

Ruane, Frances; Tol, Richard S. J.

Working Paper
Economics in Ireland

ESRI Working Paper, No. 180

Provided in Cooperation with:

The Economic and Social Research Institute (ESRI), Dublin

Suggested Citation: Ruane, Frances; Tol, Richard S. J. (2007) : Economics in Ireland, ESRI Working Paper, No. 180, The Economic and Social Research Institute (ESRI), Dublin

This Version is available at:

<https://hdl.handle.net/10419/68031>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.

Economics in Ireland

Frances Ruane and Richard S.J. Tol

*The Economic and Social Research Institute**

Abstract: The measurement of academic output in Ireland is of growing interest in the context of the government's strategy to identify and support centres of research excellence and to encourage inter-institutional collaboration in both research and fourth-level education. This paper looks at research output within the economics profession in these various centres, building on an earlier literature (Barrett and Lucey, 2003; Coupe and Walsh, 2003) which looked at the research output of Irish economists in peer-reviewed journals. Using a relatively new data-base, *Scopus*, we find that research output in the Republic of Ireland is heavily skewed by researcher and by institution and that the more productive and most cited Irish research economists are heavily concentrated in the Greater Dublin area.

*This paper arose initially from the second author's interest in getting to know the Irish economics community. It seemed then timely to develop an analysis that could inform discussion in the context of the development of economics in Ireland in the light of the forthcoming round of the *Programme for Research in Third Level Institutions*. David Duffy, John Fitz Gerald, Philip Lane, Karen Mayor, Francis O'Toole and Chris Whelan gave valuable comments on earlier versions of this paper. Any remaining errors are the responsibility of the authors. The authors would appreciate any information regarding researchers who were inadvertently excluded from the list. Email: Frances.Ruane@esri.ie; Richard.Tol@esri.ie

ESRI working papers represent un-refereed work-in-progress by members who are solely responsible for the content and any views expressed therein. Any comments on these papers will be welcome and should be sent to the author(s) by email. Papers may be downloaded for personal use only.

Economics in Ireland

1. Introduction

One of the key outcomes of the Lisbon Strategy in 2000 was the increased emphasis on knowledge as a competitive factor in achieving greater growth and development in European economies. This message has been enthusiastically accepted in Ireland and is evident in the government's commitment both to increased funds for research and development in the universities, and to the promotion of fourth-level education in Ireland.¹ A key part of policy is to promote cooperation among researchers within and across disciplines, both in terms of research being undertaken and in the delivery of postgraduate programmes.² One driver of this approach is the desire to create critical mass in terms of centres of excellence, which can then begin to compete with larger centres across Europe and elsewhere.

In terms of international reputation and scale, it is difficult for any individual institution in the Republic of Ireland, hereafter referred to as Ireland, to have an internationally competitive research profile which would be able to match the larger-scale international institutions. Furthermore, and equally important in terms of government strategy, and indeed for the future health of the profession, no single institution has the scale to mount a structured postgraduate programme that would be in the top ranks globally. To be credible, such a postgraduate programme or set of interrelated programmes would require a sizeable number of well-published researchers to deliver postgraduate courses and supervise PhD-level dissertations.

Who are the researchers who will deliver this ambitious agenda and where are they located? In the UK these questions are answered for the most part with reference to the Research Assessment Exercise (RAE), which has essentially identified centres of excellence in disciplines across the UK. In Ireland, no such exercise has been undertaken

¹ See NDP and PRTL documents

² While economists may argue about the merits of competition versus cooperation in Irish academic communities, the thrust of government policy at present is to foster cooperation as a *modus operandi* and this institutional feature is taken as the starting point for this paper.

but the Higher Education Authority (HEA) has encouraged each institution in the university sector to prioritize areas of academic strength within its institutional strategy and to develop these, in cooperation with other institutions within Ireland. To this end, the HEA, under the 1999-2006 National Development Plan (NDP), has funded a significant number of research institutes across the university system under its *Programme for Research in Third Level Institutions* (PRTLTI).

Economics as a discipline has featured in each of the first three rounds of the PRTLTI with the creation of multi-disciplinary institutes in different universities.³ Under consideration in the fourth PRTLTI round is the development of a fourth-level education capacity in tandem with research, through the creation of graduate schools which would run more formal PhD programmes along North-American lines. Since the option of creating a graduate programme that would involve economists across a range of institutions in Ireland is now possible, it is timely to look at the research output of Irish economists in these institutions in more detail. The planned rapid expansion of government research funding in Ireland allows for a strengthening of research across all institutions, and the intention of government policy seems to be the creation of collaborative centres that can be among the best centres in the world or at least in Europe.

This short paper looks at economists across institutions in Ireland in terms of their publications in peer-reviewed journals using a number of rank indicators.⁴ While some would see these publication metrics as a limited measure of output, in practice they are the main, if not the only, basis on which it is possible to compare published outputs across large numbers of researchers. Furthermore, these metrics are typically those on which centres of excellence are internationally evaluated and compared. This paper *complements* earlier work on the publication record of economists based in Ireland reported by Barrett and Lucey (2003) and Coupe and Walsh (2003), and we encourage

³ The institutes with a social science dimension include: the Institute for International Integration Studies (IIIS) at TCD; the Geary Institute (formerly the Institute for the Study of Social Change) at UCD; the Urban Institute at UCD; the National Institute for Regional and Spatial Analysis (NIRSA) at NUIM; and the Centre for Innovation and Structural Change (CISC) at NUIG. Each of these centres has a particular focus and its own modus operandi, with the result that the centres tend to be complementary in their coverage and quite different in how they develop their research agendas.

⁴ Research work that has been published in peer-reviewed books, other books and non-reviewed journals are not included in this analysis.

readers to view it in this context.⁵ In particular, it gives greater coverage to younger economists and to economists who publish outside economics; in doing so, it inevitably results in an under-representation of the full publication record of the earlier generation of researchers. However, this group is covered in Barrett and Lucey (2003) and Coupe and Walsh (2003), and in the additional data provided by *EconLit* in this paper. Readers should be aware of this bias in our analysis, a bias that results necessarily from our use of a database, which is skewed towards journal publications appearing in the last decade.

The present paper differs in three respects from the earlier studies. Firstly, it uses a new but increasingly popular database, *Scopus*,⁶ which is gaining credibility in measuring research output in disciplines that predominantly use peer-reviewed journals as a method of dissemination. Unlike the narrow subject base of *EconLit* used in the previous studies, *Scopus* covers papers from all disciplines. Secondly, we assess quality by the actual number of citations of an author's papers, rather than by the average citations of the journal in which the paper is published. *EconLit* does not contain information on citations. Thirdly, it takes note of the considerable mobility of researchers across Irish institutions in recent years, by showing where they have been previously based, as well as where they are currently or soon to be based. It seeks to include all economists who are based in Ireland on a full-time basis, and their particular institutional affiliation is determined by their strongest professional link.⁷ It does not include several researchers who are currently linked to Irish institutions on a part-time basis, but who are not located in Ireland full-time.⁸ The majority of economists included in our analysis are based in Departments of Economics, but we include a significant number of economists from outside economics departments (e.g., business schools) and from cross-disciplinary

⁵ Since we are interested in centres of excellence in the Republic of Ireland, we do not include high-publishing Irish economists at institutions outside Ireland, with the exception of Peter Neary who is currently on leave from UCD at the University of Oxford. Neary is also used to highlight the impact of mobility. Note that this paper excludes Northern Ireland.

⁶ *Scopus* is the largest abstract and citation database of research literature and quality web sources. It is designed to find the information scientists need to evaluate research institutions and researchers. Updated daily, *Scopus* covers over 15,000 peer-reviewed titles from more than 4,000 publishers, including over 12,850 academic journals.

⁷ For example, while Margaret Hurley is a research associate at the IIIS, she is included as an NUIM economist since this is her main academic affiliation. Similarly, Karl Whelan is a part-time lecturer in the Dept. of Economics at TCD but his main affiliation is the Central Bank of Ireland.

⁸ For example, James Heckman, James Markusen, and Ann Carlos.

centres, as well as from the Economic and Social Research Institute and the Central Bank of Ireland.⁹

Before proceeding further, it is important to note that, *a priori*, we would expect to find skewness rather than symmetry in the distribution of peer-reviewed journal publications across academics. Such differences arise naturally as academics are at very different stages of their careers. They can also be expected because of different publication patterns. For example, to the extent that some individuals have focussed on the Irish economy, they have published extensively in the *Economic and Social Review*, which has a modest readership outside Ireland and is consequently not widely cited.¹⁰ Because of the nature of their research, other researchers have published mostly in the form of books, some of which have been subject to peer review while others have little or no refereeing. Furthermore, a large proportion of the research undertaken by some economists, particularly in the policy area, has been in the form of “grey publications”.

It is also to be expected that the distribution will be skewed by institution. Such skewness will reflect differences in the scale of economics within the different institutions and the age profile of academics. It will also reflect the other responsibilities of economists in their institutions. In the case of university departments, for example, there are differences in the relative emphasis placed on research and the demands of undergraduate teaching and postgraduate supervision.¹¹ In the case of economists in the ESRI, the production of reports for government agencies is central to their work, while economists at the CBI are engaged in producing analysis to input into the national and EU policy-making process.

In Section 2, we set out the methodology used to measure research output and describe how the economists were identified. In Section 3, the results of the analysis using the *Scopus* methodology are presented. Placing the new results in their context, Section 4 compares the findings from *Scopus* with results obtained using data from *EconLit*,

⁹ As noted above, the authors would appreciate any information regarding researchers inadvertently excluded from the list.

¹⁰ That said, many authors have published applied work on Ireland in international journals.

¹¹ If one supposes that all university departments place equal emphasis on teaching and research then homogeneity across university departments must be expected. Given how the Irish system has developed and the importance of geographic spread in terms of educational opportunities, such an expectation would be totally unrealistic.

IDEAS/REPEC and the two previous studies (Barrett and Lucey, 2003; Coupe and Walsh, 2003). In Section 5, we make some concluding comments.

2. Data and Methods

Data are taken from www.scopus.com, at the end of 2006. Compared to the *ISI Web of Science* and *EconLit*, *Scopus* is well-recognized as having a better coverage of journals after 1996. However, for the period before 1996, *Scopus* has relatively poor coverage, which is essentially limited to Elsevier journals. Compared to *IDEAS/REPEC*, *Scopus* has a much better coverage of journals, but it does not include working papers, which are included in *IDEAS/REPEC*. For example, the *Economic and Social Review* is listed in *Scopus*, but not in *IDEAS/REPEC* or in the *ISI Web of Science*. Furthermore, *Scopus* provides information on citations, which is lacking in *EconLit*, but included in *IDEAS/REPEC* and the *ISI Web of Science*; obviously, only citations in listed journals to listed journals are included.

We begin by recognizing that all rankings are somewhat arbitrary and suggest that we may need several different indices to ensure that we have a balanced overall picture. From *Scopus* we can generate four ranking indices. In the first three indices, economists are ranked by their number of publications, the number of citations of those papers, and the number of citations of their most influential paper, respectively. The fourth index, referred to as their *h-index*, is a relatively new metric (Hirsch, 2005), which is gaining increased recognition as an important measure of productivity, impact and influence.¹² An author's *h-index* equals *h* if one has written *h* papers that were cited at least *h* times. See Jolink (2006) for an application to Dutch economists.

In the *Scopus* analysis, the number of publications is not corrected for the quality of impact of the journal itself. The quality of a journal is difficult to assess. Recently, subjective rankings have been replaced with objective rankings, the *ISI Journal Impact Factor* being the most prominent. The impact factor of a journal is however highly variable, as it is based on citations over a short period of time only. Indeed, impact factors are subject to fashion (e.g., the impact factor of all energy journals is rising

¹² The fact that almost the entire issue of a recent edition of the influential journal *Scientometrics* was devoted to the *h-index* is an indication of the growing importance and value of this metric.

rapidly) and journals with a short review time and publication lag – sometimes a sign of lack of quality in some disciplines – can have a high impact factor.¹³ Furthermore, a journal's impact factor is often determined by a small number of papers only. Indeed, many papers in high impact journals are never cited (e.g., 15 percent in the *American Economic Review*). As a measure of quality, therefore, the number of citations of an author's paper is counted rather than the journals' impact factors. Put differently, quality is measured on the basis of the paper rather than on the basis of the journal as measured by its overall impact.

As with any set of metrics, there are particular features over which people may quite reasonably disagree. For example, the number of citations of publications is not corrected for the number of authors. This assumption is made for practical reasons and we recognize that collaborative practices are not completely uniform among economists in different fields and that, with international research consortia, variations in the degree of collaboration are growing.¹⁴ It is not possible to say what effect this will have on our results, but we note that a similar approach was taken by Barrett and Lucey (1993) and Coupe and Walsh (1993).¹⁵ It is to be expected that names are not assigned to papers unless there is a contribution from each of the authors, and while the contribution of each might not be equal in terms of time effort, it may be the case that a person's relatively minor input in time is in fact highly valuable. It also happens that a senior author could have written the same, or even a better paper, in a shorter time period, but prefers to co-author with less experienced researchers as part of their education and professional development. Therefore, any simple correction for author number may be, arguably, as arbitrary as no correction at all.

In this paper we do not correct for the number of pages, which is an assumption, which some might dispute. We take the view that shorter papers do not necessarily involve less

¹³ Impact factors are also subject to manipulation. Some editors encourage authors to refer to their journal, or write survey articles on topics covered in their journal.

¹⁴ Collaborations are relatively more common in empirical papers, for example.

¹⁵ IDEAS/REPEC presents rankings for the number of publications and the number of publications corrected for author number. The rank correlation is 76.9%, for the top 5% of the world. Note that four Irish authors rank higher on the author-number corrected score (Patrick Honohan 391 rather than 488; Philip Lane 310 rather than 474; Kevin O'Rourke 392 rather than 474 (Lane and O'Rourke are tied); Peter Neary 86 rather than 95), and one lower (Richard Tol, 231 rather than 74). That is, Neary and Tol switch rank, and Honohan and O'Rourke switch rank. Still, the rank correlation is 65% for these five authors.

effort, and longer papers are not necessarily better or even more informative.¹⁶ The metric also includes self-citations, which clearly favours prolific researchers.¹⁷ It also favours those whose research is concentrated in a single research area over those whose research spans a number of different areas.¹⁸ It covers English language journals only,¹⁹ which favours authors who publish solely in the English language and disadvantages those who publish in non-English language journals. While it's the metric? Scopus? inclusion of journals is extensive, it does not include all journals. Nevertheless, the coverage of Scopus is broader than that of its competitors. (See www.scopus.com.) Furthermore, coverage is not restricted to economics, which works to the advantage of applied economists and economists who also work in fields outside economics, an increasingly common occurrence as research becomes more multidisciplinary.

The analysis is based on a total of 128 economic researchers who were identified across Irish institutions²⁰ – the full list is in Table A1 in the Appendix; note that people are ranked rather than counted. As noted above, these researchers are primarily employed by Departments of Economics in Irish universities. However, there is an increasing number of economists working in Business Schools,²¹ multidisciplinary research centres, and other humanities and social science departments.²² The list also includes, as did previous studies, the Economic and Social Research Institute (ESRI) and the Central Bank of Ireland (CBI). The data relate to the *Scopus* analysis at the end of 2006.²³ The names of

¹⁶ In a sense this assumption echoes the spirit of the famous quotation attributed to George Bernard Shaw (circa 1905): “Forgive me for the long letter. I don’t have time to write a short one.” The same idea is also linked, at a much earlier date (1657), to the French physicist Blaise Pascal: “I have made this [letter] longer, because I have not had the time to make it shorter”.

¹⁷ We recognize that there may be some distortion to the extent that authors differ in the degree to which they self-cite, *ceteris paribus*.

¹⁸ Researchers who publish say, in the area of tax theory only, are more likely to have reason to cite their own research than researchers whose publications span several areas, e.g., tax theory, trade theory and industrial organization.

¹⁹ Note that *Scopus* also has a good coverage of Chinese language journals. No economist in Ireland appears to have published in Chinese.

²⁰ In addition, we counted 69 economists at post-doc level and higher without any publications recorded in *Scopus*.

²¹ Dublin City University is the only university that does not have an economics department. We are grateful to David Jacobson for providing us with a list of its economists.

²² This is particularly the case at UCD. We included the economists that we found, and apologize to anyone we inadvertently overlooked. We are grateful to Elaine Hutson for identifying the economists in the Smurfit School.

²³ Obviously the publications metrics can vary monthly and furthermore, there can be further movement of people between institutions.

individuals have been identified through the relevant institution's web site, supplemented with economists who scored well in previous rankings.²⁴ People without traceable publications were excluded.²⁵ The data are available on request.

In the next section we present the results of our analysis. We do not claim that this analysis is superior to other possible analyses of research output. Rather, this paper examines what insights can be gleamed from the estimation of new indices and from analyzing new publications and citations data, which have had wider coverage of publications in the past decade. As will be evident from the previous papers by Barrett and Lucey (2003) and Coupe and Walsh (2003), and from Section 4 below, the different data and methods produce largely the same results, though there are some exceptions.²⁶

3. Results for the Scopus Analysis

Table 1 sets out the names and metrics for the Top 40²⁷ economists in Ireland, as measured by their performance in publishing peer-reviewed journal articles, generated from *Scopus*. In each case the four metrics are presented. It is apparent that these are in broad agreement with each other, particularly at the top of the list. Table 1 also contains an aggregate ranking, which is calculated as follows: the score of each economist under a particular metric is divided by the score of the highest-ranking economist on that metric, so that the score is normalized between 0 and 1. The aggregate ranking is then the sum of the normalized scores for the four individual metrics.²⁸ Not surprisingly, it corresponds reasonably well to the individual rankings. Rank correlations vary between 87.5% (publications) and 97.5% (citations). We also computed overall rankings based on the rankings for the individual scores, rather than the scores themselves, using average,

²⁴ The names of economists at the CBI were kindly supplied by the CBI.

²⁵ One effect of this approach is that, departments with staff who do not publish at all in peer-reviewed journals are advantaged over departments with staff who have a small number of publications.

²⁶ The most notable exception is Frank Browne, who ranks joint 15th on the *EconLit* metric and close to the bottom of the *Scopus* measure because his publication record is concentrated in the years before 1995 in journals with an erratic coverage in *Scopus*.

²⁷ The Top 40 covers roughly one-third of the 128 publishing economists.

²⁸ If one economist was top of all of these metrics, the top mark would be 4.

highest and lowest ranks. Rank correlations vary between 95.2% (lowest rank) and 99.8% (harmonic mean rank) in this case.

The distribution of the aggregate score is very skewed, with, for example, those ranked in places 2-4 having between 56 and 69 percent of the value of the top ranked economist, while those ranked 5-11 have a value between 26 and 39 percent. Twenty-five percent of all publications are by the five top economists; and fifty percent of citations is to their work. To illustrate this, we show an Engel curve in Figure 1, based on all of the researchers listed in Table A1 in the Appendix. It has an associated Gini Coefficient of 59 percent.²⁹

Inspection of Table 1 shows the strong concentration of the Top 40 economists in the Greater Dublin area, which covers six institutions: the four universities (DCU, NUIM, TCD and UCD), the ESRI and the CBI.³⁰ It is clear that recent movements of economists have had an impact on the distribution within Dublin, with an increased concentration of highly-published economists in UCD.³¹ Using the Top 40 economists as the reference point, the top institutions in terms of research economists are UCD (14), TCD (9), ESRI (7), NUIM (3) and NUIG (3). How these are ranked relatively depends on which measuring instrument one uses. UCD has the highest number of economists in the Top 40, but then there are more economists at UCD than at any of the other universities. If one divides the number of economists in the Top 40 by the number of publishing economists (Table A1), TCD scores 0.53, UCD scores 0.48, and the ESRI scores 0.44; the other institutions score 0.25 or less. If one looks at the average overall scores across all publishing economists, the ESRI (0.56) and TCD (0.55) are rather similar and ahead of UCD (0.47) and NUIM (0.22).³² Finally, if one looks at the h_1 index (Schubert, 2007), we find UCD has 5,³³ while TCD and the ESRI have 4 and each of the other university

²⁹ The score of economists ranked 41st and lower is less than 10% of the top economist.

³⁰ For over 30 years economists at these institutions shared a research workshop programme (the Dublin Economic Workshop), which in recent years has rotated between UCD, NUIM and TCD. This cross-institutional link seems to be unique in the Irish academic context.

³¹ The relative position of UCD is obviously higher when Peter Neary is included. PP Walsh, who is currently at TCD but will be moving to UCD shortly, has been included in the UCD count.

³² This measure has been considerably altered by recent changes in staff between institutions in the Dublin area since September 2006, with the ESRI dropping by 0.17 points, while TCD rose by 0.12 points and UCD fell by 0.06 points.

³³ That is, there are five department members with an h index of at least 5 (Schubert, 2007).

departments has 2. The lower ranked departments may of course have a world-class presence in some specific areas of economics; the current analysis is limited to the breadth of expertise.

4. Comparison with Other Methods

Table 2 contrasts the ranking based on the number of publications according to *Scopus* and *EconLit*. Eleven economists appear in both top 15s. The rank correlation is 0.65. *EconLit* is more restrictive with regard to the journals included, which places some applied economists (e.g., Richard Tol) at a disadvantage, while it has a better historical cover, which favours economists with an earlier career start (e.g., Brendan Walsh, Frances Ruane, Frank Browne). Nonetheless, this comparison indicates a strong (although not perfect) correlation between these two major international metrics.

Table 3 presents an analysis of the ordering of the top ten economists based on five sources: *Scopus* (using each of the five rankings in Table 1), the *EconLit* data (as used in Table 2), the two Barrett and Lucey (2003) rankings, the six Coupe and Walsh (2003) rankings, and the *IDEAS/REPEC* ranking. Those listed 1st, 2nd, and 3rd places confirm the results in Table 1.³⁴

Under all of the different rankings, the numbers 1 to 4 are always Philip Lane, Peter Neary, Brian Nolan, and Richard Tol. Lane, Neary and Nolan also did well in the previous rankings of Barrett and Lucey (2003) and Coupe and Walsh (2003), while the leading economists in those rankings, Honohan, Kelly, O'Neill and O'Rourke, also do well in this ranking.³⁵

IDEAS/REPEC also provides global and European ranks. It ranks Ireland at 42nd place among countries and US states, with a score comparable to Austria, Portugal and New Zealand. It should be noted, however, that Austria and Portugal have much larger populations. *IDEAS/REPEC* counts only one or two Irish economists amongst its Global Top 5%, but five or six amongst its European Top 5%. The Geary Institute is the only Irish institute that makes it to the Global Top 5% of institutes, at 76th place (out of 151).

³⁴ The background data are included in Tables A2-A4 in the Appendix.

³⁵ Richard Tol was not included in these earlier studies

Its position is helped to a great extent by the presence, on a irregular basis, of James Heckman, who is ranked number 4 on the *IDEAS/REPEC* individual ranking. The various centres of economic researchers in Dublin would score better, and be more attractive places for prospective PhD students as a collective than as individual institutions.³⁶

5. Conclusion

With the increased emphasis on research and fourth-level education in Irish universities, the large increase in expenditure on research institutes in universities in recent years, the expected increase in expenditure in the coming years, the emphasis on cooperation in order to ensure critical mass, and the desire to have world-class research in Ireland, the distribution of research across researchers and research institutions is important. This paper sets out to examine the current research output of economists based at these institutions in Ireland using a new measure, *Scopus*, and relates the outcomes to previous studies.

Several results are apparent: Firstly, the results are reasonably consistent with those of earlier studies, allowing for the differences in coverage. Secondly, as might be expected, the distribution of research is skewed by academics, partly due to the fact that, as noted above, they are at different stages of their careers,³⁷ have different research agendas and patterns, and different levels of responsibility outside research. Thirdly, the distribution of research is skewed by institution, which reflects the scale of economics in the different institutions, the age distribution within those departments and the other demands on academic time. However, it is clear that the research-active economists publishing in peer-reviewed journals are heavily concentrated in institutions in the Greater Dublin area. While it would not be possible for any one of these institutions at its current scale to make the claim that it is a significant and competitive centre for broad research and post-graduate teaching on a global scale,³⁸ the institutions in the Greater Dublin area in collaboration could aspire to such a claim.

³⁶ Operating as a collective, such a research conglomeration would be seen more positively in terms of producing trained postgraduates for research and academic posts and for the financial and service sectors.

³⁷ The issue of age is discussed in some detail in Barrett and Lucey (2003).

³⁸ Of course it is possible for an institution to aspire to significant international status in a particular field of economics.

References

- Barrett, A. and B. Lucey (2003), 'An Analysis of the Journal Article Output of Irish-based Economists, 1970 to 2001', *Economic and Social Review*, **34** (2), 109-143.
- Coupe, T. and P.P. Walsh (2003), 'Quality Based Rankings of Irish Economists 1990-2000', *Economic and Social Review*, **34** (2), 145-149.
- Hirsch, J.E. (2005), 'An Index to Quantify an Individual's Scientific Research Output', *Proceedings of the National Academy of Science*, **102**, 16569-16572.
- Jolink, A. (2006), 'Scoren naar Behoren', *Economische Statistische Berichten*, **7** (4), 158-159.
- Schubert, A. (2007), 'Successive h-Indices', *Scientometrics*, **70** (1), 201-205.

Figure 1. Engel curve of the aggregate score (cf. Table 1) of all 128 Ireland-based economists.

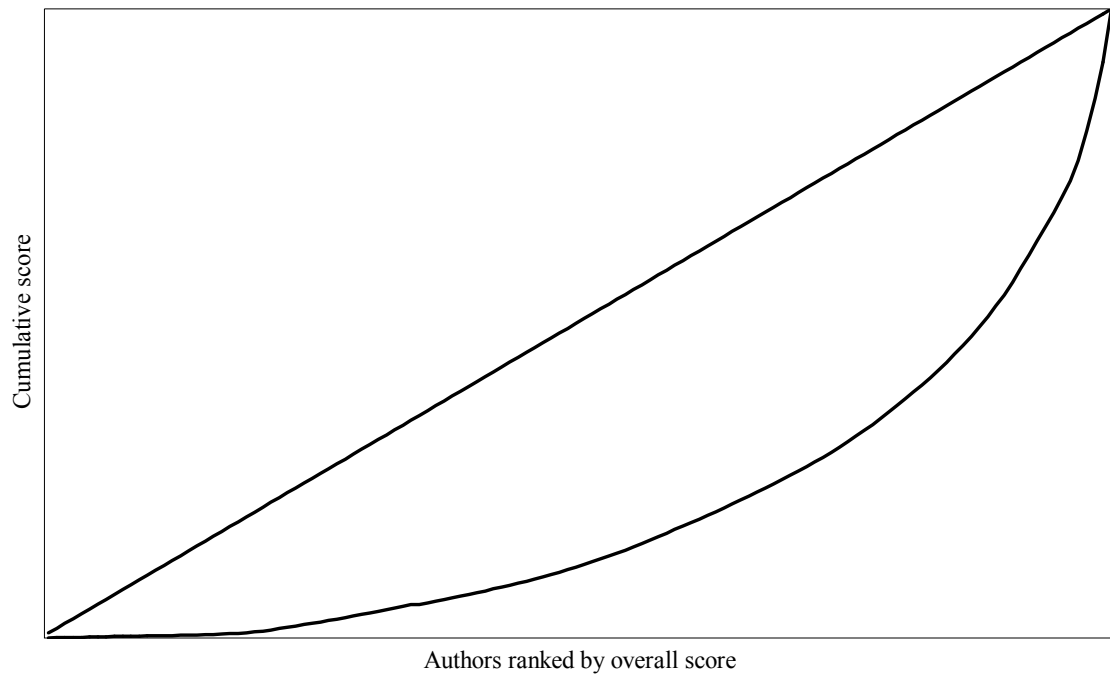


Table 1. Top-40 Economists in research institutions in the Republic of Ireland.

Rank	Name	Affiliation		Overall ^a	Publications		Citations		h-index		Most cited	
		2007	Previous		#	rank	#	Rank	#	rank	#	rank
1	Tol, R.S.J.	ESRI	Hamburg	3.77	89	1	750	1	17	1	70	4
2	Neary, J.P.	Oxford	UCD	2.60	32	3	422	2	12	2	88	2
3	Lane, P.R.	TCD	Columbia	2.32	29	4	393	3	8	4	91	1
4	Nolan, B.	UCD	ESRI	2.09	35	2	208	4	10	3	76	3
5	Barry, F.G.	TCD	UCD	1.46	27	6	150	5	6	6	55	6
6	Whelan, C.T.	ESRI		1.16	22	7	127	6	7	5	30	12
7	Harmon, C.P.	UCD	NUIM	1.08	9	29	99	8	5	9	50	8
8	Bradley, J.	TCD	ESRI	1.02	6	40	78	13	4	17	56	5
9	Bergin, J.	UCD	Queen's	1.02	9	29	64	14	4	17	54	7
10	Leahy, D.M.	UCD		0.98	11	21	87	10	5	9	41	9
11	Kelly, M.	UCD	Cornell	0.98	13	14	104	7	6	6	31	11
12	Honohan, P.	TCD	WB, ESRI	0.97	28	5	83	11	5	9	23	16
13	O'Rourke, K.H.	TCD	UCD	0.91	15	10	95	9	5	9	29	15
14	Clinch, J.P.	UCD		0.78	19	8	79	12	5	9	15	23
15	Callan, T.	ESRI		0.76	10	23	63	15	4	17	30	12
16	O'Neill, D.	NUIM	Newcastle	0.72	7	34	58	16	4	17	30	12
17	O Grada, C.	UCD		0.67	14	11	57	17	5	9	13	26
18	Walsh, P.P.	UCD	TCD	0.64	13	14	51	19	5	9	12	27
19	Ruane, F.	ESRI	TCD	0.63	11	21	44	20	6	6	9	32
20	Reynolds-Feighan, A.	UCD		0.59	10	23	52	18	5	9	10	30
21	Maitre, B.	ESRI		0.55	12	18	37	23	4	17	12	27
22	Walsh, B.	UCD	TCD	0.53	5	46	44	20	4	17	16	19
23	Keane, M.J.	UCG		0.52	12	18	32	27	4	17	10	30
24	Whelan, K.T.	CBI	Fed Res	0.50	12	18	36	24	4	17	7	37
25	Harrison, M.J.	TCD		0.49	3	65	33	26	1	58	32	10
26	Farrell, L.	UCD	Melbourne	0.49	6	40	42	22	3	26	17	17
27	Conniffe, D.	NUIM	ESRI	0.45	19	8	15	39	3	26	4	58
28	Morgenroth, E.L.W.	ESRI		0.45	4	52	34	25	3	26	17	17
29	Cotter, J.	UCD		0.44	13	14	19	33	2	35	14	24
30	Devereux, P.J.	UCD	UCLA	0.42	13	14	22	30	3	26	6	43
31	Andreosso-O'Callaghan, B.	UoL		0.41	14	11	14	42	3	26	5	47
32	FitzGerald, J.D.	ESRI		0.40	7	34	26	28	4	17	5	47
33	Gallagher, L.A.	DCU	UCC	0.39	9	29	26	28	3	26	7	37
34	Matthews, A.	TCD		0.37	10	23	21	31	3	26	5	47
35	Kennelly, B.	UCG		0.34	2	83	21	31	2	35	16	19
36	O'Shea, E.	UCG		0.33	3	65	16	34	2	35	14	24
37	Kearney, C.	TCD		0.33	10	23	14	42	2	35	7	37
38	Lucey, B.M.	TCD		0.32	14	11	9	53	2	35	3	66
39	Roche, M.J.	NUIM		0.31	10	23	16	34	2	35	5	47
40	Madden, D.	UCD		0.31	7	34	16	34	2	35	8	35

^a The overall score equals the sum of the number of publications, citations, most-cited paper, and h-index, each divided by the score of the highest ranked individual.

Table 2. Ranking based on the number of peer-reviewed publications according to *Scopus* and *EconLit*. December 2006; Top 15 only.

<i>Scopus</i>			<i>EconLit</i>		
Rank	Person	Score	Rank	Person	Score
1	Tol, R.S.J.	89	1	Neary, J.P.	59
2	Nolan, B.	35	2	Honohan, P.	50
3	Neary, J.P.	32	3	Lane, P.R.	39
4	Lane, P.R.	29	4	Barry, F.G.	38
5	Honohan, P.	28	5	Nolan, B.	35
6	Barry, F.G.	27	5	Walsh, B.	35
7	Whelan, C.T.	22	7	Tol, R.S.J.	29
8	Clinch, J.P.	19	8	Conniffe, D.	25
8	Conniffe, D.	19	8	O Grada, C.	25
10	O'Rourke, K.H.	15	10	Bradley, J.	24
11	Andreosso-O'Callaghan, B.	14	10	O'Rourke, K.H.	24
11	Lucey, B.M.	14	12	Ruane, F.	23
11	O Grada, C.	14	13	Leahy, D.M.	19
14	Cotter, J.	13	13	Lucey, B.M.	19
14	Devereux, P.J.	13	15	Browne, F.X.	18
14	Walsh, P.P.	13	15	Walsh, P.P.	18

Table 3. Irish Economists ranked 1st, 2nd, and 3rd place in 15 alternative rankings.^a

Person	Institute	1 st	2 nd	3 rd
<i>Neary, Peter</i>	<i>Oxford U/UCD</i>	3	8	3
Lane, Philip	TCD/Columbia	3	4	3
Honohan, Patrick	TCD/WB/ESRI	3	2	1
Tol, Richard	ESRI/Hamburg	4		1
O'Rourke, Kevin	TCD/UCD	2	3	
Nolan, Brian	UCD/ESRI		4	3
Kelly, Morgan	UCD/Cornell	3		1
O'Neill, Donal	NUIM/Newcastle		1	2
Kearney, Colm	TCD/DCU/ESRI		1	
Barry, Frank	TCD/UCD			2
Conniffe, Denis	NUIM/ESRI			1
Leahy, Dermot	UCD			1

^a First, second and third place are without Peter Neary. For comparison, Neary's scores are shown nonetheless. As Neary is among the top 3 in 14 out of 15 competitions, inclusion of Neary affects the scores of all others. The rankings include IDEAS/REPEC (1; cf. Table A2), Barrett and Lucey (2; cf. Table A3), Coupe and Walsh (6; cf. Table A4), EconLit (1; cf. Table 2) and Ruane and Tol (5; cf. Table 1). The ranking here is based on 3 points for 1st place, 2 points for 2nd, and 1 point for 3rd.

Table A1: Names and Ranks of Economists in Ireland used in the Scopus Analysis

1	Tol, R.S.J.	ESRI	33	Gallagher, L.A.	DCU & UCC	65	Pastine, T.	NUIM	95	Kirby, E.	UCC
2	Neary, J.P.	UCD/U Oxford	34	Matthews, A.	TCD	66	Bredin, D.	UCD	95	Mariuzzo, F.	TCD
3	Lane, P.R.	TCD	35	Kennelly, B.	NUIG	67	Kearns, A.	CBI	95	Rousseau, F.	NUIM
4	Nolan, B.	ESRI/UCD	36	O'Shea, E.	NUIG	68	McQuinn, K.	CBI	100	Nolan, A.	ESRI
5	Barry, F.G.	UCD/TCD	37	Kearney, C.	TCD	69	Deegan, J.	UoL	100	Pantelidis, T.	NUIM
6	Whelan, C.T.	ESRI	38	Lucey, B.M.	TCD	70	Kawakatsu, H.	DCU	102	Considine, J.	UCC
7	Harmon, C.P.	UCD	39	Roche, M.J.	NUIM	71	Kearney, I.	ESRI	103	Somerville, R.A.	TCD
8	Bradley, J.	EMDS/TCD	40	Madden, D.	UCD	72	O'Leary, E.	UCC	103	Velupillai, K.V.	NUIG
9	Bergin, J.	UCD	41	Bargain, O.	UCD	72	van Rensburg, T.M.	NUIG	105	Hogan, T.	DCU
10	Leahy, D.M.	UCD	42	Whelan, C.	UCD	74	Walsh, F.	UCD	106	Parlane, S.	UCD
11	Kelly, M.	UCD	43	Drudy, P.J.	TCD	75	Pastine, I.	UCD	106	Piggins, A.	NUIG
12	Honohan, P.	World Bank/TCD	44	Ahearne, A.G.	NUIG	76	Denny, K.	UCD	106	Sjostrom, W.	UCC
13	O'Rourke, K.H.	TCD	45	Whelan, B.J.	ESRI	77	Ferreira, S.	UCD	106	Thijssen, J.J.J.	TCD/U York
14	Clinch, J.P.	UCD	46	Barrett, A.	ESRI	77	Shinnick, E.	UCC	110	Bergin, A.	ESRI
15	Callan, T.	ESRI	47	Garvey, E.	NUIG	79	O'Hagan, J.	TCD	110	Birmingham, C.	CBI
16	O'Niell, D.	NUIM	48	Boylan, T.A.	NUIG	80	Doris, A.	NUIM	110	Browne, F.X.	CBI
17	O Grada, C.	UCD	49	Hutson, E.	UCD	80	O'Sullivan, P.	NUIM	110	d'Agostino, A.	CBI
18	Walsh, P.P.	TCD/UCD	50	Cuddy, M.P.	NUIG	80	Scott, S.	ESRI	110	Di Maria, C.	UCD
19	Ruane, F.	TCD/ESRI	51	Lenihan, H.	UoL	83	O'Reilly, G.	CBI	110	Doran, D.	CBI
20	Reynolds-Feighan, A.	UCD	52	O'Donoghue, C.	NUIG	84	Broome, S.J.	NUIM	110	Geary, P.T.	NUIM
21	Maitre, B.	ESRI	53	Kapur, K.	UCD	85	Delaney, L.	UCD	110	Lally, B.	NUIG
22	Walsh, B.	UCD	54	Siddiqui, A.S.	UCD	85	Gekker, R.	NUIG	110	Largey, A.	DCU
23	Keane, M.J.	NUIG	55	DeWit, G.	NUIM	85	Kavanagh, E.	UCC	110	Lyons, S.	TCD/ESRI
24	Whelan, K.T.	CBI	56	Jacobson, D.S.	DCU	85	O'Toole, F.	TCD	110	McDonnell, T.	DCU
25	Harrison, M.J.	TCD	57	Flavin, T.J.	NUIM	85	Traistaru-Siedschlag, I.	ESRI	110	McGovern, S.	DCU
26	Farrell, L.	UCD	58	Thom, R.	UCD	90	McDonough, T.	NUIG	110	Murphy, A.P.	CBI
27	Conniffe, D.	NUIM	59	Murphy, A.	TCD	91	Gavin, C.	CBI	110	O'Donell, M.	UoL
28	Morgenroth, E.L.W.	ESRI	60	McElroy, B.	UCC	92	Kavanagh, C.	UCC	110	Poti, V.	DCU
29	Cotter, J.	UCD	60	Sweetman, O.	NUIM	93	Duffy, D.	ESRI	110	Power, B.	UCC
30	Devereux, P.J.	UCD	62	Convery, F.J.	UCD	94	Eakins, J.	UCC	110	Raghavendra, S.	NUIG
31	Andreosso-O'Callaghan, B.	UoL	63	Doyle, E.	UCC	95	Cassidy, M.	CBI	110	Tamura, Y.	TCD
32	FitzGerald, J.D.	ESRI	64	Newman, C.	TCD	95	Hurley, M.J.	NUIM	110	Walsh, K.	DCU/Rev Comm

Table A2 . Ranking^a of Irish economists according to IDEAS/REPEC, December 2006

Rank ^b				Name	Institute
Ireland	EU ^c	Europe ^c	World		
1	44	46	200	Philip Lane	TCD
2	49	52	247	J. Peter Neary	Oxford/UCD
3	144	152	>584	Kevin H. O'Rourke	TCD
4	213	226	>584	Patrick Honohan	TCD
5	288	308	>584	Karl T. Whelan	CBI
6	514	549	>584	Colm P. Harmon	UCD
7	>570	>617	>584	Paul J. Devereux	UCD
8	>570	>617	>584	Patrick Paul Walsh	UCD/TCD
9	>570	>617	>584	Donal O'Neill	NUIM

^a The *IDEAS/REPEC* ranking is of self-registered economists only (11672 worldwide), and uses 582 journals and 1675 working paper series. The ranking is based on the harmonic average of the rankings on 13 productivity scores (7 counting the number of works, 6 counting the number of pages), 6 citation scores, the *h*-index, and 4 scores on the number of downloads.

^b *IDEAS/REPEC* only ranks the top 5%.

^c Note that members of virtual research centres with a European base (e.g., CEPR, CESifo, IZA) are counted as European, regardless of their actual allocation. Many top economists from the US are with CEPR and IZA, and this influences the ranking considerably. If such people are removed from the list, Philip Lane, for instance, rises to 30th place in the EU.

Table A3. Ranking^a of Irish economists according to Barrett and Lucey (2003).

Top 10 Raw	Raw rank	JCIF rank	Top 10 JCIF	JCIF rank	Raw rank
Honohan, Patrick	1	2	Neary, J. Peter	1	3
Borooah, Vani K.	2	3	Honohan, Patrick	2	1
Neary, J. Peter	3	1	Borooah, Vani K.	3	2
Hitchens, D.	4	45	Nolan, Brian	4	7
Kearney, Colm	5	20	Conniffe, Denis	5	8
Walsh, Brendan	6	7	Barry, Frank	6	13
Nolan, Brian	7	4	Walsh, Brendan	7	6
Conniffe, Denis	8	5	Harrison, Michael J.	8	23
McKillop, Donal G.	9	12	Browne, F.X.	9	18
O'Hagan, John W.	10	18	Ruane, F.	9	11
			Teague, Paul	9	23

^a Ranking based on the publication counts recorded in *EconLit*, with (JCIF) and without (raw) adjusting for journal quality as measured by the ISI Impact Factor; counts are divided by the number of authors.

Table A4. Ranking^a of Irish economists according to Coupe and Walsh (2003).

	1990-2000			1995-2000		
	Bauwens ^b	Impact ^c	Laband-Piette ^d	Bauwens ^b	Impact ^c	Laband-Piette ^d
1	O'Rourke, T.H.	O'Rourke, K.H.	Neary, J.P.	Lane, P.R.	Kelly, M.	Neary, J.P.
2	Honohan, P.	Neary, J.P.	Kelly, M.	Neary, J.P.	Neary, J.P.	Kelly, M.
3	Neary, J.P.	Honohan, P.	O'Rourke, K.H.	O'Rourke, K.H.	Lane, P.R.	O'Neill, D.
4	Lane, P.R.	Kelly, M.	O'Neill, D.	Barry, F.	O'Neill D.	Leahy, D.
5	Kelly, M.	O Grada, C.	Leahy, D.	Kelly, M.	Honohan, P.	Lane, P.R.
6	O Grada, C.	Lane, P.R.	Lane, P.R.	Honohan, P.	O'Rourke, K.H.	O Grada, C.
7	Barry, F.	O'Neill, D.	O Grada, C.	Madden, D.	Barry, F.	Harmon, C.
8	Madden, D.	Barry, F.	Harmon, C.	Murphy, A.	Madden, D.	O'Rourke, K.H.
9	Murphy, A.	Leahy, D.	Honohan, P.	Fountas, S.	Leahy, D.	Walsh, F.
10	Walsh, B.	Madden, D.	Walsh, F.	O'Neill, D.	Murphy, A.	Murphy, A.
11	Fountas, S.	Murphy, A.	Murphy, A.	Leahy, D.	O Grada, C.	Honohan, P.
12	Leahy, D.	Nolan, B.	Madden, D.	Walsh, B.	Bradley, J.	Madden, D.
13	O'Neill, D.	Walsh, B.	Walsh, P.P.	O Grada, C.	Walsh, B.	Barry, F.
14	Conniffe, D.	Bradley, J.	Barry, F.	Barrett, A.	Fountas, S.	Fingleton, J.
15	Nolan, B.	Matthews, A.	Fingleton, J.	O'Connell, J.	Walsh, P.P.	Bradley, J.
16	Bradley, J.	Conniffe, D.	Bradley, J.	Bradley, J.	Harmon, C.	Walsh, P.P.
17	Kearney, C.	Walsh, P.P.	Denny, K.	Reynolds, A.	Walsh, F.	Fountas, S.
18	Browne, F.	Sjostrom, W.B.	Walsh, B.	Conniffe, D.	Fingleton, J.	Barrett, A.
19	Sjostrom, W.B.	Harmon, C.	Fountas, S.	Keane, M.J.	Turner, T.	Hurley, M.
20	Walsh, P.P.	Fountas, S.	Barrett, A.	Roche, M.J.	Barrett, A.	Kearney, C.
21	Matthews, A.	Fingleton, J.	Hurley, M.	Harmon, C.	Matthews, A.	McCarthy, T.G.
22	Callan, T.	Keane, M.J.	Kearney, C.	Walsh, P.P.	Reynolds, A.	Gallagher, L.A.
23	Keane, M.J.	Walsh, F.	Browne, F.	Kearney, C.	O'Connell, J.	Boyle, G.E.
24	Barrett, A.	Ruane, F.	McCarthy, T.G.	Fingleton, J.	Keane, M.J.	O'Connell, J.
25	Denny, K.	Barrett, A.	Murphy, A.E.	Walsh, F.	Conniffe, D.	Roche, M.J.

^a Ranking based on the publication counts recorded in EconLit, with three alternative journal quality adjustments, and for two periods; counts are divided by the number of authors.

^b The Bauwens index is a renormalization of the ISI Impact Factor; it suppresses the differences between high-impact and low-impact journals, and assigns a minimal weight where the ISI Impact Factor is zero.

^c ISI Impact Factor; the impact factor of a journal in year t is the number of citations in year t to papers published in years $t-1$ and $t-2$, divided by the number of papers published in years $t-1$ and $t-2$.

^d The Laband-Piette Impact Factor covers 5 years (that is, $t-1$ to $t-5$, see footnote c), and corrects citations for journal quality.

Year	Number	Title/Author(s) <i>ESRI Authors/Co-authors Italicised</i>
2007	187	The Impact of the UK Aviation Tax on Carbon Dioxide Emissions and Visitor Numbers <i>Karen Mayor and Richard S.J. Tol</i>
	186	<i>Irish Sustainable Development Model (ISus)</i> Literature Review, Data Availability and Model Design <i>Joe O'Doherty, Karen Mayor, Richard S.J. Tol</i>
	185	Managing Term-Time Employment and Study in Ireland <i>Merike Darmody and Emer Smyth</i>
	184	The Effects of Human Capital on Output Growth in ICT Industries: Evidence from OECD Countries <i>Gavin Murphy and Iulia Traistaru-Siedschlag</i>
	183	Real Interest Parity in the EU and the Consequences for Euro Area Membership: Panel Data Evidence, 1979-2005 <i>Martin O'Brien</i>
	182	Can Small Firms' Perceived Constraints Help Explain Survival Rates? <i>Seán Lyons</i>
	181	Understanding the Implications of Choice of Deprivation Index for Measuring Consistent Poverty in Ireland <i>Christopher T. Whelan</i>
	180	Economics in Ireland <i>Frances Ruane and Richard S.J. Tol</i>
	179	Airline Emissions of Carbon Dioxide in the European Trading System <i>John Fitz Gerald and Richard S.J. Tol</i>
2006	178	An Environmental Input-Output Model for Ireland <i>Joe O'Doherty and Richard S.J. Tol</i>
	177	The Impact of a Carbon Tax on International Tourism <i>Richard S.J. Tol</i>

	176	Economic Integration and Structural Change: The Case of Irish Regions <i>Edgar Morgenroth</i>
	174	The Impact of Climate Change on Tourism in Germany, The UK and Ireland: A Simulation Study Jacqueline M. Hamilton and <i>Richard S.J. Tol</i>
	173	Regional Growth Cycle Synchronisation with the Euro Area Gabriele Tondl and <i>Iulia Traistaru-Siedschlag</i>
	172	Measuring Material Deprivation with EU-SILC: Lessons from the Irish Survey <i>Christopher T. Whelan</i> and <i>Bertrand Maître</i>
	171	Levels and Patterns of Material Deprivation in Ireland: After the 'Celtic Tiger' <i>Christopher T. Whelan</i> and <i>Bertrand Maître</i>
2005	169	The Case for an EU-wide Measure of Poverty <i>Tony Fahey</i>
	168	Market Size, Market Structure & Market Power in the Irish Electricity Industry <i>N. McCarthy</i>
	167	An Integrated Micro-Macro (IMM) Approach to the Evaluation of Large-scale Public Investment Programmes: The Case of EU Structural Funds <i>John Bradley</i> and T. Mitze, <i>Edgar Morgenroth</i> , G. Untiedt
	166	Rising House Prices in an Open Labour Market <i>David Duffy</i> and <i>J. Fitz Gerald</i> , <i>I. Kearney</i>
	165	Measuring Consistent Poverty in Ireland with EU SILC Data <i>Christopher T. Whelan</i> and <i>Brian Nolan</i> , <i>Bertrand Maître</i>
	164	Income, Deprivation and Economic Strain in the Enlarged European Union <i>Christopher T. Whelan</i> and <i>Bertrand Maître</i>
2004	163	Living in Ireland Survey – Technical Report and Codebook for Data Users <i>Dorothy Watson</i>