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**FAMILY BUSINESSES IN THE IRISH SERVICES SECTOR: PROFILE AND PRODUCTIVITY**

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(read before the Society, October 2<sup>nd</sup>, 2008)

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**Abstract:** Most family businesses are small, engage less than 10 persons and trade in the more traditional industries, such as the distributive trades or hospitality industries. Family businesses export less product, generate a lower proportion of their turnover from Internet sales and typically have a lower Gross Value Added (GVA) per employee than non-family businesses. Nevertheless, these family businesses make a significant contribution to the services sector, accounting for more than 46% of all non-financial traded services enterprises. They are almost exclusively Irish owned, employ over a quarter of a million persons and account for 40% of all persons engaged. In 2005, family businesses in the services sectors generated an aggregate turnover in excess of €49 billion. Yet according to international studies these family businesses have in or around a 60% probability of failure as they transfer from first to second generation ownership, potentially putting thousands of jobs at risk.

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**Keywords:** Family business, service sector, firm performance

**JEL Classifications:** L11, L81, L84

## **1. INTRODUCTION**

Type “family business” into any Internet search engine or browse through the business supplement of any newspaper and the results will yield all sorts of interesting facts and figures, such as:

*“Family-owned firms account for up to 90% of the indigenous business sector and 50% of employment in Ireland. Unfortunately, it is expected that less than one in three of these businesses will survive the transition to the second generation”*

*(Retail News, September 2007)*

Or:

*“More than three quarters of businesses in Ireland are family owned but less than a third make it through to the second generation”*

*(Sunday Independent, 13 January 2008)*

After only a few minutes perusal, two things become apparent. Firstly, succession is clearly a huge issue for family businesses and secondly, despite any number of interesting statistics from the US, there appears to be little robust data on family businesses in Ireland.

Clearly, if there are as many family businesses in Ireland as many web sites and journalists claim, and if they are as likely to fail as the quoted statistics suggest, then it would seem that data on family businesses is required if analysts are to understand an important determining factor for many businesses success or failure and the business economy generally.

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## 2. PURPOSE OF THIS PAPER

There are a number of purposes to this paper. These include drawing attention to the family business statistics published in the Annual Services Inquiry for the years 2004 (CSO, 2006) and 2005 (CSO, 2007a), highlighting a recently published CSO report “Family Businesses in Ireland – Services Sectors 2005” (CSO, 2008a), and highlighting some interesting implications for both micro and behavioural economics arising from the results of this paper. Furthermore, the paper draws attention to some remaining gaps in official business statistics, which, when addressed, will allow a more robust analysis of Irish business in general and family business in particular. Finally, the paper illustrates the power of linking datasets at a micro or unit record level and thus highlight the importance of a *unique* or *universal business identifier* and standard classifications for the Irish Statistical System.

## 3. THE DATA SOURCES

This paper draws on a number of data sources. The primary source of information used in this paper is the Annual Services Inquiry (ASI) for the reference year 2005 but the VAT Registration files held by the Revenue Commissioners have also been used, as have the 2005 e-Commerce Enterprise (ICT) Survey, from which aggregated results were published in the Information Society Statistics – Ireland 2005 (CSO, 2005). The CIS results from the joint CSO - Forfás Community Innovation Survey 2004 – 2006 (CSO, 2008b) have also been used. The VAT, ICT and CIS have all been linked to the ASI at a micro data level.

### 3.1 The Annual Services Inquiry

As the ASI is the main source of data for this analysis, it is worth outlining some of the key characteristics of the survey. The ASI was first introduced for reference year 1995. However, the grossing and sampling methodology currently used were first adopted for reference year 1999 resulting in a break in series. The 1999 report, which incorporated the methodological changes, was published in March 2003 (CSO, 2003).<sup>2</sup>

The ASI covers the NACE Rev.1.1<sup>3</sup> sections G, H, I, K and O, i.e. retail, wholesale, real estate, renting, business services and other selected traded services. The primarily non-traded sectors such as health, education and defence are not covered. Information on Sector J, the financial sector, is not included either as statistics for this sector are compiled by the Central Bank and the Financial Regulator.

The statistical unit used for the ASI is the enterprise, where an enterprise is defined as the smallest legally independent unit. So one return is sought in respect of each enterprise covering all constituent branches or local units. The enterprise activity is determined by the predominant activity of that enterprise and any turnover and employment etc. generated by secondary or ancillary activity is classified to the primary activity. The predominant activity is pre-determined and stored on the CSO’s Central Business Register (CBR) from which the sample is drawn.

Sample selection is done on the basis of the Neymann Allocation using the number of persons engaged in an enterprise i.e. the number of employees, both full-time and part-time plus the number of proprietors as the determining variable. All enterprises with 20 or more persons engaged are selected. For enterprises with less than 20 persons engaged, a stratified random sample is selected, with decreasing sampling fractions applied to the smaller size classes i.e. enterprises with fewer persons engaged. The sampling fractions applied to the 2005 population (State) are given in Table 3.1. Different sampling fractions are also employed for each of the NUTS 2 regions.<sup>4</sup>

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<sup>2</sup> The ASI is compiled in compliance with Regulation (EC) No. 295/2008 of the European Parliament and of the Council of 11 March 2008 concerning structural business statistics (recast).

<sup>3</sup> NACE Rev.1.1 – Statistical classification system of economic activities used by members of the European Union

<sup>4</sup> NUTS 2 Regions – Regional classifications are based on NUTS (Nomenclature of Territorial Units) classification used by Eurostat. See Appendix 1 for details.

Table 3.1.1 – Sampling Fractions for the 2005 ASI

NACE Rev.1.1	Services Sector	Size Classes			
		1 - 4	5 - 9	10 - 19	20+
G	Wholesale & Retail Distribution	10%	20%	33%	100%
H	Hotels & Restaurants	10%	14%	33%	100%
I	Transport, Storage & Communications	9%	20%	33%	100%
K	Real Estate, Renting & Business Services	10%	20%	33%	100%
O	Other Community, Social and Personal Services	10%	20%	33%	100%

The ASI 2005 sampled 18,267 service enterprises, of which 3,275 were deemed non-relevant, giving an effective sample of 14,395 enterprises. An 18% non-relevance rate might appear high, but for services this is not uncommon as enterprise “churn” tends to be high, especially for relatively young enterprises. By way of illustration, a crude “attrition” was calculated from the pilot enterprise demography statistics (CSO, 2009) for 2005 (i.e. the ratio of deaths to active enterprises). The attrition rate for the services sectors (i.e. NACE G, H, I, J and K) was approximately 9%. It was particularly high for NACE section H (Hotels & Restaurants) at almost 13%. A total of 10,127 completed forms were returned to CSO, yielding an overall response rate of 70%.

The reference year applies to the financial year of the enterprise rather than the calendar year. Enterprises that traded for at least 6 months of the reference year are included. Consequently, some activity from the calendar years preceding or following the reference year may be included.

While the CSO endeavours to publish the greatest level of information possible, this is always subject to the constraint of quality and confidentiality. For most activities, the ASI publishes information at 3-digit NACE or group level. However, in some cases this is not always possible due to the risk of disclosing confidential details of responding enterprises, so data are suppressed and published at a more aggregated level, such as division (2-digit) or section level (1 digit). A cell is identified as *primary* confidential when any of the following scenarios occur:

There are less than three enterprises in the relevant NACE category.

One enterprise dominates a NACE category i.e. accounts for more than 80% of the total (e.g. turnover, employment).

Two enterprises dominate a NACE category i.e. accounts for more than 90% of the total.

*Secondary* confidentiality arises where publication of a non-confidential cell might indirectly reveal information about a primary confidential cell. These cells are suppressed or aggregated with primary confidential cells to ensure that no confidential data are published. Cells may also be aggregated if there are particular quality concerns about the data.

The quality of the ASI is affected by sampling and non-sampling errors. While ASI returns are subject to rigorous validity and consistency checks, some non-sampling errors inevitably occur. However, no systematic measurement of these errors is conducted. As noted above, for all but the largest size classes, the ASI is a sample survey and consequently the data is subject to statistical variability or sample error, expressed by the coefficient of variation. The sample errors for the ASI are measured every year and published in the ASI report. As most of the data in this paper will be presented at NACE section level (to avoid presenting gaps in tables arising from confidentiality), coefficients of variation for three key variables; turnover, number of persons engaged and gross value added have been calculated and presented at Section level in Table 3.1.2.

Table 3.1.2 – Coefficients of Variation for NACE Sections (State)

NACE Rev 1.1 Section	Turnover excl. VAT € 000	Coefficient of Variation	Number of Persons Engaged	Coefficient of Variation	Gross Value Added € 000	Coefficient of Variation
G	98,436,180	4.6	285,822	1.1	14,745,337	6.1
H	9,110,999	4.1	129,906	2.0	3,189,505	3.3
I	22,199,198	6.0	88,301	6.4	10,377,689	6.8
K	34,935,716	7.6	190,504	1.9	15,939,138	9.0
O	2,880,327	8.6	45,885	3.6	1,619,266	10.9
Total	167,562,420	3.2	740,419	1.1	45,870,934	4.0

The ASI compiles information on the following type of data:

- Legal form of enterprise ownership.
- Location of ownership i.e. nationality of ultimate beneficial owner
- Whether business is a family business or not
- Turnover generated from primary services activity
- Turnover generated from secondary (non-services) activity
- Turnover generated from EDI or Internet sales
- International trade (e.g. total exports, exports of services)
- Purchases of goods for direct resale
- Purchases of other goods or services for consumption (e.g. fuel, stocks)
- Operating expenses (e.g. bank charges, commercial rent)
- Changes to fixed assets
- Personnel costs (incl. PRSI, training costs etc.)
- Total persons engaged
- Total employment
- Local unit information
- Total respondent burden

A brief description of the secondary data sources used in this paper is presented in sections 3.2 to 3.4 for completeness.

### 3.2 VAT Registrations File

VAT was first introduced on November 1<sup>st</sup>, 1972. VAT is a tax on consumer spending, which is embedded in the purchase price. It is effectively a retail sales tax collected by VAT registered traders on their supplies of goods and services to their customers and passed to the Revenue Commissioners. The standard VAT rate is 21%, however there are a number of exceptions to this standard rate.

The VAT file used by CSO contains the following type of data:

- Customer number
- Registration number
- Customer type (individual, company, partnership, trust or incorporated body)
- Date registered
- Date ceased
- Entity name

Registrations prior to November 1972 relate to Turnover Tax (TOT) or Wholesale Tax (WT) which were introduced in 1963 and 1966 respectively.

### 3.3 e-Commerce & ICT

The enterprise survey of e-Commerce and ICT<sup>5</sup> was first introduced in 2002 and is conducted annually. Coverage includes manufacturing, services and construction enterprises, specifically NACE Rev.1.1 sections D, F, G, H, I, J, K and O. Since 2002, the scope of the survey has expanded to include all enterprises with 10 or more persons engaged, with the exception of the construction sector where the scope remains limited to enterprises with 20 or more persons engaged. In 2007, scope was further extended on a pilot basis to include micro-enterprises (i.e. those enterprises with less than 10 persons engaged). The e-Commerce and ICT survey is a sample of approximately 8,000 enterprises.

The e-Commerce and ICT survey compiles information on the following type of data:

- General information on ICT systems
- Use of Internet
- e-Commerce via the internet
- e-Commerce via EDI<sup>6</sup> or networks other than the internet
- Barriers to e-Commerce
- Automated data exchange
- Electronic sharing of information using Supply Chain Management

The survey also has a rotating module, which varies in topic every year. Modules have included, e-Skills and ICT competence, Perceived benefits of ICT, Use of RFID<sup>7</sup> and Confidence building practices for internet e-Commerce.

### 3.4 The Community Innovation Survey (CIS)

Prior to the 2004 – 2006 CIS, Forfás was responsible for the management of innovation statistics. The 2004 – 2006 CIS was the first joint CSO – Forfás survey where CSO collected and compiled the data and published first results.

As CSO conducted the survey and hold the microdata for the 2004 – 2006 CIS, the same enterprise identifiers are used as on the ASI. This allows data at micro or unit record level to be matched, thus increasing the power of the aggregate dataset significantly.

The CIS covers enterprises with 10 or more persons engaged in the NACE Rev.1.1 sections C, D, E, I, J and NACE divisions 51 and 72 and NACE groups 74.2 and 74.3 i.e. Mining and quarrying, Manufacturing, Electricity, gas and water supply, Wholesale trade, Transport, storage and communications, Financial intermediation, Computer and related activities, Architectural and engineering activities and Technical testing and analysis. Similar to the ASI, sectors dominated by non-traded activities such as health, education, and defence are not covered.

The CIS 2004 - 2006 sampled 4,150 enterprises, of which 1,974 useable forms were returned to CSO, yielding an overall response rate of 48%.

The CIS compiles information on the following type of data:

- General information on the enterprise
- Product innovation
- Process innovation
- Organisational innovation
- Ongoing or abandoned innovation activities
- Innovation expenditure
- Co-operation for innovation activities
- Factors hampering innovation
- Intellectual property rights

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<sup>5</sup> The e-Commerce and ICT survey is compiled in compliance with EU Regulation (EC) No. 808/2004

<sup>6</sup> EDI – Electronic Data Interchange

<sup>7</sup> RFID – Radio Frequency Identification Technology

#### 4. DEFINITIONS

There is no universal agreement on the characteristics that define a family business (Handler, 1989). Some have used the level of equity held by a single family as the criterion (Landsberg et al, 1988) whereas other criteria have ranged from family in the management structure (Kepner, 1983) to multi-criteria definitions (Smyrniotis et al, 1997). Litz (1995) proposed a categorization of family business which defined a 'pure' family business as being family managed and family owned. Others such as Shanker & Astrachan (1996) have proposed a broader definition of family business based on a three scale classification; broad, middle, and narrow. The broad definition includes little direct family involvement, an intention to keep it in the family and the effective control of strategic development. On the other end of the spectrum, the narrow definition requires that the business be multi-generational, the family directly own and run the business and at least one member of the family has significant management responsibility. This scaling approach was further extended by Astrachan, Klein, Smyrniotis (2002) who developed what is known as the F:PEC scale as a method for measuring the influence of the family in a business. This approach defines the potential channels of influence a family can establish in a company (e.g. power, experience, culture etc.)

For the purposes of the ASI, family businesses are defined as:

***An enterprise where one family holds more than 50% of the voting shares***  
*and/or*  
a family supplies a significant proportion of the enterprises senior management and is effectively controlling the business  
*and/or*  
an enterprise where there is evidence of more than one generation working in the business  
*and/or*  
an enterprise that is influenced by a family or a family relationship and that perceives itself to be a family business.

It should be noted that unlike most business statistics definitions, such as for example, legal form of enterprise, the definition of family business is a somewhat subjective one. The impact of this subjectivity is nowhere more apparent than when examining sole traders. This will be discussed in more detail later in the paper (see section 10).

For the purposes of this paper, the size of enterprises will refer to the number of persons engaged, unless stated otherwise. Although not the international norm, given the relatively large number of smaller enterprises in Ireland, size classes in this paper are defined as follows:

Size Class	Persons Engaged
Micro	1 - 9
Small	10 - 19
Medium	20 - 49
Large	50 +

#### 5. NUMBER OF FAMILY BUSINESSES

In 2005, there were almost 39,000 family businesses trading in the services sectors, accounting for 46% of all enterprises in those sectors. These family businesses employed over a quarter of a million persons and generated a total turnover of almost €49.3 billion.

Table 5.1 – Summary Aggregates classified by Business Type, 2005

Business Type	Total Number of Enterprises	Turnover excl. VAT	Gross Value Added	Number of Persons Engaged	Total Number of Employees
		€ 000	€ 000		
<b>All Business</b>	<b>83,988</b>	<b>167,562,420</b>	<b>45,870,934</b>	<b>740,419</b>	<b>655,141</b>
Family Business	38,927	49,284,610	10,163,949	293,356	253,765
Non-Family Business	45,061	118,277,810	35,706,985	447,063	401,376
	%	%	%	%	%
Family Business	46.3	29.4	22.2	39.6	38.7
Non-Family Business	53.7	70.6	77.8	60.4	61.3

That only 46% of all enterprises are family businesses seems low compared to statistics regularly quoted in Ireland or in other international studies. For example, studies conducted in Germany of the manufacturing sector in Baden-Württemberg estimate that 78% of businesses were family run (Hauser, 2005). In the US family businesses account for a much larger proportion (86%) of total businesses than in Ireland (Keyt, 2007). It must be remembered that the results for the ASI only cover non-financial traded services.

If building and construction, manufacturing or financial intermediation enterprises were included, would we expect a significantly different picture to emerge? There is no obvious reason to assume that the 11,500 manufacturing or 3,000 financial enterprises would have a higher ratio of family to non-family businesses than traded services. It is possible that the ratio of family businesses might be higher for the construction sector, where 95% of the estimated 56,000 construction enterprises operating in Ireland are small (i.e. engaging less than 20 persons). However, as there are no official family business statistics for the manufacturing, financial or construction sectors<sup>8</sup> we can only speculate.

If farms are included however, then the ratio between family and non-family businesses changes considerably. The 2005 Farm Structure Survey (CSO, 2007b) estimated there were 135,500 family farms<sup>9</sup> in Ireland out of a total number of farms of 135,600. So if farms were included, then family business would account for over 173,900 enterprises or 79% of service and farm enterprises.

For the remainder of this paper, analysis will be confined to the services sectors within the scope of the ASI, and to those enterprises which classified themselves as family businesses.

### *Size Class*

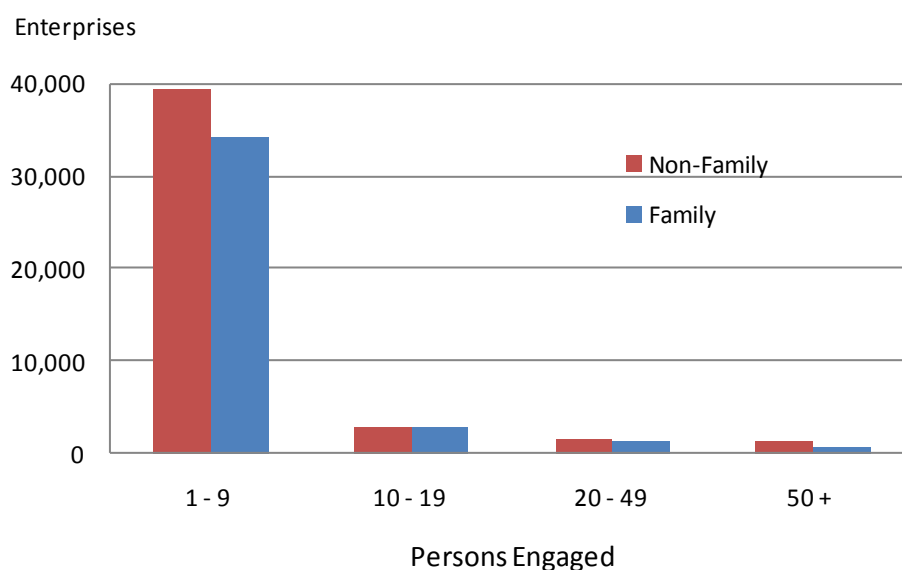
The distribution of family and non-family businesses across the enterprise size classes are more or less the same. Almost 88% of all services enterprises have less than 10 persons engaged; this holds for both family and non-family businesses. Less than 2% of family businesses had more than 50 persons engaged.

<sup>8</sup> From reference year 2006 family business data will be available for the construction sector, from the annual Census of Building and Construction. However, for the time being the CBC only covers enterprises with 20 or more persons engaged.

<sup>9</sup> Family farms are defined in a different way to the definition used to define family businesses in ASI. For the purposes of the 2005 Farm Structure Survey, family farms are defined as farms that were operated as family based enterprises. Only those farms registered as companies that paid all their workers as employees (including management) as well as farms connected with institutions were classified as non-family farms.



Figure 6.1 – Number of Family and Non-Family Businesses by Size Class, 2005



Although family businesses with less than 10 persons engaged accounted for almost 41% of all services enterprises, these businesses generated less than 9% of total Gross Value Added.<sup>10</sup> By contrast, the 2% of family businesses engaging 50 persons or more accounted for almost 8% of total traded non-financial services GVA. Non-family businesses with 50 or more persons engaged accounted for 44% of total services GVA.

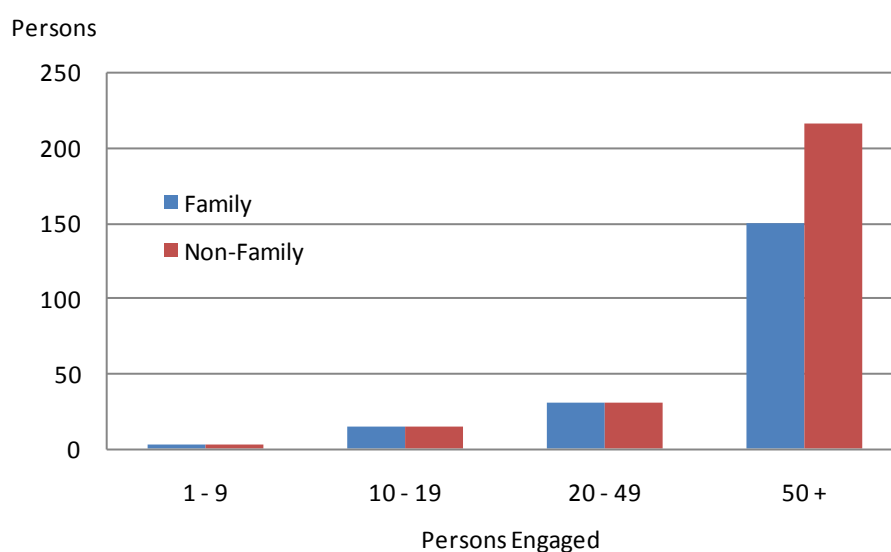
Table 6.1 – Percentage distribution of Aggregates over Size Class and Business Type

Size Class	Number of Enterprises	Turnover excl. VAT	Gross Value Added	Number of Persons Engaged	Number of Employees
	%	%	%	%	%
1 - 9	40.6	10.8	8.5	14.4	10.7
10 - 19	3.4	3.6	2.9	5.6	6.0
20 - 49	1.6	4.4	2.9	5.5	6.1
50 +	0.8	10.6	7.9	14.2	15.9
<b>Total Family</b>	<b>46.3</b>	<b>29.4</b>	<b>22.2</b>	<b>39.6</b>	<b>38.7</b>
1 - 9	47.0	12.3	16.1	14.0	9.6
10 - 19	3.3	6.6	6.2	5.5	5.8
20 - 49	1.9	10.9	11.5	6.4	7.0
50 +	1.4	40.7	44.0	34.5	38.8
<b>Total Non-Family</b>	<b>53.7</b>	<b>70.6</b>	<b>77.8</b>	<b>60.4</b>	<b>61.3</b>

As noted earlier, the distribution of Family and Non-Family enterprises over the size classes are quite similar. However for the other principal aggregates such as turnover, GVA or employment the profile is very different.

<sup>10</sup> Gross Value Added or GVA is defined as Turnover (excl VAT) less Total Purchases (excl. VAT) plus Closing Stock (excl. VAT) less Opening Stock (excl. VAT).

Figure 6.2 – Average number of Persons Engaged in Family and Non-Family Businesses by Size Class, 2005

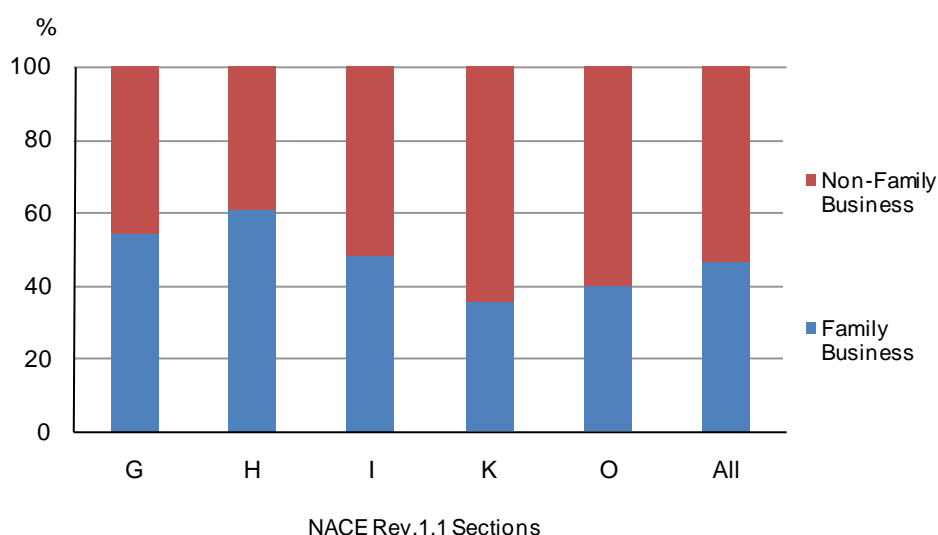


Overall, the average family business is smaller than the average non-family business. For most size classes the difference in size is very small however. For enterprises with 50 or more persons engaged, there is a very significant difference in scale, with large family businesses engaging an average of 150 persons compared with 215 persons for non-family businesses.

#### *Sectoral Activity*

While overall, there are fewer family than non-family businesses, for some NACE sections this is not the case. Family businesses are clearly more dominant in the more traditional distributive trades and hospitality sectors, making up 54% of all enterprises in NACE section G (Retailing and Wholesaling) and 61% of enterprises in section H (Hotels and Restaurants). By contrast, family businesses only comprise 35% of enterprises in section K (Real estate, Renting and Business Services).

Figure 7.1 – Percentage Distribution of Family and Non-Family Businesses by NACE Section, 2005



In 2005, over €98 billion or almost 59% of total traded services turnover was generated by the retail and wholesale sector (Section G). Family Businesses accounted for just over €36 billion or about 37% of this total.

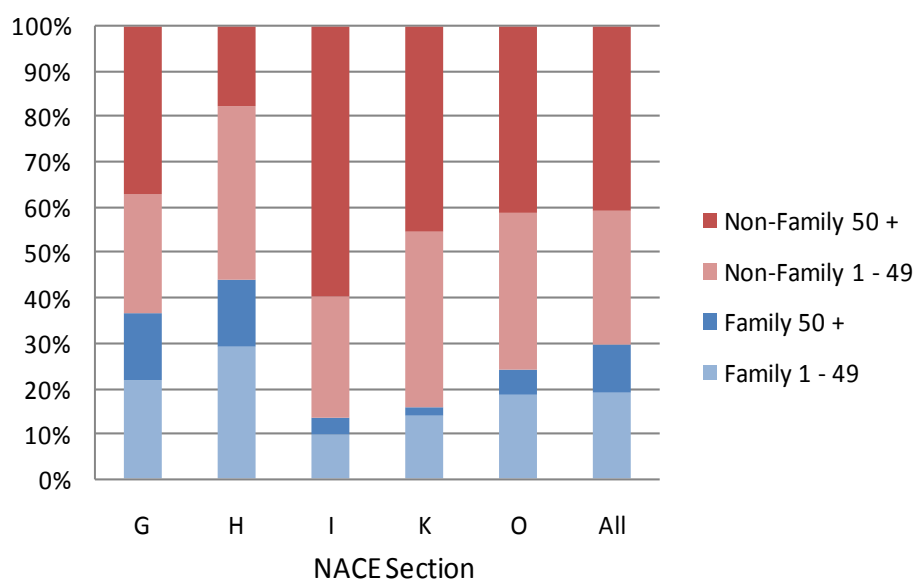
Table 7.1 – Turnover (excl. VAT) for Family and Non-Family Businesses  
by Size Class

	1 - 49		50 +		All	
	000's	%	000's	%	000's	%
G	21,331,916	12.7	14,791,366	8.8	36,123,282	21.6
H	2,639,041	1.6	1,355,486	0.8	3,994,527	2.4
I	2,208,248	1.3	793,574	0.5	3,001,822	1.8
K	4,812,827	2.9	657,245	0.4	5,470,072	3.3
O	530,562	0.3	164,345	0.1	694,907	0.4
Family	31,522,594	18.8	17,762,016	10.6	49,284,610	29.4
G	25,961,101	15.5	36,351,797	21.7	62,312,898	37.2
H	3,506,772	2.1	1,609,701	1.0	5,116,473	3.1
I	5,913,483	3.5	13,283,892	7.9	19,197,375	11.5
K	13,678,215	8.2	15,787,428	9.4	29,465,643	17.6
O	1,004,503	0.6	1,180,916	0.7	2,185,419	1.3
Non-Family	50,064,074	29.9	68,213,734	40.7	118,277,808	70.6
All	81,586,668	48.7	85,975,750	51.3	167,562,418	100

At just under €4 billion, family businesses also made a very significant contribution to the total turnover generated by hotels and restaurants, accounting for about 44% of the total for NACE section H.

The importance of the micro, small and medium (SMEs) sized family businesses is very evident. On aggregate, family SMEs made a very significant contribution to total turnover generating €31.5 billion (or 64% of total family business turnover) compared with €17.8 billion for larger family businesses. Given that most family businesses are SMEs, this perhaps should not come as any great surprise. In contrast to family firms, the relative contribution of non-family SMEs was only 42% of the total non-family turnover.

Figure 7.2 – Contribution of Family and Non-Family Businesses  
by Size Class to Total Sectoral Turnover (excl. VAT)



## 8. OWNERSHIP

The Private Limited Company is the most common legal form of family business, accounting for over 45% of enterprises, 63% of persons engaged and 68% of GVA generated by family businesses. In contrast, Private Limited Companies only account for 35% of non-family businesses, 55% of persons engaged and 60% of GVA.

Individual proprietorships accounted for over 48% of non-family businesses and almost 12% of persons engaged. However, while only 43% of family businesses were Individual proprietorships they accounted for almost 20% of persons engaged. In terms of employment, the largest form of family businesses are typically classified to the “Other” category, with an average of 27 persons engaged. The Other category is a mixed bag including Private Unlimited Companies, Co-operative Societies, branches of foreign companies and other forms of ownership not specified elsewhere. These entities have been aggregated together to ensure that no confidential data are disclosed.

Table 8.1 – Businesses classified by Legal Form of Ownership, 2005

Legal Form of Ownership	Number of enterprises		Number of Persons Engaged		Gross Value Added	
	Family Business	Non-Family Business	Family Business	Non-Family Business	Family Business	Non-Family Business
	%	%	%	%	%	%
Individual Proprietorship	43	48	20	12	14	5
Partnership	8	7	5	7	4	6
Public Limited Company	1	2	3	10	4	16
Private Limited Company	45	35	63	55	68	60
Other	3	7	10	17	10	14
Total	100	100	100	100	100	100

Family businesses registered as Public Limited Companies usually have the highest personnel costs per person engaged, averaging at around €28,500 per person. Individual Proprietorships typically have the lowest, averaging out at €9,600 per person engaged.

One of the most striking differences between family and non-family businesses is their nationality of ownership; the majority of medium and large family businesses (i.e. those enterprises with 20+ persons engaged)<sup>11</sup> operating in Ireland are Irish owned. Across all services activities, only 25 or 1% of the 2,030 medium and large family businesses are foreign owned and the bulk of these operate in the retail and wholesale trades. In reality, this probably overstates the percentage of foreign owned family businesses operating in Ireland, as we would expect most if not all of the remaining 36,897 small and micro enterprises (i.e. those with less than 20 persons engaged) to be Irish owned.

Overall, foreign owned family businesses are typically larger than Irish owned family businesses and tend to have higher indicative labour productivity (i.e. GVA per person engaged).<sup>12</sup> However, there are very different patterns at NACE section level. Given the small number of foreign owned family businesses, confidentiality is an issue and consequently a detailed section level analysis cannot be presented. Nevertheless, a more compressed table can be presented (see Table 8.2). Foreign owned family businesses in the Retailing and Wholesaling sections are typically twice the size of Irish owned family businesses in terms of persons engaged. On average, their personnel costs are lower than Irish owned family businesses but their indicative labour productivity appears to be slightly less than Irish owned family businesses.

For all other services sections, the opposite holds. Irish owned family businesses typically engage more persons than foreign owned family businesses but have a lower indicative labour productivity and lower average per capita personnel costs.

<sup>11</sup> The ASI only compiles Nationality of ownership for enterprises with 20 or more persons engaged.

<sup>12</sup> See Section 11

Table 8.2 – Family Businesses with 20+ Persons Engaged classified by Nationality of Ownership, 2005

NACE Rev. 1.1 Section	Nationality of Ownership	Total Number of Enterprises	Average Personnel Costs per Person Engaged € 000	Average GVA per Person Engaged € 000	Average Number of Persons per Enterprise
G	Irish Owned	1,004	26.3	41.6	72
	Foreign Owned	15	22.1	40.8	136
	Total	1,019	26.2	41.6	73
H - O	Irish Owned	1,001	19.4	26.4	70
	Foreign Owned	10	33.8	29.0	64
	Total	1,011	19.6	26.4	70
All	Irish Owned	2,005	22.9	34.1	71
	Foreign Owned	25	24.7	38.2	109
	Total	2,030	23.0	34.2	72

## 9. AGE PROFILE

A quick scan of the literature relating to family business will reveal that succession and survival through to the second and third generations is a major issue. Unfortunately there are no official business demography statistics or business survival rates for Ireland so testing family business survival rates against those of non-family businesses in Ireland is not a straightforward matter.

In order to try and estimate if family business survival rates are significantly different to those of non-family businesses, the 2005 ASI was linked with the Revenue Commissioner VAT Registration file (Revenue, 2007) at a microdata level, allowing us to estimate the birth date of the 10,127 responding enterprises, i.e. by assuming that the year of registration for VAT matches the first trading year of the enterprise. Linking the ASI and the VAT registrations was not an easy task as a combination of VAT number, PREM<sup>13</sup> number and Corporation Tax Revenue number was used to ensure that enterprises had been correctly matched with Revenue tax entities.<sup>14</sup>

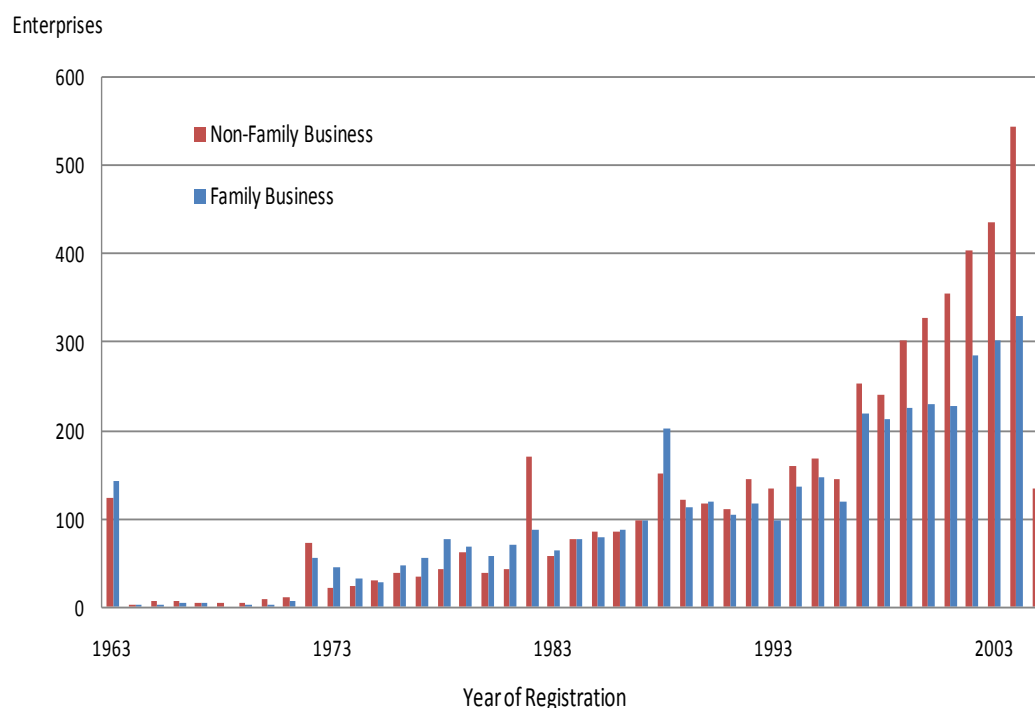
Using the VAT registration date is not a precise measure, as the family/non-family category that has been applied is that reported in 2005, but this of course may have changed over the life of the enterprise, either due to evolution, takeover or buyout. Analysis of sole traders (section 10) suggests this might be the case for that cohort at least. No attempt has been made to adjust for actual or likely transfers or substitutions between family and non-family status in the results presented here. One might have assumed that any transfers that have taken place would more likely be from family to non-family rather than vice-versa, however the results for the sole trader category indicate the opposite may be true, for some cohorts at any rate.

The age profile of enterprises (i.e. the year enterprises were registered for VAT) that responded to the 2005 ASI is presented in Figure 9.1. There are a number of elements in this distribution that should first be discussed before any conclusions are drawn. Firstly we should note that VAT was introduced on November 1<sup>st</sup> 1972, so the registrations prior to that date relate to the Turnover TAX (TOT) or the Wholesale Tax (WT) that were introduced in 1963 and 1966 respectively. The number of enterprises registered for Turnover and Wholesale tax on October 31<sup>st</sup> 1972, across all sectors of the economy was 35,683, of which 28,789 were registered for TOT (Revenue Commissioners, 1973).

<sup>13</sup> PREM – PAYE Remittance Number

<sup>14</sup> In compliance with EU statistical law, enterprises are primary statistical unit in the compilation of official business statistics. An enterprise is defined as the smallest legally independent unit, and consequently includes the full range of tax entities from corporations to partnerships and individuals.

Figure 9.1 - Number of Sampled Family and Non-Family Businesses  
by Year of Registration



Consequently, the spike in 1963 does not indicate a surge in enterprise births during that year but merely the first administrative registration. So while we assume in general that the year of registration for VAT (or TOT) correlates closely with the first trading year of the enterprise we know this is not the case for 1963, as all existing appropriate enterprises were registered for TOT in 1963 with the introduction of that tax. While some of the enterprises classified to 1963 probably began trading that year, most likely the majority did not but commenced trading many years before that. Nevertheless, this information is still useful, as it tells us that 264 enterprises (or 2.6% of enterprises in the 2005 ASI sample) are at least 44 years old.

The spikes occurring in 1982 and 1988 are also worthy of comment as they are unlikely to represent dramatic increases in births of new businesses. Given the economic conditions that prevailed during the 1980s it is highly unlikely that there were two significant surges in enterprise births (i.e. 1981 and 1987). The sudden jump of births in 1997 although less dramatic than those occurring in the 1980s also warrant some consideration. These possibly reflect administrative backlogs being addressed or other rule changes. The cause of these spikes remains unclear. Such unexplained spikes are one of the down sides to using administrative data, where an administrative or policy change can have a significant impact on the dataset. A change in methodology can have the same impact on survey results of course but the hope is that survey results will be accompanied by superior metadata indicating that a change occurred and why.

The apparent drop in enterprise “births” in 2005 says more about the Central Business Register (CBR), from which the ASI draws its sample, and the design of the ASI sample, than it does about actual business activity. The 2005 sample was selected in spring of 2006, so many of the new enterprises may not have been registered on the CBR by that time. Furthermore, only 10% of enterprises with less than 5 persons engaged and roughly 20% of enterprises with 5 – 9 persons engaged are sampled by the ASI.<sup>15</sup> Presumably, many enterprises trading for the first time (with the exception of multinationals entering the Irish market for the first time, or enterprises that have been taken over) will fall into these categories.

One of the most immediate and startling results of the VAT registrations data are that 68% of all responding services enterprises (both family and non-family) are less than 16 years old i.e. they only registered for VAT since 1991. The results also suggest that since the late 1990s, while the creation of family businesses has been slower than for non-family businesses, the overall age profile of family and non-family businesses are not significantly different. This, of course, does not imply that family and non-family survival rates are comparable

<sup>15</sup> See Table 3.1.1 for ASI sampling fractions

as more family firms may have been established but have failed. It does appear that the “existence” rate comes into line after about 10 or 15 years.

Table 9.1 – Number of Sampled Family and Non-Family Businesses by Year of Registration classified by Size Class

Period	Non-Family Business		Family Business		All Businesses	
	Number	%	Number	%	Number	%
Enterprises with less than 20 Persons Engaged						
2006 - 2007	36	1.1	30	1.0	66	1.0
1996 - 2005	2,263	66.3	1,753	56.7	4,016	61.7
1986 - 1995	703	20.6	763	24.7	1,466	22.5
1976 - 1985	317	9.3	402	13.0	719	11.0
1966 - 1975	63	1.8	87	2.8	150	2.3
Pre 1966	33	1.0	57	1.8	90	1.4
<b>Total</b>	<b>3,415.0</b>	<b>100.0</b>	<b>3,092.0</b>	<b>100.0</b>	<b>6,507.0</b>	<b>100.0</b>
Enterprises with 20+ Persons Engaged						
2006 - 2007	13	0.6	5	0.4	18	0.5
1996 - 2005	869	43.2	491	34.8	1,360	39.8
1986 - 1995	581	28.9	455	32.3	1,036	30.3
1976 - 1985	329	16.4	273	19.4	602	17.6
1966 - 1975	121	6.0	95	6.7	216	6.3
Pre 1966	98	4.9	91	6.5	189	5.5
<b>Total</b>	<b>2,011</b>	<b>100.0</b>	<b>1,410</b>	<b>100.0</b>	<b>3,421</b>	<b>100.0</b>
All Enterprises						
2006 - 2007	49	0.9	35	0.8	84	0.8
1996 - 2005	3,132	57.7	2,244	49.8	5,376	54.1
1986 - 1995	1,284	23.7	1,218	27.1	2,502	25.2
1976 - 1985	646	11.9	675	15.0	1,321	13.3
1966 - 1975	184	3.4	182	4.0	366	3.7
Pre 1966	131	2.4	148	3.3	279	2.8
<b>Total</b>	<b>5,426</b>	<b>100.0</b>	<b>4,502</b>	<b>100.0</b>	<b>9,928</b>	<b>100.0</b>

Or perhaps, like the pattern detected for sole traders,<sup>16</sup> for some enterprises there is a gradual transfer from non-family to family status. This assumption would appear to be borne out when the distribution of enterprises with less than 20 persons engaged is examined. In Table 9.1 we can see that almost 63% of all responding enterprises with less than 20 persons engaged only began trading (i.e. were registered for VAT) in the 12 years between 1996 and 2007. For enterprises with 20 or more persons engaged, only 40% began trading during that period. Only 1.4% of micro and small enterprises sampled began trading before 1966 compared with 5.5% for larger enterprises sampled.

The fact that 84 enterprises were able to provide data for 2005 but yet were birthed on the VAT register during 2006 or 2007 suggests that there is also a time lag, of at least 2 years in some cases between activity and registration, or possible complications arising from VAT exemption thresholds. Hence, for the reasons outlined above, the year of VAT registration does not necessarily correlate exactly with first year of trading.

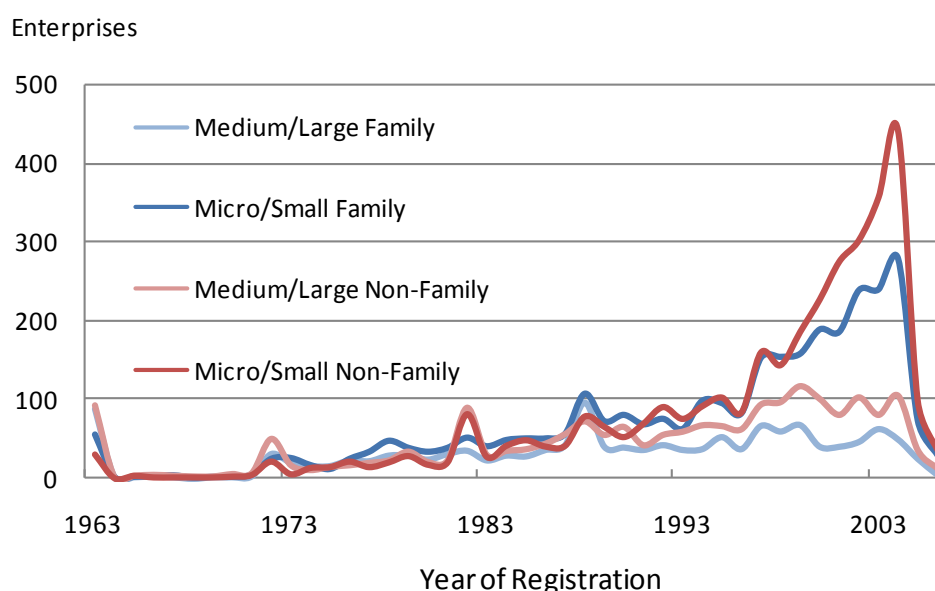
<sup>16</sup> See Section 10

Despite the caveats outlined above, perhaps the most interesting result (as noted earlier) is that the age profile of family and non-family businesses does not appear to be significantly different. For example, 7.3% of family businesses are more than 30 years old (i.e. were registered for VAT prior to 1976) compared with 5.8% of non-family businesses. We cannot, of course, determine from the birth date, what generation the businesses are in but presumably the 645 enterprises in operation prior to 1976 (i.e. more than 30 years old) are likely to be approaching the generation threshold if they have not already crossed it. Equally, the 279 enterprises trading on or before 1966 (i.e. 40 years old) are more likely to be in their second or third generation.

Re-presenting the sample results from Table 9.1 with enterprises split into micro/small and medium/large enterprises provides some interesting birthing patterns. It should be borne in mind this is the age profile of the ASI un-weighted sample (which has a more complete coverage for medium/large enterprises) and not the full enterprise population.

Micro/small enterprises, whether they are family or non-family dominate the more recent years. This is intuitive, as most new enterprises operating for the first time would be expected to be very small to begin with, unless of course they are re-registrations (due to takeovers or buyouts) or FDI. Relatively few enterprises begin operations with 20 or more persons engaged.

Figure 9.2 - Number of Sampled Family and Non-Family Businesses by Year of Registration classified by Size Class



By the mid 1980s (or after about 25 years) there is quite a high degree of convergence for the numbers of enterprises across all categories. Although there appear to be fewer family businesses (of any size class) opening for business in recent years, by the mid 1990s the numbers of family and non-family businesses with the same year of birth on the VAT Register are not that different. We cannot say at this stage if this is a new phenomenon or whether it supports the hypothesis that enterprises switch from family to non-family businesses as they survive longer or get bigger.

## 10. THE SOLE TRADER

The sole trader or individual proprietorships provides an interesting case study, perhaps providing some insights into enterprise or entrepreneurial behaviour and motivation. Of the individual proprietorships or sole traders who filed returns for the ASI, only 44% classified themselves as family businesses. This is a curious result, as a sole trader might naturally be considered a family business, in that there is only one person managing the



business and, consequently, a sole trader and family business might reasonably have been considered synonymous. Certainly if all sole traders were automatically classified as family businesses, then this would add almost another 22,000 family businesses to the total. This re-classification alone would have family businesses accounting for 72% of all business and might bring us part of the way in explaining the very high proportion of family businesses quoted in various reports.

But what if as the results suggest, sole traders are not automatically synonymous with family business? What are the differences between family and non-family sole traders? Perhaps the motivations of each are quite different, perhaps for example, a family sole trader is more concerned with succession (especially those approaching transition or in subsequent generations) than maximising profit. These are questions probably better left to behavioural economics rather than statistics. What we can say however is that indicative labour productivity hints at different behaviour, as GVA for a non-family sole trader is typically 29% higher than for the family equivalent.

When examining the split between family and non-family sole traders, it appears that the age of the enterprise may play an important role in determining the way enterprises or entrepreneurs classify themselves. Certainly, when the age profile of individual proprietorships is examined an interesting pattern emerges.

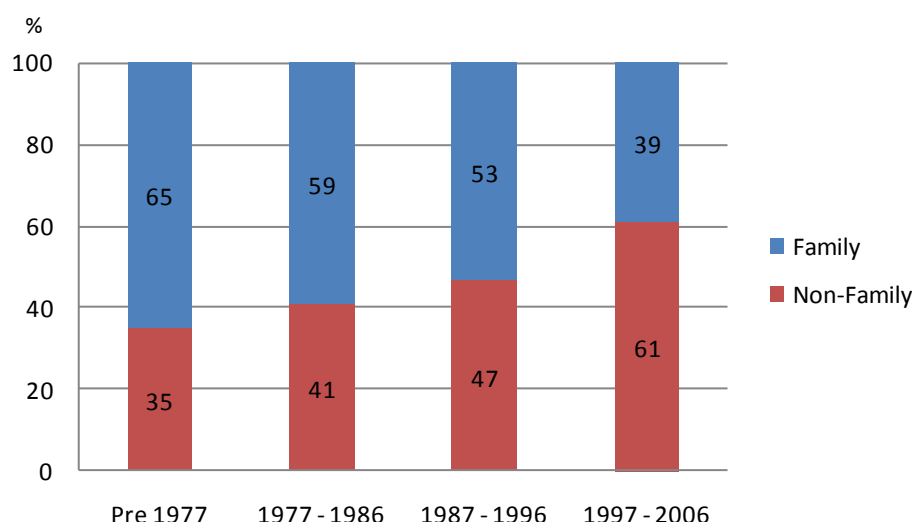
Using the Revenue Commissioner VAT registration data to estimate the age of sampled enterprises, sole traders were clustered into four time periods. The data in Table 10.1 are presented as percentages for each time period. What clearly emerges from this presentation is that recently established sole traders (i.e. those registered for VAT during the ten year period 1997 – 2006) are less likely to classify themselves as a family business. In stark contrast, those sole traders established before 1977 are more likely to classify themselves as a family business. It should of course be noted that this is how enterprises classified themselves for the 2005 ASI, and not necessarily how they might have classified themselves on establishment.

Table 10.1 – Percentage of Sampled Family & Non-Family Sole Traders in each Time Period

	Family	Non-Family	All
	%	%	%
Pre 1977	65	35	100
1977 - 1986	59	41	100
1987 - 1996	53	47	100
1997 - 2006	39	61	100

This perhaps hints at one possible explanation. It is possible that the motivation of a sole trader changes over time. Perhaps the marital status of the sole trader or whether or not they have a family influences their view of themselves. Perhaps as a business gets older, concerns over pensions and succession become more immediate than establishing the business, market share or profit maximisation. Equally, family businesses that have successfully made the transition to second or subsequent generations might become more concerned with lineage. Of course, many sole traders may grow and ultimately incorporate; perhaps those that do are more likely to be non-family businesses, leaving more family business sole traders behind. With the data currently available it is not possible to trace the reasons. But perhaps it is not unreasonable to assume that some sole traders who established their businesses over 20 or 30 years ago may have switched from being a non-family business to a family business.

Figure 10.1 - Percentage of Sampled Family & Non-Family Sole Traders by Year of Registration



## 11. PRODUCTIVITY

Measuring productivity for the services sector is a tricky proposition at the best of times. In this paper a crude analysis of labour productivity is presented. Capital or multi factor productivity is beyond the available data.

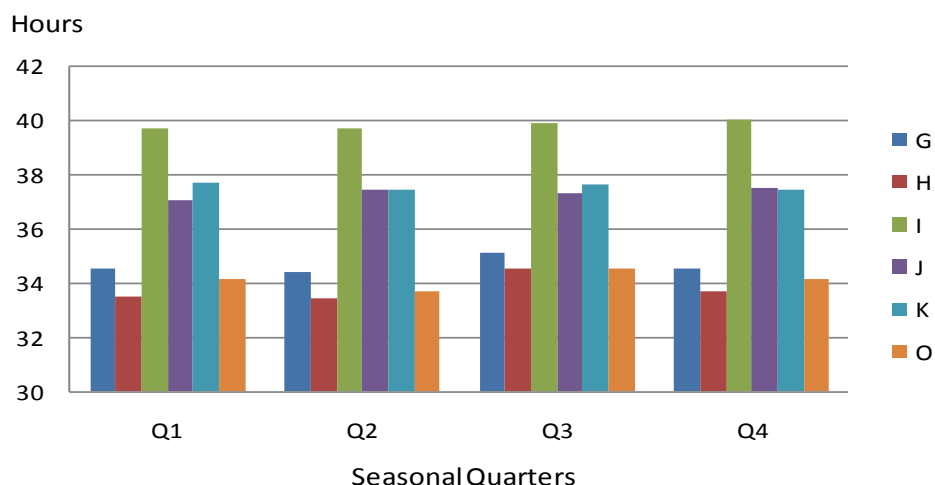
An exact measure of labour productivity cannot be calculated from the ASI. It is worth elaborating this point before outlining what could be described as an indicative productivity measure (ILP). Firstly, GVA is estimated for the full accounting year of each enterprise whereas the measure of labour refers to a specific point in time (for the 2005 ASI the reference week was the week ending 9 September). Consequently, the ASI does not adequately measure seasonal peaks and falls in employment and thus may underestimate (or less likely overestimate) employment and the number of persons engaged. The scale of this problem will likely differ by sector and most probably affect sectors with greater seasonal employment variation more, such as the hospitality sector.<sup>17</sup> Secondly, the unit of labour is not clearly defined.

Employment in the ASI is simply a head count of both full-time and part-time labour, rather than an exact full-time equivalent (FTE) unit, which standardises labour units by the number of hours worked (or more precisely the number of paid or remunerated hours worked). As working arrangements differ considerably by sector, the impact of this is likely to be quite different by sector. For example, one might expect a greater range of part-time working conditions in the retailing or hospitality sectors. Equally, one might reasonably expect the “normal” working week, in terms of hours to vary from sector to sector. By way of illustration, the Quarterly National Household Survey clearly highlights the variation in mean usual hours worked across the NACE sections of the services economy (see Figure 11.1).

Typical hours worked in the Hotel and Restaurant sector (H) average less than 34 hours per week, whereas for the Transport, Storage and Communication sector (I) just short of 40 hours is the typical working week. Most of the variation in hours arises in part-time employment, which ranged from 17.1 hours to 21.5 hours. In contrast, full-time employment only ranged from 39.7 to 41.9 hours.

<sup>17</sup> See Appendix 4 where seasonal patterns of quarterly full time employment for selected NACE sections are compared (Source: QNHS).

Figure 11.1 – Variation in Total (Full time + Part time) mean Usual Hours, 2005



There are other challenges in linking hours worked to remuneration or output, as the only likely source of all of these data is the employer or enterprise. Enterprises in sectors where there is a greater bias towards salaried employment, rather than wages, may not actually know how many hours were worked, only the hours contractually remunerated (often a completely different thing). Finally the skills set and education levels of the persons engaged are not measured by the ASI. That said, the ASI does provide sufficiently good data that some indicative labour productivity measures (i.e. GVA per person engaged) can be calculated. If we accept that such a crude measure has a value then the comparative figures between family businesses and non-family businesses are striking.

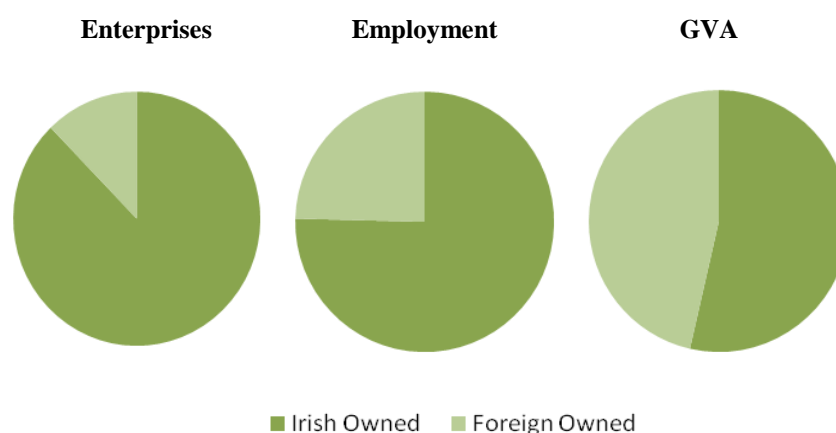
Table 11.1 – Indicative Productivity Measures classified by Business Type, 2005

NACE Rev.1.1 Section	Business Type	Average GVA per person engaged - All Enterprises	Average GVA per person engaged - Irish Owned Enterprises
		€ 000	€ 000
G	Family Business	37	36
	Non-Family Business	66	43
H	Family Business	22	21
	Non-Family Business	28	27
I	Family Business	48	46
	Non-Family Business	134	88
K	Family Business	45	45
	Non-Family Business	98	69
O	Family Business	23	23
	Non-Family Business	42	43
All	Family Business	35	34
	Non-Family Business	80	56

Overall, labour employed in family businesses appears to be less than half as productive as labour employed by non-family businesses (see Table 11.1). This ratio holds with minor variations in scale for most NACE sections of services activity. There are two clear exceptions. The productivity differential between family and non-family businesses in the Hotel and Restaurant sectors is less severe at about 21%. For Section I, Transport, Storage & Communications, the differential was a staggering 64% (i.e. GVA per person engaged was 64% lower in family businesses).

At first glance, differentials of such magnitude scarcely seem credible. But there are some rather unique structural conditions in the Irish economy that might be considered distortions in the data, particularly when compared with other countries. Ireland is a small open economy with a relatively small enterprise population but with a high degree of foreign direct investment or FDI. For example, for medium and large enterprises in the manufacturing sector, 82% of GVA and 49% of total employment is generated by foreign owned enterprises (CSO, 2007d). For medium and large enterprises in the non-financial traded services sectors, 46% of GVA and 25% of total employment is generated by foreign owned enterprises (CSO, 2007a).

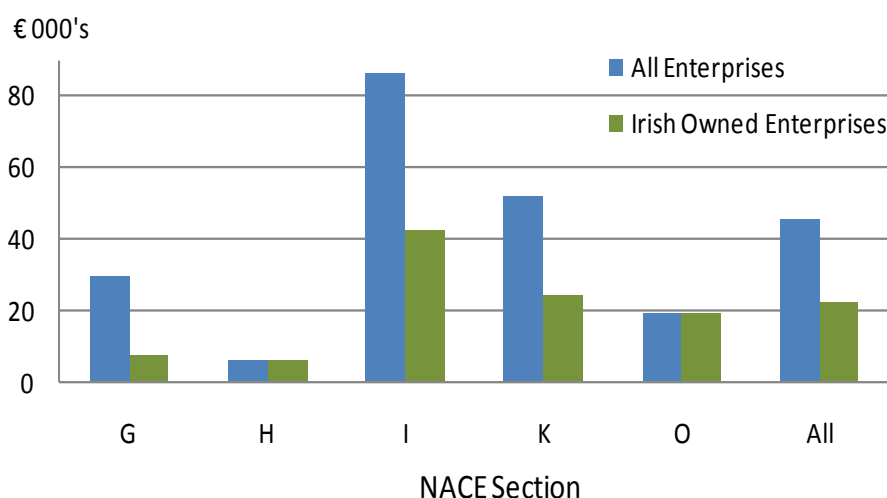
Figure 11.2 – Percentage contribution of Foreign Owned Enterprises to the Irish Services Sector (Medium/Large Enterprises), 2005



As noted earlier there are relatively few foreign owned family businesses whereas quite a number of non-family businesses are foreign owned and these tend to be larger enterprises. Labour productivity for both the manufacturing and services sectors tends to be higher for larger firms and for foreign owned enterprises (CSO, 2007c: 62). Care should be taken when drawing too many conclusions from these facts as the difference may in some cases be an accounting one, as the financial accounts for foreign owned enterprises can be distorted by the impact of outsourcing, transfer pricing, merchanting, licensing or royalty arrangements etc.

When foreign owned enterprises are excluded from the analysis it makes little or no difference to the family business figures but there are significant changes in some of the non-family business indicative productivity figures. The overall differential between family and non-family businesses reduces from 56% to about 39%. At a NACE section level, the differentials for Sections G, I and K reduce considerably. For Sections H and O, the removal of foreign owned enterprises makes little difference to the results.

Figure 11.3 – Difference in Average GVA per Person Engaged between Family and Non-Family businesses with & without Foreign Owned Enterprises, 2005



However, even when the distortionary effect of foreign owned enterprises is removed, the overall conclusion is the same. Non-family businesses appear to have considerably higher indicative labour productivity than family businesses. Interestingly, a study done in Australia of the Australian Business Longitudinal Survey 1995 – 1998 resulted in a similar finding, concluding that “Family businesses, on average, are 21 per cent less productive than non-family businesses” (Harris, 2002: 14).

Within family businesses, indicative productivity is highest for Public Limited Companies and Private Limited Companies, generating a GVA of around €50,900 and €37,200 per employee respectively. Sole traders or Individual Proprietorships generated the lowest GVA per employee at roughly €23,900 per employee.

One possible contributory factor is the ratio of part-time to full-time employees in family and non-family firms. Some 35% of family business employees are part-time in comparison with only 25% in non-family businesses (CSO, 2008a). An additional measurement issue may also arise if family firms “employ” family members as casual labour. It is not clear whether these family members are included in the employment count provided to the CSO. Depending on how many hours such casual labour might do, or whether they are included in official returns or not, ILP might be affected.

## 12. INFLUENCE OF ICT<sup>18</sup> ON PRODUCTIVITY

*“ICT is generally accepted as being one of the drivers of productivity growth in modern economies.”* (Forfás, 2007:20)

The world is continually being remade by technology and innovation. Together, they have given rise to pervasive computerisation, global communications and the information or knowledge-based economy that coexists with the industrial economy. For the consumer, the use of Google, e-Bay and PayPal is becoming an everyday occurrence. People depend on the Internet for 24 hour banking, booking flights, reserving cinema tickets and increasingly for day-to-day grocery shopping. Capitalising on this usage of Information and Communication Technologies (ICT) is a necessity for any enterprise wishing to thrive or survive in the modern business world. Many of the next generation of potential customers will instinctively turn to the web for information and probably can’t even imagine using traditional hard copy, such as the Yellow Pages. So how well are family businesses in Ireland adapting to the information age and the shift towards increased computer intensification?

In 2005, more than 15,200 or 39% of the 38,927 family businesses reported they had e-mail but only 16% or 6,378 enterprises had a web site. For both e-mail and web site, usage by non-family businesses was higher but the difference was more pronounced for e-sales utilisation. Overall, ICT take-up by Irish services enterprises appears very low.

<sup>18</sup> ICT – Information and Communication Technologies

Table 12 .1 – Use of e-Mail, Web Site &amp; e-Sales, 2005

Business Type	NACE Rev.1.1 Sectors	Number of Enterprises	With E-mail	With Website	With orders via e-sales	Total Turnover excl. VAT	Turnover from orders submitted via e-sales
						€ 000	€ 000
Family	G	15,763	5,922	2,382	1,692	36,123,282	3,359,505
Non Family		13,472	4,897	2,518	1,935	62,312,898	6,436,031
Family	H	6,364	1,243	730	409	3,994,526	136,547
Non Family		4,083	916	600	264	5,116,473	169,817
Family	I	3,124	841	311	311	3,001,822	361,837
Non Family		3,402	1,054	514	368	19,197,375	4,416,752
Family	K	11,097	6,653	2,676	1,652	5,470,072	318,668
Non Family		20,186	12,358	5,213	3,547	29,465,644	6,060,525
Family	O	2,578	563	278	136	694,907	15,041
Non Family		3,918	1,094	690	218	2,185,419	82,731
Family	All	38,927	15,221	6,378	4,200	49,284,610	4,191,597
Non Family		45,061	20,319	9,535	6,332	118,277,810	17,165,855

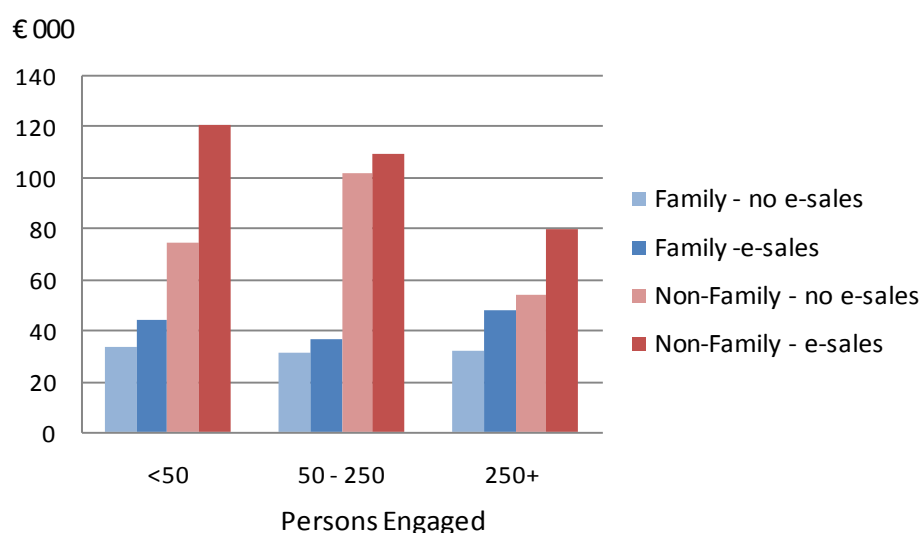
e-sales: e-mail, EDI or Internet

It also appears that non-family businesses make better use of their ICT to generate sales. In 2005, non-family businesses generated over €17bn (or 14.5% of total turnover) from orders submitted via electronic format (i.e. either via e-mail, EDI<sup>19</sup> or internet). In comparison, family businesses generated just over €4bn (or 8.5% of their total turnover). ICT take-up and usage varied across the different economic sections. For Sections G and H (Retailing & Wholesaling and Hotels & Restaurants) where family businesses are most active, the relative turnover generated from via electronic sales did not differ significantly from non-family businesses.

For other NACE sections, in particular Sections I (Transport, Storage & Communication) and K (Real Estate, Renting & Business Services) the differences were glaring. For Section K, the difference between family and non-family firm take-up of e-mail, web site and e-sales was relatively small and yet the most striking differentials in turnover generated via ICT occurred in this section, where non-family businesses generated 21% of their total turnover through e-sales compared with about 6% for family businesses. It is difficult to draw hard conclusions from the differentials at this level of aggregation, as Section K is a highly heterogeneous section that ranges across a wide spectrum of business services. Equally, the comparable levels of email, website or e-sales facilities does not appear to have balanced indicative productivity levels where the differentials between family and non-family businesses in Section K remained significant (at 54% or 34% when foreign owned enterprises are excluded - see Table 11.1).

<sup>19</sup> Electronic Data Interchange

Figure 12.1 – GVA per Person Engaged for Family & Non-Family Businesses by Size Class with and without email & website & e-sales, 2005



Overall, however, ICT take-up does appear to have a positive correlation with ILP. Across every size class, for both family and non-family businesses, enterprises with e-mail and website and e-sales have a higher ILP. We cannot determine the direction of causality however.

The microdata for the ASI 2005 were also linked to the 2005 e-Commerce and ICT survey using the CSO common enterprise identifier. A total of 831 enterprises were common to both surveys. Some basic *t*-tests on ICT systems and internet use/access were done to determine whether indicative labour productivity is greater for enterprises that have e-mail, a website, LAN,<sup>20</sup> intranet and high speed internet access than for enterprises that do not have all of the above.

The hypotheses tested were:

$H_0$  – The average GVA per person engaged for enterprises that have e-mail, a website, LAN, intranet and high speed internet access is the same as the average GVA per person engaged for enterprises that do not

$H_1$  – The average GVA per person engaged for enterprises that have e-mail, a website, LAN, intranet and high speed internet access is different to the average GVA per person engaged for enterprises that do not

Separate tests were done for family and non-family businesses.

The results proved to be significant for family businesses where the test showed a p-value of <0.0002, in other words there is sufficient evidence to reject the null hypothesis. The mean GVA per person engaged for family businesses that have e-mail, a website, LAN, intranet and high speed internet access is almost €50,500 compared to just over €35,600 for family businesses that did not have all of the above. The results of the test for non-family businesses were less significant. The *t*-test gave a p-value of 0.0727 meaning that there is sufficient evidence to reject the null-hypothesis at the 10% significance level. The mean GVA per person engaged for non-family businesses that have e-mail, a website, LAN, intranet and high speed internet access is just over €241,000 compared to just over €56,000 for non-family businesses that did not have all of the above. We conclude that both family and non-family enterprises with e-mail, a website, LAN, intranet and high speed internet access have higher average GVA per person engaged than firms that do not. These results reinforce the findings from the ASI which indicated a link between ICT take-up and indicative labour productivity. Some caution should be exercised however regarding the magnitude and significance of these relationships as no controls were made for other variables that are likely to influence productivity.

A second set of tests were conducted focusing on enterprise's use of the internet for marketing purposes. T-tests were done to determine whether or not indicative labour productivity is greater for enterprises that use the internet for marketing their products and providing product and price information than for those that do not.

<sup>20</sup> Local Area Network

The hypotheses tested were:

$H_0$  – *The average GVA per person engaged for enterprises that use the internet for marketing the enterprise's products and facilitating access to product and price information is the same as the average GVA per person engaged for enterprises that do not*

$H_1$  – *The average GVA per person engaged for enterprises that use the internet for marketing the enterprise's products and facilitating access to product and price information is different to the average GVA per person engaged for enterprises that do not*

Once again separate tests were done for family and non-family businesses.

The results proved to be significant for family businesses. The test produced a p-value of 0.0067 providing sufficient evidence to reject the null hypothesis. The mean GVA per person engaged for family businesses that use the internet for marketing the enterprise's products and facilitating access to product and price information is almost €47,000 compared to just over €36,000 for family businesses that do not. We conclude therefore that family businesses that use the internet for marketing the enterprise's products and facilitating access to product and price information have higher labour productivity on average than those that do not. The results were not significant for non-family businesses however. The *t*-test gave a p-value of 0.1713 and thus the null hypothesis cannot be rejected. Consequently, there is insufficient evidence to conclude that there is any difference in labour productivity between non-family firms using the internet for marketing the enterprise's products and facilitating access to product and price information and those that are not doing so.

### 13. ARE EXPORTERS MORE PRODUCTIVE?

In 2005, family firms accounted for less than 3% of all services sector exports. Does that lack of exposure to international competition make many family businesses less innovative and productive than firms that do export? The ASI publishes international trade aggregates (i.e. imports and exports) for enterprises with 20 or more persons engaged. It should be noted that family businesses dominate the retail/wholesale and hotel/restaurant sectors, where invisible exports are more likely to occur. No adjustments have been made to try and account for this.

While the direction of causality is not clear, what is clear from the data is that overall exporting enterprises have a higher indicative labour productivity than non-exporting enterprises. The average GVA per person engaged is €122,000 for an exporting enterprise compared with €46,000 for a non-exporting enterprise.

Table 13.1 – GVA per Person Engaged for Enterprises with 20+ Persons Engaged  
by Business Type & Exporter Status, 2005

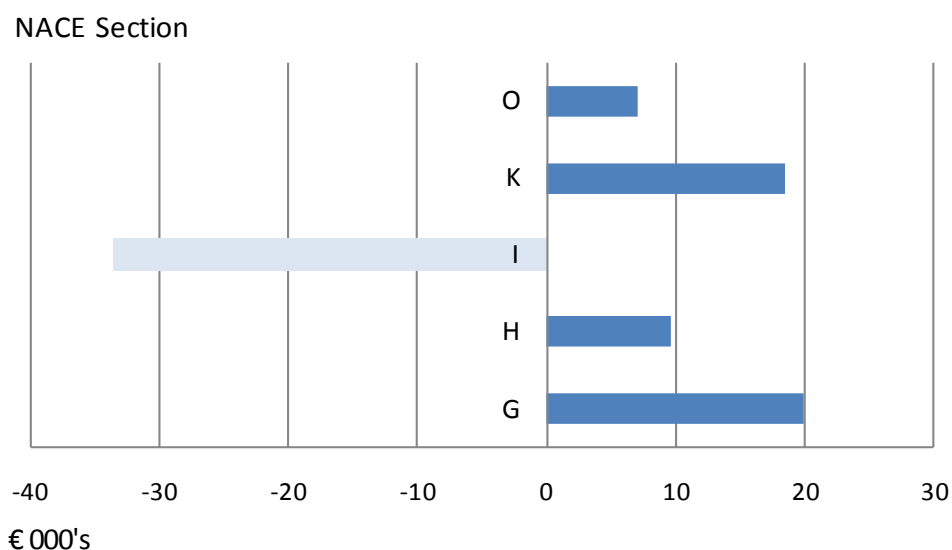
NACE Rev.1.1. Section	Business Type	Exporter € 000	Non-Exporter € 000	Difference € 000
G	Family	53.2	33.3	19.9
	Non-Family	115.4	52.6	62.8
H	Family	31.8	22.2	9.6
	Non-Family	31.7	23.1	8.6
I	Family	24.8	58.5	-33.7
	Non-Family	193.2	83	110.2
K	Family	44.6	26.2	18.4
	Non-Family	149.6	62.8	86.8
O	Family	27.9	20.9	7.0
	Non-Family	53.3	50.4	2.9
All		122.1	45.4	76.7

Table 13.1 shows the positive correlation between exporting and productivity for non-family businesses, particularly for NACE Sections G, I and K. It also shows that this rule of thumb does not necessarily hold for all businesses. While the positive relationship between exporting and labour productivity exists across all economic sections for non-family businesses, the same cannot be said for family businesses where a negative



relationship appears to exist for family businesses trading in NACE Section I (Transport, Storage and Communications). This is a peculiar result particularly as NACE Section I has the highest positive differential for non-family businesses. However, if we drill down to NACE class level (i.e. 4 digit NACE), there are 18 classes within NACE Section I. Of these, 6 classes<sup>21</sup> have no family businesses operating at all. An additional 7 classes<sup>22</sup> include family businesses where no international trade takes place (see Appendix 3). Of the remaining 5 classes where a comparison can be made, only in 3 did GVA per person engaged for non-exporting firms exceed that of exporting firms. Across these 3 classes (6024, 6312 and 6330) there are only a handful of family businesses exporting, so caution should be exercised in drawing any conclusions regarding the apparent negative relationship between exporting and productivity.

Figure 13.1 – Differential in GVA per Person Engaged for Exporting and Non-Exporting Family Businesses, 2005



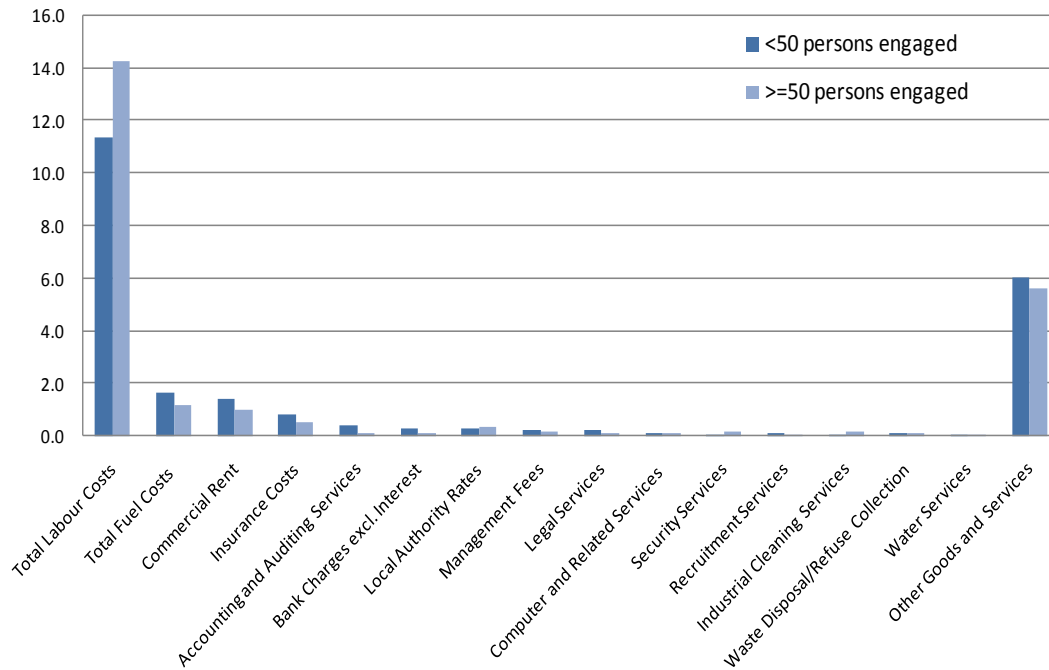
### Business Costs

Family businesses do not differ from non-family businesses in that they face an array of costs ranging from the purchase of goods and materials, fuel costs, operational expenses to the wage bill. While there are many similarities between the costs incurred by family and non-family businesses in terms of scale (e.g. water services, refuse collection, insurance etc.) there are also some striking differences. It is interesting, not only to examine the range and scale of costs faced by Irish businesses today but also to compare the relative costs incurred by family businesses compared with non-family businesses.

<sup>21</sup> NACE classes 6010, 6120, 6321, 6322, 6323 and 6411

<sup>22</sup> NACE classes 6021, 6023, 6110, 6220, 6311, 6420 and 6412

Figure 14.1 – Costs, Overheads and Indirect Taxes paid by Family Businesses as a Percentage of Total Turnover, 2005



The big ticket costs or overheads incurred by all family businesses were wages & salaries, purchases of fuel, insurance and commercial rent and other goods and services (which is a large residual category that includes everything from office supplies, payments to employment agencies, royalties, licences, freight charges to post and telecommunications). If costs are standardised by the number of persons engaged or as a percentage of turnover, the results can vary and it is very difficult to say which is the better measure for comparative analysis?

Figure 14.1 compares costs and overheads as a percentage of turnover to illustrate what the main cost headings are. Computer and Related Services rank quite far down, only accounting for 0.1% of costs as a percentage of turnover. While keeping costs down is obviously an important goal for any business, perhaps this is a worrying sign as the positive correlation between EDI and ICT and indicative labour productivity has already been highlighted in section 12. Non-Family businesses, which typically have a higher ILP, typically spend the equivalent of 0.4% of total turnover on computer related services. Furthermore, family businesses are also investing less in computer hardware and software in comparison to non-family businesses.

Table 14.1 – Business Costs, 2005<sup>23</sup>

	< 50 Persons Engaged		50 + Persons Engaged	
	Family	Non-Family	Family	Non-Family
	€ 000	€ 000	€ 000	€ 000
Wages and Salaries	3,113,250	3,892,104	2,211,778	7,984,010
Other Labour Costs	464,827	711,181	328,375	1,541,768
<b>Total Labour Costs</b>	<b>3,578,077</b>	<b>4,603,286</b>	<b>2,540,153</b>	<b>9,525,778</b>
Total Fuel Costs	527,886	447,955	204,016	1,062,428
Computer and Related Services	31,085	175,115	21,672	249,805
Insurance Costs	260,666	280,997	93,632	219,337
Security Services	20,207	44,433	27,028	85,142
Recruitment Services	30,372	38,335	9,676	61,891
Industrial Cleaning Services	21,249	44,664	27,550	83,753
Waste Disposal/Refuse Collection	38,018	39,983	21,437	38,179
Research and Development	2,268	71,647	192	23,414
Management Fees	77,695	409,428	31,034	425,134
Commercial Rent	447,827	616,727	173,263	786,994
Water Services	21,801	23,112	6,586	20,542
Accounting and Auditing Services	134,833	202,987	18,749	198,823
Legal Services	69,991	119,799	22,268	63,169
Bank Charges excl. Interest	89,610	151,814	21,531	133,904
Other Goods and Services	1,910,563	5,057,868	1,001,843	7,396,939
<b>Total Purchases of Goods and Services</b>	<b>3,684,071</b>	<b>7,724,864</b>	<b>1,680,477</b>	<b>10,849,454</b>
Local Authority Rates	87,096	104,400	54,709	131,989

The cost incurred by businesses generally from the purchase of R&D services is conspicuous. Of the €97.5 million spent on R&D services by services enterprises in 2005, €95 million were spent by non-family businesses. Only €2.5 million was spent by family businesses or about €8 per person engaged and most of this expenditure was incurred by small and medium sized family businesses.

It is evident that both wages & salaries combined with other labour costs are the single biggest outlay for businesses. In 2005, family businesses in the services sector paid out €5.3bn in wages and salaries. In addition, they paid out almost another billion Euros in other labour costs, such as statutory employers PRSI, employers' contributions to super-annuation funds and other pension funds, training costs, social costs,<sup>24</sup> lump sum redundancy costs and other related costs.<sup>25</sup> Non-family business paid out €11.9bn in wages & salaries and €2.3bn in other labour costs.

As noted elsewhere in the paper, average wages or salaries cannot be accurately calculated from the Annual Services Inquiry, as the total wage bill reported in the ASI reflects the total wages and salaries paid out during the reference year. In contrast the total number of employees relates to one reference week during the reference year.<sup>26</sup> For some economic sectors, employment may not vary much throughout the year, whereas other sectors such as retailing or hotels clearly have a seasonal dimension (see Appendix 4), with spikes during the summer and to a lesser extent Christmas. Consequently, it is quite possible that the average annual employment for some sectors may understate the reality. Equally, how part-time and full-time is defined may differ across

<sup>23</sup> The list of costs incurred by businesses is rotated in the ASI to keep respondent burden to a minimum. This rotation facilitates the imputation of a more comprehensive list of expenditure items for any given reference year. Some of the expenditure estimates presented in Table 14.1 are imputed from a combination of the 2004 and 2005 ASI data.

<sup>24</sup> Social expenditure excludes payments in kind but include payments such as canteen subsidies, medical services, social and sporting facilities, libraries, family allowances and subsidised accommodation.

<sup>25</sup> Other labour costs could include pensions and retirement benefits other than superannuation funding/pension schemes, insurance schemes beyond the statutory requirements, employees liability insurance, health insurance paid on behalf of employees (e.g. VHI, Quinn Direct) and payments in kind.

<sup>26</sup> The reference week for employment in the 2005 Annual Services Inquiry was the week ending 9 September 2005.

sectors or industries. However, these problems apply to both the family and non-family categories. So as we have done for productivity, we will compare indicative labour costs (ILC) for family and non-family businesses.

With the above caveat in place, then indicative wages per employee paid by non-family businesses were higher than for family businesses in every sector. The average annual indicative wage for a family business was €21,000 compared to €29,600 for non-family businesses. This, of course, is probably not a like-for-like comparison, as family businesses pre-dominantly operate in certain sectors: Retailing & Wholesaling and Hotels & Restaurants. Across different NACE sections, average annual indicative wages for family and non-family businesses can differ by as much as almost €15,000.

Table 14.2 – Total Wage Bill & Average Wage per Employee, 2005

NACE Rev. 1.1	Business Type	Wages & Salaries € 000	Average Wage Per Employee € 000
G	Family	2,885,176	22.9
	Non-Family	3,492,323	26.0
H	Family	915,791	15.2
	Non-Family	937,316	16.5
I	Family	352,469	24.6
	Non-Family	2,689,342	39.5
K	Family	957,315	24.5
	Non-Family	4,249,381	36.6
O	Family	214,276	15.5
	Non-Family	507,753	19.4
All	Family	5,325,027	21.0
	Non-Family	11,876,115	29.6

In the Hotel and Restaurant sectors, average wages paid by family and non-family firms does not differ a great deal. Employees working in non-family businesses in Section I (Transport, Storage and Communications) earn on average €14,900 more than their counterparts in family businesses. The average difference for Section K is also quite significant at approximately €12,000.

### *Capital Investment*

In 2005, non-family businesses invested €5.6 billion on capital expenditure and disposed of almost €2 billion worth of capital assets. Family firms made net investments worth €1.9 billion, having invested almost €2.7 billion gross and disposed of €0.8 billion worth of assets. Expressed as a percentage of total turnover it was family businesses that made the larger proportionate capital investment, spending the equivalent of almost 5.5% of their turnover. Non-family businesses invested the equivalent of 4.7% of their total turnover. However, if expressed as cost per person engaged then the opposite was true.

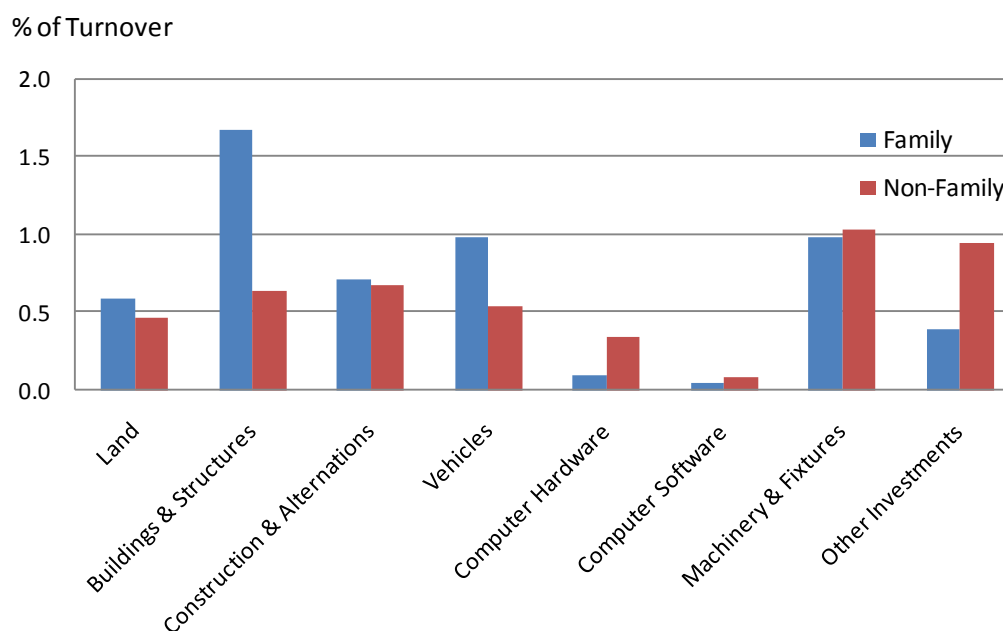
In 2005, family businesses accounted for over 32% of the €8.3 billion invested on capital acquisitions during 2005 by service enterprises. Small and medium sized family firms were responsible for about 60% of that spend, investing € 1.6 billion.

Table 15.1 – Capital Acquisitions by Family & Non-Family by Size Class, 2005

	<50 Persons Engaged		50+ Persons Engaged	
	Family	Non-Family	Family	Non-Family
	€ 000	€ 000	€ 000	€ 000
Land	173,985	252,657	115,201	294,830
Existing Buildings and Structures	510,479	387,211	311,134	374,481
Construction and Alteration of Buildings	219,853	460,064	132,971	338,919
Vehicles	284,494	358,258	200,893	273,390
Computer Hardware	30,277	147,634	15,949	264,300
Computer Software	9,407	26,113	14,428	80,107
Machinery and Equipment	248,761	335,344	235,598	881,950
Other Investment	124,436	229,261	69,164	895,382
Total value of Assets Acquired	1,601,693	2,196,542	1,095,339	3,403,360

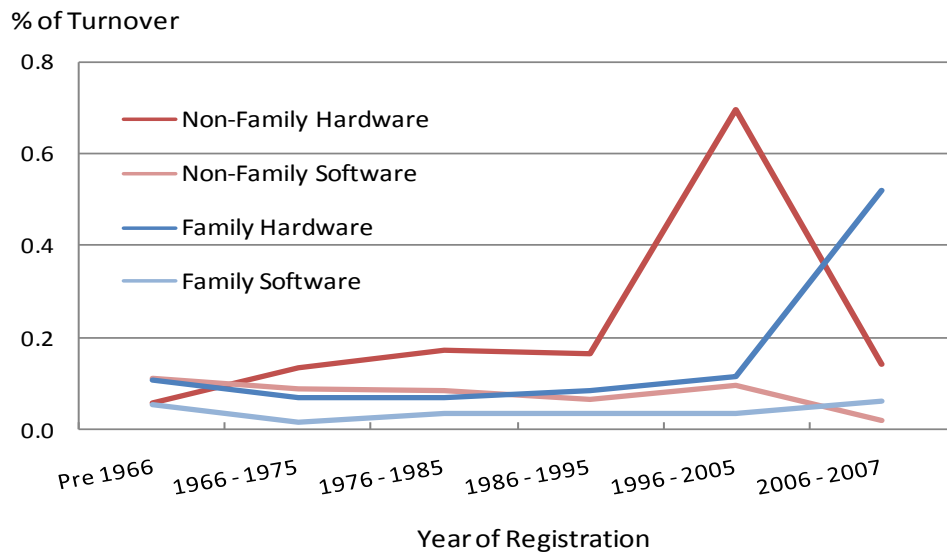
The choice of capital acquisition made by Family and Non-Family firms in 2005 was quite different. Family businesses invested most heavily in Existing Buildings and Structures whereas non-family firms made their biggest investments in Machinery and Fixtures. Again, this is probably a reflection of the industries where family and non-family firms operate. Non-Family businesses made proportionately a much greater investment in computers, particularly hardware, than family firms did.

Figure 15.1 – Capital Expenditure made by Family and Non-Family Businesses, 2005



Whether capital investment is expressed as a function of turnover or persons engaged the pattern regarding computers is the same. Family businesses invested less in both hardware and software compared to non-family firms. Figure 15.2 shows that young enterprises typically make a significant initial investment in computers, particularly hardware. Expenditure on software is continuous, with firms of all ages investing.

Figure 15.2 – Investment in Computer Hardware and Software made by Family and Non-Family Businesses



## 16. INNOVATION

Linking the Community Innovation Survey (CIS) to the ASI allows us to examine impact of product and process innovation on productivity. Respondents to the CIS were asked if they had engaged in any product or process innovation during the three years 2004 to 2006. A product innovation was defined as the introduction of a new good or service to market or a significantly improved good or service with respect to its capabilities. A process innovation was defined as the implementation of a new or significantly improved production process, distribution method or support activity for the enterprises goods or services. Enterprises were classed as “innovation active” if they had engaged in either product or process innovation or both.

The benefits arising from the introduction of new processes or products usually take some years to realise, and consequently linking to 2004-2006 CIS to the 2005 ASI is rather optimistic. Most likely, the benefits of innovation developed during the 2004-2006 period will not manifest themselves in terms of productivity until 2007 at the earliest. Nevertheless, the datasets were linked, as enterprises that innovated in 2004-2006 may well have an earlier history of innovation.

The microdata for the two datasets were linked using the CSO common enterprise identifier, yielding 408 enterprises that were common to both. GVA per person engaged was derived for these enterprises and some tests were done to establish whether or not there was any difference in indicative labour productivity between the enterprises that were innovation active and those that were not.

Separate *t*-tests were done for product and process innovation and for family and non-family businesses. In each case the hypothesis was:

$H_0$  – *There is no difference between the average GVA per person engaged for enterprises that were innovation active and those that were not*

$H_1$  – *The average GVA per person engaged for enterprises that were innovation active is different from the average GVA per person engaged for enterprises that were not*

The results showed that there was insufficient evidence to reject the null-hypothesis in any case, so we could not conclude that there is a difference in indicative labour productivity between enterprises that are innovation active and those that are not. The results of the *t*-tests for product and process innovation were as follows:

Table 16.1 – p-Values for Product &amp; Process Innovation

	Family	Non-Family
	<i>P - Value</i>	<i>P - Value</i>
Product	0.9681	0.5239
Process	0.4174	0.2944

## 17. CONCLUSIONS

The results from the 2004 and 2005 Annual Services Inquiries have shown that family businesses make a significant and important contribution to the Irish economy. There are almost 39,000 family businesses, engaging more than 293,000 persons at work, and they account for over 46% of all enterprises and almost 40% of total persons engaged in the non-financial traded services. These businesses are predominantly Irish owned enterprises which may play an important stabilising role in an increasingly globalised economy. It should be noted that the family business data are relatively new, with only two years data available. Consequently, the conclusions in this paper can only be tentative.

The results from the ASI suggest there are fewer family businesses than many other sources would have us believe. The belief that sole traders and family businesses are synonymous would appear to be misguided. Results from the ASI clearly demonstrate there are non-family sole traders, suggesting that properly understanding family business is more complex than may have been previously thought. This may account, at least partly, for the gap in the number of family businesses identified in the ASI and most other sources.

The age of a sole trading enterprise may be an important determining factor in whether that enterprise will be classified as a family business or not. This finding has implications for behavioural and micro-economics, as it raises the possibility of entrepreneurial motivation or focus changing over time. Perhaps some sole traders who begin operating as profit maximisers change focus over time and switch their concentration to life style or succession issues. Interestingly, the “productivity gap” identified between family and non-family businesses, holds for the sole trader.

Family businesses may be an important, and until now, largely unrecognised determinant for assessing enterprise labour productivity. This may have implications for assessing firm activity and performance. Consequently, the addition of the family business classification to the Annual Services Inquiry has provided a new and useful window through which to view the business services economy. However, to understand the family business dynamic fully it will be necessary to widen the analysis beyond services. It would very useful if the CSO Central Business Register included the family business classification, as then all CSO surveys (e.g. the Census of Industrial Production, Census of Building and Construction or the National Employment Survey) could compile family/non-family splits.

Most Family Businesses are small and relatively young with 88% of Family firms engaging fewer than 10 persons and 51% having only registered for VAT since 1996. Quite a few then are presumably in their first generation and have yet to face the challenges of transference or succession.

Information on business life cycles and survival rates are critically important if a full understanding of the business economy is to be understood. From a family business perspective, data on survival and churn rates would be invaluable, as international studies and literature suggest that family are more prone to succession difficulties, potentially jeopardising thousands of home grown businesses and jobs. Without adequate business demography statistics, it is impossible to test the hypothesis that family firms have a one in three likelihood of failure in their first transference and ascertain to what extent it applies in Ireland. However, the results presented in this paper clearly indicate that the age profile of sampled active family and non-family businesses are not significantly different overall. In fact, in the sectors where family businesses tend to concentrate, such as distributive trades and hospitality, there are typically more “old” family businesses sampled than non-family. What cannot be determined, however, is whether or not more family businesses have failed over the duration than non-family businesses.

The impact of technology would appear to be important on firm performance. There is a clear relationship between e-sales and indicative labour productivity. However, we cannot determine the direction of causality and as noted earlier, further work is required to control for a range of possible variables that might influence productivity before we can be confident about the significance of these relationships. Does the investment and utilisation of ICT make enterprises more productive, or is it simply that the more productive enterprises tend to invest in and use ICT? Either way family businesses don't appear to invest or use ICT to the same extent that non-family businesses do. In addition, family firms are making less current and capital spending on computer hardware and software than non-family firms. This begs the question – in a rapidly globalising and technologically advancing economy, are family businesses preparing adequately for the future?

The impact of innovation is inconclusive at this stage but this is not altogether surprising. It takes several years to develop a product and establish it in the marketplace. The effects of a process change are also likely to take some years before they are clear. Consequently, this remains as work for the future when the CIS can be linked to later editions of the ASIs.

Finally, by linking the ASI to the VAT registrations, the CIS and the survey on e-Commerce & ICT, the power of the data has been significantly increased. Matching the ASI and the VAT registrations data was a painstaking, time consuming task. In contrast, linking the CSO surveys was a relatively straightforward matter thanks to the common business identifier used by all CSO surveys. Such an identifier has greatly widened the research scope and potential of CSO business inquiries. If a universal business identifier was shared across all public sector bodies the increased potential for research (at no extra cost or response burden) would be enormous.



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## APPENDIX 1: NUTS REGIONAL CLASSIFICATION

The regional classifications in the ASI and this paper are based on the NUTS (Nomenclature of Territorial Units) classification used by Eurostat. The NUTS 3 regions correspond to the eight Regional Authorities established under the Local Government Act, 1991 (Regional Authorities) (Establishment) Order, 1993, which came into operation on 1 January 1994. The NUTS 2 regions, which were proposed by Government and agreed by Eurostat in 1999, are groupings of the NUTS 3 regions. The composition of the regions is set out below.

NUTS 2 Region	NUTS 3 Regional Authority	NUTS 4 County
<i>Border, Midlands and Western (BMW)</i>	Border	Cavan
		Donegal
		Leitrim
		Louth
		Monaghan
		Sligo
	Midland	Laoghis
		Longford
		Offaly
		Westmeath
	West	Galway City
		Galway
		Mayo
		Roscommon
<i>Southern and Eastern (SE)</i>	Dublin	Dublin City
		Dun-Laoghaire
		Fingal
		South Dublin
	Mid-East	Kildare
		Meath
		Wicklow
	Mid-West	Clare
		Limerick
		North Tipperary
	South-East	Carlow
		Kilkenny
		South Tipperary
		Waterford City
		Waterford
		Wexford

## **APPENDIX 2: ABBREVIATIONS AND ACRONYMS**

ASI	Annual Services Inquiry
BMW	Border, Midland and Western
CBR	Central Business Register
CIS	Community Innovation Survey
CSO	Central Statistics Office
EDI	Electronic Data Interchange
EU	European Union
FDI	Foreign Direct Investment
FTE	Full-Time Equivalent (labour unit)
GVA	Gross Value Added
ICT	Information Communications Technology
ILC	Indicative Labour Costs
ILP	Indicative Labour Productivity
LAN	Local Area Network
NACE	European Classification of Economic Activity
NUTS	Nomenclature of Territorial Units
PAYE	Pay As You Earn (system for employee income tax payments)
RFID	Radio Frequency Identification Technology
SE	Southern and Eastern
SME	Small and Medium sized Enterprises
ToT	Turnover Tax
VAT	Value Added Tax
WT	Wholesale Tax

### APPENDIX 3: NACE SECTIONS & CLASSES

NACE Section	Description
G	Wholesale and Retail
H	Hotels and Restaurants
I	Transport, Storage, Communication
J - K	Financial and Other Services
O	Other

NACE Class	Description
6010	Rail transport
6021	Other scheduled passenger land transport
6023	Other land passenger transport
6024	Freight transport by road
6110	Sea and coastal water transport
6120	Inland water transport
6210	Scheduled air transport
6220	Non-scheduled air transport
6311	Cargo handling
6312	Storage and warehousing
6321	Other supporting land transport activities
6322	Other supporting water transport activities
6323	Other supporting air transport activities
6330	Activities of travel agencies and tour operators
6340	Activities of other transport agencies
6411	National post activities
6412	Courier activities other than national post activities
6420	Telecommunications

**APPENDIX 4: SEASONAL PATTERNS IN FULL TIME (ILO) EMPLOYMENT**  
**(SOURCE: QNHS)**

Figure A4.1 – Full Time Employment for NACE Section G  
(Retail & Wholesale), 2004 - 2007

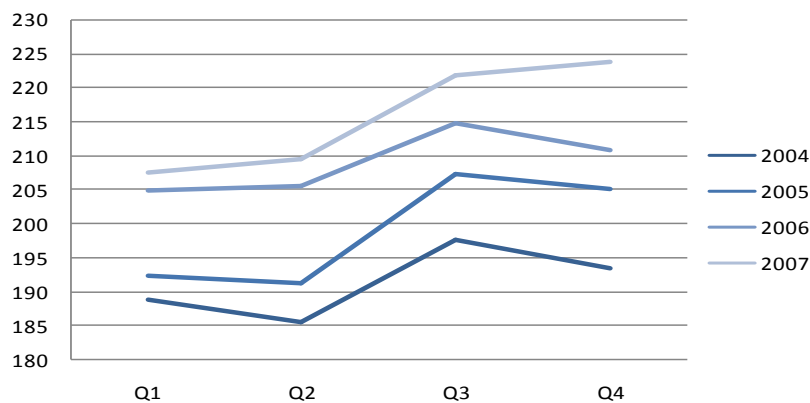


Figure A4.2 – Full Time Employment for NACE Section H  
(Hotels & Restaurants), 2004 – 2007

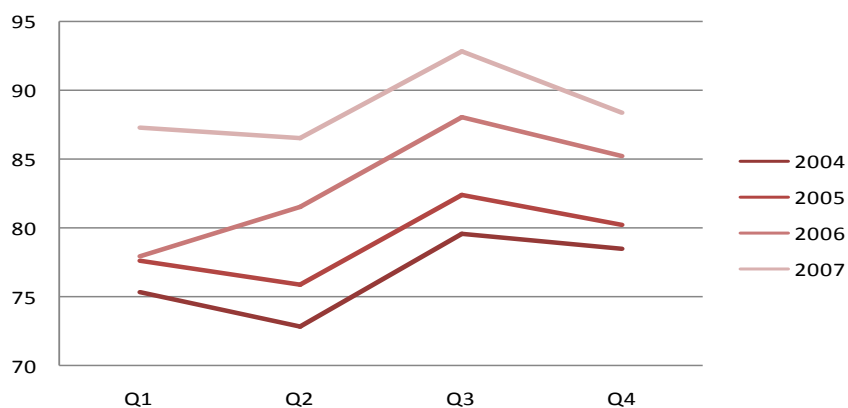
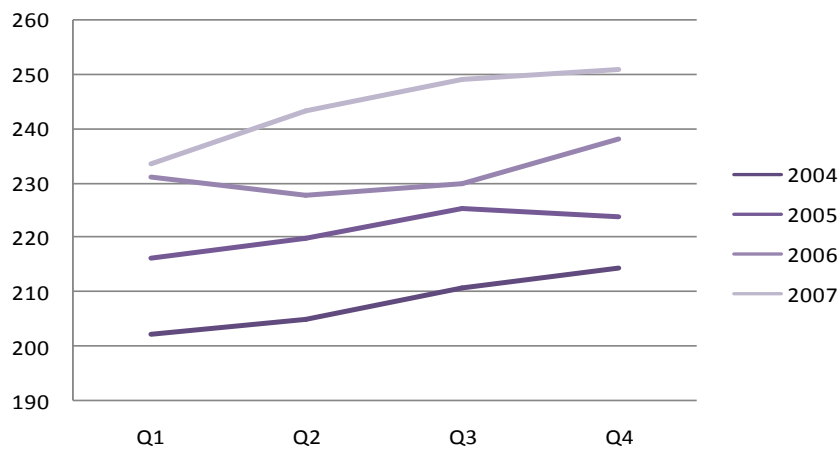


Figure A4.3 – Full Time Employment for NACE Section J - K  
(Financial & Other Services), 2004 – 2007



**FIRST VOTE OF THANKS PROPOSED BY DR STEFANIE HALLER,  
ECONOMIC AND SOCIAL RESEARCH INSTITUTE**

The paper entitled “Family Businesses in the Irish Services Sector: Profile and Productivity” by Steve MacFeely and Caitriona O’Brien provides a very nice descriptive analysis of businesses in the services sectors covered in the Annual Services Inquiry with a special focus on family-run businesses. The paper shows that in 2005, 46.3% of all non-financial traded services enterprises were family businesses. They accounted for nearly 40% of the persons engaged in these services sectors, for 29.4% of turnover and for 22.2% of gross value added.

The authors undertake a major effort to bring data from different sources together to obtain a very rounded picture of family businesses in the services sectors. Using the Annual Services Inquiry (ASI) alongside the Survey on E-Commerce and ICT, the Community Innovation Survey (CIS) and the VAT registration file from the Revenue Commissioners is a very impressive achievement that I wish to congratulate the authors on.

*Summary*

The major findings of the paper are as follows: the large majority of family and indeed all service sector enterprises covered by the ASI are small firms with less than 10 employees. Less than 1% of family businesses in the services sectors are foreign-owned. On average family businesses tend to be somewhat older than non-family businesses. Non-family businesses achieve 1.5 times or more the gross value added per employee than family businesses; only in the hotels and restaurants sectors, family and non-family businesses are nearly on par in terms of gross value added per employee.

In both family and non-family businesses those that have email, a website and e-sales have higher gross value added per employee than those without. The differences between family businesses with and without email, a website and e-sales are less striking than those between non-family businesses with and without email, a website and e-sales. Exporting enterprises are more productive than their counterparts that are focussed on the domestic market only. However, non-family businesses that export are much more productive than family businesses that export, their gross value added per employee in all sectors except the hotels and restaurants sector is two or more times that of the family businesses.

Family businesses have on average a lower total cost than non-family businesses. The main difference in cost is accounted for by the difference between total purchases of goods and services, however for the family enterprises with more than 50 persons engaged, the difference in total labour cost is also striking. Family businesses on average pay lower wages per employee than non-family businesses. Again the differences are smallest in the hotel and restaurant sectors. Family businesses on average also have lower capital investments than non-family businesses. At least among the younger family enterprises a catching-up process appears to be taking place in terms of investments in computer hardware and computer software.

While the results are in line with what one would expect given the nature of family businesses, the size of the differences to the non-family businesses is still striking at least for some indicators. Family businesses are small, and in addition a large majority of them is probably located in rural rather than urban areas and their operations may not be as efficient and profit-focused as those of non-family businesses. In my comments I will focus on two sets of issues that arise from the paper. The first is the question of succession in family businesses and its implications for employment; and the second are the implications of this study for data collection and organisation.

*Succession in family businesses and its implications for employment*

The authors motivate the paper in part by drawing attention to the large risk of failure family businesses face as they transfer from first to second generation ownership that has been documented in other countries. An attempt is made to get an idea of the order of magnitude of this issue in the paper by looking at the company registration data from the Revenue Commissioner’s VAT register. The differences between family and non-family businesses with respect to the average age are not very large; if anything, family businesses on average tend to be somewhat older than non-family businesses. It should be borne in mind, however, that of those enterprises still in operation in 2005 the amount of family and non-family businesses registered in the years up until the mid-1990s are roughly similar, but among those that have been registered since then the share of businesses registered as family businesses is lower at only around 40%.

If anything this tells us that despite the issue of succession even 30 years or more after the time of establishment the numbers of family and non-family businesses still in operation are rather similar. This would suggest that those family firms that are successful enough to survive the first generation do not suffer a higher risk of failure due to the issue of succession compared to the non-family businesses that have been around for a similar length of time.

There are a few other factors that make the succession issue appear much less of a threat to jobs that are not discussed in the paper. Firstly, it is well-documented that small firms have a lower probability of survival unless they grow large quickly (Acs, 1996). Given that the vast majority of firms in the services sectors have less than 10 employees it is not surprising that more than 60% of the firms with less than 20 employees were established after 1995. This would suggest that the high churn among these small enterprises is much more of a risk to jobs than the issue of succession.

Secondly, there is indeed evidence to suggest that second generation owners of family businesses tend to affect the firm's performance negatively and consequently have a higher probability of failure (e.g. Bennedsen et al.: 2008, for Denmark; and Cucculelli & Micucci; 2008, for Italy). However, this will only affect a small fraction of family businesses: those that do survive long enough for succession to become an issue and that in addition decide not to sell the business off to a non-family member. Moreover, it is highly unlikely that within this already rather small group of firms that all of them face the question of succession at the same time or suffer the consequences from poor second generation performance at the same time. Thus, it would appear that this is a risk that is not large enough to affect the unemployment rate significantly at any point in time even in a country with as small a labour market as the Republic of Ireland.

Bearing these caveats in mind, the issue of succession in family businesses is an interesting one and further research in this area is warranted. As the authors make clear, for the Republic of Ireland this requires the collection of additional data. This could be done either via a module of the Quarterly National Household Survey questioning the self-employed on succession or alternatively by organising a special survey of the family businesses as identified in the Annual Services Inquiry.

#### *Implications for data collection and data organisation*

A characteristic of family businesses that did not come to bear at all in the present study is their regional distribution. One would expect to see larger shares of family businesses in rural areas. The current NUTS 2 regional breakdown in the ASI identifies only two large regions in the Republic of Ireland. This is clearly insufficient to provide information on the regional distribution of service enterprises. In contrast to the Census of Industrial Production that collects information for both local units and enterprises, the ASI only collects information at the enterprise level. While the share of enterprises that comprise several local units which are possibly located in a number of different counties is likely to be larger in the services sectors than in the manufacturing sectors, the additional amount of information required (employment and turnover at the local unit level) to obtain a more detailed geographical picture is not excessive.

The study clearly highlights the limitations of the way data on employment are currently collected in all three Irish business surveys (Annual Business Inquiry, Census of Industrial Production, Census of Building and Construction). As it is a point in time measure, it does not allow for seasonal fluctuations in either the number of employees or the number of hours worked. While the number of part-time employees is recorded, it is not obvious how to convert these to full-time equivalents. This makes it extremely difficult to compare measures of productivity that in the simplest case relate a measure of annual output to a measure of employment either across businesses or over time. It would be desirable to include a question in the total number of hours worked per year to the questionnaire or alternatively to collect information on the number of employees at several points of time during the year to obtain an annual average.

Finally, I wish to support the authors in their suggestion to consider the introduction of a common unique firm identifier across all public sector bodies that are involved in data collection. While such an undertaking is associated with an initial investment it has many benefits down the line. A unique identifier would greatly enhance the quality of the data collected by allowing cross-comparisons. Further, it would allow identifying those firm characteristics that are truly important for our understanding of firm and industry performance with much greater precision. It would also reduce the burden of surveying for the businesses concerned, and thereby the costs of collecting data.



## References

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## SECOND VOTE OF THANKS PROPOSED BY JANE WILLIAMS, MANAGING DIRECTOR, SIA GROUP

This paper and analysis is most welcome as it fills a gap in understanding about a sub-sector in the indigenous sector in Ireland. The national policy focus, and with it much of the research and statistical data, concentrates on the multi-nationals and agency supported, exporting, indigenous sectors. This focus is appropriate, but should not be exclusive. It has left policy makers without a clear understanding of the dynamics of the non-traded indigenous sector and so a poorer basis for policy formation. The Enterprise Strategy Group, the Small Business Forum, the Working Group on Entrepreneurship Strategy, and the Service Strategy Group all comment on this lack of data and understanding and/or its implications for policy and improvement in the indigenous sectors.

The MacFeely & O'Brien paper usefully highlights the analysis the CSO has undertaken on family businesses in Ireland and, from this analysis, the challenges faced by individual family businesses and the sector as a whole, in successfully navigating the transition from the entrepreneurial first generation to the next. This mirrors a national challenge of converting our reasonably successful rate of entrepreneurial start-ups to growth businesses over the medium term (GEM studies).

The paper is also welcome for highlighting remaining gaps in official business statistics and the suggestion of a universal business identifier to assist in comparing and combining statistics across datasets. These two deficits have been important obstacles in obtaining the clear picture of what is, so that we can plan and realise what might be.

The picture emerging from the paper is interesting and challenging for those who own and run family businesses, but even more so for policy makers seeking to provide an environment in which these businesses can thrive and continue to contribute to employment, wealth creation and competitiveness. The productivity challenges have been highlighted elsewhere but often on the basis of the experiential views of multi-national managers rather than on the firmer statistical data presented in this paper. The issues that are highlighted with interpretation of productivity, based on the data available, are as important as the implications of lower than desirable productivity are for competitiveness. The analysis presented in this paper provides a basis for probing the underlying causes. It therefore underpins feedback to the sector and/or intervention by appropriate representational groups such as the SFA, ISME or the Chambers of Commerce.

The paper asks some interesting questions, based on the data, about succession and motivation of owners over time in family owned enterprises. Given the strength of family owned businesses in other countries, e.g. Northern Italy, further research to probe the psychological/economic factors behind these phenomena, would be most useful to efforts to develop this sector of Irish enterprise further.

## FURTHER RESPONSE BY BILL KEATING, CSO

I would like to congratulate the authors on a very good paper that demonstrates the value to be gained from further analysis of the various data sets held by CSO. We in the CSO collect an enormous amount of data and our primary focus is naturally on publishing the results as quickly as possible. We then have to move on to the next time period. By its nature, further analysis has to take second place but this paper is very valuable in showing what can be done.

One of the main lessons, as clearly set out by the authors, is the value that can be gained from linking data sets, both different statistical surveys and administrative data. This supports the view of the National Statistics Board which has placed great emphasis on the benefits to be gained from having a unique business identifier across the public service. Implementation of such a scheme would have significant start up costs but there would be major benefits in terms of better information alone, apart altogether from reductions in the administrative burden that should follow.

The paper necessarily deals with fairly broad NACE groups. However, we should be aware that data at this level may be strongly influenced by different structures within those broad groups. For example, different productivity levels may be influenced as much by the composition of these groups as by underlying productivity levels.