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Quality Versus Quantity: Rankings of  
Economics Departments in New Zealand

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RANKINGS OF ECONOMICS DEPARTMENTS  
IN NEW ZEALAND

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*Abstract*

I compare the research records of the 7 major economics departments in New Zealand, from 1990 onwards. The information, taken from the *Econlit* database, covers more than 500 economics journals, as of November 2000. Quality weights for the journals were taken from the study by Laband and Piette (1994). Four different departmental ranking measures were computed. The resulting ranking of departments is common to all the measures used. Auckland comes in first, followed by Victoria University of Wellington, Canterbury, Otago, Lincoln, Waikato, and Massey.

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## 1. INTRODUCTION

In economics, as in many other specialized disciplines, it is often very difficult for outsiders to assess the quantity and (especially) the quality of the research done in different institutions. For this reason, repeated attempts have been made by members within the profession to provide a quantitative index of both quantity and quality of research. This type of analysis has been conducted in many countries, including New Zealand. For example, Bairam (1996, 1997) ranked the research productivity of the different departments here over the period 1988-1995. More recently, Gibson (2000) conducted a similar analysis over the period 1996-1998. Gibson's criticism of Bairam's method rested on two factors: first, the Bairam study ignored the problem of different page sizes for different journals; second, journal quality differences were ignored in the final tally.

Gibson's own analysis, which accounted for journal quality differences and used his own method of correcting for page size differences, itself suffers from two key problems. First, the period of the analysis (1996-1998) is extremely short – providing just a snapshot of current research output. If, as most people argue, the quality of a department is embodied in its current faculty members, then a longer-range assessment of each faculty member's record is clearly needed. The research output of many top researchers tends to come out in bursts, which can easily be missed in a 3-year window.<sup>1</sup>

The second problem with Gibson's study is that he decided to include only full-time faculty members. This decision hurt one department most severely in the ranking: Auckland. Peter C.B. Phillips holds a part-time position at Auckland as the Alumni Distinguished Professor of Economics. He has also recently been ranked the top research economist in the world.<sup>2</sup> Each year, he spends several weeks in the department at Auckland both teaching and playing an active role in thesis supervision. While it is certainly true that it would be inappropriate to count all of Professor Phillips publications in Auckland's column, it is also true that counting none seems equally inappropriate.

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<sup>1</sup> Remember, it took Einstein almost 10 years to develop the general theory of relativity.

<sup>2</sup> See Coupe (2000). Also: <http://student.ulb.ac.be/~tcoupe/rank1000.html>.

In this study I considered the research records of all the members of the economics departments, as currently listed on departmental web pages, from 1990 onwards. This information was garnered from the *Econlit* database, which covers more than 500 economics journals, and which is updated quarterly, as of November 2000. Quality weights for the journals were taken from the study by Laband and Piette (1994), in the *Journal of Economic Literature*. Using these weights, numbers of AER-equivalent pages of publications over the period were calculated for each faculty member. Four different departmental ranking measures were then computed. First, the total of AER-equivalent pages attributed to members of each department. Second, these sums divided by the number of members of each respective department. These figures were calculated both with and without part-time faculty. When part-time faculty (Adjunct and Alumni Professors) were included, only 10% of their research was attributed to their respective departments.

The resulting ranking of departments is common to all the measures used. Auckland comes in first, followed by Victoria University of Wellington (VUW) and Canterbury. These top 3 departments are followed by, in order: Otago, Lincoln, Waikato, and Massey.

This paper is organized as follows. First, in section 2, an overview of the methodology is provided, with a relatively detailed description of the data and the computations involved. Section 3 then presents the findings, summarized in two tables. Section 4 concludes with a discussion of some of the weaknesses of the current approach, their expected effects, and how they might be tackled in future research.

## 2. METHODOLOGY

The basic presumption in this study, as in most others of its type, is that the quality of a department depends fundamentally on the quality of its faculty members. Although the physical environment, along with support staff, equipment, funding, and other factors, are important, they are all viewed as secondary to this basic consideration. Thus, when evaluating each department, I follow the tradition of simply evaluating its current faculty. Moreover, the method of evaluating each person is restricted to counting the number of quality-weighted pages published in journals listed in publicly available databases. This is clearly incomplete since many scholars publish large amounts of research in other outlets such as books, chapters in books, discussion papers, reports, and so on. However, evaluating the quality of these alternative outlets is significantly more difficult than the quality of the journals. The ready availability of (quantitative) quality rankings of economics journals makes this choice almost inevitable.

### *Length of Time Considered*

Here, I consider the research records of faculty since 1990. The period of 10 years was chosen with the aim of measuring the current research potential of existing faculty based on their record. It is based on the idea that skills deteriorate over time if they are not used. Thus, methods used by a researcher in a paper published over 10 years ago, and never used again, are regarded as lost to the researcher in his or her current state. The choice of 10 years is somewhat arbitrary -- it is not clear what the appropriate length of the horizon should be. However, for reasons mentioned above, the 3 year window used by Gibson (2000) is taken to be too short. The length of time horizon certainly has a significant influence, and further discussion on this point is given in Section 4 below.

## Co-authorship

Since ascertaining the relative contributions of different researchers in co-authored work is extremely difficult, I follow the tradition of simply allocating the contribution evenly by dividing the number of pages in a publication by the number of authors. *Econlit* lists up to 3 authors in each study. Any study with more than 3 authors simply lists the first author (*et al*). For this reason, researchers with papers listed this way have the number of pages divided by 4. (Fortunately, the number of papers in this situation is very small: only two. Also, both of these papers are in journals with very small weights – making the impact of any distortion small.)

## Quality Weights

The problem of assigning appropriate quality weights is always a difficult one. Here, I use the 1990 weights from Table A2 in Laband and Piette (1994). These weights are based on “impact-adjusted” citations (per character) in the *Social Science Citation Index*. The “impact” adjustment comes from Laband and Piette’s application of Liebowitz and Palmer’s (1984) iterative procedure involving citations in more highly-cited journals. The usage of citations *per character* corrects for the different page sizes of journals. According to this table, the *American Economic Review* (*AER*) is the top journal, and each page in the *AER* receives a weight of unity. Weights decline from there, all the way to 0.001 and, ultimately, to zero. The weights from this table are the most popularly used in the rankings literature. There are, however, some problems with these weights. First, the list of journals on the table is incomplete. Only 130 journals are listed. Also, even for those journals listed, not all have positive weights. This is a problem, since the vast majority of publications from several departments in New Zealand are either not listed in the table or have zero weight. I decided to assign the lowest positive weight listed on the table (0.001) as the minimum weight for all journals cited in *Econlit* but not given positive weight (or not listed) in the Laband and Piette study. This is clearly not a perfect solution – just a practical one.<sup>3</sup>

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<sup>3</sup> Researchers that published in new, but high quality, journals are hurt by this method. In particular, the handful of papers that were published in *Games and Economic Behavior* over this period were unreasonably discounted.

### *Faculty Included in Study*

Discerning which faculty members in VUW's School of Economics and Finance are strictly "economics" is quite difficult. For this reason, I decided to include the entire School as the object of analysis, rather than try to construct an economics department from its members. This does not hurt the institution in the aggregate numbers (in fact, it helps), but it clearly hurts it in the per capita rankings, since not all faculty members in the School try to publish in economics journals.

Only two of the institutions list part-time faculty members on their web pages: Auckland and VUW. As mentioned above, Auckland lists Peter C.B. Phillips, as an "Alumni Distinguished Professor of Economics". VUW lists 3 "Adjunct Professors": Michael Trebilcock, Leslie Young, and L. Fraser Jackson. To handle this problem, I calculated the rankings both with and without these part-time faculty. When including them, I discounted their work quite heavily: only 10% of their work was used.

### *Publications per Capita*

Many of the ranking studies in the literature prefer to use quality-weighted publications *per capita* as their key index. The standard justification for using per capita figures is that authors wish to avoid penalizing small departments with high quality researchers.<sup>4</sup> For this reason, both aggregate and per capita figures are reported. For reasons mentioned above, VUW is penalized somewhat unfairly by consideration of per capita numbers. However, this does not affect the ranking. When part-time faculty are included, each one adds only 10% of a person to the population of an institution (in line with the assumption about their relative contribution to research).

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<sup>4</sup> The reasoning behind this, however, is not very clear unless one wishes to argue that aggregate expertise is somehow diluted by the presence of less productive researchers in a department.

### 3. RESULTS

Table 1 presents the rankings for the different institutions, based on total *AER*-equivalent pages, with and without part-time faculty. Table 2 presents the same, but based on per capita figures.

<i>Rank</i>	<i>Institution</i>	<i>Without p/t</i>	<i>With p/t</i>
1.	Auckland	66.8036	98.6803
2.	VUW	60.5280	62.7860
3.	Canterbury	32.7241	32.7241
4.	Otago	9.3083	9.3083
5.	Lincoln	5.0947	5.0947
6.	Waikato	4.2893	4.2893
7.	Massey	2.8094	2.8094

*Table 1: Rankings Based on Total AER-Equivalent Pages*

<i>Rank</i>	<i>Institution</i>	<i>Without p/t</i>	<i>With p/t</i>
1.	Auckland	2.9045	4.2719
2.	VUW	2.2418	2.2999
3.	Canterbury	2.0453	2.0453
4.	Otago	0.6649	0.6649
5.	Lincoln	0.3919	0.3919
6.	Waikato	0.3899	0.3899
7.	Massey	0.1561	0.1561

*Table 2: Rankings Based on Per-Capita AER-Equivalent Pages*



Examining Tables 1 and 2, it is clear that, in all cases, the rankings are the same. The top 3 departments are Auckland, VUW, and Canterbury respectively. The impact of Peter C.B. Phillips on Auckland's research output is also very clear: including only 10% of his published research adds 31.8767 *AER*-equivalent pages. However, this does not affect the rankings, it simply amplifies Auckland's margin considerably. The remaining four departments are ranked, in order: Otago, Lincoln, Waikato, and Massey.

#### 4. CONCLUDING REMARKS

Comparing these rankings with those in Bairam's (1996, 1997) and Gibson's (2000) studies we can see striking differences across all 3 studies. Bairam ranks Otago as the top department, followed by VUW, Auckland, Lincoln, Massey, Canterbury, and Waikato. Gibson ranks Canterbury at the top, followed by VUW, Waikato, Otago, Lincoln, Auckland, and Massey. The only rank that all studies agree on is VUW at number two!

What factors account for these differences? First, as mentioned above, Bairam's rankings do not adjust for quality when adding up across the journals. Prolific researchers that specialize in publishing in lower-ranked journals receive a much heavier weight in his study. Also mentioned above is the fact that Gibson limits his analysis to a very short time horizon. Much of the difference in the rankings between his study and this one can be attributed to the longer horizon used here. Another major factor has been recent changes in the faculty composition, due to turnover and hiring in the different departments. Finally, it has been demonstrated that the inclusion of part-time faculty can have very significant effects.

One weakness that this study, along with many others, suffers from is the age of the journal weights that are used. Certainly, the journal weighting scheme is very important to this type of study. The weights from Laband and Piette (1994) reflect the citations of those journals up until 1990, and much has changed since then. Many high quality journals have started up recently, and this fact represents a challenge for

researchers in this area. Some studies have sidestepped this problem by focussing only on 9 journals that have been identified as “core” journals – assigning a weight of zero to all other journals.<sup>5</sup> This would not change the ranking of the top 3 departments in this study, but would make comparisons of most of the remaining departments impossible. An updated citation-based ranking table, along the lines of the Laband and Piette study, but with a more comprehensive set of journals, would really help.

Another problem with this type of analysis is that it undervalues junior faculty. Most seriously, new hires with high promise but no established record of publications are treated like dead weight in these calculations – especially in the per capita rankings. It is quite difficult to imagine ways of dealing with this problem in a straightforward way.

In one sense, the method of using quality-adjusted pages published is indirect: the quality adjustment is derived from citation data. Another, more direct, approach could use citations directly from the *Social Science Citation Index*. One severe weakness of that approach, however, comes from the fact that it usually takes several years before published articles start to appear as citations in other published articles. This delay would particularly distort the evaluation of junior faculty.

One alternative to the 10-year time horizon used here might be to use a system of time discounting at a constant rate. According to this scheme, older papers would have a lower weight, but never completely drop out of the accounting in the way they do here. The data available on *Econlit* currently goes back to 1969, which would provide a cut-off point. A warning though: this requires a substantial increase in the amount of time and effort required from the researcher.

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<sup>5</sup> See, for example, Conroy and Dusansky (1995) and Kalaitzidakis, Marmuneas, and Stengos (1999). Scott and Mitias (1996) consider ranking based only 5 top journals.

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