

NZ Core Cities

Research Summary



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Auckland photography Leon Rose, courtesy of Auckland Tourism, Events and Economic Development

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About this report

Purpose

This report was produced by the Ministry of Business, Innovation and Employment and Local Government New Zealand as part of the Core Cities Project. The research was undertaken in partnership with Auckland, Hamilton, Tauranga, Wellington, Dunedin and Christchurch Councils. It is the first product of a staged project.

New Zealand's Core Cities provides a summary of their research on the growing importance of cities within New Zealand and within the global economy.

It includes independent research by the New Zealand Institute of Economic Research (NZIER), who were commissioned for this project. NZIER reviewed the experiences of other city-networks around the world, and looked at the similarities between New Zealand's six largest cities: Auckland, Hamilton, Tauranga, Wellington, Dunedin and Christchurch.

This report also looks at how the unique roles and strengths of each city-region can be used to support local businesses and achieve national economic goals.

The Core Cities Project

The Core Cities Project is the result of investment by LGNZ, MBIE, and the six cities.

Its primary goal is to build a shared understanding, applying an agreed research framework, to reveal the economic contribution and core strengths of New Zealand's largest cities. The project also provides a common baseline for councils and the government to use to remove barriers and strengthen the platform for businesses to grow, export and create high-value jobs.

There is a commitment to the identification and engagement of a wider group of provincial centres.

Project achievements to date include the development of:

- a public-public partnership between Local Government New Zealand, the Ministry of Business, Innovation and Employment and the six largest cities
- a project group comprising mayors, chief executives, and strategy and policy analysts of the key city councils
- a report for each city-region outlining its competitive advantages and distinctive features
- a list of opportunities for collaboration between the six core cities.

The Core Cities Project was initiated in August 2011.

Principles for working together

As part of the Core Cities Project, the six cities developed four shared principles to help them develop better connections:

1. Cities offer opportunities for economic growth, now and in the future.
2. There is a shared understanding that the competition is the rest of the world.
3. City-region specialisations are based on different comparative advantages.
4. Councils will work together to improve the economic environment in all New Zealand cities.

Focus areas for collaboration

New Zealand's six largest cities are home to the majority of the country's businesses and represent over half of the national economy. Their councils are exploring opportunities to grow their role in the national economy. Immediate and obvious focus areas are:

- sharing best practice – for example, policies and processes that build business-friendly councils
- continuing to jointly invest in the development of data about the city-regions and using it to support economic strategy and planning
- using the research on city-regions as a tool for helping to focus and guide councils' investments to support economic growth
- collaborating on future mayoral-led delegations in China and other export markets.

In addition to these focus areas, NZIER have suggested a range of policy options and research questions. These include:

- developing a coordinated development strategy
- quantifying the role of transport in city-region performance
- identifying barriers to regional business performance
- researching economic linkages among and between industries
- agreeing to undertake joint research.

A workshop will be held in August 2012 involving the LGNZ metro-sector group, LGNZ, and MBIE to agree future work streams.

Executive summary

New Zealand is a highly urbanised country. Over 85 percent of the population lives in towns and cities. These urban centres are attractive locations for business because of the concentrations of firms and the level of business activity. However, they are small and relatively young by international standards.

New Zealand's urban centres offer goods and services and add value to the rural economy. In turn, the rural areas help shape the cities' economies.

As New Zealand's cities mature, their role in the national economy will change.

This report looks at the competitive advantages and strengths of New Zealand's core cities. The findings are designed to enable these cities to make more of a contribution to the national economy.

Key findings

The research undertaken as part of this report provided some interesting insights into the value of New Zealand's six largest cities: Auckland, Hamilton, Tauranga, Wellington, Dunedin and Christchurch.

Population and scale

Lack of scale and distance from markets have become an increasing barrier to growing our economy in this era of globalisation. All available economic geography evidence shows that scale and connectivity matter: the world's most productive cities are at least twice the size of Auckland. New Zealand is seriously disadvantaged because it not only has a small population, but its core cities are small and far apart. Improving connectivity and exploring ways to overcome a lack of scale are obvious areas of focus if New Zealand is to compete with other countries.

When GDP and population across New Zealand's six core cities were analysed, Auckland stands out. It is significantly larger than all the other core cities and it is growing fast.

The impact of a city's economic history

A city's economic history plays a defining role in its future.

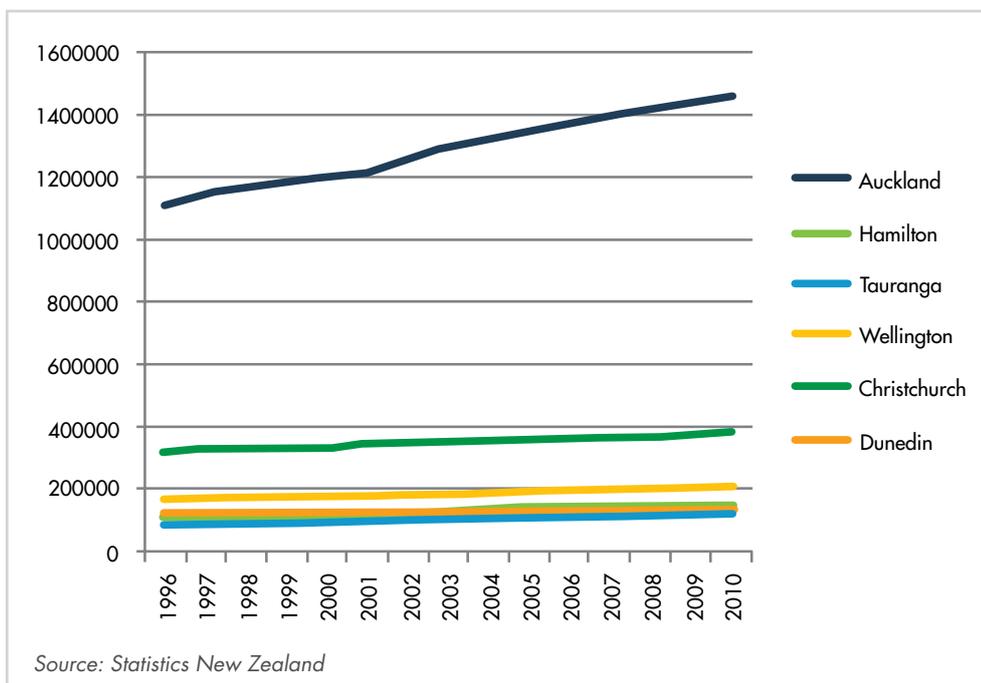
Past investments, for example, shape its economy. This includes government investment in publicly-funded infrastructure such as transport, health and education.

In general, cities are attractive locations for firms and people because of their concentrations of business inputs and their wide and deep labour markets. Knowledge services and labour-intensive sectors typically locate in cities.

New Zealand's six largest cities all have their own unique strengths that they have been able to build on over time. By gaining a better understanding of these path dependencies - including the role of government investment and programmes - local and central government hope to be able to build on these strengths.



Figure 1: Population of New Zealand's core cities



Unique economies

The available evidence suggests that the cities' economies are relatively economically independent of each other. For example, Auckland, Hamilton, Tauranga, Wellington, Dunedin and Christchurch each have different areas of comparative advantage and economic distinctiveness.

Independent analysis by research company NZIER¹ confirms this distinctiveness. It highlighted industrial composition, business size, human capital and infrastructure as the main aspects contributing to their uniqueness.

Creating national benefits

In the review of international networks, NZIER² found that collaboration across city-regions can create benefits for the whole country. The research shows that these regional networks impact on national economic growth mainly by adjusting institutional settings within their cities and regions. These settings might include the types of policies used and how councils implement them – for example, policies affecting land supply.

NZIER acknowledge that while New Zealand may be small, its scale can also offer many opportunities.

Links between cities

Developing a stronger network between New Zealand's major cities would provide the country with three potential benefits:

- an increase in scale
- improved efficiency
- a reduction in the economic distance between city-regions.

Connectivity

New Zealand is a small and sparsely-populated country. It is distant from world markets and relies on a robust transport network to move people, goods and services safely and efficiently. As a result, it has a relatively extensive network of roads, and the government has invested heavily in core infrastructure to improve connectivity and reduce economic distance between cities.

Ports and airports play an important role in connecting cities with each other and with the rest of the world. Auckland acts as an international gateway and is New Zealand's only international-scale city. However, most of the country's large cities also offer international connections and domestic links, although the cost of air travel remains relatively high compared to other countries.

The New Zealand Government has made a significant investment in developing a national ultrafast broadband network. The network will provide fibre-optic connections to 90 percent of businesses by 2015, and 75 percent of New Zealanders by 2019. City councils are facilitating the roll-out of broadband and helping to encourage uptake by businesses and residents.

New Zealand cities also connect us to cities in other countries. These city-to-city relationships contribute to economic and social relationships. They open markets

¹ NZIER *Core Cities Collaborating for Growth*, May 2012
² *Ibid.*

and attract investment. Mayors, in particular, have a leadership role in opening doors for business relationships in East Asia and the Middle East.

Human capital

NZIER’s research³ reveals an alarming trend: there are fewer and fewer 15-49 year olds living in New Zealand’s city-regions. Only Wellington and Auckland show strong numbers in this demographic.

Overall, the proportion of working-age people (15-49 year olds) is set to decrease in New Zealand over the next twenty years. There will also be greater numbers of older entrepreneurs and employees. New Zealand cities will therefore need to provide better amenities and economic opportunities to attract and retain workers.

Competitive advantage

Cities are national growth engines. They compete for talent, leading firms and investment.⁴ People and firms gravitate to cities because of the large concentrations of business inputs, markets and related productivity gains.

The relatively small size of New Zealand’s largest cities and their distance from each other imposes higher costs for transporting people, products and ideas.

These factors present a barrier to New Zealand’s economic development.

Central and local government have a vital role in minimising the effect of these barriers by creating environments for businesses to thrive and develop.

Table 1 shows their priorities for stimulating growth.

Table 1: Government priorities for business development and growth

The government’s business growth agenda	Local government priorities
<ul style="list-style-type: none"> ● Infrastructure (including electricity, broadband, transport) ● Innovation and ideas ● Skilled and safe workplaces ● Export markets ● Capital markets ● Natural resources 	<ul style="list-style-type: none"> ● Local leadership ● Quality regulatory environment ● Spatial planning and infrastructure ● Services e.g. three waters, waste and refuse ● Social and community/amenities ● Investment in business and industry development

³ *Ibid.*

⁴ OECD (2006); OECD Territorial Reviews: Competitive Cities in the Global Economy. Parkinson, M, Hutchins, M, Simmie, J, Clark, G, & Verdonk, H. (2004); Competitive European Cities: Where do the Core Cities Stand? referenced in the Ministry of Economic Development’s 2011 Economic Development Indicators (pp. 143).

Opportunities for growth

The OECD says that place-based policies must be informed by the principle that opportunities for growth exist in all types of regions. The aim should therefore be to maximise national output by assisting and encouraging each individual region to reach its growth potential by using its own resources.

Economically-successful cities and regions are clear and focused about their competitive advantages. Policy – and its delivery – is aligned with these advantages. By identifying and leveraging these unique features and attributes, cities are able to build or strengthen sources of comparative advantage for firms and industries that others cannot easily replicate. This leads to increased competitiveness, productivity and, ultimately, economic growth.

Source: OECD Regional Outlook 2011

The research framework

The Ministry of Economic Development created a research framework to measure Auckland city's international competitiveness. This framework contains a comprehensive set of indicators that provide an overall picture of Auckland's competitive advantage and distinctiveness.

The framework was developed as part of a research project into Auckland's areas of Competitive Advantage and Distinctiveness in which Auckland was benchmarked against comparator cities internationally across a range of city competitiveness factors. The resulting set of indicators provides an evidence base that reflects the complexity of a city-region system.

The indicators show that Auckland is a desirable city to live in and it attracts a relatively international population that contributes to a youthful and entrepreneurial city. It also suggests that there is scope for Auckland to build on its international connections.

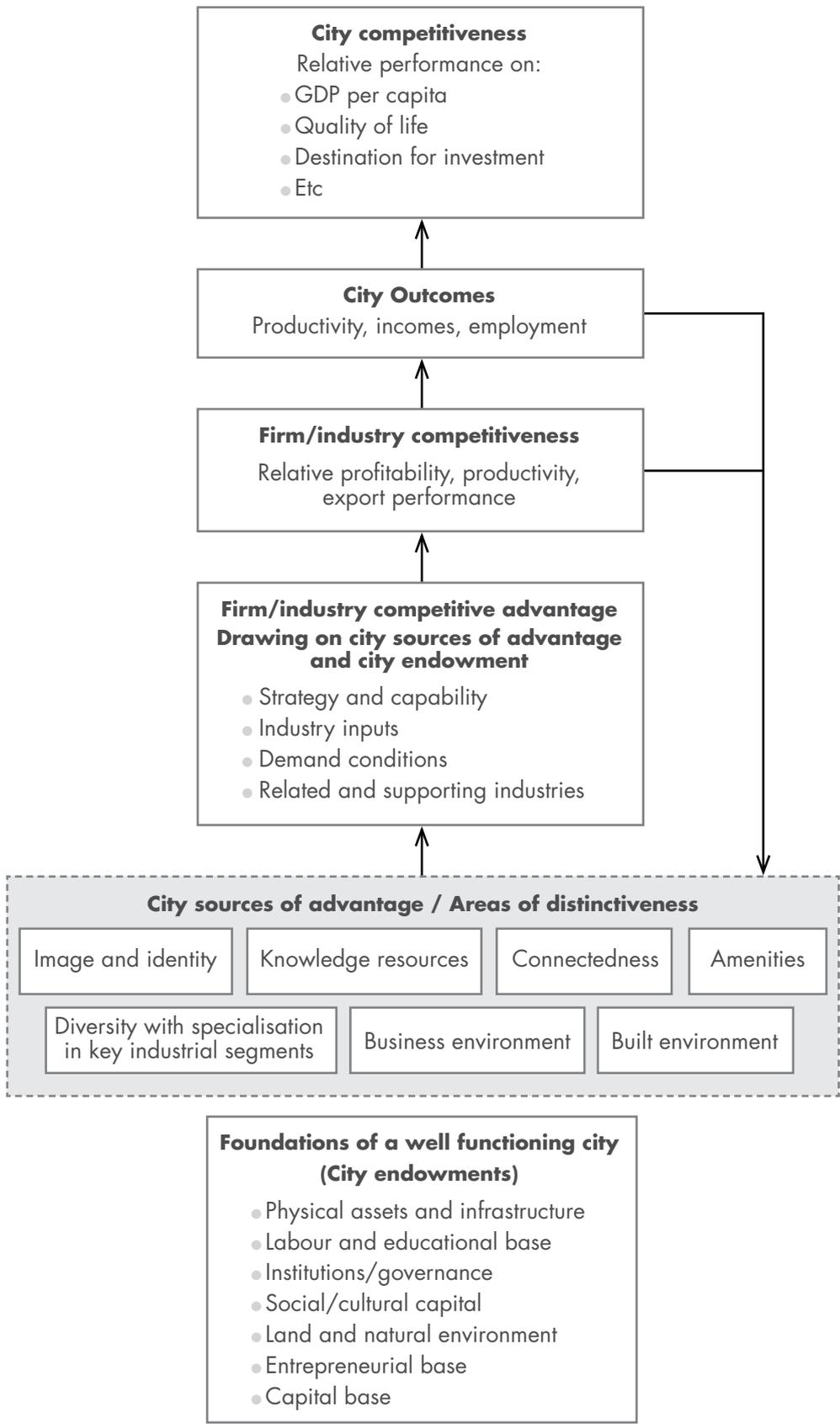
The Auckland framework is shown in the diagram opposite.

Applying the framework to the core cities

Auckland's framework became the basis of the research undertaken as part of this project. It was applied across all six cities and the results are covered in this report. The international comparators identified for Auckland are not applied across the other cities.

The following sections of this report reflect each of the elements identified in "sources of advantage/areas of distinctiveness" in the research framework opposite.

Figure 3: Auckland’s framework for international competitiveness



Connectedness

Large, outward-facing global cities with good connectivity drive competitive economies.⁵

Connectedness can be physical, with a focus on distance, or it can relate to how connected people are via information flows.

Connectivity is important within a city and the region, but it also has tremendous value between city-regions and with cities in other countries.

New Zealand's biggest cities are small and geographically dispersed compared to international cities.⁶ This increases the relative cost of transporting people, products and ideas.

New Zealand's small scale does have some advantages. It supports interpersonal networks, enables greater adaptation and flexibility, and can make coordination across different institutions and stakeholders easier.⁷

Significant transport infrastructure

The New Zealand Government makes significant investment in critical national infrastructure - such as the national broadband network, road and rail or electricity upgrades to ensure security of supply.⁸

Councils, on the other hand, invest in the local infrastructure that firms need - for example, roading, passenger transport, walking and cycling facilities.

These central and local government transport investments reduce the economic distance within, and between, cities.

The road network

New Zealand has a relatively extensive road network compared with other OECD countries.^{9 10} Around a quarter of local government operating expenditure is allocated to roads and bridges. Air, rail and sea connections are also important, given the distances between the core cities. Figure 4 shows the relative density of roads in different New Zealand regions.

⁵ See www.mckinsey.com/Insights/MGI/Research/Urbanization/Urban_world

⁶ New Zealand's productivity gap with the OECD is mainly explained by our geographic isolation and small domestic market according to research by the IMF and OECD. See OECD IMF 2002 and IMF-OECD, McCann, Grimes, Proctor, Clark, et al.

⁷ McCann, P. (2009); "Economic geography, globalisation and New Zealand's productivity paradox," *New Zealand Economic Papers*, pp. 43(3), 279-314

⁸ See the National Infrastructure Plan 2011: www.infrastructure.govt.nz/plan/2011

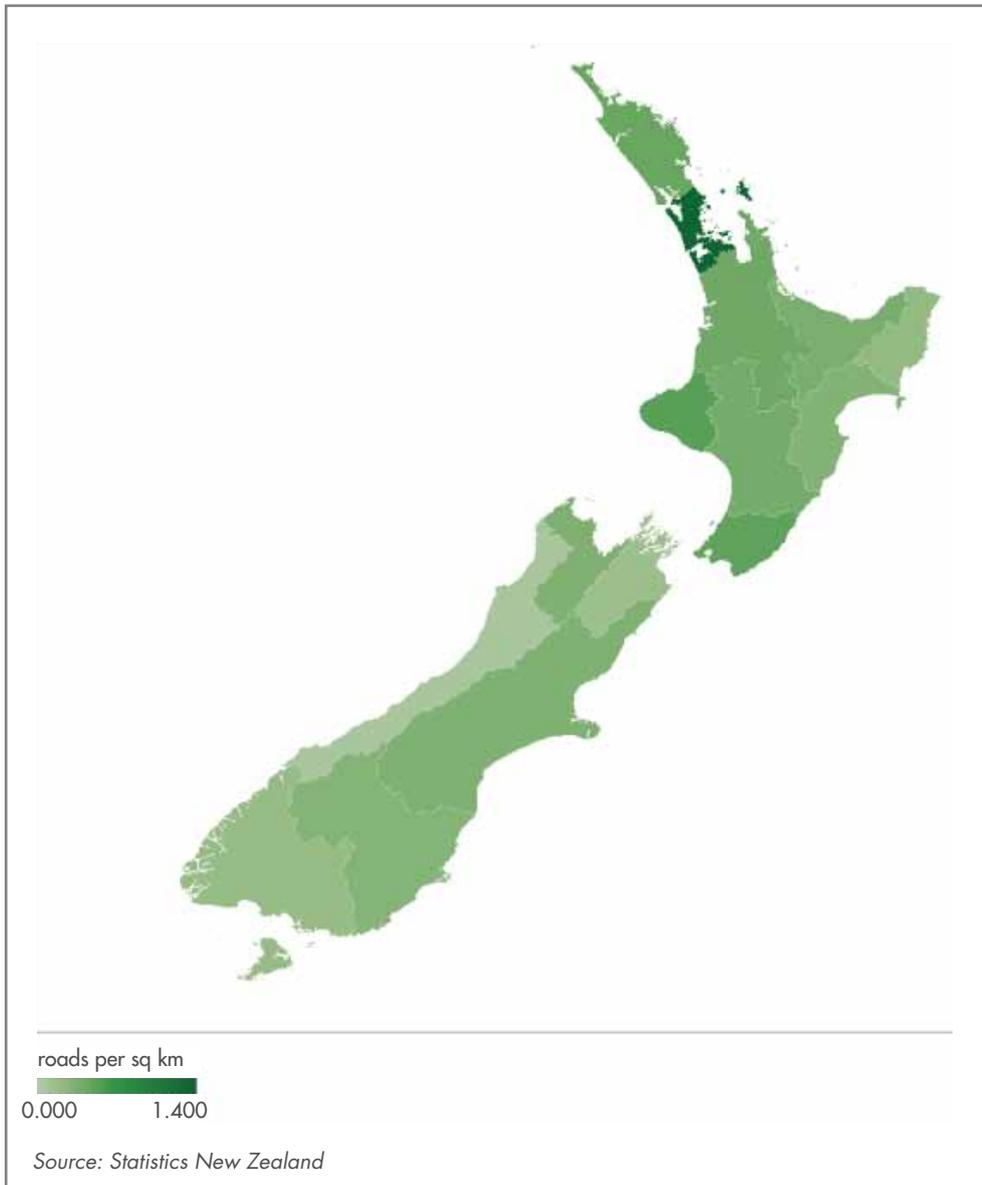
⁹ Ministry of Economic Development; *Economic Development Indicators 2011*, pp. 92.

¹⁰ J. Bolland, D. Weir, M. Vincent; *Development of a NZ National Freight Matrix*.

Booz Allen Hamilton (NZ) Ltd. (2005); *Land Transport New Zealand Research Report 283*.

Figure 4: New Zealand road density

Roads (kms) per km² of geographic area



Freight

Auckland, Waikato and the Bay of Plenty produce and attract over half of all road and rail freight. This is because of population and industry concentrations.

The Canterbury region (the largest by area), however, is responsible for the majority of South Island freight, accounting for 13 percent of the national total.

Logs, milk and livestock account for a significant share of total national freight movement.¹¹

¹¹ *Ibid.*

Trade and transport

Port cities have developed specialisations that support the inward and outward flow of products. For example, Auckland has a strong comparative advantage in wholesale trade; and Tauranga firms have expertise in logistics and supply chain management related to its port. Hamilton and Christchurch also display strengths in wholesale trade and transport.

Figure 5: Volume of international export trade, by seaport



Commuter congestion

The majority of New Zealanders travel to work in private motor vehicles. Despite this, travel congestion in New Zealand cities remains low by international standards.¹²

The low occurrence of congestion helps reduce the associated costs - such as fuel costs or indirect costs like unproductive time and environmental costs.

¹² See for example, IBM New Zealand Commuter Pain Study, 2010.

Congestion levels in Auckland, however, are similar to Sydney and greater Melbourne. This increases the costs associated with the movement of people and goods.¹³

Wellington has the largest proportion of commuters using public transport, with nearly a fifth using it five or more times a week. This has helped congestion levels to remain relatively static in the five years to 2010.

Congestion in Dunedin has decreased and Tauranga has the lowest congestion levels of the six cities.

While congestion across the country is relatively low, maintaining and improving intra-urban movement will help provide higher returns than improving inter-city and inter-region links.

In many countries, commuting between cities is common. In New Zealand, however, less than one percent of commuters travel between the three geographically closest core cities of Auckland, Hamilton and Tauranga.¹⁴ Anecdotal evidence suggests this reflects limited employment opportunities and the difficulty of travelling between the cities.

More workers commute by air from Auckland to the four Wellington cities (Upper Hutt, Lower Hutt, Porirua and Wellington City), than from Auckland to Hamilton and Tauranga combined.¹⁵

Air travel and connections

Air travel is important for economic competitiveness because it brings people and firms together.¹⁶ The evidence shows that even as the world becomes more digitally connected, face-to-face relationships will underpin future economic advantage.^{17 18}

Air connections in New Zealand can help increase proximate scale by developing and strengthening inter-firm and interpersonal networks.

¹³ A 1996 study found that most Aucklanders consider traffic congestion across the region to be a serious problem. See www.transport.govt.nz/land/Documents/Auckland%20Road%20Pricing%20Study%202008.pdf

¹⁴ *Economic Linkages between New Zealand Cities: Final Report, May 2011*: www.apo.govt.nz/Shared/Documents/Content/Economic%20Linkages%20between%20New%20Zealand%20Cities.pdf

¹⁵ *Ibid.*

¹⁶ *The New Zealand Institute 2007*: www.nzinstitute.org/Images/uploads/So-far-yet-so-close-full.pdf

¹⁷ McCann, P. (2009); "Economic geography, globalisation and New Zealand's productivity paradox," *New Zealand Economic Papers*, pp. 43(3), 279–314.

¹⁸ See, for example, Ed Glaeser and Paul Krugman.

At present, the costs of air travel in New Zealand are significant for many firms, and are high relative to many countries.¹⁹ This is both a function and reflection of limited market scale. For example, while Christchurch and Dunedin are geographically close, flights to Wellington are quicker than flights between these two cities. This is because smaller passenger volumes translate into smaller and slower planes.

All of the six core cities, except Tauranga, have airlines providing domestic and international services. However, compared to international standards, even Auckland International Airport is a relatively small airport, despite accounting for 76 percent of international business arrivals and 68 percent of international visitor arrivals. It is comparable to Adelaide airport in Australia.

Airlines in the core cities that have international airports provide connections to Australia and the Pacific. Airlines operating from Auckland and Christchurch also provide direct flights to Asia.

Figure 6: International visitor arrivals, by airport



¹⁹ See, for example, footnote 14 and *Geography, Trade and Growth: Problems and Possibilities for the New Zealand Economy*: <http://www.treasury.govt.nz/publications/research-policy/wp/2003/03-03/>

Connections with Asia

Connections to Asia support partner-city relationships. As the economic importance of cities grows, these relationships are increasingly important to New Zealand. They provide access to markets and attract investment, visitors and skilled workers. City leaders, such as mayors, provide leadership to build economic and social relationships. They can, for example, facilitate foreign direct investment and attract international students.

The core cities have partner-city relationships with many Chinese cities - for example, Beijing and Wellington, Shanghai and Dunedin, Yantai and Tauranga, and Wuxi and Guangzhou and Auckland. Together, these Chinese cities are home to nearly 70 million people.

Online connectivity

New Zealand's virtual connectivity is increasing, having lagged behind other developed countries in the past.²⁰

Broadband use is growing and is above the OECD average, suggesting that comparatively higher broadband costs are not a barrier to uptake.

Government initiatives

The government's ultra-fast broadband programme is a significant investment in ICT infrastructure. The network will provide fibre-optic connections to 90 percent of businesses by 2015, and 75 percent of New Zealanders by 2019.

The government wants to support the uptake of digital technology by households and businesses. To encourage this, it has established two initiatives that will improve public interaction with government:

- Businesses will have a one-stop online shop for all the government advice and support they need to run and grow their businesses. This will include a mobile business toolbox and business calendar.²¹
- New Zealanders will be able to easily complete their transactions with the government in a digital environment.

²⁰ Ibid and the Ministry of Economic Development's *Economic Development Indicators 2011*, pp. 92.

²¹ See www.business.govt.nz for more information.

Broadband uptake

Three-quarters of New Zealand households already have internet access, of which 63 percent have broadband.²²

Household broadband penetration in Auckland is 72 percent, followed by Wellington at 69 percent.²³ By way of international comparison, the Swedish capital of Stockholm has a very high proportion of households with broadband access (87 percent).

The proportion of households in Canterbury and Otago with broadband is around 65 percent, while broadband uptake in the Waikato, the Bay of Plenty and Otago is lower at 57 percent, 54 percent and 61 percent respectively.

On average broadband penetration in urban areas is higher.

The cost and the availability of video content remain critical factors for broadband uptake nationally by both consumers and SMEs.²⁴

Case study: Wellington digital creativity

Wellington city has developed a digital strategy for the city that aims to increase global recognition of Wellington as a Digital Creative Capital.

Wellington's focus is on providing a digital environment that enables technology growth, rather than delivering specific technologies or infrastructure. Digital technology has developed considerably since Wellington City Council developed the CityLink fibre network in 1995. Citylink has supported the growth of screen, gaming, internet and web based companies in Wellington.

The next steps in Wellington's Digital Strategy are to attract more skilled technology people to live and work in the city, support initiatives to inspire shared knowledge and development and to make Wellington a world leading place for digital activity.

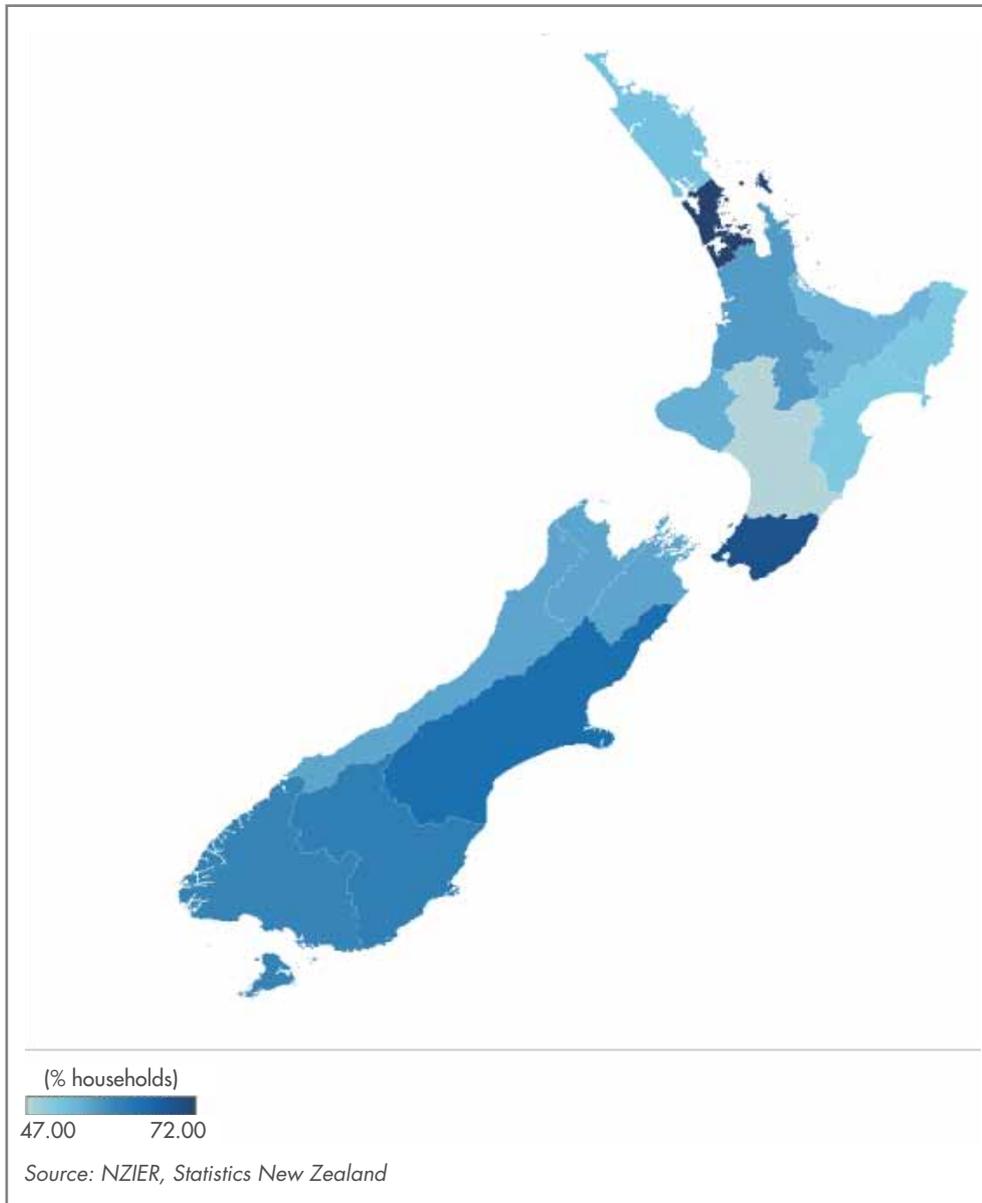
To be a world leading place for digital activity, Wellington needs impressive infrastructure. Wellington established the first central business district-wide free wi-fi network in NZ. Over one million users have accessed the services since it was introduced in September 2011. This level far exceeds expectations, with locals and tourists saying it is often better than home connections.

²² Statistics New Zealand.

²³ New Zealand ranked 12 out of 34 OECD countries in a study on wireless broadband users. See www.comcom.govt.nz/TelecommunicationsMarketAnnualMonitoringReports

²⁴ See the Commerce Commission's High Speed Broadband Demand Side Study: www.comcom.govt.nz/high-speed-broadband-services-demand-side-study

Figure 7: Percentage of households with broadband access, 2009



Local government initiatives

Councils are supporting the roll-out of the ultrafast broadband programme, and encouraging digital technology uptake by businesses and residents.

Here are some examples:

- Hamilton, Auckland and Dunedin have private sector partnerships to offer free Wi-Fi in their central business districts.
- Dunedin and Wellington have digital strategies.

- Dunedin's Digital Office Trust works with community groups and businesses to identify digital needs, support digital projects and assist with implementation of the city's digital strategy.
- Christchurch City Holdings Ltd owns Enable Networks, the local partner for the ultrafast broadband rollout.
- Tauranga City Council, in collaboration with councils in the Bay of Plenty and Gisborne regions, has established a local authority shared services company. It is supported by a 1Gb fibre link to facilitate information transfer and collaboration between the councils.

Competitiveness and areas of digital specialisation

Four of the core cities are competitive on the basis of information, media and telecommunications-related specialisations.

Wellington is expanding its specialisations in the digital area and related creative industries.

Auckland is using its ICT expertise in areas such as computer system design and services, and wired telecommunications network operation. This has provided a platform for businesses in sectors such as health and biotechnology, materials and niche manufacturing.

Dunedin plans to build and grow export-focused education and health clusters using a digital platform.

In Christchurch, the city council, central government agencies and the private sector have joined together to support a hi-tech hub (EPIC) following the Canterbury earthquakes.²⁵

City-region networks that build connectivity

A number of countries – such as the UK, Finland and Australia – have established city-networks. Cities in these countries are larger and geographically much closer to each other and consumer markets than New Zealand cities.

Networks, such as the UK Core Cities network, typically undertake activities such as:

²⁵ See the EPIC website for more information: www.epicplan.co.nz

- strategy development and policy research
- addressing information barriers
- development and dissemination of best practice
- enhancing links to the education sector
- influencing central government policy settings.

In some networks, these activities provide the basis for collaborative projects, infrastructure development and investment.

The networks take time to develop and bear fruit, however. NZIER's review suggests that international experience may not be particularly relevant (or replicable) in New Zealand, largely because of the scale and distances between New Zealand cities.

Case study: Upper North Island strategic alliance

Auckland's strong population and economic growth is bringing benefits to Hamilton and Tauranga.

Both of these cities are attracting businesses and people, partly because of their relative proximity to Auckland. For example, research found that by building on the expertise developed through its history, Hamilton is experiencing growth in high-value manufacturing and this is partly attributable to its proximity to the Auckland economy.

The most evident economic activity between the three cities is currently freight traffic.

Economic relationships are likely to continue to grow and diversify in the region.

All three cities are members of the Upper North Island Strategic Alliance (UNISA), an initiative that recognises that this greater region will experience shared challenges as a result of continued population growth.

The Core Cities Project and the Upper North Island Strategic Alliance, which draws on the project's methodology, are exploring broader city-networks in New Zealand. The seven UNISA councils are seeking to prioritise areas of joint research and possible future investment, for example in transport infrastructure.

Knowledge resources

New Zealand's cities are knowledge centres and they attract skilled people and investment.

These urban areas build competitive strengths based on non-replicable knowledge and skills. This is because large concentrations of people and firms facilitate face-to-face contact and support knowledge flows. This, in turn, attracts skilled people, firms and knowledge institutions at a scale and density that can support innovation and specialisations to develop.

Education

Literacy and schooling

The ability to communicate and share information is essential, and is a key determinant of the ability to develop and adopt new technology, processes and innovations.

Literacy is beyond a simple definition of being able to read and write. Prose literacy, document literacy, financial literacy, numeracy and problem solving are some of the more specific measures of literacy that are required to support increased productivity and allow changes in a city's economic structure.²⁶

People in the six core cities generally have higher literacy than the national average. Overall levels hide the wide diversity related to ethnicity, socio-economic background and the length of educational engagement. Auckland, for example, has pockets of very high literacy but also wide demographic and geographic variations.

Auckland, Tauranga and Hamilton have lower adult literacy and numeracy rates than Christchurch and Dunedin.²⁷ Wellington city has the highest proportion of adults with high prose and numeracy literacy.

The New Zealand education system

New Zealand achieves internationally-recognised outcomes through its education system. Students consistently perform well when evaluated against other OECD countries, indicating that on aggregate, the education system is meeting the needs of young learners.²⁸

²⁶ Ministry of Education (2008); review of the 2006 survey, *Adults Literacy and Life Skills Survey: Overview and International Comparisons*.

²⁷ Ministry of Education (2006); *The Adult Literacy and Life Skills Survey*.

²⁸ In 2009, New Zealand was ranked 5th out of 34 OECD countries for mean PISA scores across reading, mathematics and science.

Schools in New Zealand are classified in deciles. Schools in the lowest deciles draw their students from communities with the highest degree of socio-economic disadvantage.

There is a strong relationship between the socio-economic mix of the school a student attends and the percentage of school leavers attaining at least an NCEA Level 2 qualification. In 2010, 86.2 percent of students from schools in the highest deciles (deciles 9 and 10) left school with at least an NCEA Level 2 qualification. This compares to 51.6 percent of students from schools in deciles 1 and 2.

New Zealand appears to have a wider spread of student achievement than many countries.²⁹

Qualification levels in cities

An upper secondary school qualification is linked to labour force status and income. New Zealanders with no qualifications have an unemployment rate over 42 percent higher than those whose highest qualification was a school qualification.³⁰ A Level 2 qualification translates into better outcomes for further education, employment, health and future quality of life.³¹

The government has established a target for 85 percent of young people achieving NCEA Level 2 or an equivalent qualification. This is an increase from the current level, which is around 68 percent.³²

Table 2: School leavers achieving NCEA Level 2 or above in 2010

Auckland	74.1%
Hamilton	67.4%
Tauranga	72.0%
Wellington	84.6%
Christchurch	70.1%
Dunedin	76.8%
New Zealand	68.8%

Wellington city has consistently had the highest percentage of school leavers achieving NCEA Level 2 or above. Achievement levels are well above the other core cities and the New Zealand average. Attainment levels in each of the core cities, except Hamilton, are also above the national average.

²⁹ See www.educationcounts.govt.nz/publications/series/2543/PISA_2006/29190/5

³⁰ See www.educationcounts.govt.nz/indicators/definition/education-and-learning-outcomes/387331
³¹ Better Public Service targets: www.dpmc.govt.nz/better-public-services/boosting-skills-and-employment
³² *Ibid.*

Overall achievement levels in Auckland mask the significant differences in achievement by ethnicity – 51.4 percent of Maori and 62.1 percent of Pasifika students attained NCEA Level 2, compared to the 74.1 percent Auckland average.³³ By 2031, 45 percent of new entrants to the Auckland workforce will be Maori and Pasifika.

The government has announced plans to increase the proportion of 25-34 year olds with Level 4 or higher qualifications.

Increasing overall workforce skill levels is linked to increased productivity.³⁴ Currently, 52 percent of 25–34-year olds have an NZQA Level 4 or above qualification. For Maori, the proportion is only 37 percent and for Pacific peoples, it is 31 percent.

Table 3: Formal education in the core cities

	Share of population with no formal qualification (%)	Share of population with higher literacy / numeracy (%)	Share of population with bachelor's degree or higher (%)	Proportion with Level 4 or above qualifications (%)
Auckland region	18.1	54.4	17.7	34.0
Waikato	25.8	52.4	11.0	28.8
Bay of Plenty	25.6	53.5	9.1	28.7
Wellington region	18.1	68.7	21.1	38.2
Otago	21.5	65.4	14.5	32.3
Canterbury	23.5	61.6	13.1	31.7
New Zealand	22.4	57.9	14.2	31.7

Note: Data is indicative only (not directly comparable due to timing and geographical inconsistencies). Regions were used as not all data was available at city level.

Source: Ministry of Education/census data

Wellington city's residents are the highest qualified of the six cities. Only 11 percent of residents have no qualification and over a third of residents hold a bachelor's degree or higher. This is in part a reflection of the size of the public sector.

³³ See www.educationcounts.govt.nz/indicators/definition/education-and-learning-outcomes/3873 and *Auckland Business Environment and Economic Growth 2011*, a New Zealand Government position paper.
³⁴ *Better Public Service targets*: www.dPMC.govt.nz/better-public-services/boosting-skills-and-employment

Auckland residents are the next most highly qualified. University cities Hamilton and Dunedin have strengths in education and health that attract and develop skilled workers. Many of their graduates are attracted to employment opportunities in Auckland and Wellington. This is also true for graduates from Christchurch.

Alongside internal migration, international migration can play a role in determining a city's skills level. While 17 percent of Auckland's New Zealand-born population have attained a university degree, 24 percent of non-New Zealand-born Auckland residents have a bachelor's degree or higher. Activities that support migrant employment in line with qualifications can help reduce the 10-12 year period this often takes.³⁵

The Bay of Plenty region has a relatively low proportion of residents with a university degree. This may reflect the absence of a range of tertiary provisions and the city-region's labour market. The limited number of tertiary institutions in Tauranga also contributes to net migration losses in the 15–19 and 20–24-year-old age brackets as they seek a formal education in other cities.

Case study: Bay of Plenty tertiary partnership

Tauranga - as the only member of the network without a university - has developed a collaborative partnership with Waikato University, Te Wananga o Awanuiarangi, and the Bay of Plenty Polytechnic. These organisations work in partnership with regional stakeholders to provide tertiary education and research that is tailored to the region's specific needs.

This collaboration brings major benefits in marine sciences, a major area of regional economic development potential (Port of Tauranga, aquaculture, marine bioactives), and environmental research (lakes, harbour and coastal restoration and management).

In 2010, a regionally-sponsored University Chair in Coastal Science was appointed to lead major research activity in the region, including recovery from the Rena oil-spill, marine bio-discovery and international research partnerships, such as INTERCOAST, the joint New Zealand-German PhD programme with Bremen University.

The Bay of Plenty Polytechnic's Marine Studies Diploma also now offers a pathway to a new Bachelor of Marine Science that can be completed locally.

³⁵ See www.dol.govt.nz/publications/research/synthesis-research/synthesis-research.pdf

Innovation

Innovation is a key determinant of successful economies. The economic success of innovation is measured in terms of the ability to translate new ideas and ways of working into greater productivity and economic growth.³⁶

Innovation and patent applications

A patent is a proxy for innovation, creativity and the potential for generating economic activity.

However, filing a patent is a precursor, but not necessarily a guarantee, of commercialising knowledge. The OECD metropolitan regions dataset includes information on patent applications.³⁷

Despite its reputation as an entrepreneurial city, Auckland ranks below comparator cities for average patent applications. Auckland and the Canterbury region are typically the lead cities for numbers of patents filed. Auckland's commercial scale (number and size of businesses) and innovation infrastructure are important. Similarly, Christchurch-Canterbury has seven Crown research institutes and a variety of tertiary research institutions.

Hamilton is also an important location for patents because of its private and public research and development, particularly in areas such as agro-bio and science technology.

Patent applications in Otago are lower than the national average, despite Dunedin's tertiary strengths.

Patent levels in the Bay of Plenty are increasing over time, but are behind other regions.

Barriers to innovation

Research into Auckland's regional innovation system suggests that innovation has been constrained. Business and management capability, a lack of collaboration between business and between industry and education/research organisations, and a lack of coordinated planning and investment to address the growth needs in

36 A patent is a monopoly right that allows the exclusive use of an invention for a set period. To file for a new patent, an application is registered in New Zealand (the Intellectual Property Office) or in a country that adheres to the Patent Cooperation Treaty.

37 See stats.oecd.org/OECDStat_Metadata/ShowMetadata.ashx?Dataset=REG_INNO_TL3&ShowOnWeb=true&Lang=en

areas of competitive advantage are all barriers.³⁸ It is likely that these barriers are present across all six core cities.

Central and local government have a role in encouraging interaction between business and research institutions. Current activities underway in cities and nationally include incentives such as research and development vouchers, encouraging clustering of similar and related firms, and infrastructure such as innovation parks or national innovation networks. The accessibility and quality of funding to support commercial innovations - such as the availability of venture capital or programmes to encourage business research and development - are also being addressed.

Public education and health investments

University and research institutions are important generators of knowledge and expertise for innovation and productivity improvements.³⁹

The tertiary education and research system is a key component of knowledge infrastructure. It builds:

- human capital - primarily through teaching
- knowledge bases - primarily through research and knowledge development
- dissemination and use of knowledge - primarily through interactions with knowledge users
- maintenance of knowledge - intergenerational storage and transmission of knowledge.

The quality and strength of links between a city (or country's) tertiary system and its businesses can be a critical determinant of innovation in areas such as product design, processes and management. These institutions are also important because they typically have strong international connections. These come through teaching staff and students, and research relationships with tertiary institutions in other countries.

³⁸ See *Innovation and the City: Review of the Auckland Regional Innovation System*: www.med.govt.nz/about-us/publications/publications-by-topic/occasional-papers/2012-occasional-papers/auckland-innovation.pdf/view

³⁹ Ministry of Economic Development (2011); *Economic Development Indicators 2011*.

Case study: Dunedin, a centre of learning, education and research

Dunedin has the highest concentration of post-graduate qualifications of all of the core cities. Among those with a bachelor's degree or higher, 36.4 percent held a post-graduate degree and 8.5 percent a doctorate, compared to 35.5 percent and 4.2 percent respectively in Wellington, and 28.2 percent and 3.0 percent in Auckland.

This concentration of knowledge and expertise, linked to the University of Otago and Otago Polytechnic, provide Dunedin's businesses and organisations with ready access to a large supply of skilled labour and research expertise. The University and Polytechnic are partners in Dunedin's Economic Development Strategy 2012-2022, which seeks to build on related education, health and ICT platforms to increase the city's employment and incomes.

www.dunedineconomy.co.nz

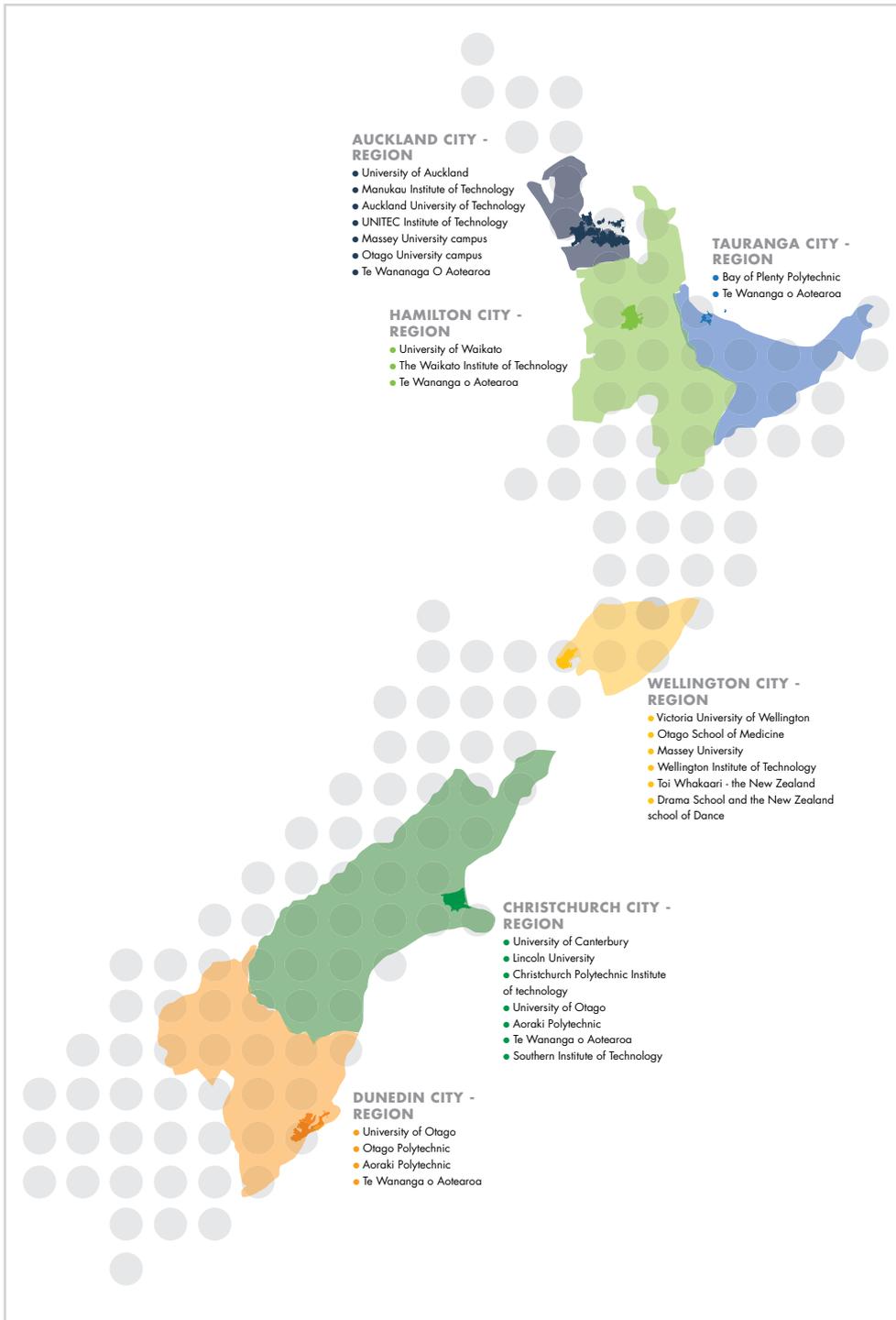


New Zealand's public tertiary education and research institutions are located in, and near, cities. These institutions have helped catalyse city-region competitive advantage and specialisation over many decades – for example, engineering in Christchurch, creative digital in Wellington, and education in Dunedin. They will continue to be important elements of the national innovation system, building closer relationships with businesses, including Maori enterprises, as they grow in scale and number.⁴⁰

New Zealand universities attract staff and students from around the world and provide a high-quality education. Qualifications from New Zealand universities are globally portable, despite not being ranked alongside world-renowned institutions such as Cambridge in the UK or Harvard in the USA. New Zealand research institutions have recognised strengths in niche areas.

⁴⁰ See, for example, the *Maori Economic Development Panel Discussion Document* by the Maori Economic Development Panel (March 2012).

Core cities educational institutions



Diversity and specialisation

The global economic importance of cities is increasing. It is driven by the value of proximity for firms and the growth of post-industrial economies. Cities, with their concentrations of knowledge intensive industry, are sources of national competitive advantage. They produce goods and services that cannot easily be replicated by other countries.

Nearly half of global economic growth over the next fifteen to twenty years will be generated by cities in emerging-market mega and middleweight cities.⁴¹

Amongst OECD countries, New Zealand is distinctive in that exports are dominated by activities related to the natural resource base and primary sectors, mainly agriculture. Over two thirds (69 percent) of exports were primary products in 2010.⁴²

New Zealand cities provide services and inputs to the primary sector and add value through activity in related and supporting sectors – such as manufacturing, logistics and processing.

Labour and employment markets

While New Zealand's export economy is agricultural, labour markets and skilled employment is concentrated in urban areas. Skilled labour is attracted to areas of higher population density as they offer wider and deeper employment options.

Auckland and Wellington have revealed comparative advantages in highly-skilled labour. They have less than the national average levels of elementary labour and higher levels of semi-skilled employment – for example, in service sectors such as sales.

The skill levels attributed to the different occupational categories are:⁴³

- Highly-skilled: legislators, administrators, managers and professional occupations
- Skilled: technicians and associate professionals, trade workers

41 McKinsey Global Institute: www.mckinsey.com/Insights/MGI/Research/Urbanization/Urban_world

42 See www.stats.govt.nz/browse_for_stats/industry_sectors/imports_and_exports/global-nz-dec-10/key-points.aspx

43 See www.stats.govt.nz/surveys_and_methods/methods/classifications-and-standards/classification-related-stats-standards/occupation/definition.aspx

- Semi-skilled: community and personal service workers, clerks, sales workers, agriculture and forestry workers
- Elementary: plant and machinery operators and assemblers, and general labourers.

The following table shows how these different skills levels are spread across New Zealand's cities. The NZIER analysis shows that Auckland and Wellington in particular have high levels of employment in skilled labour, compared to the national average. This represents a revealed comparative advantage (RCA) in skilled labour.

Table 3: Proxy of human capital, 2006

	RCA in highly skilled labour	RCA in skilled labour	RCA in semi-skilled labour	RCA in elementary labour
Regional councils				
Northland	0.98	1.05	0.92	1.11
Auckland	1.06	0.98	1.06	0.76
Waikato	0.98	1.05	0.93	1.12
Bay of Plenty	0.95	1.07	0.97	1.11
Gisborne	0.86	0.94	0.86	1.48
Hawke's Bay	0.84	0.94	0.90	1.43
Taranaki	0.96	1.08	0.86	1.20
Manawatu-Wanganui	0.89	0.97	0.99	1.15
Wellington	1.17	0.87	1.07	0.67
Tasman	0.90	0.98	0.85	1.54
Nelson	0.92	1.03	1.00	1.22
Marlborough	0.87	1.06	0.86	1.51
West Coast	0.84	0.96	0.84	1.55
Canterbury	0.93	1.05	1.01	1.10
Otago	0.93	1.07	1.00	1.14
Southland	0.88	1.03	0.85	1.51

Key:

Red: above national average (or has a revealed comparative advantage)

White: around (+/- 5 percent) national average

Green: less than national average.

City-level data is not available.

Source: Statistics New Zealand and NZIER

Diverse city profiles

The core cities have distinctive national economic roles and profiles. This suggests opportunities to build specialisations.

Hamilton manufacturing firms, for example, have built expertise in steel manufacturing for the dairy industry that they are now transferring to aviation and other sectors. Tauranga has strengths in horticulture and agriculture linked to the wider Bay of Plenty, while Dunedin has strengths in education and health.

The cities' own research, and NZIER's independent analysis, confirms areas of specialisation and comparative advantage.⁴⁴ The cities are building on their strengths and starting to explore opportunities to inform their economic development activity through the Core Cities Project. There are some obvious complementarities and areas of overlap in the priority sectors set out in the table below that the cities are exploring for possible collaboration.

Table 5: Comparative advantages and specialisations of core cities

<p>Auckland</p> <ul style="list-style-type: none"> ● Food and Beverages ● ICT ● Health tech ● Tourism/events ● Niche manufacturing ● Biotechnology ● International Education ● Screen 	<p>Hamilton</p> <ul style="list-style-type: none"> ● Agriculture, especially dairy ● Education and research ● Energy generation ● High-value manufacturing ● Health ● Tourism
<p>Tauranga</p> <ul style="list-style-type: none"> ● Agriculture, especially horticulture ● High- value manufacturing ● Logistics and supply chain ● Business services 	<p>Wellington</p> <ul style="list-style-type: none"> ● Business and financial services ● Creative digital ● ICT ● Science and technology
<p>Dunedin</p> <ul style="list-style-type: none"> ● Creative industries ● Education and research ● Energy ● ICT ● Health 	<p>Christchurch</p> <ul style="list-style-type: none"> ● Agri-business ● Business and finance ● Education ● Health ● ICT ● Specialist manufacturing ● Tourism

⁴⁴ Note that there are slight methodological differences between the NZIER analysis and the cities' analysis of comparative advantage and specialisation.

High-value knowledge industries

Advanced economies are seeking to build sources of competitive advantage and distinctiveness in knowledge-intensive services and high-technology manufacturing. Specialisations are developed by highly-skilled, globally-mobile workforces that create and produce products and services that are difficult to replicate.⁴⁵

Knowledge economies are increasingly concentrated in cities. They are associated with significant productivity gains and innovation, and high densities of businesses in related industries.

New Zealand has fewer clusters than comparable countries.⁴⁶ However, there is evidence of clustering in some cities – for example, manufacturing in Christchurch by firms such as Tait Electronics, Hamilton’s aviation cluster, and in ICT in Wellington and Auckland.

Councils, through their planning and regulatory roles, have some levers that can support firms in related industries to co-locate – for example, by encouraging geographic clusters.

New Zealand’s cities have growing knowledge industries. New Zealand’s service exports – which make up a relatively small overall proportion of total exports - are largely in the travel, transportation, communication and business services sectors. Knowledge-intensive services firms located in the core cities are the foundation for growing and diversifying these exports.

Cities are sources of skills and labour that add value to New Zealand’s primary products. Added-value primary exports are increasing, but around a third of New Zealand’s exports are still unprocessed primary products.⁴⁷

Auckland – which has been called “a major city in a peripheral economy”⁴⁸ - is increasingly dominant in knowledge industries. Nearly half (42 percent) of employment is in knowledge industries and Auckland provides products and services to the rest of New Zealand.⁴⁹

45 For more information on the knowledge economy see www.dol.govt.nz/publications/lmr/knowledge-economy/index.asp

46 See, for example, www.tci2011.com/portals/147/files/0910%20Christian%20Ketels.pdf

47 Statistics New Zealand.

48 See [Economic Linkages between New Zealand Cities: Final Report, May 2011](#).

49 Ibid.

Knowledge services converge in Auckland's central business district. The high value of this activity is reflected in the productivity figures for the area which achieves a 139 percent productivity premia.⁵⁰

Wellington, in line with its capital city functions and areas of competitive advantage, has the highest proportion of its workforce in knowledge-intensive occupations (45 percent). It has a relatively low share of employment in high and medium-tech manufacturing (1.5 percent). This has declined more rapidly than manufacturing in other core cities over the last two decades, possibly as manufacturers have moved to the sites in the greater Wellington region.

The core cities have specialisations in rental, hiring and real estate services, health and social services, and administrative and support services.⁵¹ These services are provided to surrounding rural areas.

The cities are also retail destinations for people from surrounding regions. Tauranga, for example, provides retail facilities for the greater Bay of Plenty region, and seasonal tourists. Dunedin and Christchurch also continue to have important roles servicing their rural neighbours and, in some sectors, the wider South Island

Cities and agglomeration economics

Economists such as Nobel Prize winner, Paul Krugman, have looked at the benefits that firms obtain by locating near each other. They have found that larger cities with denser concentrations of skilled labour and firms see agglomeration returns – that is, increased productivity and innovation that drives economic growth. Examples of this phenomena include London's financial district (the Square Mile), New York's Wall Street and Silicon Valley in California.

The Nordic countries do extraordinarily well in developing networks of coordination across a variety of different institutions and stakeholders. These networks often overcome many of the disadvantages of small scale as well as other constraints such as climate or infrastructure. Coordination between research institutions and the private sector can be developed to a greater degree in New Zealand.

⁵⁰ *Auckland Unleashed*.

⁵¹ For detail on these classifications see: www.stats.govt.nz/surveys_and_methods/methods/classifications-and-standards/classification-related-stats-standards/industrial-classification.aspx

High-value manufacturing is a key value-added sector. The proportion of the Dunedin workforce (2.8 percent) and Hamilton workforce (2.9 percent) employed in high and medium-tech manufacturing grew slightly between 1991 and 2006. Dunedin built strengths in areas such as Scott Technology's advanced automation systems, and Hamilton developed its machinery and equipment manufacture, heavy engineering, light engineering, plastics and aviation-related manufacturing.

Over a third (39 percent) of Dunedin's workforce is employed in knowledge-intensive occupations. Dunedin has high proportions of tertiary and health workers, with the education and health sectors in Hamilton (38 percent) and Christchurch (38 percent) also boosting proportions of knowledge workers in these city economies. Tauranga has the lowest proportion of its workforce employed in the knowledge economy (34 percent, including 2.6 percent in high and medium-tech manufacturing).

Concentrations of firms

The majority of New Zealand's firms – including many of the largest employers - are located in the urban centres.

The size distribution (full-time employees) of New Zealand businesses is similar to other OECD and European economies.⁵² However, New Zealand has fewer large and very large businesses than OECD countries.

The small size of the New Zealand domestic market can constrain demand and market sophistication. It can also reduce the availability of inputs that businesses need, particularly in highly-specialised areas.

Businesses in the core cities are generally larger employers than in their surrounding regions. Otago businesses are, on average, larger than those in Wellington and Auckland but similar to those in Christchurch and Hamilton.⁵³ Otago firms such as Silver Fern Farms and Oceana Gold NZ are significant. Large firms can be important anchors in city-region economies – for example, Gallaghers and Perry Group in Hamilton.

Scale is typically associated with greater management capability. These firms open distribution channels and overseas export avenues, and support knowledge and

⁵² See, for example, *SMEs in New Zealand Structure and Dynamics 2011* by the Ministry of Economic Development.

⁵³ The Otago region has large-scale primary sector employment rather than Dunedin per se (for example Silver Fern Farms and Oceana Gold NZ), although Dunedin city does have large employers (Otago University and Cadburys).

skills flows to domestic firms, customers and staff alike.⁵⁴ Smaller local firms in related and supporting industries are also attracted to these large firms.

Between one-fifth and one-quarter of employees in Auckland and Wellington work for multi-national firms. These firms are generally larger. They can provide benefits through their connections to export markets and consumers. They are also recognised as sources of best practice and can increase competition in the domestic market that supports innovation and early adoption of new processes and technologies.

Business density (the number of firms per capita) is lowest in Auckland and Wellington, both of which are home to larger firms and the public sector.

The Waikato and Bay of Plenty, however, have the highest business density levels. These regions have larger numbers of micro-businesses (including businesses with no employees). They may be less able to offer some inputs that large organisations need, such as deep labour markets.

It is easy to start a business in New Zealand and there are high levels of start-ups. The Waikato, Auckland and Bay of Plenty regions have the highest birth rates for new firms, with the cities themselves driving growth in new business births.

Case study: 5R Solutions Christchurch

5R Solutions is a Christchurch waste recovery and recycling business. It was established in 2009 and is now a multi-million dollar business. Creator Chris Grant's initial investment was met with business planning and funding advice from the Canterbury Development Corporation.

The destruction caused by the Canterbury earthquakes has created many opportunities for 5R Solutions. The company converts the waste glass and wall-board from the central business district and suburban red-zones into insulation and cement products.

The company operates in Christchurch and Auckland, employs nine staff and supplies markets throughout New Zealand and Australia. Last year the business experienced 400 percent growth. It is forecast to double again in 2012.

⁵⁴ See the Ministry of Economic Development's occasional paper, *Management Matters* (March 2011).

The business environment

New Zealand ranks well globally when it comes to the ease of establishing a business and doing business.⁵⁵ Compared to other countries, for example, New Zealand has flexible labour markets, very low trade barriers, offers good investor protection and has low numbers of procedures for starting a business.⁵⁶ New Zealand also has some of the lowest levels of corruption in the world and offers a high quality of education. This suggests that many of the basic conditions for New Zealand to develop competitive businesses and cities are in place.

New Zealand performs less well on measures of competitiveness, including infrastructure (see the section on connectivity), public sector efficiency, scale of local demand and market sophistication.

Government interventions

Government interventions to reduce the costs associated with geographic isolation, small scale and interacting with business may help to build competitiveness.

Typically, government interventions seek to reduce the direct, and indirect, costs of moving products, people and ideas. Local and central government institutional arrangements (including consistency between central and local government settings),

Case study: The Auckland spatial plan

Spatial planning is a key strategic planning tool used by government and local governments around the world.

In line with its reformed governance structure and legislated responsibilities, Auckland Council has developed its first multi-stakeholder spatial plan. It sets out aspirations for Auckland to become the world's most liveable city and includes ambitious economic development targets for productivity and GDP growth, and increasing export levels.

The spatial plan is supported by an economic development strategy that describes how the council will work with businesses, central government and other economic development actors to realise these goals over the next ten years.

⁵⁵ World Bank, *Ease of Doing Business Survey*.

⁵⁶ See, for example, McCann in *Economic Geography, Globalization, and New Zealand's Productivity Paradox*: www.motu.org.nz/files/docs/McCann_seminar_slides.pdf

investments, and legislative and regulatory settings all affect these costs for business and, ultimately, the business environment.

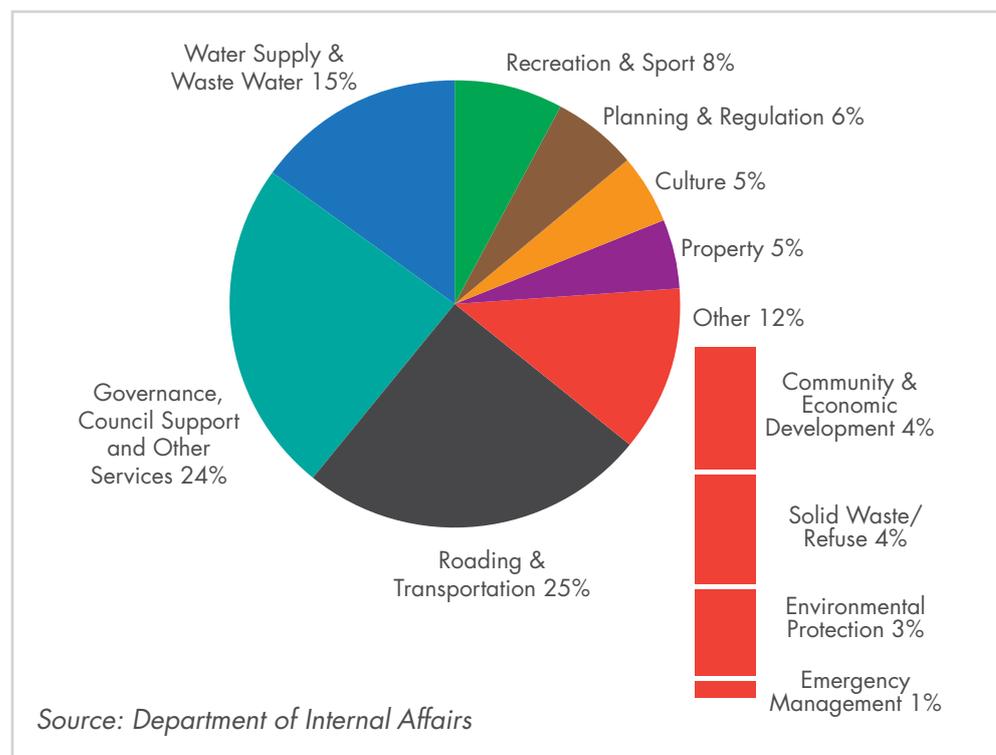
The Better Local Government reform programme is designed to contribute to the government’s broader agenda to build a more competitive and productive economy and improve the delivery of public services. It is seeking to achieve this by ensuring councils operate more efficiently and focus on their core services.

Through the programme, a framework to guide the decisions on which regulatory functions are best undertaken by local and central government will be developed.⁵⁷

Local government already plays a critical role nationally in ensuring a friendly and supportive environment for business. In the year to June 2010, it invested \$7.1 billion in key infrastructure and services that provide a platform for local businesses to grow and develop.⁵⁸

The pie chart below shows that the largest areas of expenditure are in roading and transportation infrastructure, governance, council support and other services, water supply and wastewater.

Figure 8: Local government spend for year ending June 2010



⁵⁷ See www.dia.govt.nz/better-local-government

⁵⁸ Department of Internal Affairs http://www.localcouncils.govt.nz/lqip.nsf/wpg_url/Profiles-Local-Government-Statistical-Overview-Index?OpenDocument#LocalGovernmentExpenditure

Factors influencing the business environment

As a result of research undertaken by economic research company BERL in 2010, Local Government New Zealand has confirmed six priority areas where its local bodies contribute both directly and indirectly to national economic growth.⁵⁹

1. Leadership: partnership and facilitation

Councils work with business to create, support and drive an economic vision, strategy and actions that reflect the priorities of businesses and the wider community. For example, all six cities are at various stages of economic development strategy development.

Local Government New Zealand developed a new course on economic leadership, which was launched in 2011. Economic leadership is where the mayor works closely with the local lead business agency to build a better understanding of the needs of business.

Councils can also play an independent-broker role by bringing economic actors together to enhance strengths and build comparative advantage.

2. Spatial planning and infrastructure

Councils have a responsibility for the physical and built environment and ensuring it is conducive to current and future economic growth.

3. Regulation

A council's role is to create a quality regulatory environment to make it easy for businesses to grow, invest and create jobs, thereby resulting in economic growth for the whole region. Resource consent processing levels are used as a proxy indicator for council responsiveness. These fluctuate over time in the core cities. In 2010, there was little difference between the cities in terms of the proportions of consents processed on time.

4. Services

Councils coordinate and deliver services that support the effective functioning of local businesses and communities. There are five main areas including waste supply and wastewater, solid waste refuse, emergency management, building control and public transport.

⁵⁹ See *Local Government New Zealand's Local Government Economic Indicators Framework*: www.lgnz.co.nz/library/files/store_024/Local_Government_Contribution_to_Growth_Final_Report_Dec2010.pdf

5. Business and Industry development

Councils have an important role in promoting, facilitating and coordinating local and regional development activities. It differs from the other priority areas in that it is a proactive role to stimulate business and other economic activity.

Local government invests in business support and investment programmes to facilitate private sector investment, encourage industry and employment growth, and implement measures to support a conducive business environment.

Across the core cities there are a variety of council-funded economic development agencies which play a leadership role in working with business.

Case study: Priority One Tauranga

Priority One is an independent economic development agency in Tauranga. It was established by the local business community in 2001 with the support of the region's local authorities.

It is half-funded by local business membership, and is also contracted to deliver economic development outcomes on behalf of the Tauranga City and Western Bay of Plenty District Councils.

The underlying philosophy of Priority One is "leadership by the business community in partnership with local government to deliver sound economic development strategies and actions".

6. Social and community

Councils invest in and maintain amenities as well as activities or programmes aimed at improving the social wellbeing of the community. Provision of community amenities attracts new people into those communities at the same time as encouraging people to stay. The quality of the community matters because this is where the labour force is drawn. The absence of positive communities increases the costs of business in an area.

Local government, through its long-term council community planning process, is the main mechanism for determining social and community issues.

Access to capital

Capital is comprised of capital stock and capital flows. There is limited regional data on capital in New Zealand but it is characterised by relatively high levels of capital in owner-occupied dwellings. Other significant areas of productive capital stock include the electricity, gas and water supply sector, manufacturing and local government.

Research suggests that management capability is constraining the use and spread of technology in New Zealand businesses. Overall, the degree of technology uptake varies across sectors. Professional, scientific and technical services sectors are in the lead, while the manufacturing and transport sectors are taking longer to adopt new technology. This suggests that strategic investment in new technologies may not be driven by managers.

The majority of foreign direct investment into New Zealand comes through Auckland, although the global financial crisis has reduced inward investment levels. New Zealand is characterised by low levels of outward direct investment.



Image and identity

Trade between the world's global cities is increasing. Even Auckland - New Zealand's largest and most internationally connected city - barely registers on most people's world city maps.⁶⁰ This is a national challenge. The Core Cities Project is interested in exploring opportunities to provide leadership that helps overcome this challenge.

Quality of life

New Zealand's largest cities consistently perform well in quality-of-life indices such as the Mercer Index, which is compiled to provide international firms with information so they can design the relocation packages of their global workforces. In 2011, Auckland ranked 3rd and Wellington 13th in the Mercer Quality of Living Survey, reflecting overall personal safety, and the quality of the urban and recreational environments.⁶¹

The Big City Survey, on the other hand, found that the large majority of core city residents rate their quality of life as good or extremely good.⁶²

In 2011, Wellington was named the world's Coolest Little Capital by Lonely Planet on the basis of its lifestyle offering.

Research confirms that quality of life is a key consideration for migrants. These rankings are confirmed by the high proportions of overseas-born residents who live in both Auckland (38 percent) and Wellington (21 percent). Many of these residents are part of the very mobile global knowledge workforce.

Aging population and the workforce

Population trends will bring fresh challenges to urban areas. The average age of New Zealanders is increasing and the proportion of those of working age (14-49 years old) will decrease across all of the core cities over the next twenty years. New Zealand already has one of the highest employment rates for older people in the OECD.

⁶⁰ Anholt index quoted in *Auckland's Competitive Advantage and Distinctiveness Report (2011)*.
⁶¹ See www.mercer.com/articles/quality-of-living-survey-report-2011 and www.odt.co.nz/news/dunedin/189199/dunedin-christchurch-compared-database
⁶² See www.bigcities.govt.nz/pdfs/2010/Quality_of_Life_2010_Health.pdf

Even in Auckland, which is relatively youthful, the proportion of the Auckland population over 60 years old will continue to grow – from 10 percent in 2006 to around 19 percent by 2040.⁶³

This means that there will be greater numbers of older people in employment in future decades. Cities will need to provide the amenities and opportunities for them to remain economically and socially engaged in their communities.

The growing numbers of older people can provide opportunities for New Zealand’s firms to develop tailored products and services that can be sold domestically and internationally.

Figure 9: Population of cities by age group and region



Key:

- Red: above national average (or has a revealed comparative advantage)
- White: around (+/-5 percent) national average
- Green: less than national average

Source: NZIER Statistics New Zealand

⁶³ See, for example, *Realising the Economic Potential of Older People in New Zealand: 2011–2051*: www.msd.govt.nz/about-msd-and-our-work/publications-resources/research/business-of-ageing/index.html

Christchurch and Dunedin are likely to experience the greatest contraction in their working-age populations over the next two to three decades, although it is unclear how Christchurch's population profile will change following the 2010 and 2011 earthquakes.

Tauranga, with its continued high concentration of retirees, is projected to continue to have the lowest share of residents of working age by 2031 (58.6 percent). This is a trend that local government will try to reverse through initiatives such as a new collaborative tertiary partnership to draw young people to the region.

Auckland, Hamilton and Wellington will continue to see growth in the number of working age people. This growth will be fuelled by migration and a natural population increase, particularly amongst Maori. Net migration from Auckland to other places in New Zealand is likely to continue.

Auckland is also likely to continue to attract more youthful residents from Asia (36 percent), the Pacific (22 percent) and UK/Ireland (20 percent), while other cities will attract younger people to education and employment opportunities from other parts of New Zealand or other countries.

Auckland is already New Zealand's largest city. It is home to 35 percent of the population and represents 38 percent of the economy. Estimates show that this growth is likely to be sustained, meaning that by 2034 two million people are likely to live in Auckland (approximately 40 percent of all New Zealanders).

Wellington too will benefit from younger, international migrants and a more youthful overall demographic. This means that by 2031 it is likely to have the highest working-age population of any of the core cities (70.2 percent).⁶⁴

Wellington experiences strong inward and outwards flows of young people aged 20-39. This is possibly related to its large number of tertiary institutions and attractive employment opportunities, both areas of increasing focus and importance for competitive cities.

Migrants

Research has found that migration increases trade and tourism in New Zealand and that the net fiscal impact of immigration is positive.⁶⁵

⁶⁴ NZIER, *Core Cities Project research*.

⁶⁵ See www.dol.govt.nz/publications/research/synthesis-research/synthesis-research.pdf

Auckland and Christchurch are New Zealand's main international gateways, with 76 percent of business arrivals and 68 percent of international visitors arriving at Auckland airport. Both cities therefore have important roles in showcasing New Zealand as an attractive destination for businesses, investment and skilled migrants. Nearly half of the permanent and long-term arrivals to New Zealand settle in Auckland, followed by Wellington and Canterbury.

Migrants are most likely to settle in places where they have established networks and relationships, meaning migrant communities are likely to continue to grow in these core cities. New Zealand is an attractive destination for migrants because of its lifestyle and environment, and migrant's hopes for their children's future.

The largest number of migrants to New Zealand comes from the UK. Research shows that about one-quarter to one-third of immigrants are likely to migrate again, either back to their country or origin or to another destination such as Australia.⁶⁶

Hamilton and Dunedin are strengthening their international education sectors to attract and retain skilled migrants. Already, three-quarters of Otago University's staff are born overseas, highlighting its ability to attract international teaching and research staff.⁶⁷

Christchurch, which has not traditionally been a large centre for migrant settlement, may experience an influx of migrants to support the rebuild after the earthquakes and this may increase diversity in the city over the longer term.

Leadership

Civic leadership contributes directly to the identity of a city-region and can significantly influence economic outcomes. While there is no common leadership indicator across the core city network, the research findings show that leadership is important for competitive advantage and distinctiveness.⁶⁸ This is consistent with international evidence.

Leadership models, institutional frameworks and actors vary significantly across the network of core cities, providing opportunities for learning. In Hamilton, for example, a programme was launched by the Waikato Institute of Directors and

⁶⁶ *Ibid.*

⁶⁷ Otago University ranked 130 in the 2011 QS World University Rankings: www.odt.co.nz/campus/university-otago/176176/otago-university-bucks-sinking-trend

⁶⁸ See, for example, Greg Clark's *Recession, Recovery and Reinvestment: The Role of Local Economic Leadership in a Global Crisis*.

Opportunity Hamilton in 2011 to help develop local leaders who can take up roles on national boards, commissions and in central government organisations. Dunedin, meanwhile, has achieved the highest voter turnout of any of the core cities. It was 53 percent in 2010 as a result of leadership that supported community engagement in local body elections.

Events

Major and regional events help cities to build their identity and improve their offering to businesses and individuals. They stimulate economic activity through investment in infrastructure – such as quality venues, public transport links and accommodation. They also attract domestic and foreign visitors and raise the profile of a city.

Local government plays a significant role in provision of key infrastructure supporting events such as the Rugby World Cup. This is an example of where cities support the national agenda by improving facilities. These facilities represent significant investments (in particular Auckland and Dunedin) and effort is on-going to ensure these investments are sustainable. New Zealand's core cities regularly host major events of national and international significance. The Volvo Ocean Race stopped over in Auckland in 2012 while New Zealand hosted the Rugby World Cup in 2011.

Local and regional events may be smaller but they are very diverse: the arts, sports, academia and business all feature in the events programmes of New Zealand's core cities. Hamilton, for example, hosts events as diverse as the National Fieldays and Balloon Festival.

A city's ability to attract and retain events can be an indicator of its attractiveness to visitors and residents. However, the infrastructure also needs to be in place and be a sustainable investment. The International Convention Centre is being built in Auckland to ensure that the city has infrastructure at the scale needed to attract global conferences.

Local events, such as the annual Auckland Lantern Festival, support cultural engagement and community cohesion. This is an important factor for raising the quality of life in cities. The success of events can therefore be evaluated across financial, social and other indicators, such as brand awareness.

Case study: IPC Athletics World Championships

In January 2011, Christchurch hosted the IPC Athletics World Championships. This generated 24,000 bed nights – bringing in \$6 million in revenue for the accommodation sector nationally and \$4.6 million for Christchurch.

Expenditure for the event was \$8.98 million. When indirect and induced impacts are included, the total contribution to the Christchurch GDP was calculated at \$15.08 million and it supported approximately 146 fulltime-equivalent jobs.

The Championships also provided a much-needed boost for the city following the destructive earthquakes.

The impact of creative industries

International research shows that creative industries contribute to the buzz of a city, strengthen brand and identity, and attract talented workers.⁶⁹ More directly, industries such as design and film production can add value to the economy and stimulate innovation – as digital visual effects company Weta Digital has done in Wellington.

The research undertaken as part of this report found that creative workers are particularly concentrated in Auckland and Wellington due to the business and employment opportunities that these centres offer. Their presence also helps to further increase the opportunities available in those cities.

Both Auckland and Wellington have competitive and distinctive creative industries. Auckland has a similar proportion of creative employees as Sydney and Brisbane,⁷⁰ while Wellington, with its film and digital clusters, has a revealed comparative advantage in creative industries. The direct value-add to the Wellington city economy in 2009 from the arts and culture sector was between \$284 and \$292 million, with an estimated total value of between \$495 and \$583 million when indirect value-add was considered.⁷¹ Of the other cities in the network, Christchurch had the highest proportion of employees in the creative industries while Tauranga is experiencing rapid growth from a small base.

⁶⁹ See, for example, the European Union Creative Cities Project: www.creativemetropolises.eu/info/about

⁷⁰ Ministry of Economic Development (2011); Auckland Knowledge Economy – Australasian and European comparisons.

⁷¹ Martin Jenkins and Associates (2011); *Economy of the Arts in Wellington*.



The built environment

Cities are defined by their built environment. It is the physical expression of their social, economic and cultural history. It reflects their natural environment and topography, and gives them a point of difference from other cities.

The built environment of a city-region is influenced by its vernacular architecture, the availability of land, the preference for residential dwellings and the effort and resource put into public buildings and infrastructure.

Urban density

Urban density is important for understanding how city-regions function.⁷² The more compact a city, the lower the associated transport and network infrastructure costs.

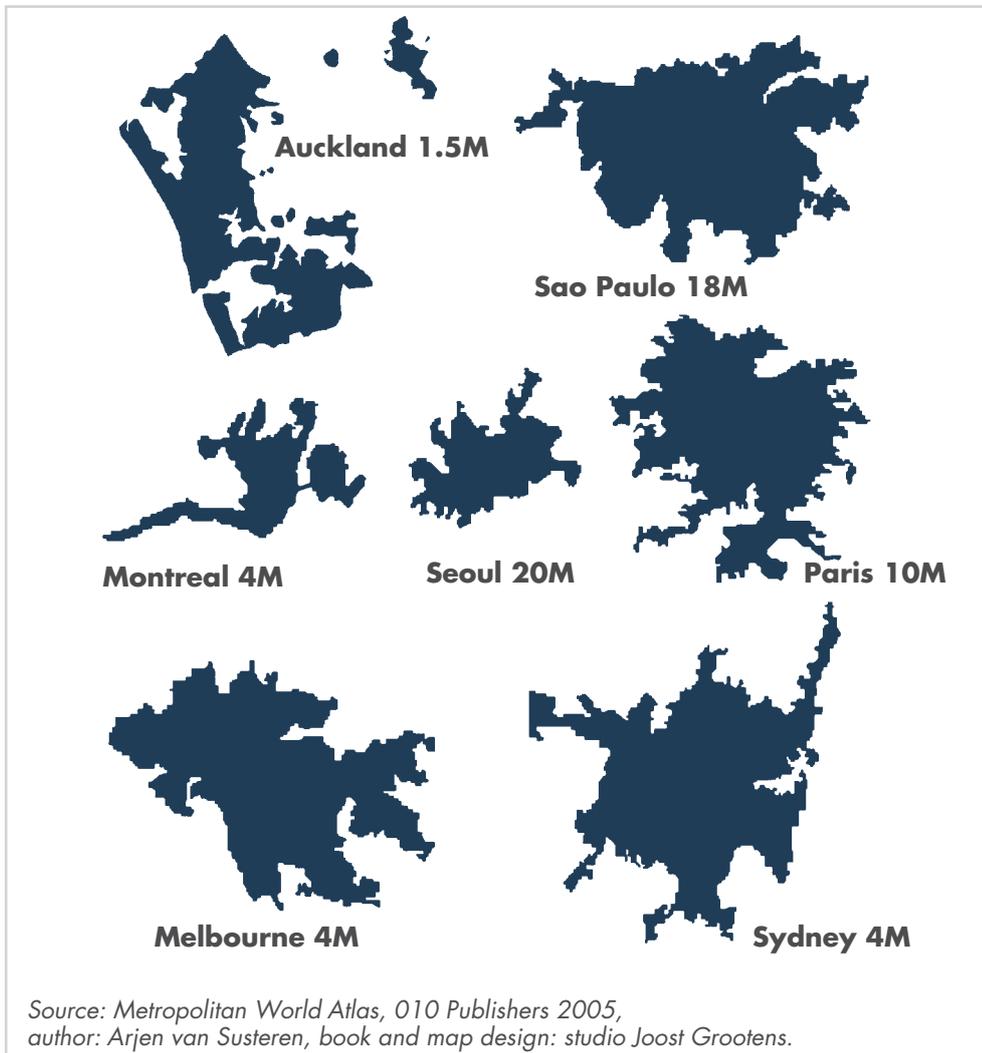
The economic, health and environmental factors associated with urban density can impact directly on economic outcomes - both positively and negatively. Cities like Paris and urban New York are examples of high-density urban areas that provide a good quality of life.

New Zealand's cities have, by global standards, relatively low population densities dispersed over relatively large areas that include urban and rural land. The figure below shows international cities at scale, by area and population.



⁷² Note that this differs from the concept of “urban density”, which is a specific measurement of the population of an urbanised area, excluding non-urban land-uses (i.e. regional open space, agriculture and water-bodies) (Demographia, 2007).

Figure 10: Scale map of global cities



Housing affordability

Access to high-quality and affordable housing is fundamental to successful economic growth, stability, good social outcomes and healthy communities. Housing is considered unaffordable when compared to income levels.

New Zealand house prices are high compared to the average income. Central and local government have a role to play in ensuring that housing is affordable and accessible. The New Zealand Productivity Commission has reported on housing affordability with recommendations for central government and councils.⁷³

The Commission found a range of factors increasing the cost of housing, including land availability and regulatory factors.

The cost of rental office space is highest in Auckland and Wellington. These cities

⁷³ *Housing Affordability Inquiry:* <http://www.productivity.govt.nz/inquiry-content/1509>

provide significant volumes of premium office space that are sought by high-value knowledge services firms. The public sector is an important tenant in Wellington, while in Auckland new developments on the waterfront are increasing the availability of premium office space.

Heritage buildings and historic places

Heritage refers to the legacy of physical and intangible attributes passed on to successive generations in an area/location. Rarangi Taonga is the Register of Historic Places and Historic Areas. Wahi Tapu and Wahi Tapu Areas is the national schedule of New Zealand's treasured heritage places.

Heritage buildings and places tell the story of New Zealand's human settlements and cultural heritage. They help attract residents and visitors to a city - for example, Dunedin's rich heritage is one of the city's core visitor attractions.

Case study: Celebrating Dunedin's heritage

The historic Clarion Drapery Store and the Bing, Harris & Co. Department Store buildings were leading Dunedin retail destinations in the late 1880s. Over a century later, however, both buildings were rundown and unsafe.

With support from the local council, the buildings have been redeveloped and now accommodate a wide range of businesses including eateries, IT businesses and professional offices such as the Architecture Van Brandenburg studio.

Original heritage features were retained and the buildings were modernised in line with the building code and earthquake strengthening requirements. The result is an innovative, dynamic property that commands good rents and is often referred to by advocates and practitioners of adaptive re-use.

The building needs of an expanding city may encroach on historical sites. The functions of buildings change over time, potentially creating a tension between heritage buildings and the changing demands of a city. Additionally, the costs of maintaining heritage buildings and places can be significant.

Christchurch lost many of its heritage buildings in the earthquakes and now councils in the other core cities are looking at their heritage building stock to determine the cost of earthquake proofing and upgrading.



Case study Christchurch: business environment changes following natural disaster

Processes

The length of consenting time has increased since the earthquakes. Possible reasons include:

- Consent complexity due to earthquake issues
- More information required due to increased building code
- Disruption caused by earthquakes due to Council's activities

Processing time is still below the 20 working days required by law

Property

The loss of 900 buildings in central Christchurch has had a major impact. Many businesses have had to relocate or work in less than optimal conditions. Data from Colliers indicates that industrial sector rentals increased 12.4% for the year ended December 2011 in Christchurch, compared to 0.4% for Auckland and 0% for Wellington.

Insurance

Many businesses and building owners face uncertainty around insurance. Limited access to insurance has the potential to greatly impact on the recovery of the region. Many businesses were under-insured. Increased insurance costs are likely to be felt nationwide.

Business assistance

Assistance for business operating in the post-earthquake environment has included:

- The Canterbury Earthquake (Resource Management Act Permitted Activities) Order 2011 (SR2011/36) allows for businesses to relocate to temporary accommodation without going through the provisions of the Resource Management Act. To date over 270 businesses have registered and had approved relocation to temporary locations mostly in residential areas.
- The central government has assisted businesses with employee subsidies and extensions for taxation filing
- Recovery Canterbury was established out of the Canterbury Development Corporation and the Canterbury Employers' Chamber of Commerce, along with several government agencies to give advice and assistance to businesses. The organisation has been in contact with approximately 4,700 businesses as at January 2012.

Amenities

Amenities are provided through infrastructure, social institutions and the natural environment. Amenities can be, but are not exclusively, public goods. They are strong drivers of human settlement.

The quality of a city-region's amenities is important for the wellbeing of residents. Amenities help make cities more liveable and attractive for individuals with the capability to create high-productivity businesses.

Natural amenities

Natural amenities are one of New Zealand's strengths. The climate is temperate with few weather extremes, which supports year-round access to the outdoors. Abundant land and water provide the basis for New Zealand's agricultural industry.

People are attracted to active and healthy lifestyles that offer plenty of access to public spaces, rural and natural settings.

Christchurch and Dunedin offer the most open space for recreation. However, the cities in the North Island are warmer and rainier than the South Island cities. Auckland, Tauranga, Hamilton and Wellington have similar rainfall levels, while Christchurch and Dunedin have the lowest, with implications for supply to dairy and agricultural production, and for residents and firms in the cities. Tauranga has the highest sunshine hours of all the core city-regions, contributing to its lifestyle offering.

Overall, the environmental quality in New Zealand's cities is good, reflecting their scale and industrial structure, and pockets of environmental best practice.

For example, Hamilton has had a tree-planting programme since 1990 and has restored local Lake Waihakareke into a natural heritage park.

Landscape and identity

City-regions are often synonymous with their topography. The surface and shape of a city and the greater region can impact on economic outcomes. For example, it can constrain building and the available land. It can also affect the relative cost of building through additional engineering costs related to topographies associated with seismic activity.



Topography can also offer economic opportunities – for example, when geological features enhance visitor experiences.

Each of the six city-regions has unique natural amenities, which can be used to enhance marketing campaigns to attract visitors, labour and firms. The research confirms a variety of different topographies across the core cities, as described in the table below.

Table 6: Key city-region topographical features

City-region	Features
Dunedin	Second-largest city to Auckland by land area (3360km ²). Otago harbour surrounded by peninsula and hill suburbs. Taieri plain, lama lore ranges and schist covered landscape leading to Middlemarch plain.
Christchurch	Canterbury plains dominate with Port Hills and Lyttelton Harbour key features. Unique braided river flowing from Southern Alps provides backdrop.
Wellington	Natural deep water harbour surrounded by steep hill suburbs. Central location and compact.
Hamilton	Flat with gently rolling hills. Waikato River a key feature.
Tauranga	Dominated by attractive waterways, including a harbour, estuaries, lakes and a long varied coastline with white sandy beaches. Geothermal activity area, including volcanoes, geysers and mud pools.
Auckland	Dominated by Auckland harbour, white sandy beaches and a ring of dormant volcanic cones. Rolling hill suburbs including islands in the Hauraki Gulf.

Topography affects land availability and usage. In Tauranga, Dunedin and Hamilton, projections show that land supply is plentiful and will sufficiently meet needs. In Wellington and Auckland, topography, population growth and (in the case of Christchurch) earthquakes are placing demands on land availability. This requires councils to work with business, communities and central government to address multiple - and sometimes competing - interests and priorities in line with their spatial and long-term planning responsibilities.

Water

Water is a critical national resource. It is central to primary industry and quality of life. Water quality is high by international standards and water management is of growing importance to New Zealand's economic future. Developing and maintaining urban water infrastructure - potable water, wastewater and stormwater - is largely the local government's responsibility. Councils own the assets and make decisions that represent the interests of different users (such as households and businesses) in the present and for the future.

In 2010, around 15 percent of local government operating expenditure was on water supply and waste. Councils with aging water management infrastructure are likely to need to increase their spending in this area in the coming decades. Organisations such as the Land and Water Forum have been established to improve local decision-making on water management issues.⁷⁴

Energy supply

New Zealand's electricity market is highly reliant on rainfall, with high rates of water use for hydro-electricity generation. Security of energy supply is a critical national economic issue, affected by growing consumption and changing international prices and technologies. The government's National Infrastructure Plan seeks to support diverse sources of reliable and renewable energy at competitive prices.

Almost half of New Zealand's power comes from the Waikato region. Major investments from central government have been committed for transmission lines and renewable energy development around the Taupo region. Hamilton is the base for several state-owned enterprises in the energy sector (WEL Networks, Mighty River Power). City-regions such as Hamilton will continue to play their part but other cities and regions may increase energy generation through petroleum exploration and production, and exploring newer technologies such as marine energy.

The effects of climate change are being considered across the core city-regions. Dunedin has identified that there may be benefits, including longer growing seasons, more rainfall and reduced demand for energy use. Some cities are measuring uptake and use of energy-efficient technology aimed at reducing energy use and mitigating climate change or developing plans to reduce energy use.

⁷⁴ See www.landandwater.org.nz/Site/default.aspx



Cultural amenity

Cultural amenity is subjective as what constitutes culture is not universally accepted and differs between amenity users.

The Mercer Recreational Survey - a key international survey - is not available for all New Zealand's core cities. It provides insights on restaurants, theatres, cinemas, and sports and leisure activities.

As New Zealand's largest city, Auckland has the highest employment in the arts and culture sector.⁷⁵ Wellington residents are proudest of their cultural amenity, with 93 percent agreeing or strongly agreeing that their city has a rich and diverse arts scene.

Dunedin and Christchurch are also strong in arts and culture amenities. However, much of Christchurch's supporting infrastructure was in the central city area that was destroyed in the earthquake. Hamilton and Tauranga have both invested in infrastructure in the performing arts, film theatres, events centres, museums and galleries.



Table 7: Major stadia and events centres in the core cities

City-region	Venue
Dunedin	Forsyth Barr Stadium, Edgar Centre, Dunedin Ice Stadium, Moana Pool, High Performance Sport New Zealand - Dunedin Centre of Excellence
Christchurch	Six stadia and arenas damaged by earthquakes. New temporary rugby stadia erected in 2012
Wellington	Westpac Stadium, ASB Sports Centre and the Basin Reserve cricket ground
Hamilton	Seddon Park cricket ground, Rugby Park stadium, Claudelands Events Centre, Porritt Stadium
Tauranga	TECT Arena
Auckland	Eden Park stadium, North Harbour Stadium, Northshore Events Centre, Viaduct events centre, Telstra Clear Pacific Events Centre (Manukau), Mt Smart Stadium, Western Springs Stadium, The Trusts Stadium, Vector Arena

⁷⁵ See www.martinjenkins.co.nz/documents/MJ-EconomyoftheArtsinWellington-FINAL-27.01.11.pdf

There may be opportunities for the city-regions to better understand and differentiate their respective offerings and share information on best practice using case studies around factors like operations and measuring performance on investments.

Sporting facilities are locations where individuals and groups keep fit and healthy. They are a social amenity and are important to the economy as they can encourage cohesion through the formation of groups and networks. They can engender a sense of identity through clubs and general community support of sporting activities.

Each city has a set of sporting stadia, major sporting events and centres of excellence. Further qualitative and quantitative evidence of the stock of sporting facilities in the city-regions is required.

Christchurch suffered huge damage to facilities as a result of the earthquakes. It had a number of sporting facilities – including swimming pools, golf courses, gyms and dedicated hockey, soccer and rowing facilities. There was substantial earthquake damage to a number of these facilities. Up to 50 of the 264 sporting facilities were closed either temporarily or indefinitely after the February 2010 earthquake – including QEII stadium, AMI Stadium, Porritt Park sporting turfs, rowing facilities and a number of gyms in the central city. A temporary sports stadium has been built at Addington.

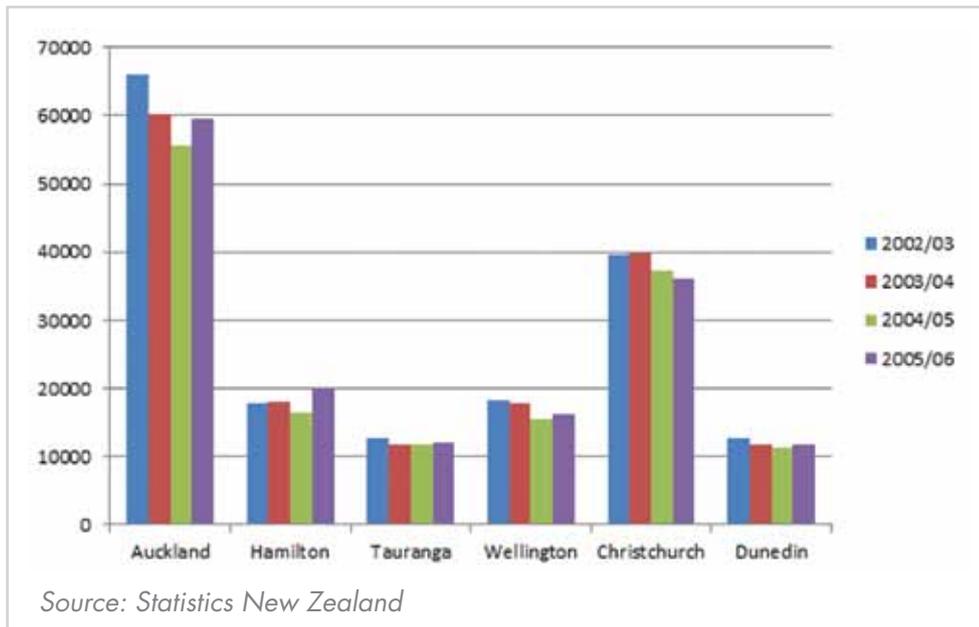
Health and security

Feeling safe and secure in the home, community and city are a basic human right. Crime, and fear of crime, can limit individual's choices about how to live. It is directly correlated to economic outcomes and impacts on property – either on the self (the right to life) or material entities (the right to private property).

In addition to the level of crime, perceptions about crime also affect customers' and entrepreneurs' decisions about visiting or investing in a particular area.

The graph below shows that the total recorded offences between 2002 and 2006 have remained relatively static across the core cities. Auckland, Tauranga, Wellington and Christchurch have shown slight declines during this period.

Figure 11: Rate of total recorded offences per 10,000 population (2002-2006)



General practitioners

Good health is critical to wellbeing. Access to health services and general practitioners is used as a proxy indicator for social/health amenity, due to the relative ease of comparability for comparator city-regions.

General practitioners (GPs) are part of the frontline of primary healthcare provision. Accessibility to a GP is an important issue in both the treatment and prevention of poor health. The number of GPs per city may reflect accessibility to health services. This indicator has its limitations. It is not a measure of the health of a population. Access to health services does not imply use. Affordability of health services could prohibit access, despite availability.

The New Zealand Medical Council records provide historical information relating to the number of general practitioners per 100,000 people in the main New Zealand centres. This data shows that in 2010, there were 81 GPs per 100,000 people across New Zealand. Cities tend to have higher levels of GPs. Medical Council data across the six cities and wider Wellington urban area for the same year shows 76.8 GPs per 100,000 people. By comparison, England has 67 GPs per 100,000 people, while Australia has 111 GPs per 100,000.⁷⁶

⁷⁶ See www.healthknowledge.org.uk/e-learning/health-information/applications-health-information-practitioners/common-measures-health-service-provision-usage and <http://www.nzdoctor.co.nz/news/2012/march-2012/29/australia-has-more-gps,-yet-ratio-to-population-still-dropping.aspx>

The retail sector

The retail sector is an important part of any economy as it is a large component of household consumption and expenditure.

Cities with a higher concentration of retail outlets tend to attract people to their centres for shopping. Conversely, cities with fewer retail offerings may not be able to meet the demands of their inhabitants and have to import goods from other regions (i.e. its inhabitants go shopping elsewhere).

Regions with high retail location quotients

- Hamilton: specialised food retailing
- Tauranga: motor vehicle related retail, household equipment, gardening and photographic supply retailing
- Wellington: antiques, fabrics, domestic and automotive electrical retailing
- Christchurch: antiques and milk vending retailing

All centres except Hamilton have high retail location quotients for department stores, reflecting the fact that such retail is predominantly found in metropolitan centres.

Data on online retailing in New Zealand was not included in the research, although there is evidence that this a growing consumer channel, as internationally.⁷⁷



⁷⁷ See, for example, nz.nielsen.com/news/Shopping_Online_Apr11.shtml

Glossary

Business density	Measured as the number of firms (geographic units) per 1,000 working-age population, which is consistent with the international standard used by the World Bank in its entrepreneurship series.
Cluster	A group of businesses in the same or related industries whose success is dependent on each other. Also referred to as a regional network, although there is evidence that not all successful clustered are geographically co-located.
Competitive advantage	The persistent industrial strengths of a city-region, which may reflect access to certain sources, particularly capabilities.
Competitiveness	More appropriately termed “comparative economic performance”, competitiveness is fundamentally about the standards of living, income levels and productivity of a city-region compared with other city-regions and resources.
Distinctiveness	Distinctiveness refers to the specific attributes of a city-region that are important sources of difference from other city-regions and are not easily replicated.
Economic distance	The distance a commodity may travel before transport costs exceed the value of the freight. Because of lower unit transport costs, a small, valuable commodity can be profitably transported further than a bulky commodity of the same value.

Mega-weight cities

Metropolitan areas with ten million or more inhabitants (McKinsey Global Institute).

Middleweight cities

Emerging region cities with populations of between 150,000 and ten million inhabitants. McKinsey Global Institute divides the middleweights into three categories based on population size. Large middleweights have five million to ten million people, midsize middleweights have two million to five million, and small middleweights have 150,000 to two million.

Productivity

Productivity is about how efficiently a firm or any other organisation can turn its inputs, such as labour and capital, into outputs in the form of goods and services.

Public-public partnership

A partnership between a government body or public authority and another similar body.

Specialisation

Where a business or area focuses production on a limited range of products or services in order to gain productive efficiency within the entire system of businesses or areas.

Acronyms

EPIC	Enterprise Precinct and Innovation Cluster, Christchurch
GDP	Gross domestic product
ICT	Information and communications technology
LGNZ	Local Government New Zealand
MBIE	Ministry of Innovation and Employment
MED	Ministry of Economic Development (Part of MBIE from July 2012)
NCEA	National Certificate of Educational Achievement
NZIER	New Zealand Institute of Economic Research
OECD	Organisation for Economic Cooperation and Development
UFB	Ultra-fast broadband

Acknowledgements

Throughout the research project, the passion and dedication of many central and local government entities and personnel has been apparent, as has their significant skill.

Local Government New Zealand and the Ministry of Business, Innovation and Employment would like to acknowledge the contribution of a number of groups and individuals who have provided valuable input into this project.

The project has been sponsored by

- Local Government New Zealand's Chief Executive
Eugene Bowen up to December 2011, Kate Macnaught acting in the role from January 2012 - April 2012 and most recently Malcolm Alexander.
- Ministry of Business, Innovation and Employment
Auckland Policy Office Executive Director, Louise Marra.

The project reported through the Local Government New Zealand - Economic Development committee, and the central government Urban Oversight Group, whose members have provided direction as the project progressed. The group is chaired by Mayor of Tauranga City Stuart Crosby.

Oversight was provided through the LGNZ Metro Sector who have provided input and received regular updates at their monthly meetings. This group is chaired by Auckland City deputy Mayor Penny Hulse.

The project was jointly managed by LGNZ and MBIE: Philip Shackleton, LGNZ; Lesley Baddon from MED (August - October 2011) and Melissa Hall, MBIE (from October 2011).

Representatives from each of the six cities participated in a project steering group. We would like to acknowledge the significant effort made by the following individuals to ensure these reports were delivered; Auckland Council - Harvey Brookes, ATEED - James Robinson, Hamilton City - Aaron Flemming and Greg Carstens, Tauranga City - Christine Jones, Priority One Tauranga - Greg Simmonds and Annie Hill, Wellington City - Teena Pennington, Aileen Edwards, Gavin Armstrong and Nelson Sheridan, Christchurch city - Alan Bywater, Shelley Andreassend, CDC - Amy Marshall, Dunedin City - Sue Bidrose, Peter Harris, and Hamish Orbell.

Annex 1: Terms of reference

In July 2010, Local Government New Zealand (LGNZ) initiated a workshop for the local government sector called “Tapping the potential of cities and regions”. The purpose of the workshop was to develop a collaborative response to the government’s (then) economic growth agenda. The workshop was led by international cities expert Greg Clark and focused on how local and central government could best work together to achieve New Zealand’s economic growth aspirations.

The key message emerging from the workshop was that public-public partnerships are critical for New Zealand’s economic development in this uncertain global economic environment. To ensure more public-public partnerships are developed, both local government and central government committed to working together.

An annual forum between LGNZ’s National Council and the Prime Minister and Cabinet is held each year. This forum helps improve the understanding of each other’s role in meeting future economic challenges. Since 2008, the meetings have by necessity focused more and more on the economy and what collectively can be done to encourage, develop and support the export sector.

In November 2010, an economic development mini-forum was established to share information on local and central government interventions for growing the economy. One of the outcomes of the forum was a joint project between the then Ministry of Economic Development and LGNZ. The aim of the project was to investigate city and regional economies and identify opportunities to grow the national economy.

An informal public-public partnership was formed in April 2011. The partnership is based on strengthening relationships between the executive and policy staff at LGNZ and the Ministry of Business, Innovation and Employment. A collaborative approach was taken to engage the six-largest metropolitan city councils of Auckland, Tauranga, Hamilton, Wellington, Christchurch and Dunedin.

In August 2011, a project plan was agreed by all parties. It involved an initial commitment of staff resources, cash and travel costs.

Project purpose

- To establish and strengthen a public-public partnership between LGNZ, its Metro Sector Mayors and Chief Executives Group,⁷⁸ and the Ministry.
- To apply a research framework across Auckland, Tauranga, Hamilton, Wellington, Christchurch and Dunedin to identify future collaboration opportunities.

Project benefits

- The project will identify opportunities for new models of collaboration and joint ventures.
- It will help build credibility with government as city-regions understand how they can support the wider economic growth agenda.
- There will be an improved understanding of the different elements that drive the economy.
- It will identify ways to strengthen collaboration and formalise relationships within and between city-regions.
- It will provide a common reporting framework and an evidence base for local government economic leadership amongst the core cities.

Project research objectives

- To develop a clear understanding of Auckland, Tauranga, Hamilton, Wellington, Christchurch and Dunedin's city-region competitive advantages and the areas of distinctiveness documented.
- To identify areas of distinctiveness, strengths and weaknesses, function, priority sectors and niche markets in each of the city-regions and to examine how these are currently linked. For example, linkages within supply chains to research institutions and transport.
- To identify practical opportunities for collaboration by the city-regions.
- To develop a new policy framework for New Zealand core city-region collaboration.

78 The LGNZ Metro Sector Mayors and Chief Executives Group includes Auckland Council, Christchurch City Council, Dunedin City Council, Hamilton City Council, Hutt City Council, Palmerston North City Council, Porirua City Council, Tauranga City Council, Upper Hutt City Council and Wellington City Council.



hamilton

