



Centre for Housing Research
AOTEAROA NEW ZEALAND

Kāinga Tipu



Review of Statistical Housing Data


PREPARED BY

**Business and Economic
Research Limited**

FOR THE

**Centre for Housing Research,
Aotearoa New Zealand**

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The CHRANZ Mission is to invest in rigorous, independent and relevant housing research to support policies and practices that meet New Zealand's changing and diverse housing needs through sustainable, affordable, good quality and responsive housing opportunities.

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Centre for Housing Research Aotearoa New Zealand

Review of Statistical Housing Data

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Executive Summary

This review of housing data available was undertaken to facilitate the process of research and analysis of housing-related issues. With a view to this facilitation, this review provides a tabulation of the primary statistical data available and identifies opportunities to improve the uptake and availability of housing data.

BERL undertook to:

- Review Statistics New Zealand (SNZ) and independent housing data;
- Assess opportunities for data integration and indexing; and
- Identify gaps and future opportunities.

The process included consultation with key users and generators of housing data as well as desk research.

Rationale and background

During the process it has become clear that what constitutes ‘housing data’ is widely interpreted by some in the ‘statistical’ arena. For example, the CPI is listed in the SNZ *Directory of Housing Statistics* – although, BERL would argue, its usefulness for research on housing issues is tangential (at best) rather than central.

Initially this lack of clarity suggested to BERL the need for a ‘road-map’ to guide researchers through the myriad of data sources being listed in the *Directory of Housing Statistics*. In turn, to be of significant use, this ‘road-map’ would need to be indexed (providing, as it were, signposts) according to categories identifying their possible use.

As the project proceeded however, we have modified this plan for two reasons.

Firstly, our discussions with housing researchers (including actual and potential users of data) has not enabled us to precisely define their needs as their concerns for data have been more general, rather than specific. This should not be taken as a criticism, and is not intended as such. Our assessment is that this is more a reflection of the perceived dearth of existing ‘readily-available data’ combined with a ‘make-do’ attitude necessary to meet their outputs.

Secondly, our investigations have left us with the view that primary raw data that is useful in the field of housing research is, indeed, sparse. In this context, note that general information comes in various guises as follows:

(1) Primary data;

- Time series
- Cross section
- Regional.

(2) Research studies;

- Policy-oriented papers and associated investigations of problems and issues
- Case studies highlighting particular events or examples.

It is in this context that this study focuses on the first of these categories - that is identifying the availability of primary data that could be used, analysed, processed and/or manipulated by researchers to test a hypothesis and/or recommend a course of (policy) action.

The report does not provide a definitive directory of available housing data sets. It was simply not possible to identify all the available datasets. Nor does it provide a list of all the available housing variables and their level of aggregation. This was outside the resourcing ability of this project and has been suggested as an area for further work.

We note that compiling a bibliography of past and present research studies undertaken would also be of additional assistance to housing researchers in their work and also facilitate collaborative studies. Such a compilation was outside the scope of this study¹, but we do note that - unlike the availability of primary data - these studies are numerous and cover a broad range of issues within the housing arena.

We also note that some of these studies contain their own 'primary data', in the sense of obtaining particular information from single or 'one-off' surveys. These by their nature however, are not regularly updated and may lack applicability to research other than that for which they were collected.

Nevertheless, such a bibliography would indeed be invaluable and could, ideally, be compiled by some group identified as a 'first-stop contact shop' for those active in the sphere. We suggest this to be an ideal role for CHRANZ. Such a bibliography (along with, where practical, abstracts of such research) could be made 'live' through a dedicated website page, along with contact lists et al. In this category, we would also include other 'reference type' material that may be available arising from such studies; e.g. Case-study notes, market-research survey findings.

¹ Although where possible, the report references these studies.

As to the availability of substantive primary data, we can not go much past the five-yearly SNZ *Census of Population and Dwellings*. This highlights one major issue arising from our consultations - that of the need for more regular and timely comprehensive survey data. This leads undoubtedly to the delayed SNZ *Housing Survey*. The rapid introduction and on-going implementation of this survey would be an invaluable addition to housing researchers stock of available data.

The second major issue arising from our consultations were concerns about the cost of obtaining data. This is particularly important where 'unit record' information is sought as some organisations' (including SNZ) charges for data are based on a per-unit fee. Where charges are on an hourly or consultancy fee basis (e.g. BRANZ) data may also be beyond the resources of some researchers, if it requires extensive manipulation and/or customisation. It is feared that the cost of data constrains the scope and quantum of research undertaken by some non-private sector researchers.

It should be noted that the last sentence above is equally true of all researchers private and non-private as well as for those in other spheres of research. In this context, the role of CHRANZ could well be to identify/establish the 'public good' components of such research activities and source or investigate public funding so that this 'public good' research is not compromised by primary data costs.

The report goes further to suggest that the focus of CHRANZ should be on identification and provision of information on housing datasets, which may lead to improving researchers and policy agencies uptake and use of housing data.

In conclusion, if CHRANZ wishes to improve the uptake and quality of housing research, it can play a role through improving the awareness and accessibility of datasets. It can also play a role in understanding and participating in existing work to develop and improve housing statistics. Finally, it should continue to work closely with agencies that have an interest in housing research and analysis.

Introduction

The invitation to tender sought a detailed inventory of the available housing statistics, with a prime focus on time-series data. The objective of the project is to improve the availability of base-line information about the New Zealand housing sector to allow research that can support policies and practices that meet New Zealand's changing and diverse housing needs.

The first section of the report looks at end-users and their requirements to identify the types and forms of data sought. This includes key Government agencies and organisations that have an interest in housing issues.

The second section of the report looks at the sources of data available from various organisations as well as work that is progressing to make data available.

The third section of the report attempts to index available datasets. Because of the wide range and quality of data identified, the report focuses on primary (or "source" or "raw") datasets. It does not cover research and analytical reports or the "repackaging" and presentation of primary data, although these are of interest to researchers and are discussed throughout the document.

The next two sections look at mechanisms or ways to improve the integration of administrative datasets from the various organisations and discusses options to improve the awareness and availability of housing information to the wider public.

The last section looks at gaps in available datasets based on user needs, and identifies opportunities to improve the quality (depth and breadth) of housing data available.

Appendices include:

- an analysis of the New Zealand Directory of Housing Statistics;
- proposed sub-populations and variables for SNZ reports on housing;
- indexed SNZ housing data based on their own six dimensions of housing;
- a list of housing tables available through SNZ;
- people and organisations consulted with; and
- website of key data and organisations.

Methodology

The methodology for this project is largely desk-based research complemented by consultation with key sources and users to confirm issues with datasets.

BERL undertook *desk research* based around an internet search to identify sources of information and its availability. The *New Zealand Directory of Housing* was also used to identify sources of data. Primary datasets that were identified were assessed and included in an index.

Consultation consisted of *interviews* (either face to face or telephone/e-mail) with key stakeholders and sources of information to identify key users, what their data needs were, what datasets they used, and what datasets they would find useful in their work. A full consultation list is included in Appendix E.

Finally, this was pulled together to identify key issues, gaps and opportunities to improve access to, and availability of, housing data.

End Users

Identifying existing and potential end-users is necessary to ensure the potential applications of datasets and information are not excluded in any subsequent taxonomy developed after this project.

There are two key groups of end-users of housing information. The first group seek to develop housing analysis for social policy and public good research purposes. This group largely consists of Government and social agencies and research groups such as universities.

The second group seeks information for private business or economic purposes. These groups consist of the housing industries and associations, and businesses associated with the housing markets.

While the two groups have different objectives there is overlap in terms of the information required. Both groups also require timely and relevant data to make informed decisions on housing issues.

Through the interview process, it became apparent that, while most social agencies considered housing data important, very few could actually identify specific datasets in the development of policy. The key reason for not using housing data was a perception (true or otherwise) that data, in the appropriate form, was simply not available.

Business groups were, on the whole, more specific in terms of their data requirements and to a cost benefit approach toward collecting and analysing housing data.

Timing and resource constraints have inhibited BERL from talking to the full range of end users. However, we are comfortable that the issues and recommendations raised from those we have met with would not change significantly.

Housing New Zealand Corporation

Housing New Zealand Corporation (HNZC) has two key roles:

- To deliver housing assistance to those in greatest need; and
- To be the principal adviser to the Government on housing and housing policy.

This is achieved through:

- Well informed research and policy advice;
- Appropriate housing assistance programmes;
- Strong and healthy communities;
- Adequate and acceptable standard of housing; and
- A developed and increased involvement of the social housing sector.

To achieve its objectives HNZC requires a broad range of housing data to inform policy and operations. This includes information on affordability, accessibility, tenure, quality of housing, mobility of housing, investors and providers, as well as urban and rural housing issues.

Centre for Housing Research Aotearoa New Zealand

HNZC has commissioned CHRANZ to provide housing research. As the project sponsor, CHRANZ's own research investment priorities provide the foundation or 'starting point' for the end-user framework.

CHRANZ's brief is very broad and covers all aspects of housing, although it does have a social policy focus. However, to inform policy this has to be tempered with robust economic analysis. CHRANZ has identified *Research Investment Priorities* structured around six key components of the housing sector:

- Access;
- Vulnerable populations and housing demand;
- Tenure;
- Housing investment;
- Providers and investors; and
- Urban and rural housing performance.

It is hoped that this report will form a base understanding and awareness of available statistics and inform further research work on housing indicators and datasets.

Ministry of Social Development

The Ministry of Social Development (MSD) provides government with advice on strategic social policy, sectoral policy and social research and evaluation in the areas of income support, child, youth and family as well as community. They are also responsible for providing policy advice and support for older people and people with disabilities through the Offices for Senior Citizens and Disability Issues.

Service delivery areas include the implementation of income support and employment services; student allowances and loans; New Zealand Superannuation; Veterans and War Pensions; and a range of specialist functions such as the Community Services Card and financial means testing for long stay care subsidies.

MSD uses housing data in three key areas: social issues related to mobility; social assistance to determine accommodation supplements and benefit systems; and employment issues around accessibility and availability.

Ministry of Health

The Ministry of Health (MoH) is the Government's principal agent and advisor on health and disability. It develops policy advice for the Government on health and disability issues, administers health regulations and legislation, funds health and disability support services, plans and maintains nationwide frameworks and specifications of services, monitors sector performance and provides information to the wider health and disability sector and the public.

MoH is committed to improving the health and independence of New Zealanders, and to reducing the inequalities in health status between all New Zealanders including Māori and Pacific peoples.

Housing plays an important role in the health and wellbeing of the population. MoH is interested in understanding the impact of housing on health across a range of variables. A key area is habitability of housing from an environmental and disability perspective. From a Pacific people's perspective variables are sought that can explain access to housing, lifestyle issues, overcrowding and mobility.

Statistics New Zealand

While primarily a provider, or source, of data, SNZ is also an end user of housing data. SNZ's main roles are to:

1. Provide leadership for New Zealand's official statistics.
2. Be the key contributor to the collection, analysis and dissemination of official statistics relating to New Zealand's economy, environment and society.
3. Build and maintain trust in official statistics.
4. Ensure that official statistics are of high integrity and quality and are equally available to all.

As such, SNZ collects information and provides some analysis in terms of the provision of publications on housing.

The *2001 Census of Population and Dwellings – Housing* was released in July 2002. It contains a range of housing statistics at the national and sub-national levels comparing, where possible, with the 1991 and 1996 census to give time series data. Similarly the *New Zealand Now - Housing (1998)* publication contained a range of housing statistics and analysis from the 1986, 1991 and 1996 census data.

SNZ is undertaking a range of *housing profiles* using census data from 1991, 1996 and 2001 at the regional council, territorial authority, and area unit level. The profiles look at sub-populations and cross tabulates these with a number of household and individual characteristic variables. The first profile – *renting households* - has been released and others will be progressively added over time. The proposed sub-populations and household and individual characteristic variables are attached as Appendix B.

SNZ will produce three analytical reports in 2003 and 2004 providing informative commentary about issues related to crowding and affordability in New Zealand dwellings. The first on *crowding* has recently been released. Two further reports are due to be released: one on *affordability* due on 30 June 2004 and one on *urban/rural housing* in December 2004.

Before information can be collated or analysed SNZ needs to be confident that it is consistent with the roles as set out in the Statistics Act 1995. As such, their need is to understand the requirements of end users and have access to quality information on housing.

Ministry of Pacific Island Affairs

The Ministry of Pacific Island Affairs (MPIA) promotes the development of Pacific peoples in New Zealand. MPIA does this in a way that recognises and reflects Pacific cultural values and aspirations, so that Pacific peoples can participate in and contribute fully to New Zealand at a social, cultural and economic level.

Housing has long been recognised as a key issue for Pacific peoples. Lack of access to adequate housing seriously compromises Pacific peoples' opportunities for social and economic participation and advancement, and renders them vulnerable in many other areas. Similarly, issues around changing Pacific populations in New Zealand in terms of age and origin impacts upon housing priorities in terms of ownership, housing design, crowding etc. These issues impact upon policy priorities in the housing area.

MPIA is reliant upon SNZ for most quantitative data, although they do gather qualitative information through community consultation as evident in *Pacific Progress 2002 – Ch. 9 housing and amenities* and *Pacific Peoples Housing Report 1999*. They are active on SNZ's New Zealand Housing Strategy (responsible for the Pacific component), the Social Statistics Project, and are a member of the SNZ Housing User Group. MPIA would like to see more regularity in datasets as well as better accuracy and detail on Pacific people descriptors.

Te Puni Kokiri

Te Puni Kokiri (TPK) is the Government's principal adviser on Māori issues. Their aims are to improve outcomes for Māori and ensure the quality of government services delivered to Māori. As such, housing issues and therefore statistics are important to TPK in terms of enabling them to identify and monitor housing issues and how they relate to Māori Economic Development.

TPK is also reliant upon SNZ for most quantitative data, largely through the Census. Assisting their cause is the fact that, to give effect to the principles for government action on the Treaty of Waitangi, SNZ has to work to ensure Māori statistical needs can be identified and progressively met. However, TPK is in a similar situation to most other social agencies in that the datasets are confined largely to Census data.

Key issues for TPK are likely to include affordability, quality of housing, tenure, providers and investors and rural housing.

Quotable Value New Zealand

QVNZ is New Zealand's largest valuation and property information company. QVNZ, previously Valuation New Zealand, conducts valuations for more than 80% of New Zealand's councils.

QVNZ collects a vast range of housing data to deliver its services, which consist of market valuations, housing information and valuations for rating purposes. It also supplements this with other datasets including SNZ census data. As a company, QVNZ considers its housing datasets and information as its core business and therefore adds value to and on-sells housing information.

Building Research Association of New Zealand

The Building Research Association of New Zealand Incorporated (see www.branz.org.nz) and its associated companies are the building and construction industry's research, testing, consulting and technology transfer organisations, established to meet the needs of the industry through the services they offer. The Association is governed by a Board nominated by a wide range of design, construction and property owning organisations, including HNZC. Their research agenda is predominantly focused on physical and engineering sciences, but over recent years has incorporated some social science inputs, relating for example the way houses are maintained to the demographics (and ownership status) of the occupants, and relating energy use in houses to the demographics of the occupants.

They also have a very extensive information transfer activity, delivering publications and seminars to the building and construction sector, and some publications to the public.

NZ CONSTRUCTION INDUSTRY COUNCIL

The Council is a meeting point of 26 organisations and associations in the building and construction sector, involving designers, builders, product suppliers, research organisations, and the Property Council of New Zealand. As such it is the widest forum for industry discussion. They are developing a policy on the *Built Environment* (see http://www.clg.co.nz/built_environment.cfm) and research (see http://www.clg.co.nz/Research_Strategy.pdf). Their Goal is to provide "a built environment that meets the needs and aspirations of New Zealanders."

Their research agenda addresses the new knowledge needed to implement their policy on the built environment, and includes the following research themes: minimum adverse impact upon the natural environment; the needs of different demographic sectors; safety and health; research into sector processes; and regulatory reform.

Similarly other building related industries and businesses would be interested in this sort of information.

Research Organisations

Research organisations, for example, Massey University and Canterbury University, as well as international organisations such as the Asia Pacific Network for Housing Research have an interest in and are actively researching housing issues. Massey University's property group,

for example, undertakes a range of analysis which it compiles into reports on the housing market.

Their interests are likely to range across the gambit of housing issues. Their requirements are driven by their research agendas but would be driven to a certain extent by the availability and accessibility of existing datasets.

Banks

Banks and other financial institutions, through their mortgage lending operations, have a key interest in the housing market. Their businesses (or parts of their businesses) are dependant on housing sales and so therefore are prime users, and indeed collectors of housing information.

As such, administrative data is valuable and kept within the organisation. However, they collate and analyse data that relates to the value of houses and the ability and interest of house holds to purchase houses.

Other

Finally, there are non-profit social agencies, such as the New Zealand Council of Christian Social Services and the Salvation Army, that have an interest in and seek to understand the causes and effects of poverty, and how they relate to housing issues. Further, logistical information on where the issues exist are important.

Sources of Housing Data

This section provides an overview of key sources of housing data that is available in the public arena.

A key concern from the available sources is the lack of timely trend data. In particular, official statistics such as the *census of population and households* is only available every five years and the *Household Economic Survey* has been reduced to once every three years. There is little information to supplement these figures and so key housing variables are often out of date.

Another issue is the lack of, or difficulty in accessing, primary historical data. Freely available SNZ datasets based on the census data, normally only go back to 1991. There is also a trend by many organisations toward providing reports rather than making the source datasets available for public research.

There is a wealth of administrative data collected by a variety of agencies that could be useful for housing research. However, it is difficult to collate and disseminate this information for a variety of reasons around privacy, collection mechanisms, compatibility and, in particular, cost.

On a positive note, there is still a wide range of data that is being collected and made available, both through SNZ as datasets², and as publications and reports through other organisations.

Statistics New Zealand

SNZ has made progress in a range of areas around the provision of housing statistics. This includes both information it collects itself, and identifying other official sources that can be useful.

SNZ's *Housing Statistics Programme* is aligned with, and forms a part of the wider *Social Statistics Programme* – which is a programme of surveys and administrative data to provide an understanding of core social information needs and important cross-sectoral issues.

The main aim of the *Housing Statistics Programme* is to facilitate access to and use of a wide range of housing statistics by Government agencies, academics and the community. The Programme's current aims are to create a set of detailed housing statistics to complement current publications from the 2001 census.

Statistics New Zealand Datasets

Most of the datasets provided by SNZ are available as downloadable excel spreadsheets through their website. Information is also available through INFOS (an online database containing primary data) and Supermap (a CD ROM that provides data in a more analytical form).

² SNZ also produces a number of publications analysing housing trends and issues.

Census of Populations and Dwellings is the main source of housing statistics. It is held once every five years and some of the variables go back to 1916. It covers the entire population and country and can be analysed to the unit or mesh-block level. It contains a range of variables relevant to housing issues. Most information is available in time series normally over the three census periods 1991, 1996 and 2001. Going back further usually requires some concordance or data manipulation (incurring a charge) as questions have changed over time.

The *Household Economic Survey* (HES) is a sample survey that collects information on the incomes and expenditure patterns of private households throughout New Zealand. The HES sample comprises around 2,800 private households, sampled on a statistically representative basis from rural and urban areas throughout New Zealand. The HES was conducted annually from 1973 until 1998 before moving to a three-year cycle. The latest HES was for the year ended June 2001 and was released in October 2001. The data is used in social policy analysis, economic analysis and strategic business decisions.

Building Consents data on building authorisations is obtained each month from all territorial authorities. The building consents issued release contains details of the number, value and region of both residential and non-residential building consents by building type.

Household Projections contains official family and household projections of New Zealand. These projections have as a base the estimated resident population, estimated families and estimated households at 30 June 2001, and cover the period 2002-2021. Nine alternative series have been produced based on different fertility, mortality, migration and living arrangement type assumptions.

Most issues around SNZ data relate to the ability to gather accurate series as the collection methods and variables change over time. Similarly, the cost of accessing and compiling customised data is restrictive. Where data is used for social research purposes, this cost restriction appears, to several researchers, to be inconsistent with the public good nature of the information.

Quotable Value New Zealand

QVNZ has a huge number of datasets that are applicable to housing. A range of these have been put into an electronic database and is searchable. QVNZ is able to work with individuals or organisations to pull together information they might require. As they have over 2,000 different variables available, it would be difficult to list them all here. QVNZ puts out four publications and has an online database related to sales, valuations and descriptions of all properties in New Zealand. These are:

- *Residential Property* – summarises the sales of all residential properties notified over the current quarter. Variables include total number of sales, average sales prices and capital valuations by property type (house, section or ownership flat). Information is available at the New Zealand, region or town/suburb level. A quarterly house price index is also provided, which tracks the house sale trends against the CPI for the same period. Cost is \$290 annually or \$85 per quarter.

- *New Zealand Real Estate Market* provides preliminary statistics for all sales of freehold open market property advised over the current period. Categories include residential, industrial, commercial and rural properties. The statistics are reported at the New Zealand and regional level. Variables include number of sales and average sale price by region and are compared to the previous period. The publication is bi-annual and the cost is \$105 annually or \$60 per copy.
- *Urban Property – sales statistics* summarises the sales of residential and urban investment properties as well as commercial and industrial advised over the current period. Average sales and capital values are given at both New Zealand and regional level. QVNZ price indices are calculated for each property type. The publication is bi-annual and the cost is \$120 annually or \$70 per copy.
- *Rural Property – sales statistics* provides detailed analysis on rural sales including types of land use and buyer type. It measures turnover rate, average sale prices number of sales, nationally and by region. It also calculates the price index and is available bi-annually. The cost is \$120 annually or \$70 per copy.
- *InfoBase* – is an online database that is available to the public at a charge. It contains information on a range of housing data including property and sales information, rating valuations and historic data. It also enables comparative searches on a range of criteria. Each screenshot costs from \$1 to \$5.35 depending upon the information you are seeking and whether you are a subscriber or a casual user.

The accuracy and methodology of QVNZ data, and its usefulness as a dataset has been queried by several researchers, specifically the valuation method of properties. Also, the cost of accessing QVNZ data for social research is often a constraint. However, these can be argued, but there are no issues as to the consistency and coverage of the datasets.

Real Estate Institute New Zealand

REINZ provides *Residential Housing Facts* for sales (residential and commercial) reported to the Institute by members at a cost of \$150 per annum or \$12.50 per issue (monthly). Similarly, *Residential Rental Review* is a monthly publication containing rental prices at the cost of \$85 per annum or \$7.50 per issue (monthly).

The REINZ website also provides *Market Facts*, which has statistics on median sales prices and is searchable by zone, month of sale and property type. Information is available monthly from 1998.

Building Research Association of New Zealand

The Building Research Association of New Zealand (BRANZ) is an industry association, wholly owned and governed by the New Zealand building and construction industry. The mission statement of BRANZ is 'Creating New Zealand's building and construction knowledge base'. BRANZ Ltd (a wholly-owned BRANZ subsidiary company) has three datasets based on surveys that it uses to create reports, and can use the underlying datasets to provide enhanced analysis of the data for a consultancy fee.

The *BRANZ Building Materials Survey*, covers 500 randomly selected houses and 100 non-residential buildings each quarter since 1998, and examines materials use trends.

The *BRANZ Household Energy End-use Project* has been pursued since 1995, building up a substantial database on the way individual households use energy (the first such exercise since the 1970s), and covers a range of variables on the sources of energy and its use in households nationwide.

The *BRANZ Housing Condition Survey* was carried out in 1994 and 1999, and a further survey is tentatively planned for 2004. It has in the past been based on surveys of the physical condition of 30 components across 500 houses randomly selected in the Greater Auckland, Wellington and Christchurch regions to match the national age profile of the housing stock, and interviews with the occupants.

There are some concerns around the sample size of the surveys and therefore the accuracy of the datasets, particularly when looking at sub-groups. There are also issues around the cost and availability of the data, especially as information in this area is scarce.

Ministry of Social Development

The *Economic Living Standard Index (ELSI)* survey is based on peoples' consumption patterns, their various forms of recreation and social patterns, their household facilities and so on. The dataset provides the index score by a range of variables including age; family composition; ethnicity; family unit type; region; housing tenure; education; occupation; self employed; income source; income; asset position; and accommodation costs.

An accommodation section to the survey questions participants on twelve accommodation items which includes: draughts; dampness; plumbing; wiring; interior paintwork; windows; doors; the roof; piles or foundation; exterior paintwork; fencing; and paving.

The surveys were undertaken in early 2000 and the reports were released in late 2002. A further survey has recently been put out to tender and is likely to be undertaken in early to mid 2004.

MSD also has administrative data on accommodation supplements (although BERL is unsure as to its availability – MSD are working with SNZ to develop this data) and occasionally undertakes surveys relevant to housing including *survey of older people* and *social indicators survey* and *Mental Health and Housing Report*. While the reports are available by contacting MSD or looking on their website, source datasets do not appear to be made available to the public.

New Zealand Council of Christian Services

A review of the NZCCS website had reference to a 1999 study *Taking Stock – a report on the Problems and Possibilities for Housing Policy in New Zealand*. There were three other reports from NZCCS from 1994 through to 1996 entitled “*housing the Hungry*”. These can all be accessed on the NZCCS website, although gaining access to the source data would require contact to be made with the organisation.

Housing New Zealand Corporation

The *Housing Market Report* is put out quarterly by HNZC and contains a range of data and commentary relevant to the housing market in New Zealand. While not exactly a source of data (most sourced from outside) it does collate and provide time series data on a range of indicators.

HNZC is working with housing providers and agencies to develop a *New Zealand Housing Strategy* for the next ten years. Eleven main topics were identified and reports were developed on each of them just prior to Christmas 2002. Executive summaries and reports are available on: affordability; disabilities and mental health; education and advocacy; home ownership; housing and urban design; Maori; older persons; pacific peoples; partnerships; research; and youth. These are available at www.hnzc.co.nz/aboutus/initiatives/socialhousingstrat.htm.

Healthy housing is a joint project between HNZC and the District Health Boards to try to reduce diseases associated with overcrowding and generally improving housing conditions within HNZC properties within specific areas of New Zealand. Information collected in this project could potentially provide an excellent source of information on housing and habitability.

Ministry of Health

Through their work, particularly around housing habitability and its relationship with environmental health and disability issues, the Ministry of Health has created several datasets that may be of interest to housing researchers. Specific examples raised include data collected on sewerage systems, infectious diseases and water quality that could be collated and made available for further research.

The Ministry of Health also works with Housing New Zealand in several areas including the *Healthy Housing* project and the *Rural Housing* Programme, and has membership on the SNZ housing user group.

The Ministry has a good website on the datasets and other information it holds. The website address is <http://www.nzhis.govt.nz/>.

Massey University

Massey University Real Estate Analysis Unit (<http://property-group.massey.ac.nz/mainh.htm>) undertakes a range of surveys looking at home affordability, the residential and rural markets, and market outlooks for the three main centres.

The *AMP Home Affordability Survey* uses average weekly earnings, mortgage interest rates and house prices to calculate an index on house affordability. While not exactly primary data the resulting index can be considered new or source data. The index is currently available for 11 regions and has been going for 13 years.

The *New Zealand Residential Rental Market Survey* provides data on the median rent for private sector accommodation in 24 main centres. The survey is undertaken quarterly and has been operating for six years.

Market Outlook surveys are undertaken for residential and commercial property markets for the three main regions (Auckland, Wellington and Christchurch).

Banks and Financial Institutions

Banks generate and provide a range of source data based upon their activity as well as interest in mortgage lending. While they are unlikely to make a lot of this administrative data available due to privacy and competitive reasons, there is still a range of information available. Most banks do put out a range of economic information and commentary that could be of value to those seeking to understand the economic climate – and how this then relates to housing.

KPMG puts out an annual publication entitled the *Financial Institutions Performance Survey*. This provides some information on the mortgage component of financial institutions. The full report is available at a cost from KPMG.

At the New Zealand wide macro level, the *Reserve Bank of New Zealand* collects *household claims* data, which is readily and freely available through their website (www.rbnz.govt.nz). This information captures loans to households from M3 and non-M3 financial institutions, with monthly data from December 1999. Since June 1998 greater detail is available enabling a distinction between housing loans and ‘other’ loans to households. Associated annual data on aggregate household assets is also available.

The Westpac, NZIER and Morningstar quarterly report on household savings also contains aggregate household sector “balance sheet” information (www.westpac.co.nz).

Data Index

A data index would obviously make it easier to identify housing data and make it more accessible to researchers and users of housing data.

The following index is an example of how we might present a key range of robust, time series datasets in a practical way that can be used for housing research and analysis. The index presents key datasets available with information on their relevance, frequency, time-series, cost and quality.

While there is a range of other data or reports on housing, this index only includes those datasets BERL considers as primary (or source) data. The index is not definitive in any way as there are obviously other datasets that we are unaware of or unable to access³. Nor are the variables or levels of aggregation included, as some of these datasets are quite large and contain a huge number of variables⁴. Further, some datasets are included that are not yet or readily available. These have been included simply to create awareness of some other administrative datasets that are being developed for public use.

Relevance relates to how many of the housing dimensions the dataset can be applied to. The dimensions are based on the six key components identified by CHRANZ and are:

1. Access
2. Vulnerable populations and housing demand
3. Tenure
4. Housing investment
5. Providers and investors
6. Urban and rural housing performance.

Frequency refers to how often data is collected, updated and released.

Period refers to when the data set is available from. All of the datasets covered are, or will become, time series data.

Cost refers to whether there is a charge involved in accessing the datasets.

Quality refers to how complete the dataset is, the coverage, and the collection and dissemination methods. This is a subjective measure based on BERL's consideration of the dataset and is relative to the range of data available for housing research.

Comments relate to any other issues BERL has with the dataset.

³ Although we believe that we have listed the key datasets.

⁴ Although it would be useful to include the variables covered in a final index.

Datasets

Title	Relevance	Frequency	Period	Cost	Quality	comment
Census of Population and Dwellings (SNZ)	1; 2; 3; 4; 5; 6	five yearly	91, 96, 01 -	for customised data	very good	Data is available for periods before 1991. However, access to these is on request from SNZ and will require manipulation of the datasets. Otherwise
Household Economic Survey (SNZ)	1; 4;	annually to 1998, then every three years	91-98; 2001 -	for customised data	good	The change in frequency makes comparability harder and reduces the value of the survey. However, it does provide valuable variables.
Capital Goods Price Index (SNZ)	1; 4	quarterly	1981 -	no	very good	Contains an index of prices of domestic appliances and residential buildings.
Building Consents (SNZ)	1; 4	monthly	1981 -	no	very good	Current series on Hot of the Press goes back to May 1998. Earlier data is available through INFOS (SNZ).
Residential Property (QVNZ)	1; 4	quarterly	1998 -	yes	very good	Hard copy publications. Compare against the previous quarter and year. Can provide data back to 1980 on request.
New Zealand Real Estate Market (QVNZ)	1; 4;	bi-annually	1998 -	yes	very good	Hard copy publications. Compare against the previous quarter and year. Can provide data back to 1980 on request.
Urban and Rural Property – sales statistics (QVNZ)	1; 4; 5; 6	bi annually	1998 -	yes	very good	Hard copy publications. Compare against the previous quarter and year. Can provide data back to 1980 on request.
InfoBase (QVNZ)	1; 4	ongoing	1980 -	yes	very good	Available as a searchable database online. Good for micro-comparing properties at a micro level and covers a range of variables. However, not good for macro level analysis and research purposes.
Sales Statistics (REINZ)	1; 4	quarterly	1998 -	yes	good	Information is only from sales reported to the institute and so is not representative. Data is only from 1998 onwards.
Economic Living Standard Index (MSD)	1; 2; 3; 4; 5; 6	varies	2002 -	no	good	Early stage of development means no time series data. First report was in 2002.
Household Energy End-use Project (BRANZ)	1; 4; 6	annual	1995 - 2007	yes	good	An 11 year project, it will stop in 2007. Data is sold on CD ROM annually for \$100. Contains some social indicators. SNZ is looking at developing some variables to add value to housing output.
Building Materials Survey (BRANZ)	4;	quarterly	1998 -	yes	good	Output is types of materials used. Surveys 550 randomly selected houses and 100 non-residential houses. Delivery is via a quarterly subscription service.
House Condition Survey (BRANZ)	4; 6	five yearly	1994; 1999 -	yes	good	Physical condition of houses for by 30 components, type of material of dwelling. Surveys 500 randomly selected houses. Likely to get funding for the next survey. Latest analysis available on CD ROM for \$150.
ACC Corporate Data Warehouse (ACC)	1; 2	ongoing	1972 -	no	good	Disability data on houses modified as a result of an accident. Access to data is likely to have to go through ACC to ensure privacy issues.
Disability Monitoring	2	ongoing	1995 -	no	poor	Only covers clients registered with the Disability Modifications Service. Data is

System Database (Community Housing Ltd)						available from Community Housing Ltd. BERL has not physically accessed this information.
Poverty Index Project	1; 2; 3	quarterly	1999 -	no	good	Data collected from survey of 7 food-banks across New Zealand. Has some good housing indicators. Delivered in a report format. Has gone through a range of transformations since the early to mid 90's (Housing the Hungry and Taking Stock - ...reports) and some variables may not be comparable.
Rental Data (HNZC)	1; 2; 3; 4; 5; 6	ongoing	na	no	good	HNZC is working with SNZ to develop a dataset from the rental data as an independent statistical series. This is currently unavailable to the public.
Low Deposit Rural Lending Programme (HNZC)	1; 2; 3; 4; 5; 6	ongoing	na	no	poor	Access to data not good. Coverage is fragmented. Improvements required in collection method. HNZC is working with SNZ to develop this dataset.
Tenancy Bonds Data (Min of Housing)	3; 4; 5	ongoing	na	no	poor	Ministry of Housing is working with SNZ to develop a dataset from this administrative data. Current collection methods require improvement before it can be developed further. Standard tables being developed for release on to the SNZ website and should be available by July 2004.
Accommodation Supplement (MSD)	1; 2; 3; 5; 6	ongoing	na	no	good	This is currently available by going through the annual reports. Not aware of a dataset that has been developed although BERL is sure that work has been done on this. SNZ is working with MSD to facilitate the further development of tenancy bonds data as an independent statistical series.

Data Integration Opportunities

Data integration is a difficult and highly technical process. The ability to integrate two sets of information that may have been collected for different purposes, have different levels of quality, and at different levels of aggregation requires expertise, and patience.

While there is definitely opportunity to do this, it is probably not efficient from a cost benefit perspective to embark on a full-scale data integration project. However, there are organisations that have an interest in the integration of data and have the mandate, the capacity and the capability to do so (e.g. SNZ, CHRANZ).

Further, individual organisations often integrate data for research purposes. Once integrated, the data is often never used again or made available for further research. Identifying these datasets and then making them available is a great opportunity to extend the benefits of ongoing or existing research work.

CHRANZ/HNZC

As an advocate and funder of housing research, CHRANZ has an interest in the integration of datasets. HNZC maintains a range of datasets, and collects and manipulates a range of housing data in the course of their policy development and delivery of housing services. The ties between the two organisations provides an opportunity to work together to try to develop the information being collected into useable datasets that can then be made available to the wider research community. An example of this is the data used for the *Housing Market Report*, which, while collected for one purpose, can then be made available to the wider research and user community.

It is also likely that, over time, CHRANZ will become aware of, or commission, research work in the housing area. Knowing what is being undertaken, and the data that is required and being developed, provides an opportunity to extend the benefits of the datasets that are developed.

Statistics New Zealand

The main integration opportunities are through SNZ, who have three projects aimed at improving the availability and quality of housing statistics.

SNZ has developed a *Housing Statistics Strategy* that is “a long-term plan to ensure the successful production, integration and dissemination of relevant and authoritative housing statistics”⁵. The strategy outlines the general aims, primary objectives and guiding principles of the Housing Statistics Programme. The six dimensions of housing adequacy are similar to the six key components identified by CHRANZ, namely:

- Affordability;

⁵ At one stage SNZ were going to develop an annual housing survey. However, this has now been put on hold indefinitely until the Social Statistics Programme has been worked through. BERL are not aware of if and when an annual housing survey will be put back on the SNZ agenda.

- Suitability;
- Habitability;
- Tenure security;
- Freedom from crowding; and
- Freedom from discrimination.

At the highest level, administrative datasets can be developed and included in their (SNZ's) statistics. However, datasets must be developed to the consistency and quality required by SNZ as well as comply with their classification and standards⁶.

Public sector and social organisations need to work to improve their own collection methods to allow data to be integrated and disseminated in a useful way. Ministry of Health's information service website is a good example of making information available. There needs to be a commitment from all involved to want to make information available for the public good that will add to the research pool in, and understanding of, the housing arena.

Consistency around classifications and standards will allow cross-comparisons, which will improve the quality and richness of the housing datasets. SNZ can work with organisations to improve the ability to transfer administrative data into useable datasets.

Housing Statistics User Group

The *Housing Statistics User Group* has been set up by SNZ to provide an opportunity for all users to have input into what statistics they would like to see made available and how they can be gathered, collated and disseminated and to keep users updated on SNZ projects. The group has been operating for at least a decade. Membership is open to all users and the group meets quarterly. The Group has provided input into the housing statistics and strategies developed through SNZ.

An initial look at the membership group identifies 17 different organisations. However, there is scope to include other organisations (particularly private sector) that have an interest in housing.

⁶ Statistics New Zealand aims to ensure that official statistics provide a consistent and coherent picture of New Zealand's economy, society and environment. This allows comparisons to be readily made over time and across geographic areas, industries and other domains. Data produced from different sources and at different times can be brought together to provide a richer dataset for analysis and can therefore be used beyond the initial purpose for which it was produced. Organisations that produce administrative data related to housing (particularly public sector organisations) should be aware of SNZ's classifications and standards so that appropriate information can be collected.

Housing Indicators Project

The *Housing Indicators Project* aims to provide a reporting framework for indicators of the key regional and national housing issues identified in the *Housing Statistics Strategy*⁷. The project has two stages: stage 1 uses information available from SNZ including the *census of population and dwellings*, *building consents* and the *household economic survey*; stage 2 information includes indicators that measure, among other topics, discrimination, housing career patterns, the suitability of housing, physical condition of housing and room size. It is expected that some of these indicators can be developed using administrative data sources.

Stage 1 indicators are freely available on the SNZ website as excel spreadsheets and can be developed using SNZ's statistics programme "table builder". Stage 2 indicators are still being developed and will be released as they become available. A list of indicators for each of the dimensions is available in Appendix C and a list of tables in Appendix D.

Similar to the *Housing Statistics User Group*, there is opportunity for users to have input into the statistics they would like to see and how they would like it to be presented.

Administrative Data Project

An ongoing project, SNZ has identified a range of datasets produced by a number of organisations for administrative purposes that have potential for statistical use. The majority of these cannot readily be integrated with existing SNZ data or each other. Some of these datasets have potential and SNZ is progressively contacting relevant agencies to identify and action change. It is hoped that actioning changes will make the data more suitable for statistical analysis, and provide access to robust and comparable statistics for analysis across the wider official statistical system.

To date, several datasets have been evaluated for statistical use. Datasets are evaluated based on: relevance; potential value added; comparable data; access; population; coverage; collection methods; frequency; and data quality. Organisations and datasets that have been or are being looked at include:

⁷ Topics covered by the indicator series convey information about the six dimensions of housing adequacy: affordability; suitability; habitability; tenure security; freedom from crowding; and freedom from discrimination.

Organisation	Datasets
Housing New Zealand Corporation	Rental data; Low Deposit Rural Lending Programme data; Partnerships Group: Northland, East Coast, Bay of Plenty.
Ministry of Housing	Tenancy Bonds Data
Ministry of Social Development	Accommodation Supplement Data
Quotable Value New Zealand	Sales Record Data
Christchurch City Council	Ratings Database
Land Transport Safety Authority	Travel Survey
Building and Research Association of NZ	Household Energy End-Use Project
Ministry of Health	Community Sewerage Information New Zealand

The tenancy bonds data is the first dataset to be developed by SNZ. Tables are expected to be available by July 2004. The evaluation of potential datasets will continue on an ongoing basis. Note however, that this is often a long and drawn out process and could take several years to develop each dataset.

Data Indexing Opportunities

Directory of Housing Statistics

SNZ released a *Directory of Housing Statistics* in August 2000. The purpose being to put researchers and other parties interested in housing information, in touch with organisations that hold housing statistics. The directory provides information on each dataset and the contact details of the custodian.

The Database is no longer being updated as SNZ have determined that there are better ways of providing housing statistics to users. However, SNZ has kept the directory on its website (it is slightly difficult to find. It can be viewed at -

<http://www.stats.govt.nz/domino/external/web/DRS02.nsf/25.%20Housing%20Statistics?OpenView>)

and it does contain a wealth of datasets and information on their content and how to access them. An analysis of the data contained in the database is included in Appendix A.

The SNZ Directory of Housing Statistics was an initial attempt to index the range of data available on housing in New Zealand. This included SNZ datasets and an invitation to other organisations to list their individual statistical and administrative data.

BERL considers that there is a benefit in having a directory or index of some kind to aid in identifying and categorising housing data. There is a wide and varied range of data available. SNZ is limited in terms of its standards and role from presenting and manipulating certain types of data. An index would be better suited within an organisation that has housing as a core focus as it can be maintained and updated more effectively.

CHRANZ should explore the options for developing and maintaining a Statistical Housing Directory that provides a description of data (variables and coverage), its availability (accessibility, frequency and date range), its source, and its quality.

Gaps and Future Opportunities

This section identifies gaps in the available datasets as well as opportunities to improve the availability, accessibility and quality of housing data. Information was gathered through discussions with users of housing data and an analysis of available datasets.

Gaps

Quality Time Series Data

In terms of quality, the major gap is in accessing timely time series data. Annual data is scarce, particularly on key indicators, which are normally collected every five years through the census (and then another year at least before they are released). The HES has been changed from annual to every three years. An annual housing survey, which SNZ was expected to undertake, has been put on hold for an indefinite period. It would be useful to understand why this was withdrawn and what is likely to happen to it going forward. This is particularly relevant now that the HES has been reduced to once every three years.

Social Statistics

Social statistics are difficult to find or simply unavailable. Information is often collected for a specific purpose or outcome without thought about other uses for data sets.

A range of work has been undertaken to identify key gaps across all areas of housing by Government agencies including: housing quality, home ownership trends; housing and health; housing and educational outcomes; housing and social outcomes; housing and environmental sustainability; housing and changing drivers of supply and demand; housing and economic development; macro and regional economic impacts and geographical trends in housing markets.

Relevant Government departments, including HNZC, are looking at the issues around, and possible solutions to, these gaps. This work will form the basis of a paper on housing issues to go to Cabinet later this year.

Awareness and Availability of Existing Data

Awareness of existing data is poor. There is no one place where you can find a range of housing data outside of the SNZ datasets. The SNZ Housing Directory was one tool to help simplify the search for available sources of data.

Getting access to the datasets is also difficult, whether this be due to prohibitive costs, or simply having the appropriate authority to be able to use the data (due to its sensitivity).

Opportunities

Directory of Housing Datasets and Research

Set up a web-based database containing links to the various datasets and research reports available (or updating the SNZ one), and making it more user-friendly in terms of content, description and search capability. The directory could differentiate between primary datasets and research that contains data analysis.

Housing Database

Expand on the basic information directory model outlined in the previous paragraph, to monitor, download and maintain existing datasets and then make these freely available. This would be a more pro-active strategy in which information is updated and consolidated as it becomes available from the various sources.

SNZ Housing User Group

Better use needs to be made of the SNZ Housing User Group, which provides a great opportunity to provide input into the housing statistics that will or can be collected. Most of the projects related to housing currently being undertaken by SNZ have been driven or informed by the User Group.

SNZ Housing Survey

The development of an SNZ Survey of Housing began in September 2000 but was postponed in December 2000 while the SNZ housing team compiled a Housing Statistics Strategy. The strategy aims to investigate the potential for housing administrative data to maintain and improve the range of housing statistics, and to determine the remaining critical gaps in housing information that cannot be met by administrative data alone. The Survey of Housing is currently postponed while the *Social Statistics Programme* is finalised. The opportunity to get this up and running will go a long way toward providing accurate definitive datasets on a range of variables not currently being collected.

Encourage Research and Development

Publicise the availability of quality datasets and work with education and other research institutions to develop and analyse them. Identify key research areas based on the key components and provide support (not necessarily financial) to postgraduate students to do necessary analysis and research.

To get around the issue of accessibility of data due to cost, there is also the opportunity to fund the purchase, or subsidise the cost, of data for research areas that are aligned with CHRANZ's research agenda.

Appendix A: Statistics New Zealand – Directory of Housing Statistics

SNZ released a Directory of Housing Statistics in August 2000. The purpose being to put researchers and other parties interested in housing information, in touch with organisations that hold housing statistics. The directory provides information on the dataset and the contact details of the data custodians.

Key numbers

- 427 entries
- 25 agencies
- 42 sources of information
- 78 titles
- 32 ongoing time series data

Data sources and titles

The database contains over 427 entries covering 15 different fields⁸. The database is accessible from the SNZ website, although it is very hard to find.

The database contains information from 26 different agencies and invites new agencies to submit relevant information. The information on the database comes from 42 different sources and there are 78 titles⁹.

SNZ is the main contributor to the database and is responsible for 386 of the 427 entries (90%); 18 of the 42 sources of information (42%); and 41 of the 78 titles (52%).

Of the remaining contributors, 15 are local Government or regional agencies and responsible for 25 entries, five are central Government agencies responsible for seven entries, and the remaining five contributors with 11 entries are private sector, industry associations or NGOs.

Of the 42 different sources of information, 18 of these are collected by SNZ. Census data is the main source of housing statistics, with 296 entries relying on the Census of Population and Dwellings data. The Household Economic Survey is the next main source with 33 entries, followed by Consumer Price Index surveys (15), Building Consents (11), and Household Projections (8).

Twenty-nine of the seventy-eight titles relied on the census of population and dwellings data for information. The Household Economic Survey was responsible for 3 titles, although

⁸ Fields include: external source name; output media; title; frequency; period available; level – associated areas; output variables; remarks; contact; address; telephone number; fax number; email address; website address.

⁹ Titles often have multiple entries. Note that customised data is included as a single title for the purpose of this report. There were 40 customised entries in the database.

customised (which included 18 entries) was one of these. Building consents was used in 9 different titles and the Consumer Price Index survey was responsible for 3 titles.

Time Series Information

170 of the 427 entries listed can be considered time series data¹⁰. Of the time series entries, 96 are closed series, which means that of the 427 entries only 74 are ongoing time series.

The 74 ongoing time series entries come from 32 different titles from 28 different sources and 20 different agencies.

Thirteen of the 20 agencies that produce ongoing time series data are regional councils or an economic development agency, which means that the data covers only their region. The remaining time series data is from seven agencies. A brief summary of each follows.

Regional Agencies

With only thirteen agencies, the information only covers pockets of areas and is not a good spread of the country.

The majority of information collected by regional agencies is information on building consents, house sales and subdivisions, which is already available at a national level through SNZ and QVNZ. Often housing statistics are a part of a wider economic profile of the region. Most information is a re-specification of existing data from sources such as SNZ with very little original data.

Information amongst agencies is not consistent and it is unlikely that they can be compared effectively.

Statistics New Zealand

SNZ data comes from eight sources: Household Economic Survey; Building Consents; Regional Household expenditure; Building Activity Survey; Capital Goods Price Index; Consumer Price Index Survey; Estimate of New Dwellings; and Household Projections.

This information is accessed through several sources, including electronically through INFOS and Supermap; or through publications (which are also available electronically) including: Key Statistics; Quarterly Review; Hot off the Press; and Consumer Expenditure Statistics.

SNZ can also provide customised data on request from information gathered in Building Consents; Capital Goods Price Index; Household Economic Survey; Household Projections; and Regional Household Expenditure. Customised data accounts for 22 of the 38 ongoing time series entries.

Note that information from the 2001 census is not included in the database.

ACC

¹⁰ In this case, time series is where the same information can be compared over at least two periods of time.

ACC maintains the *ACC corporate data warehouse*, which contains information, at the territorial authority level, on claimant and claim details, health provider details, payment records to health providers and claimants, employer and self employed premium data, details about houses which have been modified as a result of an accident. The information is available from 1972.

BRANZ

BRANZ provides the *BRANZ Building Materials Survey*, which is a quarterly survey of 500 randomly selected houses and 100 non-residential buildings on the building materials used. The survey has been going since 1998.

Housing New Zealand

Housing New Zealand produces the *HNZ Rental Database*, which provides Housing New Zealand tenant's demographic and socio-economic data; dwelling data on type, size, age, condition and location; and history of tenant rent/areas data. The information is taken from tenant's application forms, and dwelling information is updated through annual maintenance inspection. Information is available from 1980.

Ministry of Housing

The Ministry of Housing has two entries. The *Tenancy Bond Database* provides information on weekly rent, bond amount, number of bedrooms, landlord type, house or flat from 1987 onwards. This information is available at several levels, namely, meshblock; area unit; HNZ neighbourhood units; and tenancy services offices locality.

The *Ministry of Housing Annual Reports* provides information on tenants including: application reason, application outcome, timeframe from date of receipt of application to its outcome and is available at the tenancy service office and tenancy service region level. Information is available from 1991 onwards

New Zealand Council of Christian Services (NZCCS)

The NZCCS produces an annual publication titled *Taking Stock- A Report on the Problems and Possibilities for Housing Policy in New Zealand*. The report includes national summary statistics for rent and stock. Accommodation Affordability tables for Auckland, South Auckland, Hamilton Wellington, Christchurch and Dunedin are available and is based on information requested from SNZ, Ministry of Housing and Housing New Zealand. According to the SNZ database, reports have been published annually since 1991.

An earlier survey, *Housing the Hungry* was produced for three years in 1994-1996. The survey was New Zealand wide, and the output variables included income source, gender, age, ethnicity, household size, reasons for presenting at a food bank, tenure, total income, rent.

Quotable Value New Zealand

QVNZ has two entries on the SNZ database – Quarterly Review and the QVNZ National Property Database. The quarterly review provides information at the territorial authority and regional council level on number of house sales, number of owner occupied flat sales, average house sale price, average owner occupied flat sale.

The QVNZ National Property Database provides information on Owner's name and postal address, property location, capital valuation, date of valuation revision, sales history, vendor/purchaser, land area, floor area, age of property, number of car parks, wall construction etc. QVNZ has hard copy records for last 100 years, while electronic records date back to late eighties

QVNZ also publishes 'Residential Sales Summary', 'Real Estate Sales Summary' - provisional, 'Urban Property Sales', and 'Rural Property Sales'.¹¹ Information can be sourced online for individual properties, or provided in hard copy or electronic form for statistical information requirements.

Centre for Research, Evaluation and Social Assessment (CRESA)

CRESA is leading a six-year FRST funded programme on sustainable housing in disadvantaged societies. The Centre produced a report based on 1996 census data entitled *Overcrowded Families in New Zealand*. Information is available at the territorial authority level and covers family type, number of children, and number of bedrooms.

Community Housing Limited

Community Housing Limited maintains the *Disability Monitoring System Database*, which provides a range of information on housing for the disabled including: modified properties, type of property, number of bedrooms, location, modifications, vehicle facility, section size, rent per week or sale price, property owner, customer matches, fate of the property, customer information: disability type, customer type (buy rent, modify), disability details, year of birth, sex, ethnicity, household composition, income source, weekly income, referral source, preferred location for properties, number of bedrooms required, housing modifications required, priority status, preferred rent, property offers. Information is collected from interviewing people with disabilities, and only covers clients registered with Disability Modifications Service. It is available from 1995.

Database Issues

The SNZ database has 427 entries but does not have a search capability, which makes it difficult to navigate. Often the entries are very similar or even overlap. It would be simpler to reduce the database to the 78 titles that are available and make the fields and variables searchable. There also needs to be better quality control to ensure that entries are not repeated.

Entries are listed alphabetically rather than by type of information, which also makes finding relevant information more difficult. Further, the links between some of the entries and housing data is quite tenuous and so the database could possibly tighten its criteria around what qualifies as housing data.

SNZ has the majority of entries on the database and is responsible for over 90% of entries. There may be a case for differentiating SNZ entries from the other organisations.

¹¹ See p11 for a summary of these publications.

SNZ has fairly good statistics within their website but outside the database which are better presented and more up to date and so the database is often rendered obsolete. Further it appears that it hasn't been updated since it was put on – 2001 census information is not there. Apart from the initial request to 300 organisations to list their datasets it appears that there is a re-active approach to encouraging organisations participation.

The database is difficult to find on the SNZ website – you have to go through regional statistics and there is no direct link to the database from the housing section (although they explain the database there).

Appendix B: SNZ housing profile proposed sub-populations and variables

Sub-populations	<ul style="list-style-type: none"> • Owner Occupiers • Individual Tenure • Ethnicity • Private Landlords • Low Income Households • Immigrants • Older People • Households at 9 and 10 on the 2001 New Zealand Deprivation Index • Temporary Private Dwellings
Household characteristics	<ul style="list-style-type: none"> • Dwelling Type • Tenure of Household • Tenure Holder • Household Income • Number of Dependent Children • Household Composition • Occupancy Rate • Number of Usual Residents • Source(s) of Income • Source(s) of Income Support • Employment Status • Crowding • Sector of Landlord • Rent Paid by Household • Median Age of Household • Telecommunication Access • Ethnicity • Heating Source • Number of Bedrooms • Number of Motor Vehicles
Individual characteristics	<ul style="list-style-type: none"> • Language Indicator • Qualifications • Number of Years in New Zealand • Employment Status • Number of Years at Usual Residence

Appendix C: Statistics New Zealand Housing Indicators Project

This information is taken straight from the SNZ website and has been summarised slightly. The project is apparently still in the design phase and so indicators may have changed slightly.

1. Affordability

Housing affordability relates to the ability of households to rent or purchase housing in a locality of choice at a reasonable price, the capacity of households to meet ongoing housing costs, and the degree that discretionary income is available to achieve an acceptable standard of living. Affordable housing should leave enough residual income to cover other basic living costs, as well as allowing households to save for irregular but unavoidable costs such as medical and dental care.

Stage I Indicators

- Indicator 4: Households Living in Owner Occupied Dwellings
- Indicator 5: People Living in Temporary Dwellings
- Indicator 6: One Person Households
- Indicator 7: Families with Dependent Children
- Indicator 8: Multi-family Households
- Indicator 9: One Parent Families
- Indicator 13: Housing Costs
- Indicator 14: Rental Costs

Proposed Stage II Indicators

- AMP Banking Home Affordability Survey
- Legal costs of purchasing a house
- House Price Index
- Household debt levels
- New Zealand Deprivation Index (NZDep)
- Average size of outstanding loans

2. Suitability

Housing suitability relates to the ability of households to access:

- Housing that is appropriate to their current needs
- Housing that is sufficiently flexible to cater for future requirements and long-term goals
- Preferred tenure and dwelling type
- Local opportunity (such as employment and education)
- Local infrastructure and public amenities.

Infrastructure includes the components of network utilities (gas, electricity, telecommunications, water supply), transportation (including sea and air ports, roading (bridges, footpaths) and parking space), and solid and liquid waste management (such as water treatment plants, sewer, garbage services and recycling).

Stage I Indicators

- Indicator 2a: Equivalised Crowding Index
- Indicator 3: Living Density
- Indicator 5: People Living in Temporary Dwellings
- Indicator 7: Families with Dependent Children
- Indicator 8: Multi-family Households
- Indicator 9: One Parent Families
- Indicator 10: Household Dwelling Type
- Indicator 15: Landlords

Proposed Stage II Indicators

SNZ has not yet identified any Stage II indicators.

3. Habitability

Housing habitability relates to the:

- Physical condition of the dwelling (structurally, internally and externally)
- Existence of basic household amenities (such as cooking, washing and heating facilities)
- Condition of the environment surrounding the home.

The essential components of habitability are that the house (and environment where relevant) is healthy to live in, is energy efficient (takes less energy to build and operate), and is resource efficient (uses fewer non-renewable resources and makes efficient use of renewable resources).

Stage I Indicators

To be added.

Proposed Stage II Indicators

Habitability - Housing Stock

- Construction materials for roof, walls and base of dwelling
- Age of dwelling
- Dwelling insulation
- State of repair of dwelling

Habitability - Health

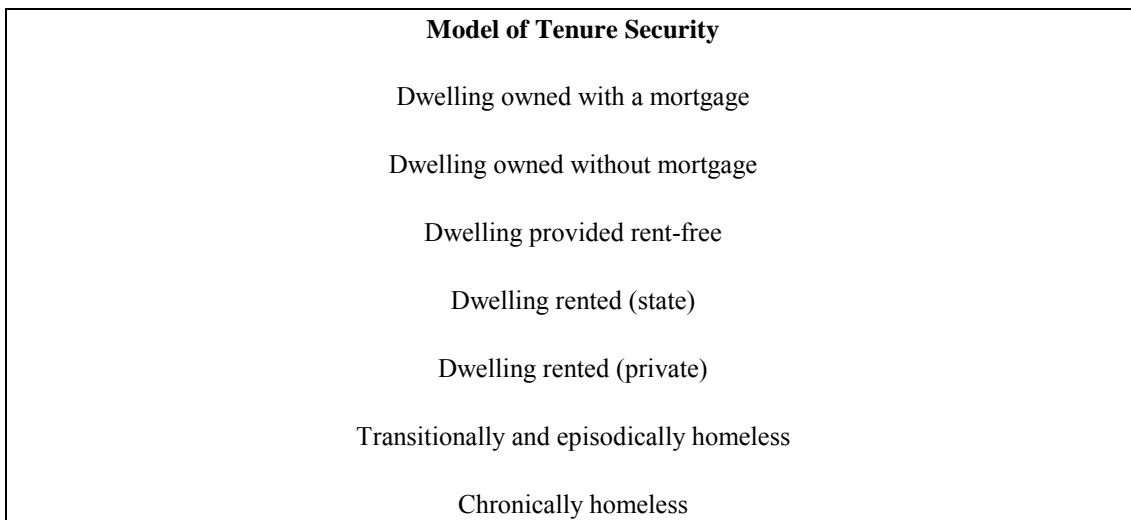
- House dust mite allergen levels
- Indoor humidity factors (such as dampness of cooking salt, mould, moisture stains, musty smells)
- Outdoor humidity factors (such as ground dampness, water table levels and soil type)
- Hospital admissions for upper respiratory conditions
- Hospital admissions for diseases of the ear in children

- Noise
- Infant mortality
- Particulate matter, carbon monoxide, nitrogen dioxide in selected residential areas.

4. Tenure Security

Security of tenure offers dwelling occupants the confidence that their tenure is guaranteed for a specified period of time to which they have agreed. Tenure is subject to preference and aspiration. For example not everyone aspires to own their own home and many people are quite content to rent and invest their money in other areas. However, the concept of tenure "security" is defined in terms of well-being and independence as opposed to preference and aspiration.

In the model of tenure security below, owning a home without a mortgage is considered the pinnacle of the hierarchy, while chronic homelessness is considered the least desirable tenure situation. While the stages at each extreme of the model are considered absolutes in terms of tenure "security", the phases between are subject to debate.



Stage I Indicators

- Indicator 4: Households Living in Owner Occupied Dwellings
- Indicator 5: People Living in Temporary Dwellings
- Indicator 6: One Person Households
- Indicator 7: Families with Dependent Children
- Indicator 9: One Parent Families
- Indicator 15: Landlords

Proposed Stage II Indicators

Landlords

- Characteristics of private landlords

Government

- Number of people receiving an accommodation supplement
- Number of Housing New Zealand housing units as a proportion of rented dwellings by city
- Percentage change in number of Housing New Zealand housing units by city

- Number of local authority housing units as a proportion of rented dwellings by city
- Percentage change in number of local authority housing units by city
- Use of housing services

5. Freedom from Crowding

Crowding in dwellings relates to situations where the number of people residing in a household exceeds the ability of the household to provide adequate shelter and services to its members.

Crowding in dwellings may arise for a number of reasons including cultural preference, social cohesion and accepting high occupant density as a means of containing cost.

There is no contemporary official statistic or index of household crowding in New Zealand. In its legal statutes, however, New Zealand does have an official definition of crowding. The Housing Improvement Regulations of 1947 specify an approved number of people per bedroom, taking into account their age, sex and relationship, relative to bedroom size. These regulations provide for a precise measure of what constitutes crowding and can be applied on a case-by-case basis. However, census information cannot be used to measure crowding levels on this basis, as bedroom size is not collected.

Generally, the simplest measures of crowding based on official statistics involve comparisons between numbers of bedrooms per household and number of people per bedroom. However, it is more useful to apply a crowding index that is sensitive to both household size and composition. There are a number of crowding indexes available that incorporate these concepts, which are useful not only for ascertaining crowding levels but also to identify the extent of bedroom under-utilisation.

The indicators below show the results of applying various formulas and contemporary models to New Zealand Census data. The extent to which the formulas and frameworks used are relevant to the New Zealand situation is a matter of conjecture.

These indicators do not attempt to make a definitive statement about crowding in New Zealand. Rather they are intended to provide a picture of crowding in New Zealand over time, and to signal its prevalence in some areas and among certain sectors of society.

(Statistics New Zealand (1998), "New Zealand Now: Housing", Wellington, passim)

Stage I Indicators

- Indicator 1: Occupancy Rate
- Indicator 2: Equivalised Crowding Index
- Indicator 3: Living Density

Proposed Stage II Indicators

Crowding

Crowding regulations that require information regarding room size, such as:

- The New Zealand Housing Improvement Regulations (1947)
- The British Standard
- The American Public Health Services/Centres for Disease Control Ordinance

Crowding - Health

- Hospital admissions for meningococcal disease
- Hospital admissions for tuberculosis and gastrointestinal diseases

6. Freedom from Discrimination

To discriminate is to act on the basis of a difference between one person or group from another person or group, to make a distinction unjustly on the grounds of race, colour or sex. (Oxford University Press (1982), "The Concise Oxford Dictionary", Oxford, p.274)

Stage I Indicators

- Indicator 5: People Living in Temporary Dwellings

Stage II Indicators

SNZ has not determined any stage II indicators at this stage.

Appendix D: SNZ Stage I Housing Indicators - List of Tables

Following are a list of tables formulated by SNZ, mainly from census data that can be applied to housing research and analysis. The tables largely cover the last three census periods 1991, 1996 and 2001, although some tables only cover the last two periods. Other sources for these tables include building consents and housing costs.

1: Occupancy Rate	<p>Table 1.0: Occupancy rate for usually resident households, 1991, 1996, 2001</p> <p>Table 1.1: Occupancy rate for households with at least one person of a particular ethnic group, for usually resident households, 1991, 1996, 2001</p> <p>Table 1.2: Occupancy rate, excluding one person households, for usually resident households, 1991, 1996, 2001</p> <p>Table 1.3: Occupancy rate, excluding one person households, for households with at least one person of a particular ethnic group, for usually resident households, 1991, 1996, 2001</p> <p>Table 1.4: Occupancy rate for usually resident multi-family households, 1991, 1996, 2001</p> <p>Table 1.5: Occupancy rate for usually resident multi-family households with at least one person of a particular ethnic group, 1991, 1996, 2001</p>
2a: Equivalised Crowding Index	<p>Table 2.0: Crowding measures, number of bedrooms per household / number of people per bedroom / equivalised crowding index, 1991, 1996, 2001</p> <p>Table 2.1: Crowding measures for households with at least one person from the European ethnic group, number of bedrooms per household / number of people per bedroom / equivalised crowding index, 1991, 1996, 2001</p> <p>Table 2.2: Crowding measures for households with at least one person from the Māori ethnic group, number of bedrooms per household / number of people per bedroom / equivalised crowding index, 1991, 1996, 2001</p> <p>Table 2.3: Crowding measures for households with at least one person from the Pacific Peoples ethnic group, number of bedrooms per household / number of people per bedroom / equivalised crowding index, 1991, 1996, 2001</p> <p>Table 2.4: Crowding measures for households with at least one person from the Asian ethnic group, number of bedrooms per household / number of people per bedroom / equivalised crowding index, 1991, 1996, 2001</p> <p>Table 2.5: Crowding measures for households with at least one person from the Other ethnic groups, number of bedrooms per household / number of people per bedroom / equivalised crowding index, 1991, 1996, 2001</p>
3: Living Density	<p>Table 3.0: People per square km, for the census usually resident population, 1991, 1996, 2001</p> <p>Table 3.1: Dwellings per square km, for private occupied dwellings, 1991, 1996, 2001</p>
4: Households Living in Owner Occupied Dwellings	<p>Table 4.0: Households Living in Owner Occupied Private Dwellings as a Percentage of Households Living in All Private Occupied Dwellings, 1991, 1996, 2001</p> <p>Table 4.1: Households Living in Owner Occupied Dwellings by Household Income Range as a Percentage of Households Living in All Private Occupied Dwellings by Household Income Range, 1991, 1996, 2001</p> <p>Table 4.2 (Title Revised, 15/1/2003): Population Aged 15 Years and Over Usually Resident in Private Owner Occupied Dwellings by Ethnic Group(s) as a Percentage of the Population Aged 15 Years and Over Usually Resident in All Private Occupied Dwellings by Ethnic Group(s), 1991, 1996, 2001</p> <p>Table 4.3: Households Living in Private Owner Occupied Dwellings by Ethnic Group(s) of Reference Person as a Percentage of Households Living in All Private Occupied Dwellings by Ethnic Group(s) of Reference Person, 1991, 1996, 2001</p> <p>Table 4.4: (Title Revised, 15/1/2003): Population Aged 15 Years and Over Usually Resident in Private Owner Occupied Dwellings by Official Language</p>

	<p>Indicator as a Percentage of Population Aged 15 Years and Over Usually Resident in All Private Occupied Dwellings by Official Language Indicator, 1996, 2001</p> <p>Table 4.5: Median Household Income \$(000) by Dwelling Ownership Status, for Households Living in Private Occupied Dwellings, 1991, 1996, 2001</p> <p>Table 4.6: Median Age of Usual Residents Aged 15 Years and Over by Dwelling Ownership Status, for Households Living in Private Occupied Dwellings, 1991, 1996, 2001</p>
5: People Living in Temporary Private Dwellings	<p>Table 5.0: Population usually resident in temporary private occupied dwellings as a percentage of the population usually resident in all private occupied dwellings, 1991, 1996, 2001</p> <p>Table 5.1: Population usually resident in temporary private occupied dwellings by ethnic group(s) as a percentage of the population usually resident in all private occupied dwellings by ethnic group(s), 1991, 1996, 2001</p> <p>Table 5.2: Percentage of population in each ethnic group(s) for the population usually resident in temporary private occupied dwellings, 1991, 1996, 2001</p> <p>Table 5.3: Population usually resident in temporary private occupied dwellings by age group as a percentage of the population usually resident in all private occupied dwellings by age group, 1991, 1996, 2001</p> <p>Table 5.4: Percentage of population in each age group for the population usually resident in temporary private occupied dwellings, 1991, 1996, 2001</p> <p>Table 5.5: Population usually resident in temporary private occupied dwellings that receive income support payments as a percentage of the population usually resident in all private occupied dwellings that receive income support payments, 1991, 1996, 2001</p> <p>Table 5.6: Population receiving income support payments as a percentage of the population receiving income from all sources for usual residents in temporary private occupied dwellings, 1996, 2001</p> <p>Table 5.7: Population usually resident in temporary private occupied dwellings by source(s) of income support as a percentage of the population usually resident in all private occupied dwellings by source(s) of income support, 1991, 1996, 2001</p> <p>Table 5.8: Percentage of population receiving income support by source(s) of income support for usual residents in temporary, private, occupied dwellings. 1991, 1996, 2001</p>
6: One-Person Households	<p>Table 6.0: One-person households living in private occupied dwellings by dwelling ownership status as a percentage of all households living in private occupied dwellings by dwelling ownership status, 1991, 1996, 2001</p> <p>Table 6.1: One-person households living in private owner occupied dwellings by household income range as a percentage of one-person households living in private occupied dwellings by household income range, 1991, 1996, 2001</p> <p>Table 6.2 (Data Revised 15/1/2003): Percentage of one-person households in each ethnic group by ethnic group(s) of reference person, for one-person households living in private occupied dwellings, 1991, 1996, 2001</p> <p>Table 6.3 (Data Revised 15/1/2003): Percentage of one-person households in each ethnic group by ethnic group(s) of reference person, for one-person households living in private owner occupied dwellings, 1991, 1996, 2001</p> <p>Table 6.4: Percentage of English and non-English speaking one-person households by official language Indicator of reference person, for one-person households living in private occupied dwellings, 1996, 2001</p> <p>Table 6.5: Percentage of English and non-English speaking one-person households by official language indicator of reference person, for one-person households living in private owner occupied dwellings, 1996, 2001</p> <p>Table 6.6: Median household income \$(000) by dwelling ownership status for one-person households living in private occupied dwellings, 1991, 1996, 2001</p> <p>Table 6.7: Median age of usual residents aged 15 years and over by dwelling</p>

	ownership status for one-person households living in private occupied dwellings, 1991, 1996, 2001
7: Families With Dependent Children	<p>Table 7.0: Families with dependent children as a percentage of all families, 1991, 1996, 2001</p> <p>Table 7.1: Families with dependent children living in temporary private occupied dwellings as a percentage of families with dependent children living in all private occupied dwellings, 1991, 1996, 2001</p> <p>Table 7.2: Families living in temporary private occupied dwellings with dependent children as a percentage of all families living in temporary private occupied dwellings, 1991, 1996, 2001</p> <p>Table 7.3: Ownership rate for families in private occupied dwellings, 1991, 1996, 2001</p> <p>Table 7.4: (Data Revised: 16/5/2003) Families with dependent children in private occupied dwellings with at least one member of a particular ethnic group as a percentage of all families in private occupied dwellings with at least one member of a particular ethnic group, 1991, 1996, 2001</p> <p>Table 7.5: Families with dependent children that receive income support payments as a percentage of all families that receive income support payments, 1991, 1996, 2001</p> <p>Table 7.6: Families with dependent children that receive income support payments as a percentage of families that receive income from all sources, 1996, 2001</p> <p>Table 7.7: Families with dependent children that receive income support payments by source(s) of income support as a percentage of all families that receive income support payments by source(s) of income support, 1991, 1996, 2001</p> <p>Table 7.8: Families with dependent children that receive income support payments by source(s) of income support as a percentage of all families with dependent children that receive income support payments, 1991, 1996, 2001</p> <p>Table 7.9: Median family income \$(000) for families in private occupied dwellings, 1991, 1996, 2001</p>
8: Multi-family Households	<p>Table 8.0: Multi-family households in private occupied dwellings as a percentage of all family households in private occupied dwellings, 1991, 1996, 2001</p> <p>Table 8.1: Multi-family households in private occupied dwellings by household income (gross) range as a percentage of all family households in private occupied dwellings by household income (gross) range, 1991, 1996, 2001</p> <p>Table 8.2: Percentage of multi-family households in each household income (gross) range for multi-family households in private occupied dwellings, 1991, 1996, 2001</p> <p>Table 8.3: Population aged 15 years and over usually resident in multi-family households in private occupied dwellings by ethnic group(s) as a percentage of the population aged 15 years and over usually resident in all family households in private occupied dwellings by ethnic group(s), 1991, 1996, 2001</p> <p>Table 8.4: Percentage of population aged 15 years and over in each ethnic group for the population aged 15 years and over usually resident in multi-family households in private occupied dwellings, 1991, 1996, 2001</p> <p>Table 8.5: Multi-family households in private occupied dwellings by ethnic group(s) of reference person as a percentage of all family households in private occupied dwellings by ethnic group(s) of reference person, 1991, 1996, 2001</p> <p>Table 8.6: Percentage of multi-family households in ethnic group(s) of reference person for multi-family households in private occupied dwellings, 1991, 1996, 2001</p> <p>Table 8.7: Population aged 15 years and over usually resident in multi-family households in private occupied dwellings by official language indicator as a percentage of the population aged 15 years and over usually resident in all</p>

	<p>family households in private occupied dwellings by official language indicator, 1996, 2001</p> <p>Table 8.8: Percentage of population aged 15 years and over which is non-English speaking for the population aged 15 years and over usually resident in multi-family households in private occupied dwellings, 1996, 2001</p> <p>Table 8.9: Median household income \$(000) by family type for households in private occupied dwellings, 1991, 1996, 2001</p> <p>Table 8.10: Median age of usual residents aged 15 years and over by family type for households in private occupied dwellings, 1991, 1996, 2001</p>
9: One Parent Families	<p>Table 9.0: One parent families with dependent children as a percentage of all families with dependent children, 1991, 1996, 2001</p> <p>Table 9.1: Sole parents in families with dependent children as a percentage of all parents in families with dependent children, 1991, 1996, 2001</p> <p>Table 9.2: One parent families living in temporary private occupied dwellings as a percentage of one parent families living in all private occupied dwellings, 1991, 1996, 2001</p> <p>Table 9.3: Percentage of sole parents that are female for sole parents living in private occupied dwellings, 1991, 1996, 2001</p> <p>Table 9.4: Ownership rate for one parent families with dependent children living in private occupied dwellings, 1991, 1996, 2001</p> <p>Table 9.5: Sole parents in families with dependent children by ethnic group(s) as a percentage of all parents in families with dependent children by ethnic group(s), 1991, 1996, 2001</p> <p>Table 9.6: Percentage of sole parents in families with dependent children in each ethnic group for sole parents in families with dependent children in private occupied dwellings, 1991, 1996, 2001</p>
10: Household Dwelling Type	<p>Table 10.0: Percentage of households usually resident in each dwelling type for households in private occupied dwellings, 1991, 1996, 2001</p> <p>Table 10.1: Households usually resident in multi-unit permanent private dwellings by number of story's in building as a percentage of households usually resident in private occupied dwellings, 1996, 2001</p>
11: Vacant Dwellings	<p>Table 11.0: Unoccupied dwellings as a percentage of total dwellings, 1991, 1996, 2001</p> <p>Table 11.1: Dwellings under construction as a percentage of total dwellings, 1991, 1996, 2001</p>
12: Building Activity	<p>Table 12.0: Number of building consents issued for new residential dwellings, total dwelling units (number), 1991 -- 2002 (annually)</p> <p>Table 12.1: Average floor area (m²) for new residential dwellings, 1991--2002 (annually)</p> <p>Table 12.2: Number of building consents issued for new residential dwellings by building type, 1991 -- 2002 (annually)</p> <p>Table 12.3: Residential building consents issued for new apartment blocks with 10 or more dwelling units as a percentage of all residential building consents issued, 1991 -- 2002 (annually)</p>
13: Housing Costs	<p>Table 13.0: Households with housing costs that are at least 25%, 30%, 40% of total net income, as a percentage of all households, 2000--2001</p> <p>Table 13.1: Households with housing costs that are at least 25%, 30%, 40% of total net income by tenure of household, as a percentage of all households by tenure of household, 2000--2001</p> <p>Table 13.2: Households with housing costs that are at least 25%, 30%, 40% of total net income by age group of reference person, as a percentage of all households by age group of reference person, 2000--2001</p> <p>Table 13.3: Households with housing costs that are at least 25%, 30%, 40% of total net income with at least one person of particular ethnic group, as a percentage of all households with at least one person of a particular ethnic group, 2000--2001</p>
14: Rental Costs	<p>Table 14.0: Rent-to-Income ratio (percentage) for households paying rent for the private dwelling they occupy, 1991, 1996, 2001</p> <p>Table 14.1: Median weekly rent (\$) paid by number of bedrooms in dwelling</p>

	for households paying rent for the private dwelling they occupy, 1991, 1996, 2001 Table 14.2: Median weekly rent (\$) paid by sector of landlord for households paying rent for the private dwelling they occupy, 1991, 1996, 2001
15: Landlords	Table 15.0: Percentage of households by sector of landlord for households paying rent for the private dwelling they occupy, 1991, 1996, 2001 Table 15.1: Mean number of bedrooms by sector of landlord for households in dwellings paying rent for the private dwelling they occupy, 1991, 1996, 2001
16: Jensen Equivalised Annual Household Income	Table 16.0: Jensen equivalised annual household income, 1991, 1996, 2001 Table 16.1: Median annual household income, 1991, 1996, 2001

Appendix E: Consultation List

- Housing New Zealand – *Sherry Carne; Rob Graham*
- Ministry of Social Development – *Robin Peace*
- Statistics New Zealand – *Blair Cardno; Bridget Hamilton-Seymour*
- Ministry of Health – *Paulette Finlay, Carmen Peteru, Jeanine Langvik*
- Quotable Value New Zealand – *Nikolai Shipkov*
- Ministry of Economic Development – *Patricia Colgate*
- Ministry of Pacific Island Affairs – *Abba Fidow, Lafaele Lupo*
- Department of Labour – *Kirsten Gendall*
- BRANZ – *Dr John Duncan*
- CHRANZ – *Brett Lineham*

Appendix F: Reference Sites

Statistics Websites

Directory of Housing Statistics	http://www.stats.govt.nz/domino/external/web/DRS02.nsf/25.%20Housing%20Statistics?OpenView
Housing Indicators Home Page	http://www.stats.govt.nz/domino/external/web/prod_serv.nsf/Response/Housing+Indicators+Home
Census of Population and Dwellings	http://www.stats.govt.nz/census.htm
Household Economic Survey	http://www.stats.govt.nz/domino/external/web/prod_serv.nsf/htmldocs/Household+expenditure+-+product+information
Consumer Price Index	http://www.stats.govt.nz/domino/external/web/prod_serv.nsf/htmldocs/Consumers+Price+Index+-+Information+Releases
Capital Goods Price Index	http://www.stats.govt.nz/domino/external/web/prod_serv.nsf/bc2da6fe40c360a9cc256b1400024782/e13d1758afba60cbcc256b1800755c7b?OpenDocument
Building Consents	http://www.stats.govt.nz/domino/external/web/prod_serv.nsf/bc2da6fe40c360a9cc256b1400024782/4e7817da220621f6cc256cbe0069e761?OpenDocument
Household Projections	http://www.stats.govt.nz/domino/external/pasfull/pasfull.nsf/web/Hot+Off+The+Press+National+Family+and+Household+Projections+2001(base)+2021?open
QVNZ – Infobase	http://www.quotable.co.nz/StaticSite/QVOnline/infobasehome.aspx
QVNZ – Property Statistics	http://www.quotable.co.nz/StaticSite/QVOnline/PropStats.aspx
REINZ Market Facts	http://www.reinz.org.nz/marketfacts/index.htm
BRANZ Building Research	http://www.branz.org.nz/branzltd/pdfs/
Economic Living Standards Index	http://www.msd.govt.nz/work-areas/social-research/living-standards/living-standards.html
AMP Home Affordability Survey	http://property-group.massey.ac.nz/research_group.asp?research_group_id=1
New Zealand Residential Rental Market Survey	http://property-group.massey.ac.nz/research_group.asp?research_group_id=2

Housing Reports/Analysis

SNZ Main Housing Site	http://www.snz.govt.nz/domino/external/web/Prod_Serv.nsf/htmldocs/Housing
SNZ Housing Statistics Programme	http://www.snz.govt.nz/domino/external/web/prod_serv.nsf/htmldocs/Housing+Statistics+Programme
SNZ – Housing Reports Crowding	http://www.stats.govt.nz/domino/external/web/prod_serv.nsf/htmldocs/Housing+Statistics+-+Crowding+Analytical+Report
SNZ – Housing Profiles	http://www.stats.govt.nz/domino/external/web/prod_serv.nsf/htmldocs/Housing+Profiles
NZ Now – Housing (1998)	http://www.stats.govt.nz/domino/external/pasfull/pasfull.nsf/7cf46ae26dcb6800cc256a62000a2248/4c2567ef00247c6acc256b6d0002826e?OpenDocument
Ministry of Social Development Publications	http://www.msd.govt.nz/publications/
Housing New Zealand Housing Market Report	http://www.hnzc.co.nz/housingresearch/housingmarketreport.htm
NZCCSS – poverty indicator reports	http://www.nzccss.org.nz/Publications/publist.htm

Key Stakeholders and users sites

Housing New Zealand	http://www.hnzc.co.nz/default.htm
CHRANZ	(not available yet)
Ministry of Social Development	http://www.msd.govt.nz
Ministry of Health	http://www.moh.govt.nz/moh.nsf
Statistics New Zealand	http://www.snz.govt.nz
Quotable Value New Zealand	http://www.quotable.co.nz
Ministry of Pacific Island Affairs	http://www.minpac.govt.nz
Te Puni Kokiri	http://www.tpk.govt.nz/
Building Research Association of New Zealand	http://www.branz.co.nz/
NZ Construction Industry Council	http://www.clg.co.nz/
New Zealand Council of Christian Social Services	http://www.nzccss.org.nz
Asia Pacific Network for Housing Research	http://web.hku.hk/~apnhr/
Asia Pacific Network for Housing Research (New Zealand Chapter)	http://www.ssrc.canterbury.ac.nz/apnhrnz.htm
Massey University	http://property-group.massey.ac.nz/mainh.htm



Centre for Housing Research

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