

Dublin's Role in the Irish and Global Economy 2012

Working Paper Report 4 (DRAFT)

Prepared for Dublin Regional Authority

SYNTHESIS REPORT DUBLIN IRELAND'S FLAGSHIP

Brendan Williams, Walter Foley, Jamie Cudden, Harut Shahumyan.

School of Geography, Planning and Environmental Policy
University College Dublin

31st October 2012



The research team would like to express their thanks to the staff of the Dublin Regional Authority, the Economic Development Unit of Dublin City Council, the Project Steering Group consisting of members of Forfás, the NTA, NUIM and the ESRI and Professor Gerrit Knaap, University of Maryland for their assistance over the project duration.

TABLE OF CONTENTS

<i>Section</i>	<i>Page Number</i>
Aim	3
Research Process	3
Evolving Urban Function	4
The Economic Dynamic	5
Demographic Dynamic	8
Urban Growth Dynamics	9
Clustering and Agglomeration of Economic Activity	10
Location of Economic Activity	12
Summary of Interview Results	13
Outputs, Spatial Analysis, Mapping	14
Main findings	20
Recommendations	22
References	24

Synthesis Outline

This piece of research was carried out to examine the role that the Dublin city region has in the national context and its value to Ireland as a global city of scale. The process through which this was achieved was firstly by examining available data and then by using this data to produce a spatial analytical assessment of Dublin's role. This was followed by structured discussions with key policy makers and economic development stakeholders in the city region to explore key issues, existing datasets and international benchmarks of performance.

In order to set a context for this work the dynamics of urban growth, demographic trends and urban economics are explained in brief. In this context the synthesis then extracts some of the key findings and results of the research and presents an initial suite of recommendations. It is intended that the findings of this research will provide a means through which policy makers can advance further policy development for the city region through a robust, renewable and extensive evidence base.

Aim and Rationale

The research team on behalf of the Dublin Regional Authority were asked to examine and detail the evidence basis for Dublin's role in the national and global economy¹. This study is also intended to complement previous work carried out by the Dublin Local Authorities such as the Dublin Economic Action Plan (2009) and the Dublin Enterprise Strategy (2009). The focus of this work was to determine through both quantitative and qualitative means the role of Dublin within the national hierarchy of settlements and to relate this role to economic function. It furthermore investigated the importance of Dublin to Ireland in an international context and benchmarked its performance. The work sought to examine through evidence based research optimal locations for investment in the national context and to investigate the major influence of Dublin on the rest of the national economy.

Research Process

The work was divided into three core parts, firstly Report 1 which collated and assessed the availability of socio-economic data relating to the city region, secondly Report 2 examining these datasets and applying spatial analytical approaches to ascertain how (economic) activity within the regions was spatially formed. Report 3 includes further enhancement of the evidence base through literature review, examination of existing data on economic activity, interviews and international benchmarking metrics. Relating a city region to both national and international metrics gives a picture of Dublin and its' role in relation to both Ireland and the need of Dublin to compete within a globalised world.

Separate reports have also involved the research team on a) Talent Attraction and Retention in Dublin b) The Impacts of Transport Improvements on the Dublin-Belfast Economic Corridor and c) the Dublin Demography Report for 2012. In addition, supplementary working papers are being

¹ The research team consisted of personnel from UCD and Dublin City Council and were assisted by support from the Dublin Regional Authority. Supporting advice was provided periodically by a steering group including of members from Forfas, the NTA, NUIM and the ESRI.

prepared on a number of key issues raised by interviewees including a) Tourism b) Broadband c) Transport and Route Development d) Governance and Planning.

Maps showing hot-spots of economic activity nationally by broad economic sector were created in Report 2. Opportunity maps were also developed. The opportunity maps used a combination of available data sources and are spatial representations showing the optimal locations to form/locate a business in terms of both soft and hard factors from the quality of the natural environment to human capital and neighbourhood quality to the quality of the physical environment including transport connections.

In addition, the research team established strong links with a number of departments and agencies such as the forward planning unit of the Department of Education, Pobal, the Valuation Office and the Local Authorities. The process therefore also uncovered potential to increase cross agency and authority collaboration. For example, Valuation Office data can now be used to map office space by office type (1st, 2nd 3rd generation offices)² and commercial space across the city region. This type of independent analysis would potentially be very powerful when preparing local area plans (LAPs) or Strategic Development Zones (SDZs). In combination with other data such as demographic and economic analysis it will represent an evolution to more evidenced based and in-house planning capability. Similarly, underutilised or unused areas of the city have also been mapped. These spatial layers of information require further population with background information and data but potential exists to begin a systematic planning and development process which combines mapping of under-utilised areas with enterprise potential.

While the spatial mapping exercises were useful in demonstrating the distribution of economic activity nationally there was also a requirement to look at Dublin and/or Ireland's performance internationally. In this regard the research team examined international benchmarks from a variety of sources. In considering these types of metrics qualifications should be attached, as they are often based on limited datasets or solely on the opinion of a select group. Nonetheless, they do carry a degree of importance as they are recognised evidence sources for outside investors and Multi-National Corporation decision-making in terms of choice of investment location.

The research team further carried out an extensive interview process with key economic and policy interests across the city region and with a number of decision-makers from outside the region in order to establish a balanced perspective. These results are summarised in Report 3 and were used to identify key areas for research in this report. Public and private sector opinions were canvassed with 90 per cent of those asked agreeing to interview and 35 interviews completed in total. This interview process was extremely valuable as it allowed the research team to match evidence and opinion. Results will indicate that opinion and evidence were closely related and point up the need for greater levels of collaboration.

Evolving Urban Function

By international standards, though Dublin is a medium sized or small city, ranked 77th out of 78 cities in terms of population by the OECD³, it is also Ireland's only city of international scale. The Dublin city region (defined as the 4 Dublin Local Authorities) has a population of 1.27 million persons, while Ireland has a population of 4.5 million (CSO, 2012). In national terms it serves as Ireland's principal knowledge hub and education capital, with international-class universities, various innovation alliances and partnerships with private firms. As the world

² 3rd generation offices represent the more recent office developments post 1990's.

³ Competitive Cities in the Global Economy, 2006

urbanises the importance of cities as trading points and centres of innovation is increasing. It has been claimed that just 600 urban centres worldwide generate about 60 per cent of global GDP (McKinsey Global Institute, Dobbs et al, 2011) and the United Nations estimate that currently half of the world's population is urban and that by 2050 this will rise to 70 per cent (UN, 2011). Ireland with Dublin as its international city is recognized as being the most open economy or globalised country in Europe and the second most globalised in the world (Ernst & Young, 2011).

The evolution of Dublin in common with many European cities can be seen as having occurred through three distinct phases from a port with basic manufacturing using local resources to more advanced industry and administrative functions and now towards innovation driven development.

This third phase has been witnessed within many city regions in recent times aiming or evolving towards a knowledge based economy. This involves the targeting of specific growth sectors and the promotion of research, development and innovation to sustain economic growth. This final transition or paradigm shift presents broader and potentially challenging problems for city policy makers and economic interests as it involves improving qualitative capacities. Employment based on knowledge creation whether in the arts, science or enterprise depends upon many intangible assets including enterprise imagination and motivation which can be facilitated but not necessarily managed and directed.

The Economic Dynamic

Ireland and Dublin developed rapidly from the 1990s through economic policies of attracting Foreign Direct Investment (FDI) from Multinational Corporations (MNCs) who were attracted by the country's low tax rates. Other positive attributes included a highly educated workforce, low cost base, series of governmental supports and facilitation measures, and access to the European markets through an English speaking country. Initially, investment was of low-grade nature, but over time became increasingly sophisticated. The rapid economic growth that resulted lifted the entire economy, sparking inflation and an increase in living and business costs across many sectors. House prices in Dublin began to soar, beginning a boom in property prices over a fifteen-year period. Central government concern at this time was to redirect economic expansion to regions outside of Dublin due to concerns of overdevelopment and congestion⁴.

An over reliance and concentration of economic activity in construction resulted. In 2006, the construction industry in Ireland represented 24% of national GDP employing 1 in 7 people.⁵ The property-price bubble, especially in the residential and development land sectors was exacerbated by the lightly regulated Irish banking systems access to foreign capital markets with the completion in 2002 of the introduction of the European single currency system, the Euro. In 2008, the global financial crisis exposed the weaknesses of the Irish banking system, the over reliance on foreign capital and their reckless lending. The resulting crash in all property prices contributed to an overall economic recession and fiscal crisis, as the government was overly reliant on tax revenue from the property development sector. The resulting rescue and recapitalisation of the Irish banking system and a deteriorating public finances position overwhelmed state finances and necessitated the Irish state to seek IMF/EU financial support in an agreed intervention plan in 2010.

⁴ The Bacon Report, 1999, developed recommendations through which pressures in the Dublin area could be alleviated

⁵ DCC (2011) *Dublin as an Open City Local Action Plan, 2011*. (Dublin) Dublin City Council

In employment terms the impact of the recession has been profound especially in the construction sector where job destruction was highest. In 2007 Ireland had near full employment, however by 2012 this had deteriorated to an unemployment rate of 14.8 percent. Unemployment in Dublin is currently around 12.1% and is up to levels not seen since the 1980's. Unemployment levels at peak Quarter 2 (Q2) 2007 stood at 4.8 per cent in the Dublin Region⁶ (see Table 1). The country has since struggled to cope with the fiscal crisis. Options being pursued include the management and reflation of property asset prices under NAMA. Previous property bubble house prices and business space prices had contributed to a major costs spiral making the city less competitive. The option of capitalising on lower property asset prices, surplus housing and ready to use commercial space in Dublin as a competitive advantage is presently underexplored.

The current economic situation has seen a renewed focus on attracting FDI to Dublin, particularly that of a high-tech, high-value nature, with the government positioning the country as the 'Innovation Island', a hub for new cutting edge industries and a country with a talented well-educated workforce. Continued success in this regard can be seen in numerous world rankings, which report that Ireland is an excellent place in which to conduct business, undertake Research and Development (R&D) and to establish regional offices. The IMD World Competitiveness Yearbook 2012 (IMD, 2012) recently ranked Ireland first for 'Investment Incentives' and for 'flexibility and adaptability of workforce'. Ireland also scored second for 'business legislation' (openness to foreign investors), 'large corporations that are efficient by international standards', for 'adaptability of companies' and fourth for 'corporate tax rate on profit and real corporate taxes'.⁷

It is these facts which set the context for this project. We have moved rapidly away from a boom cycle and presently there is need more than ever to establish a clear evidence base and suite of opinions on how Dublin can facilitate a process whereby Ireland returns to a more sustainable growth path.

⁶ Special CSO tables for NUTS III based on Quarterly National Household Survey, 2012

⁷ IMD World Competitiveness Yearbook 2012

Table 1: A comparison between 2007 and 2011 for employment and selected other macro economic indicators

Dublin Region	Q2 2007	Q2 2011	State Comparison Q2 2011 (Entire State)
Employed	616,000	520,500	1,821,300
Unemployed persons	31,000	72,000	304,500
Unemployment Rate	4.8%	12.1%	14.3%
Participation Rate	65.4%	62.2%	60.7%
Labour Force	647,000	592,500	2,125,900
Service Sector Employment	80% Services 20% Non-Services	88% Services Sector 12% Non Services ⁸	77% Services Sector 23% Non Services
Dublin Region	From Q2 2007 to Q2 2011 in Dublin		State Comparison
Job Losses Q2 2007 – Q2 2011	95,500		317,500 (30% of losses were in the Dublin city region)
Proportion of job Losses Males	66%		80%
Live Register September 2011	105,422		437,441 (24% of live register persons are in Dublin city region)
Dublin Region	2011 in Dublin		2011 State Comparison
Housing Vacancy Rates 2011	10.7% (Dublin)		14.7% (State)
House Prices (Base 100, Jan 2005)	Year End 2011: 60.7 Year End 2007: 131.2		Year End 2011: 68.9 Year End 2007: 129.5
Dublin Region	Dublin 2008 and Dublin 2009 Incomes		State Comparison for 2008 and 2009
Disposable Income Per Capita (CSO, 2012)	2008: €26,414	2009: €24,316 % Change: -7.90%	2008: €23,239 2009: €21,356 % Change: -8.06%

The respective economic profiles of the Dublin city region and the State have changed considerably in the period 2007 to the present. County Incomes and Regional GDP show that the Dublin region is the most productive region nationally (CSOb, 2012). From 2000 to 2009 the Dublin Region had the highest levels of disposable income and was the only region above the State average, demonstrating the major influence Dublin has on State averages. At State level average disposable income per capita fell from €23,239 in 2008 to €21,356 in 2009, representing a decline of €1,883 or 8.1 per cent (CSOb, 2012). The equivalent figure for Dublin was 10 per cent.

The economic wellbeing of the Dublin city region as home to 28 per cent of the national population is evidently central to national economic recovery. All discussions on regional distribution of income and wealth are of course dependent upon maintaining a capacity to

⁸ Non Services include NACE Rev 2 Economic Sectors codes A-F: Agriculture, Forestry, Fishing; Industry and Construction. Services include all other Sectors.

generate national income. With regard to regional income contribution and the distribution of resources Morgenroth (2010) demonstrated that the Dublin and South-West Regions are substantial net contributors in terms of resource generation, tax take and subsequent redistribution. The Irish fiscal system and central government acts to reduce regional disparities transferring resources from income surplus regions to regions requiring income transfer. Based on the most recent published evidence this research found that Dublin and the South-West contributed just over €2000 per person in 2004⁹ while the Midlands received €3,000. Just over €3 billion was transferred from the 'net surplus regions' Dublin, South-West and Mid-West to the other regions in 2004. While Dublin and the South-West regions have a higher per capita expenditure than other regions, they have an even larger per capita revenue. For example, over the period 1995 to 2004 Dublin accounted for 28.9 per cent of the population, 35 per cent of revenue and 31.4 per cent of expenditure. The Midlands, which accounted for just 5.7 per cent of the population and 4.6 per cent of revenue accounted for 5.5 per cent of public expenditure. Thus while being redistributive the fiscal system does not appear to unduly disadvantage the better off regions (Morgenroth, 2010).

Further data on tax contribution for the year 2008 delivered in response to a Parliamentary Question in 2010 found that citizens or companies located in Dublin¹⁰:

- contributed 55.6% of all VAT in 2008, followed by Cork at 8.8% and Kildare 3.4
- contributed 62.4% of all Corporation Tax yielding €3.2bn out of a total tax of €5.1bn in 2008.
- contributed 50.6% of state PAYE in 2008 producing an estimated exchequer revenue of €5 billion for the Government.
- contributed 38.8% of non-PAYE income tax followed by Cork at 11%, Galway 4.5%, Kildare 4%, Limerick 3.9%, Meath 3.5%, Wicklow 3.4% and Tipperary 3.0%.
- contributed 41% of all Capital Gains Tax intakes

(Source: Figures taken from response to parliamentary question (PQ's) July 2010¹¹)

Demographic Dynamic

Demographic trends are one of the key drivers of economic development and policy change. Currently in Ireland there is a continued shift towards a more urbanised society with high levels of growth occurring within the Greater Dublin Area (GDA). Within the Dublin city region¹² it is expected that Dublin City will take about 36 per cent of all future growth to 2022. Notably, within the GDA the Dublin city region, consisting of the four Dublin Local Authorities is expected to take a projected increase of over 200,000 persons from 2010 to 2022 while the Mid East Region was apportioned c. 100,000 in the same period (Regional Planning Guidelines for the Greater Dublin Area, 2010). This growth will place a high degree of pressure on the delivery of education, health, recreational and other services and will require targeted planning and

⁹ This research represents one of the most recent and reliable exercises carried out in the area of tax take and distribution and sub-national level

¹⁰ A number of caveats are attached to these figures due to reporting discrepancies such as Corporation Tax being collated based on the county address of company HQ or the relevant branch for tax purposes.

¹¹ <http://www.leovaradkar.ie/?p=1076>

¹² The Dublin city region refers to the four Dublin Local Authorities, namely, Dublin City Council, South Dublin County Council, Dun Laoghaire-Rathdown and Fingal County Council. The GDA includes the four Dublin Local Authorities and Meath, Kildare and Wicklow (Mid East Region).

infrastructure to underpin this growth within functional areas. It is important that this growth is managed properly if Dublin is to remain pivotal to the overall economic well-being of Ireland.

Key points arising from the Dublin Demographics Report 2012:

- Ireland is one of the few countries to have experienced population increase due to immigration and natural increase and with fertility rates of 2.07 children compared to an EU-27 average of 1.6. This trend is projected to continue in the medium term and place a burden on education services in particular.
- Ireland has one of the youngest population structures in the EU. Approximately 20.6 per cent of the population is in the 0-14 age category, the highest in the EU.
- Ireland is atypical to other EU countries with regard to old age dependency though this figure will rise from 16 per cent currently to 36 per cent of the total population by 2060. This means that Ireland has more breathing space than many European countries, however an increased pressure on services and finances will eventually occur.
- Dublin and Ireland have a diverse population base with 17 per cent of the total State population non-Irish born and over 20 per cent non- Irish born in the Dublin city region.
- Planning for this transition in population is important with regard to health, education and other community services especially in high pressure areas such as the Dublin and the commuter counties.

Urban Growth Dynamics

Capital city regions in small and medium sized European states such as Ireland, Denmark and Netherlands often play a dominant role as economic drivers of their respective national economies. In Ireland, the GDA accounts for almost half of national GDP and its continued success is critical for the performance of the entire economy (National Competitiveness Council, 2009)¹³. Dublin and its functional area in this regard is similar to other global cities and its primacy and contribution to the national economy is critical with the OECD Stat Extract indicating that the Dublin city region alone¹⁴ contributes 40 per cent of national GDP (OECD, 2012).

Debate as to their future growth and role often includes the need for balanced regional development. In recent decades this debate internationally has moved away from a deliberate deflection of development from urban growth areas to exploring the maximization of their benefits nationally. The alternative of capitalising on the international gateway status of such regions while enhancing the functional specializations and strengths of complementary urban regions is now the norm.

The consequences of not using any States primary international gateway to full advantage (whether it be Dublin ,Copenhagen, the Randstad or other similar regions) would be a potential reduction in national income and benefits. Enterprise and economic development activities which are increasingly internationally mobile may be simply deflected out of the region to areas with weaker infrastructure assets or out of state to international competing urban regions.

Williams et al 2010 examined the spatial implications of the Celtic Tiger period of accelerated economic growth specifically in relation to the Dublin city-region and its international comparative context. These studies identified an increased concentration of development and economic growth in the Dublin and Mid-East Regions since the mid-1990s, associated with a sector shift towards high-technology and high-skill industries. This included the emergence of an 'edge-city', comprising new employment nodes at locations on the periphery of the existing contiguous built-up area of Dublin city and extending into the Mid-East Region. The formation of a functional economic Dublin Region and dependent hinterland commuting area is widely recognised.

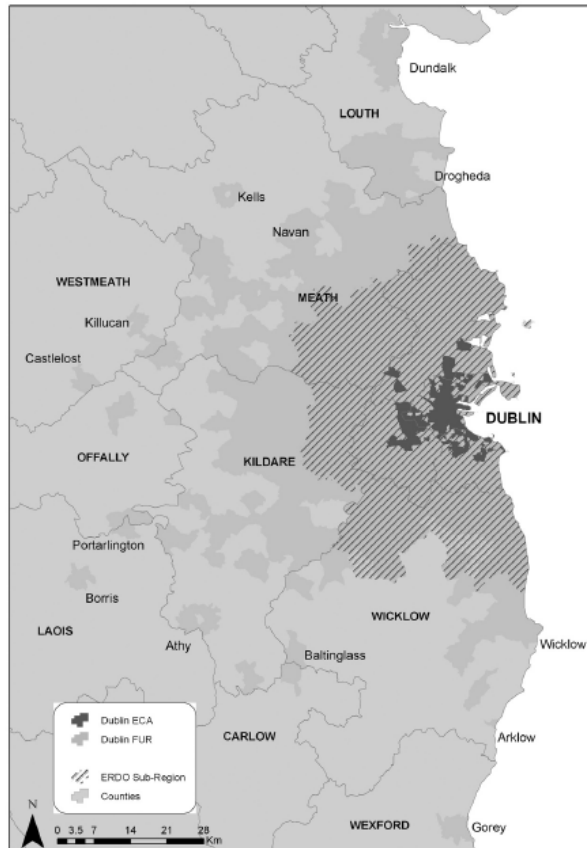
Re-emerging diseconomies of scale will occur if Dublin city region growth occurs without full and targeted implementation of adequate urban and regional growth strategies and investment in future needs.

¹³ <http://www.competitiveness.ie/publications/2009/title,3953,en.php>

¹⁴ Refers to the four Dublin Local Authorities

Figure 3 shows the Economic Core Area (ECA) for the Dublin city region and the wider Functional Urban Region. The spatial extent of the latter is determined by numbers of workers (>10% of total workers) resident in an Electoral District (ED) who work in the Dublin ECA.

Figure 3: The Functional Urban Region of Dublin (Williams et al, 2010)

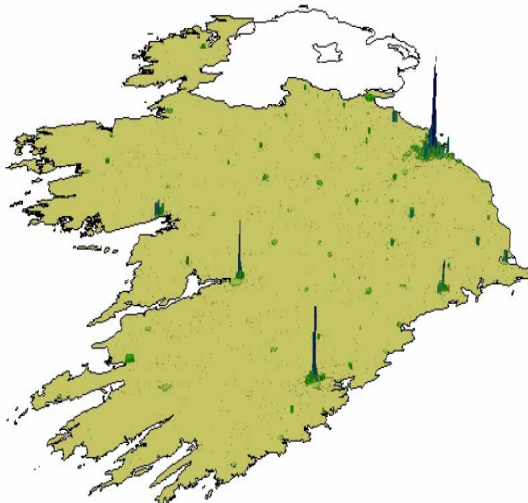


The M50 C-ring motorway constructed in the 1990s is explicitly identified as a locus for the spatial dispersal of industrial and commercial development. The spatial expansion of the functional labour market area of the Dublin city-region is further characterised in terms of the emergence of an ‘Outer Leinster’ ring as a location for residential development marketed towards people employed in Dublin. It was argued that residential development ‘leap-frogged’ established dormitory towns in the Greater Dublin Area due to a shortage of housing supply within the Dublin city region in particular, and significant house-price differentials between the city region, the GDA and other regions.

Regional economic development has played an increasingly important role in planning and development policies in Ireland and Europe in recent decades. This can include building economic competitiveness in Ireland or addressing declining industrial competitiveness in established industrial

regions suffering from the effects of global economic restructuring.

Figure 4: Job Density in Ireland based on 2006 Census data (Morgenroth, 2011)



From the 1990s onwards, seminal works such as Porter (1998) and Krugman (1991) have developed earlier Marshall (1930) industrial economic theory to develop a critical focus on the issue of agglomeration economies and economic competition in a geographical setting. Modern enterprise development policies often prioritise enterprise clusters and the role of institutional structures and capacities in developing cost advantages and urban/regional competitiveness. Figure 4 shows the extent of which job density is higher in

Dublin. In this regard literature and evidence also shows that higher labour productivities follow higher employment densities.

The new urban economic patterns of more diffuse settlement patterns - spread city, edge cities and polycentric city form - are explored from this period in the work of Garreau (1991), Fujita (2001), Sassen (2008) and Glaeser (2011). Analysis of the management of growing urban cities shows also a trend towards fast growing urban areas having an urban form which can be described by concept of the Functional Urban Region (FUR) where an outward spread of a sphere of commuting activity develops.

The National Spatial Strategy reported in 2002 that the combined population of Cork, Limerick, Galway and Waterford cities was only 38% of Greater Dublin and followed that in terms of encouraging and balancing regional development patterns, critical issues identified included the following themes (NSS, 2002):

- ❖ Urban clustering/networks.
- ❖ Agglomeration trends.
- ❖ Economic clustering and innovation.
- ❖ Critical mass in population, skills and innovative capacity.

These are common themes in urban and regional growth debates internationally and their relevance to ongoing debates in Dublin is outlined below

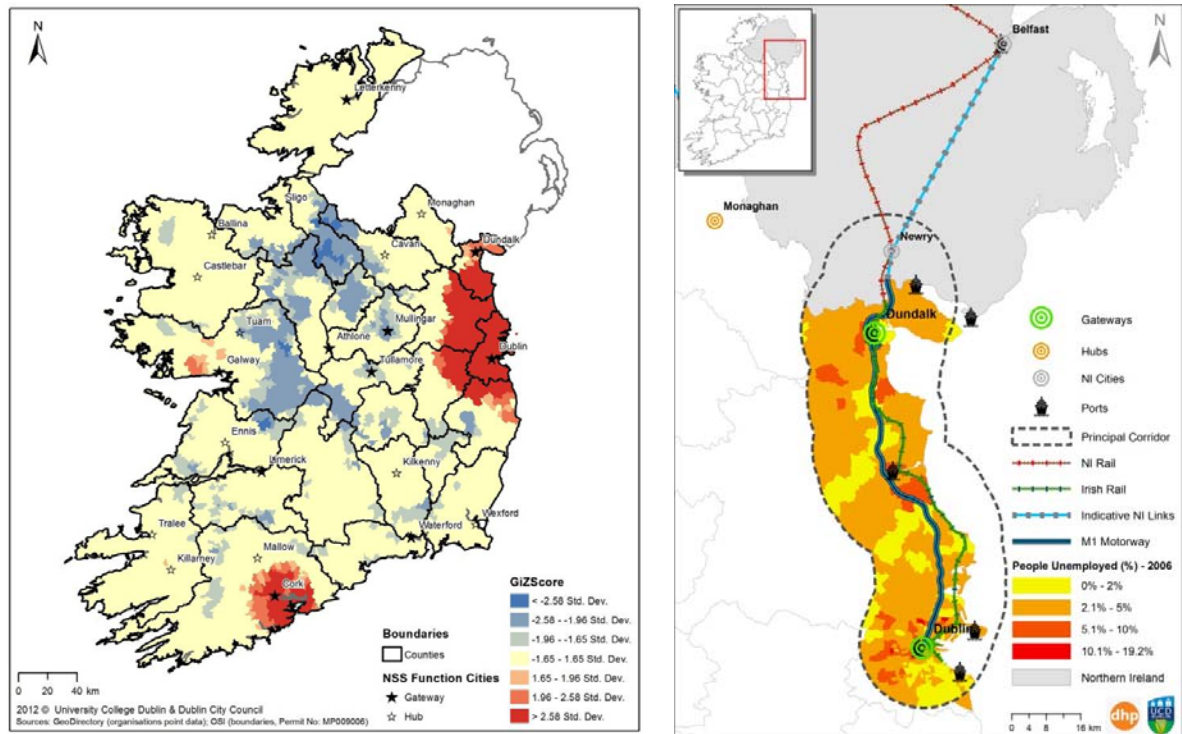
Clustering and Agglomeration of economic activity

Commercial enterprises tend to cluster together in order to achieve economies of scale and derive the benefits associated from synergy effects, complementarities and the use of a developed infrastructure. Major urban areas tend to offer a wide range of infrastructure support to businesses, including transport (roads, rail, airports, and ports), telecommunications, educational institutions and ancillary services. In addition, the agglomeration process tends to be self-reinforcing, as incoming enterprises recognise the economic benefits offered at existing locations and accordingly locate adjacent to these. In essence, businesses that cluster together adopt a risk-minimisation strategy and benefit from shared availability of services. Diseconomies of scale arise where the growth patterns of major cities exceed efficient infrastructure and other carrying capacities and increased costs such as congestion occur. Externalities are where the location specific activities provide positive or negative spill-over to adjacent areas.

Dublin's value to the country in terms of spill-over is becoming clear with the evolving Dublin Belfast Corridor the prime example. The literature on this subject was examined at length and shows that spill-overs generally are localised. However, expansion out of Dublin does occur directly as a result of business locating in Dublin such as State Street and PayPal. The location of PayPal in Dundalk and the influx of up to 1,000 jobs there was a direct result of the proximity of Dundalk to Dublin and the strength of the linkage along the M1 economic corridor.

This corridor (Figure 5) should be a forerunner to the development of similar regional networks across the State. That Dublin-Belfast is the pre-eminent economic corridor on the island was expressed in many interviews. As an example of the strength of activity along this corridor the associated map of Wholesale and Retail across the State shows the dominance of activity within the Greater Dublin Area and extending northwards along the M1 corridor.

Figure 5: Clusters (Hot Spots) of organisations of Sector G Wholesale and Retail in RoI in 2011 (Report 2 *Dublin's Role*, GPEP, UCD & DCC,2012) on Left hand side. The image on the right shows unemployment concentrations along the corridor as well as key assets.



Location of economic activity

Within Europe, metropolitan regions have increasingly engaged in competitive strategies with each other in order to attract their share of a reducing amount of new commercial activity as globalisation pushes traditional industries into lower wage developing countries. In response many European and international cities are attempting to move their economic activities towards higher value goods and services less subject to low wage competition. Research indicates that part of successful innovation strategies include the availability of the diverse inputs found in the larger market sizes of metropolitan region. Modern economic growth is often based upon the knowledge industries including financial services and ICT industries who favour larger capital and administrative cities. Table 2 demonstrates at FDI level the multi-functionality and attractiveness of the Dublin city region, its diverse spread of activities across all sectors and its importance in Business, Financial Services, ICT and Pharmaceuticals.

Table 2: IDA site locations (Correct to April 14th 2012). Source: IDA (2012) site locations by sector type (these data are taken from IDA supported company listings www.idaireland.com)

Sector	Dublin	Cork	Galway	Limerick	Waterford	Other Areas	National Total
FINANCIAL SERVICES	86%	2%	1%	1%	1%	8%	219
ICT	48%	19%	10%	5%	1%	18%	159
INDUSTRIAL PRODUCTS AND SERVICES	15%	16%	7%	4%	5%	53%	96
PHARMACEUTICALS	29%	27%	0%	0%	6%	38%	82
MEDICAL TECHNOLOGIES	11%	11%	17%	7%	3%	53%	76
CONSUMER GOODS	25%	11%	0%	4%	9%	52%	56
BUSINESS SERVICES	48%	25%	3%	5%	3%	17%	40
CHEMICALS	30%	25%	0%	15%	0%	30%	20
ENTERTAINMENT AND MEDIA	83%	17%	0%	0%	0%	0%	6
Total	47%	13%	5%	3%	3%	29%	754

Source: IDA investment locations up to 2012 by key gateway cities.
Sectors based on IDA classifications.

Results of interviews with key economic interests

A summary of the most cited strengths, weaknesses, opportunities and threats as identified by the interview process and is shown in Table 3. More detail on opinion on Dublin's role is available from Report 3. There was a general consensus across the board that Dublin is the only city of international scale and the location of choice for FDI in Ireland. It is also regarded as the innovation hub of the island and the pre-eminent urban area with the necessary mix and critical mass of talent and skills, available workforce and infrastructure to attract further investment and talent. In particular concern was expressed with regard to future transport provision, ability to respond to future economic growth and a lack of recognition for Dublin's unique role in national planning and local government policy.

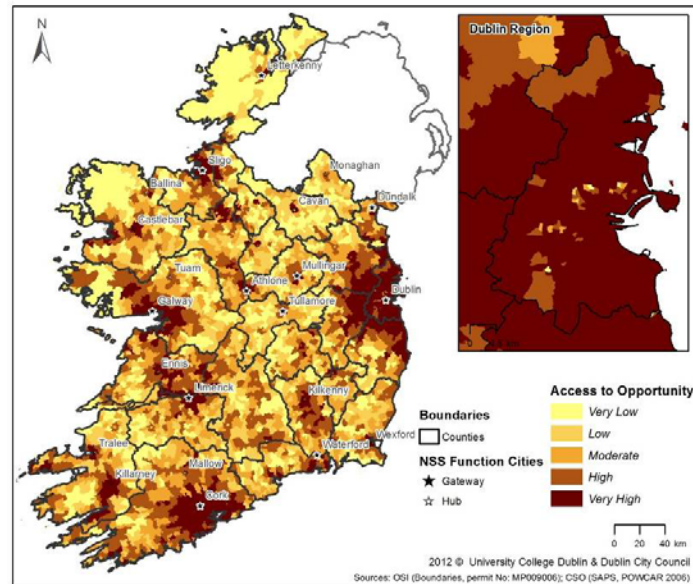
Table 3: Summary of key strengths, weaknesses, threats and opportunities as outlined by interviewees

Highest ranked factors of SWOT Analysis	
Strengths	Weaknesses
<ul style="list-style-type: none"> • Ability to attract (and produce) talent and an educated workforce • A good business environment and a strong multinational base – cluster effect • A city of global scale • Excellent quality of living and an abundance of supporting assets • A much improved transport infrastructure 	<ul style="list-style-type: none"> • High unemployment/ Youth unemployment • Interregional competition and a lack of understanding of the national importance of Dublin's global role • Outdated planning / spatial strategy and governance structures • Connectivity and poorly integrated transport systems • Relatively poor and expensive residential broadband infrastructure
Opportunities	Threats
<ul style="list-style-type: none"> • Leveraging the existing FDI clusters to attract new entrants and create spin-off enterprises • Increased collaboration across public and private sectors • Enhancing the built fabric of the city centre • Enhancing the tourism potential of the city • Connecting to emerging cities and building relationships • Operationalising efficiencies across city region services • Growing new creative industries and gaining competitive edge in growth areas such as the digital, green and marine sectors. 	<ul style="list-style-type: none"> • Lack of investment in critical infrastructure (roads, water services) • Lack of physical connectivity will undermine competitiveness – threat of congestion and international isolation • Competition from emerging markets • Emigration and skill shortages • Anti-social behaviour (or perception of) • The economic crises (resulting in a fear to plan for the future) • Future proofing residential broadband speeds

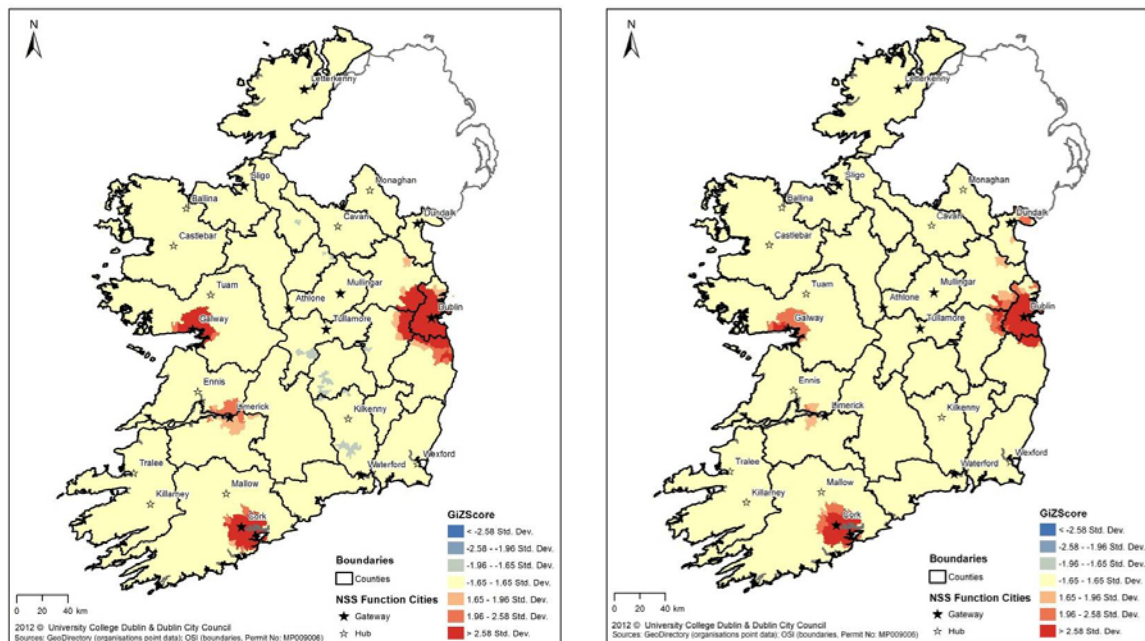
Selected Outputs, Spatial Analysis and Mapping

Spatial mapping of economic activity revealed the importance of Gateways and economic corridors which support functional economic areas. The spatial mapping exercises also clearly showed that key locations (Gateways) nationally are the main points of concentration for business across the majority of economic sectors. The opportunity maps were experimental and showed that enterprise potential as measured by 30 indicators¹⁵ also concentrates in a few key areas with Dublin, Cork, Limerick and Galway (see Figure 6).

¹⁵ Indicators included access to public transport, employment levels in an area, deprivation measurements, access to amenities and services amongst others.

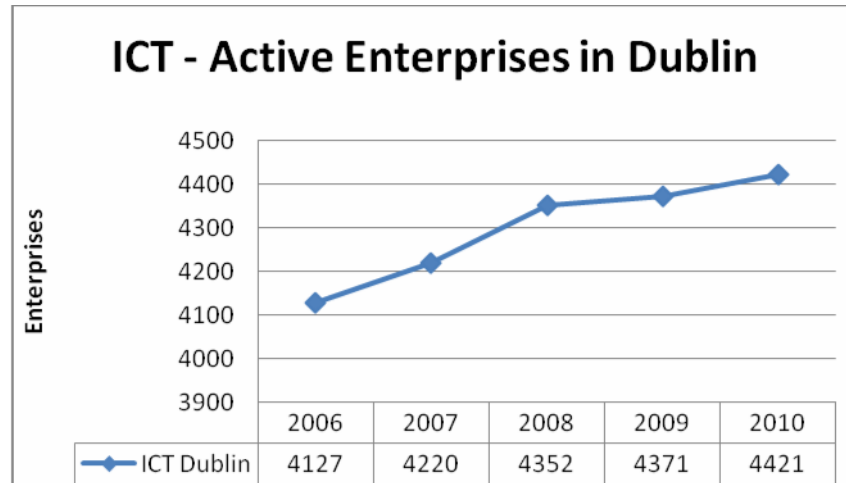
Figure 6: Comprehensive Map of Enterprise Opportunity

For sectors such as “Financial and Insurance Services” and “ICT” there are clear concentrations of activity in a few gateway locations nationally (see Figure 7). Companies choose to form and locate in these key locations to maximise the potential of their businesses and avail of agglomeration economies.

Figure 7: ICT (Map left) and Financial and Insurance Activities (Map right). Note the concentration of activity in a few key locations and the particular importance of Dublin as a cluster location.

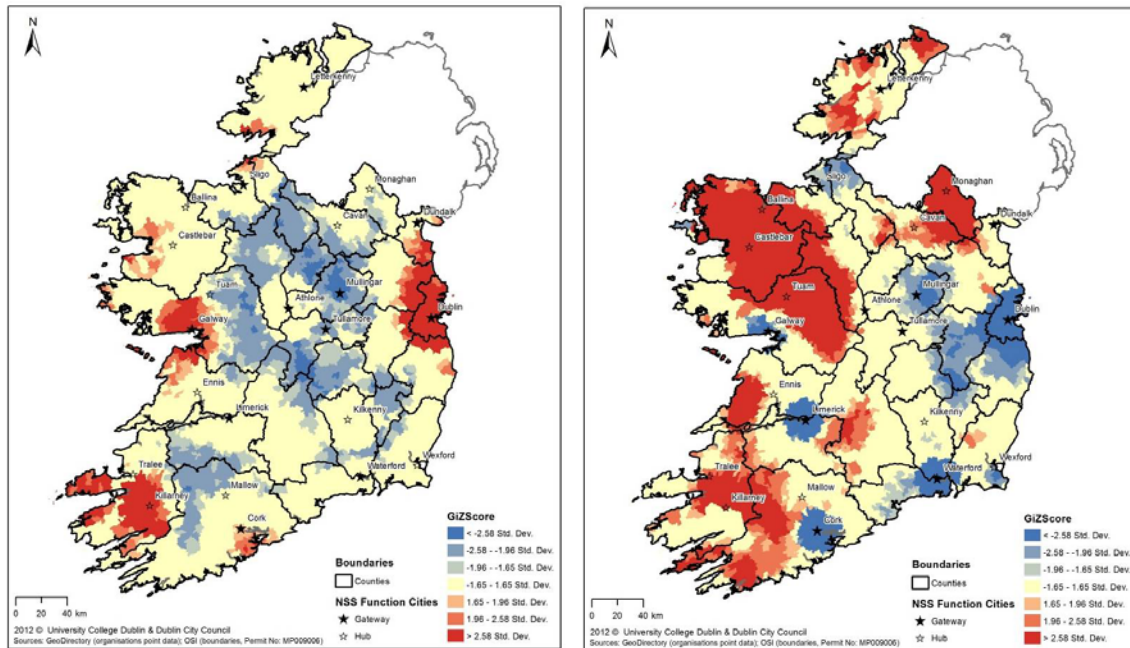
CSO Business Demography data were further analysed across broad economic sectors. As an example, it was shown that Dublin has provided a key location for ICT in Ireland in the years to 2010 (see Figure 8). This result complements the opinion of the interview process where a number of contributors felt that Dublin is a preferred location for this sector as it offers the type of city living, knowledge transfer and critical mass of like-minded and highly skilled individuals and business respectively required for this creative knowledge economy sector.

Figure 8: Active ICT enterprises in Dublin 2006-2010 (Source: CSOc, 2012)



Comparing Dublin to other regions in Ireland the importance of agri—food is clearly evidenced as is the importance of tourism (the Accommodation and Food Sector) in a few key locations such as the main cities, parts of Kerry such as the Dingle Peninsula, and parts of Mayo such as Westport (see Figure 9). The key message is that different areas have different strengths and it is these strengths or sector specialisations which can form the basis for future economic development.

Figure 8: Note the concentration of accommodation and food services in key tourism spots (Map left) and the strength of agriculture, forestry and food in rural areas (Map right)

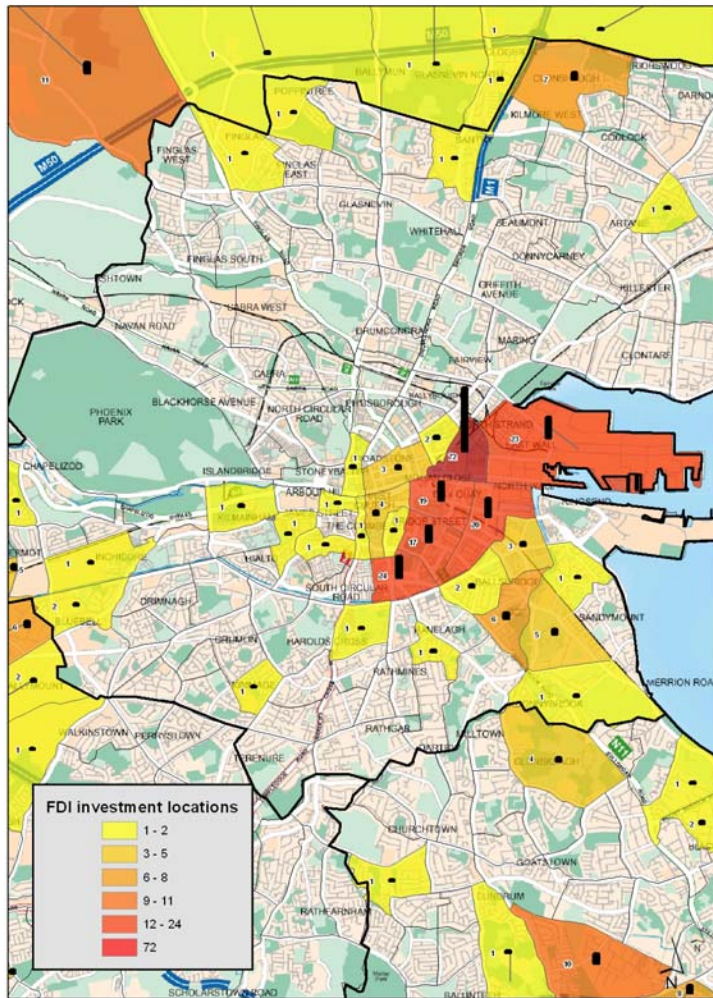


While the maps are not reflective of the quantum of employment and instead use business location as a proxy for activity they also showed that there are weaknesses in the spatial hierarchy in a number of locations such as the Sligo, Waterford and Midland Gateways.

Hot-spot analysis of economic activity by business location in particular reinforces the absolute importance of Dublin as a location with a critical mass of business across all sectors except agriculture and food. In the case of the latter there is an argument to investigate the potential to improve the quantum and distribution of specialist food products and services. The consequence of this result is to reinforce existing literature in this area regarding the importance of developing selective key growth centres across the State in which investment resources can be maximised to their fullest potential.

The research team also collated and mapped IDA supported FDI data in cooperation across Ireland which was an innovative use of this data in terms of linking economic activities and location analysis. This allowed the visualisation of investment trends occurring nationally and in the context of Dublin. Note the concentrations in Dublin and within Dublin in the inner core of the city (Figure 10). Many new creative industries are choosing city centre locations. Dublin in this regard is seeing the re-emergence of the economic importance of the central city area.

FDI investment locations by Electoral District (2012)



Williams et al.

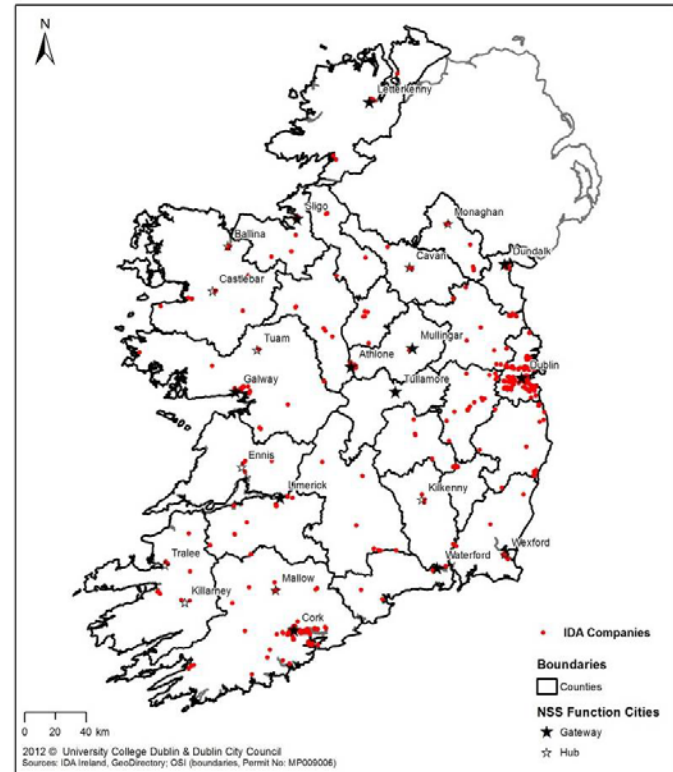


Figure 10: FDI Investment Locations, supported companies in Dublin and nationally

The research also explored the importance of education to finding employment in Ireland. As Figure 11 shows those with third level employment can have a much higher expectation of finding employment. At the same time as Figure 12 shows third level qualifications tend to gravitate to the main Gateways for employment.

Figure 11: Unemployment rate by level of Education (Source: CSO, 2012)

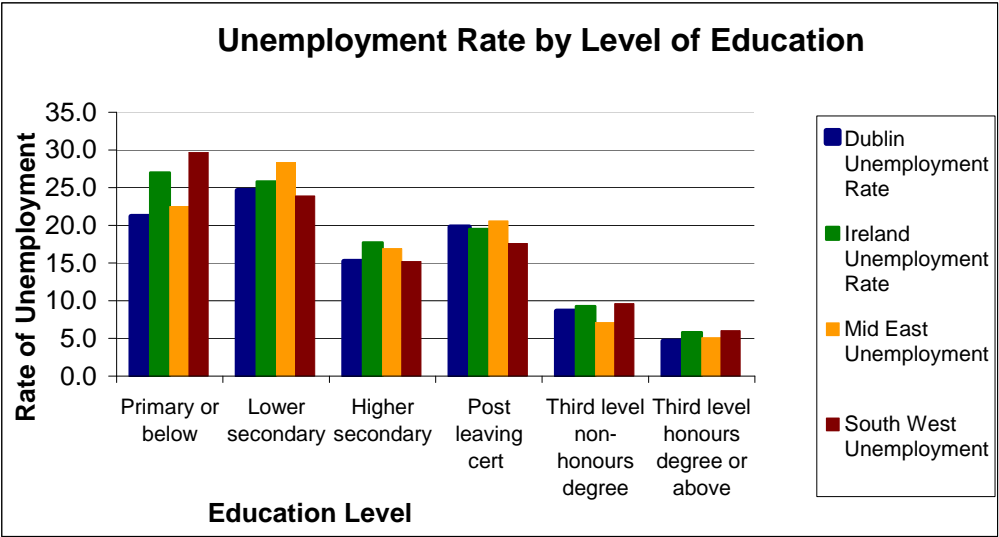
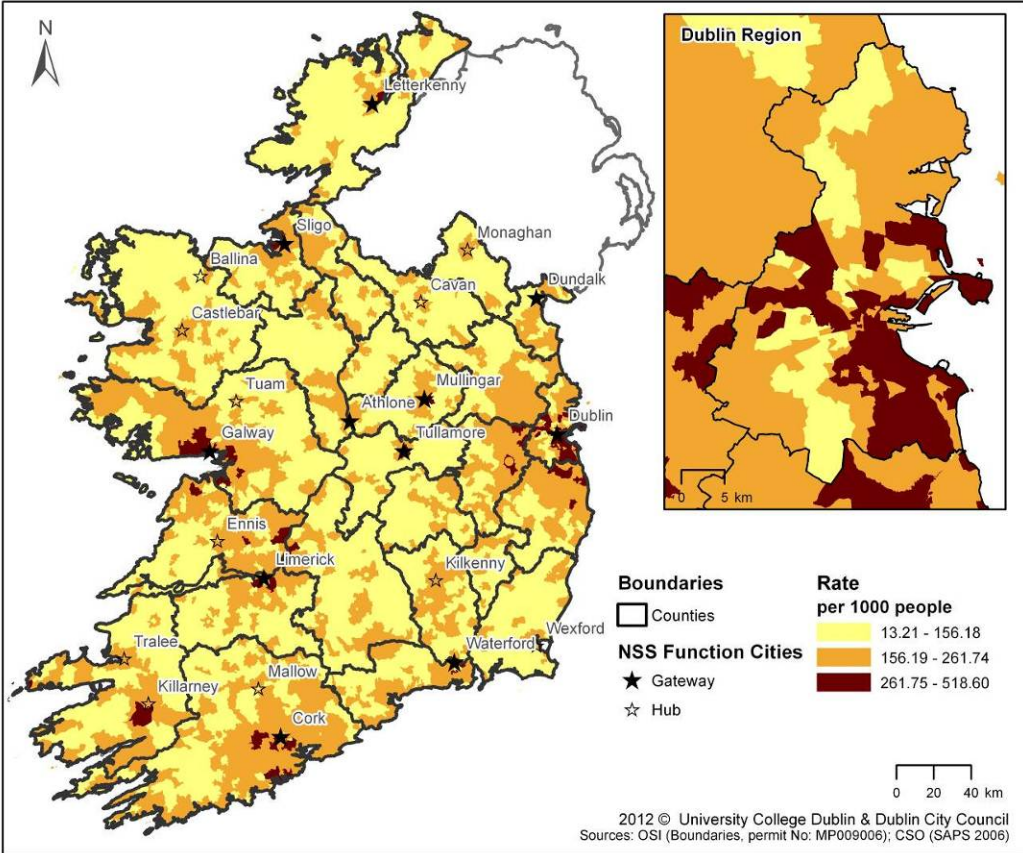


Figure 12: People with 3rd level of education per 1000 population in 2006



The Dublin region is the leading education location in Ireland, with 50 percent of all students in the university sector based there, and 63 percent of all PhD students.¹⁶ The Dublin city region also accounted for 57.5 per cent of all students in 2010-2011 (HEA, 2012).¹⁷ Dublin accounted for 67.4 per cent (or 66,164 students) of all full time and part time student enrolments in the University sector and 36.6 per cent of full time and part time students enrolled in the I.T. sector. The report “*What do graduates do?*” (HEA, 2008) found that there was a disproportionately higher number of graduates employed in the Dublin region, with the South West Region a similarly popular destination. Dublin is the only county to employ more graduates than it produces; Cork has an employed graduate population which is 90 per cent of its production with both counties retaining a large majority of graduates produced.

This clearly shows the importance of Dublin both as an international student city and as a centre for jobs in the key growth areas of the new creative industries and the knowledge economy. Dublin is providing a level of opportunity to Irish graduates which if not available would invariably mean they would have to consider emigration to source employment. Dublin is both a creator and attractor of talent and as such is the Gateway for FDI into Ireland.

Key Results

- By international standards Dublin is a medium sized or small city, ranked 77th out of 78 cities in terms of population by the OECD¹⁸, the Greater Dublin Area has a population of 1.27 million, while Ireland has a population of 4.5 million. Capital city regions in small and medium sized European states such as Ireland, Denmark and Netherlands often play a dominant role in their respective national economies.
- The spatial evidence from mapping of economic activity (hot spot activity and opportunity mapping) reinforces the importance of Dublin and key Gateways as centres of employment and enterprise catchments.
- The economic wellbeing of the Dublin city region as home to 28% of the national population is evidently central to national economic recovery. All discussions on regional distribution of income and wealth are of course dependent upon maintaining a capacity to generate national income.
- The GDA accounts for almost half of national GDP and its effective management and continued success is critical for the performance of the entire economy. Dublin in this regard is similar to other global cities and its primacy and contribution to the national economy is critical.
- The Functional Urban Region of Dublin in terms of clustering was shown to extend into the Dublin commuter hinterland and along key economic corridors such as the M1 Dublin-Belfast corridor
- Dublin’s value to the country in terms of spill-over is becoming clear with the evolving Dublin Belfast Corridor a prime example.
- Opinion from interviews recognised the importance of Dublin as an asset to the rest of the country in terms of employment creation, tourist attraction and investment attraction. Interviews also revealed a strong body of opinion which felt that local government structures are sub-optimal and that “regions” should be reformed to align with the reality of functioning urban regions and be engaged with economic development and

¹⁶ Dublin City Council (2011) Dublin as an Open City Local Action Plan, 2011, Dublin

¹⁷ HEA (2012) Statistics 2010-2011 (Higher Education Authority).

¹⁸ Competitive Cities in the Global Economy, 2006

- employment issues as well as population targets and planning. Previous growth problems in Dublin can be seen as resulting from a lack of implementation of adequate urban and regional growth strategies and appropriate management structures for the Dublin Functional Urban Region rather than resulting from diseconomies of scale.
- In terms of local governance policy reform opinion from interviews favoured assigning revenue generation powers to local government more commensurate with expenditure responsibilities.
 - Analysis of CSO Business Demography data shows that Dublin has the necessary skills and workforce magnitude to attract investment and has been resilient in certain sectors such as ICT and Finance, actually growing the numbers of enterprises notably in ICT.
 - Key areas such as transport and broadband infrastructure require future proofing to maintain the competitiveness of Dublin. International benchmarks indicate a need to improve our performance in these areas to maintain competitiveness.
 - The Dublin region is expected to take a projected population increase of over 200,000 persons from 2010 to 2022 the Mid East has been apportioned 100,000 in the same period. These figures are proportionally high in a national regional context. This growth will place a high degree of pressure on the delivery of education, health and recreational services and require targeted planning and key infrastructure investment.
 - Citizens or companies located in Dublin contributed an approximate 55.6% of all VAT in the most recent year for which reliable data could be obtained - 2008 , and indicatively
 - contributed 62.4% of all Corporation Tax yielding €3.2bn out of a total tax of €5.1bn in 2008.
 - contributed paid 50.6% of state PAYE in 2008 producing an estimated exchequer revenue of €5 billion for the Government.
 - contributed 38.8% of non-PAYE income tax followed by Cork at 11%, Galway 4.5%, Kildare 4%, Limerick 3.9%, Meath 3.5%, Wicklow 3.4% and Tipperary 3.0%.
 - contributed 41% of all Capital Gains Tax intakes
 - The Dublin region is the leading education location in Ireland, with 50 percent of all students in the university sector based there, and 63 percent of all PhD students.¹⁹ The research also indicated the importance of education to finding employment in Ireland over other factors including regional distribution of investment. Direct correlations were found nationally between levels of education and employment levels and Dublin has a critical mass of skills which are attractive to outside investment.
 - Previous property bubble house prices and business space prices had contributed to a major costs spiral making the city less competitive. The option of capitalizing on lower property asset prices, surplus housing and ready to use commercial space in Dublin as a competitive advantage is underexplored.
 - Threats to economic development include lack of connectivity which will undermine competitiveness, competition from emerging markets, emigration and skill shortages.

¹⁹ Dublin City Council (2011) Dublin as an Open City Local Action Plan, 2011, Dublin

Key Recommendations

Key strategic recommendations are outlined. Technical recommendations for data share and use are included in Reports 1, 2 and 3, respectively.

- The main recommendation is that the factually based evidence of this report is used to influence future policy making which affects the spatial and economic integrity of the State. For example, it is clearly arguable capital expenditure in Dublin would have positive effects not only for Dublin but for job creation, attraction and retention nationally.
 - Increased collaboration and joined up data and thinking at local level will facilitate economic development efforts.
 - It is recommended with this evidence that existing initiatives such as the Creative Dublin Alliance, consisting of leaders including from local government, business and academia, develop a strong and unified vision and purpose for the city region and regularly interrogate Dublin's performance. A joint technical research group should support this using reliable and recognised international benchmarks which are important metrics in assessing Dublin's performance and position globally.
- In light of the evidence emerging from interviews the role of local government was also examined. A succession of ignored policy recommendations from the 1960's on the form, funding and financing of local government were listed in Report 3. These reports generally support the interview opinion that local government should have greater levels of autonomy with the assigning of revenue generation powers to local government linked with expenditure responsibilities. On 16 October 2012 the government announced a suite of local government reforms ("*Putting People First*" (DoECLG, 2012)) and changes to local government structures with the numbers of regions being cut from 8 to 3 and numbers of councillors reduced by 40 per cent. Local authority services are potentially to be funded through a local property tax.²⁰ The absence of a specific reference to Dublin in the local government reform document "*Putting People First*" is notable. This research clearly shows the importance of Dublin both through reference to other work and new spatial analytics and should be used to indicate to policy makers the role of the Dublin city region in the national spatial hierarchy and in the national economy. Any regional economic and development plan needs to have a specific Dublin reference with recognition of its Functional Urban Region.
- It is recommended that key stakeholders such as the Department of Justice, Dublin Local Authorities, the Dublin Regional Authority, Fáilte Ireland, Chamber of Commerce, DCBA, the DAA and others continue to work together to jointly build and promote the attractiveness and accessibility of the city region as a destination of choice for emerging markets and talent, sharing data and expertise more regularly and openly.

²⁰ Action Programme for Effective Local Government (DoECLG, 2012)

- The use of the findings and spatial patterns from this work and these data sets represents a major support to policy action plans both at national and sub-national level. This analysis is also possible at an All-Ireland level. It is possible to map and carry out hot spot analysis of all agency assisted data, working closely with Forfás, Enterprise Ireland and the IDA to realise this ambition.
- A final recommendation relates to the evidence that when the economic development capacity of Dublin is maximised the potential of the entire country is maximised. To achieve this, targeted investment (supported by hard evidence) in key infrastructure is necessitated to avoid constraints emerging in the capacity of the Dublin region to grow as an international city region for the economic and social benefit of all citizens of the country.

References

- CSOa, (2012) *Special CSO tables for NUTS III based on Quarterly National Household Survey, 2012* (Cork) Central Statistics Office
- CSOb, (2012) “County Incomes and Regional GDP, 2009”, (Dublin 2) Central Statistics Office
- CSOc (2012), Business Demography Data (Cork) Central Statistics Office
- Dobbs, R., Smit, S., Remes, J. et al (2011), *Urban World: Mapping the Economic Power of Cities*, (New York) McKinsey Global Institute & Company.
- DCC, (2011) *Dublin as an Open City Local Action Plan, 2011*. (Dublin) Dublin City Council
- Ernst and Young (2011), Annual Globalisation Index 2011
- HEA, (2008), *What do Graduates do?* (Dublin) Higher Education Authority
- Fujita, M., (2001), *The Spatial Economy*, (MA, USA) MIT Press.
- Garreau, J., (1991), *Edge City: life on the new frontier* (New York) Anchor Books (Random House).
- Glaeser, E., (2011) *Triumph of the City – How our greatest invention makes us Richer, Smarter, Healthier and Happier*, (New York) Penguin Press.
- IMD, (2012), *World Competitiveness Yearbook 2012* (Lausanne, Switzerland) IMD Business School.
- Krugman, P., (1991), *Geography and Trade*. (Cambridge) MIT Press.
- Marshall, A., (1930), *Principles of Economics* (8th edition; originally published 1890), (London) Macmillan.
- Morgenroth, E., (2010), Regional Dimension of Taxes and Public Expenditure in Ireland, In: *Regional Studies*, Vol 44, Issue 6, p777-789.
- NCC, (2009), *Our Cities: Drivers of National Competitiveness*, (Ed, Devitt, A.) (Dublin) Forfas. National Development Council.
- NSS, (2000), *National Spatial Strategy - The Irish Urban System and its Dynamics*. (Dublin) DoEHLG Spatial Planning Unit, Government Stationery Office.
- OECD (2006), *Competitive Cities in the Global Economy*. (Paris) Organisation for Economic Cooperation and Development.
- OECD, (2012) Stat Extracts (Paris) Organisation for Economic Cooperation and Development.
- Porter, M., (1998), *On Competition*, (Boston, Mass.) Harvard Business School Press.

RPG, (2010), *Regional Planning Guidelines for the Greater Dublin Area 2010* (Dublin) Regional Planning Guidelines Office of the Dublin and Mid East Regional Authorities.

Sassen, S., (2008), *Territory, Authority, Rights: From Medieval to Global Assemblages* (New Jersey) Princeton University Press.

UN, (2011), *World Urbanization Prospects, the 2011 Revision, UN Nations, Department of Economic And Social Affairs, Population Division* (New York) United Nations.

Williams, B., Walsh, C. & Boyle, B., (2010), *The Development of the Functional Urban Region of Dublin: Implications for Regional Development Markets and Planning*. (Dublin) School of Geography, Planning and Environmental Policy, University College Dublin.

Main References for Synthesis Report

Shayumyan H, Williams B & Foley W (2012) Dublin's role in the National and Global Economy – Report 1 –Collating and Assessing the Availability and Applicability of Socio-economic Data and Information Relating to the Development of the Dublin region

Shayumyan H, Williams B & Foley W (2012) Dublin's Role in the National and Global Economy – Report 2-Spatial Analytical Approaches Assessing Socio-economic Development of the Dublin Region Compared with other regions in Ireland

Foley W, Williams B & Cudden J. (2012) Dublin's Role in the National and Global Economy – Report 3 – Main Report on Key Indicators and Opinion on National and Global Trends

DCC (2009) Economic Action Plan for the Dublin City region (Dublin) Economic Development Unit, Dublin City Council

DCC (2012) Demographic Trends in Dublin 2012 (Dublin) Dublin City Council

Waugh J., Cudden J., Williams B (2012) The role of talent facilitation in the economic development of Dublin

Williams B, Foley W, Shayumyan H & Petrov L. (2012) Transport Improvements and Impacts on Land Use Dynamics and Economic Development: Evidence for The Dublin-Belfast Corridor