



ViewPoint

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Striving to Improve Productivity

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Productivity has become the key focus of the Government and business alike as New Zealand looks to get out of its current economic trough. To achieve greater productivity there needs to be a commitment from both parties to encourage and invest in innovation so that the return for our resources is maximised.

Productivity is an important concept – the value of products and services sold relative to the cost of the resources used to produce them. Over recent years we have been growing the national income by getting more people into work and in some areas we have been well served by rising commodity prices. Other countries, our competitors, have been raising productivity by producing more and adding greater value.

The Treasury has been giving the topic some heavyweight attention. Six papers released in April¹ looked at the importance of productivity growth to economic growth, assessed New Zealand's productivity performance over time, and reviewed the impacts of New Zealand's low capital investment, competitive forces, innovation and skills on productivity. Productivity is not only about effort, it is about effectiveness, working smarter rather than harder.

Among the policy issues that the Treasury identified are three areas of particular importance: education, innovation, and information and communication technologies (ICT).

Labour is our most critical resource. New Zealand's labour productivity is amongst the lowest in the OECD – we are 22nd out of 30 in terms of GDP per hour worked, which is 30% less than Australia.² The large labour movements between Australia and New Zealand make this large and increasingly entrenched gap extremely worrying.

Increasing skill levels improve labour productivity in many ways. A more skilled person is likely to produce greater output for each hour of work. In addition, skilled people are also more likely to help their colleagues produce more value each hour, stimulate innovations and increase the value of capital investments.

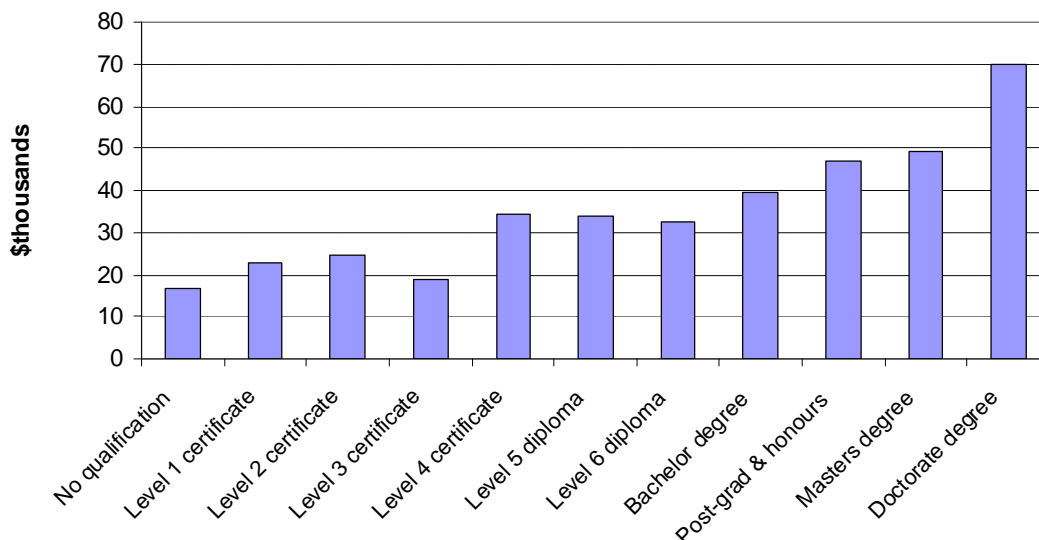
Increasing skills should therefore have an exponential and self-reinforcing effect on productivity². The valuable skills are not only technical. 'Soft' skills such as communication, teamwork and problem solving are also essential in a 21st century economy where organisational hierarchies are flatter and employees are expected to act more autonomously².

The strong correlation between qualifications and median incomes indicates the link with value (see graph³). Therefore, there is a need to start building the skills of young people, perhaps 10 or even 20 years out from the workforce.

To grow productivity there needs to be a commitment from government and business.

New Zealand's labour productivity is amongst the lowest in the OECD.

New Zealand median incomes by qualification



Commitment to helping staff learn is a valuable incentive in recruitment and retention.

There are also shorter-term strategies that every business can execute to gain instant benefits. At AgResearch, the Crown Research Institute for which Andrew West works, the staff have some of the highest formal qualifications of any New Zealand organisation. However, they still grow their skills continuously through internal and external seminars, workshops, conferences and training courses, as well as one-to-one coaching, mentoring and other learning opportunities.

As well as growing staff members' productivity and that of the organisation as a whole, commitment to helping staff learn is a valuable incentive in recruitment and retention. By raising the overall skill level, the individuals benefit, as does the company and the economy.

Innovation sits alongside improving skills as a means of improving labour productivity. As Treasury notes, technological breakthroughs based on increased knowledge have driven the huge rise in living standards over the last two centuries⁴. Much of this knowledge has been science-based but organisational, social and legal innovations have also been important.

It is widely recognised that New Zealand as a whole has seriously under-invested in research and development (R&D) as a percentage of GDP. Less well-recognised is that the largest gaps between our investment levels and those of more typical OECD countries have been in the areas of private sector R&D investment generally, and specifically investment in development⁴. Our next article will discuss this point in some detail.

Under-investment in development by a private company has two adverse effects. Firstly, the company misses out on incrementally growing the value of its products or services, and secondly, it misses out on the opportunity to incorporate advances in knowledge that emerge from the research portion of R&D.

Dedicated research organisations such as CRIs and universities can only do so much to 'push' private R&D investment; the private sector has a part to play by 'pulling' R&D. Research organisations will respond to that 'pull' by providing relatively safe opportunities for companies to invest in development, and by helping companies grow these capabilities within their own structures.

Innovative responses might include research organisations providing pilot plants for use by small and medium enterprises as and when they need them. Technologists and engineers could also be seconded into SMEs to do development projects when the SME cannot afford to retain permanent R&D staff.

New Zealand as a whole has seriously under-invested in R&D.

Innovation sits alongside improving skills as a means of improving labour productivity

ICT also has multiple effects on productivity. A particular concern for New Zealand is overcoming the difficulties imposed by our geographic isolation. Most innovation occurs overseas, of course, so we need to access it reliably, quickly and inexpensively.

Even within New Zealand, a farmer who has to drive for two hours to assess and bid on cattle for sale at an auction is incurring substantial opportunity costs in doing so. The person who commutes instead of doing their computer and telephone based job at home or in a nearby suburban centre is also less productive than they could be.

Thus there is a need for a pervasive, easy and inexpensive ability to access, create and manipulate high volumes of information through communications technologies such as broadband internet. This becomes a self-reinforcing cycle: the more businesses embrace the opportunities that broadband already offers, the more ICT providers will invest.

A unifying theme among these opportunities to improve New Zealand's productivity is that they can be driven by the choices of New Zealand's business leaders. Investment now will lead to long-term benefits.

New Zealand is overcoming the difficulties imposed by our geographic isolation.

The more businesses embrace the opportunities that broadband already offers, the more ICT providers will invest.

¹See <http://www.treasury.govt.nz/publications/research-policy/tprp/>

²MacCormick, J. (2008) Working smarter: driving productivity growth through skills, New Zealand Treasury Productivity Paper 08/06, The Treasury, Wellington, NZ.

³Plotted from data in Table 10 of Statistics New Zealand "QuickStats About Education and Training", 2006 Census.

⁴Lewis, G. (2008) Innovation and Productivity: Using Bright Ideas to Work Smarter, New Zealand Treasury Productivity Paper 08/05, The Treasury, Wellington, NZ.