

Realising the value of official statistics

Opening address to the Official Statistics Forum 2010
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1 Opening remarks

The Honourable Maurice Williamson, Minister of Statistics, distinguished speakers and guests; it is my pleasure to speak to you this morning and contribute to setting the stage for what I am sure will be an excellent two-day Official Statistics Forum. The programme is full, varied, interesting, and I trust will prove very useful for pursuing our goal of Realising the Value of Official Statistics. I want to thank our sponsors and partners in the official statistics system who have helped make this event possible.

2 Introduction

One of my favourite quotes is Kim Hubbard's famous dictum: "Nobody can talk as interestingly as the fella that's not hampered by facts or information."

This is a challenge official statisticians love to take on! In fact, we strive very hard to be interesting and newsworthy.

It's not uncommon for government agencies to hit the news. In fact, we quite like to be in the headlines – so long as it's for all the right reasons

I reckon Statistics New Zealand is in the news far more regularly than any of the agencies represented here today – and almost always for the right reasons.

So far this month we've issued 17 media releases and in exactly one hour we'll issue our 18th – covering the release of *Balance of Payments and International Investment Positions: December 2009 quarter* (Statistics NZ, 2010a).

Last month we released 27 separate sets of information and they all hit the headlines. In fact, one of them went international – a member of our staff was quoted in *The UK Telegraph*, *The Australian*, the *Irish Examiner*, *The China Post*, in French in *The Canadian Press*, and on the One India news portal, where our release was translated into five languages.

Last month we released critical information about salary and wage rates, employment levels, population projections, fish stock, and the food price index – but you might be surprised to hear that the story that was snapped up by the global media was that **New Zealand now has more dairy cows than people**.

Now, the rapid increase in New Zealand's dairy herd is a significant element of our economy, especially in terms of exports. It would be nice if the story struck an international chord because of the world's concerns about food shortages – but one suspects it was more just vicarious interest in people-cow-sheep comparisons.

It does raise the question, though, of when does data becomes information or even knowledge?.

When does a fact on the number of milking cows become an interesting and valued piece of information – one that makes a difference to New Zealand's growth prospects or the world's sustainability?

Sometimes it is pure serendipity. More often, it is systematic identification – because we have planned to meet user needs.

In order to do this, we need to be aware of the issues that will confront decision-makers in coming years. We need to be aware of the environment decision-makers operate in and the questions they need answers to.

And we need to present relevant information in ways that address the questions being asked – that's how we can ensure that everyone appreciates the immense **value** of official statistics.

I see the question of **value** as our major challenge – **how do we create and exploit opportunities to demonstrate, enhance, and extract the value from official statistics?** How do we get the wider usage of these statistics to maximise their value to New Zealand?

Currently the fiscal environment encourages a heavy focus on cost. We quite rightly need to ensure cost effectiveness and, across the public sector, deliver better services for less. But my call to action at this forum is how we increase the value of official statistics and ensure New Zealand gets and uses the information it needs to grow and prosper.

A key theme of my talk to you today is the value of official statistics. I'm also going to cover:

- why statistics matter
- the benefits of, and progress with, the Official Statistics System
- the challenges we face
- the opportunities and how we can capitalise on them.

3 So why do official statistics matter?

Beside the fact that statistics don't lie, I'd like to touch on three good reasons to answer that question:

- Statistics offer **hard evidence to policymakers** as they go about designing policy and evaluating its effects on our well-being.
- Statistics **inform significant operational decisions in both the public and private sectors.**
- Statistics are vital to facilitate **informed public debate** and encourage accountability within our society.

This government has an overall goal to grow the New Zealand economy so we can all enjoy greater prosperity, security, and opportunity.

Statistical information plays a key role in achieving this goal – it is a vital part of the country's infrastructure.

We hear a lot about transport infrastructure these days. Statistics should illuminate and flow through the country's decision-making channels in the same way that the transport system supports the flow of goods and people.

Let me elaborate.

3a As producers of statistics, we provide the data that is a huge element of the evidence that ought to **inform policy development**.

Peter Orszag, Director of the US Office of Management and Budget, emphasised this point last year in his speech *The Nation's Statistical System and Why it Matters*. He noted that President Obama said that policy decisions will be driven by evidence. Orszag (2009) declared: "Robust, unbiased data are the first step toward addressing our long-term economic needs and key policy priorities."

Statistics alone never determine what policy should be or even identify policy options. But statistics underpin free and frank, evidential advice to ministers.

The former Canadian Chief Statistician Dr Ivan Fellegi put it like this – and he was in the job for 23 years, so he had time to think it through:

Experiences and views of politicians, the public, special interest groups, researchers and policy analysts, as well as political ideology, combine to arrive at policy proposals.

It is essential, however, that there should be relevant empirical and theoretical evidence to both **nourish** and **temper** the views of all participants.

What is needed is a concerted effort to try to understand the forces at work, to be able to anticipate with confidence the likely performance of alternative policy levers.

I like those words **nourish** and **temper** – not part of the vocabulary of most statisticians, but very powerful reminders of what we are here for – to "**nourish** and **temper** the views of all participants.

What do official statistics provide?

- A picture of where we stand as a society, our strengths, our problems, our changing character.
- Insight into how the economy and society functions and the nature of the causal factors at work.
- A report on the impact of specific policies – the feedback loop.

Let me give some examples:

- Our rapid economic growth from 2000 to 2008 reflected higher than long-term growth in capital and labour inputs, and lower than trend productivity. This raised doubts about the GDP growth rate's sustainability and generated a policy agenda on how productivity could be accelerated.
- The long-term fiscal outlook for New Zealand (and many other countries) is driven heavily by the ageing of the population - in particular, the rising cost of health care for the elderly. Treasury's intergenerational fiscal report published in October 2009 utilises statistics to analyse these trends in telling manner.
- The New Zealand Crime and Safety survey conducted by the Ministry of Justice provides a more fundamental and rich measure of the impact crime has on the victim – and broader social well-being – than just what is reported to the Police.

Official statistics have also impacted policy debates around:

- The recent economic and financial crisis and the appropriate policy measures to address it.
- The economic value of the metropolitan area and productivity of Auckland.
- The key practices driving the success of firms and the contribution of business assistance.

Policy debates and our social and economic circumstances continually change and the suite of official statistics has adapted to emerging demands:

- We now monitor bioscience activity and spend and track the success of our screen industry.
- To respond to the international call for broader measures of progress and well-being, last year we produced the report *Measuring New Zealand's Progress Using a Sustainable Development Approach* (Statistics NZ, 2009). This report looked at relevant measures for New Zealand within a new internationally agreed framework. It is a good example of a comprehensive approach to measuring New Zealand's economic, social and environmental progress.

Another recent development is the prototype Longitudinal Business Database (LBD) that integrates existing business-related data from 2000 to 2007 for all firms. The LBD is now being used to analyse business practices, performance, productivity, hedging behaviour, trade and finance. Last year, the Database was used to inform policy development about emissions pricing in New Zealand.

The development of the Longitudinal Business Database is especially relevant as we get started on the 2010 User Forum. I distinctly recall one of the key priorities that emerged from the last Official Statistics users' conference was enhanced statistics on business performance and microeconomic growth dynamics. We set up a cross-departmental research initiative to analyse business performance and the prototype LBD is the result.

A key challenge for us is to keep our statistics relevant.

Through the course of this conference, I expect to hear your views on upcoming policy decisions that would be enhanced by better data – or perhaps better use of existing data. Where will it make a difference?

3b As well as policy, statistics are crucial to many significant operational decisions and expenditure programmes.

Some examples:

- Some \$21 billion of benefit and superannuation payments are regularly adjusted by CPI and average ordinary time weekly wage movements.
- Do you realise that a 0.1 percent over-estimate of the CPI would increase annual government spending by approximately \$16 million? This is a good example for showing what would happen if official statistics are viewed simply as cost, rather than value, and quality is impaired through under-investment.

- Billions of dollars of health spending are allocated regionally on the basis of population, economic standard of living, and social outcomes that we consolidate in the New Zealand deprivation index.
- The significance of statistics extends to electoral processes and who governs the country - census data are used for electoral boundaries and determining the number of Māori seats.
- Another operational example is the use of statistics in programme evaluation and design, such as immigration settlement services and employment and education programmes. We have recently completed the Employment Outcomes of Tertiary Education feasibility study. This study combines tertiary education and industry training data with earnings data and allows labour market outcomes of educational achievement to be estimated – rather essential when we spend \$4 billion per year on tertiary education.

In summary, crucial evidence shaping the country’s billion-dollar investment decisions is sourced from official statistics – their accuracy impacts the lives of every New Zealand family.

3c Statistics also facilitate public debate and enable accountability

Ultimately, perhaps, this is their most crucial role. We all have opinions but informed public debate needs facts.

Statistics also enable people and groups to participate in policy debates:

- Iwi monitor their progress and analyse their needs and opportunities using economic and social statistics, empowering decisions and voice.

Timely, relevant, and reliable statistics enable the community to assess the country’s progress and whether the government is delivering on its election promises.

Increasingly, transparent policy practices and robust statistical reporting are required by international agencies or political groupings, such as the European Union (EU) and Organisation for Economic Co-operation and Development (OECD) to promote accountability. Our own opening the books legislation is a model.

Statistics have become instrumental in determining whether a country is accepted as a member of particular international organisations and political groupings. The EU requires countries to meet fiscal targets, transparent policy practices, and robust statistical reporting.

By way of contrast, Greece’s recent travails over its debt and public sector deficit levels demonstrate the increasing scrutiny and consequences of shoddy statistics.

Ours is a unique role – the information we produce has repercussions in dollar terms and in the quality of individual lives. It affects and helps determine organisational performance, and is critical for assessing government and public sector performance.

New Zealand’s ‘opening the books’ legislation – the Public Finance Act – requires the publication of service performance indicators and outcome measures. Over time this requirement has contributed to increased government accountability for expenditures and services. More will become available as the trend towards open government accelerates.

Last week we released a , study into measures of public sector productivity (Statistics NZ 2010b). Such an approach has the potential to create further transparency, public understanding and accountability of government and its agents.

The Minister of Finance Bill English will talk more on the contribution of statistics to government accountability and public debate in his address tomorrow.

4 So what about the Official Statistics System?

All government agencies are part of and contribute to the system of official statistics. The system includes all policies, practices and processes, underlying data sources, and people involved in producing and disseminating official statistics.

I have spoken about why we need statistics – but why do we need an official statistics system?

It's not just because statistics are important. It's that old cliché – the whole is greater than the sum of its parts.

It should be better for users, easier for producers, and cheaper for government.

A system that works across government can increase the **use** of the information we produce.

For example, if we collated and indexed all data the same way, data would be:

- easier to find – this government has a strong focus on open access to information
- more easily integrated when you do find it – there is growing pressure from users around this
- more authoritative and trustworthy.

Working together we can make better investment decisions that benefit New Zealand. We can enable a number of important things to happen:

- coordinated decisions on investment priorities across government
- a preparedness to evaluate and discard what isn't working or necessary any longer.

And we can be more efficient:

- areas of duplication can be identified and opportunities for rationalisation explored
- statistical methods and architectural designs can be optimised to minimise collection costs
- we can share infrastructure like classification systems, coding tools and sampling frames.

5 What progress have we seen in the official statistics system since last user forum?

It's been five years since our last forum and there has been considerable progress.

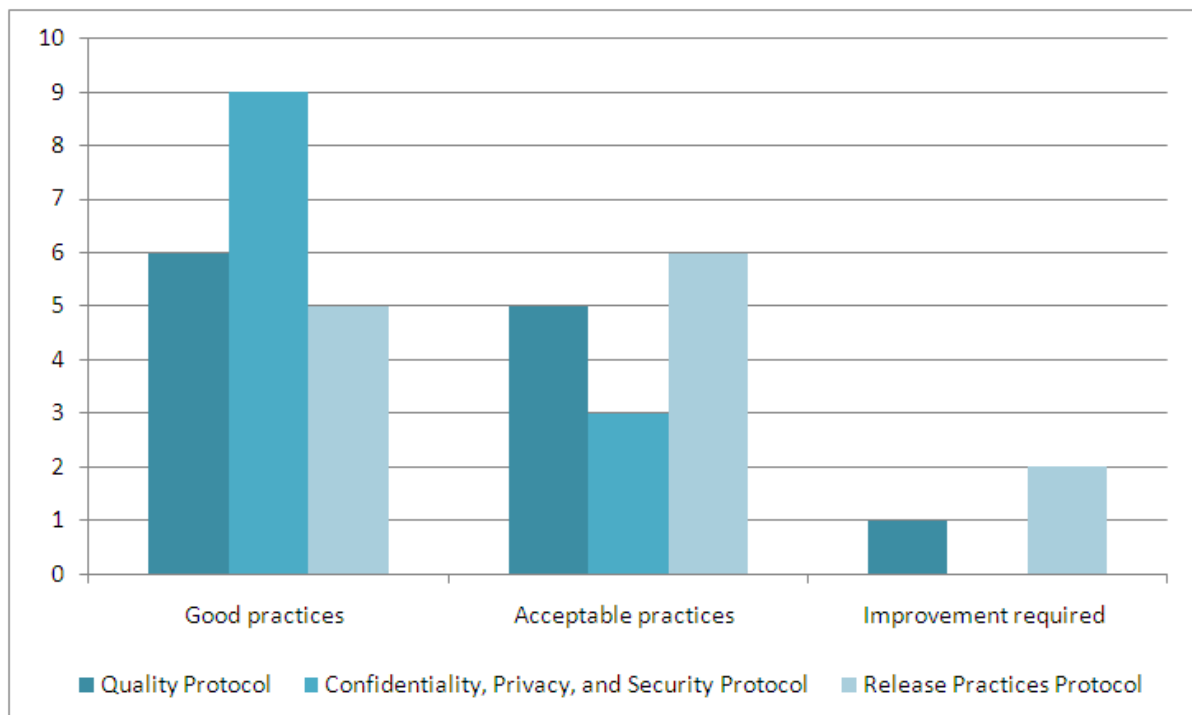
The foundations have been put in place and we have seen benefits as a result.

In terms of the foundations:

- The Advisory Committee on Official Statistics was established to provide independent and reliable advice on official statistics to the Minister of Statistics and government.
- We have completed a number of statistical reviews across government – creating domain plans that outline the main priorities for a sector, the gaps in information and how we will work together to address these.
- A list of New Zealand's **most important statistics** (Tier 1 statistics) was agreed, along with a set of **principles and protocols** that apply to them (see figure 2). I'm pleased to say that there is generally good adherence to the standards required.

Figure 2

Tier 1 Statistics' rating against the Official Statistics System principles and protocols



- We have completed a number of **statistical reviews** across government – creating domain plans that outline the main priorities for a sector, the information gaps and how we will work together to address these
- We have built **the capability of producers and users** of official statistics. Over 50 public servants have undertaken the Certificate in Official Statistics. The Adjunct Chair in Official Statistics at the School of Government has advanced statistical

capability across the public sector and connections with the university and research sector.

The official statistics system is travelling in the right direction, and the results are positive.

The three shifts that's I am most pleased about are:

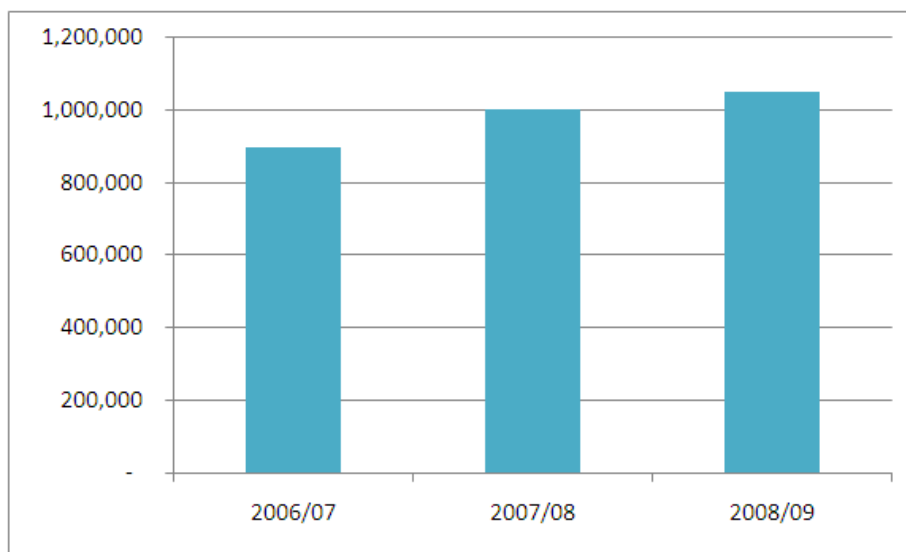
- enhanced access to statistics
- reduced respondent load
- new statistics addressing key gaps.

Enhanced access to statistics was spurred in part by government funding to remove user charges – and an enormous amount of data has been made freely available:

- There is improved user access to statistics – through Statisphere, the data archive, and the Police crime statistics are now on the web.
- Tools have been upgraded – Infoshare and Census Quick Links have been successes – and use of the website and Datalab has increased significantly (see figures 3 and 4).

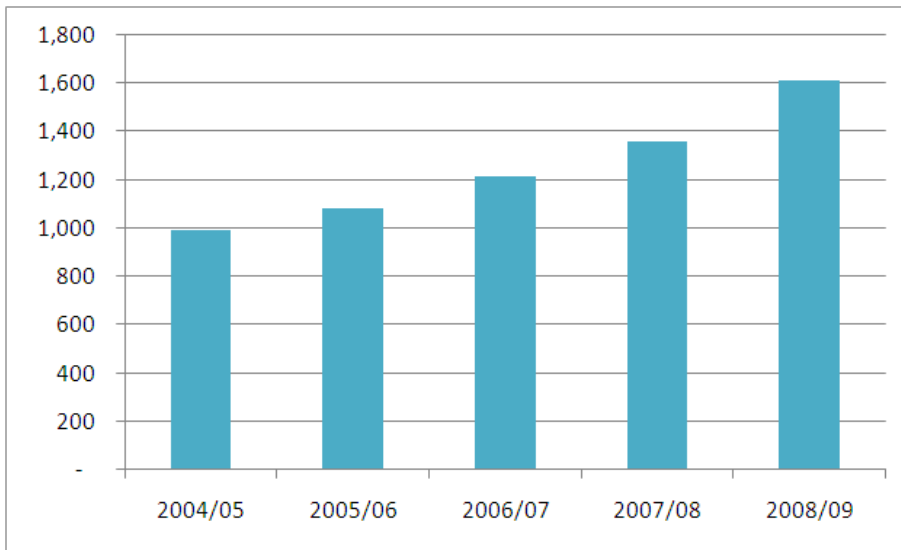
Figure 3

Website unique visitors, www.stats.govt.nz



Source: Annual Report of Statistics New Zealand for the year ended 30 June 2009

Figure 4
Data laboratory sessions

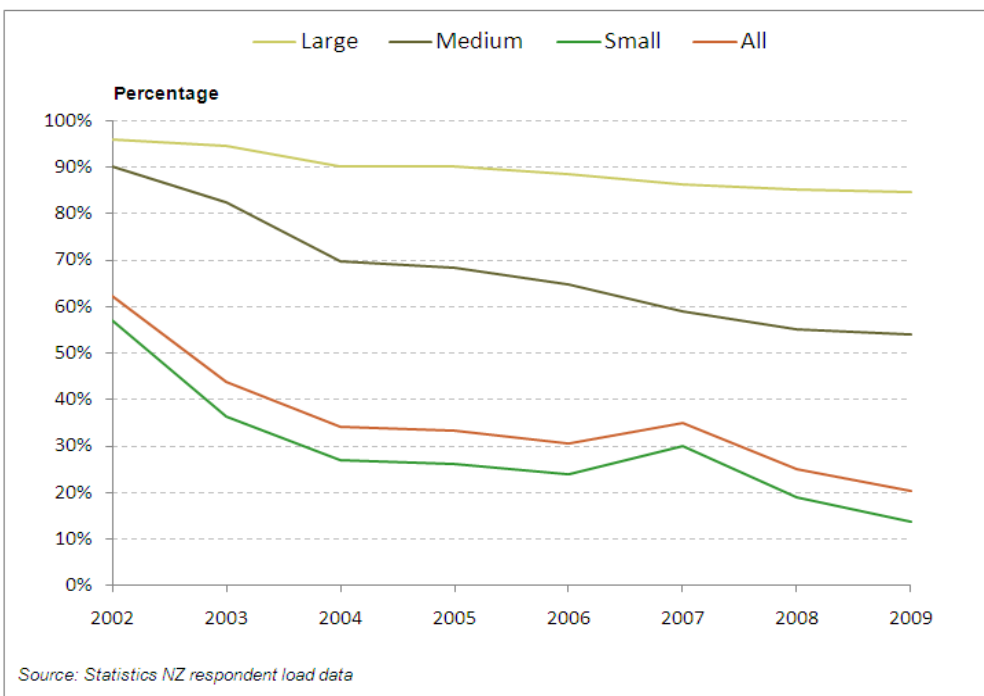


Source: Annual Report of Statistics New Zealand for the year ended 30 June 2009

- Significant energy has gone into promoting statistics to the business through partnerships with the chambers of commerce, Business Mentors, and other business networks.

We have succeeded in reducing the **collection burden** on the business sector (see figure 5).

Figure 5
Businesses surveyed, by size of business



Source: Statistics NZ respondent load data

This has been achieved through more active management, the substitution of administrative records for surveys, and rationalisation of fragmented datasets.

For example:

- The Ministry of Agriculture and Forestry and Statistics NZ have rationalised forestry statistics.
- Energy production statistics previously duplicated between the Ministry of Economic Development and Statistics NZ are now solely produced by the Ministry.
- Statistics NZ and Inland Revenue have worked closely to improve the use of tax data through a shared governance structure and systematic consultation.

Gaps have been filled – we have new productivity measures and the Programme of Official Social Statistics has made major progress against its objectives.

The New Zealand General Social Survey has provided new information about key social and economic outcomes in one dataset. It addresses areas where quality information has been scarce - in housing, social isolation, environment, discrimination, and emergency preparedness. For example, this survey confirms that some population groups are at higher risk of poor outcomes for both traditional measures (income, employment, and qualifications) and new measures (housing quality, social isolation, safety, and discrimination).

Information from the General Social Survey should improve policy and decision-making in these areas – **if used well**. Here I make a plea to our user community – we need sustained policy and research enquiry to extract full value from these major statistical investments.

6 What are the challenges for official statistics in years to come?

So, there has been considerable progress in collaboration across government and improved access to information, but new issues and priorities have arisen.

Managing expanding demand, maintaining relevance, and addressing future needs are ever-present challenges for any official statistics system.

The rapid evolution of the Internet and web services has meant we can supply more data to users but this has also generated increasingly sophisticated expectations from them. Users want more information in rapidly changing forms.

The technology, resourcing, and customer service demands are typical of any information service provider. What is special for official statistics is the need to ensure reliability and distinguish the authoritative source and veracity of official statistics.

Trust in government is inextricably linked with trust in official statistics

Our reputation is our brand, and our brand must be applied judiciously and protected – by ensuring official statistics are released according to schedule, not according to whim, and quality-marked in some way to distinguish them from the morass of management information and operational ‘flotsam’.

Information technology has also allowed researchers to **analyse** data in more detail.

This has led a focus on access to more levels of information – through data cubes, confidentialised unit record files (CURFs), and the most detailed data through our Datalab facilities.

Taking this a step further, possibilities for remote access are being looked at to make access to data easier.

More urgent in my view is the need to enable **non-government researchers** access to microdata. I am hopeful that legislative amendment will occur this year to remove the barrier that currently exists, enabling greater use and value to be obtained from existing datasets. There will be opportunity for valuable discussion on these access issues later today.

The increased demands for information raise an obvious challenge for those producing official statistics: The challenge of continuing to identify and respond to emerging issues, whilst former needs remain relevant.

This is not a uniquely 21st century challenge. In 1978, Sir Claus Moser director of the United Kingdom's Central Statistical Office said:

The enormous increase in the demands of governments for more and better statistics has reflected the increase in government itself. Wherever one looks, governments have tended to govern more (as cited in Duncan, 1995).

But demand for statistics is not driven by government alone:

- What modern business plan or investment decision does not consider market characteristics, price movements, and growth prospects?
- Non-government organisations (NGOs) assess their client bases against population benchmarks, social trends, and economic development.
- Iwi monitor their progress and analyse their needs and opportunities using economic and social statistics.
- And academics exploit whatever they can get their hands on!

We are operating in a highly constrained fiscal environment – and at the same time we are trying to anticipate increasing demands from an ever expanding set of customers and users of official statistics.

The appetite for information seems to be unlimited – but statistical budgets are not. You can't provide a ten-course meal on a three-course budget. Priorities must be set.

The most important measures for New Zealand are known as Tier 1 statistics. I will be leading a refresh of that list over the next few months. Reaching agreement on the most important statistics for the country is an essential prioritisation process for the Official Statistics System.

Prioritisation is fundamental to balancing the budget. So too is managing cost pressures and creating room for new products and services, which requires continued success in driving up the efficiency of production, through enhanced methodologies, standardisation, shared infrastructure etc. As a sector we must chase such opportunities with vigour.

The focus on **cost-effectiveness** is driving approaches where we can achieve both efficiency and extended information gains together:

- We are aggressively pursuing ways of generating statistics from administrative data to provide extended information – on the services sector, for example. Standard business reporting, an initiative that will reduce the burden businesses face when reporting to multiple government agencies, is being explored. A focus on using existing administrative data will reduce the need for new surveys – although the financial impact on government may be negative.
- We are focusing on new economic and social statistical architectures that integrate information from multiple sources. This is currently most developed in the business statistics arena and in labour market statistics where we integrate employee and employer records in new rich datasets.
- We are actively exploring how closer integration of designs and datasets related to census and household surveys may do something similar – yield more powerful information, at lower costs. But once again, savings will be in the long-term as new needs are more easily met.

Reducing the survey load on respondents is a positive outcome, but this approach also creates new technical challenges for statisticians:

- How to resolve quality and coverage issues with administrative data?
- How to develop new statistical methods for working across different information sources?

Research into these methodological issues is vital.

Closer coordination of geospatial information and official statistics is another extremely promising realm for achieving both efficiency and extended information gains. In a report to the United Nations Statistical Commission earlier this year, the National Statistical and Geographical Institute of Brazil stated:

The rapid development of contemporary geospatial technologies, such as satellite imagery, global navigation systems (eg the Global Positioning System (GPS)), hand-held computers and geographic information systems, has created unprecedented opportunities to use geographic information.

The impact of these developments on official statistics is felt in particular at all stages of population and housing census, where efficiency has been improved in the pre-enumeration, enumeration, and post-enumeration phases largely through the use of geographic information tools (United Nations, 2010).

There are many challenges, but, as I mooted at the outset, it is very clear to me that our biggest challenge is to focus on **value**, not merely on cost:

- The **value** of filling crucial knowledge gaps on savings, the services sector, economic vulnerability, public sector productivity, geospatial information, and consistent regular environment reporting.
- The **value** of improved data access and promotion of what is available.
- The **value** of reduced costs to respondents, even if financial costs are instead borne by the public sector.
- And risks to the **value** of high quality, trustworthy estimates when reliability and sustainability are threatened by budget pressures.

7 In conclusion

There are exciting opportunities available to us in the Official Statistics System to contribute to government goals and improve outcomes for New Zealanders:

- Lift New Zealand's growth and progress by filling critical gaps in the country's official statistics so that decisions can be made and progress monitored.
- Increase the benefits to New Zealand from government investment in official statistics by increasing their availability and use.
- Ensure that official statistics are used in all aspects of government decision-making so that better decisions are made.
- Reducing costs to businesses and households through initiatives aimed at increasing integration and reducing duplication.
- Increasing value for money by better prioritising investment in statistics across government.
- Ensuring the continued production and quality of existing important statistics.

As official statisticians, users and producers of statistics and policy-makers we in this room here today are charged with ensuring that New Zealand capitalises on these opportunities.

We can do this by:

- promoting the use of official statistics in evidence-based policy advice and in the business and wider community
- strengthening collaboration across our government agencies and ownership of official statistics through regular engagement and review of progress
- getting involved in the review of Tier 1 statistics to ensure they are relevant for our needs
- working collectively to look for ways to reduce duplication across government and reduce the survey load on respondents.

Thank you for your time this morning. I'm looking forward to hearing your thoughts during the remainder of this conference on ways to maximise and recognise the value of official statistics. I trust you will both learn and contribute to forging an even better official statistics system.

References

Duncan, JW & Gross, AC (1995). *Statistics for the 21st century: Proposals for improving statistics for better decision making*. Dun and Bradstreet Corporation, US.

Orszag, P (2009). *The nation's statistical system and why it matters: Federal statistics in a science-driven administration*. Available at www.whitehouse.gov/omb/blog/09/05/08/UsingStatisticstoDriveSoundPolicy/.

Statistics NZ (2009). *Measuring New Zealand's progress using a sustainable development approach*. Wellington: Author. Available from www.stats.govt.nz/sustainabledevelopment

Statistics NZ (2010a). *Balance of Payments and International Investment Positions: December 2009 quarter*. Available from www.stats.govt.nz.

Statistics NZ (2010b). *Measuring government sector productivity in New Zealand: A feasibility study*. Available from www.stats.govt.nz/productivity.

The Treasury (2009, Oct) Intergenerational fiscal report.

United Nations (2010). *Report of the National Statistical and Geographical Institute of Brazil on global geographic information management: Towards better global coordination and integration with statistical information*. Report to forty-first session of Statistical Commission. Available from www.unstats.un.org/unsd/statcom/doc10/2010-13-Brazil-GGIM-E.pdf