

Facing the Challenge of Change: A Spatial Perspective on Limerick

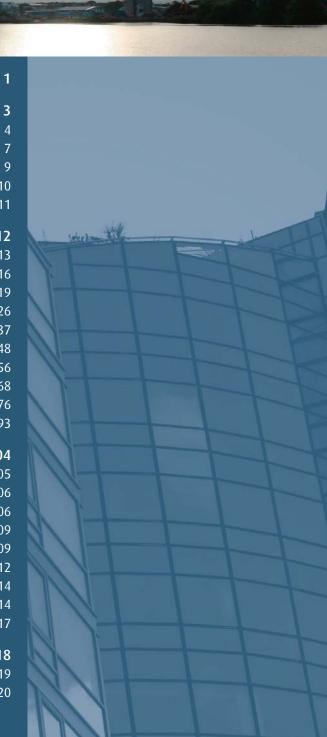
Prepared for Limerick City Council By Des McCafferty & Brendan O'Keeffe

Department of Geography Mary Immaculate College University of Limerick and National Institute for Regional and Spatial Analysis



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This report "Facing the Challenge of Change: A Spatial Perspective on Limerick" provides much needed information, facts and figures which relate to Limerick City & Environs and will serve as a valuable reference for all sectors of our City particularly in the development of new strategies to address the constant changing landscape of Limerick City.

The need to co-ordinate and draw together statistical information and then interpret this information in a usable format was first identified in 2001 and again in 2005 when "Limerick: Profile of a Changing City" which was published, all reports are based on the small area population statistics which are published as part of the five yearly Census of Population. This report builds on past reports to provide a comprehensive picture of the changes which have taken place while also highlighting the challenges to be overcome for the City and Environs. We are sure that this will be a very useful tool for organisations and individuals who work for the betterment of our City.

I would like to take this opportunity to thank Professor Des Mc Cafferty and Mr Brendan O'Keeffe Department of Geography Mary Immaculate, Collage, Limerick who complied the research and prepared the report. Thanks also to Jason Murphy for the map production and Miriam O Donoghue who co-ordinated the project for Limerick City Council.

I would like to acknowledge Limerick City Development Board for their inputs into this and past reports.

Councillor Kevin Kiely Mayor of Limerick





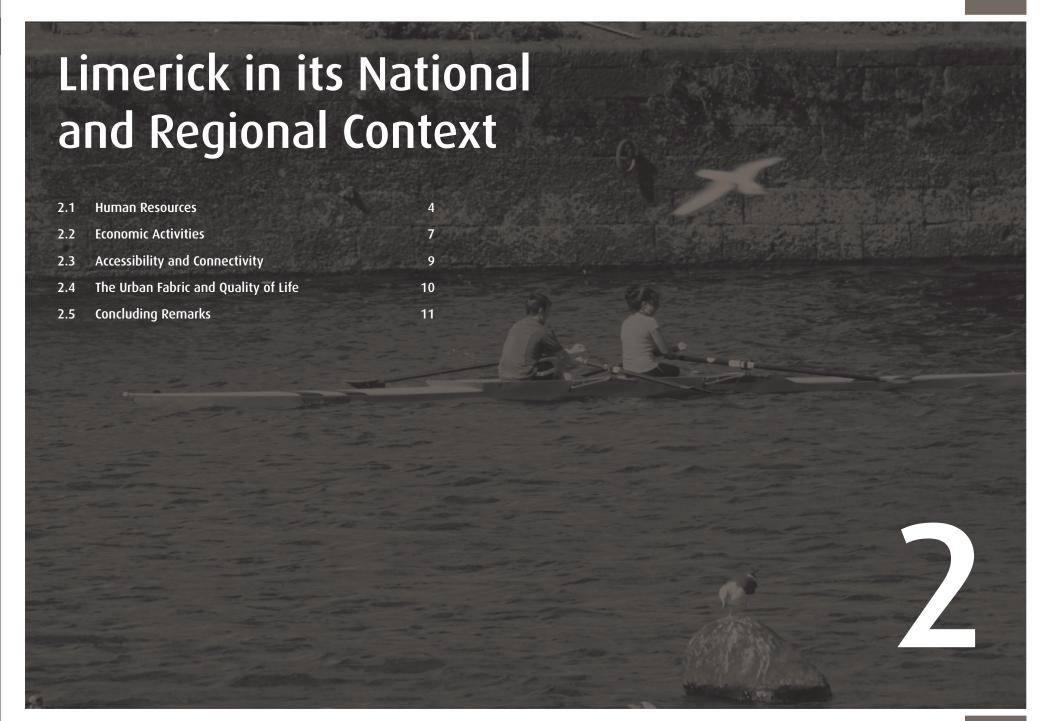
1 Introduction

In 2005 Limerick City Council published a comprehensive account of the social and economic geography of Limerick urban area, based largely on data derived from the 2002 census of population. The primary purpose of the present report is to re-visit and update the earlier analysis using small area data from the most recent census, conducted in 2006. The reference year for this profile is a highly significant one, for two main reasons. First, it corresponds to the 'high water mark' of the Celtic Tiger period, and as such allows an important benchmark for future socio-economic profiles to be established. The years between the two profiles, 2002-06, represent the last years of the long economic boom that began in the mid-1990s, but which, even by 2006, was beginning to show signs of faltering. There have of course been significant changes in the economy and society of the city since the 2006 census was undertaken, in particular a sharp increase in the numbers unemployed, but these changes make it all the more important to establish the situation as it was in 2006 in order to understand better the adjustments now taking place and to be able to anticipate and plan for their outcomes. Second, 2006 is the year in which the Fitzgerald report on social exclusion in Limerick was commissioned by the Irish government, leading, in 2007, to the establishment of the Limerick regeneration agencies, and, in turn, to the launch in 2008 of a €3.1 billion programme for the regeneration of a large area of the city. The establishment of a 2006 baseline is of vital importance to the monitoring and evaluation of the regeneration programme as it is rolled out over the next decade. In short, 2006 represents both an end and a beginning in Limerick, and as such a significant reference point in time for 'taking stock'.

Apart from the significance of the reference year, there are several features of this profile that differentiate it from the earlier work. First, several new topics are included, on which data were collected for the first time in 2006. These range from race and ethnicity, to volunteering activity by individuals, housing vacancy rates, and the availability of broadband Internet access to households. In addition, the 2006 census provides more comprehensive information on nationality than the earlier census, so that a more detailed picture can be constructed of the location and local impact of immigrant groups, including Limerick's largest non-Irish nationality, Polish. Second, there is a more explicit focus on change in this report, both change since the earlier 2002 report, but also change over the longer ten-year period since 1996, which corresponds broadly to the years of highest economic growth and immigration. In all, there are fifteen maps in the report relating directly to social and economic change. These maps allow for the unfolding of several trends that were just beginning to appear in the earlier profile, including the city centre apartment boom, the emerging new cultural and ethnic diversity, and the relative shift of housing tenure away from local authority renting. The changing complexion of the city centre is a key theme, but so also is the emergence of the suburbs as a hugely significant and dynamic component of the urban area. The availability of data for smaller units of area than the Electoral Districts – another first in the 2006 census – allows the human geography of the suburbs to be explored in detail for the first time.

The profile commences (Section 2) with an overview of the role and recent performance of the city as a regional capital, and, in the context of the National Spatial Strategy, one of nine designated gateways cities. Particular attention is given to the main areas that impact on the competitiveness of the city, including population trends, economic performance, transportation and communications connectivity, and quality of life. The central part of the profile (Section 3) examines the spatial patterns of a wide array of demographic and socio-economic indicators across the urban area as a whole, using census data at the level of the Electoral Division. In all 72 maps are provided, covering the City and its suburbs. In Section 4 the level of detail in the spatial analysis is significantly increased by recourse to data for Enumeration Areas, which are particularly illuminating with regard to the suburbs. The profile concludes (Section 5) by identifying a number of key emerging issues in the city's development that must be addressed if Limerick is to reach its full potential as a gateway city providing a high quality and sustainable living environment for its present and anticipated future population.

With the increasing requirement that public policy be solidly evidence-based, this new census profile of Limerick will be a significant resource to policy makers, planners, and those charged with the delivery of public services in the city and its wider functional region. It is anticipated that the report will be of use more widely to those with an interest in both the recent and longer-term development of Limerick, and to anyone concerned with the challenges that the city faces at a critical juncture in its development.



Limerick in its National and Regional Context

Limerick City is at the hub of transport, economic, educational and social activities in the Mid-West Region. The City is an important driver of regional growth, and the National Spatial Strategy (NSS) 2002-2020 recognises Limerick-Shannon as the third largest of the national gateways that are designated to achieve sustainable and balanced regional development within a context of enhanced national competitiveness. In order for the city to fulfil its intended role in the NSS there are many challenges to be met, one of the most fundamental of which is the governance challenge of developing increased levels of collaboration between civil society, the productive sector, public bodies and local authorities within the region.

2.1 Human Resources

The population of Limerick City and its environs¹ was recorded as 90,757 in 2006. The European Spatial Planning Observation Network (ESPON) calculates that Limerick has a population potential of 326,279 within an area defined as the Polycentric Integration Area (PIA) around the city. PIA populations are identified by calculating the critical demographic mass that exists within the functional urban centre as well as that which is garnered through collaboration with adjoining urban centres, particularly those which have commuter zones that overlap significantly with the functional urban centre. In the case of Limerick, this implies in the first instance collaboration with other towns in the Mid-West Region, notably Ennis, Newcastle West and Nenagh, and in the second instance, and more importantly, with Cork and Galway, both of which have considerable overlap with Limerick in respect of their commuting hinterlands. When urban areas are ranked on the basis of their PIA populations, Limerick improves its position in the European urban hierarchy.

While Limerick's population (City and environs) grew by 4.3 per cent since the previous census in 2002, the rate of growth was somewhat below the national average of 8.2 per cent for the same period. Indeed, during the four years from 2002, the population of the area within the city boundary actually declined by 2.7 per cent. In contrast, the population of the environs grew by 16.9 per cent and these areas now account for 42 per cent of Limerick's population. In addition, there is evidence that Limerick is experiencing a trend towards counter-urbanisation, with a movement of people from the city into small towns, villages and areas of open countryside that are outside the built-up urban area, but within a 45 minute commuting distance thereof. This trend raises important issues in relation to the consolidation of the urban fabric, and the sustainability of land use and transport provision across the region.

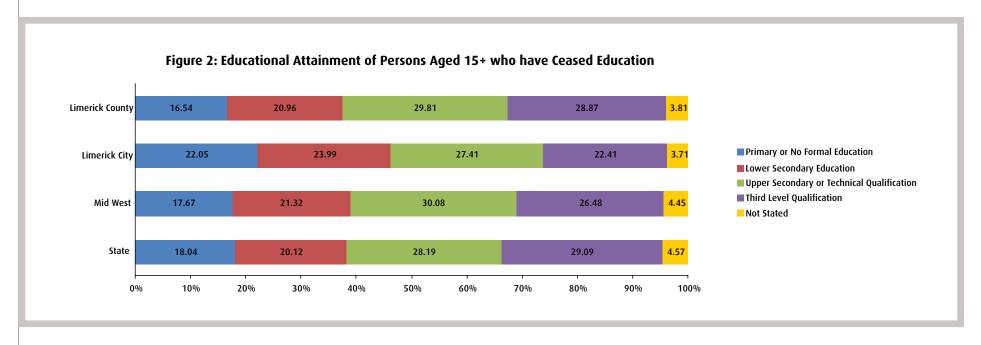
The Mid-West Region has a population (2006) of 355,203, of which 172,056 (48 per cent) live in towns with 1,500 or more inhabitants. Although the region is more rural than the State as a whole, it has been urbanising more rapidly than most other regions over the past decade. Towns within 40km of Limerick City have experienced the most rapid population growth, with Ennis and Nenagh both experiencing a 32 per cent growth in population since 1996. Towns with populations of between 5,000 and 25,000 (Ennis, Nenagh, Shannon, Thurles and Newcastle West) now account for 16 per cent of the region's population, compared with 13 per cent in 2002.

Despite the contraction in its core population, Limerick City has been the main driver of population growth in the region, with areas closest to the city experiencing the highest levels of growth. This pattern of outward growth from Limerick has been most prominent along the Limerick-Ennis and Limerick-Nenagh corridors, with the Meelick, Tulla, Ennis and Nenagh Rural Districts all experiencing population growth in excess of 25 per cent since 1996. Within these inter-urban corridors, a number of

¹ Throughout the report Limerick City (capital 'C') refers to the legally bounded area administered by Limerick City Council. The 'environs' of the City are defined specifically for census purposes and consist of those parts of the contiguous built-up area that are outside the administrative boundary of the City. These are not identical to the 'suburbs' as defined (along with 'Limerick urban area') in chapter 3. Together the City and environs are referred to as Limerick city (small 'c').

EDs experienced population growth in excess of 50 per cent over ten years. At the same time however, some rural parts of the Mid-West Region continue to experience peripherality and structural weaknesses, notably, south-west Clare, west Limerick (west of Newcastle West) and north Tipperary (north of Borrisokane, and the vicinity of the Silvermines). The spatial pattern of demographic change in the Mid-West Region since 1996 shows an association between high levels of interurban accessibility and population growth, and between rural peripherality and population decline. This pattern is clearly demonstrated in Fig. 1.

Though 26 per cent of the population in the Mid-West Region has a third-level qualification, the region nevertheless lags behind the national average (29 per cent) in this respect. Within the region, County Limerick has the highest level of educational attainment, and the skills and capacity of the local population are a significant asset in fostering and sustaining economic activities and in attracting foreign direct investment. However, as the following graph (Fig. 2) shows, further improvement in educational attainment levels in Limerick City is required, so as to optimise the region's social and economic competitiveness.



Source: CSO, Census of Population 2006, volume 10.

Limerick's third-level institutes, the University of Limerick, Mary Immaculate College and Limerick Institute of Technology have a combined student population of almost 20,000. Collaboration between these institutes and IT Tralee through the Shannon Consortium has the capacity to significantly up-skill the population of the region and the city. In addition, Limerick's third-level colleges have a growing research community and are progressive in providing advanced post-graduate education and research opportunities as part of the government's fourth-level Ireland initiative. These institutes are central to ensuring a steady supply of highly-skilled and motivated workers and innovators for the Mid-West Region. Implementation of their strategic plans, including the expansion of outreach facilities and activities, is a crucial element in the development of the region's human capital.

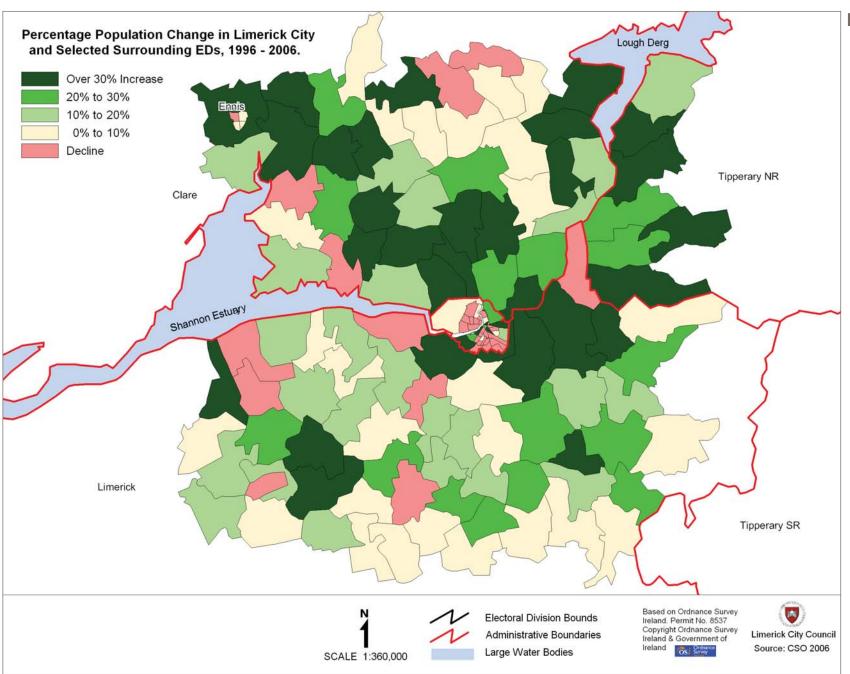
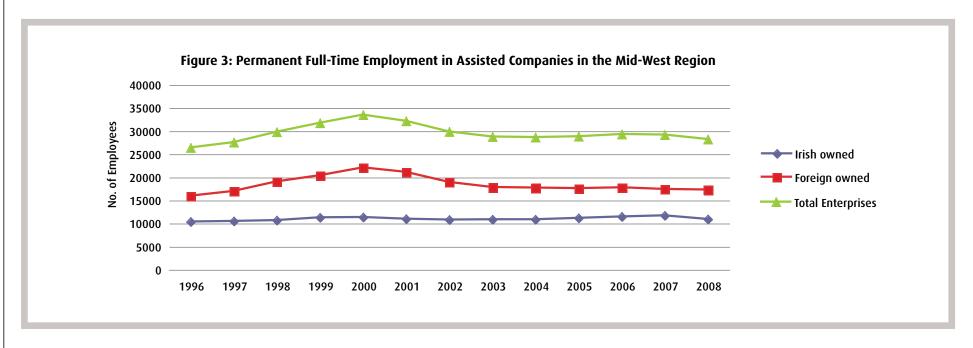


Figure 1

2.2 Economic Activities

In 2006 the GVA (Gross Value Added) per person in the Mid-West Region stood at 87 per cent of the national level, compared to 123 per cent in the Greater Dublin Area. Disposable income per person was 97 per cent of the national average. However, there were considerable disparities within the region, with Limerick (City and County) having disposable income considerably higher than Counties Clare and North Tipperary. In fact Limerick ranked as the fourth most prosperous county in the country, after Dublin, Kildare and Meath.

While both output and income grew considerable over the period 2000-2006, in line with the growth in the national economy, there was a downward trend in respect of employment levels in companies that receive support from the State's development agencies (IDA Ireland, Enterprise Ireland and Shannon Development) (Fig. 3). These companies are of particular importance to the region's economy in that they are mainly export-oriented, and hence constitute the 'economic base'. It is in this sense that employment in agency-assisted companies is referred to as 'basic' employment.

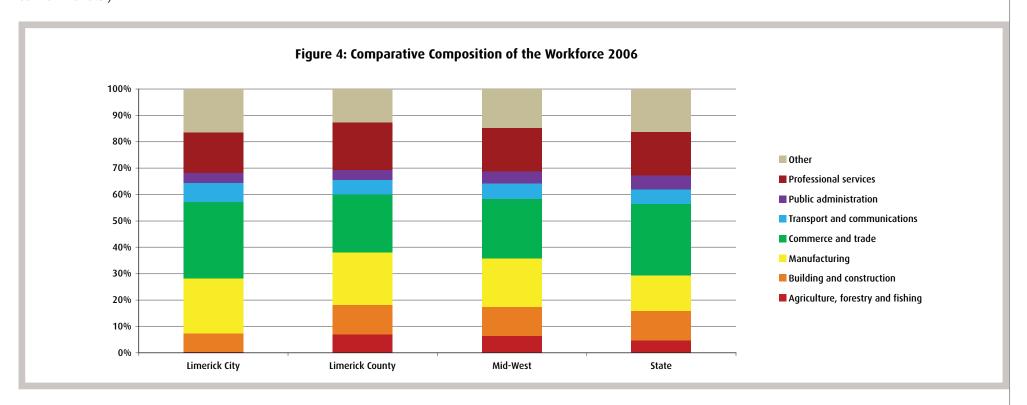


Source: Forfás (2005, 2008) Annual Employment Surveys

As the chart shows, foreign direct investment is a very significant generator of basic employment in the Mid-West Region, with approximately two-thirds of all such employment being provided by foreign-owned companies. Foreign firms have been the main engine of the increase in employment provision, most notably up to the year 2000. Since then, there has been a gradual downward trend in respect of employment in both Irish and foreign-owned companies. While foreign-owned companies display a slight upturn since 2007, Irish companies' performance tends to continue downward in terms of employment generation. Arresting this trend requires integrated approaches to improving regional competitiveness. The importance of addressing Limerick's competitiveness has been accentuated by recent job

losses, and the overall trend towards the decline in current industrial activities has been flagged by agencies such as ESPON, which specifically identified Ireland's Mid-West Region and parts of the west and south-west as being at medium-level risk of declining economic activity by 2030².

Limerick is the dominant engine of economic activity in the region, generating 57 per cent of the total wages and salaries earned in the Mid-West, as well as accounting for 72 per cent of net regional industrial output. Limerick's industrial output has increased progressively over recent years. Between 2000 and 2004, net output grew by 64.6 per cent, compared with a growth rate of 18 per cent for the State as a whole³. Although the manufacturing sector has contracted in recent years, both Limerick City and Limerick County continued in 2006 to have a higher level of dependence on it as a source of employment than do the region and the State (Fig. 4). However, a large number of the manufacturing firms that employ residents of the City are located at major industrial sites in Limerick County (e.g., along the Shannon Estuary) and Clare County (e.g., in Shannon and Ennis). This is reflected in the fact that while manufacturing (including mining, quarrying and turf production) employs 24 per cent of the workforce of Limerick City and environs⁴, it accounts for just 8 per cent of the jobs located in the City and environs3. The largest sectors in terms of jobs provided in Limerick (City plus environs) are wholesale and retail trade (6,742 or 19 per cent of all jobs) and health and social work (6,074 jobs or 17 per cent of the total).



CSO Census 2006

- 2 ESPON (2007) Scenarios on the territorial future of Europe ESPON Project 3.2
- 3 CSO Census of Industrial Production
- 4 CSO (2009) Census 2006. A Profile of the Working Population of Large Towns. Dublin: the Stationery office.

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The mismatch between the sectors in which jobs are available in the city and the sectors in which residents of the city work suggests that there is a large volume of commuting, both in to and out of the city. This is indeed the case, and while just under half of the 35,000 jobs in the city (15,984) are filled by in-commuters, the more remarkable fact is that almost 13,000 of the city's resident workforce of approximately 32,000 commute *out* of Limerick to work. The net inflow of just over 3,000 commuters is by far the lowest of any of the five cities in the country, both in absolute and percentage terms (Table 1), and clearly indicates a more decentralised and polycentric arrangement of employment opportunities in the Limerick functional region as compared to that of the other cities. Two implications arise. First, the data suggest that Limerick may be under-performing relative to the other cities in its role as the dominant employment centre of its functional region. Second, there is *prima facie* evidence of 'excess' commuting in the region, which in turn gives rise to concerns about both economic inefficiency and adverse environmental impacts. In this respect it should be noted that, while polycentricity (in the sense of having employment and population dispersed to several different centres rather than concentrated in a single centre) is one of the key principles underpinning the new spatial planning, as promulgated under the European Spatial Development Perspective (ESDP), there is no guarantee that polycentricity in itself, minimises excess commuting. Limerick appears to be a case in point.

Table 1: Components of City⁵ Workforces

	Resident Workers	Out-commuters	In-commuters	Net Gain	Employed in city	Net Gain as % Res. Workers
Dublin	394,720	56,752	104,865	48,113	442,833	12.2
Cork	65,288	13,085	31,909	18,824	84,112	28.8
Limerick	31,910	12,869	15,984	3,115	35,025	9.8
Galway	26,017	5,056	18,931	13,875	39,892	53.3
Waterford	16,458	2,754	11,685	8,931	25,389	54.3

Source: CSO Census 2006. A Profile of the Working Population of Large Towns.

2.3 Accessibility and Connectivity

The National Spatial Strategy recognises the strategic importance of the Limerick-Shannon Gateway. Limerick City itself is located at the confluence of a number of inter-city national primary routes, with direct access to the Waterford and Galway Gateways and the Tralee-Killarney Hub. Since the publication of the NSS in 2001, some progress has been made in furthering connectivity to and from Limerick and the Mid-West Region. The opening of the Ennis by-pass has enhanced connectivity between Limerick and Galway and the Western Region, in addition to improving the urban fabric and quality of life in Ennis. The construction of the M7/ N7 Limerick-Nenagh-Portlaoise route will further improve road access to and from Dublin. The southern ring road (N20 / N7) has alleviated congestion in Limerick City, and the impending opening of the Shannon Tunnel will further enhance the flow of vehicles within and through the region.

⁵ The areas to which the data in Table 1 refer are the administrative Cities plus their respective environs.

In terms of sustainable transport linkages, frequencies on the Limerick-Dublin rail line have improved since 2007, with fifteen daily services (Monday to Saturday) in both directions, of which six are direct. The new rolling stock on the Cork-Dublin line since 2007, and on the Limerick-Dublin direct services since late 2008, make rail travel a more attractive option for travellers. The on-going development of rail services will improve regional competitiveness, while also reducing the regional and national carbon footprint. In this context the opening, in 2009, of the Limerick-Ennis-Athenry railway will make a significant contribution towards improved connectivity and increased critical mass in both the Mid-West and Western Regions. It is important that this rail corridor be extended further northwards to Claremorris and Sligo, so that the west of the island of Ireland has the basis of a sustainable transport framework, providing a counterbalance to the Dublin-Belfast corridor along the east coast.

There are currently nine daily rail services from Ennis to Limerick, and eight in the return direction, with a journey time of forty minutes. While the rail line has been strengthened against flooding, the rolling-stock needs modernisation and average locomotive speeds are much slower than on other lines. Thus, the line is not realising its full potential either as a commuter service or as a more general transport link. The opening of stations at Corbally, Meelick and Sixmilebridge on the current line (and Crusheen on the Ennis-Athenry line) would contribute towards increasing passenger numbers, and would redress the current car dependency among those commuting from Limerick's extensive peri-urban and rural hinterland. Within Limerick, there is a compelling case from an economic and environmental perspective for the immediate roll-out of QBCs (Quality Bus Corridors) along the city's main arteries to connect with those already provided in the County.

The Atlantic Gateway Initiative, which is being spearheaded by Shannon Development, envisages inter-regional collaboration, so as to generate critical mass between the Limerick, Galway, Cork and Waterford City-Regions. As indicated above, progress is being made in forging improved linkages and critical mass between Limerick and Galway. However, the current status of transport linkages suggests that progress has been less notable in respect of connectivity between Limerick and both Cork and Waterford. Construction of the envisaged Limerick-Charleville rail spur has not yet commenced, and although tracks are aligned at Limerick Junction, there are no direct rail services between Cork and Limerick. On the positive side, most of the route for the M20, to include a Charleville and Buttevant by-pass, has been selected, and the development of linkages between the M20 and existing regional roads will be important in promoting intra-regional connectivity.

Shannon Airport has adapted well in the context of losing its compulsory stop-over status, with the airport now providing an increased range of services to several destinations in mainland Europe as well as regional airports in the UK. In an era when air connectivity is widely recognised as more vital than ever before to regional economic development, the recent temporary loss of direct services to London Heathrow represented a very significant threat to the region. The challenge is now to ensure that the restored services remain viable into the future.

The deepwater port at Foynes represents a very significant natural and infrastructure asset for the region. Further development of this facility, including its rail connectivity will represent a solid investment in promoting the region's competitiveness by furthering its global connectivity.

2.4 The Urban Fabric and Quality of Life

Limerick's urban environment has benefited from significant public and private sector investment over the past two decades. As a result, dereliction has been reduced and new residential and mixed-use areas have been developed within the city. New streetscapes, increased pedestrianisation, tree-planting, public art and the preservation and expansion of parklands have increased the city's attractiveness and sustainability. The reorientation of the city towards the Shannon represents a valorisation of a unique natural asset, and this has contributed to a more positive image of Limerick. Recent successes in sport, notably in rugby, have copper-fastened Limerick's position as *Ireland's Sporting City*, and the redevelopment of Thomond Park provides a further opportunity to project a vibrant image of Limerick, and to provide its citizens with a sporting venue of which to be proud.

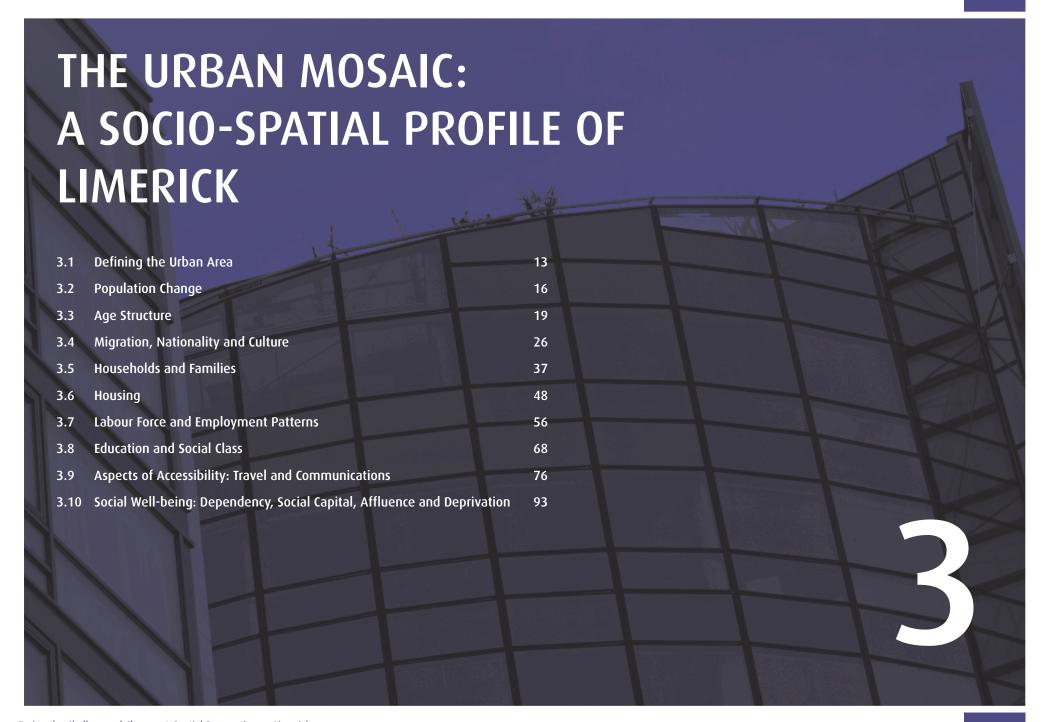
Work on improving Limerick's urban fabric and quality of life is on-going and merits top-down and bottom-up support. The City Council has adopted a City Cycle Network Strategy and a Sports and Recreation Strategy. Initiatives such as these represent tangible steps towards improving the quality of life for Limerick's citizens while also enhancing attractiveness for would-be incomers and investors. Meanwhile, the Limerick Regeneration Project has commenced, and, as the spatial analysis in this report shows, the Project is targeting the areas of greatest need. Limerick Regeneration is unique among area-based initiatives in the State, not alone in the size of investment envisaged in the Master Plans, but also in that it has attracted high level and very public endorsement from central government, as well as from the President of Ireland. Like all area-based initiatives, its success requires inter-agency collaboration and a steadfast commitment to partnership governance, whereby local citizens, broadly-based community groups, the social partners, local development agencies, local government and the relevant statutory agencies are awarded parity of esteem, and whereby decision-making processes are open, transparent and inclusive. Regeneration must strive to be more than a concern for economic and infrastructural issues; it must base itself on community development principles and ensure social inclusion and environmental sustainability.

2.5 Concluding Remarks

Successive international studies⁶ have identified the three pillars of regional competitiveness as accessibility, variety and proximity. Ireland's Mid-West Region is making substantial strides forward in respect of all three. Inter- and intra-regional connectivity is improving, particularly with the West of Ireland and with Dublin. There is potential for improvements in respect of connectivity to Cork and Waterford specifically, and in the provision of sustainable transport options generally. In terms of the variety of amenities and facilities offered within the region, the range of commercial, recreational and social outlets has increased over recent years. On-going investment in improving the quality of life throughout the region will assist in making the Mid-West an attractive location in which to invest, do business and live. There is a need to redress current spatial imbalances, so that peripheral rural areas and deprived urban communities do not fall further behind the rest of the region. Proximity facilitates collaborative ventures within the region, and in this respect the clustering of educational and economic activities associated with the National Technology Park, the Shannon Free Zone and other Shannon Development clusters provide a basis for inter-firm and inter-institutional collaboration and regional innovation. Progress has been slower in respect of collaboration among local authorities, but some advances have been made, particularly in respect of planning and land use, and further collaboration among local government actors in the region will contribute towards efficiencies in service delivery, the optimisation of resources and increased critical mass in respect of knowledge, innovation and connectivity.

Notwithstanding these indicators of progress, there are clearly a number of causes for concern in relation to the future development of Limerick and the Mid-West Region. After the recovery of the 1996-2002 period, population once again declined, albeit only marginally, in the City. While growth was stronger in the suburbs, there are indications that the main focus of population increase has shifted further outwards. The educational profile of the City workforce is weighted towards the lower end of the scale, and there is a strong dependence on jobs in foreign-owned companies in the manufacturing sector which is now subject to intense international competitive pressure. Moreover many of these manufacturing jobs are located outside the city itself, so that, relative to the total level of employment, there is a high volume of intra-regional commuting. This, in turn, raises issues of sustainability.

⁶ OECD (2005) Building Competitive Regions – strategies and governance. Paris: OECD; OECD (2007) Competitive Regional Clusters – national policy approaches. Paris: OECD.



3.1 Defining the Urban Area

This part of the profile looks at demographic, economic and social aspects of Limerick's internal geography, focusing on key indicators that are representative of each dimension. The commentary is based on a series of maps that show the variation of each indicator (or variable) across Electoral Divisions (EDs). The variables are calculated from data taken mainly from the 2006 census of population, but also include a series relating to change which is measured either in the decade between 1996 and 2006, or, where comparable 2006 data are not available, over the shorter period 2002 to 2006.

The geographical area covered by the maps is the administrative City of Limerick, consisting (since March 2008⁷) of 38 EDs, plus a further 5 EDs in County Limerick and County Clare that contain significant parts of the 'environs' of the City, as defined for census purposes. The EDs in question, and the main suburbs that they contain, are listed in Table 2. The ED of Ballyvarra in County Limerick, which also contains part of the environs, is not included in this analysis, partly because of its greater distance from the City, but mainly because a much lower proportion of its population is located in the environs – only 8 per cent, compared to an average of 86 per cent for the other EDs (Table 3). The location of all the EDs covered by the analysis is shown on Map 1.

Table 2: Suburbs of Limerick included in the Map Analysis

ED	Suburbs Included
County Limerick	
Ballycummin	Dooradoyle, Raheen, Ballykeeffe, Gouldavoher
Ballysimon	Milford, Castletroy, Monaleen, Kilbane
Limerick South Rural	Bawnmore
Roxborough	Ballysheedy, Ballyclough
County Clare	
Ballyglass	Shannon Banks, Westbury, Parteen

⁷ The March 2008 boundary extension added the ED of Limerick North Rural, previously in Co. Limerick, to the City of Limerick.

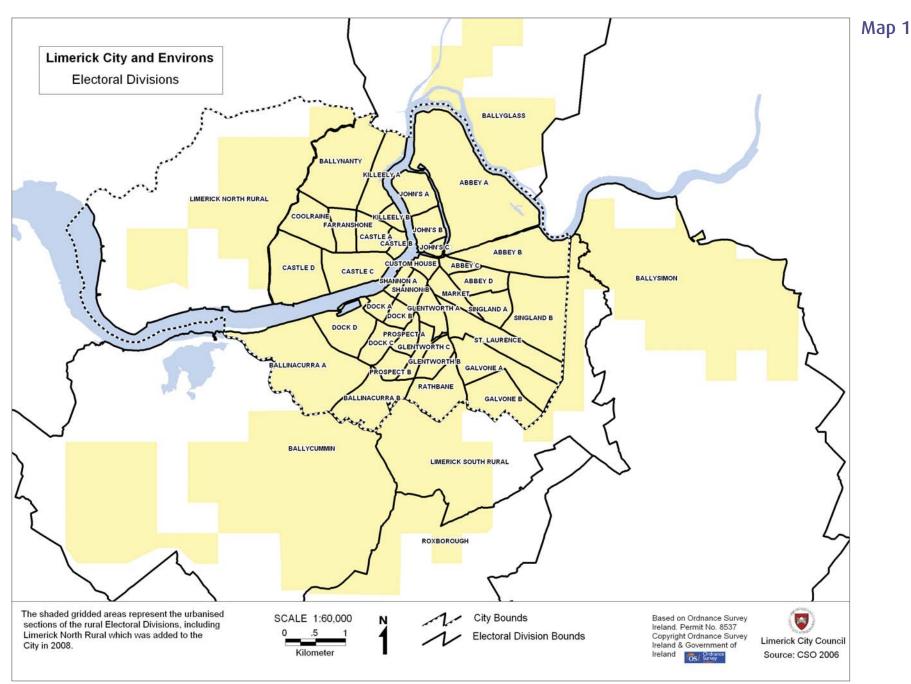


Table 3: Population of EDs containing Limerick Environs

ED Total Population 2006		Population in Environs	Percentage in Environs	
Ballycummin	16,335	15,353	94.0	
Ballyglass	5,379	4,021	74.8	
Ballysimon	11,321	9,742	86.1	
Limerick South Rural	1,424	1,424	100.0	
Roxborough	1,605	597	37.2	
Sub-total	36,064	31,137	86.3	
Ballyvarra	4,110	338	8.2	
Total	40,174	31,475	78.3	

Together the City and the 5 suburban EDs are referred to in this report as Limerick urban area. This encompasses a larger area than 'Limerick plus Environs or Suburbs' as defined by the census authorities. As noted in section 2, the latter area corresponds essentially to the 'built-up' area or 'morphological' city of Limerick, and in 2006 contained a population of 90,757. Because the CSO does not release detailed population data for parts of EDs it is not possible to use this entity as the basis of the analysis reported here. In contrast, Limerick urban area, which extends to some 13 square kilometres in total, includes not just the built-up area but also the rural parts of the suburban EDs. These rural areas, though morphologically distinct, are nevertheless functionally tied to the city, in terms of travel to work, shopping patterns and social and recreational travel patterns. In this sense the urban area approximates to what might be referred to in the case of a larger city as the metropolitan area. In 2006 it contained a population of 95,854.

The inclusion of suburban EDs containing rural areas presents a challenge for the construction and interpretation of the maps. Because of their lower population density, the suburban EDs are generally much larger in area than those located in the City. As a result, they tend to dominate the visual impact of maps of the urban area, even though large parts of them have little, if any, resident population. This is potentially misleading in itself, and, by reducing the scale at which maps can be produced, it makes the discernment of patterns within the City more difficult. To overcome this problem, representation of the outlying EDs on the maps is confined to just the populated areas adjacent to the City⁸. This area was identified and delimited for each suburban ED by examining the distribution of population across a series of 0.5 kilometre square grids (i.e., each grid square has an area of 0.25 km2). This methodology can be considered to give a close approximation to the census-defined environs of Limerick, though the use of grid squares gives the maps a slightly over-regular, 'geometric', appearance in the outlying areas.

⁸ The same procedure is applied to Limerick North Rural ED, although it is now part of the City.

3.2 Population Change

The population of Limerick urban area (i.e., the 43 EDs in total) grew by over 12,000 persons (or 14 per cent) in the 10 years from 1996-2006 (Table 4). However, population increase continued to be unevenly distributed as between the City and the suburban EDs. The latter, which grew by close to 50 per cent, accounted for almost all (95 per cent) of the total growth. This divergence in growth as between City and suburbs has persisted for some time, with the result that the suburban EDs now account for 38 per cent of the total population of the urban area. Despite the 2008 boundary extension which transferred over 7,000 people from County Limerick to the City, Limerick remains a significantly under-bounded city in terms of its resident population.

Table 4: Population Distribution and Growth, 1996-2006

ED	Population 1996	Population 2006	Percentage Change	Share of Overall Growth
Limerick City ¹	59,141	59,790	1.10	5.38
Suburban EDs	24,639	36,064	46.37	94.62
Limerick Urban Area	83,780	95,854	14.41	100.00

Note: 1 In order to relate trends to the current boundaries, the City is defined for both 1996 and 2006 as per the 2008 boundary extension.

In addition to this contrast in growth between City and suburban EDs, there was also a significant difference as between the earlier and later parts of the decade (Table 5). Between 1996 and 2002 the population of the urban area expanded at an annual rate of 1.5 per cent, but for the later years 2002-2006 the growth rate moderated to 1.1 per cent per annum. For both periods, the City / suburban differential in growth was marked, and it widened over time. Significantly, the City population actually contracted between 2002 and 2006, by an average of almost 0.5 per cent per annum.

The rapid growth of population in the suburbs gives cause for concern in respect of the provision of infrastructure, public amenities and services such as public transport, which will be increasingly required there. At the same time, population decline in the City suggests that amenities and facilities are likely to be under-utilised. This mismatch between the supply of, and demand for, public resources poses serious problems for effective governance and planning of the urban area. The increase in the population of Limerick's suburbs, most of them in County Limerick, has occurred at the expense not just of the City but also of the more rural parts of the County, the latter having experienced considerable population losses over the past decade. Population decline is most acute in the south east of the County and along its western periphery. Thus, while Limerick County may derive a net economic benefit from the increased levels of economic activity in the area adjacent to Limerick City, the focusing of growth on this area is putting other parts of County Limerick at a disadvantage in terms of realising their development potential.

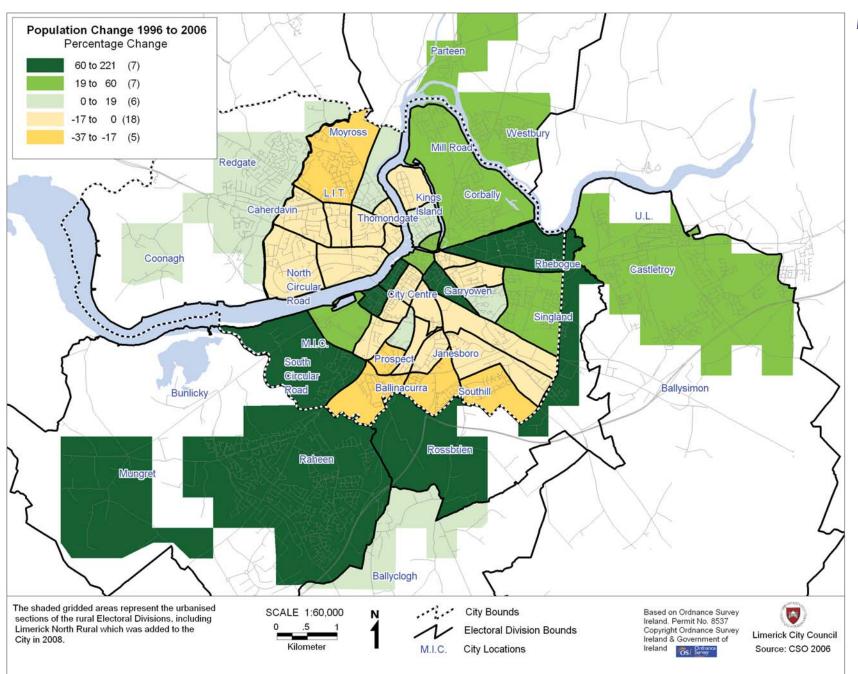
Table 5: Annual Rates of Population Change by Time Period

	1996-2002		2002-2006		1996-2006	
	Actual change	Annual rate ²	Actual change	Annual rate ²	Actual change	Annual rate ²
Limerick City ¹ Suburban EDs	1,814 6,067	0.50 3.74	-1,165 5,358	-0.48 4.10	649 11,425	0.11
Limerick Urban Area	7,881	1.51	4,193	1.12	12,074	1.36

Note: 1 As before, the City is defined for both 1996 and 2006 as per the 2008 boundary extension; 2 this is the compound annual rate, not the simple arithmetic average.

There was even greater variation in population change at the level of the EDs. Generally speaking, the highest growth rates over the ten years 1996-2006 were recorded in the city centre, in the Rhebogue area, and the southern suburbs (Map 2). Growth in the city centre was particularly strong in the area from the quays to O'Connell Street, with the ED of Dock A (extending from Alphonsus Street to Mallow Street) trebling in population (+1,471) while Shannon A (from Mallow Street to Denmark Street) more than doubled in population (+247), reflecting the extensive development of new apartments over the course of the decade. However, growth here was from a low base, and the numbers involved are relatively small compared to the growth in the suburban EDs. By far the greatest single increase (+6,428) occurred in Ballycummin ED (containing Dooradoyle, Raheen and Gouldavoher), a level of growth that was almost 10 times greater than that of the entire City (+649).

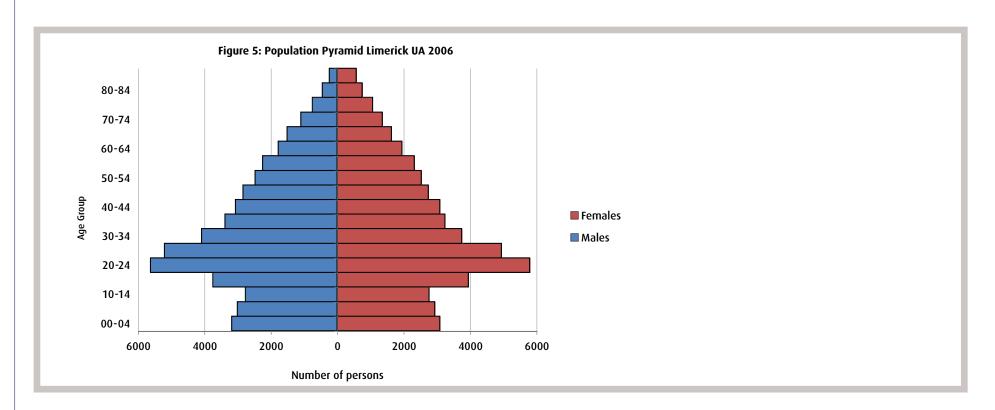
It is notable that over 60 per cent (23 out of 38) of the City EDs actually lost population over the course of the decade. This included all of the EDs on the north side of the river, with the sole exception of Killeely A, which showed just a marginal increase. In many of these areas, decline is the result of population movements associated with the maturing of older residential communities, and in some the absolute level of decrease is not very high. The most marked declines, both in percentage and absolute terms, were in the EDs containing Southill (Galvone B and Rathbane) and Ballynanty / Moyross (Ballynanty ED). Galvone B, which contains the estates of O'Malley Park and Keyes Park, lost over one-third of its population (910 persons), Ballynanty ED lost over one-fifth (980), and Rathbane ED (including Kincora Park and Carew Park) over one-quarter (635). These rates of decrease far exceed what might be attributable to normal demographic transitions associated with the maturing / ageing of a community, and suggest instead that there is a strong element of differential out-migration involved. The areas in question correspond closely to those that come within the brief of the Limerick regeneration agencies, and the scale of population decline illustrates the extent of the challenge faced by the agencies.

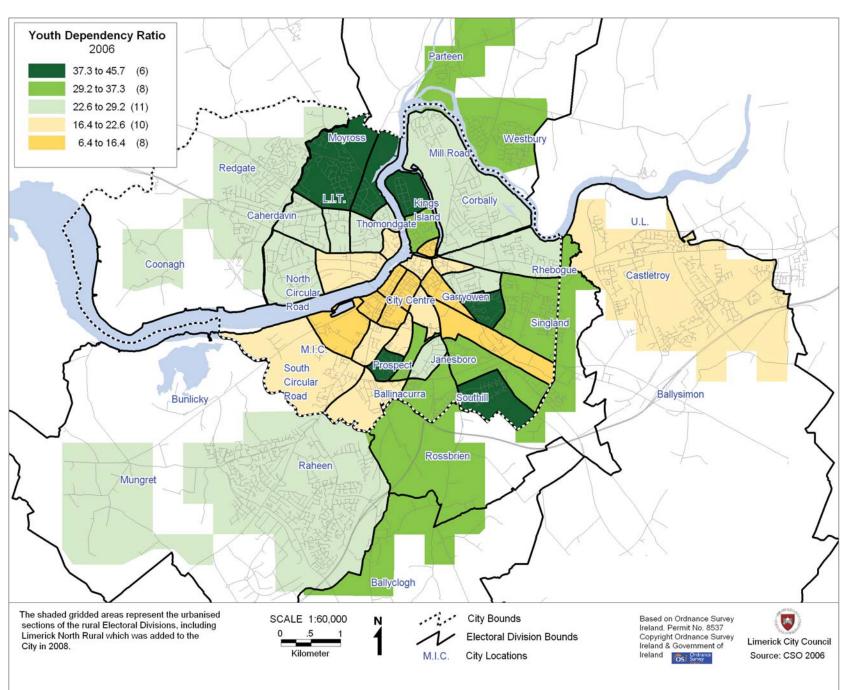


3.3 Age Structure

Contrasts in age profiles across areas are of significance because of their implications in terms of the demand for local services: areas with younger age profiles tend to require different kinds of services and facilities (childcare, schools etc.) from those with older profiles (e.g., day care, home help). In general, the age profile in Limerick urban area shows a continuing degree of maturation, brought about by a sharp drop in the birth rate from the early 1980s onwards. The effects of this decrease are discernible in the contraction of the population pyramid in cohorts aged less than 25 years of age (Fig.5).

Variations in the age profile between areas can be summarised by means of the youth and elderly dependency ratios, which measure the population aged less than 15 years and over 65 years respectively, per hundred population aged 15 to 64 years. Focusing first on the younger segment of the population, the areas with the highest relative proportions of children are (in order) O'Malley Park, St. Mary's Park, Weston, Kileely, Moyross and the area of Garryowen centred on Fairview Crescent (Map 3). It is notable that, by and large, these areas correspond closely to those identified earlier as experiencing population decline. This spatial co-incidence of population decrease and youthful population profiles is somewhat surprising: it might be expected *a priori* that areas with high percentages of children (and hence high fertility rates) would have high levels of population growth. In part the anomaly is accounted for by the family structure in areas of high youth dependency, and in particular their high rates of lone parent families (see Map 22). However, it also tells us something about the drivers of population change in the urban area, and this will be elaborated on below.



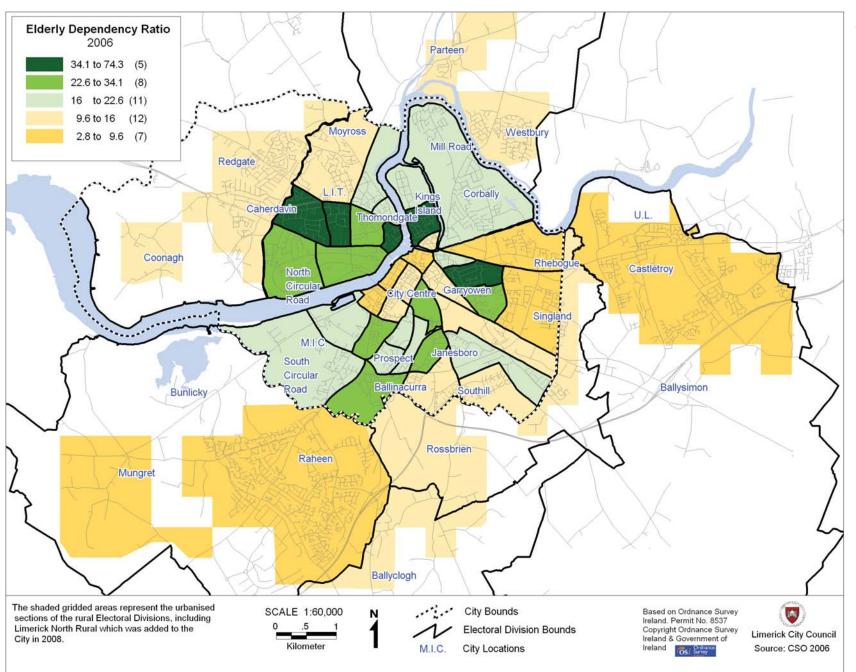


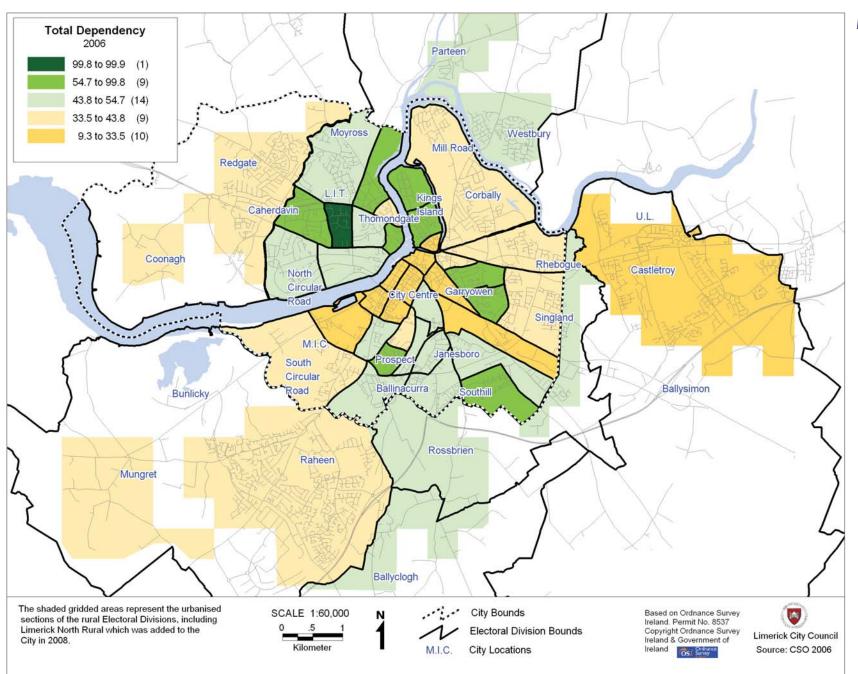
Reinforcing the inverse relationship between youth dependency and population growth, youth dependency is particularly low in all of the city centre EDs, which for the most part have shown high rates of population increase between 1996 and 2006. The city centre also shows relatively low elderly dependency ratios (Map 4), though most of the other EDs within the City have relatively high levels. By far the highest elderly dependency ratio is found in the ED of Farranshone, which is largely accounted for by the location in that ED of St. Camillus's Hospital. Ratios are also high in the Clancy's Strand-Priory Park area, Kilalee-Pennywell, Coolraine-Lansdowne Park and Assumpta Park-Lee Estate, all of which are older settled areas with ageing population profiles. In contrast, elderly dependency is relatively low in all of the suburban areas.

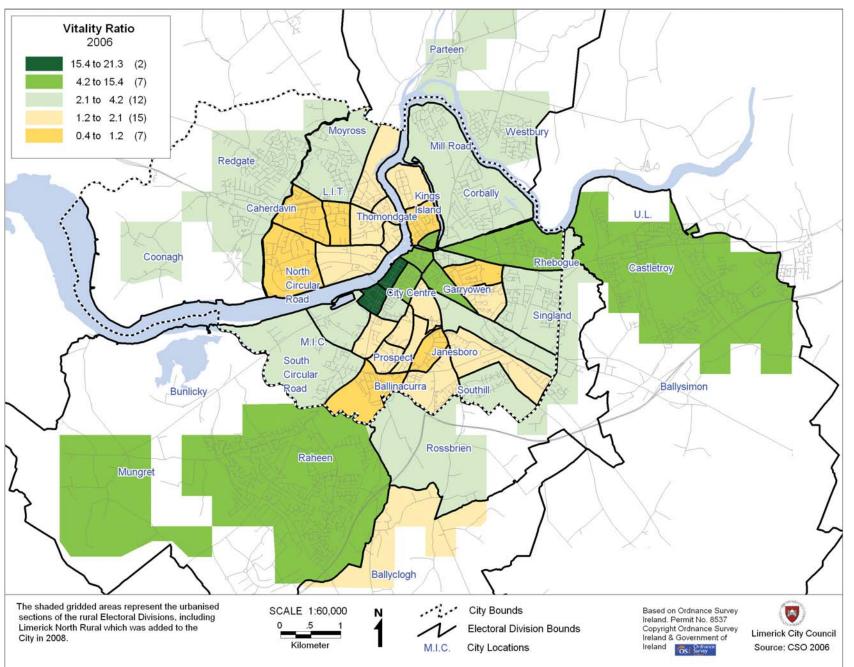
The total dependency ratio is the sum of the youth and elderly ratios, and represents a measure of the 'demographic burden' of dependants (whether young or old) on the age groups from which the economically active part of the population is drawn. To some extent there is a cancelling out effect in the computation of this ratio, as areas with high proportions of elderly tend not to have high proportions of children and vice versa. As a result we find that there is relatively low variation on this measure, with only a single ED in the highest category (Map 5). This is the ED of Farranshone, which again is explained by its particularly high value on the elderly dependency ratio due to the hospital-based population in St. Camillus's.

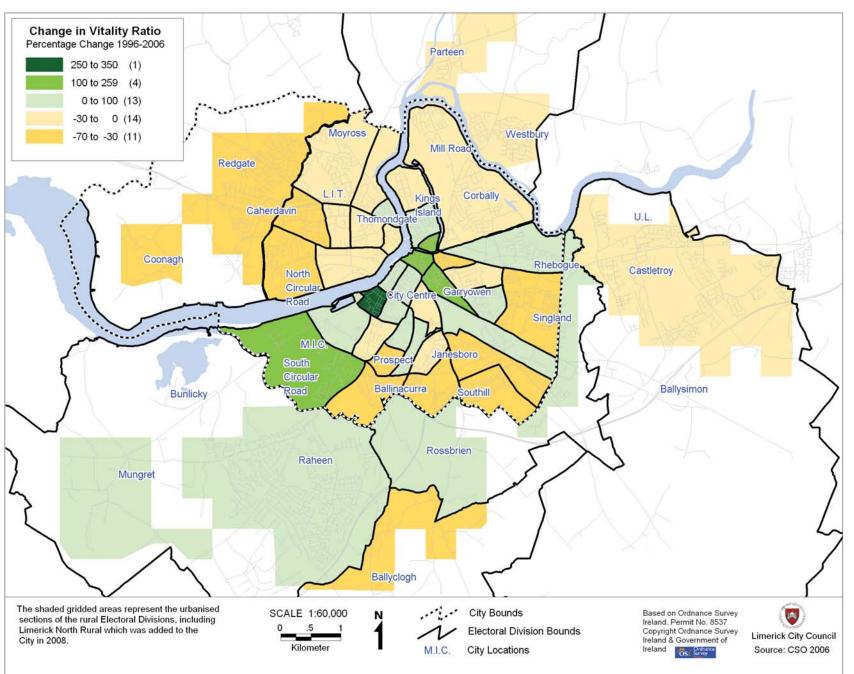
Whereas the dependency ratios summarise the general distribution of population across the three main age groups (youth, elderly, and other), the vitality ratio is a somewhat more focused measure of age structure. It measures population in the main family forming age range (aged 20-40 years) relative to that in the older (60 years and over) age group, and can be interpreted as a measure of the 'demographic potential' or 'reproductive potential' of the population. In Limerick the vitality ratio is particularly high in the redeveloped areas of the city centre, specifically the quayside EDs of Shannon A and Dock A, which, as illustrated above, are characterised by high levels of population growth over the decade 1996-2006 (Map 6). As noted in the 2002 profile, the demographic potential in these areas will not translate into a high birth rate and growing child population if young people move out to suburban locations if / when they begin the process of family formation. The vitality ratio is particularly low in the mature settled areas along the North Circular Road and Ennis Road, as well as in Garryowen, Janesboro and Ballinacurra.

Reflecting the diverging demographies of different part of the urban area, the rate of change in the vitality ratio between 1996 and 2006 shows a high degree of variation (Map 7). In total, 25 of the 43 EDs experienced a decrease in the vitality ratio over the decade, and while the urban area as a whole showed an increase of 4 per cent, this was low compared to the national increase of 10 per cent. The greatest increases in the vitality ratio were in EDs that experienced high rates of population growth, such as those in the city centre that underwent urban renewal and redevelopment (e.g., Dock A and Market) as well as those where there was significant greenfield housing development (Ballinacurra A and Abbey B). This suggests that population growth in Limerick over the last decade has been associated mainly with the expansion of the young adult age cohort – due to the process of in-migration – rather than with high rates of natural increase. This characterisation of population growth is consistent with the observations above on the low or negative population growth in areas with a youthful population profile. It raises important questions about the sustainability of population growth in the longer term, in particular in the central city areas. Evidence from other cities suggests that the young adult populations that are associated with urban renewal and regeneration are quite footloose and likely to move in the event of an economic downturn in the local economy. This conclusion is given further weight from data on levels of mobility in these areas, as discussed in the next section.









3.4 Migration, Nationality and Culture

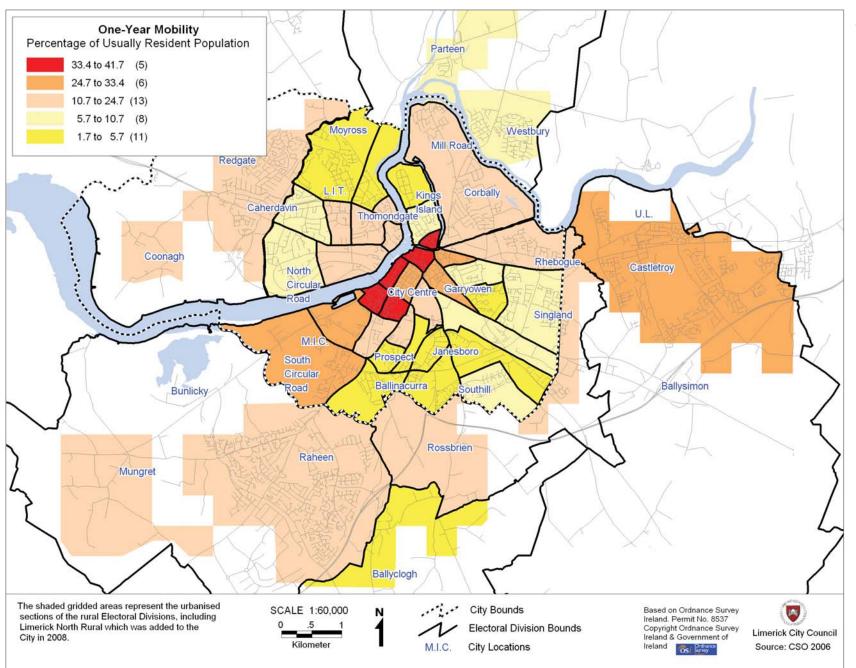
The 2002 census profile noted a high level of mobility in Limerick, with 12 per cent of the usually resident population having lived at their current residence for less than one year. Over the subsequent four years, general mobility levels increased, and the 2006 census recorded one-year mobility levels at 15 per cent of the resident population in the urban area. Within Limerick considerable variations exist. City centre neighbourhoods exhibit the greatest level of mobility, with over one-third of people residing along the Quays having moved there within one year of the census (Map 8). As illustrated below, high mobility in this area is associated with immigration to Ireland. The areas with the second highest level of movement are generally those in proximity to the University of Limerick and Mary Immaculate College, where mobility is associated with an annual turnover in the student population. The neighbourhoods in the third-highest tier of mobility are generally suburban areas, including Caherdavin, Redgate and Coonagh, where mobility values range between 9 per cent and 17 per cent. A similar range can be observed in respect of Dooradoyle, Raheen and Mungret, associated with new housing schemes coming on stream. Low levels of mobility are most prominent in the City estates built by the local authority, such as St. Mary's Park, Janesboro, Moyross / Ballynanty, Prospect, Ballinacurra and Southill.

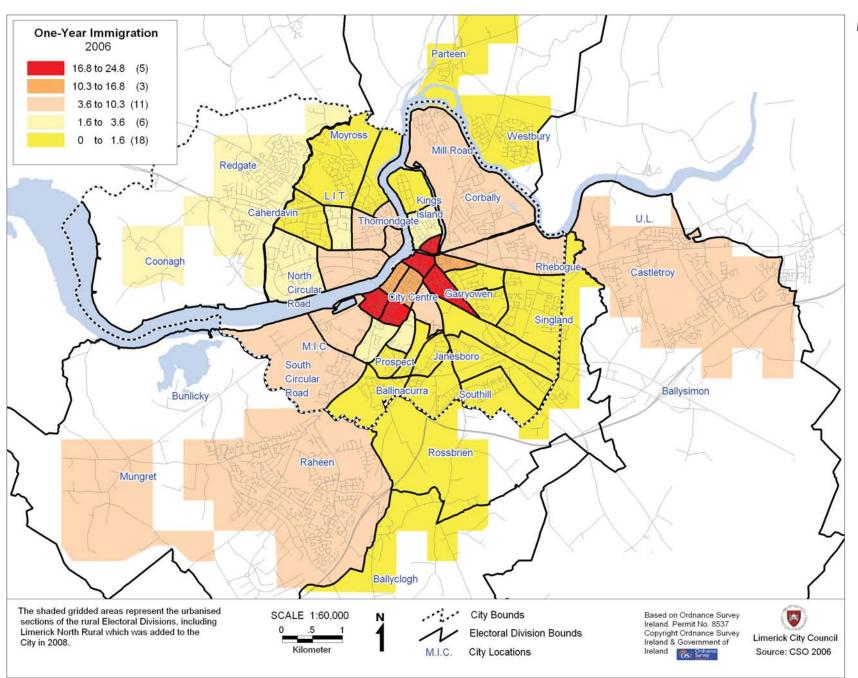
As suggested above, mobile individuals constitute a range of quite different types, ranging from students, through labour market in-migrants from elsewhere in Ireland (including the Mid-West Region), to immigrants from abroad. Throughout the period 2002-2006, immigration to Ireland continued at historically unprecedented levels, with a strong surge following the accession of ten countries to the European Union in 2004. Immigrants tend to be relatively young, and are associated with above average levels of participation in the labour force – for both males and females – and the revitalisation of city centre neighbourhoods that were previously in demographic and social decline. However, migrants are also associated with a high level of dependence on private rented accommodation, and in the cities they tend to be concentrated in neighbourhoods with limited public amenities, facilities and green spaces.

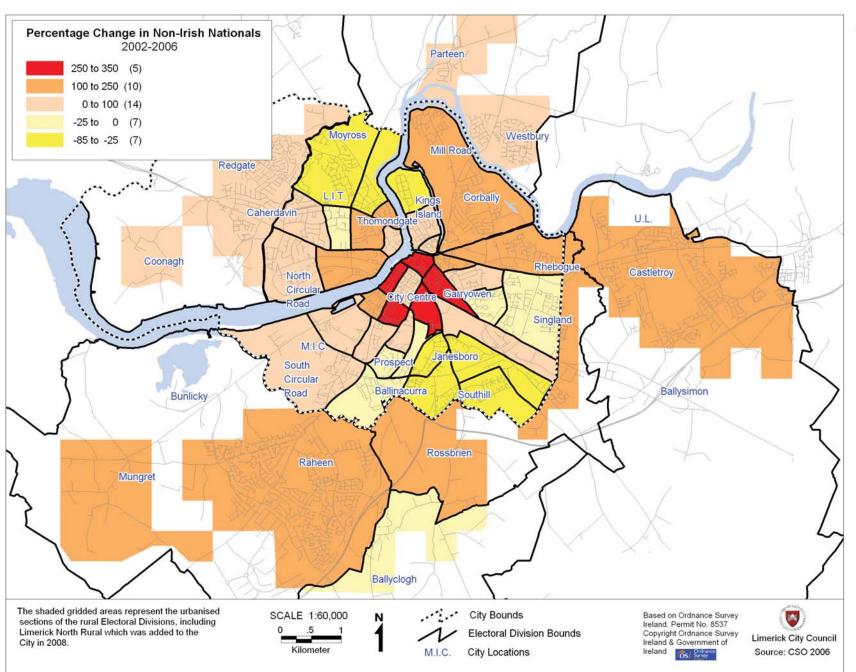
In Limerick urban area as a whole, immigrants accounted for just over one-quarter of all those recorded as having changed address in the year 2005-2006, and for just 4 per cent of the total usually resident population. However, spatial variation on this variable is considerably greater than for all recently mobile persons. In general, the focus on the city centre is much stronger, with one-year immigrants accounting for over 15 per cent of the population in most central neighbourhoods, and over 20 per cent in John's C and Dock A (Map 9). In stark contrast, average levels of immigration were below 2 per cent in almost half of all EDs, covering a large part of the urban area and including suburban neighbourhoods such as Westbury, Rossbrien and Ballyclough, as well as the City Council estates.

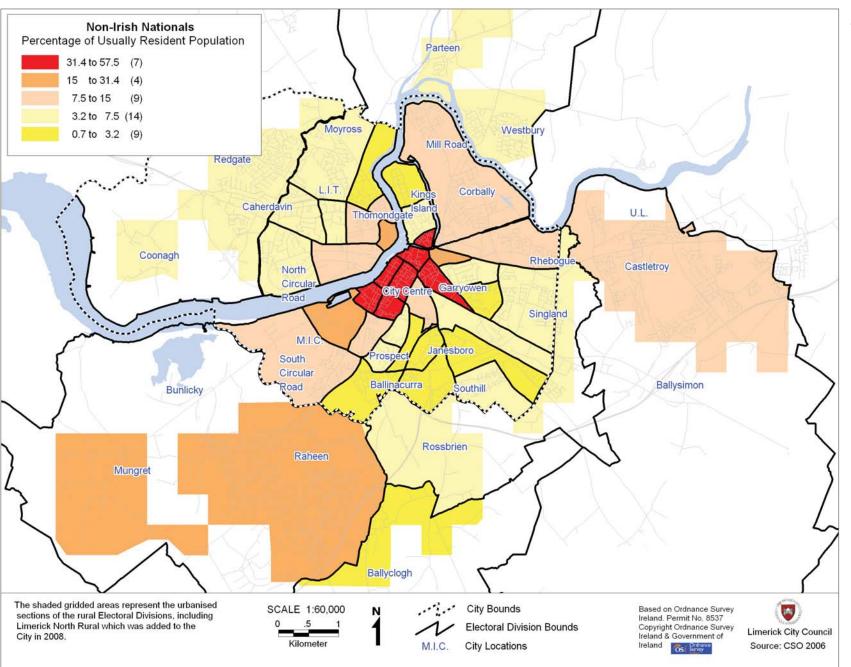
The cumulative result of sustained immigration is that the number of foreign nationals in Limerick increased sharply, from 5,330 in 2002, to 10,072 in 2006, a growth rate of 89 per cent compared with an increase of 53 per cent in the State as a whole. **Map 10** illustrates the spatial pattern of change. As the map shows, the vast majority of neighbourhoods in Limerick contributed to the increase. The areas that experienced the highest rates of growth were predominantly in the city centre, with some EDs, including Custom House, Dock B, Glentworth A, Market and Shannon A experiencing percentage increases of over 200 per cent (i.e., more than trebling their numbers). Neighbourhoods in the vicinities of the University of Limerick, Plassey Technology Park, the Mid-Western Regional Hospital and the Raheen Industrial Estate all witnessed a doubling in the number of non-Irish nationals in the four years to 2006. A similar trend may be observed in respect of Rhebogue, Corbally and parts of Thomondgate. Lower levels of increase are evident in most other parts of Limerick. A minority of neighbourhoods have gone against the local and national trend, and actually witnessed a decline in the number of non-Irish nationals. These include the more deprived areas of Moyross, Kileely, St. Mary's Park and Southill.

The fact that growth in the number of foreign nationals outstripped overall population growth means that the percentage of non-Irish nationals increased from almost 6 per cent in 2002 to just under 11 per cent in 2006. In terms of the local spatial pattern, non-Irish nationals tend to be most concentrated in the city centre, notably along the quays and in the area around St. John's Cathedral (Map 11). In these neighbourhoods in general, foreign nationals account for over one-third of all residents, but, even more remarkably, they now form the majority of the population resident in the City EDs of Shannon A and Dock A. Other areas with above average









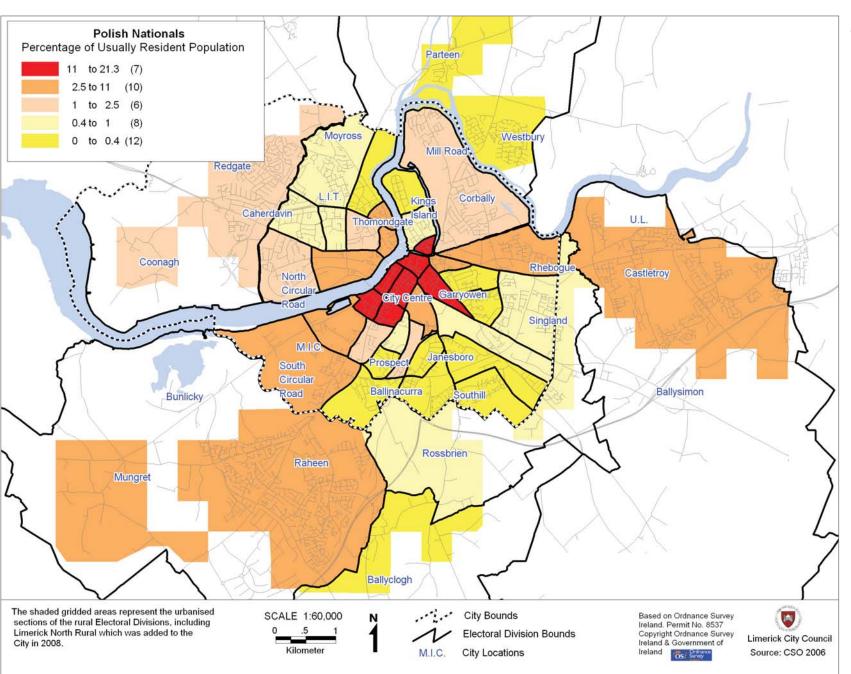
proportions of non-Irish nationals in the population are found mainly to the south of the urban area, with values ranging from 16 per cent around Mungret, Raheen and the South Circular Road, to 25 per cent in the Old Clare Street and Clancy's Strand areas. The pattern is associated with non-Irish nationals working in the Mid-Western Regional Hospital and Raheen Industrial Estate. In contrast, the proportion of non-Irish nationals tends to be lowest in the northern suburbs and in the Ballyclough area, with the lowest rates of all (less than 3 per cent) to be found in Galvone, Janesboro, Ballinacurra Weston and St. Mary's Park.

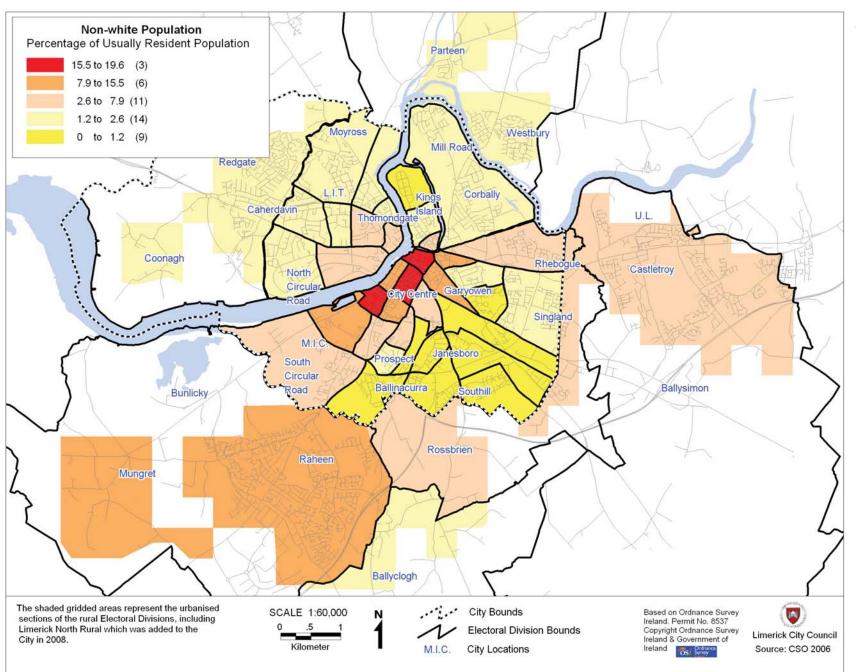
Polish nationals represent the single largest immigrant nationality in Ireland, after UK-nationals, and in 2006 they accounted for 1.5 per cent of the State's population. In Limerick urban area the relative importance of these two nationalities is reversed, with Polish nationals (the most numerous) constituting 2.8 per cent of the population, as compared to 1.5 for UK nationals. Locally, the highest concentrations of Polish nationals are in the city centre, where they account for an average of 15 per cent of the resident population, and as high as 21 per cent in the area between Alphonsus Street and Mallow Street (Map 12). The city centre has the greatest availability of rented accommodation in the urban area, and apartment complexes such as those along Steamboat Quay and the Dock Road have relatively high concentrations of non-Irish nationals in general, and Polish persons in particular. Other neighbourhoods with an above average proportion of Polish nationals are in the southern suburbs of Dooradoyle, Raheen and Mungret and in the university area, a spatial pattern that is associated with employment in the Dell assembly plant in Raheen (up to 2009) and in the University. While the percentage of Poles in the latter areas is considerably less than in the city centre, nevertheless the two areas together account for over one-third of all Polish nationals in the urban area. The areas with the lowest proportions of Polish nationals are St. Mary's Park and Kileely (where in fact no persons of Polish nationality were enumerated) as well as Southill, Janesboro, Ballinacurra Weston, and the outer suburbs of Rossbrien, Westbury and Parteen.

As well as growing diversity according to nationality, Limerick has also experienced growing racial differentiation. Persons of non-white racial origin now constitute 4.1 per cent of the usually resident population (3.4 per cent nationally). **Map 13** presents the spatial distribution of non-white people in the population in 2006. The pattern in this map is broadly similar to that of previous maps on the distribution of non-Irish nationals in Limerick, with the highest levels being in the city centre – above 15 per cent of the population – and in the vicinity of the Regional Hospital (8 per cent). Above average levels of non-whites are also associated with proximity to the University of Limerick. Levels are below average across most neighbourhoods north of the Shannon, and the lowest levels in the entire Limerick urban area are in St. Mary's Park and the more disadvantaged neighbourhoods in the south of the city.

These maps of the spatial distribution of migrants to Limerick reveal that non-Irish migrants are concentrated in the city centre, and are more likely than Irish nationals to be living in high-density housing. As non-Irish nationals and non-white people have been moving into the city centre, they are coming to occupy areas vacated by Irish people, who are increasingly moving outwards towards the suburbs. We have already noted that the City lost population between 2002 and 2006. It is now clear that this decline would have been much more severe but for immigration-fuelled growth in the city centre. While the revitalisation of the city centre is welcome in itself, questions arise about the degree of segregation of newcomers from the native population, with the maps indicating that Limerick is falling short in terms of achieving integration. In the past, Limerick has been identified as a highly segregated city in terms of social class. The current and emerging trends suggest that the urban area may also be heading in the direction of ethnic segregation, and although the pattern here cuts across that of social class, nevertheless it is something the City and County needs to monitor carefully.

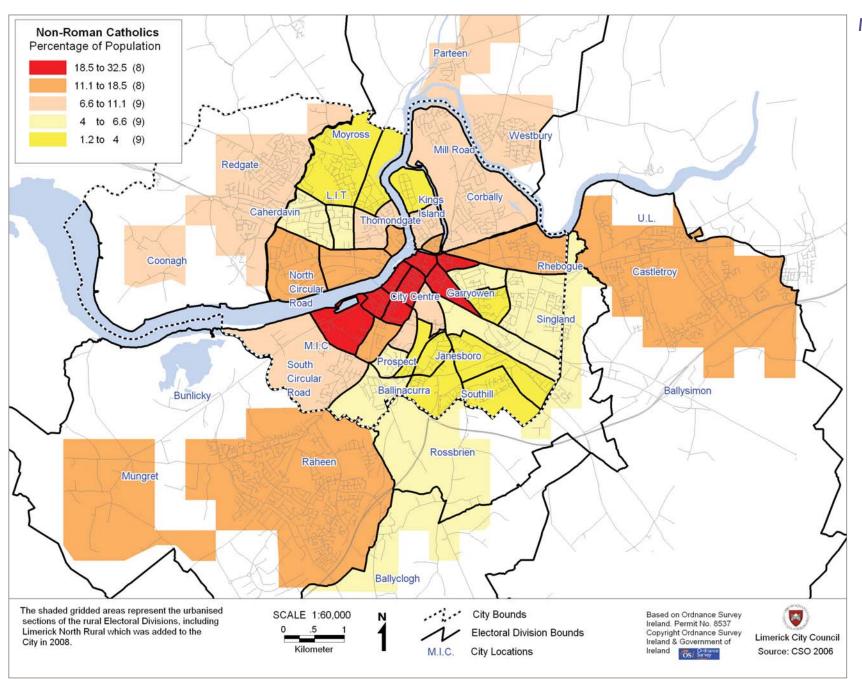
The city's growing ethnic diversity has brought with it a growing cultural diversity also. One of the areas in which we can measure this is with regard to religion. Over 90 per cent of people in Limerick classify themselves as members of the Roman Catholic Church. This is about 3 per cent higher than the State average. While Catholics remain the dominant religious grouping both nationally and in the city, the non-Catholic proportion of the population has grown considerably over the past

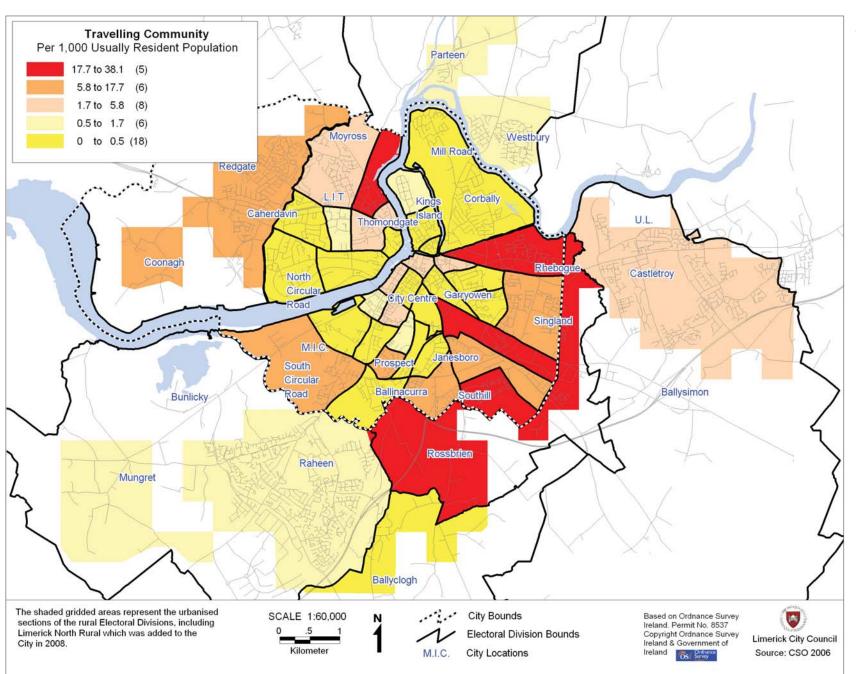




decade. As **Map 14** shows, there is a strong spatial correlation between in-migration and the percentage of non-Catholics. The areas with the highest proportions of non-Catholics are in the city centre and along the South Circular Road. Non-Catholics account for over one quarter of the population in Shannon A, Shannon B, Dock A and Dock B Electoral Divisions. These parts of Limerick are home to the highest proportion of non-European migrants, who belong to a variety of evangelical and other faiths. The transient population in the city centre also has the highest proportion of persons not affiliated to any church or religious grouping. The above average levels (between 11 per cent and 18 per cent of the population) of non-Catholics in Raheen and Castletroy are associated with the presence of highly skilled medics and academics, who have been recruited from overseas to work and / or study in the Regional Hospital and the University. Many of these are Muslim.

The Travelling Community has been referred to as Ireland's indigenous ethnic minority. Members of the Travelling Community account for just under 0.6 per cent of Limerick's population, which is slightly above the national average of 0.5 per cent, and also slightly up from 2002. Within Limerick, there are large disparities in respect of the spatial distribution of Travellers (Map 15). The areas with the highest concentrations – over 1.7 per cent of the population – are mainly along the eastern administrative boundary between the City and County. There are a number of temporary and fixed halting sites in these areas, including at Rhebogue (Abbey B), Childers Road (Singland B), Clonlong (Galvone B), and Toppin's Field (Rathbane). In addition, a number of Traveller families have been housed in neighbouring public and social housing schemes. The other main Traveller concentrations are also associated with the provision of halting sites at Long Pavement (Killeely A), Lansdowne Bridge (Limerick North Rural) and Bawney's Bridge (Ballinacurra A). The areas with the lowest proportions of Travellers are the city centre and the adjoining areas of the North Circular Road, Caherdavin and Corbally.





3.5 Households and Families

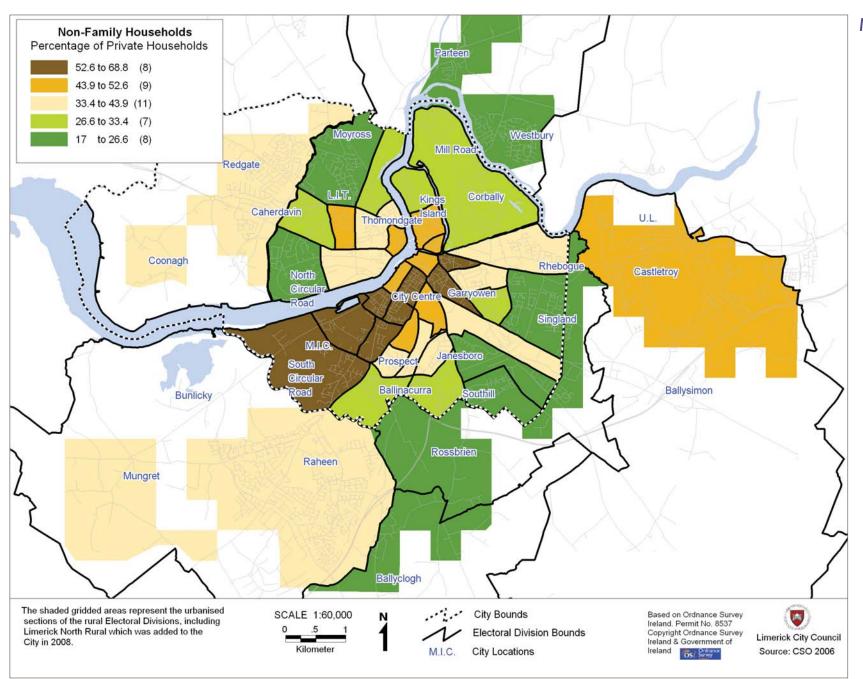
Strong spatial patterns emerge in respect of household and family structures in Limerick City and its suburbs. There is clear evidence of accelerated suburbanisation, and a degree of urban sprawl, while the impact of Limerick's growing student population is becoming increasingly manifest.

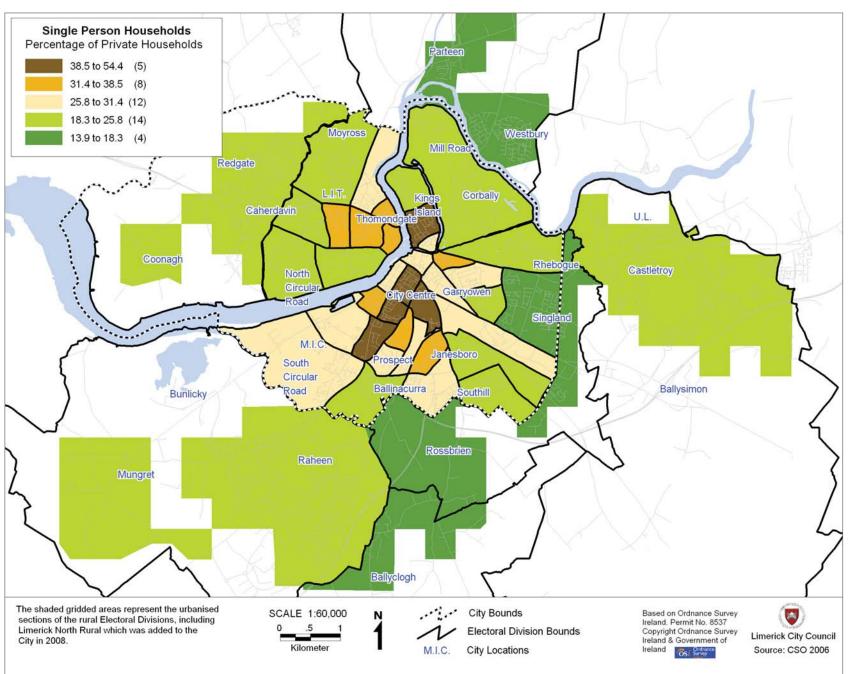
Reflecting trends in Irish society as a whole, but amplified by the urban setting, non-family based households increased to 36 per cent of all private households in Limerick urban area in 2006. This is 6 percentage points above the State average. As **Map 16** shows, such households are predominantly concentrated in the city centre, and in the neighbourhoods immediately to its southwest, notably the South Circular Road. Here high levels are due in part to the apartment-based student population in the areas around Mary Immaculate College. Likewise, as a result of the construction of designated student apartments in Castletroy during the past decade, non-family households now account for almost 50 per cent of all private households there. In contrast, they represent less than one-third of households in inner suburbs such as Corbally and the Mill Road, and those just outside the administrative boundary of the city to the south, including Rossbrien and Ballyclough.

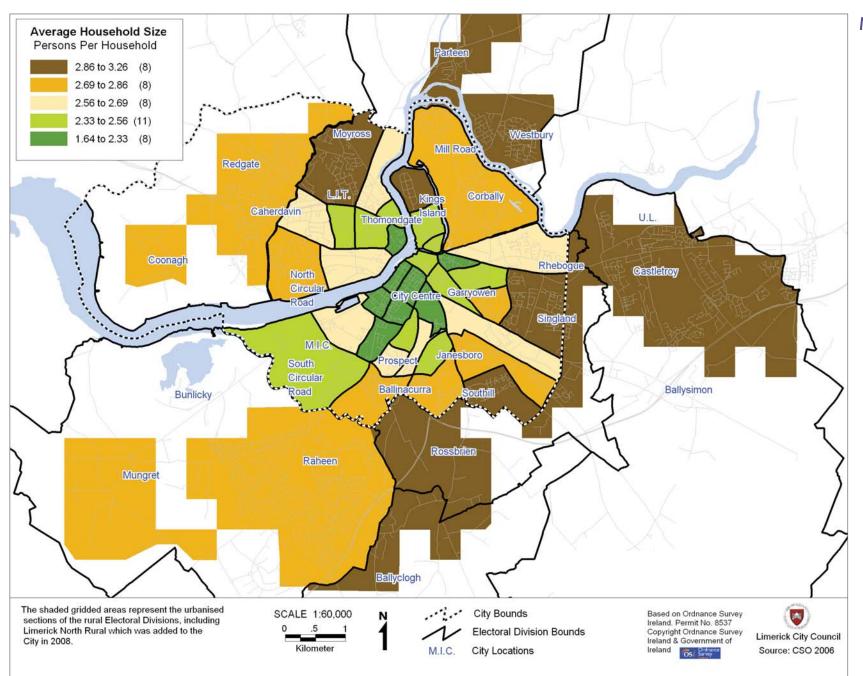
The most common type of non-family household, accounting for two-thirds of the total number of such households, is that consisting of a person living alone. These also have increased in number and now constitute almost one-quarter of all private households in the urban area. The locations with the highest concentrations of single person households are associated to some degree with immigration and high levels of mobility, and more strongly with the availability of rental accommodation (Map 17). Although predominantly located in the city centre, the areas in question tend to have a somewhat older housing stock, with lower proportions of new build than in other part of the city centre (cf.Maps 30 and 31). Essentially they correspond to the city's traditional "flatland", where single person accommodation is often provided in the Georgian houses found in the area between O'Connell Street and Parnell Street (ED of Shannon B). This area is also notable for its very high ratio of males to females (1.53). Single person households are also associated with older people living alone, as is the case in the Assumpta Park / Lee Estate area on King's Island, Thomondgate, and parts of the south inner city. In contrast, the lowest levels of single person households are in the newer estates just outside the city boundary, where three- and four-bedroom houses predominate, and where couples and young families constitute the largest proportion of the population.

The average household size in Limerick (2.69 persons) is broadly in line with the State average (2.81 persons), but there are a number of pockets that have in excess of three persons per household (Map 18). These include Ballyclough and the Westbury / Parteen area. In very general terms, four concentric 'rings' can be observed in terms of classifying household size in Limerick, with average size increasing with distance from the centre. The first 'ring' or core comprises the city centre; here one- and two-person households predominate. The neighbourhoods that immediately surround the city centre represent the second 'ring'. These include Thomondgate, the southern part of King's Island, Garryowen, Prospect and the South Circular Road; here the average household size ranges from 2.33 to 2.69, and this profile is associated with mixed residences of family homes and older people living alone. The third 'ring' surrounds the aforementioned areas and extends from Raheen in the south to Janesboro in the east and Corbally and Caherdavin / Clonmacken in the north; here household size is larger – ranging from 2.7 to 2.86. These figures are associated with a predominance of young or adolescent families, and houses with front and rear gardens. The outermost 'ring' corresponds with the periphery of the urban area, where the average household size ranges from 2.86 upwards. Dwellings and plots tend to be more spacious in the outer suburbs and peri-urban fringe, and neighbourhoods are generally attractive to young professionals with families.

While the overall trend in Limerick is represented by a transition from smaller households in the centre to larger households in the urban periphery, there is a clear exception to this pattern, namely St. Mary's Park. Although adjacent to the city centre and comprising mainly terraced local authority houses that are small in size, the average number of occupants stands at 2.87 persons. As this neighbourhood has a mix of household types, those with children are likely to experience overcrowding. St. Mary's Park, together with Moyross and Southill (also characterised by relatively large households) are the chief target areas under the current regeneration of Limerick City, which involves, among other initiatives the demolition of much of the current housing stock and the building of new homes.





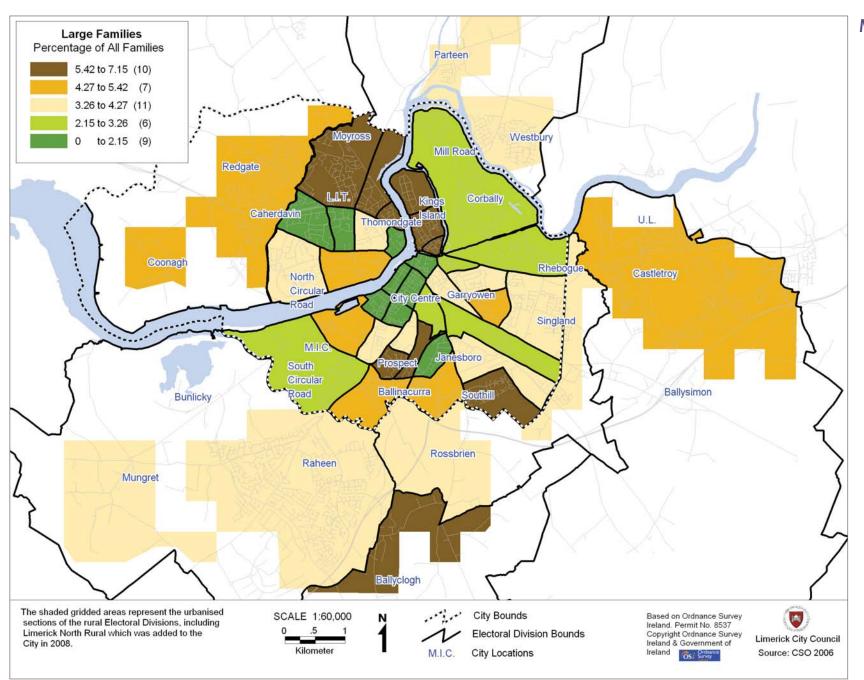


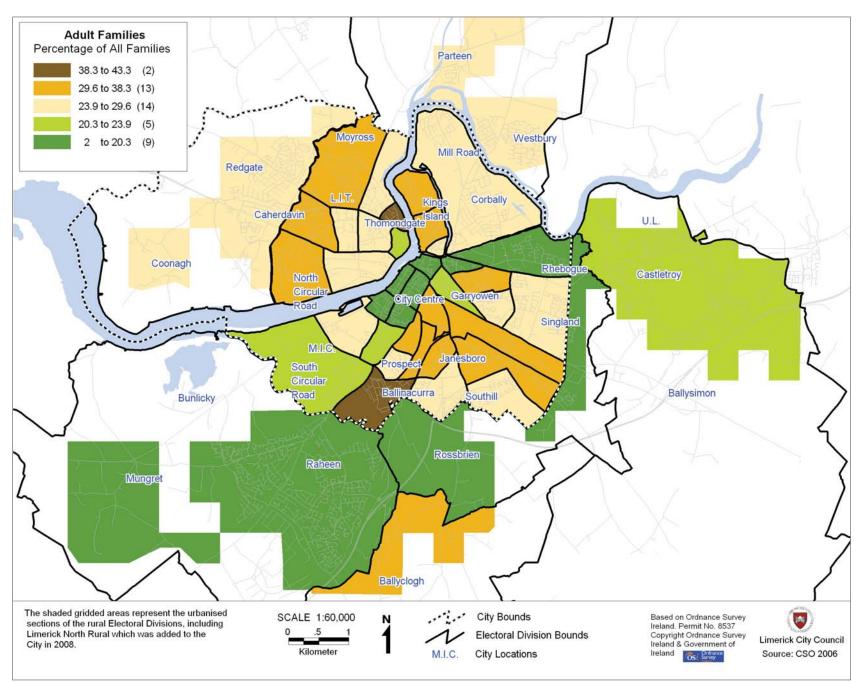
Map 19, which illustrates the proportion of large families (operationally defined as those containing six or more persons), confirms the hypothesis of potential overcrowding in respect of St. Mary's Park. Here, as well as in the adjoining neighbourhoods of Thomondgate, Kileely, and Moyross / Ballynanty, large families constitute over 5.5 per cent of all families. This is substantially in excess of the level of 3.9 per cent for the entire urban area. The area with the highest proportion of large family households is Ballycloughto the south of the city, with a value of 7 per cent. High values are also found in O'Malley Park and Ballinacurra Weston.

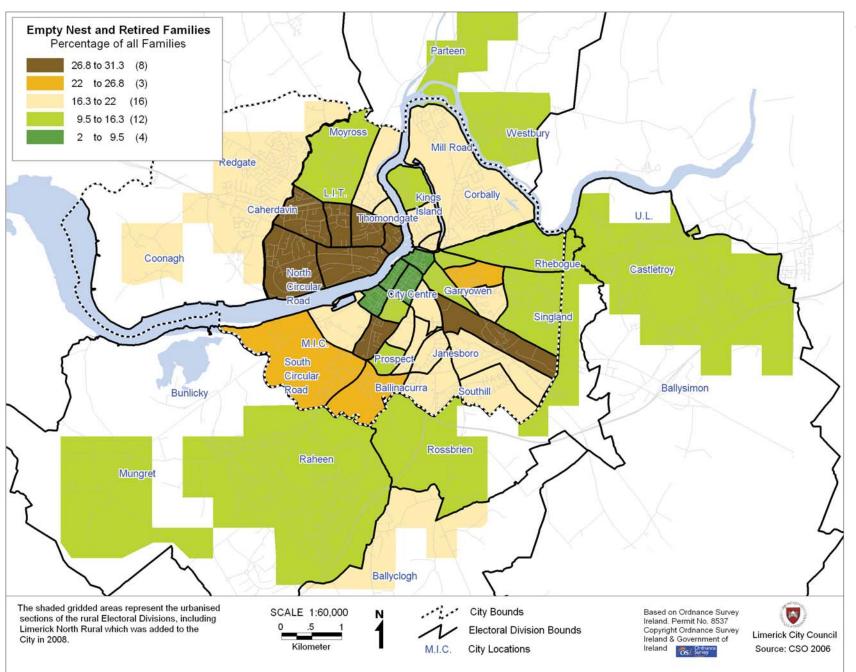
Corresponding closely to differences in household and family size, there are significant differences between areas with regard to their stage in the family cycle. Here we focus first on the phenomenon of adult families, i.e., families where the eldest child (resident at home) is aged 20 years or more. As well as being regarded as an indicator of a maturing community, such families have attracted attention because of the possible link to housing market pressures that force adult off-spring to remain in the family home. As evidence adduced later (section 3.10) suggests, there may also be a link to disability and the need for care. As a percentage of all families, adult families decreased from 28 per cent to 24 per cent between 2002 and 2006. In 2006 they were most prevalent in neighbourhoods with larger families and housing that was built over twenty years ago (Map 20). The areas with the highest values include the well-established neighbourhoods of Thomondgate in the north of the city and Ballinacurra Weston in the south. In both locations, adult families represent over 38 per cent of all families. Other areas with values in excess of 30 per cent include King's Island, Moyross, the North Circular Road, Caherdavin, Garryowen and Janesboro. The areas with the lowest proportions of adult families are those that have experienced the highest levels of new house / apartment construction since the early 1990s. They include the core of the city and the suburbs of Rhebogue, Parkway / Ballysimon, Rossbrien, Raheen and other locations within short distances of the Limerick by-pass.

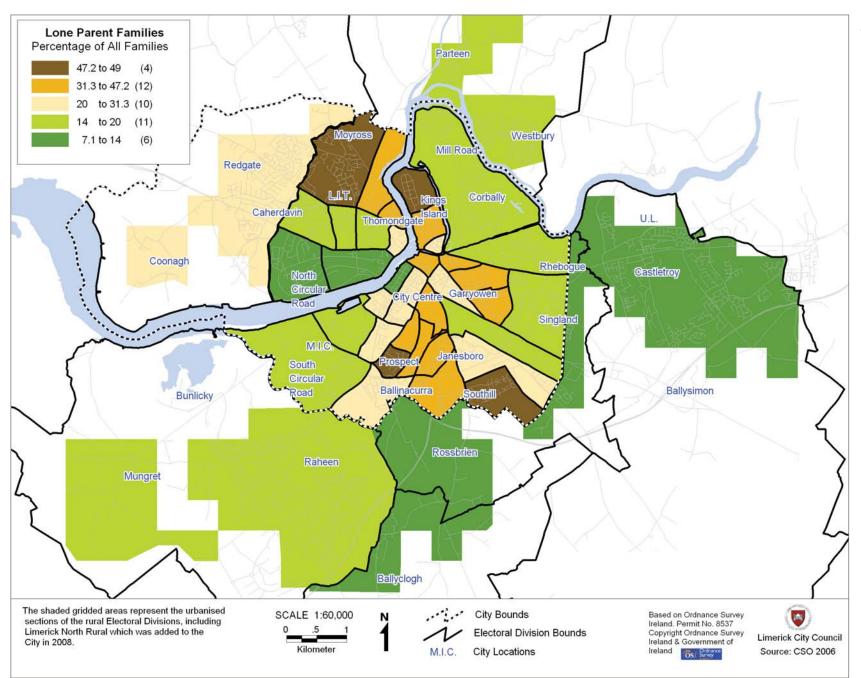
Map 21 shows the locations of empty nest and retired families. Such families are made up of a couple whose children have reached adulthood and no longer live at home and where the female spouse / partner is aged at least 45 years of age. In Limerick City, 18.6 per cent of households come within this category, while for the greater urban area, the figure is 16.7 per cent, indicating a greater ageing of the population in the City area. This pattern is confirmed by the map, which pinpoints the locations with the highest proportion of empty nest and retired families as the Ennis Road and North Circular Road areas; here such households represent over one in four of all households. Similar figures pertain in parts of the south city along O'Connell Avenue and along Mulgrave Street. These areas ought to be the principal target areas for the provision and development of community-based supports for older people. By the same token, the presence in the population of a sizeable cohort of persons in the 'empty nest' category suggests the potential to harness volunteerism and foster social capital. In most of the remainder of the City, values generally range between 16 and 22 per cent. However, lower values of under 16 per cent are found in Moyross, Singland and Rhebogue, and in the outer suburbs of Raheen, Mungret, Castletroy, Westbury and Parteen, where new house-building has progressed apace since the mid-1990s. The area with the lowest level of all is the city centre, where less than 10 per cent of households can be classified as empty nest or retired. As previous maps have shown, this area has the largest migrant and transient populations, and a relatively new stock of housing.

Limerick City has the highest proportion of lone parent families of any local authority in the State, with over one in four households (27 per cent) headed by a lone parent. For the urban area as a whole, the figure is somewhat lower at 22 per cent. There is a clear spatial association between lone parent families and local authority housing, with the estates of Moyross / Ballynanty, St. Mary's Park, and Southill all having rates of lone parent families in excess of 45 per cent (Map 22). This is over two and a half times the State average. Rates are also very high in Kileely, Garryowen, Janesboro and Rathbane. The Combat Poverty Agency has documented that lone parent households are among those most likely to be affected by poverty and social exclusion. In Limerick, lone parent households have to contend with the added disadvantage of concentration in deprived neighbourhoods. Indeed, there is evidence of a vicious cycle of deprivation, social exclusion, low educational attainment, and difficulties of access to employment, factors that together compound the disadvantage experienced by lone parent families. The result is intergenerational poverty and social exclusion. Each of these elements needs to be addressed in the implementation of regeneration programmes, and long-term collaborative governance and area-based development strategies are required that are supported and implemented by all social partners, local government and the statutory sector.

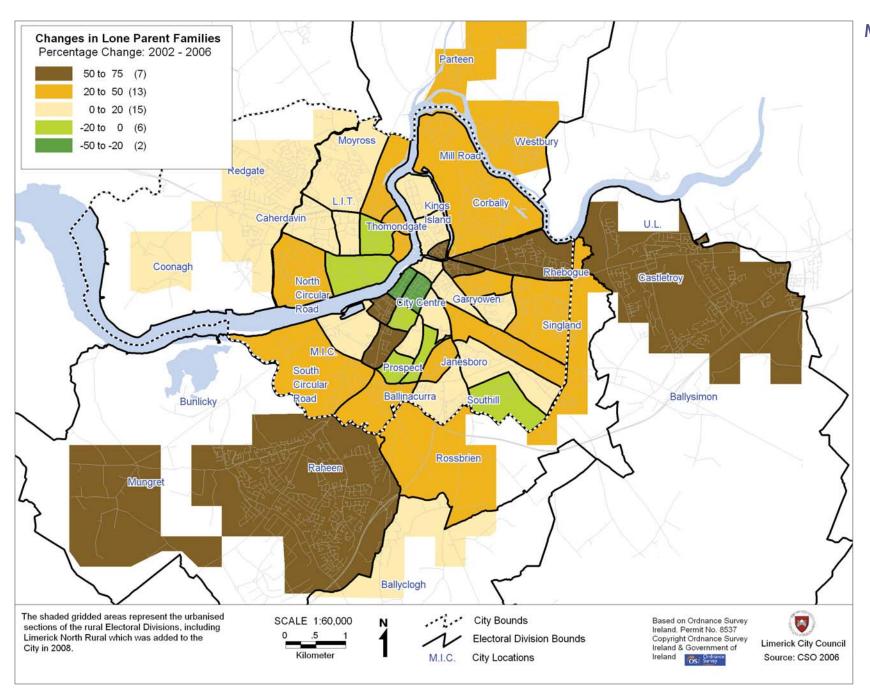






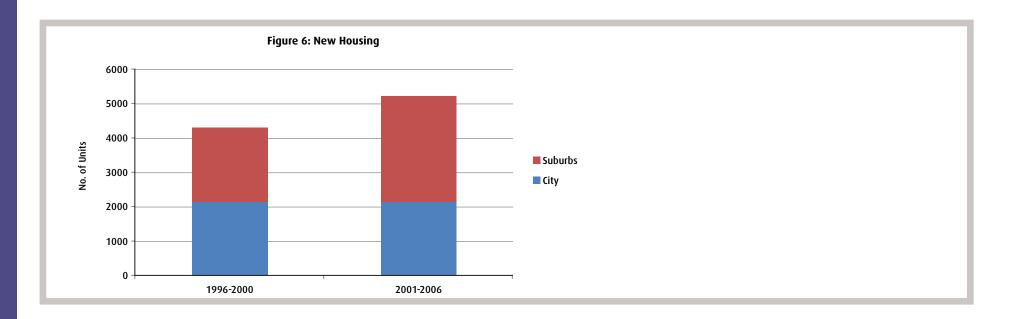


There is some evidence of an emerging dispersal of lone parent families in Limerick. **Map 23** shows that, while the overall number of lone parent families increased by 21 per cent in Limerick urban area between 2002 and 2006, the greatest increases were not necessarily in the more deprived neighbourhoods, but in some of the areas experiencing new development, notably Rhebogue, the Dublin Road, Castletroy and Raheen / Dooradoyle and in Dock A in the city centre. Rates fell in other parts of the centre, as well as in O'Malley Park and Weston. These changes appear to be linked to housing policy, and in particular the movement of lone parent families into private rented accommodation through the Rent Supplement / Rental Assistance Scheme. It is to consideration of housing that we turn next.

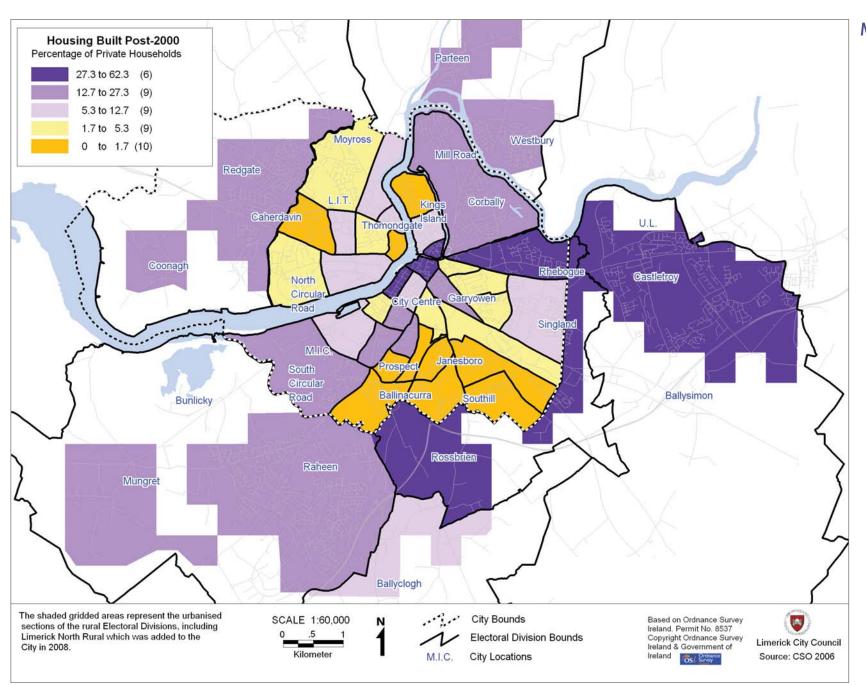


3.6 Housing

The construction and provision of housing has proven to be a significant determinant of many variables in this social and demographic profile of Limerick and its suburbs. As with most urban areas throughout the country a high proportion of housing in Limerick has been built in recent years, during the Celtic Tiger construction boom. In all, 28 per cent of the housing stock dates from 1996 onwards, more than half of which (15 per cent of the total) was built after 2000. However, the corresponding figures for the City are somewhat lower at 20 per cent and 10 per cent respectively. There is, in fact, clear evidence of a shift in the focus of construction towards the suburbs from 2001 onwards (Fig. 6): while the output of new housing in the City remained roughly the same, output in the suburbs increased significantly.



More detail on the spatial distribution of the most recent housing is provided by **Map 24**. A clear zone of new construction is evident extending from the city centre outwards along the Dublin Road to Castletroy. In percentage terms, the area with the greatest predominance of new housing is Shannon A (centred on Henry Street between Mallow Street and Honan's Quay) where 62 per cent of the stock dates from 2001 or later. However, in volume terms there was a higher output of new housing in the Castletroy area (+1,097 units), and the highest number of new houses was in fact built in the Raheen area (+1,382 units). Some of the newly constructed housing in the former is purpose-built student accommodation, in response to the growing student population at the University of Limerick, which now numbers over 11,000, but there has also been a large volume of family homes built in the Newtown area. Map 24 also shows a considerable percentage increase in new house building in Rhebogue, where a number of brown-field sites have been developed. While the conversion of former derelict sites into new accommodation is welcome, there are some access and infrastructure deficits in Rhebogue relative to other parts of Limerick.

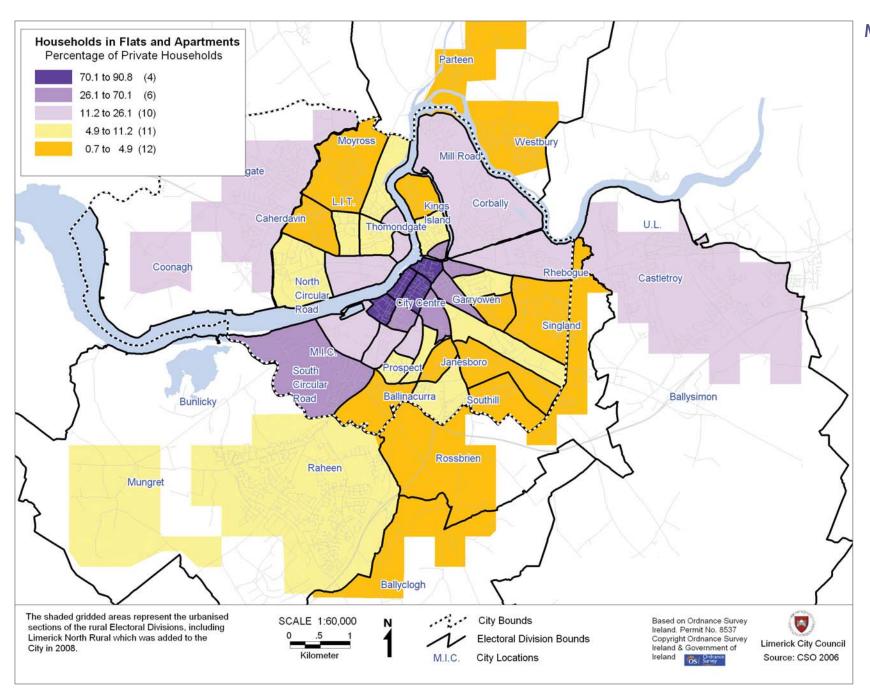


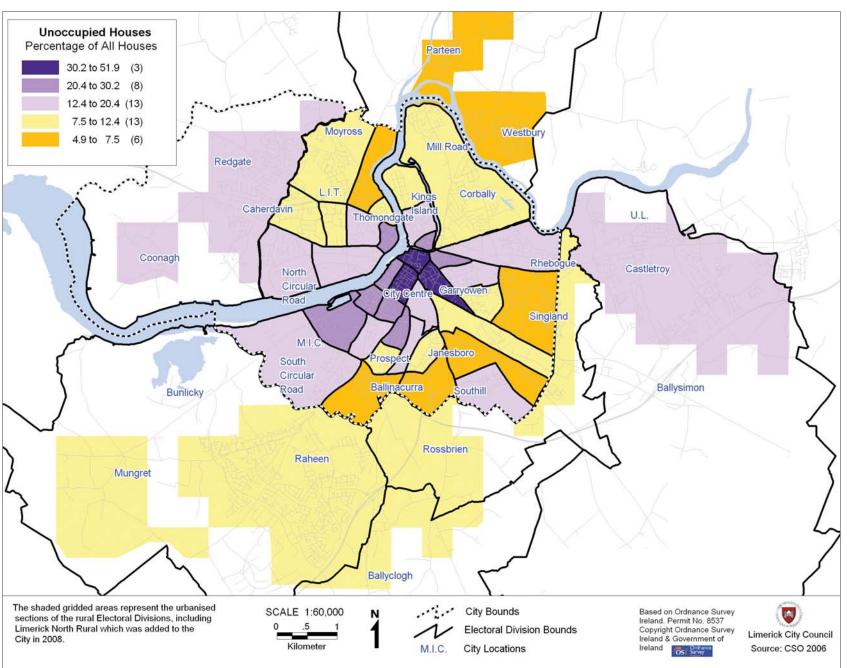
Large scale housing development in the areas of Castletroy /Newtown, Gouldavoher /Raheen and Clonmacken provide evidence of on-going suburbanisation and increasing urban sprawl. In order for the city to grow its population in line with the role envisaged for Limerick–Shannon as a gateway under the National Spatial Strategy, while minimising the impact of sprawl on the surrounding rural and peri-urban areas, new housing development must include a significant component of high-density development in the form of flats and apartments. At present flats and apartments account for 16 per cent of dwellings in the City. This is below the corresponding figures for Dublin City (28 per cent), and Galway City (21 per cent), but above those of Cork City (14 per cent) and Waterford City (11 per cent). While apartment living is relatively new in Ireland, and public perceptions of apartments are not always favourable, international experience shows that when well designed, constructed and maintained, apartment communities can be vibrant and offer a high quality of life. Urban villages represent a particularly innovative approach to the creation of sustainable communities, and some steps in this respect have been taken with the development of Pa Healy's Field. As Map 25 shows, flats and apartments now account for over 70 per cent of all permanent private households in Limerick city centre. Thus, the quality of these dwellings is integral to Limerick's urban fabric, and the maintenance of attractive high density living in the city is essential for economic competitiveness.

In this context the issue of vacancy is one that has recently given cause for concern nationally, leading to the collection of information on unoccupied housing as part of the census for the first time in 2006. Unoccupied dwellings constitute 14 per cent of the housing stock in Limerick urban area, which is somewhat below the national figure of 17 per cent. However, considerably higher levels of vacancy are found in the city centre. The areas in question correspond closely to those identified above as having high concentrations of apartments. Thus, all EDs along the Shannon, from the southern part of King's Island to Summerville Avenue, have vacancy levels in excess of 20 per cent of the stock (Map 26). While many of these apartments are new, and the result of tax incentive-led developments, it is not just newly constructed apartments that are affected by high vacancy rates. The highest vacancy rate in the entire urban area (52 per cent) occurs in the area between O'Connell Street and Parnell Street (ED of Shannon B), where 70 per cent of accommodation is in flats and apartments, but only 8 per cent of the stock was built after the year 2000.

The data suggest then that there are difficulties with both older and newer flats and apartments in the city centre. Much of the older accommodation is of poor quality and lacks modern conveniences, but the newer stock too is deficient in many respects, particularly in terms of its suitability as accommodation for growing families. Building regulations need to ensure the construction of higher quality accommodation, and planning needs to encourage a better mix of housing types. The role of developers, management companies and landlords, and their obligations to communities need to be addressed, and supported in legislation, if Limerick is to deal with the physical degradation of high density housing. More generally, there is a need for both public and private investment to provide local services and amenities, and to promote safe and prosperous communities. During broadly the same period as apartments and townhouses were being constructed in the city centre, many new estates were also being constructed in suburbs such as Raheen, Castletroy, Westbury and Parteen. Levels of unoccupied houses in these suburban neighbourhoods (ranging from 5 per cent to 12 per cent) are considerably below the national and Limerick averages, suggesting that, despite longer communing distances in many cases, people still place considerable weighting on the quality of housing stock and access to green spaces when deciding where to live. This pattern, whereby dwellings in the city centre are more likely to be unoccupied relative to dwellings in the suburbs, is associated with the progressive erosion of the city's commercial and retail functions and the parallel expansion of 'out-of-town' retail parks. The pattern illustrated by the map of unoccupied housing further underscores the need for a more co-ordinated approach to spatial planning across the Limerick (City and County) and Clare local authority areas.

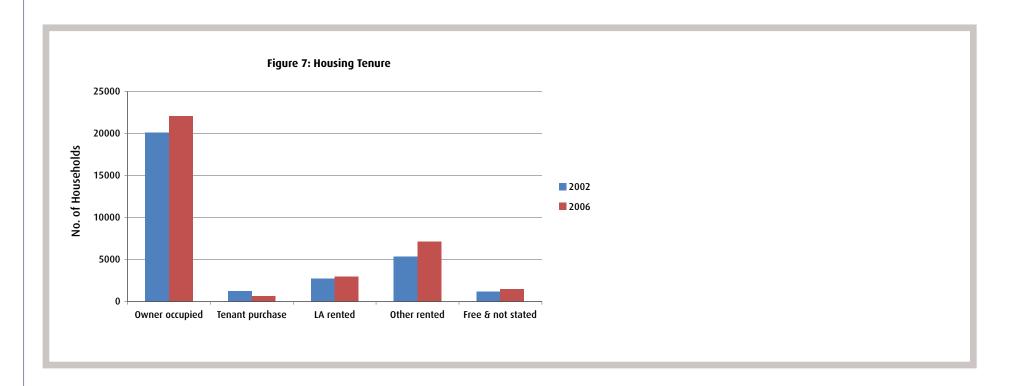
The 2002 profile noted a significant shift in housing tenure, over a decade and a half, away from the local authority rented sector towards 'other renting' (predominantly private). This decline in local authority rentals was reversed in the more recent period, with an increase of 9 per cent (Fig. 7). There was a comparable percentage growth in owner occupation (+10 per cent). However, both these rates of increase lagged behind the growth in the number of households over this period (+12 per cent), so that both sectors declined in terms of their shares of households. On the other hand the 'other rented' sector grew by one-third (from 5,330 to 7,088 households) and now accounts for over one in five households in the urban area. A significant component of this sector, enumerated separately for the first time in 2006, is renting from a voluntary body, which accounts for 1,760 households. This is a significant level of housing provision, equal to almost 60 per cent of the number of households accommodated by the local authority.

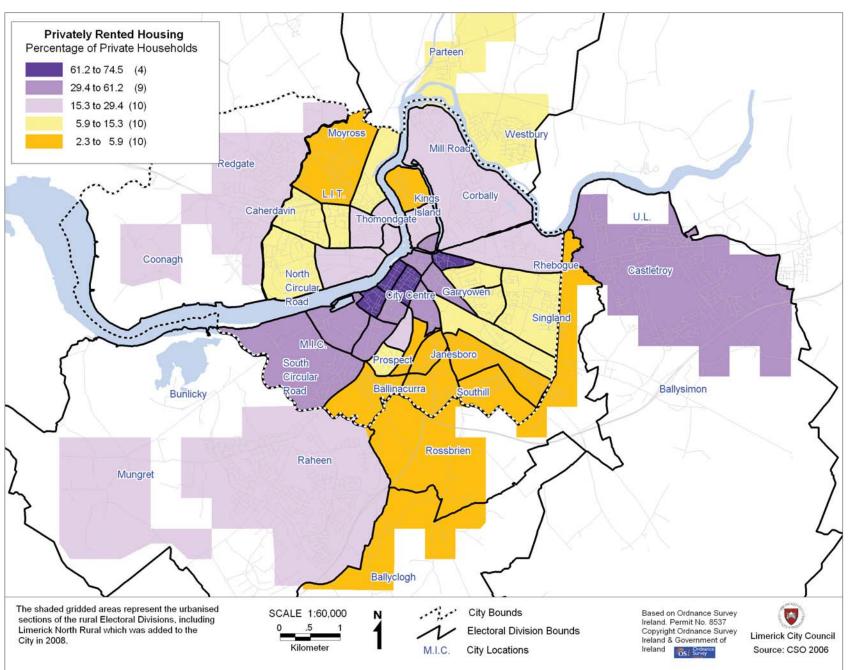


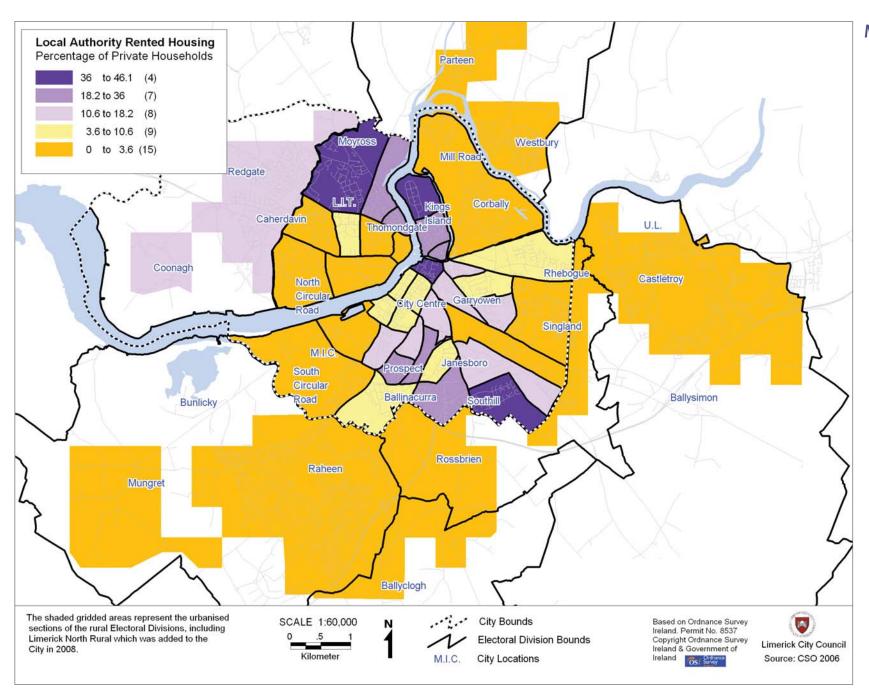


Private rented accommodation is chiefly concentrated in the city centre and in the vicinities of the University of Limerick and Mary Immaculate College (Map 27). A notable dichotomy emerges in respect of rented accommodation in the city centre. Over one-third of accommodation in the Custom House ED (containing Watergate Flats) is owned by Limerick City Council, while a much greater proportion of rental properties in the other city centre EDs is privately owned. The former is rented predominantly to lone parents and persons who are out of the workforce, while the latter is generally rented to migrant workers. In Shannon B, 68 per cent of all housing is privately rented, while in Shannon A, the figure is 73 per cent. Private rented accommodation accounts for between 30 per cent and 40 per cent of units around Mary Immaculate College and UL, and it represents over 20 per cent of housing in some suburbs, such as Caherdavin / Clonmacken, Corbally and Raheen, which have a number of investment properties in newer housing estates.

In total just under 9 per cent of households in the urban area are local authority tenants, but with a significantly higher percentage (13 per cent) in the City. This is considerably above the State average, where 7 per cent of households are renting from a local authority. The spatial pattern of City Council housing reveals the major concentrations in EDs containing large public housing estates, namely Moyross, Southill (especially O'Malley Park) and St. Mary's Park (Map 28). Relatively high levels of local authority tenancy can be observed in Ballinacurra Weston, the Carew Park area and some of the areas of Assumpta Park and Lee Estate. These areas are highlighted later in this report as problematical on a number of socio-economic indicators. A community-oriented housing policy and the pursuit of integrated neighbourhoods have to be central tenets of any meaningful attempt to tackle disadvantage in Limerick. In some cities the demolition of local authority housing has led to a gentrification of former working class neighbourhoods and a fragmentation of the local community, resulting in a decline in social capital. It is important that Limerick avoid these mistakes, and that assets, such as land banks, be maintained in community and / or public ownership.







3.7 Labour Force and Employment Patterns

Ireland's labour supply has grown rapidly in recent years. During the inter-censal period between 1996 and 2006, the number of persons in the labour force increased by 38 per cent across the State. The rate of growth in Limerick urban area was somewhat less than this, but the numbers available for work nevertheless underwent a very considerable expansion by 32 per cent (from 35,026 to 46,248). However, the rate of growth in Limerick City was only one-third of the State average, at 13 per cent, and within the City itself there were huge differences between city centre and other EDs. The highest rate of growth, amounting to a quadrupling of the labour force, occurred in the ED of Dock A, while at the other end of the scale there was a contraction of almost 40 per cent in Galvone B (Map 29). In general the pattern of change is closely correlated with that of population growth, once again highlighting the fact that population growth in Limerick in the boom years was strongly driven by in-migration. The largest absolute increase in the labour force (+4,506 persons) occurred in the Raheen area, which also recorded the largest absolute increase in population, but, arising from the age and family structure of this area, labour force growth here was partly due to maturing of the population with significant numbers of young people entering the labour market.

The combination of a young but maturing age profile and high rates of in-migration means that the labour force participation rate (LFPR, also known as the activity rate) is higher in Ireland than in most OECD countries. The 2006 Census of Population recorded that 63 per cent of the population aged over 15 years of age was in the labour force. The OECD average is just 48 per cent. Labour force participation rates are equivalent to or above the State average in many parts of Limerick, notably in the City Centre, Rhebogue, Singland, and the suburbs outside the city boundary, including Raheen, Mungret and Westbury (Map 30). At the opposite end of the scale, the lowest levels of participation are found in the Lansdowne Park / Shelbourne Road area and the southern end of Mulgrave Street. In both instances this is due to the presence of large institutional populations: St. Camillus's hospital in the former area and Limerick prison and St. Joseph's hospital in the latter. Low levels of participation in Castletroy and the South Circular Road area are due to 'studentification' – the process through which the population profile and functions of a neighbourhood are altered by the presence of large numbers of students. When these local factors are taken into account, the neighbourhoods that have significantly low levels of participation in the labour force are Prospect, Kileely, St. Mary's Park, O'Malley Park, and Garryowen. These parts of Limerick are also associated with above average levels of unemployment and larger families.

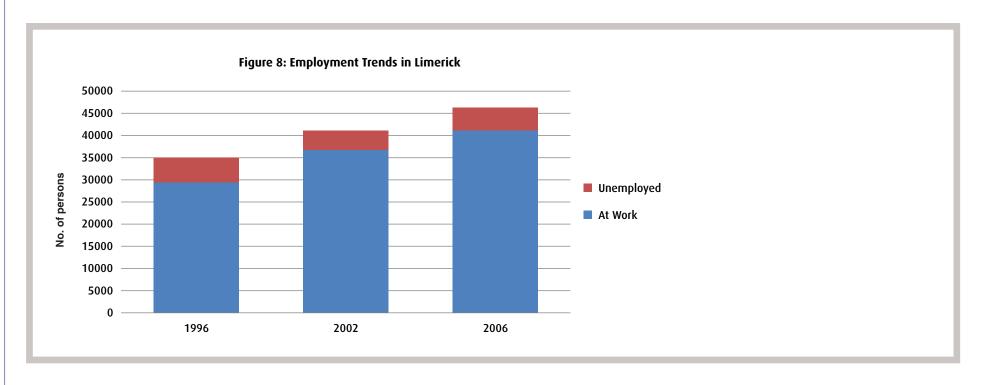
Female participation in the labour force in Limerick is below the State average. Just over 48 per cent of females in the City, and 51 per cent in the urban area, participate in the labour force. Both figures are below the State level of 53 per cent, and both show decreases since 2002, in particular the City rate. It is also notable that the degree of variation between EDs within the urban area increased since 2002, so that in 2006 there was a greater range in values. Within the City, the pattern of female participation closely resembles that of the overall LFPR, with, once again, lower rates evident in areas that have large institutional or student populations (Map 31). Areas with above average levels of female participation in the labour force include the city centre, where commercial employment opportunities have emerged, and many vacancies have been filled by inward migrants. As noted in the 2002 profile, female activity rates tend to be high where there are significant local concentrations of suitable employment opportunities. Hence the high rate in the Dooradoyle/ Raheen area containing the Mid-West Regional Hospital, the Crescent Shopping Centre, the offices of Limerick County Council and a number of service sector enterprises in the Raheen industrial estate.

Employment in the urban area grew significantly in the period 1996-2006, with an expansion of 11,764 (+ 40 per cent) in the numbers at work (Fig. 8). At the same time, the numbers unemployed decreased by 542 (- 10 per cent). As a consequence, the unemployment rate fell by five percentage points over the decade (from 16 per cent to 11 per cent), and most neighbourhoods in the City and suburbs benefited in this respect. Encouragingly, some of the largest decreases in the unemployment rate occurred in areas with traditionally high rates of unemployment, such as St. Mary's Park, Prospect, O'Malley Park, Ballynanty / Moyross, and

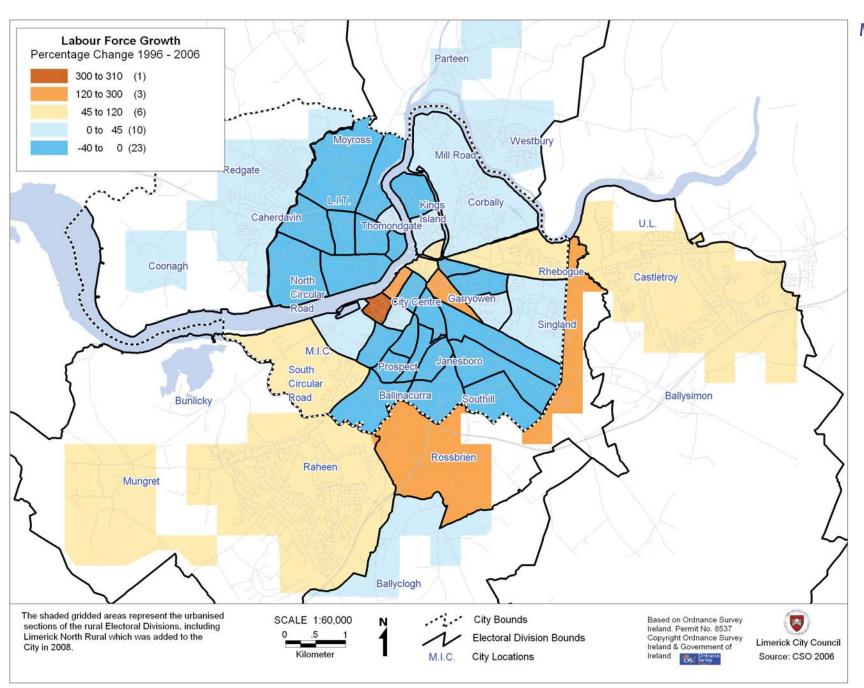
⁹ It should be noted that the census measure of unemployment, based on the individual's Principal Economic Status (PES), differs from the Live Register figure. In general the PES figure is higher.

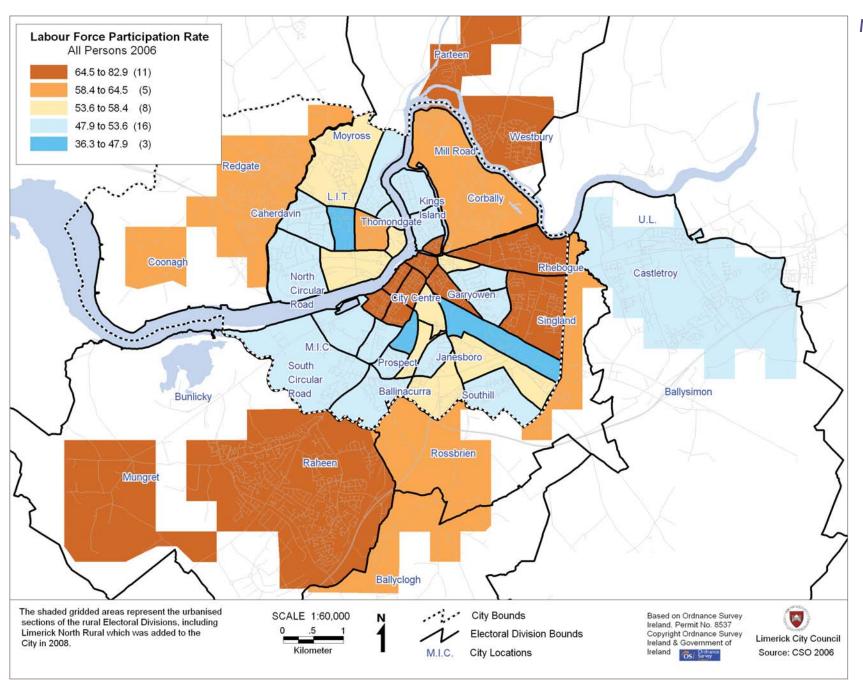
¹⁰ Both this and the next map are based on the absolute change in the unemployment rate, and so take into account changes in the labour force as well as in the numbers unemployed.

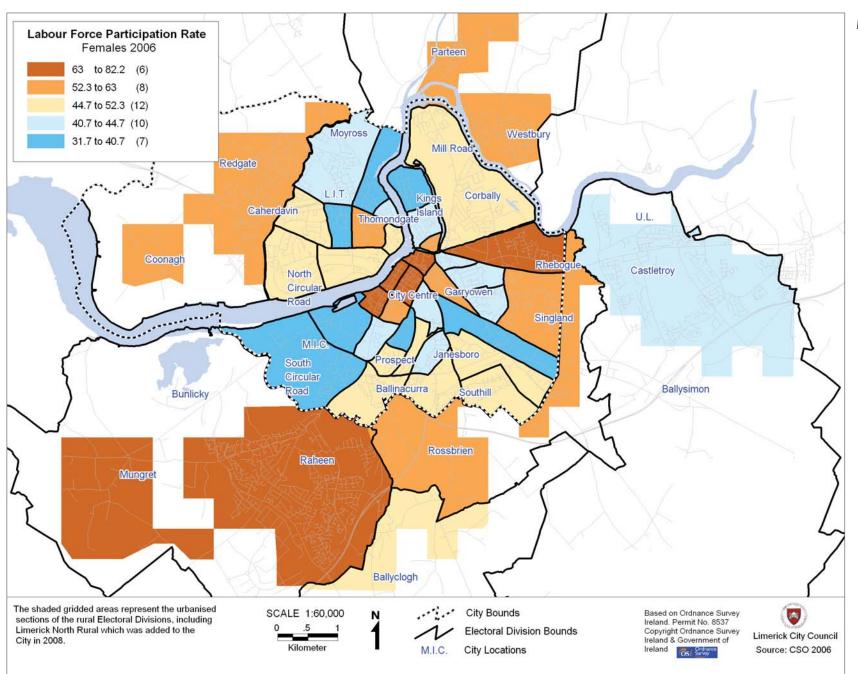
Kileely (Map 32)². The fall in unemployment is associated in part with the growth of the economy during this period, but, in addition, all of the areas mentioned benefitted from area-based interventions and community development activities, which have been promoted in Limerick since the EU Poverty Programmes and the establishment of the PAUL Partnership in the 1980s. Targeted community-based initiatives will need to receive on-going support in addressing the range of economic and social exclusion issues that continue to affect these and other parts of Limerick, and this is made clear by an examination of trends in the most recent 2002-2006 period (Map 33). While the numbers at work continued to increase in this period, unemployment also began to rise again, both in absolute and percentage terms. Moreover, some of the largest increases in the unemployment rate occurred in O'Malley Park and St. Mary's Park, thereby reducing (but not eliminating) the gains in the earlier part of the decade. In the context of the current economic recession, this partial reversal of the earlier trend gives some cause for concern.

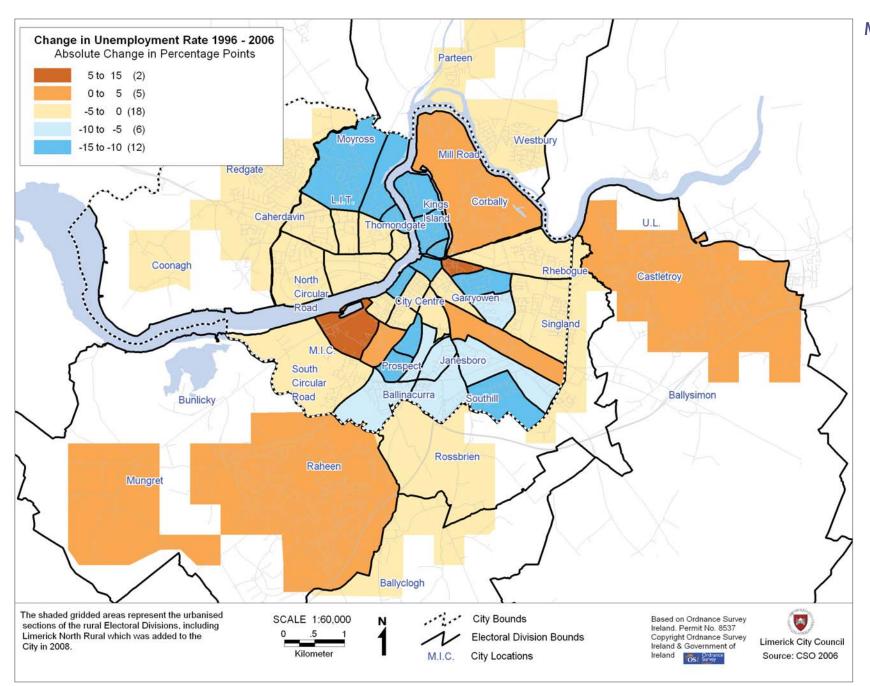


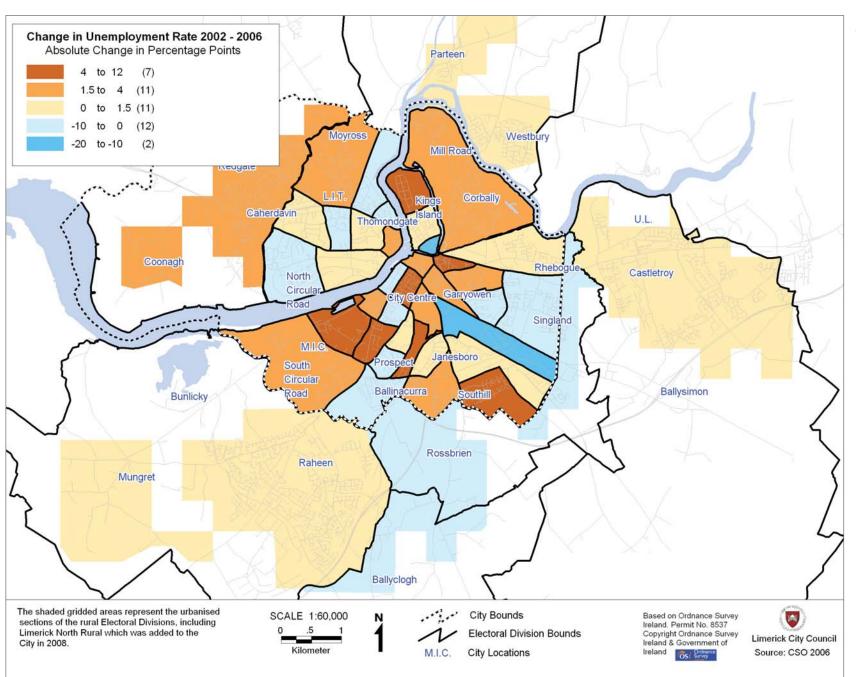
Unemployment is a more serious issue in Limerick than in the State as a whole. The 2006 Census of Population recorded an unemployment rate of 8.5 per cent for the State, 11.0 per cent for Limerick urban area, and 14.4 per cent for the City. Map 34 shows that, despite the progressive trends noted above, there remained extremely pronounced differentials in the unemployment rate throughout the urban area, with some parts of the city experiencing a rate five times the national average, and eight to ten times the rate of the EDs with the lowest unemployment. Even after a decade and a half of economic growth, unemployment levels of over 30 per cent persist in St. Mary's Park, O'Malley Park and Ballinacurra Weston. In large part, this reflects a mismatch between the skills base of the local population in these areas and the requirements of employers in the city and wider Mid-West Region, and points to the need for targeted measures to develop human resources. High unemployment in these communities correlates with above average numbers of lone parent households, larger families, low educational attainment, and low activity

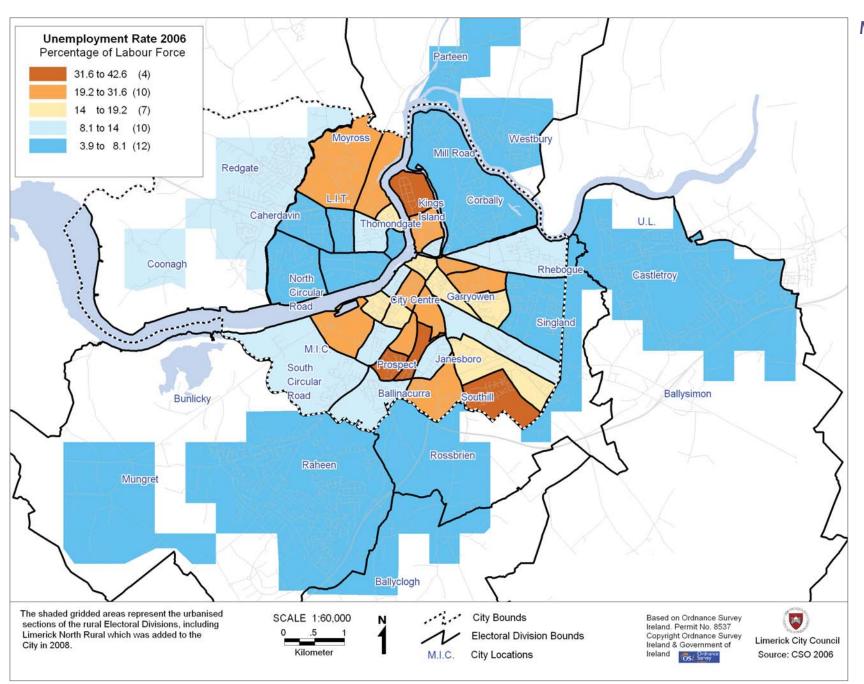










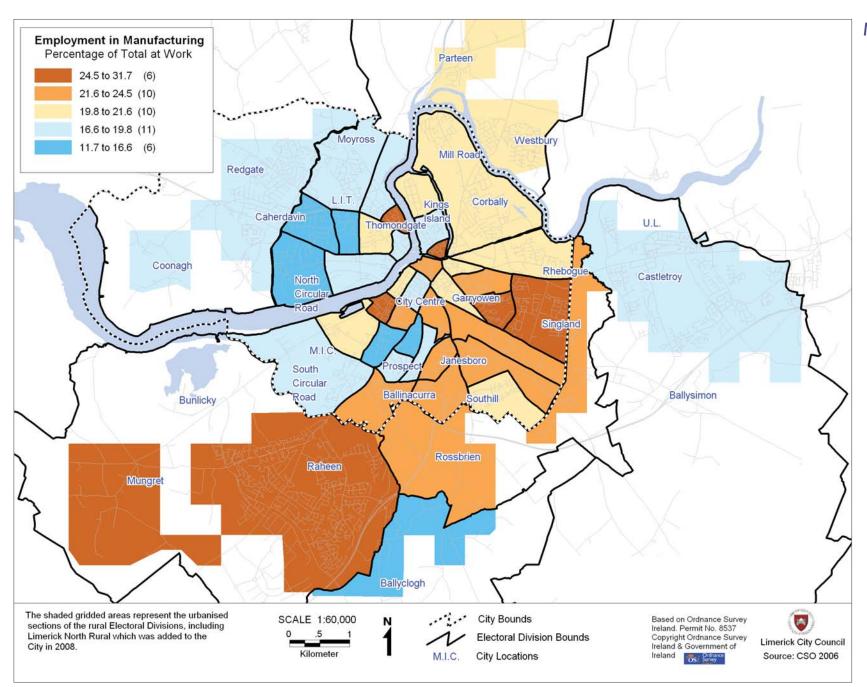


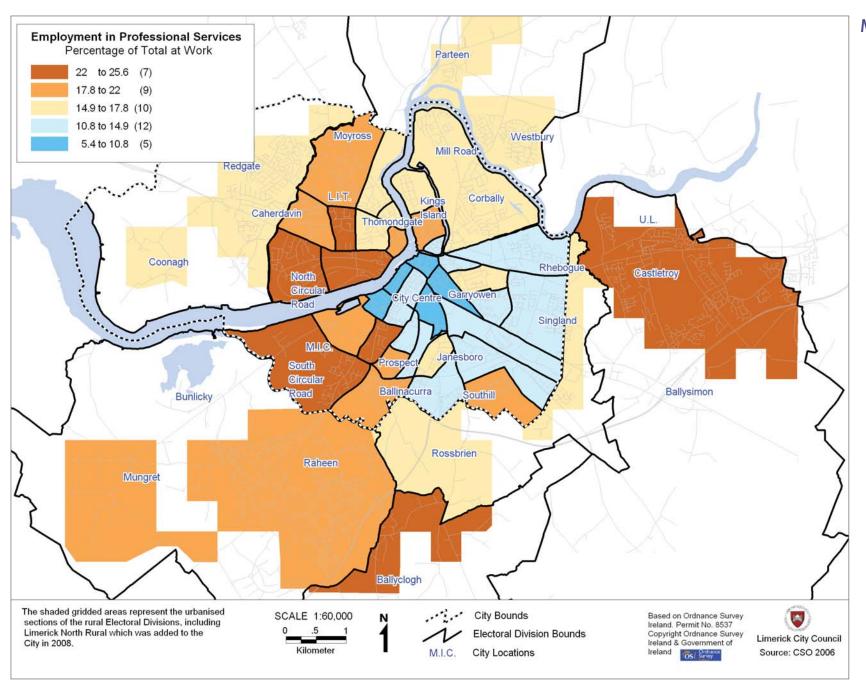
rates (LFPR). Thus, integrated approaches that address education, training, personal development, family support and housing quality, in addition to economic development, are essential in breaking the cycle of deprivation that continues to afflict these communities. The figures presented here are based on 2006 data, and as such they do not take into account the severe economic downturn experienced since the second half of 2008. Specifically, the data were gathered before the downsizing of Dell operations in Raheen, with the immediate loss in 2009 of 1,800 jobs, and the consequent loss of an unquantified number of jobs in associated enterprises. Thus, while the figures capture the fact that unemployment in Limerick generally and in the city in particular, was more severe than across the State in 2006, it must be realised that the situation has become more acute in the meantime, and the gap between Limerick and other areas is likely to have widened.

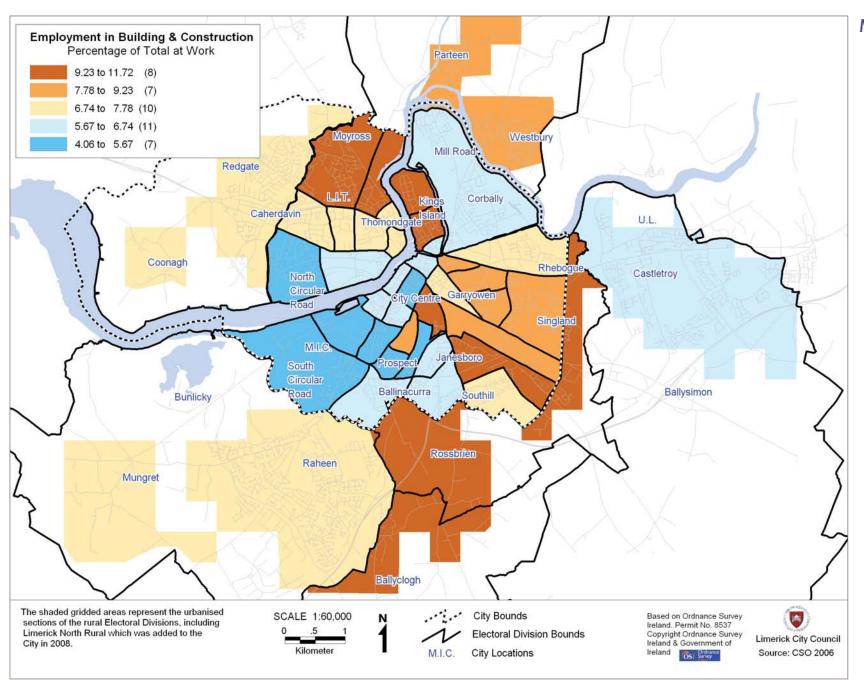
The importance of manufacturing to the local economy is illustrated by the fact that it continued to employ 21 per cent of those at work in 2006, the same level as in 2002. This is half again as high as the sector's share of the number at work nationally (14 per cent). Manufacturing workers represent significant percentages of all workers resident in the ED of Ballycummin, as well as in Garryowen, Singland and certain city centre neighbourhoods, such as Thomondgate (Map 35). As indicated in section 2, many of these work outside the areas in question, and indeed outside Limerick. However, the strong correspondence with the city's industrial geography is noticeable, and the areas with high proportions of manufacturing workers are mainly located close to the major industrial estates in Raheen and Ballysimon. Over one-quarter (26 per cent) of the employed manufacturing workforce resides in the Raheen / Mungret area. Manufacturing is of course one of the most export-oriented and globalised sectors of the economy, and its susceptibility to overseas competition renders it particularly vulnerable in the present economic climate. The loss of the jobs in Dell, referred to above, is illustrative of this vulnerability. The spatial distribution of manufacturing workers suggests that this loss will have serious consequences for Limerick and for its southern suburbs in particular.

The professional services sector accounts for 17 per cent of the total number of persons at work in Limerick urban area. The spatial pattern of the sector is very clearly influenced by the locations of institutes of higher education, with the areas surrounding and / or adjacent to the University of Limerick, Mary Immaculate College and Limerick Institute of Technology having the highest levels of employment in this sector (Map 36). The pattern is also associated with suburbanisation, as those employed in professional services in the city centre (legal and financial services) are likely to live in suburban areas, such as the North and South Circular Roads, Castletroy and the Ballyclough area, and commute to the city centre. This pattern may also be associated with the hollowing-out of Limerick city centre due to the development of suburban business parks and office complexes, and it is notable that the lowest levels of employment in professional services are to be found in the centre. The persistence of this spatial pattern of employment and residential development poses significant challenges for sustainable development in Limerick. Thus, growing car dependency, especially among the higher status social groups, is a growing problem in the city and is having adverse effects on citizens' quality of life, as well as on Limerick's ecological footprint (see section 3.9).

The construction sector was one of the biggest beneficiaries of Ireland's economic boom 1996-2006. The expansion of the sector enabled many people – mainly males, often with low levels of education and a narrow skills base – to enter the workforce for the first time. As a result, inroads were made into addressing long-term unemployment in deprived urban areas, while in marginal rural areas, smallholders were enabled to secure off-farm employment, and thereby improve farm viability. Consequently, despite the fact that construction employs just 7 per cent of the workforce in the urban area (11 per cent nationally), it is quite important to certain groups, and in certain localities. With the current downtown in the sector, it is these same groups and localities that are most vulnerable to rising unemployment. The likely impact of the downturn on Limerick can be deduced from Map 37 which reveals high levels of dependence on the construction sector in the working class neighbourhoods of Moyross, King's Island and Kennedy Park, as well as in the rural Rossbrien area. Other parts of the city that are likely to be adversely affected by further contraction in the sector include Garryowen, Singland and the adjoining parts of Ballysimon.







3.8 Education and Social Class

As Ireland's economic base continues to undergo significant economic restructuring, the composition of the demand for labour has shifted significantly, with a much greater demand, both in relative and absolute terms, for highly skilled workers, and a corresponding reduction in the demand for low-skilled labour. In this context, education and training have emerged as probably the most significant determinants of the labour market prospects of the individual, and those with lower levels of attainment are increasingly finding it difficult to find employment, other than in relatively poorly-paid and menial service occupations. Differences in levels of educational attainment between areas reflect variations in the skills levels of the available labour force, and those areas with high concentrations of less educated, lower skilled workers, tend to be less attractive to high value-added manufacturing and service activities. In response to these trends, the government has introduced a series of major educational policy initiatives aimed at raising the educational and skills profile of the population as a whole. These include the abolition of third-level fees for most classes of student in the mid-1990s, and the provision of a range of supports for students from disadvantaged backgrounds to access, and successfully complete, further and higher education.

The 2002 profile noted the clear impact of the student population on the city's demography and its social and economic geography. The data for 2006 confirm that this impact continues to be significant. As a major centre of both secondary and third-level education, Limerick has expanded its student population significantly in recent years. In the urban area as a whole, 15 per cent of the population aged 15 years and over (11,880 persons) was classified as students in 2006. Because the city is in effect a net exporter of educational services to the Mid-West region and the rest of the country, and many students are enumerated in their home places, this figure understates the significance of students in the city, where enrolment in the three main third-level institutions stands at approximately 20,000.

The census provides a number of measures of educational attainment, including information on early school leaving. Early school leavers are defined as those who left formal education before the age of 16 years, and in the urban area as a whole they constitute 16 per cent of all those whose education has ceased, as compared to 18 per cent nationally. However, the rate for the City is somewhat higher, at 21 per cent. Moreover there is a clear spatial pattern to this variable, with rates above 40 per cent evident in St. Mary's Park, Weston, Kileely, O'Malley Park, and Ballynanty / Moyross (Map 38). The rate is also high (45 per cent) in the ED of St. Lawrence which extends along Mulgrave Street and which includes Limerick prison and St. Joseph's hospital. Nationally, early school leaving tends to show a correlation with older populations, reflecting the fact that educational norms have changed considerably over the years. However, the spatial pattern of early school leaving in Limerick cannot be explained in this way, since the age profile of the areas in question is comparatively youthful¹¹. This suggests that there is a serious problem of early school leaving in these areas.

At the other end of the educational spectrum are those who have attained a third-level qualification. On this measure of educational attainment too, the urban area as a whole outperforms the State average, with rates of 32 per cent and 29 per cent respectively. However, once again the City lags behind, with a rate of just 24 per cent. The spatial pattern of third-level education within the urban area is almost the mirror image of that of early school leaving (Map 39). The areas identified above that have the highest rates of early school leaving have the lowest rates of third-level education (all under 10 per cent), while in areas that have very low rates of early school leaving, such as the North and South Circular Road, close to 50 per cent of the population has a third-level education. The highest rates of third-level education are found in the EDs of Ballysimon (60 per cent) and Ballinacurra A (52 per cent), reflecting the nearby third-level institutions of the University of Limerick and Mary Immaculate College.

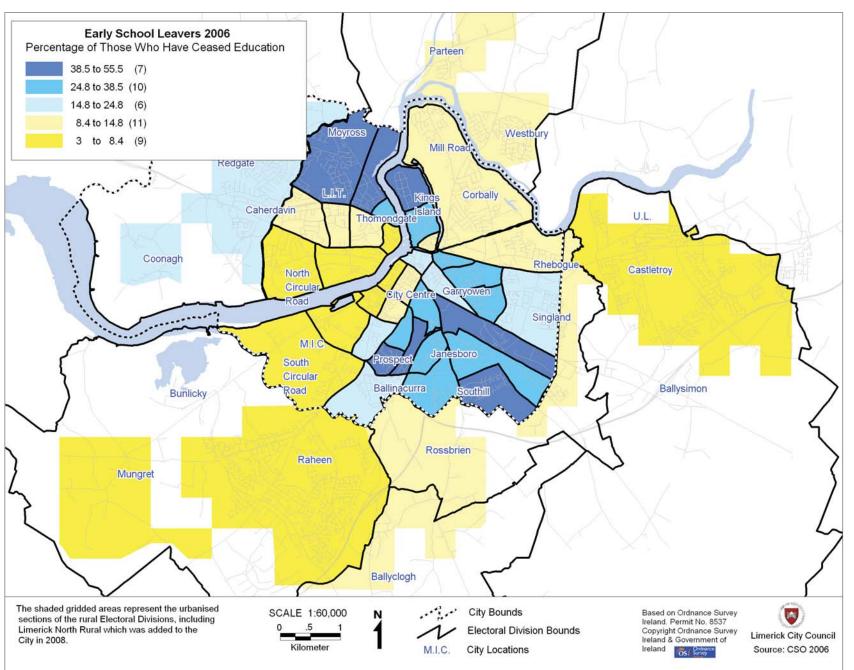
Educational attainment strongly influences occupational status, which in turn is one of the main determinants of social class; consequently the geographical pattern of social class closely follows that of educational attainment. Professional workers and managerial/ technical workers together with their dependants (social classes 1 and 2 combined) form a relatively high proportion of the population in areas where higher levels of educational attainment are more common, notably the North

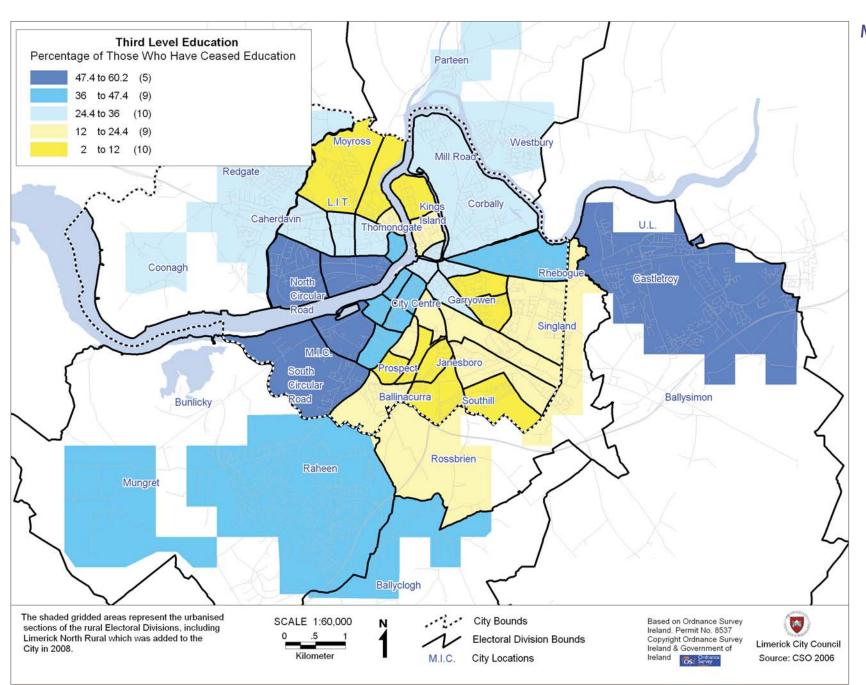
Circular Road area and the southern suburbs (Map 40). Conversely, the highest relative concentrations of population in social classes 5 and 6, representing semi-skilled and unskilled workers respectively, are found in the areas identified above as having lower levels of educational attainment (Map 41). Together the two maps of social class point to a continuing strong degree of spatial segregation along class lines in Limerick.

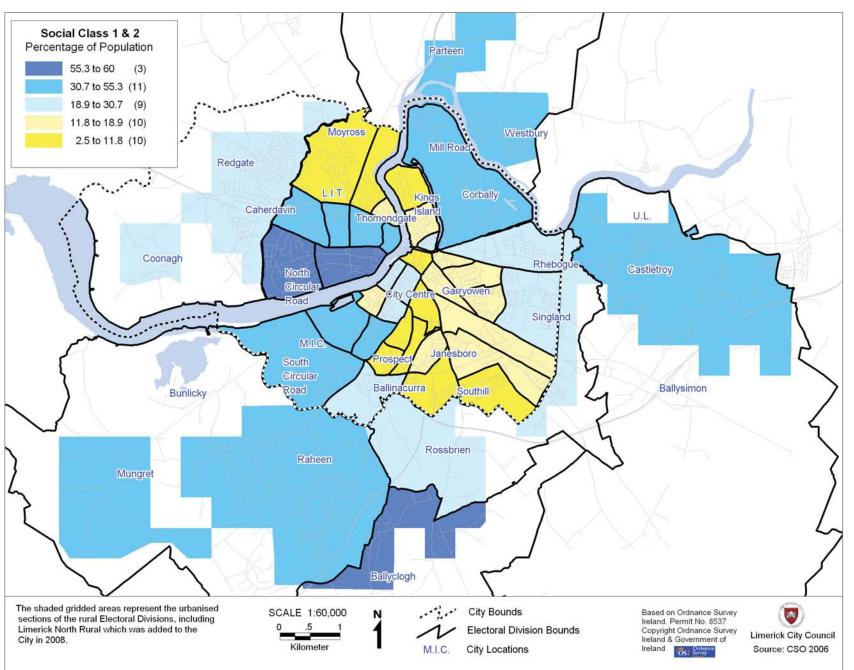
Nevertheless, over the ten year period 1996 to 2006 there has been some change in the social class composition of the urban area. While the number classified in the professional and managerial social classes increased by almost 25 per cent, the number in the unskilled and semi-skilled social classes fell by 6 per cent. This movement up the social class scale has also been reported for other cities in Ireland and the UK, where it has been interpreted as part of a process of 'professionalisation' of the urban population. Looking at the spatial pattern of change in the managerial and technical social class, the largest percentage increases occurred in the southern part of King's Island, the southern end of Garryowen, and the ED of Dock A (from Alphonsus Street to Mallow Street) in the city centre (Map 42). While the data are interesting as possible evidence of a degree of 'gentrification' in these areas, it needs to be recognised that, in all three cases, growth was from a low base, and the absolute numbers involved were relatively small. By far the greatest absolute increases in the higher status social classes occurred in the southern and eastern suburbs of Raheen-Dooradoyle and Castletroy.

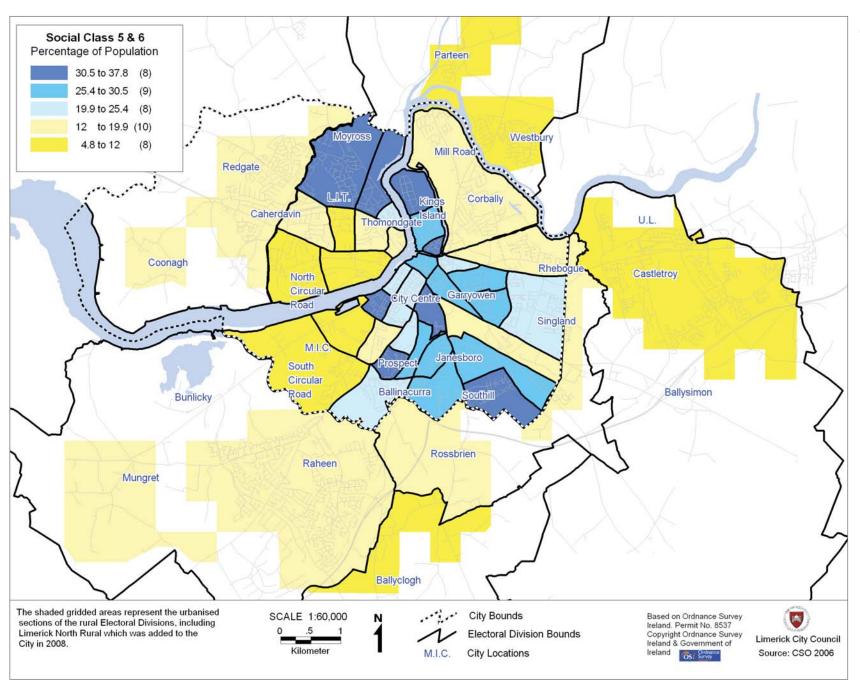
When the pattern of change in the lower status social classes 5 and 6 is examined, the picture of social change becomes more complex. The same southern and eastern suburbs identified above recorded quite high growth, both in percentage and absolute terms, in these groups, as did the quayside ED of Dock A, and, in percentage terms mainly, Shannon A (Map 43). Some of the biggest decreases in the unskilled and semi-skilled social groups occurred in the Ballynanty-Moyross area and Southill. What we have here is some evidence that the latter social groups have become more dispersed away from the local authority estates and towards both the newly developed areas in the city centre and the larger privately developed suburbs. This may well be as a result of changes in housing policy in this period and in particular the rapid growth in the rental supplement / rental accommodation schemes. The ED of Dock A illustrates how the new apartment blocks in areas such as Mount Kennet have become home to a very mixed population including both higher and lower social class groups. One result of these population movements is that the overall degree of segregation of social classes decreased slightly in the ten year period.

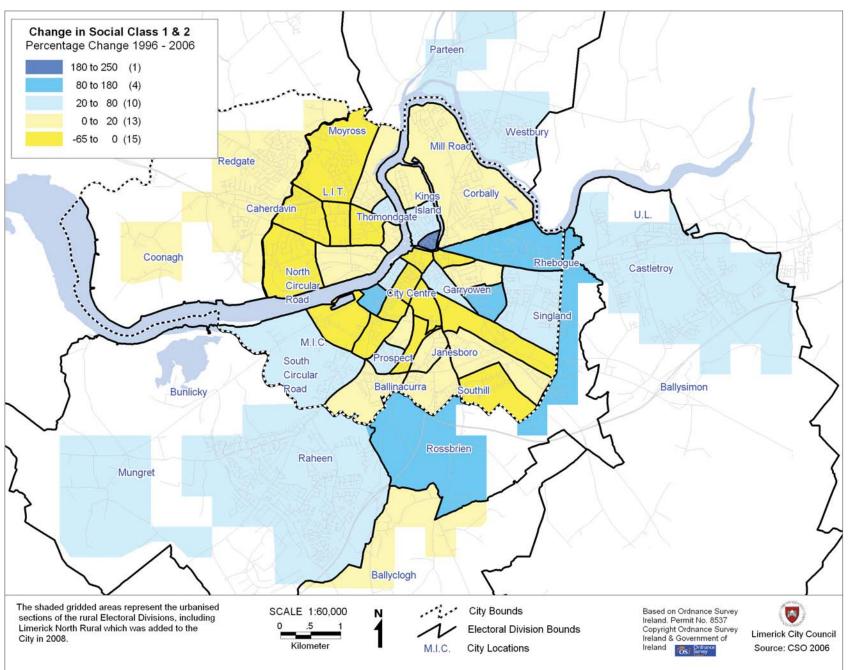
¹¹ The area-based correlation between early school leaving and the youth dependency ratio is +0.55

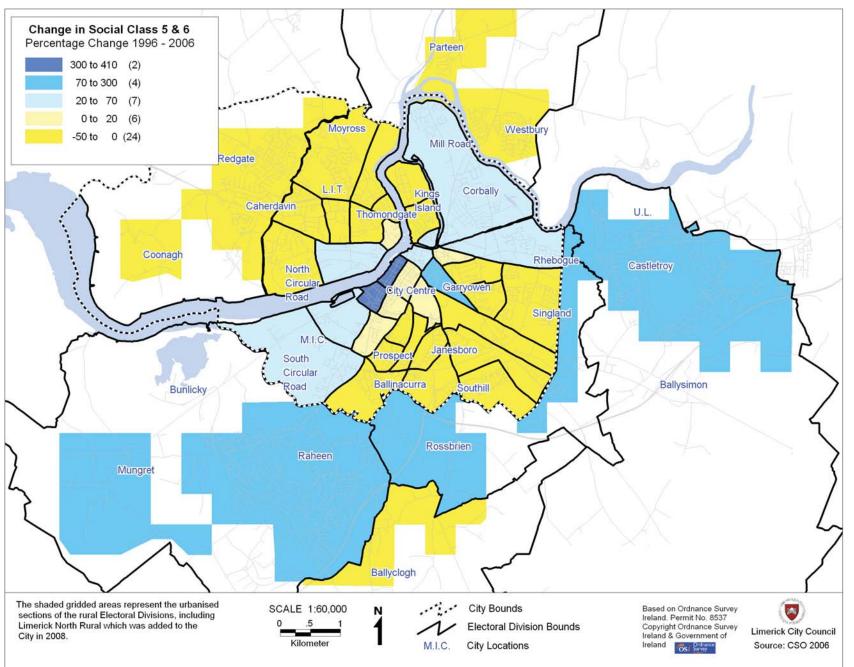












3.9 Aspects of Accessibility: Travel and Communications

The 2006 census provides a wide range of information on patterns of travel to work, school or college in the urban area. Unfortunately, coverage in the 1996 census is not as comprehensive in this regard, and so the assessment of change in this section is based on the shorter 2002-06 period. In addition to mode of travel, the census provides information on distance travelled and time taken, and, though the data provided are categorical, it is possible to estimate a median¹² distance and time. Because different categorisations were used for distance travelled in the 2006 census as compared to 2002, the discussion of change focuses on these medians.

Over the four year period, there was little aggregate change in the median distance travelled to work, school or college, by workers and students resident within Limerick urban area. The overall median decreased marginally to just less than 4.5 kilometres (2.8) miles, but with a greater decrease for those living in the suburbs (Table 6). This may be indicative of a somewhat better geographical match between the location of jobs and of workers' residences in 2006 as compared to the earlier year, and in particular a distribution that is more favourable to suburban commuters. Such an explanation is consistent with decentralisation of jobs from the City to the suburbs, which, already well established in the manufacturing sector, has more recently been experienced in the services sector also, particularly in retailing. In the period in question a number of major new suburban developments opened in the suburbs¹³.

Table 6: Median Distance and Journey Time for Travel to Work, School and College

	Median Distance (kilometres)			Median Travel Time (minutes)		
	2002	2006	Percent change	2002	2006	Percent change
City ¹ Suburbs	4.20 5.27	4.12 5.04	-1.88 -4.26	17.70 18.08	18.54 18.02	4.80 -0.36
Urban Area	4.52	4.49	-0.70	17.84	18.34	2.81

Note: 1 The City is defined as per the 2008 boundary extension

¹² The median is the central value in a data set, such that half the values are greater than it and half are lower.

¹³ These include the City East retail park and the Childers Road retail park.

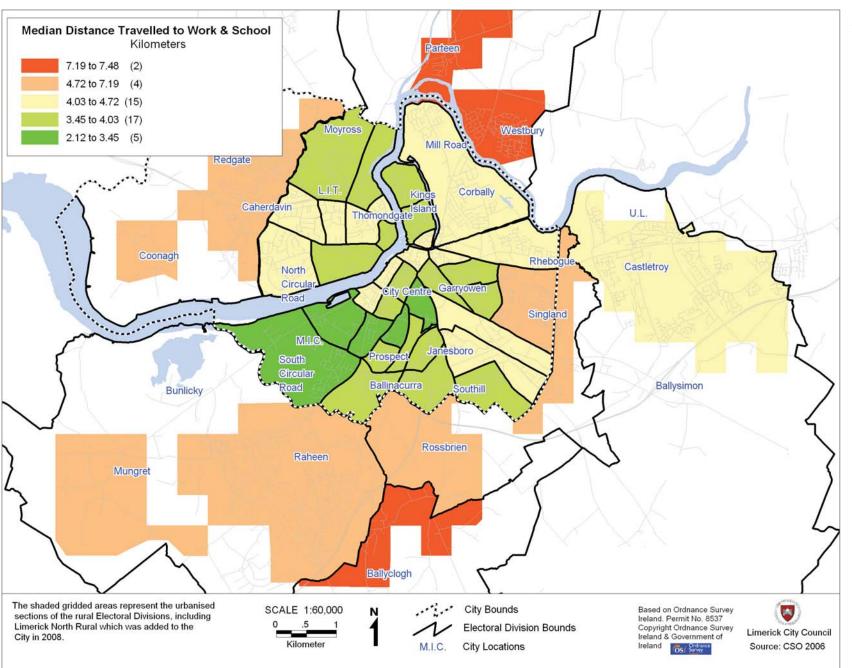
Nevertheless, despite these changes, distances travelled continued to be higher in the suburban areas and lower in the city centre. The greatest median distances of travel are in the EDs of Roxborough (the Ballyclough area) and Ballygass (containing Westbury) (Map 44). All of the other suburban EDs also show high median distances of travel with the exception of the Castletroy area where much of the travel is focused locally on the University and the National Technological Park. Lower median distances in areas such as Moyross and Southill may be due in part to a larger component of school-based travel, which in turn is due to a combination of higher unemployment and younger populations in these areas.

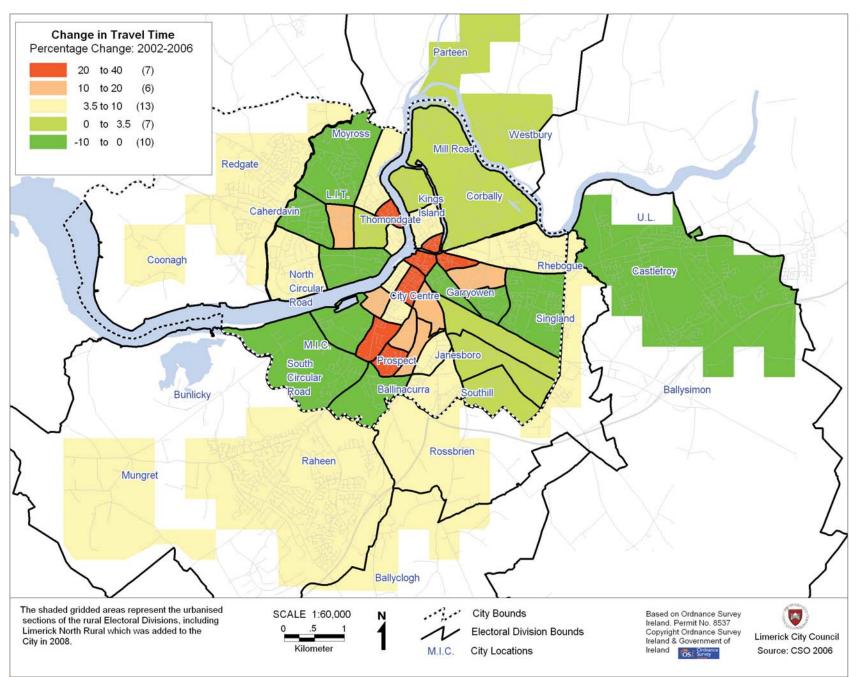
While the reduction in median travel distance translated into a very slight decrease in travel time in the suburbs (-0.4 per cent), the same was not true of the City, which experienced an increase of 4.8 per cent. The result was that, by 2006, median travel time in the City had overtaken that in the suburbs. A more detailed examination of the differential pattern of change reveals that the greatest increases were generally in the city centre (Map 45). In the case of some (but not all) of these central city EDs, increased median journey times were associated with increased distances of travel and may therefore reflect disimproved accessibility of the city centre to jobs concentrations as a result of the decentralisation processes noted above. The largest single decrease in travel time occurred in the Castletroy area, and this despite the fact that the median travel distance increased for commuters in this area. In this instance reduced journey time is most likely due to the impact of infrastructural improvements, such as the completion of the N20 southern ring road (phase I) in 2004. Infrastructural considerations also lie behind the spatial pattern of actual travel time in 2006, which indicates significantly longer commuting times on the north side of the city (Map 46). This is largely due to the difficulties of access from the north side to the city centre and to the southern and eastern suburbs caused by the availability of only four bridges across the Shannon, three of which are subject to capacity shortfalls at peak travel times.

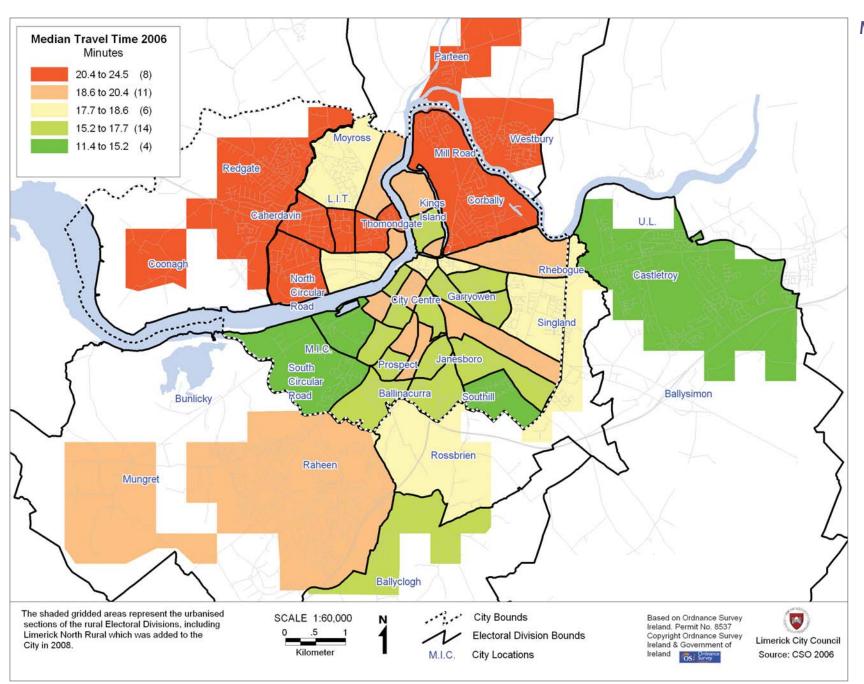
While supply-side developments in the form of new or improved infrastructure help to explain why travel times might decrease despite longer travel distances (as in the case of Castletroy), the more common scenario in Limerick, and that which obtains in aggregate, is disimproved journey time relative to distance travelled (Table 6). This suggests that congestion – already an issue in 2002 – worsened somewhat in the four year period to 2006. In principle there are two demand-side factors that might explain this: an increase in the overall volume of travel and/or a *shift* in the *mode* of travel. In regard to the latter factor, it is generally recognised that modal shifts towards greater car usage tend to have the most deleterious consequences for congestion levels. Whereas commuting volumes, as measured by the total number travelling to work, school or college, increased by almost 5 per cent in the urban area as a whole, of greater significance is the disproportionate growth of over 12 per cent in the number of persons travelling by car. Usage of public transport also increased, but at a rate (10 per cent) that lagged behind that of car travel, with the result that the modal split shifted in favour of the car: the proportion of all commuters travelling by car increased from 53 per cent in 2002 to 57 per cent in 2006.

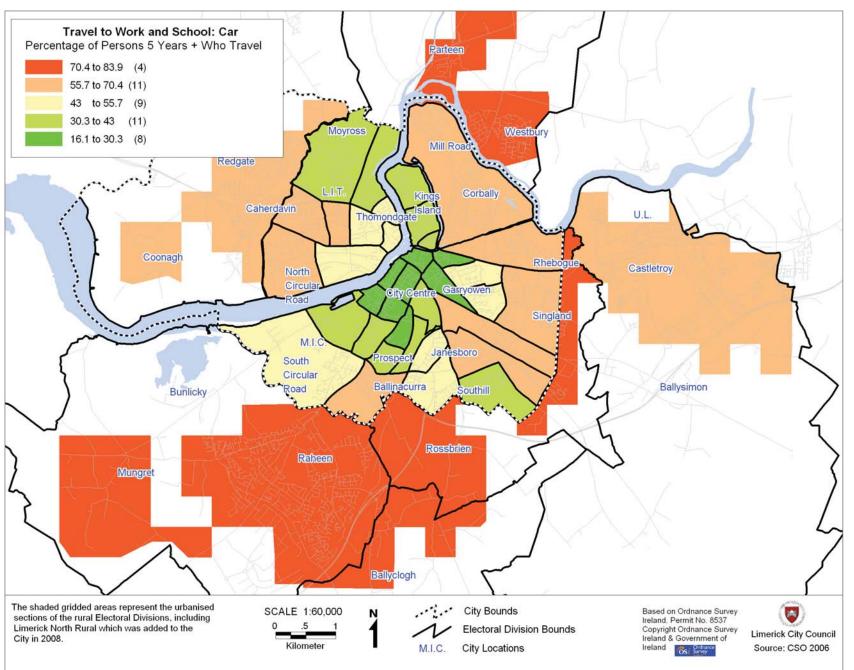
However, even these data on car usage don't tell the full story, as they include passengers as well as drivers. For a given increase in the numbers travelling by car, the congestion impact may be mitigated if growth is mainly in the number of passengers, rather than drivers. Whereas each new driver means an extra car on the road, each new passenger merely results in an increase in the car occupancy rate. In the period in question the number of car drivers increased by more than 17 per cent, and the car occupancy rate decreased by 4 per cent (from 1.49 to 1.43 persons per car, including driver). Clearly, in the latter days of the Celtic Tiger economy, the number of cars on the roads in the urban area increased significantly from an already high level.

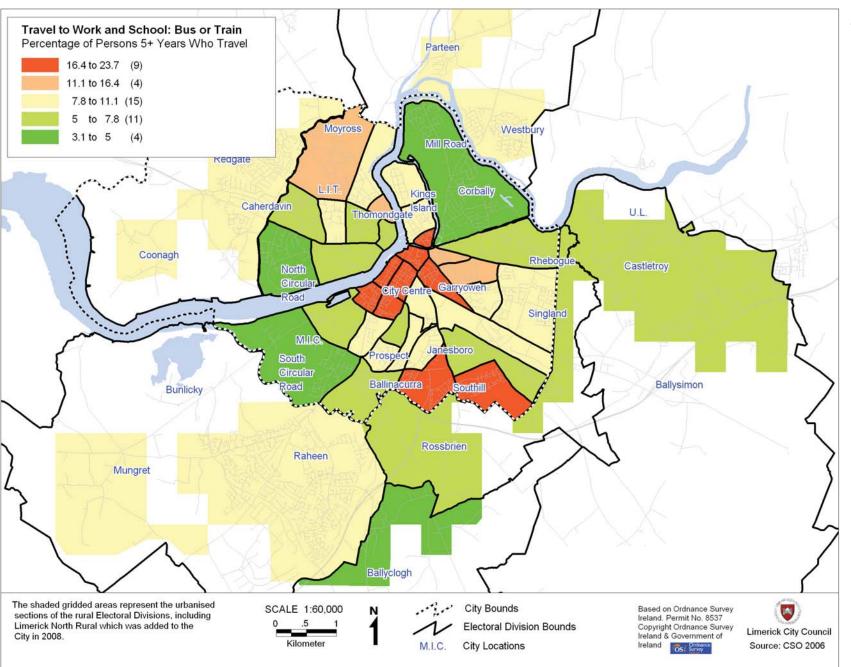
The spatial pattern of car usage is broadly similar to that which obtained in 2002, with rates generally highest in the suburban EDs and lowest in the city centre (Map 47). The map of public transport usage is essentially the inverse of this, with highest usage in the city centre. However, public transport is also relatively important in the Southill area, in Moyross/ Ballynanty, and in Garryowen (Map 48). Going against the overall trend towards the car, there is evidence of a shift from private to public transport in many of the central city EDs (Maps 49 and 50). Apart from these central city areas however, there is otherwise a considerable degree of similarity in the maps showing change in the use of the two modes. Thus, a decrease in travel by both car and public transport is evident throughout most of the north side of the city, while increase in the usage of both modes occurred in all of the suburban areas, with the exception of the Westbury area where public transport usage declined. It is likely that these instances of corresponding change (both modes increasing or decreasing together) are linked to the changing composition of the population in these areas, and the consequential changes in the overall numbers travelling to work, school and college.

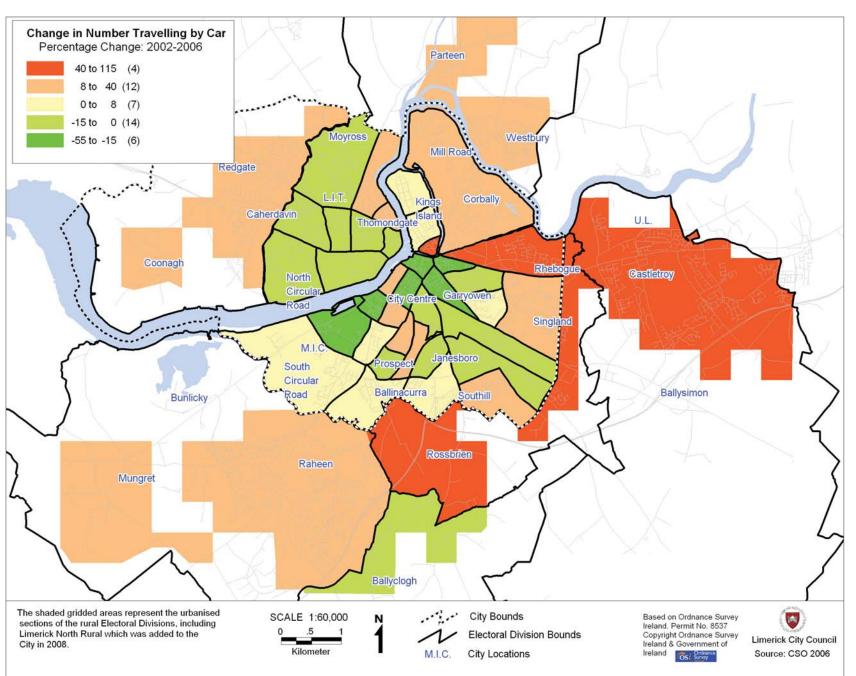


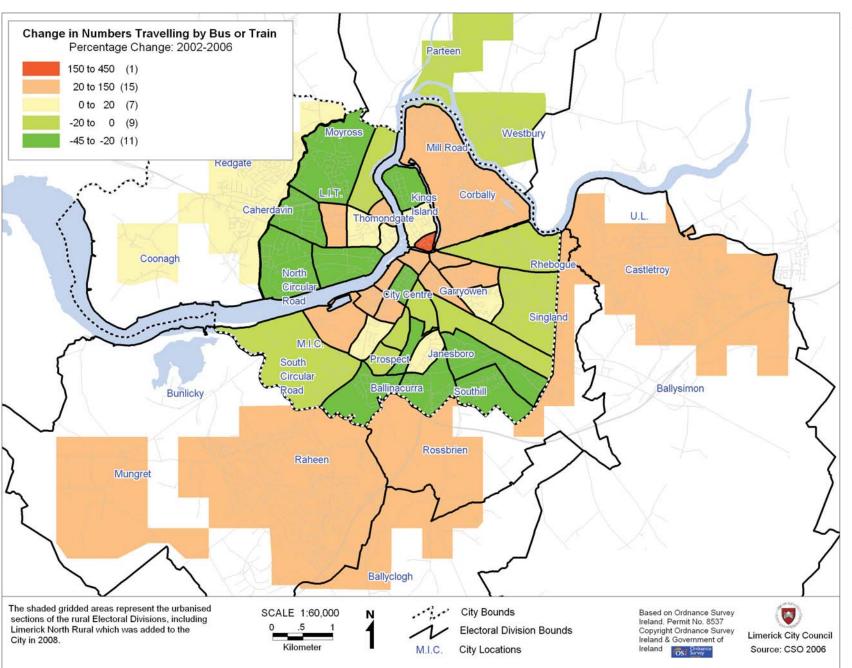




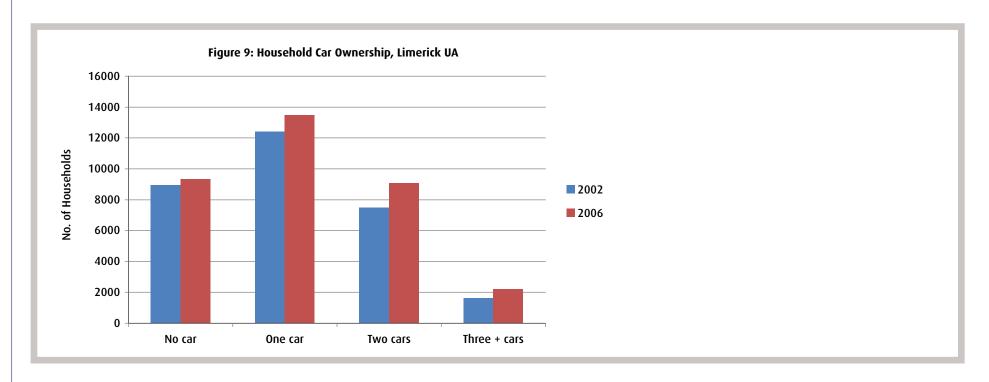






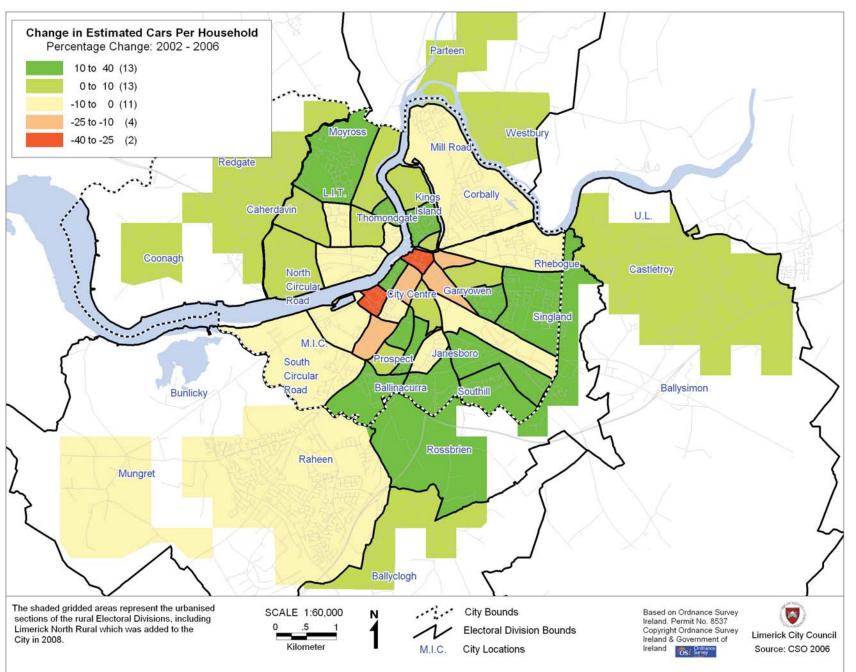


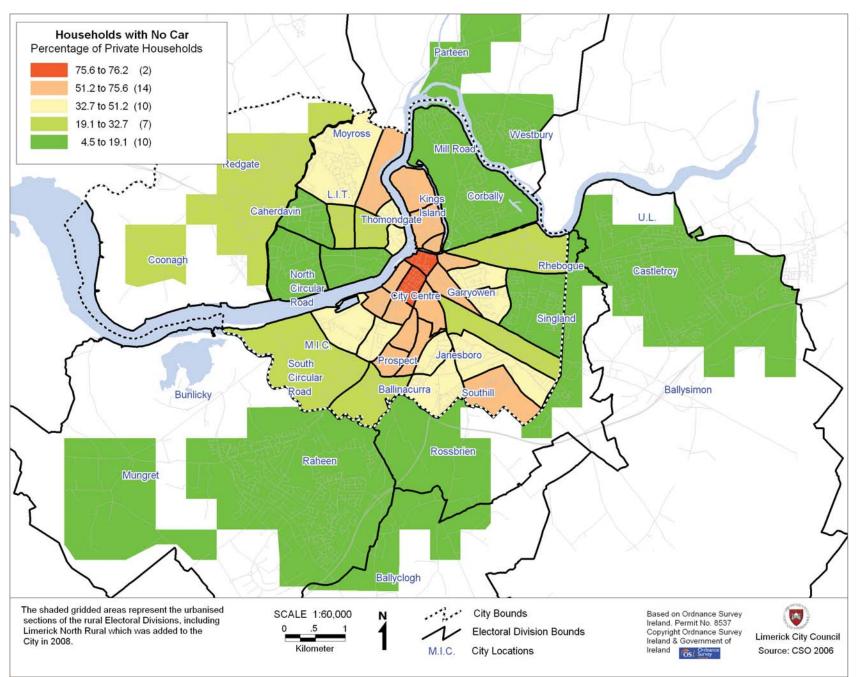
The increased usage of private transportation is linked to a considerable growth in car ownership. Between 2002 and 2006, the number of cars per household in the urban area increased by approximately 6 per cent, from an estimated 1.06 to 1.12¹⁴. Since the number of households also increased, by over 12 per cent, this meant an increase of almost 19 per cent in the total number of cars owned by households resident in the urban area. There was particularly strong growth in multiple car ownership, with the number of 2-car households up by 21 per cent, while the number of households with three or more cars increased by 38 per cent (Figure 9).



Once again, there is a considerable degree of unevenness across the urban area in the growth in car ownership, with the greatest increases in estimated cars per household in Southill and the Ballynanty/ Moyross areas (Map 51). Since car ownership in these areas has traditionally been amongst the lowest in the city, there has been a degree of convergence between areas on this variable. However, this effect is not very strong, and there remain significant spatial differentials in levels of car ownership. Even with the increase in ownership, over one-quarter (27 per cent) of households still do not have a car. Carless households are most common in the city centre, accounting for between one-half and three-quarters of all households (Map 52), a finding that can be partly explained by the fact that this remains the area of greatest accessibility to jobs and amenities, with consequently lower levels of household need for cars. A further explanatory factor is that, as already noted, average household sizes here are among the lowest in the urban area. The latter explanation does not apply, however, in O'Malley Park and St. Mary's Park where the rate of carless households is high despite relatively large household sizes.

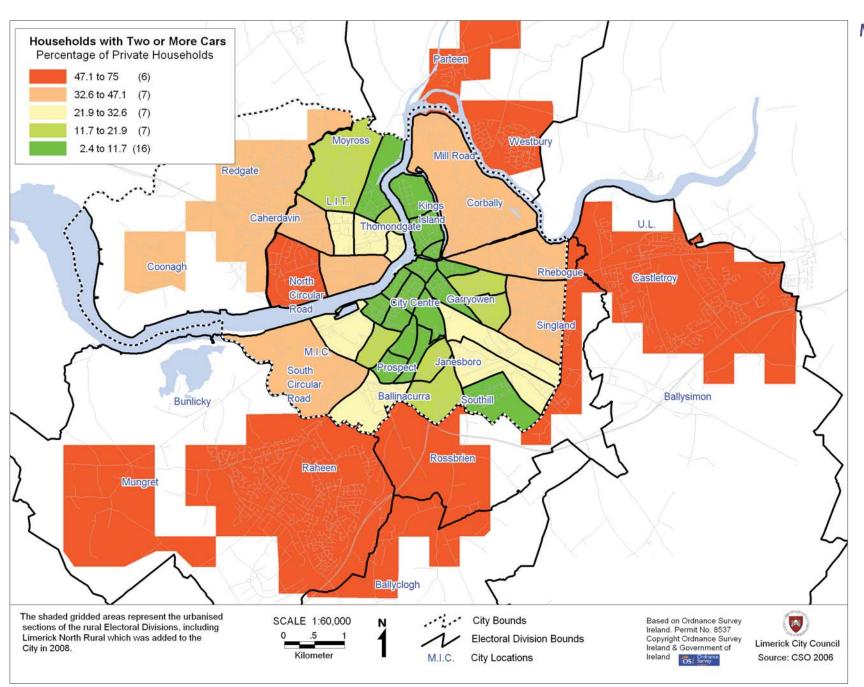
¹⁴ The small area data on car ownership are categorical, with the top category open-ended (3 or more cars). For simplicity it is assumed that all households in this category (constituting 6.5 per cent of the total) in fact own exactly three cars, hence these estimates almost certainly understate somewhat the average number of cars per household.

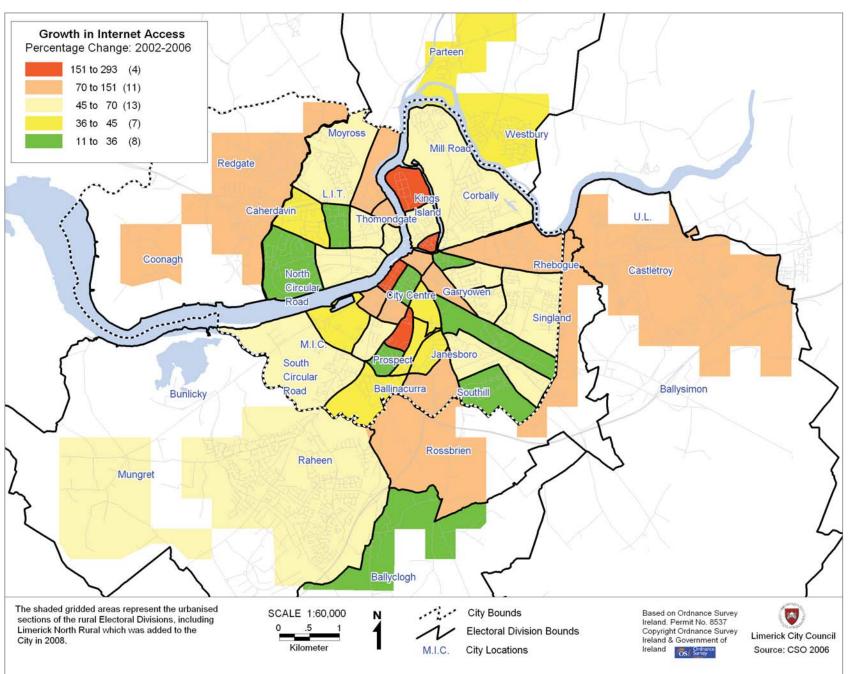


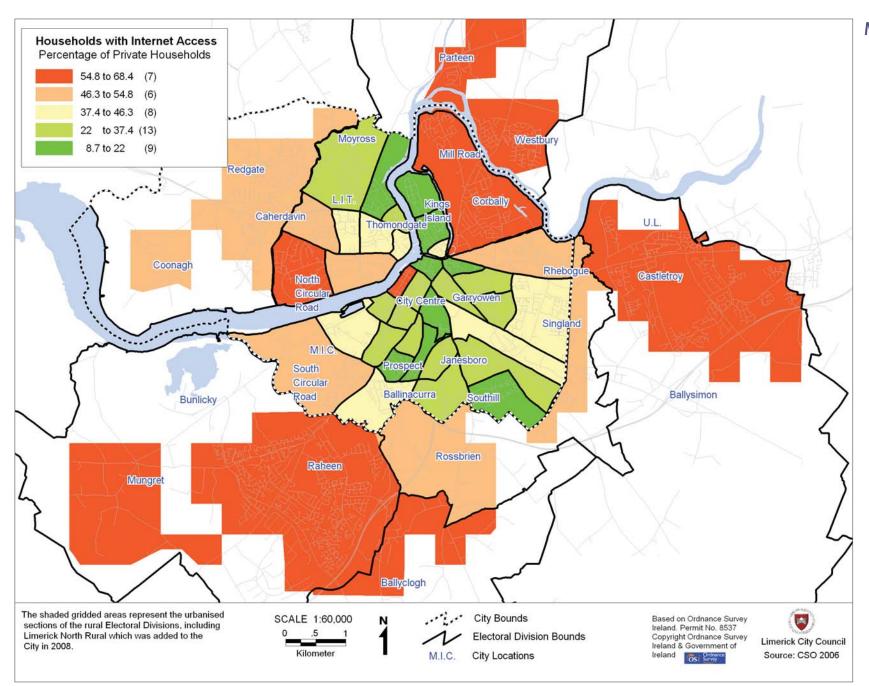


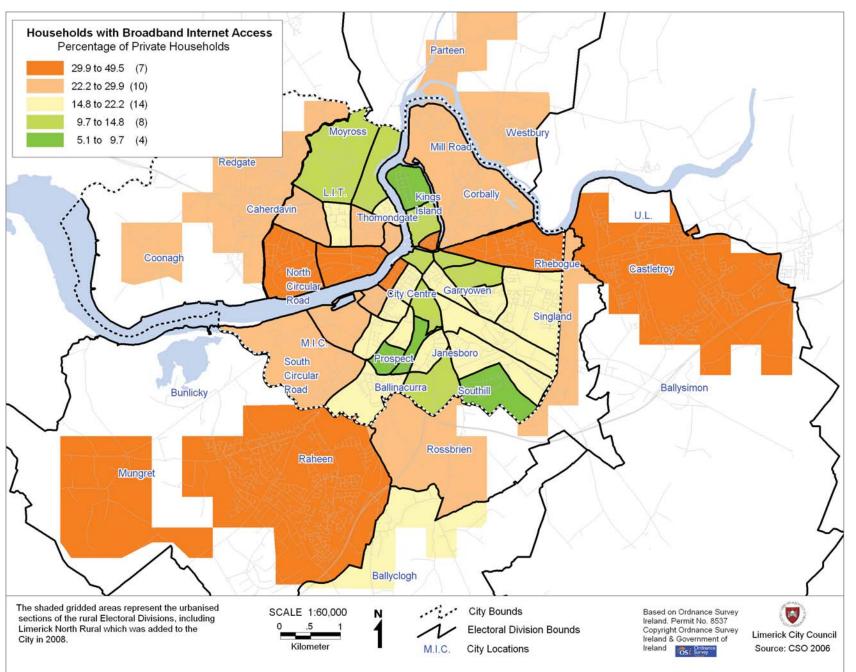
The distribution of households with two or more cars is largely a mirror image of the previous variable (Map 53). By far the greatest proportion of multiple car-owning households is found in the ED of Roxborough where almost three-quarters of households fall into this category. High rates are also found in the other main suburbs to the north, east and south of the City, and in the North Circular Road area. Again the pattern is partly explained by lower accessibility arising from greater travel distances to work and to services in these areas, and partly by household size: the EDs of Roxborough and Ballyglass (Westbury) have the largest households on average. However, neither of these factors applies as strongly in the North Circular Road area where high levels of car ownership are more likely due to higher household income. In the case of Castletroy, as noted earlier, commuting distances are quite short, suggesting that income is again a factor in car ownership.

Finally, as the 2002 census profile noted, the increased availability and uptake of information and communication technologies (ICTs) in recent years has potentially significant implications for travel to work, and therefore for overall patterns of travel demand in the urban area. It also noted that 31 per cent of households in Limerick had Internet access from home. Between 2002 and 2006 the number of households with Internet access had increased by 58 per cent, so, even allowing for the growth in the total number of households, the percentage with Internet increased to 43 per cent. Growth in Internet access was strongest in the city centre ED of Shannon A, followed by St. Mary's Park, the southern end of King's Island, and Prospect (Map 54). There is some element of 'catching-up' evident, as St. Mary's Park had the lowest level of access in 2002, and likewise relatively few households in Prospect had Internet access. However, as with car ownership, convergence was not strong across the urban area as a whole, and there still remain marked differentials between areas (Map 55). Internet access ranges from two-thirds or more of households in the Ballyclough and North Circular Road areas, to only 9 per cent in St. Mary's Park and 12 per cent in O'Malley Park. The census data allow us to focus on the quality of Internet access also, by mapping the level of broadband usage. Here too there are marked differentials among areas (Map 56). The pattern is broadly similar to that of Internet access, with high levels in the North Circular Road area and the southern and eastern suburbs of Raheen/ Dooradoyle and Castletroy, as well as in the Dublin Road / Rhebogue area and Shannon A in the city centre. As was the case in 2002, Internet access (broadband and other) is strongly correlated with social class, the highest levels being found in areas with high proportions of the professional and managerial social groups (cf. Map 40). It is also highly correlated with car ownership, a finding that is indicative of the underlying imp









3.10 Social Well-being: Dependency, Social Capital, Affluence and Deprivation

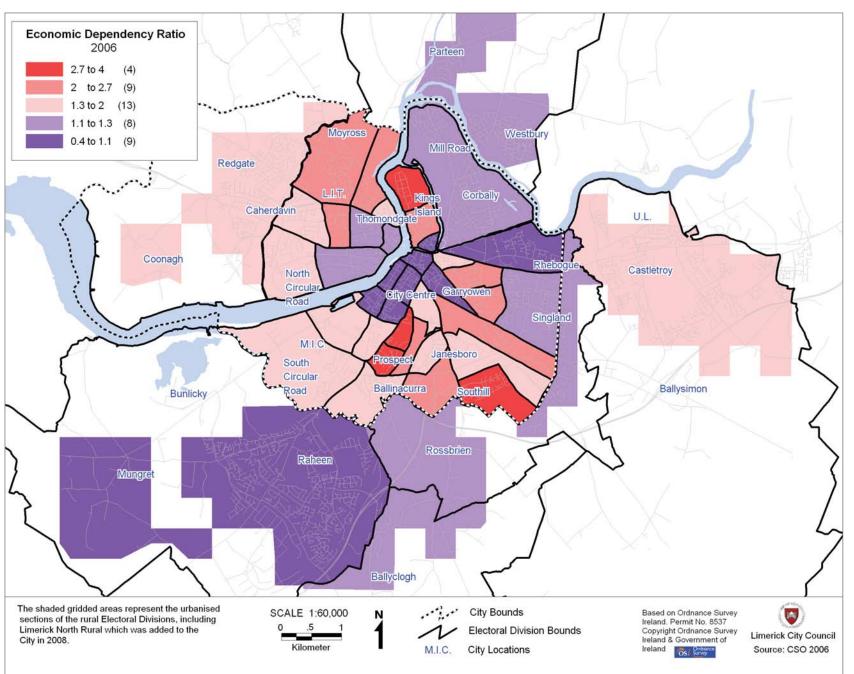
The 2002 profile of Limerick noted a strongly entrenched geographical pattern of social exclusion that was expressed with regard to variables such as unemployment, lone parenthood, economic dependency, elderly living alone and disability, and summarised by a composite measure of relative affluence / deprivation (the Haase-Pratschke measure). We have already looked in this report at the spatial pattern of lone parenthood (section 3.5) and unemployment (section 3.7). The 2006 SAPS do not cover elderly living alone, so in this section we focus on economic dependency, disability and the composite affluence/ deprivation indicator. In addition, however, we include some analysis of information on the volunteering activity of the population at large, as well as the engagement of individuals (on an unpaid basis) in the provision of care for others with a disability. Both of the latter variables may be regarded as measures of social capital.

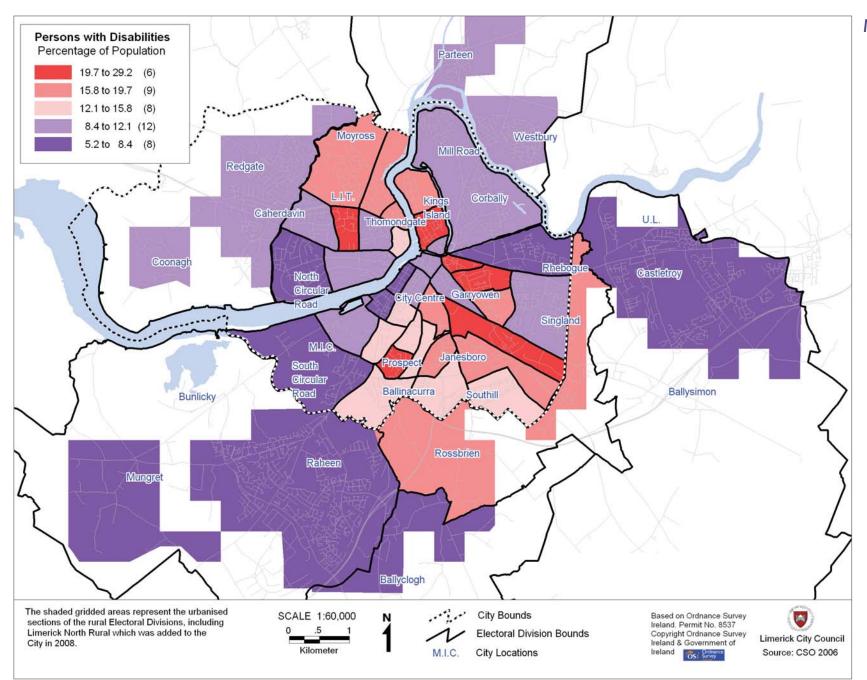
In reviewing trends in unemployment earlier, we noted a small increase, both in absolute and percentage terms, in the period 2002 to 2006. Moreover, it was noted that the unemployment rate tends to be higher in areas where the activity rate (LFPR) is low. The combined effect of both these variables, as well as the age dependency ratio, is captured in the Economic Dependency Ratio (EDR) which is the ratio of all those not at work (the unemployed as well as those not in the labour force, such as the elderly and children) to those who are at work. The EDR is therefore a useful measure of potential economic stress: higher values suggest that wage earners in an area carry a greater economic burden. Due to its below average level of participation in the workforce, combined with above average unemployment, Limerick as a whole has a high EDR. In Ireland, the EDR is 1.2, while in Limerick urban area it is 1.33, and in Limerick City it is 1.5. However, as Map 57 shows, significantly higher values are found in certain areas. The EDR is over twice the national average in Prospect and Ballinacurra Weston, it is over 3.0 in O'Malley Park, and in St. Mary's Park it is almost 4.0. The only parts of Limerick City with EDR values below the national average are Corbally, Rhebogue and the city centre, where migrant workers constitute a large proportion of the population. Similarly, EDR values are generally lower in Limerick's suburbs, due in part to a favourable age profile, as well as high activity levels and low levels of unemployment.

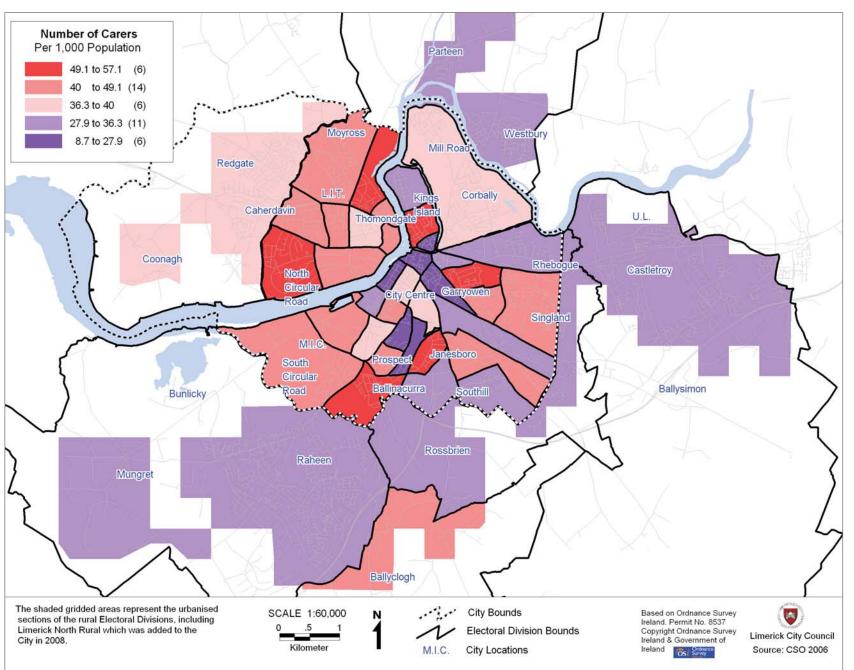
One of the reasons why an area might have a low activity rate, and therefore a low EDR, is that a relatively high proportion of the population suffers from disability. As the following graph shows, Limerick has a greater proportion of persons with a disability rate) than has the State as a whole (Fig. 10). At ED level, the disability rate is strongly correlated with an ageing population (as indicated by the elderly dependency ratio) and adult families. However, disability is also associated with local authority renting, lower social classes and low levels of labour market participation. This association is quite complex in nature, but a large volume of research indicates that, in socio-economic terms, many people with disabilities experience a vicious cycle of exclusion, in that they are more likely to be unemployed than are other members of the population, with consequently lower income which, through its association with reduced access to health / medical services, compounds disability, and leads to premature exit from the workforce. As Map 58 shows, persons with a disability account for relatively high proportions of the population in the Assumpta Park / Lee Estate area, as well as in Garryowen and Prospect. Above average levels also pertain in Moyross, Kileely, St. Mary's Park and Janesboro. Meanwhile, high values in the Mulgrave Street and Ennis Road areas, as well as in the ED of Limerick South Rural (where the Brothers of Charity Bawnmore centre is located) are associated with hospitalised or institutionalised populations.

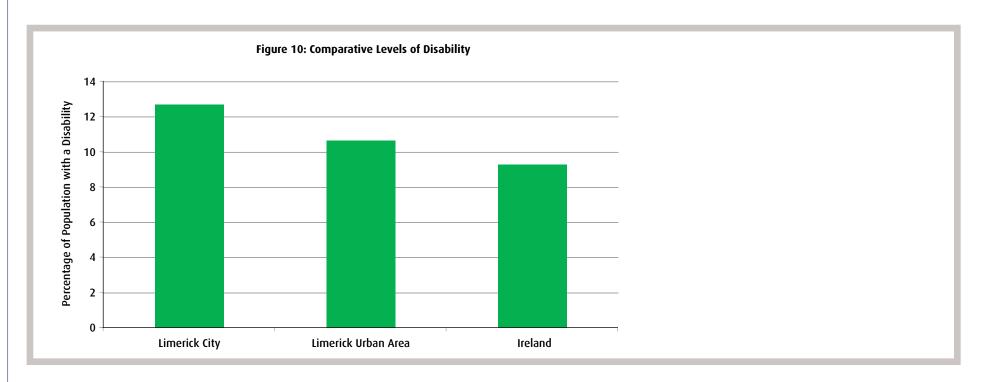
Due in part to gaps and inadequacies in State provision, the care of the disabled, in whole or in part, often falls to relatives and friends. As a consequence, the spatial distribution of carers per thousand population might be expected to follow the map of disability, and to some extent this is the case. Thus, several of the areas noted above as having high disability rates also show high proportions of carers. These include Ballynanty/ Moyross, Kileely, Assumpta Park/ Lee Estate, Garryowen, Janesboro and Prospect (Map 59). However, across the urban area as a whole the association is not particularly strong, and there is a closer relationship with variables such as the elderly and total dependency ratios. There are several reasons for this. On the one hand, a number of areas such as the EDs of Limerick South Rural and St.

¹⁵ The census question on disability covers a wide range of 'long-lasting conditions, including blindness, deafness and other physical impairment, intellectual disability and emotional / psychological problems.





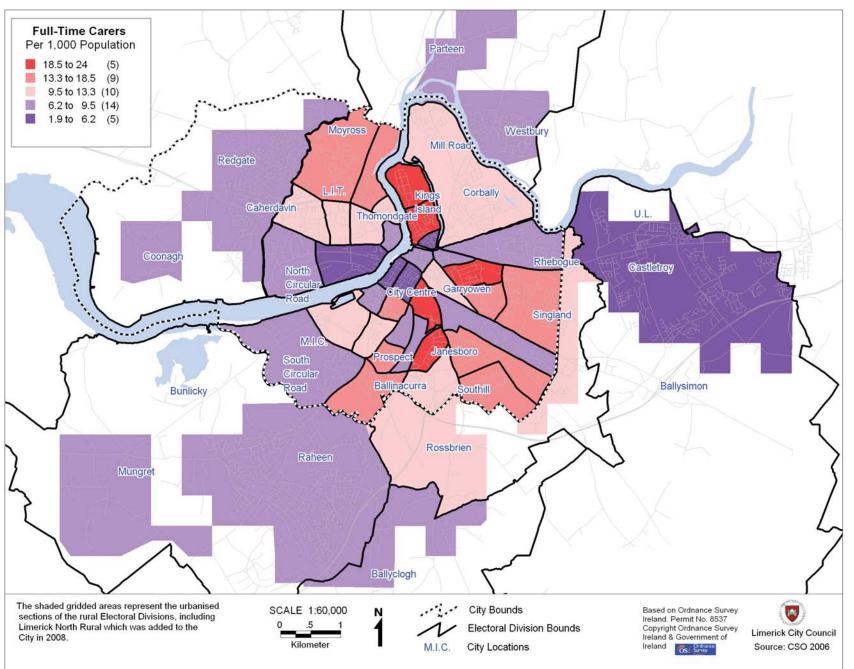




Lawrence (Mulgrave Street) which have relatively high levels of disability have nevertheless relatively low engagement in care-giving by the general population. This is due to the fact, noted above, that in both these instances the disabled are largely treated by professionals and in institutional settings. Conversely, the North Circular Road area displays high levels of care-giving despite low levels of disability. This may be explained by differences in the nature of the caring involved, with possibly a greater focus on elder care than on care of the disabled: the North Circular Road has already been noted as having a relatively high elderly dependency ratio. It is also possible that it is due to care-givers operating outside the home and locality, which in turn suggests that the time commitment is less than in other cases.

Unpaid care that involves significant time input places a considerable burden on the carer, and in addition can have significant implications for his / her participation in the labour market. In order to focus on such individuals, **Map 60** represents the distribution of full-time carers (those giving 43 hours or more of care per week) per thousand population. For this variable the spatial association with disability is more pronounced than is the case for all carers¹⁶, which reflects both the fact that full-time carers are more likely to reside close to those for whom they are caring and the greater need for such care in the case of the disabled than of elderly persons. The highest rates of full-time caring are in the Garryowen, King's Island, and Janesboro areas, followed by Ballinacurra Weston and the Galvone area. There is, in general, a strong spatial relationship with lower social class, and with high levels of economic dependency. In turn, this suggests that high levels of full-time caring may be due to an inability to pay for respite and / or medical care outside the home. At the same time engagement in full-time care activity obviously precludes any significant engagement with the labour market and holding down a job that might pay for either full-time or respite care.

¹⁶ Pearson's correlation coefficient for the rate of carers and of disability is 0.28; for full-time carers and disability it rises to 0.56.

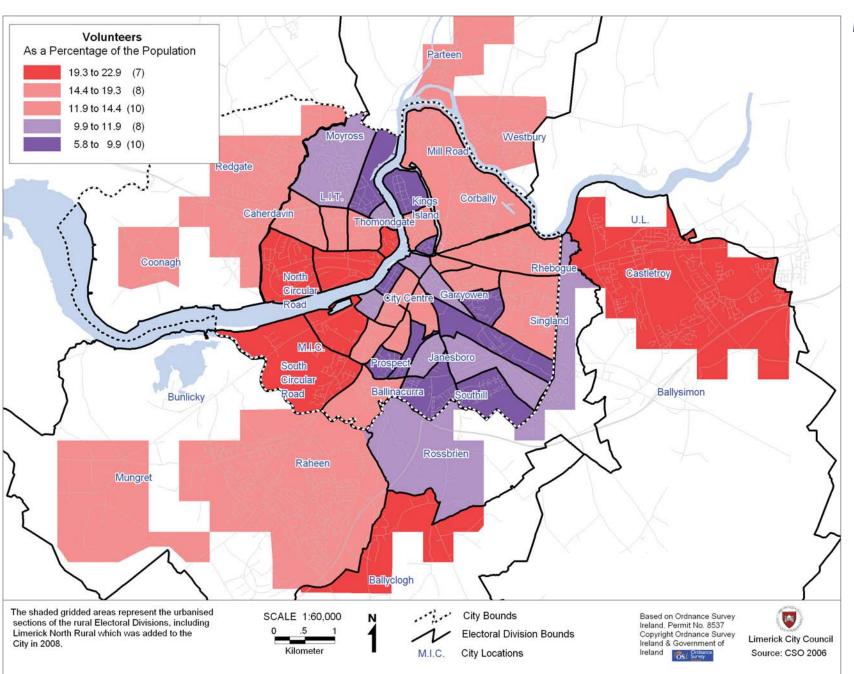


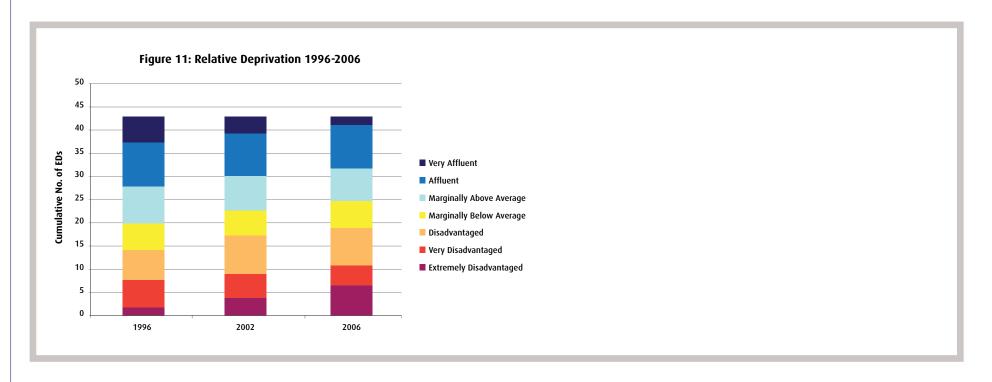
There is a very clear gender divide in respect of caring duties, with females forming 65 per cent of full-time carers (63 per cent of all carers). Not surprisingly, therefore, there is a strong negative correlation between both part-time and full-time caring and the female activity rate. The lack of community-based child / respite care is a very significant barrier to women entering the workforce and / or availing of opportunities for self-development, education and training. Recent government policy in respect of childcare has emphasized the payment of child welfare and bursaries over investment in childcare infrastructure or the expansion of pre-school services (as had been recommended by the OECD). This policy approach is at variance with the norm in most European countries, and is leading towards increased social polarisation. The EU's Equal Opportunities Childcare Programme which ran to 2006 has done more to advance childcare provision, family support and gender equality than have the more costly payment schemes introduced over the past few years.

While we have drawn out above the negative implications of caring in terms of employment, it should be recognised nevertheless that care-giving represents an important form of social capital. The census also provides a more broadly-based measure of social capital, via information collected for the first time in the 2006 census pertaining to participation in, and membership of, voluntary organisations. In the country as a whole, the highest levels of volunteerism are generally found in western counties, notably Galway, Mayo, Sligo, Leitrim and Kerry as well as in North Tipperary, which records the highest level of volunteerism in the State. Levels are generally lower in eastern and more urbanised counties, notably Dublin and the surrounding commuter belt. The State average for the proportion of the population involved in at least one type of voluntary activity is 16.4 per cent. Meanwhile, the figure for Limerick City is 13.3 per cent, which is the lowest level of any local authority area in the country. Indeed, in many parts of the City the level of volunteerism falls below 10 per cent; such areas include St. Mary's Park, Ballinacurra Weston and Southill, as well as the southern part of Garryowen and Kileely (Map 61). Areas that display high levels of caring social capital tend, therefore, to be deficient with respect to voluntary activity. Low levels of volunteerism are associated with a lack of community development supports, feelings of alienation and social exclusion, and limited trust in public institutions, all of which are manifest in deprived neighbourhoods. Volunteerism can also be adversely affected by affluence and individualism; however, there is very little evidence of this in Limerick. Community development is an important part of the process of addressing disadvantage and social exclusion in the more deprived neighbourhoods. Supporting the formation, expansion and development of community groups is necessary in enabling people in disadvantaged communities to devise and partake in the implementatio

To complete this review of social well-being, we examine the composite measure of affluence / deprivation compiled at ED level for the country as a whole and published by Pobal¹⁷. The 2002 profile noted that Limerick City had ranked since 1991 as the second most disadvantaged local authority area in the State. Unfortunately, that remains the case in 2006. In fact, both the absolute affluence / deprivation score and the score relative to the State average decreased (i.e., worsened) between 2002 and 2006. The deterioration in the City's overall performance is reflected in a worsening of the distribution of EDs across the discrete categories of the indicator. Thus, the number of EDs labelled as 'extremely disadvantaged' increased from 2 in 1996, to 4 in 2002, and 7 in 2006 (Fig. 11). Over the ten year period the number of EDs considered as 'disadvantaged' to some degree increased from 14 to 19, and the median ED dropped from the category of 'marginally above average' to 'marginally below average'. The number of EDs described as 'very affluent' decreased from 6 in 1996 to 2 in 2006.

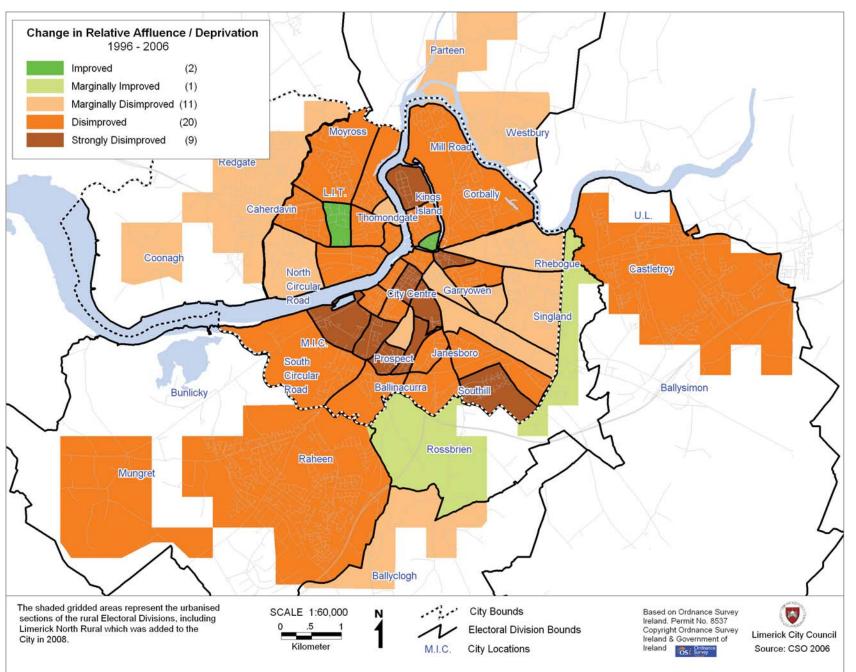
¹⁷ Haase, T. And Pratschke, J. (2008) New Measures of Deprivation for the republic of Ireland. Dublin: Pobal.

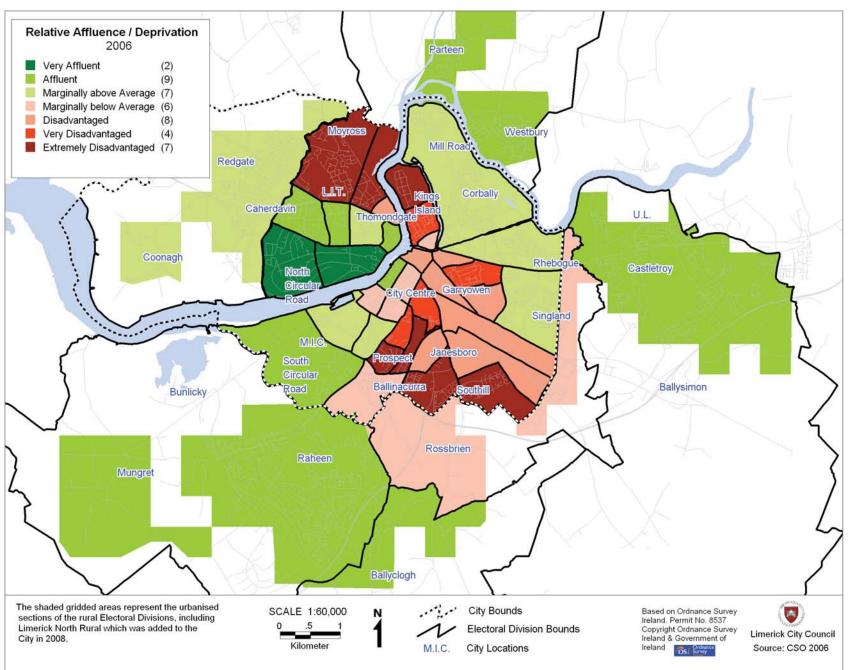


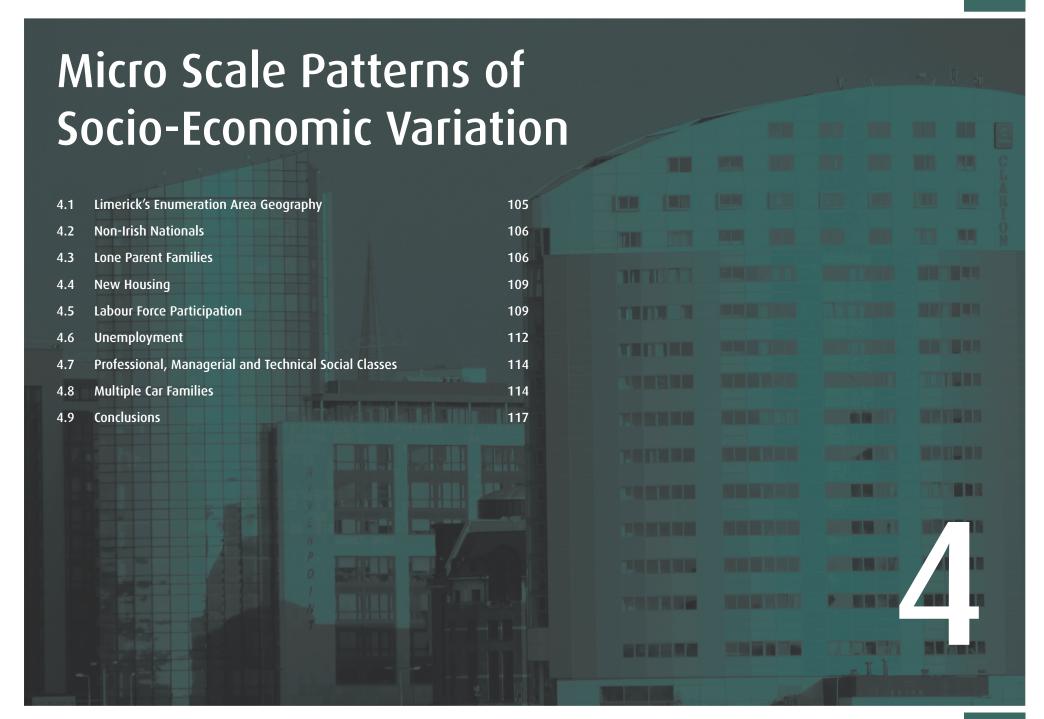


The spatial pattern of change over the course of the ten year period demonstrates that disimprovement was widespread across the entire urban area, affecting city centre as well as suburban EDs. Only three EDs improved relative to the national norm: Farranshone (the Lansdowne / Shelbourne Park area), John's C (from Athlunkard Street to the Abbey River), and Limerick South Rural (the Rossbrien area). The most significant disimprovements were in the Old Clare Street area, St. Mary's Park, Ballinacurra Weston, O'Malley Park, the area immediately south of the city centre (from Mallow Street to Alphonsus Street / Wolfe Tone Street, and the O'Connell Street area (Map 62).

Because most EDs trended in the same direction (down the scale), the geography of relative affluence and deprivation in 2006 remained much as it had been in 1996 and in 2002. The extremely disadvantaged EDs are those containing the local authority housing estates of St. Mary's Park, Moyross / Ballynanty, and Kileely on the north side of the city, and Ballinacurra Weston and Southill on the south side (Map 63). These areas have been repeatedly identified in this section, and indeed throughout this report, as among the most problematical, for example on variables such as the economic dependency rate and the rate of lone parent families. They correspond closely with the areas designated for regeneration under the regeneration masterplan launched in 2008, suggesting that the plan is targeted on the correct areas. The extent, depth, persistence and multi-faceted nature of deprivation in these areas suggests that the challenge facing the regeneration agencies is extremely daunting and will require the commitment of significant financial and other resources in a co-ordinated and focused way over a considerable period of time. At the same time, the poor, and deteriorating, performance of Limerick as a whole on this nationally-normed measure of well-being points to the need for such efforts to be located within the framework of a wider strategic development plan for entire urban area.







4.1 Limerick's Enumeration Area Geography

For the first time ever, data for areas smaller than the Electoral Districts have been made publicly available (for the five cities only) with the release of the 2006 census of population. The areas in question are referred to as Enumeration Areas (EAs), and are essentially designed for the convenience of the census enumerators in conducting the door-to-door survey. In total, Limerick City and suburbs comprises 94 EAs, as compared to 43 EDs. There are two advantages to the use of the EAs for area profiling. First, unlike the very large suburban EDs, they do not include large tracts of low density rural areas and so it is possible to focus more accurately on the built-up urban area. Second, because they are more numerous, and therefore contain a correspondingly smaller population (Table 7), a much more fine-grained geographical analysis is possible, with less likelihood of significant internal variation being masked. This is particularly the case for the suburbs, which are divided into 30 EAs, as compared to just 5 EDs. Ballycummin ED alone contains no less than 15 EAs in their entirety, as well as part of another that spans the boundary with Limerick South Rural. The EA-based analysis therefore allows for more accurate and detailed treatment of the suburbs.

Table 7: Electoral Districts and Enumeration Areas in Limerick

Data Reporting Unit	No. in City	No. in Suburbs	Total No.	Average Population
Electoral District (ED) Enumeration Area (EA)	38	5	43	2229
	64	30	94	927

The main drawback of a spatial analysis based on the EAs is that, because of the lack of data at this scale from previous censuses, it is not possible to measure or map inter-censal change. In all, fifteen of the variables analysed in section 3 cannot be derived at EA level because they relate to inter-censal change. A further two variables (vacant housing 2006 and the affluence / deprivation score 2006) cannot be mapped because of the non-availability of EA level data for these topics. It should also be noted that EA level analysis involves a considerable extra amount of work, in data extraction and compilation, as well as in interpretation. In cases where there is little variation within EDs, the extra insight yielded by the EA analysis may not be sufficient to warrant the extra effort involved.

In order to balance these conflicting considerations, it was decided to undertake analysis and mapping at the EA scale for a sample of the variables only. In all, seven static 2006 variables were selected for mapping and commentary, mainly on the grounds that they showed significant local variations within EDs, particularly the larger EDs located in the suburbs. Consideration of the geographical patterns of these variables supplements the broader brush strokes of the ED-level analysis, and yields further insights into socio-spatial variation in Limerick in 2006.

4.2 Non-Irish Nationals

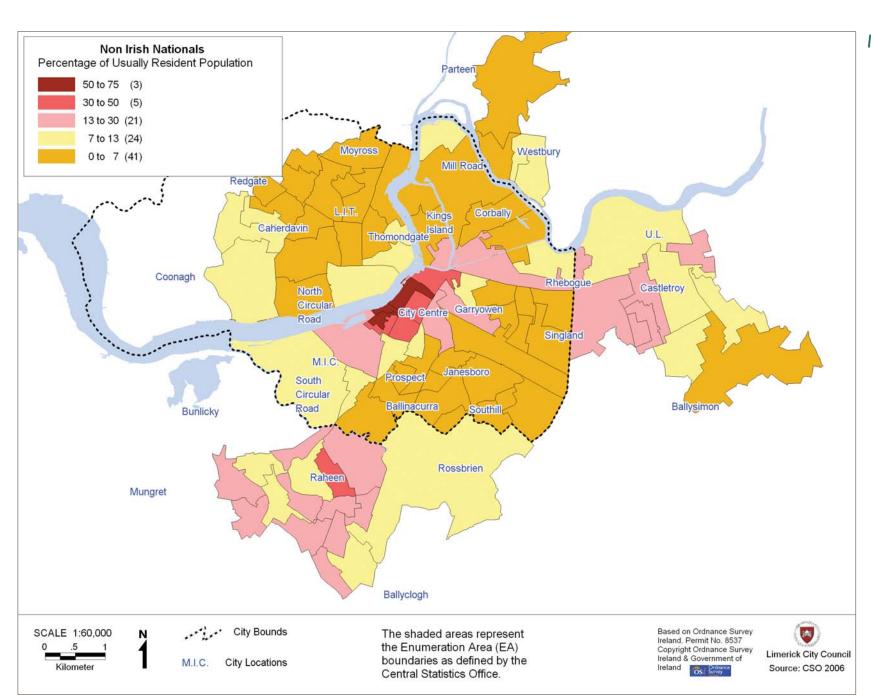
In section 3 we noted the rapid increase in the numbers of non-Irish nationals in the urban area as a whole in the period 2002-06. Map 64 illustrates the geographical distribution of foreign nationals as a percentage of the usually resident population across the 94 EAs, and illustrates, much more clearly than the ED map, the highly localised geography of nationality. As before, the very high proportion of non-Irish nationals in the city centre is evident, but the focus on the area along the quays is even more marked. Foreign nationals constitute over 50 per cent of the usually resident population in the EAs centred on O'Curry Street / Windmill Street, and on Harvey's Quay / Henry Street. However the proportion rises to 70 per cent (almost 700 persons out of a total of just less than 1,000) in the EA located directly between these two and centred on Steamboat Quay and Mount Kennet. Here 98 per cent of the available housing is provided in a small number of large apartment blocks, and it would appear from the data that these new residential units (90 per cent of which were constructed between 1996 and 2000) are almost entirely inhabited by recent immigrants.

Clearly, the recent demographic revival in the city centre has been driven by immigration, and, while the growth of population is a positive development in itself, the source of it gives rise to a number of concerns. First, the data suggest that the indigenous population has not yet adopted high density, city centre living to the degree that might be considered desirable from the point of view of the urban sustainability agenda and the policy goal of promoting land use intensification in order to control urban sprawl. Second, given that the area also has a very high labour force participation rate (see section 4.5 below) there is a strong possibility that inmigration may turn to out-migration in the current economic climate. Indeed, such a reversal may already be under way. If it is, or if it emerges in future, then the already high vacancy rates in city centre housing will increase further, and the likelihood is that this in turn will lead to the accelerated deterioration of the housing stock as well as falling demand for retail space. Ultimately, the unpalatable scenario of a return to widespread dereliction in the centre could materialise.

In contrast with the city centre area, foreign nationals resident in the suburbs tend to be more evenly spread. For example, the Raheen/ Dooradoyle area, previously noted as having a relatively high proportion, shows a more even distribution across EAs, with just the Huntsfield Road / Chestnut Grove / Redwood Drive area standing out as an area of some concentration. This area is one of considerable recent housing development, much of it in the form of apartments (see section 4.4 below). The geographical evidence suggests that immigrants in the suburban areas are better integrated with the indigenous population than is the case in the city centre. However, this is something that requires more detailed investigation.

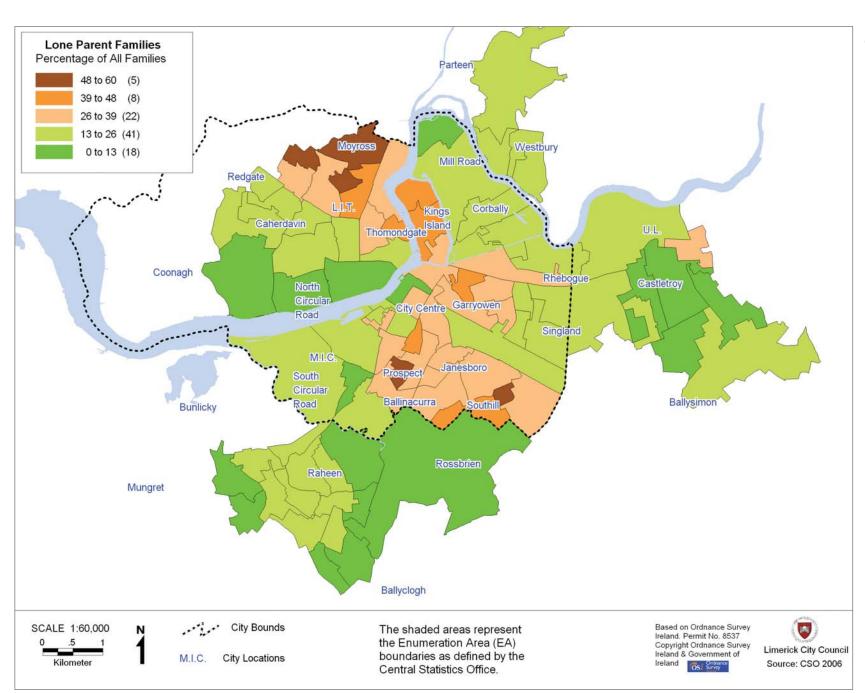
4.3 Lone Parent Families

The distribution of lone parent families is not as uneven at EA level as that of foreign nationals: the range of values is not as great, and more areas have values in the middle of the range. This reflects the fact, noted earlier, that the rate of lone parenthood in Limerick as a whole is considerably above the national average. Neveretheless, there are considerable local differences in this variable, and in several instances these differences occur within the larger unit of the ED (Map 65). The micro-geography of lone parenthood and the unsuitability of an ED-level of analysis to fully represent it are illustrated by the case of Limerick North Rural ED (the area added to the City under the 2008 boundary extension). Here there are marked internal contrasts in the rate of lone parent families, with a clear gradient evident from north to south within the ED. Thus, the highest rate of lone parent families in the entire City and suburbs is in Delmege Park / Pineview Gardens (56 per cent), while the Clonmacken / Aylesbury area at the southern end of the same ED has the eighth lowest rate among the 94 EAs (9 per cent). The other areas in which lone parent families constitute half or more of the total number of families are Cliona Park and the former Glenagross area of Moyross, as well as Ballinacurra Weston and the upper (eastern) part of O'Malley Park. Rates are also relatively high in Cosgrave Park / Ballynanty, Thomondgate, King's Island, Kilalee, Prospect, and the remainder of Southill.



Map 64

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Despite the evidence adduced earlier, which suggests that there has been some dispersal of lone parent households within the urban area, there still remains a high degree of concentration in certain areas. As is the case at the ED level, but to an even greater degree, there is a very strong positive correlation across the 94 EAs between lone parent families and local authority rented housing¹⁸. This underlines both the continued importance of the public sector as a source of housing for lone parent families, and the significance of housing policy as an influence on the local geography of family composition. In particular, housing allocation policy in the public sector is a key factor. It has been noted in previous research conducted for the City Council that the Council's Scheme of Letting Priorities has had the effect of concentrating lone parent households in particular estates within the City¹⁹. Given the extensive body of research which shows that lone parent families have an elevated risk of poverty, this concentration can be considered problematical. Notwithstanding the various constraints impacting on housing allocation, not least of which is the composition of the housing waiting list itself, efforts to reduce the degree of concentration need to be considered.

4.4 New Housing

Although the highest proportion of new housing was found in section 3 to be located in the city centre ED of Shannon A, it was suggested that the focus of housing construction had shifted significantly towards the suburbs after 2000. This finding is now confirmed by the EA-level data on new housing, which provide additional valuable information on the extent and location of recent suburban development. The data reveal that 22 per cent of the entire suburban housing stock in 2006 was built in the period from 2001 to 2006. Mapping these data reveals the 'hot spots' of recent housing development, and shows that they have all been located in the suburbs (Map 66). Indeed, of the top ten areas as ranked on this variable, only two (ranked ninth and tenth) are located in the City.

The highest proportions of new construction are found in the area stretching from the Groody River to the Golf Links Road, which includes such developments as Brú na Gruadan, Brookfield Hall, Cois Ghruada, Caisleán na hAbhann, Gleanntán, and the upper Golf Links Road area. Here new student-oriented apartment developments have been mixed with family and so-called 'starter' homes. To the south of the city, there has also been extensive development in the Kilteragh / Huntsfield Road area in Dooradoyle, and the Sluggary / Ballycummin Village area of Raheen. In all of these areas, new housing constituted over 50 per cent of the stock in 2006, and as high as 90 per cent in the area of Brú na Gruadán. All of the developments have been on greenfield sites, thereby increasing the city's 'footprint'. Within the City, the areas with the highest proportions of new housing are Grove Island / Pa Healy's Field, and the Henry Street area (both above 50 per cent), as well as the Rheboque and Carrabullawn areas that straddle the Park Canal.

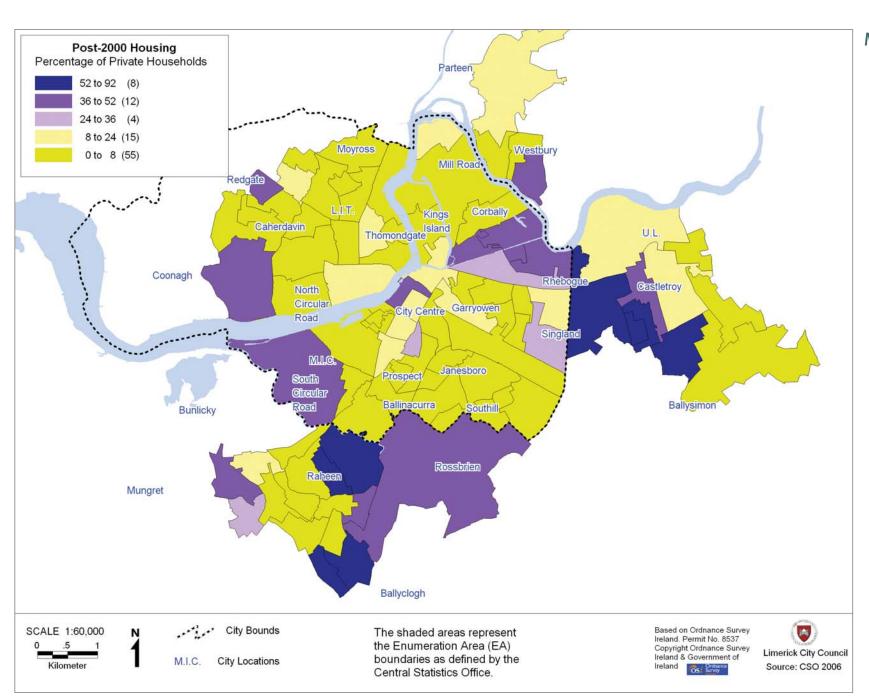
At the ED level there is a slight correlation between new housing and vacant housing (Pearson's r = 0.24). While it would be interesting to measure the strength of this relationship at EA level, this is not possible due to the fact that data on vacancies at EA level have not been released by the CSO.

4.5 Labour Force Participation

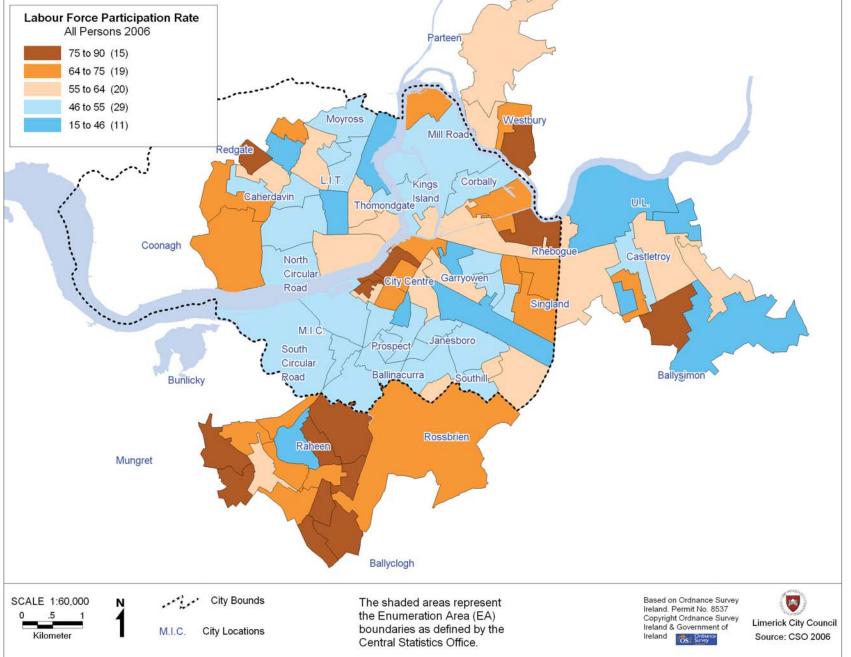
As with lone parenthood and new housing, the fine-grained EA-level map of labour force participation (the activity rate) shows some marked variations within EDs, especially in the eastern (Ballysimon) and north-western (Limerick North Rural) suburbs (Map 67). The map also demonstrates the importance of the suburbs to the city's labour supply more clearly than does the map based on the EDs. In general, the highest rates of participation in the labour force are found in the suburbs, with particularly high rates in areas identified above as having experienced significant levels of recent housing development. Thus the areas adjacent to the upper Golf Links Road in Castletroy, the Kilteragh / Huntsfield area of Dooradoyle, and the Ballycummin Village / Sluggary area in Raheen have among the highest activity rates in the City and suburbs. Rates are also high in areas such as the Whitethorn Drive / Glenmore Drive area of Redgate, the eastern part of Westbury, Gouldavoher, and the

¹⁸ Pearson's correlation coefficient is 0.88. There is a slight non-linearity in the relationship which can be removed by logarithmic transformation of the percentage of local authority housing, to yield a correlation of 0.89.

¹⁹ McCafferty, D. and Canny, A. (2005) Public Housing in Limerick City: A Profiel of Tenants and Estates. Limerick: Limerick City Council.







western (Mungret) end of Fr. Russell Road. These areas too are of relatively recent construction, again making the connection between this variable and labour force participation. The relationship does not hold in all instances, of course, and areas where new construction has been oriented towards, or occupied by, third-level students are an exception, such as the areas of student accommodation in Castletroy, the area adjacent to LIT extending from Lyradane Avenue and Glenanaar Avenue to Cratloe Wood Village, and the City Campus development off Lord Edward Street. It is notable that in the first two instances EAs with particularly low activity rates are located adjacent to, and within the same ED as, areas experiencing some of the highest activity rates.

Within the City, the activity rate is highest in the three city centre EAs, extending from O'Curry Street to Harvey's Quay, that were identified in section 4.2 as having the highest proportions of foreign nationals in the urban area. The activity rate is also high in the Rhebogue area (centred on Anglers Walk and Rhebogue Meadows) and, to a lesser degree, in Carrabullawn / Lower Park Road, the Meadowbrook / Silver Brook area on the Mill Road, Singland, and the remainder of the city centre.

Otherwise participation levels in the City are relatively low, however, and certainly below the State average. The reasons for this are likely to vary from area to area, but include such factors as the ageing of population in older, more settled communities, the disengagement of certain communities from the labour force for socioeconomic reasons including family commitments (e.g., in areas with high proportions of lone parent families), and institutional populations in a number of areas.

4.6 Unemployment

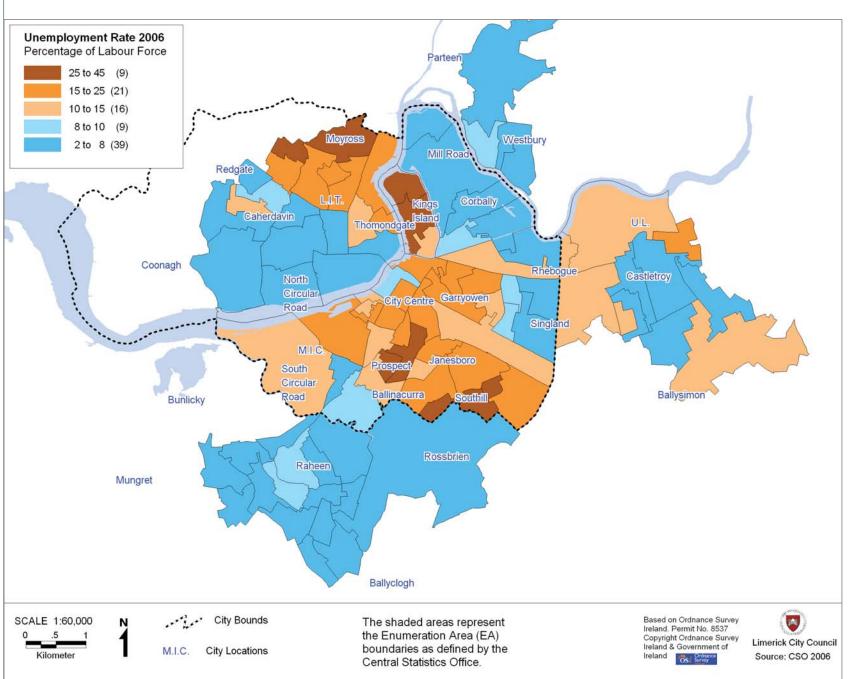
As noted in the introduction, the Haase affluence / deprivation index is not available for EAs. Of all the variables analysed in section 3, that which shows the strongest correlation with the affluence / deprivation score is the unemployment rate (Pearson's r = -0.93). If this holds true at the EA level also – which may not be the case – then the unemployment rate can be considered the best proxy variable for affluence / deprivation.

The EA map of unemployment in 2006 (Map 68) is broadly consistent with the ED map for this variable. However, it does allow us to identify more precisely the city's unemployment 'blackspots'. If these are defined as areas where more than 25 per cent of the workforce is unemployed²⁰, then the affected areas are, in order of severity of the problem: Pineview Gardens and Delmege Park in Moyross (45 per cent unemployment); St. Mary's Park (43 per cent); the lower end of O'Malley Park and Keyes Park (37 per cent); the Clarina Avenue side of Ballinacurra Weston (35 per cent); the former Glenagross Park area of Moyross (33 per cent); the eastern (Garryglass) side of Hyde Road (32 per cent); Assumpta Park / Lee Estate and the upper (Kilmallock Road) end of O'Malley Park (both 30 per cent); and Kincora Park / John Carew Park (28 per cent). This list can be summarised as the newer (i.e., outer) part of Moyross, King's Island, Southill, and Ballinacurra Weston, and as such corresponds closely to the four areas targeted under the Limerick regeneration initiative. At the same time it is notable that there are some local, micro-scale, variations within the targeted areas. For example, the 24 per cent unemployment rate in the Cliona Park and Dalgaish Park area of Moyross, while high in the context of the city as a whole, is nevertheless little more than half that in the Pineview Gardens and Delmege Park areas²¹.

Unlike the other maps produced here, the unemployment map does not show significant variations in the suburbs located outside the City boundary. This is because unemployment is relatively low throughout the suburbs: in 2006 it was, generally speaking, a City phenomenon. The main exception to this generalisation is the EA containing Elm Park in Castletroy where the unemployment rate of 18 per cent is considerably higher than that of surrounding areas. This area is also somewhat different from other areas of Castletroy, especially those on the southern side of the Dublin Road, in having a higher level of older, privately rented, accommodation.

²⁰ An unemployment rate of 25 per cent is the first 'natural break' (Jenks' method) in the data when they are ordered from highest to lowest.

²¹ It should be noted that the EA containing Cliona Park and Dalgaish Park also includes Clonconnane Road and Monabraher Road in Ballynanty.



4.7 Professional, Managerial and Technical Social Classes

The main difference in the spatial pattern of social classes 1 and 2 when mapped at EA level as compared to ED level is that the uniform profile of the suburban areas breaks down, and locally very high (or low) values become evident. The most significant instance of this is in Ballysimon ED, where the residential areas along Monaleen Road (including Monaleen Heights and Monaleen Park) emerge as having very high percentages of the top two social classes (Map 69). In contrast, the Elm Park area and the area immediately adjacent to the University of Limerick have relatively low percentages of professionals and managers, though this is mainly due to the very large student population which is unclassified with regard to social class.

Variation is also evident within the ED of Limerick North Rural which contains the north-western suburbs. As with lone parent families, there is once again a clear north-south gradient evident that remains hidden at the scale of the ED as a whole. At the northern end of the ED social classes 1 and 2 constitute less than 4 per cent of the classified population in Pineview Gardens and Delmege Park, this rises to 31 per cent in Caherdavin, and then again to 52 per cent in Clonmacken and Aylesbury.

Similar, though less pronounced, social class gradients exist within the Corbally area (ED of Abbey D) and Dooradoyle / Raheen area (ED of Ballysimon). In both cases higher percentages of social classes 1 and 2 are found in newer estates located somewhat further from the city centre. In Corbally the professional and managerial social classes constitute between 42 and 49 per cent of the classified population in the residential areas along the Mill Road and Lanahrone Avenue, dropping to 31 per cent in the vicinity of Janemount Park and Old Park Road. In Ballycummin ED the general trend is that the higher status social classes are more predominant in the newer areas on the fringe of the built-up area, and less so in older areas, such as Ballykeeffe estate and Dooradoyle.

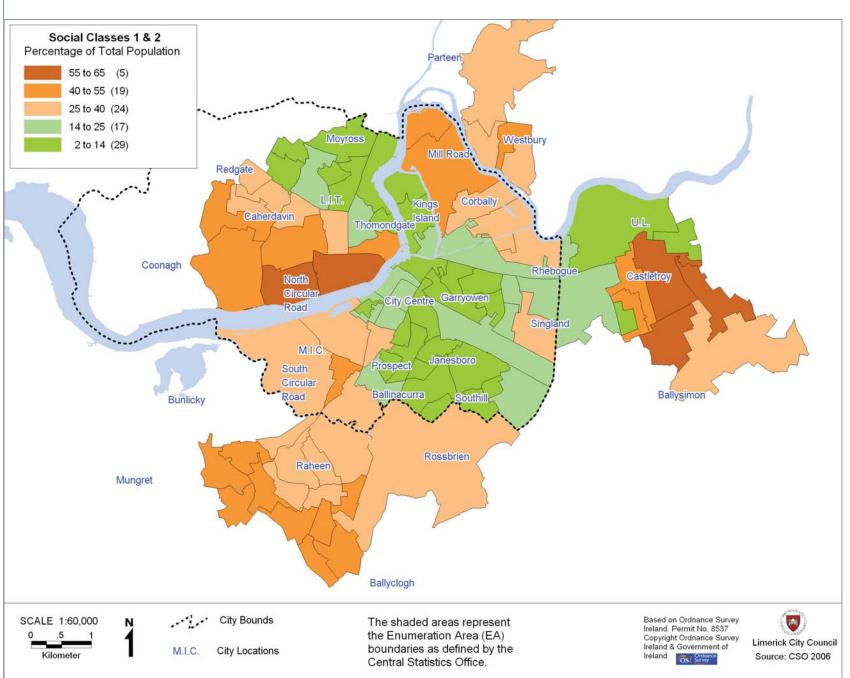
Finally, and consistent with the ED map, the professional and managerial social classes constitute between 56 and 60 percent of population in the residential areas located along the North Circular Road, the higher value applying once again to area containing newer developments such as The Cloisters, Kyleglass, Bracken Gardens and Bracken Crescent.

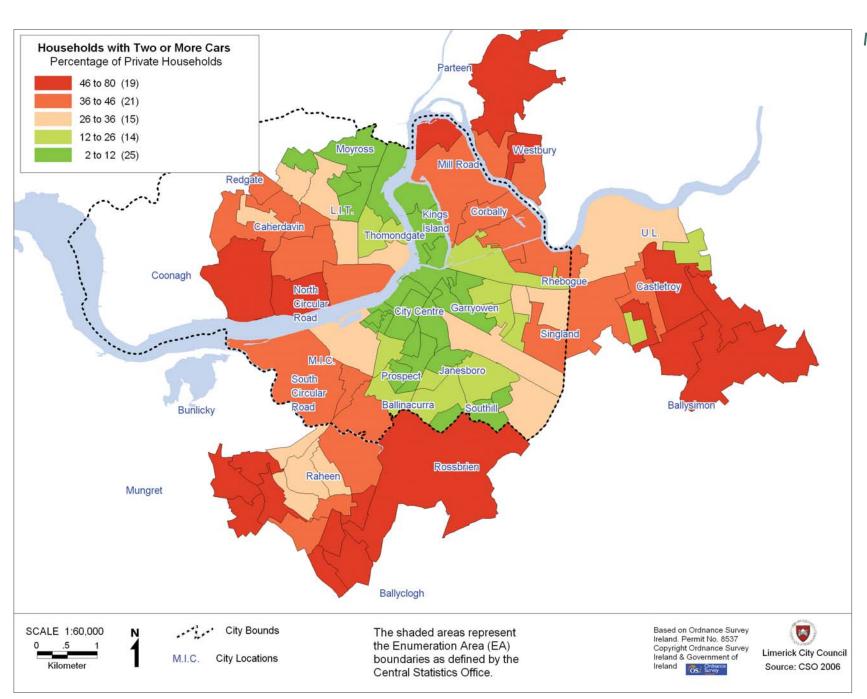
4.8 Multiple Car Families

Household car ownership levels, it was noted in section 3, are generally higher in the suburban areas of the city. Two main reasons for this were suggested: greater need arising from lower accessibility to the city centre, its workplaces, facilities and services; and larger household sizes. The EA map of households with two or more cars as a percentage of all households allows both the geographical pattern and the factors underlying it to be further explored.

The map confirms the relationship between distance from the centre and multiple car ownership (Map 70). In the city centre, the percentage of households with two or more cars rarely rises above 10 per cent; for inner suburban areas (those outside the centre but inside the pre-2008 City boundary) the percentage is typically in the range of 36 to 46 per cent; while almost all of the areas with levels above 46 per cent are located in the outer suburbs. The only areas within the old City boundary with high levels of multiple ownership are the western end of the North Circular Road and the lower end of the Mill Road.

However, it is also evident, to a degree that was not clear from the earlier analysis, that ownership levels vary within the distance bands, so that location alone cannot be the sole explanatory factor. Thus, multiple ownership in Corbally is highest in the Meadowbrook and Silver Brook areas, in Castletroy it is the Monaleen and Newtown areas that stand out, and in Limerick North Rural it is Clonmacken / Aylesbury. Conversely the percentage of households with two or more cars is relatively low in Moyross, both in the Pineview Gardens and Delmege area formerly located outside the City boundary, and in the other estates. These variations may be partly due to differences in household structures, but the map strongly suggests that household financial resources are also a factor. As noted earlier, higher levels of car





ownership are linked to increasing congestion and longer travel times for commuters in the urban area. In so far as ownership is a reflection of resources rather than need then there is scope for public policy to induce a shift from car to public transport, with consequent gains not only in terms of travel times but also environmentally.

4.9 Conclusion

The Enumeration Area mapping reported in this section demonstrates the advantage of a more fine-grained analysis than is possible using the geographical framework of the Electoral Districts. Groups such as foreign nationals and lone parent families are clearly spatially concentrated to an extent that the ED-level analysis can hint at, but does not fully reveal. Indeed all of the variables commented on here show a much 'patchier' geography than emerges from the ED maps. This is the case in the suburbs in particular, where the aggregate ED data fail to bring out some significant internal variations between communities and neighbourhoods. Four of the seven variables mapped in this section (new housing, the activity rate, social classes 1 and 2, and multiple car ownership) were selected as essentially suburban phenomena that are inadequately portrayed at ED level. The remaining three variables (non-Irish nationals, lone parent families and the unemployment rate) are more clearly focused on the City, but even here the EA data add precision to the conclusions emerging from the ED mapping. The latter three variables are of particular importance from a social policy point of view and have been the subject of several area-based interventions, both in Limerick and in other locations across the country. For such measures to be effective it is vital that they are properly targeted, and it is hoped that the mapping and analysis undertaken here will be of some assistance in that respect.

While the EDs have long been established as the smallest unit of area for reporting census data, it is planned to introduce a new geographical framework of 'output areas' for the next census, due in 2011. These new output areas will remain unchanged over time (which is currently not the case with the EAs). This will allow for much more detailed analysis of demographic, social and economic patterns across the State as a whole, and will greatly assist analysis of the suburban areas that have been growing so rapidly in recent years but which have been badly under-researched due in large part to the unsuitability of the existing spatial data framework. In time, as a run of small area data at this scale accumulates across successive census years, it will be possible to undertake much more detailed longitudinal analysis.



Facing Challenging Times

A number of significant trends emerge from this analysis and mapping of the census of population for 2006, a year which represents something of a watershed in Ireland and in Limerick, marking as it does the end of a sustained period of economic growth and the start of a period of considerable uncertainty about the immediate prospects for the national and local economy. Several of the emerging trends were already flagged up in the report on the 2002 census, but the data for the last four years of the Celtic Tiger period enable us to distinguish those that continued and perhaps intensified, and those that weakened or indeed changed direction. In addition, a number of new issues have emerged in the more recent period.

5.1 Key Trends

In terms of population distribution, the 2002-06 period witnessed a strengthening of the suburbanisation trend already well established in the urban area. While the rate of population growth in suburban EDs accelerated, the City reverted to population decline after the moderate growth of the late 1990s. Although the net change over the decade to 2006 was still positive, the overall increase was small, and 23 out of 38 EDs in fact lost population. Population decline continued to be particularly acute in some of the main areas of City Council rented housing. Where population increase did occur, it tended to be associated with new private housing and expansion of the young adult population, largely as a result of inward migration. There was a particularly strong surge in immigration in this four year period, and as a consequence the number of foreign nationals resident in the urban area almost doubled. By 2006 non-Irish nationals formed more than half of the population in two city centre EDs, and as much as 70 per cent in one EA. Many of the recent immigrants originated in eastern Europe, and Poles now constitute the largest non-Irish nationality in the urban area as a whole.

Reflecting the strength of the suburbanisation trend, the focus of new house building shifted strongly back to the suburbs between 2002 and 2006, as the apartment construction boom in the city centre came to an end. The new suburban developments have been on greenfield sites, some of which are located on the periphery of the built-up area, with others (for example in the area near the Groody river) representing a kind of in-fill development on land that had been previously "leap-frogged" by development. The construction collapse of 2008 is prefigured in data which show that, even by 2006, housing supply had outstripped demand, resulting in almost 5,500 vacant units throughout the urban area. Vacancy rates were particularly high in the city centre, with more than half of the housing stock in one ED recorded as unoccupied.

Current problems in the area of unemployment are also foreshadowed in the 2006 census. Having fallen sharply between 1996 and 2002, the unemployment rate in Limerick urban area increased marginally over the subsequent four year period. There were even more marked turnarounds at local level. For example, the unemployment rate in the O'Malley Park area fell from 47 per cent in 1996 to 27 per cent in 2002, only to increase again to 35 per cent in 2006. In general the most marked swings occurred in areas suffering high levels of disadvantage, thereby further underlining the vulnerability of these areas. As the EA level analysis makes abundantly clear, a number of unemployment blackspots persisted in 2006.

One of the interesting new trends that the analysis hints at is a shift in the spatial patterns of social class. Within a general context of increasing professionalisation of the urban area's population there is some evidence of a movement up the social class scale in areas such as Garryowen and the southern part of King's Island. At the same time the numbers in the unskilled and semi-skilled classes decreased significantly in areas of local authority housing and increased in the suburbs. It is possible that these trends are explained in part by class mobility, i.e., changes in a person's social class due to changes in his or her personal circumstances, including employment and occupation. However, it seems more likely that they are linked to population movements linked, in particular, to the on-going shift in housing tenure towards private renting. One result is that the degree of segregation of social classes decreased over the period 2002-06. In spite of this, as other research currently underway in Mary Immaculate College shows, Limerick remains the most class segregated of the medium-sized Irish cities²².

²² The research in question is being conducted in the Department of Geography as part of a research programme supported by the Irish Social Sciences Platform (ISSP). It examines levels of, and trends in, social and ethnic segregation in the four medium-sized cities of Cork, Limerick, Galway and Waterford.

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Commuting patterns in Limerick and its hinterland region are very complex and more polycentric in character than for the other cities. Traffic congestion was identified as a problem for the city in the 2002 report, and this seems to have worsened considerably in the later 2002-06 period, as indicated by increasing travel times relative to travel distances. The reasons for this have to do with a modal shift towards increased car usage and decreasing car occupancy rates for travel to work, school and college. Car ownership rates increased significantly, particularly in areas where they had been low, with the result that there was a degree of convergence in ownership across EDs.

Increased and more widespread car ownership is one result of the growth in prosperity up to 2006. However, the Haase-Pratschke scale of affluence/deprivation suggests that, in terms of the overall level of socio-economic well-being, Limerick did not keep pace with the rest of the country. Rather, the urban area as a whole slid down the scale somewhat, and whereas in 2002, 4 EDs of the 43 were classified as very affluent relative to the national norm, by 2006 that had decreased to 2. Conversely the number of extremely disadvantaged EDs increased over the four year period from 4 to 7.

5.2 Issues and Challenges Arising

Without doubt, a number of the trends summarised in brief above give cause for concern in relation to the development of the city in the immediate future. Both demographically and economically, Limerick appears to be underperforming. Without the injection of substantial numbers of immigrants, population would have declined even more sharply in the City in general and the city centre in particular. Given that the migrant population is heavily weighted towards the younger, economically active age groups, who were attracted to Ireland by the employment opportunities created by a buoyant economy, the question that arises is whether it will remain in the city in significant numbers as growth gives way to the recession. The fact that the migrant population is relatively 'footloose' and mobile adds to these concerns, as does the relatively low degree of residential integration with the indigenous population²³.

On the economic side, the data analysed here suggest that the roots of the current downturn extend back into the 2002-06 period, if not even earlier. The downward trend in unemployment had already given way to increase by 2006, and the current situation is of course a good deal worse. While job losses have been spread widely across the economy, they have been particularly severe in the construction sector, and, in the case of Limerick, in manufacturing, due to the downsizing of the Dell factory in Raheen. The spatial analysis detailed earlier allows us to identify areas where the impacts of these job losses are likely to be experienced most severely. By and large they correspond to lower middle class and working class areas of the City. This in turn raises concerns about increasing social polarisation, a phenomenon that has been linked in international research to the loss of manufacturing employment in particular.

In conclusion, while the current economic and social outlook is somewhat bleak, it should still be recognised that Limerick has many significant advantages for attracting external investment. These include its central location within the Atlantic Corridor, improving connectivity that will help to promote the development of that Corridor as a meaningful economic entity, and its size – large enough to sustain a wide range of service activities, but small enough to foster a strong sense of identity based on place, and to avoid the major diseconomies of scale. In addition the city is well served by progressive and 'regionally-aware' institutions of higher education, and significant recent environmental improvements have made the city centre a more attractive environment for residents and tourists alike. The regeneration programme, if fully delivered, has the scale and the scope to make a serious impact on issues of social exclusion. However these assets will need to be utilised wisely if the considerable challenges faced by the city at present are to be met and overcome. Limerick needs to find a whole new development paradigm based on

²³ Preliminary indications from the segregation research suggest that the degree of residential segregation of national and ethnic groups is higher in Limerick than in the other three medium-sized cities.

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principles of sustainability (economic and environmental) and social cohesion. It will not be easy to do this, nor should it be expected to happen quickly or without problems, but it may well be that a recessionary environment is best suited to making a paradigm shift. This in turn calls for integrated governance arrangements – with a compelling case still for a significant boundary extension – and innovative leadership based on a coherent, inclusive, strategic vision.



Des McCafferty is Professor and Head of the Department of Geography, Mary Immaculate College. His research interests range from spatial planning and development to issues of social polarisation, segregation, and spatial deprivation, with a particular focus on the links between these issues and public policy, in particular housing policy and area-based anti-poverty programmes. Des has undertaken research for a wide range of voluntary and statutory bodies, in Limerick and nationwide. He has previously conducted analyses of the 1996 and 2002 censuses of population for Limerick City Council, and, with Dr. Angela Canny, produced a report on public housing in Limerick in 2005, including an analysis of poverty among City Council tenants. He has served as President of the Geographical Society of Ireland, and as Chairman of the Regional Studies Association, Irish Branch.



Brendan O'Keeffe lectures in the Department of Geography, Mary Immaculate College. His specialist areas include governance and regional and local development, and his current research endeavours include cross-border collaboration, spatial planning and rural development. He is an associate of NIRSA (National Institute for Regional and Spatial Analysis) and the ICLRD (International Centre for Regional and Local Development), and has undertaken a number of evaluations of development initiatives both in Ireland and overseas. Brendan has a strong background as a practitioner in community development and he has worked with local authorities, government bodies and civil society in a number of European counties, in promoting citizen participation, social inclusion and rural development.



Jason Murphy is an Administrative Officer in the Housing Department in Limerick City Council. He took up this position in 2008 and is assigned to the project team working with the agencies and communities involved in the City Regeneration Programme. Jason is also the Project Manager and a Member of the Board of Directors of the Limerick City Community Safety Partnership Ltd. A graduate of UCC (BA Geography & English), the University of Glasgow (H. Dip.) and Manchester Metropolitan University (MSc.), Jason worked in the ICT sector for 12 years with a specific focus on Geographical Information Systems and Web Services. During that time he worked in the private sector as well as the Local Government Computer Services Board and Westmeath County Council.



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