

What Happens After Graduation? The Market for Economists

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Abstract

The paper examines the labour market for economists in New Zealand. In particular, it makes use of data from the New Zealand Department of Labour (DoL), the Census and the Ministry of Education (MoE) to make inferences about the level of demand and supply of economists. In doing so, the paper acknowledges that in the market for economists in New Zealand, there are two distinctly different sub-categories (academic and non-academic) that exhibit quite different characteristics. In recent years, employment prospects have been good for non-academic economists although are less favourable for academic employment. Economics graduates also have reasonable salaries compared to other graduates.

Introduction

In undertaking reviews of the manner in which economics is taught at the higher education level in New Zealand, it is important to understand the destinations of economics graduates. Since the 1960s, the areas of the economy, where economic graduates and economists are employed, have grown and diversified. Employment conditions for both economics graduates and economists were adversely affected by the financial crisis of 2008-09, just as employment conditions were affected elsewhere in the economy, however, on the whole, employment conditions for both were fairly buoyant during the 1990s and 2000s in New Zealand.¹

The paper examines the labour market for economists in New Zealand over the longer term. In doing so, it concentrates on the employment circumstances of economists rather than the broader category of economics graduates although the conditions affecting the latter are examined as an aid to determining the circumstances of the former. In particular, the paper makes use of data from the New Zealand DoL, Statistics New Zealand and the MoE to make inferences about the level of demand and supply of economists. Therefore, the paper acknowledges that in the market for economists (as opposed to economics graduates) in New Zealand, there are two distinctly different sub-categories (academic and non-academic) of economists that exhibit quite different labour market characteristics. In addition, economists working in non-academic areas are also divided into a number of sub-categories (i.e. policy/regulatory, finance, etc).

In the following section, a description of the economics profession in New Zealand is given. This is followed by a section with an analysis of the demand for economists in New Zealand, a section where a description of the supply is provided and a section which presents a discussion on relative salaries. In the final section, some conclusions are made.

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Economists in New Zealand

Even though the growth of the study of economics at New Zealand universities took place at the same time as the development of the profession of economist in New Zealand, the two groups of people (economists and economics graduates) are not necessarily the same. Before looking at the nature of the labour market for economists in New Zealand, it is important to make a clear distinction between those people who enter the workforce as economics graduates and those who are employed specifically as “economists”. Many economics graduates use their degree as a generic degree before taking up employment in the business or government sectors. Often their work takes them into economics related areas, but it can also take them into other fields. A person employed as an economist, generally, makes specific use of the skills and techniques acquired in their education on a range of economics related problems.

The profession of economist can perhaps be defined as being experts who study, develop and apply theories and concepts from economics to solve business and policy problems. In business, they study data and statistics in order to spot trends in economic activity, economic confidence levels and consumer attitudes. They evaluate this information using advanced methods of statistical analysis, mathematics, computer programming and make recommendations about ways to improve the efficiency of a system or take advantage of trends. Economists who work in the public sector assist policy makers to gauge the costs and benefits of public policies and to assist with the regulation of private business activity (or conversely, work on behalf of private companies to help them respond to regulation, often on contract from consulting firms). The profession is an important one as the advice of economists can have an influence on the nature and conduct of government policy and regulation and the development of business strategies.

The economics profession itself developed originally in the United States, the United Kingdom and Germany in the early years of the twentieth century. With the increased commercialisation and industrialisation of society, a more scientific/rational approach to knowledge evolved, which embodied an increased emphasis on technical expertise (Bellis, 2000). This growth of modern knowledge strengthened ‘new’ professions such as economics because its members were able to provide specialist knowledge to modern, expanding industries and to exercise their professional judgement when called upon to give policy advice.

Following the establishment of economics degree programmes in British universities, courses in economics were introduced into the four colleges of the University of New Zealand in the 1900s.² Standalone economics degrees were not developed, but were established as economics majors in the Bachelor of Commerce degree. Economists first became noteworthy in New Zealand during the economic debates of the 1930s and Second World War mobilisation. At this stage, they were relatively few in numbers, however, with the decision of the public service, at the end of the Second World War, to recruit graduates, including economics graduates, the profession began to emerge.

Up until the 1950s, the bulk of students studying economics were part-time students of accountancy and only a few students were specialised in the study of economics (Beaglehole, 1937; Parton, 1979). The recruitment of economics graduates into the public sector in the 1950s and 1960s provided encouragement for undergraduates to undertake economics majors. In addition, the expansion of the number of secondary school teachers teaching economics in schools in the 1970s encouraged students to specialise in economics.

Even though the number of economics graduates rose steadily in the 1960s, the number of people who were formally employed as “economists” was, at this time, very limited in numbers. Generally speaking, the employment of economists was restricted to a number of positions with the Research Bank, the universities, a

limited number of positions with the trading banks along with a number of secondary school teaching positions. While the Treasury employed a few economists at this time the numbers were not great³, but from the 1970s onwards, economics graduates were sought more extensively by the finance and business sectors.⁴ During the 1970s, the Treasury also began to employ a greater number of economics graduates (McKinnon 2003). Public sector employment of economists later spread to other departments, such as the Ministry of Economic Development, the Commerce Commission, Statistics New Zealand and the Ministry of Agriculture and Fisheries, etc. In recent times, local government authorities have also employed economists to help develop local economic development strategies.

In even more recent years, the finance sector has employed an increasing number of economists to judge and forecast economic conditions, as have utilities such as telecommunications, electricity and gas companies. As the latter have been subjected to government economic regulation, they find the employment of economists useful in responding to regulatory and policy changes. As the quantification of economic impact of Government policy and regulation has become more common, more economists have been employed in order to carry this out. However, it is not just Government agencies doing so but also large companies, industry and professional associations and even charities as they, too, are required to respond to Governmental policy changes with economic arguments.⁵ In fields such as property and transport development, making economic cases and rationales are important in order for builders to gain government approvals, hence the reason these fields also employ economists. As not all companies, associations and government agencies find it feasible to employ all the economists they require directly, many purchase these skills from consulting companies. The number of privately-owned, economic consulting firms has grown in New Zealand in recent years; these firms offer advice to and predict economic scenarios for individuals and large corporations and occasionally act as consultants to branches of the government.

Economics in New Zealand went through a process of professionalisation in the 1950s and 1960s and started to take on the characteristics of newer types of professions that had been appeared in the twentieth century. The professions were classified by a specialised body of knowledge, intellectual skill or technique, which was only acquired through a lengthy period of formal education. Acquiring this included mastering the skill underpinning it. That is to say, formal education in an academic setting. The introduction of a discipline like economics into the university system, as mentioned earlier, was an important stage of the overall professionalisation process as well as the creation of a viable career opportunity (Ashenfelter, 2001; Boddy, 1973; Abelson and Valentine, 1985; Ehrenburg, 2004).

In terms of its intellectual and academic development, the professionalism of New Zealand economics was high by the 1970s. This is substantiated by the fact that the subject was firmly established as an academic discipline at the universities and the number of undergraduates was passing through university courses at a reasonable level. The training programmes were robust with some university departments achieving high standards of research and teaching. Employed economists had evolved from being technical workers to being highly trained economic theoreticians, specialising in a number of sub-fields such as production economics, economic forecasting and modelling and price theory.

In contrast to regulated professions, such as engineering, law or medicine, there is not a legally-required educational requirement or license for economists in New Zealand, but in New Zealand, most economists have at least a Bachelor's degree with a major in economics while some also have Masters' qualifications and a few with a Doctorate. In some cases, economists have gained their skills from related disciplines, such as statistics or some types of applied mathematics, such as mathematical finance. Generally, only a minority of economics graduates become professional economists even though many work in related fields, such as finance, accounting, insurance, tax or management. Overall, a majority of economics graduates end up

working in economics-related areas, but the proportion is lower than that of accounting, engineering, medical, education or law graduates.⁶

The Demand for Economists

It is not entirely clear just how many professional economists there are working in New Zealand as there is no formal licensing of economists and given that it is a self-defined profession and, presumably, as many economists regard themselves as public servants or, for example, financial market analysts rather than economists, the number is difficult to determine. Many economics graduates also work in areas which combine some of the responsibilities of an economist with those of other fields.

In 2008, the New Zealand Association of Economists reported that it had 354 members (NZAE 2008), and as membership is not crucial to a successful career as an economist in New Zealand, many economists choose not to join the association or, instead, join professional agencies or societies that more closely reflect their work areas, for example, the New Zealand Agriculture and Resource Economics Society and the New Zealand Statistical Association. Therefore, the number reported by the NZAE probably does not reflect a clear figure of the number of economists working in New Zealand.

The 2006 Census counted 480 people who listed their occupation as economists – a number that would not have included those who worked and classified themselves as other occupations (ie: academic, teacher, policy analyst, statistician etc). In 1996, over 1,000 New Zealanders declared themselves to be economists, but the subsequent creation of the occupation of ‘policy analyst’ for the 2001 Census took away from this. The category of ‘policy analyst’ was largely taken from numbers of those who had previously characterised themselves as being economists or social scientists. At the 1996 Census, economists accounted for 31 percent of the two categories combined. At the 2001 Census, the combined number of economists, social scientists and policy analysts was at 1,430 (31 percent) and 1,850 in 2006.

Table 1: Employment Numbers at Census⁷

	1971	1976	1981	1986	1991	1996	2001	2006
Economist	204	789	1,107	750	735	1,005	375	438
Policy Analyst	n/a	n/a	n/a	n/a	n/a	n/a	2,910	4,029
Social Scientists*	13	69	179	122	1,176	2,200	1,332	1,497
Market Research Analyst	239	313	441	654	1,752	n/a	1,737	3,072
Statistical Analyst & Mathematicians	114	188	198	229	507	492	495	801

Source: New Zealand Statistics (1971-2010).

*Many later categorised as social scientists in 1971 and 1986 were classified as government officials, included entirely in this category in 1991 and 1996 then subsequently shifted to the Policy Analyst category.

As the number of policy analysts with an economics backgrounds in New Zealand has grown steadily during the 2000s as well as there being increase in the number of economists in the finance sector (at least up until the financial crisis of 2008/09), the number of economists in New Zealand today is almost certainly far higher than the 1996 Census figure. Looking further at the census data, it is clear that other fields that employ economists, such as market research analysts and statisticians have grown strongly through the 1990s and 2000s. It is, therefore, probable that the number of economists working in New Zealand today is well

over 2,000, considerably more than the number of economists counted by the Census in 2006 or the membership numbers of the New Zealand Association of Economists.⁸

Traditionally in New Zealand, a fair proportion of economists worked as university academics. From the figures just cited and the list of numbers of economists employed in New Zealand universities, it would appear that academic economists are a small minority of the full number of economists working in New Zealand. From Table 2 it can be seen that, in 2010, there were 159 academic economists with full time positions in New Zealand. In addition, there are a small number of economics lecturers at polytechnics and private providers such as UNITEC, Manukau Institute of Technology and AIS St Helens. Although this number has grown steadily since the 1960s in line with student numbers, it is a number far below that of government and private sector economists. This differs to the situation in Australia where the number of economics academics has been stagnant since the mid 1990s (Maxwell, 2003).

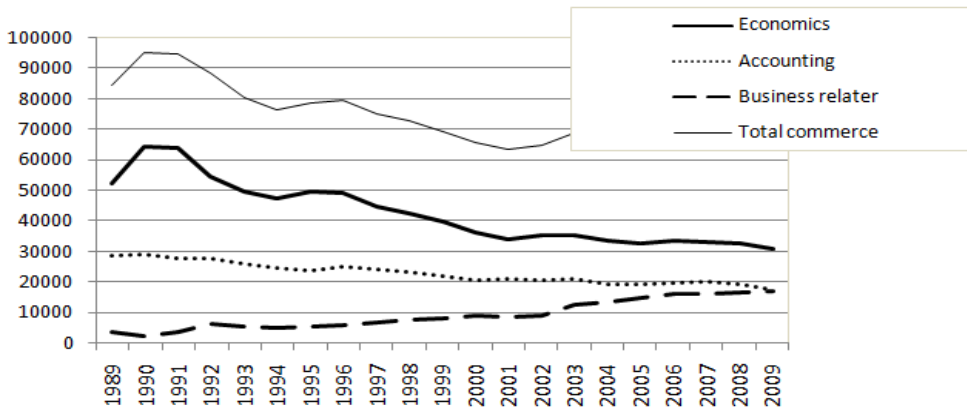
Table 2: Academic staff in economics departments of New Zealand Universities, 1965 to 2005

	University Departments	Staff
1965	7	49
1975	7	86
1985	7	118
1995	7	143
2006	8	150
2010	8	159

Source: Association of Commonwealth Universities, 1965-2010

In addition, a significant number of economics graduates were employed as economics teachers in secondary schools in the past. Demand for economics school teachers, however, has been waning since the 1980s as students have switched to other subjects. Figure 1 provides data on the number of students studying economics in secondary schools in New Zealand. Some of this decline can be attributed to the switch of students to other business related subject, although it should be noted that the number of students studying the combined total of accounting, economics and other business related subjects has declined significantly since the 1980s.⁹

Figure 1: Economics & Business Related Subject Numbers in Secondary School from 1989 to 2009.



Source: Ministry of Education (1989-2009).

At one time, it would have been reasonable to state that the bulk of economists in New Zealand worked in the universities, secondary schools or key government departments, such as the Treasury and Reserve Bank but

this is no longer true as the bulk either works in a range of government agencies or for the private sector. What appears to have occurred during the 1990s is that the number of economists has grown steadily, but most of this growth has been in the public and business sectors rather than in the universities or secondary education sector. The number of economists has grown in a number of other areas such as utility regulation (electricity, gas and telecommunications), transport and urban planning, market and business research and health and social services as well as the finance sector. However, not all of these economists work directly for the public sector, but they often work for consulting companies that provide advisory services. Today, the vast majority of economists work in business or for the Government rather than the education sector.

One final aspect of demand for economists that should be noted is the lack of crossover in the labour market of academic and non-academic economists. Given the general requirement of academic economists to have a Doctorate and non-academic economists to have work experience (on top of their Bachelor's degrees), the crossover between the two areas is not great. While there are some examples in New Zealand of academic economists who have gone on to public or business careers in economics and examples of business or public sector economists who have taken up academic careers, it is far more common for economists to specialise in either area at an early stage and continue to stay in that field. That means the labour market conditions in the academic market and business and public fields are not necessarily the same. For example, it is possible for demand to be strong in one sector of the market and weak and flagging in the other. This would tend to have been the case in New Zealand in recent years as demand for professional economists has tended to be strong whereas demand for economists in the education sector (both higher and secondary) stagnant at best.

The Supply of Economists

Looking at the supply side, it would appear from Table 3 that there has been some growth in the number of economics graduates in the 1990s and 2000s, with a speed up occurring in the latter decade.¹⁰ Some of this growth was due to a greater number of overseas students taking up studies in economics, but even after taking this into account the number of domestic graduates seems to have been rising steadily (Table 3). While there is no way of knowing exactly how many graduates in New Zealand have majored in economics, the number is probably around 10,000.

Table 3: Economics and Business graduates in New Zealand higher education, 1985 to 2008

	Economics Bachelors graduates	Economics, post-graduate certificates, diplomas	Economics Masters	Economics PhD	Domestic economics all	Commerce Graduates	Economics/Commerce
1985	207	21	20	3	n/a	1,196	0.210
1990	364	26	19	1	n/a	2,355	0.117
2000	520	320	60	10	760	7,169	0.113
2005	840	230	60	10	690	10,040	0.114
2008	1,020	370	70	10	1,020	10,080	0.146

Source: Ministry of Education, 1989-2010; Scott, 2009a

Most economists working in the business and public sector have economics majors in Commerce degrees, rather than Masters or Doctorate qualifications, although it is notable in Table 3 that, in recent years, the number of graduates doing Postgraduate certificates, diplomas and honours programmes has been increasing steadily, indicating that a number of working economists may have been upgrading their skills.

In the business and public sectors in New Zealand, most recruitment of entry level economists is from the pool of New Zealand graduates only. There is a tendency on the part of both Government agencies and private businesses not to employ immigrant economists on the grounds that they do not have much in the way of New Zealand related experience. New Zealand immigration has never given any special preference to the entry of economists to New Zealand (as it has done for instance at times for accountants), and as New Zealand employers do not have a propensity to recruit or support the migration of economists the number of economists immigrating to New Zealand has tended to be low (Table 4).

Table 4: Immigrants of economists to New Zealand, 2003/4 to 2009/10

Skills applicants	
Economist	41
Policy Analyst	92
Market Research Analyst	63
Statistical Analyst	42
University lecturer or tutor	1,035
Work applicants approved	
Economist	124
Policy Analyst	79
Market Research Analyst	85
Statistical Analyst	92
University lecturer or tutor	1,031

Source: Department of Labour, 2010.

Conditions are somewhat different in terms of the recruitment of economists in university positions. Although the number of doctoral graduates in New Zealand is relatively low in the field of economics, the universities regard the market for economics to be an international one and are far less concerned about their staff's knowledge of New Zealand conditions. A sizable proportion of New Zealand university economists have overseas qualifications and the permanent staff tends to have doctorate qualifications.

The different employment prospects for non-academic and academic economists have had important implications for the growth of post-graduate qualifications in New Zealand. Strong growth in employment for non-academic economists has meant strong demand for university courses at the post-graduate certificates and diploma as well as Masters level; growth in the number of Doctorate students seeking academic employment has been more limited. If employment prospects for non-academic economists continues to grow it would be expected that growth of the non-Doctorate courses to continue

Given the different demands of employers (universities versus business/public sector) in terms of qualifications and experience, there tends to be little crossover between the two classifications of economists. Generally, to become an academic economist in a New Zealand university, a young graduate must commit a number of their most productive years to study for a Doctorate. As business and public agencies are more interested in the work experience that young economists may have, they tend not to recruit people who have committed most of their younger years to higher study. Conversely, the universities act in a similar way towards experienced, but formally under qualified, economists and prefer to recruit economists who perhaps lack professional experience but have Doctorates even if they were trained overseas.¹¹ Therefore, it appears that there is a clear division in the supply of economists between the academic and non-academic sectors.

Salaries

Evidence of relative salary levels for economists in New Zealand is rather scarce but what there is indicates that salaries over the years have kept up with, or exceeded growth in, salaries in general. Table 5 provides data on the relative salaries of graduating economics majors in both New Zealand and Australia.

In a labour market for skilled workers, like economics graduates, experienced staff and new entrants are not necessarily close substitutes for each other. Nonetheless, starting salaries and how they change over time do give some indication of market conditions. If there was strong growth in demand for a particular type of employee, it would be expected that average salary levels would rise due to a limited supply.

Statistics New Zealand undertook a survey in 2003 and 2006 of the average salaries of a number of different types of graduates. Some of the survey results are summarised in Table 5. In addition, median salaries for economics graduates in Australia are also presented in Table 5. In 2003, it was found that the average salary of New Zealand economics graduates was \$36,200, well above the average for graduates in general and comparable to that of accountants. Three years later, the same surveyed group had seen their salaries grow quite strongly such that their relative salaries were even higher in relation to that of other graduates.

Table 5: Salaries for economists in New Zealand and Australia

NZ post-degree median salaries		
	One-year	Three-year
	2003	2006
Economics	36,200	48,100
Accounting	36,400	49,800
Management & Commerce	33,700	43,900
All degree	33,000	41,300
National median	26,800	28,800
Economics/All degree	1.10	1.16
Economics/Management & Commerce	1.07	1.10
Economics/National Median	1.36	1.73
Australian post-degree median starting salaries		
	2003	2007
Economics	37,400	45,000
Accounting	35,000	40,000
Business	35,000	40,000
All degree	37,000	43,000
Economics/all degree	1.01	1.07
Economics/Business	1.07	1.13

Source: Scott, 2009b; Graduate Career Council, 2003

The higher level of salaries of New Zealand and Australia economics graduates, compared to other graduates, is a phenomenon that has been found in other countries as well, such as in the United States (National Association of Colleges 2011).

In the Australian case, entry level salaries at \$37,400 in 2003 and \$45,000 in 2007 were well above the average for graduates and grew at a faster rate in the period 2003 to 2007. Australian studies have also found that unemployment rates amongst economics graduates have been relatively low in the period 2003 to 2007 (Graduate Careers Council, 2009). Other work by Lewis, Daly and Fleming (2004) found that there has been rising rates of return on economics graduates, both absolutely and compared to other business disciplines since the mid 1980s. While there has been no study of the unemployment rates of economics graduates in New Zealand, it would be expected that they would be faced with similar conditions.

The higher level of economics graduates salaries and strong growth in salaries during the 2000s, both absolutely and relative to other salaries, would imply that there has been a tight labour market for economics graduates and economists, at least in the public and private sectors. In the universities, the small number of positions, low turnover of staff and willingness on the part of universities to recruit overseas presents a quite different story.

Conclusion

In summing up the findings of this study a few conclusions can be made, despite the limitations placed on the study by the availability of data. First of all, the employment market for economists has been relatively good in New Zealand over the past 20 years. From employment in central government agencies (the Treasury and Reserve Bank), job prospects have grown in other departments of the Government along with the finance sector and with regulated companies. The regulation of utilities, the Resource Management Act and the expanded use of regulatory impact statements have all helped to expand job opportunities for economists. This employment is mainly with the Government but also with consultants and regulated companies. Financial market employment has also been good, at least up until the recent global financial crisis.

The place where employment for economics graduates is now not as good is in secondary education and tertiary education. While the number of higher education economics academics is not falling, it is not growing at any rate even though there has been modest growth in the number of students studying economics in recent years.

In terms of remuneration, it appears, from evidence in both New Zealand and Australia, that economics graduates are reasonably well paid, are sought after and, perhaps over the past ten years, have improved their position compared to other graduates. Further data on the level of professional salaries in New Zealand would enable more conclusive statements on this. Finally, there appears to be no oversupply of economists in New Zealand. Economics graduates numbers are rising – only slowly and immigrant numbers are small. New Zealand companies have a tendency to prefer economists with New Zealand experience thus improving prospects for local applicants. Somewhat

Notes

¹ This reduction in employment has occurred more in the finance sector rather than in the public sector and in areas of regulatory affairs (Lahart 2009).

² The four colleges were Auckland, Victoria Wellington, Canterbury and Otago. Separate chairs of economics were established at Auckland College in 1926 (Belshaw), Canterbury 1920 (Condliffe), Victoria Wellington 1920 (Murphy), and Otago 1924 (Fisher).

³ The Treasury in New Zealand did not begin to employ economics graduates in any numbers until the late 1960s. This meant that it was the Reserve Bank, which was the most important source of employment for economists in the 1950s and 1960s (McKinnon, 2003; Hawke, 1973).

⁴ At the 1981 Census, Statistics New Zealand reported that around two-thirds of economists were employed by the private sector (the other third being employed by Government agencies). If university and secondary school teachers are added to these numbers, then around one-half of economists could be said to be employed by the public sector

⁵ Legislative measures, such as those requiring Regulatory Impact Statements and requirements under the Resource Management Act have created a cottage industry of economists (both public and private) who analyse the economic impact of legislative changes and planning applications.

⁶ The Australian Graduate Careers Council found in its studies that approximately 58 percent of economics graduates found work in economics related areas. This compares to 84 percent of accounting graduates and much lower levels for social science and humanities levels which tended to be 20 to 30 percent.

⁷ Although it can be safely assumed that the majority of these policy analysts work for the government, a sizable minority would also work for utilities, industry and professional associations and consulting companies.

⁸ This means that the NZAE would be far less representative of economists in New Zealand compared to 30 years ago. For instance in 1970, the NZAE had 215 members (Holmes, 2011), compared to a reported 204 economists at the 1971 census (plus academic economists). It is fair to say that, at that time, most economists in New Zealand were members of the association, which is untrue today. In addition, a number of economics graduates teach economics in secondary schools. In 2009, 350 schools in New Zealand offered economics subjects. It can probably be assumed that each of these schools has at least one teacher of economics although many of these would combine the teaching of economics with other related subjects such as business, accounting, mathematics and politics.

⁹ The number of schools offering economics as a subject peaked in 1991 and 1993 at 371, and has since fallen to 351 in 2007 (Education Statistics of New Zealand).

¹⁰ This contrasts somewhat to the situation in Australia where numbers increased through the 1980s and 1990s but at a rather reduced rate (Millmow, 2009).

¹¹ Although it is sometimes argued that the low salary levels in universities are a deterrent to the recruitment of economists from outside of academia, public sector and university salaries are of comparable levels. Even in the private sector, the number of highly paid economist positions is limited.

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