shows the official statistics for 2002. As it appears from the above-mentioned, only enterprises engaged in real market production are included. The delimitation is conducted in such a way that only enterprises, whose performed workload comprises, at least, 0.5 man-years or earnings corresponding to this, are included.

20. Subsequently, there are some holdings engaged in part-time activities within agriculture and horticulture, which are covered by the agricultural and horticultural survey conducted in accordance with an EU Regulation, but which have been omitted in the present statistics.
21. It appears from the table that the resource area, Food has a great impact on the Danish economy. Food, together with the resource area, Construction/Housing, is the area in which there is the highest number of active enterprises, which can be attributed to the great number of personally owned enterprises within these areas.
22. Accounting for a share of 23 per cent of total turnover, Food is the greatest area in the economy as far as turnover is concerned, which is followed up by an export share of 22 per cent.
23. There is thus a completely different picture than the one appearing from the industrial data in the national accounts statistics, where agriculture, horticulture and fishing account for a share of 3 per cent of total gross value added.
24. Although the constructed input-output tables, which are a supplement to the national accounts statistics, provide an overall picture of the relationships in the business structure, they do not provide an overall picture in line with the statistics compiled for the resource areas.

VII. PERSPECTIVE

25. In the present statistics, the vertical business structure is described on the basis of the number of active enterprises extracted from the Central Business Register, the statistics on purchases and sales by enterprises, including data on exports, and the statistics on employment in businesses. The next steps to be taken are the inclusion of the industrial classification of the national accounts statistics, for the purpose of showing contributions of the resource areas to total gross value added – and to incorporate the special accounts statistics for the agricultural sector – known as the FADN/RICA statistics – into a close relationship with the general accounts statistics for main groups of industries. Thereby, it will be possible to provide various accounts data, for example, result before financial items, balance sheet total, fixed assets, equity capital and annual investments, etc. covering the defined resource areas. Furthermore, the statistical information is to be made available at regional level, e.g. counties, in order to be instrumental in analysing the trends in rural districts.

Summary table

Number of enterprises, number of full-time employees, turnover and exports for enterprises in industries for which information on turnover and exports is available. 2002

No. Resource/sub-area	No. of enterprises	No. of full-time employees	Turnover	Exports
			—————DKK mio.	
Total	258 716	1 294 063	2 384 464	549 511
1. Food	61 462	203 740	548 430	120 595
011. Primary industries, food products	45 154	25 043	73 192	1 100
012. Manufacturing industries, food products	1 807	69 517	138 748	61 157
013. Auxiliary industries, food products	1 105	29 296	47 429	20 051
014. Service industries, food products	13 396	79 884	289 061	38 287
2. Furniture/Clothing	11 134	59 430	98 566	33 437
022. Manufacturing industries	3 979	27 958	35 723	18 232
024. Service industries	7 155	31 472	62 843	15 204
3. Tourism	10 794	34 981	26 836	72
034. Service industries, tourism	10 794	34 981	26 836	72
4. Construction/Housing	64 373	308 088	413 991	50 485
041. Primary industries, construction/housing	1 185	1 415	2 398	381
042. Manufacturing industries, construc./housing	2 802	74 149	84 236	29 393
043. Auxiliary industries, construction/housing	520	3 772	4 891	1 252
044. Service industries, construction/housing	59 866	228 752	322 467	19 459
5. ICT/Communications	19 431	170 449	322 924	64 068
052. Manufac. industries, ICT/communications	1 987	26 839	35 662	15 597
053. Auxiliary industries, ICT/communications	153	4 662	4 994	2 831
054. Service industries, ICT/communications	17 291	138 948	282 268	45 640
6. Transport	24 796	198 655	387 384	114 661
061. Primary industries, transport +				
062. Manufacturing industries, transport	1 428	29 348	37 055	22 398
064. Service industries, transport	23 368	169 307	350 329	92 262
7. Energy/Environment	1 929	39 983	145 856	57 617
071. Primary industries, energy/environment	49	2 542	41 052	15 683
072. Manufac. industries, energy/environment	295	20 983	31 950	22 107
074. Service industries, energy/environment	1 585	16 458	72 854	19 828
8. Medicinal/Health	14 377	59 575	112 345	46 247
082. Manufacturing industries, medicinal/health	851	32 884	52 036	41 771
084. Service industries, medicinal/health	13 526	26 691	60 309	4 476
9. Other industries	50 420	219 162	328 131	62 328

APPENDIX A

List of industrial sectors coded to resource area "Food"

Data were coded to the following 4-digit NACE Rev. 1.1
(Nomenclature générale des Activités économiques dans les Communautés Européennes)
codes:

01. Food**011. Primary industries, food products**

0111 Growing of cereals and other crops n.e.c.
0112 Growing of vegetables, horticultural specialities and nursery products
0113 Growing of fruit, nuts, beverage and spice crops
0121 Farming of cattle, dairy farming
0122 Farming of sheep, goats, horses, asses, mules and hinnies
0123 Farming of swine
0124 Farming of poultry
0130 Growing of crops combined with farming of animals (mixed farming)
0150 Hunting, trapping and game propagation, including related service activities
0501 Fishing
0502 Fish farming
1430 Mining of chemical and fertilizer minerals

012. Manufacturing industries, food products

1511 Production and preserving of meat
1512 Production and preserving of poultry meat
1513 Production of meat and poultry meat products
1520 Processing and preserving of fish and fish products
1531 Processing and preserving of potatoes
1532 Manufacture of fruit and vegetable juice
1533 Processing and preserving of fruit and vegetable n.e.c.
1541 Manufacture of crude oils and fats
1542 Manufacture of refined oils and fats
1543 Manufacture of margarine and similar edible fats
1551 Operation of dairies and cheese making
1552 Manufacture of ice cream
1561 Manufacture of grain mill products
1562 Manufacture of starches and starch products
1572 Manufacture of prepared pet foods
1581 Manufacture of bread; manufacture of fresh pastry goods and cakes
1582 Manufacture of rusks and biscuits; manufacture of preserved pastry goods and cakes
1583 Manufacture of sugar
1584 Manufacture of cocoa; chocolate and sugar confectionery

1585 Manufacture of macaroni, noodles, couscous and similar farinaceous products
1586 Processing of tea and coffee
1587 Manufacture of condiments and seasonings
1588 Manufacture of homogenized food preparations and dietetic food
1589 Manufacture of other products n.e.c.
1591 Manufacture of distilled potable alcoholic beverages
1592 Production of ethyl alcohol from fermented materials
1593 Manufacture of wines
1594 Manufacture of cider and other fruit wines
1595 Manufacture of other non-distilled fermented beverages
1596 Manufacture of beer
1597 Manufacture of malt
1598 Production of mineral and soft drinks
1599 Production of other non-alcoholic beverages
1600 Manufacture of tobacco products

013. Auxiliary industries, food products

1571 Manufacture of prepared feeds for farm animals
1752 Manufacture of cordage, rope, twine and netting
2121 Manufacture of corrugated paper and paperboard and containers of paper and paperboard
2415 Manufacture of fertilizers and nitrogen compounds
2420 Manufacture of pesticides and other agro-chemical products
2522 Manufacture of plastic packing goods
2613 Manufacture of hollow glass
2872 Manufacture of light metal packaging
2924 Manufacture of other general purpose machinery n.e.c.
2931 Manufacture of agricultural tractors
2932 Manufacture of other agricultural and forestry machinery
2953 Manufacture of machinery for food, beverage and tobacco processing

014. Service industries, food products

0141 Agricultural service activities; landscape gardening
0142 Animal husbandry service activities, except veterinary activities
0503 Service activities related to fishing
5111 Agents involved in the sale of agricultural raw materials, live animals, textile raw materials and semi-finished goods
5117 Agents involved in the sale of food, beverages and tobacco
5121 Wholesale of grain, seeds and animal feeds
5122 Wholesale of flowers and plants
5123 Wholesale of live animals
5125 Wholesale of un-manufactured tobacco
5131 Wholesale of fruit and vegetables

- 5132 Wholesale of meat and meat products
- 5133 Wholesale of dairy produce, eggs and edible oils and fats
- 5134 Wholesale of alcoholic and other beverages
- 5135 Wholesale of tobacco products
- 5136 Wholesale of sugar and chocolate and sugar confectionery
- 5137 Wholesale of coffee, tea, cocoa and spices
- 5138 Wholesale of other food, including fish, crustaceans and molluscs
- 5139 Non-specialized wholesale of food, beverages and tobacco
- 5156 Wholesale of other intermediate products
- 5211 Retail sale in none-specialized stores with food, beverages or tobacco predominating
- 5221 Retail sale of fruit and vegetables
- 5222 Retail sale of meat and meat products
- 5223 Retail sale of fish, crustaceans and molluscs
- 5224 Retail sale of bread, cakes, flour confectionery and sugar confectionery
- 5225 Retail sale of alcoholic and other beverages
- 5226 Retail sale of tobacco products
- 5227 Other retail sale of food, beverages and tobacco in specialized stores
- 5262 Retail sale via stalls and markets
- 7131 Renting of agricultural machinery and equipment
- 8520 Veterinary activities
