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Mini Presentation

**Turnover and Output Measurement for Accommodation and Food
Services in Ireland**

Niall O'Hanlon

Central Statistics Office

1. Definition of the service being collected

In the Statistical Classification of Economic Activities in the European Community (NACE Rev. 2) Section I, Accommodation and Food Services, includes the provision for short-stay accommodation for visitors and travellers and the provision of complete meals and drinks fit for immediate consumption.

The sector excludes the provision of long-term accommodation as primary residences (real estate activities), the preparation of food or drinks that are not fit for immediate consumption (manufacturing) or sold through independent distribution channels (wholesale or retail trade).

The NACE Rev.2 classification is structured as follows:

I	ACCOMMODATION AND FOOD SERVICE ACTIVITIES
55	Accommodation
55.1	Hotels and similar accommodation
55.2	Holiday and other short-stay accommodation
55.3	Camping grounds, recreational vehicle parks and trailer parks
55.9	Other accommodation
56	Food and beverage service activities
56.1	Restaurants and mobile food service activities
56.2	Event catering and other food service activities
56.21	Event catering activities
56.29	Other food service activities
56.3	Beverage serving activities

The corresponding section under NACE 1.1 was H, Hotels and Restaurants. Given that NACE Rev.2 is relatively new and as latest data currently available for the main elements of Irish turnover statistics are still classified according to NACE 1.1 it is appropriate to compare the two versions.

The most important difference between the classifications is the separation of Food and beverage service activities from Accommodation at the 2 digit level. Under Accommodation services there is a new group at 55.2 for Holiday and other short-stay accommodation, such as holiday homes, flats and hostels, without daily services such as cleaning and bed making. Under Food and beverage service activities the Nace 1.1 classification of canteens (55.51) has been included under Other food service activities (56.29 under NACE Rev.2) along with activities of food service contractors and food concessions.

Table 1: Classification of NACE 55 and 56 at NACE Rev.2 correspondence to NACE1.1

NACE Rev.2	NACE 1.1
I	H
55 Accommodation	55 Hotels and restaurants
55.1 Hotels and similar accommodation	55.1 Hotels
55.2 Holiday and other short-stay accommodation	55.21 Youth hostels and mountain refuges
	55.23 Other provision of lodgings n.e.c.
55.3 Camping grounds, recreational vehicle parks and trailer parks	55.21 Youth hostels and mountain refuges
	55.22 Camping sites, including caravan sites
55.9 Other accommodation	55.23 Other provision of lodgings n.e.c.
56 Food and beverage service activities	
56.1 Restaurants and mobile food service activities	55.3 Restaurants
56.2 Event catering and other food service activities	55.5 Canteens and Catering
56.21 Event catering activities	55.52 Catering
56.29 Other food service activities	55.51 Canteens
	55.52 Catering
56.3 Beverage serving activities	55.4 Bars

Surveys of Turnover for the Accommodation and food services sector

2.1 Overview

The Annual Services Inquiry (ASI) is the primary source of structural business statistics for the traded services sector in Ireland. In addition to this survey the Central Statistics Office (CSO) introduced the Monthly Services Inquiry in 2009 to provide short-term indicators on turnover in the Services sector. The ICT and e-Commerce surveys provide estimates for turnover generated via the internet. The Retail Sales Index, which measures average weekly turnover for the Retail sector also covers the Beverage Serving activities division (56.3 at NACE Rev.2).

In addition the use of administrative data from the taxation authorities will be greatly increased from reference year 2010 onwards to assist in the compilation of Structural Business Statistics (SBS) and full time equivalent (employment) estimates.

2.2 Annual Services Inquiry

The ASI provides weighted estimates of the main economic aggregates for the non-financial traded services sectors. The principal variables collected are Turnover, Stocks, Capital Assets, Personnel Costs, Purchases, Employment, Location of Ownership, Exports and Imports. It is a compulsory survey conducted under the Statistics Act, 1993 (Statutory Instrument No. 77 of 2008) and in accordance with Council Regulation (EC) No. 295/2008.

The CSO's Central Business Register provides the frame from which the ASI sample is selected each year. The 'enterprise' is the statistical unit used for survey purposes i.e. one return is sought in respect of each enterprise covering all constituent branches, local units or subsidiaries. The survey sample consists of the census of enterprises with 20+ employees plus a random sample of the smaller units stratified by activity, geographic region and employment size class.

Just over 3,000 Food and accommodation services enterprises were sampled in 2007 from a population of approximately 10,300. The response rate was 69% which is very close to the overall rate for the traded services sector which was 70%.

Valid edited returns are weighted to the Central Business Register. Employment numbers are used as an auxiliary parameter for all monetary and employment variables. No auxiliary parameter is used for the numbers of enterprises or local units. Data are aggregated at regional level. This process results in assigning every enterprise on the final dataset weighing factors dependent on the NACE code, employment size class and geographical location.

2.3 Survey of Turnover by Product

A once off survey of turnover broken down by activity at 3 digit NACE was conducted for the sector in parallel with the 2007 ASI. This was confined to a sample of enterprises with 20 or more employees only. Although there is a demand for this detail from National Accounts, Tourism Satellite Accounts and Services Producer Price Indices compilers there are no plans to repeat the survey as it is not covered by Annex 8 of the European regulation on Structural Business Statistics (see section 2.6 Burden).

2.4 Monthly Service Inquiry

The CSO is currently compiling a monthly turnover index for the services sector. Ultimately a volume index will be developed to provide a leading monthly indicator of economic activity. Data is collected via the Monthly Services Inquiry. This new survey is compulsory, with its legislative basis in the provision of information required by National Accounts in the compilation of quarterly GDP (Regulation EC number 2223 /96) and in certain variables required under the Short-term Statistics Regulation EC number 1165 /98.

At present the survey covers just over 2,100 Services sector enterprises including a census of all enterprises with greater than €20 million turnover or greater than 100 employees (covering 75% of total turnover and 37% of total employees) and a sample of smaller enterprises (which are sampled for 13 months and then replaced). Almost 270 enterprises in the Hotel and food services sector are sampled.

Enterprises are stratified by economic activity and enterprise size class. A turnover per working day is computed for responding enterprises each month. Relatives for each cell are calculated using a matched sample approach. This means that an enterprise will only be included in the calculation of the cell total if it has made returns for both the previous and current months. The preferred approach would be to use a direct weighting methodology where survey returned would be weighted to the CSO Business Register population frame. However use of the Business register for weighting purposes would lead to volatility in short term results as it only receives information on enterprise births and deaths from administrative sources intermittently, with the focus being on adjusting the register annually. The matched sample approach is used to overcome this difficulty although it doesn't fully account for enterprise population dynamics.

In Ireland some sectors (such as ICT) are heavily influenced by multinational enterprises however there is no such effect on the Accommodation and food services sector. Measurement of period on period change in the sector is relatively straightforward as there are no dominant enterprises. Relatives are weighted using estimates for both turnover and gross value added (GVA) from the 2005 ASI to produce an overall index and indices for each business grouping. There are 2 main elements to the difference between the turnover and GVA indices, namely the inclusion of multinational turnover and turnover from the distributive (especially motor trade) sector. While Eurostat requires that results are based on turnover weights, the CSO will give prominence to indices compiled using gross value added as doing so will provide a better indication of short term movements in GDP. Table 2 shows that the weight for the Hotel and food services sector is not significantly altered by use of either approach unlike some other sectors.

Table 2: Percentage turnover and GVA weights for selected Services Sectors, 2005

Business Grouping	Turnover Weight (%)	GVA Weight (%)
Motor Trade	9	3
Wholesale	39	17
Transport and Post	8	11
Hospitality	7	8
ICT	14	23
Business Services	14	21
Other	9	17
All	100	100

2.5 Retail Sales Index

For national purposes Ireland's Retail Sales Index includes coverage of Bars (55.4 at NACE Rev.1). Monthly turnover is collected from enterprises in this sector. In order to compile a volume index Consumer Price Index (CPI) sub indices are used to deflate the turnover values each month. Weights for the deflators are compiled from a survey of turnover by product which is conducted for the sector every 5 years.

2.6 Burden

In 2007, the EU agreed a target of reducing administrative burden by 25% by 2012; this target was subsequently adopted by the Irish government. In its *Statement of Strategy 2008-2010*, the CSO identified as a corporate priority the minimising of response burden on CSO inquiry respondents. Consequently surveys of business enterprises are, for the most part, limited to what is required under EU legislation, irrespective of CSO resources and requirements.

Although enterprises could receive a maximum of 86 forms from 23 surveys in 2008 the average number received in the services sector was 1.2 compared to 5.5 in the industry sector. Overall, the time taken to complete returns per unit of business population was almost 55 minutes in 2008 (derived from total number of minutes taken to complete returns for the 23 surveys divided by the population of business enterprises) while the time for the Hotel and food services sector was 21 minutes (see Table 3 below). The response burden for the sector could not therefore be considered especially high relative to other services sectors.

Table 3: Time taken to complete CSO surveys per unit of business population, 2008

Sector	No. of Minutes
Wholesale and retail trade	143.9
Hotels and food services	21.0
Transport, storage and communication	19.5
Real estate, renting and business activities	15.7
Other community, social and personal services	14.3
All Sectors	54.5

The CSO has in recent years begun to explore the possibility of further reducing burden by supplementing data collection by means of survey with administrative data generated from the Irish taxation system. However income tax and corporation tax data is annual while the requirements for submission of VAT returns varies from enterprise to enterprise and can be, at the discretion of the Revenue Commissioners, on a monthly, quarterly, biannual or annual basis. This limits the potential for use of such administrative data for short-term turnover statistics. However the CSO is currently developing a methodology to replace surveying of single person enterprises with estimates of annual turnover and associated variables from administrative data.

3. Market Conditions and Constraints

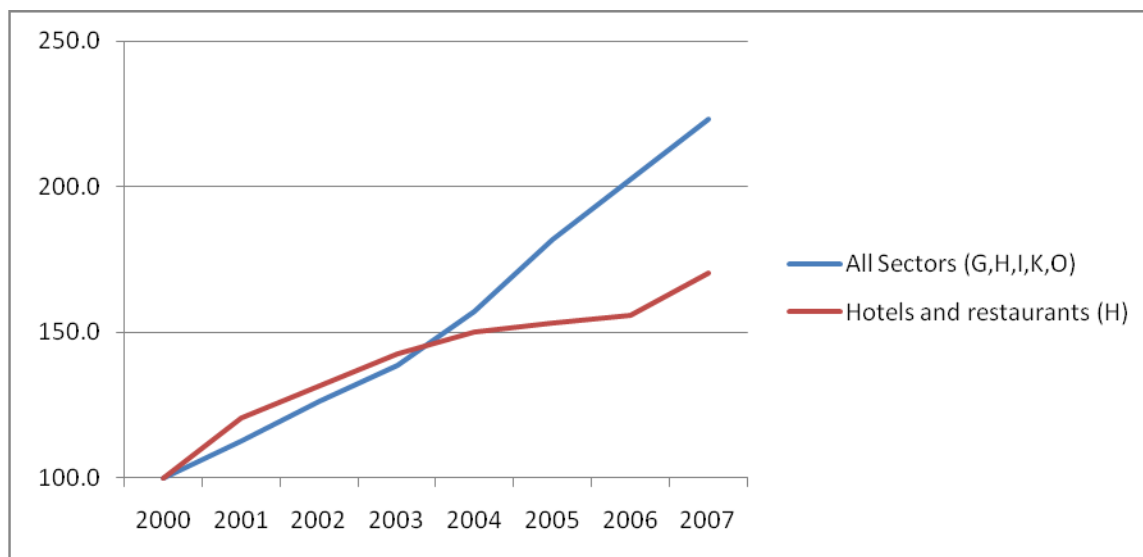
3.1 Non coverage of NACE Rev.2 55.2

Mandatory registration of accommodation establishments is confined to Hotels only. A sizeable portion of accommodation supply particularly in respect of that classified under 55.2 at NACE Rev.2 (Guesthouses, Bed and Breakfasts) is unregistered. Furthermore the use of administrative data generated by the taxation system is complicated by the fact that provision of holiday or short let accommodation is very often a secondary economic activity for sole traders such as farmers. Therefore it is very difficult to identify, survey and compile statistics on these establishments. Consequently ASI compilers in Ireland do not publish results for this division.

3.2 Size of Sector

The Accommodation and Food Services sector grew rapidly during the “Celtic Tiger” boom. Turnover, as measured by the ASI, more than doubled from €4.4billion in 1999 to €9billion in 2007 at current prices. Growth in gross value added was even stronger over the same period, from €1.6billion to €3.7billion, a nominal increase of 124%. The number of enterprises grew from 7,718 to 10,285 representing an increase of 33%. Full-time employees almost doubled from 43,000 to 82,500. Between 2000 and 2003 the rate of annual growth of turnover in the sector matched very closely that of the All Services Sector (Sectors G, H, I, K and O at NACE 1.1). From 2004 the annual rate of growth, although still very strong, fell considerably behind that experienced in the All Services Sector.

Figure 1: Annual Index of turnover in All Services Sector and Hotels and Restaurants Sector at NACE 1.1 2000=100



The largest component of the Accommodation and food services sector in respect of both enterprises and turnover in 2007 at NACE Rev.1 was Bars (55.4) accounting for 51% and 39% respectively, while Hotels (55.1) had the greatest share of GVA at 35% (see Table 4 below).

Table 4: Size of Accommodation and Food Services sectors, 2007 at NACE 1.1

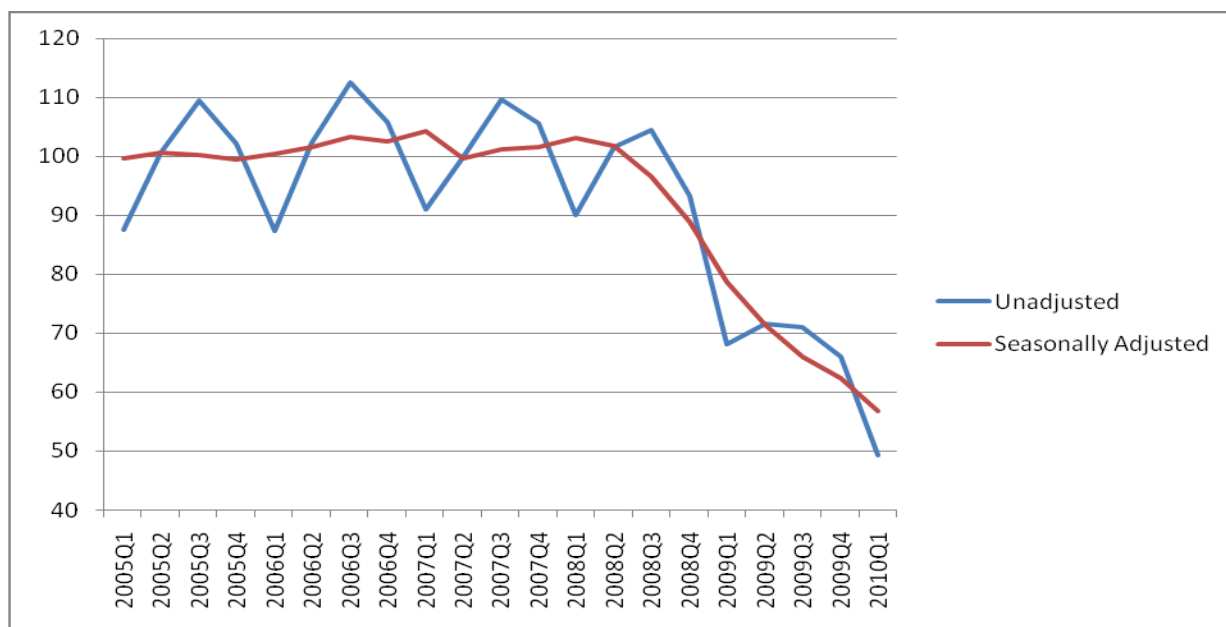
NACE	Enterprises	Turnover €b	GVA €b
Hotels and restaurants (55)	10,285	9	3.7
Hotels (55.1)	808	2.7	1.3
Restaurants (55.3)	3,908	2.3	1
Bars (55.4)	5,211	3.5	1.2
Canteens and catering (55.5)	359	0.5	0.2

3.3 Experimental results from the Monthly Turnover Survey

The CSO is currently finalizing results for the monthly turnover index. Monthly data is available from January 2009 and the back series will be extended with quarterly data (previously unpublished) back to Q1 2005 from the Quarterly Services Inquiry.

Experimental results presented in Figure 2 below show the highly seasonal nature of the sector. This makes the accurate estimation of full time equivalents (used in the measure of productivity) by reference to point in time employment estimates very difficult. The results also illustrate vividly the collapse in the Accommodation and food services sector from mid 2008. By the first quarter of 2010 seasonally adjusted turnover for the sector had fallen by over 40% from its peak levels experienced between 2005 and 2007.

Figure 2: Turnover Index for Accommodation and Food Services Sector, 2005=100
(Experimental) at NACE 1.1



3.4 Turnover by activity

Results for the survey of turnover broken down by activity conducted for 2007 show that turnover is generated from a mix of activities across each of the sub-sectors. This is especially evident in the case of Hotels where just over half of turnover is from accommodation services.

Table 5: Composition of turnover (%) by activity for Accommodation and Food Services Sector, 2007 at NACE1.1

	Hotel services	Camping services	Food serving	Beverage serving	Canteen and catering	Other products n.e.c.
Hotels (55.1)	50.6	1.2	24	17.9	0	6.3
Restaurants (55.3)	1.3	0	76.7	15.1	2.1	4.8
Bars (55.4)	3.6	0.2	25.4	61.7	0.4	8.8
Canteen and Catering (55.5)	0.1	0	11.6	6.8	73.1	8.4

3.5 Size classes

Table 6 (below) shows that Accommodation and Food Services enterprises are well distributed among the different size of turnover classes. Surveying complications that can arise in sectors that are dominated by a few very large enterprises (or are where smaller enterprises dominate) are avoided.

Table 6: Distribution of Accommodation and Food Services enterprises by turnover, 2007

	Under €100,000	€100,000 and under €1,000,000	€1,000,000 and under €5,000,000	€5,000,000 and over
Enterprises	1,020	7,225	1,736	304
Turnover €mill	68.8	2,619.2	3,275.8	3033.3

3.6 Ownership

Enterprises in the sector are almost entirely Irish owned although foreign owned enterprises account for around 9% of turnover. Foreign ownership is lowest for this sector among the services sectors so the complications that can arise due to foreign/multinational ownership are not particularly apparent for this sector (see Table 7 overleaf).

The ASI includes a family business indicator. In 2008 the CSO produced a report on “Family Business in Ireland – Services Sectors 2005”. This showed that in 2005 family owned businesses accounted for 61% of enterprises and 44% of the total turnover generated in the

hotels and restaurants sector. These were the highest proportions among the traded services sectors. Across all of these sectors turnover generated by family businesses accounted for almost 30% of the total. Measurement of full-time equivalents in family businesses can be complicated by the fact that family members may be “employed” as casual labour. It is not clear whether these family members are included in the employment count provided to the CSO. This measurement issue along with the strong seasonality in the sector makes the calculation of full-time equivalents and by extension labour productivity, more difficult.

Table 7: Ownership of enterprises by sector, 2007

Sector	Irish	Non-Irish
Wholesale and retail trade	60.1	39.9
Hotels and food services	90.8	9.2
Transport, storage and communication	55.5	44.5
Real estate, renting and business activities	33.0	67.0
Other community, social and personal service activities	91.7	8.3

3.7 Business Demography

The primary purpose of Business Demography is to provide estimates of the numbers of enterprises and persons engaged. This provides valuable information on enterprise life cycles, mortality and churn rates. These data supplement the Structural Business Statistics and also form the basis for weighting and deriving other business statistics.

Administrative data generated by the taxation system is used to identify new registrations, activity and ceased registrations. However this use of administrative data is problematic in that new registrations and ceased registrations do not always correspond with enterprise births and deaths. This can occur, for example, where an enterprise has undergone financial restructuring or an existing establishment has changed ownership. The relatively low barriers to entering and exiting the sector compound this problem.

This may not be such a problem for member states which have a comprehensive administrative source for local units or those which have a system of postcoded addresses. However it may be an issue for other countries whose data is based primarily on tax registrations.

The methodology in Eurostat’s Business Demography manual to identify mergers and takeovers, (matching on either address and NACE, name and address or name and NACE) only work for a take-over where either the enterprise name stays the same, or the actual location of the operation of the business is on the enterprise records for both the old and new owner.

A more detailed analysis (manual checking) of all 20+ employee enterprise births and a sample of each of the smaller size classes was conducted for the period 2006-2008. The analysis established that less than half of all potential enterprise births and deaths, as identified by administrative data, in the Accommodation and Food Services sector were real. This

demonstrates that, at least in the case of Ireland, it is inappropriate to rely purely on administrative data for business demography statistics.

4. National Accounts concepts and measurement issues

4.1 Classifications

National Accounts compilers in Ireland use their own National Income and Expenditure (NIE) activity classification. For the Accommodation and Food Services sector this broadly follows NACE 1.1. However, in the absence of more detailed data from ASI (which reflects the NACE classification structure) the sector is divided between Hotels/Boarding/Lodging and Restaurants/Canteens/Catering and a combination of data for these is assigned to the NIE Other Services sector. Bars (55.4 at NACE 1.1) are assigned to the NIE Distribution, Transport and Communication sector.

It is expected that National Accounts will move to the NACE Rev.2 classification by September 2011 in line with the Eurostat implementation plan.

4.2 Measurement issues

In Ireland, annual Gross Domestic Product (GDP) at current prices has traditionally been calculated using the income and expenditure approaches only. The official level of GDP is taken to be an average of the two. For this sector the main components of the *income* estimate are profits and remuneration of employee data collected from administrative taxation data and labour force estimates from the Quarterly National Household Survey. On the *expenditure* side estimates are made of personal expenditure on consumers' goods and services derived from results of the CSO's household budget and tourism surveys.

Although Hotels/Boarding/Lodging and Restaurants/Canteens/Catering have historically been assigned to the Other Services sector for the National Accounts they are assigned as required under ESA 95 to NACE 1.1 A6 Sector Code 4 - 'Wholesale & retail trade, repair of motor vehicles & household goods, hotels & restaurants, transport & communications' for transmission of data to Eurostat. Estimates for GDP are not published at the NACE sectoral level.

The CSO is currently developing the annual current price Output Method for estimating GDP. The ASI is the data source for the principal variables required being output (turnover), intermediate consumption (purchases) and gross value added (profit + wages). However a number of adjustments are made to these data. In the absence of robust data from the Business Register and the ASI, taxation data is used to produce estimates for NACE 1.1 sectors 55.21, 55.22 and 55.23 and for self-employed enterprises. Intermediate consumption is adjusted for financial intermediation services indirectly measured (FISIM). Finally the overall totals are weighted to match the annual current price Income Method figures published in the National Income and Expenditure (NIE) publication. This is necessary as the discrepancy between the ASI data and the NIE data is quite large.

Experimental results from the output method show that in 2007 the sector, at €3.813billion, accounted for 2.3% of GDP (in respect of value added at basic prices).

5. Summary

The Accommodation and food services sector, as measured by the Annual Services Inquiry, experienced considerable growth in Ireland between 1999 and 2008. Experimental data from the Monthly Turnover Survey however shows that the sector has experienced a severe downturn since then.

There are several measures of turnover in the Irish services sector, most importantly the Annual Services Inquiry and the Monthly Turnover Survey. Data is still primarily available at NACE 1.1 only. Measurement of the sector is complicated by Business register issues (intermittent updating) and by the absence of consistent data on the composition of turnover by product. This is further complicated by a number of characteristics of the sector namely; seasonality, high proportion of family ownership and the mix of products offered by service providers in the sector. However, measurement complications that can arise as a result of multi-national ownership are not a feature of the sector.

For the compilation of National Accounts the CSO currently uses its own National Income and Expenditure (NIE) activity classification although it plans to move to NACE Rev.2 by September 2011.