# Evaluating the performance of the South African economics departments, 2005-2014<sup>1</sup>

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**Abstract**: This study, unlike the only two previous local studies by Luiz (2004 and 2009) that presents the information on the activities of the South African Economics Departments mainly based on the response of the departmental chairpersons by means of a questionnaire, rather examines the teaching and research activities of 17 Economics Departments in 2005-2014 by consulting the information from each university's faculty prospectus, as well as the online articles of various peer-reviewed working paper and journal websites. The results indicate there is big variation in the departments' performance in teaching and research during the 10-year period under study.

JEL codes: A11, A20

Keywords: Economics departments, research, teaching, South Africa

<sup>&</sup>lt;sup>1</sup> The authors acknowledge the assistance from Charles Adams, Titia Antonites, Rochelle Beukes, Steve Koch, Waldo Krugell, Pierre le Roux, Gareth Roberts, Andrie Schoombee, Krige Siebrits and Jen Snowball on data collection.

#### 1. INTRODUCTION

Over the past two decades, there has been a growing body of research into the performance of economics departments internationally. Information on the ranking of the departments , although controversial at times, provide answers to various questions that are continuously asked by students, job seekers, university administrators and government officials, especially when it comes to the disbursement of a large sum of money amongst the tertiary institutions (Lee, Grijalva and Nowell, 2010:1346).

For students, information on the performance and ranking of the departments suggests the currentness of departmental knowledge and skills, and serves as a proxy for university quality which influences the students' decision on where to study (Graves, Marchand and Thompson, 1982: 1131; Miller, Tien and Peebler, 1986; Macri and Sinha, 2006: 112; Cokgezen, 2013: 96). Job searchers who would like to work in an academic environment could use the information as a low-cost proxy to identify the most suitable institution for employment or potential work opportunities upon completion of doctorate studies (Graves et al., 1982: 1131). University administrators use the information on rankings to evaluate the progress of the departments, if not a tool for raising funds (Scott and Mittias, 1998:378), while the governments would be able to identify the most productive institutions when providing valuable research funds (Macri and Sinha, 2006:112). As academics would "either publish or perish" (Skeels and Fairbanks, 1968:17), the rankings provide a measure of research activities across national or even international institutions.

While there has been a lot of research literature on the performance and rankings of economics departments throughout the world (in particular the abundant studies in the United States), South Africa clearly lags behind with only two studies conducted (Luiz, 2004 & 2009), with one of them being done before the merging of the tertiary institutions took place. In addition, these two studies evaluated the performance of the departments by mainly relying on the information provided by the departmental chairpersons by means of a survey, so departments that did not respond to the survey could not be included for the analysis.

This study investigates the teaching and research activities of 17 economics departments in 2005-2014. Instead of relying on information provided in the survey, an alternative approach is adopted to evaluate the performance of the departments during the 10-year period. The rest

of the study is structured as follows: Section 2 reviews the commonly adopted methodologies used to rank the departments. Section 3 discusses the methodology and data collection of this study, while Section 4 presents the findings, before Section 5 concludes.

### 2. LITERATURE REVIEW

This section reviews the commonly adopted methodologies to rank the economics departments in recent literature, namely survey, graduate outcomes, teaching activities, journal publications, as well as citations and impact factor. As discussed earlier, the two South African studies by Luiz (2004 & 2009) adopted the survey approach to ask the respondents (departmental chairpersons) to rank the economics departments in the areas of teaching and research. However, one shortcoming of this approach is that any inference based on the data from the surveys could be "overtly subjective and vulnerable to measurement errors" (Dusansky and Vernon, 1998: 165).

With regard to the graduate outcome approach, the two major focus areas are the graduates' publications and labour market outcome. For instance, Laband (1985) as well as Miller, Tien and Peebler (1996) ranked the departments by looking at publications by graduate students. Amir and Knauff (2005) focused on doctorate students' placement by examining how they faired with regard to employment in economics departments or business schools of the universities upon graduation.

Although research is always used as the main indicator to rank the departments (to be discussed later), few studies did consider the teaching activities of the departments, such as Luiz (2004 & 2009) and Johnson, Penry and Petkus (2012). In particular, Johnson et al. (2012) focus on the importance of econometrics in the undergraduate program of nearly 1 500 American colleges and universities as they argue that econometrics has become increasingly important and should be a compulsory subject for students wishing to major in economics.

When it comes to studies that use research output to rank the departments, publication on peer-reviewed journals was chosen as the primary indicator. Whilst academics would also publish in other outlets like books, chapters in books, discussion papers, working papers, and so on, it is relatively more difficult to evaluate the quality of these alternative outlets compared to peer-reviewed journal articles, which have undergone a rigorous peer review process (King, 2000: 3; Macri and Sinha, 2006: 113).

Studies that used peer-reviewed journal publications to rank the departments could be categorised into the following three groups: (1) those simply using the total number of journal articles published as the indicator (e.g. Gerrity and McKenzie, 1978; Luiz, 2004 & 2009; Macri and Sinha, 2006; Cokgezen, 2013); (2) those using the total number of pages of journal articles published as the indicator, without accounting for potential quality differences across the journals (e.g. Gerrity and McKenzie, 1978; Graves et al., 1982; Laband 1985; Miller et al., 1996; Scott and Mitias, 1998); (3) those using the total number of pages of journal articles published as the indicator, after taking into consideration the quality differences across the journals (e.g. Tshirhart, 1989; Conroy, Dusansky, Drukker and Kildegaard, 1995; Dusansky and Vernon, 1998; King, 2000; Coupé, 2003; Kalaitzidakis, Stengos and Mamuneas, 2003; Lubrano, Kirman, Bauwens and Protopopescu, 2003; Grijalva and Nowell, 2008; Lee, Grijalva and Nowell, 2010; Mukhopadhyay and Sarkar, 2010; Anderson and Tressler, 2011).

Regarding studies under both groups (2) and (3), due to the fact that the font size and line spacing differ across the journals, the American Economic Review (AER) equivalent size number of pages was derived before the departments were ranked. For studies under group (3), criteria such as number of citations and impact factor were used to derive the 'quality or prestige weight' of each journal, before the total number quality-adjusted AER-equivalent size number of pages was derived to rank the departments. In simple equation terms, this was derived as:  $\sum_{i=1}^{i=k} Weight_i \times Pages_i$ , where  $Weight_i$  stands for the weight of journal i (out of k journals there were considered) while  $Page_i$  represents the total number of AER equivalent size number of pages published on this journal by the department. In other words, for studies under group (2),  $Weight_i$  equals to one across all journals, but for studies under group (3), the higher the quality of the journal.

Studies under group (1) and (2) are relatively straightforward by assuming the journals are equal in quality. One drawback of using the number of pages of journal articles published (even after deriving the AER equivalent size figures) to rank the department is that there is no clear indication of strong positive correlation between length and importance, that is, 'longer

articles need not be better' (Macri and Sinha, 2006: 113). It is also argued that articles published in "major" journals may never be read while articles published in "minor" journals could be read and used extensively (Gerrity and McKenzie, 1978: 610; Laband, 1985: 218) so it may not be appropriate to treat all journals as the same. This could be attributed to the fact that "minor" journal could be easily accessible than "major" journals. Another obvious shortcoming is that using the sheer number of publications is "too crude an indicator of a department's productivity or quality because it fails to consider the quality of the publisher" (Miller et al., 1996: 704). This explains why the studies under group (3) derived the weighted figures by taking the quality of the journals into consideration.

The 'quality or prestige' weight of each journal was derived by using the impact factor of the journal, which generally stands for "the average number of current citations of articles published by a journal" (Cokgezen, 2013: 97). A citation indicates a journal article not only has passed the hurdle of the peer review process to be accepted for publication, but also has been found relevant to someone else's work (Gerrity and McKenzie, 1978: 610). Hence, citations are a very good way to quantitatively measure the quality of an article. This also implies that the higher the number of citations a department has accumulated over a period of time, the more productive the department is.

Nonetheless, there are numerous criticisms on the reliability of the impact factor and citation statistics. First of all, due to the extreme tediousness of counting citations, it is virtually impossible to check whether the publicised citation figures (and subsequently the impact factor of the journal) are accurate or not (Ramsden, 2009: 139). Secondly, the impact factor of journals publishing articles from a broader area of science would inevitably be higher than the impact factor of more specialist journals (Ramesen, 2009: 139). For instance, an economics journal that publishes articles from all subject areas would enjoy a greater impact factor compared to another economics journal that only published articles in the area of labour economics. In addition, some articles with great professional impact may receive little citation credit as time goes by, since the knowledge introduced have become so common that the original authors are no longer cited (Laband, 1985: 219). It is also possible that an article is heavily cited only because of the mistakes the article contains (Lubrano et al., 2003: 1368).

Self-citations could be quite serious in some journals (regardless of whether it was done unintentionally by the authors, or it happened due to the editors coercing the authors to add citations to their journal), thereby inflating the total citations and the impact factor, and subsequently biasing the ranking of the departments (Kalaitzidakis et al., 2003: 1348; Wilhite and Fong, 2012: 542). Finally, there is a time gap between the time the article is read to the time the readers incorporate it in their own work. Hence, this time lag leads to a disadvantage for more recently published articles (Miller et al., 1996: 705). To correct for this, one common approach is to divide the total number of citations an article received by the number of years since publication, before a more reliable impact factor of the journal could be derived (Coupé, 2003: 7). To conclude, ranking the relative quality of journals could also be a highly subjective process, just like the survey method that asks the respondents to rank the departments based on self-perception.

As the staff size may differ greatly across the departments, it is argued that per-capita figures should be used to rank the departments so as to avoid producing biased results in favour of larger departments (King, 2000: 5; Macri and Sinha, 2006: 113). Surprisingly, only few studies used the per capita figures to rank the departments (e.g. Miller et al., 1996; King, 2000; Luiz 2004 & 2009). In addition, some studies went one step further by deriving the per-lecturer quality-adjusted total number of pages of journal articles published so as to rank the lecturers (e.g. Miller et al. 1996; King, 2000, Coupe, 2003; Macri and Sinha, 2006), while few other studies ranked the departments by subject area (e.g. Tshirhart, 1989; Grijalva and Nowell, 2008). Finally, the studies by Graves et al. (1982) as well as Anderson and Tressler (2011) conducted econometric analysis to investigate the influence of various factors (such as remuneration, teaching hours, extent of administrative support, rank, years of work experience, and demographic characteristics like age and gender) on the research output of the academics.

## 3. METHODOLOGY AND DATA

The teaching and research activities of 17 economics departments in 2005-2014 are examined in this study. These departments could be categorised into those coming from traditional (theoretically-oriented) universities<sup>2</sup> and comprehensive (both theoretically- and vocational-oriented)<sup>3</sup> universities. Universities of technology are not included in the study.

<sup>&</sup>lt;sup>2</sup> University of Cape Town (UCT); University of Fort Hare (UFH); University of Free State (UFS); University of KwaZulu-Natal (UKZN); University of Limpopo (UL); North-West University (NWU); University of

The data with regard to teaching activities, namely modules offered at each level in 2014<sup>4</sup>, was sourced from the commerce (or economic and management sciences) faculty prospectus of each institution. To assess research performance, activities of the departments in the following three areas are looked at: (1) participation at the 2009, 2011 and 2013 biannual Economic Society of South Africa (ESSA) Conference; (2) publication on the Economic Research Southern Africa (ERSA) working papers in 2005-2014; (3) publication in the five South African-based peer-reviewed economics journals in 2005-2014, including the South African Journal of Economics (SAJE), Studies in Economics and Economics (SEE), Development Southern Africa (DSA), South African Journal of Economic and Management Sciences (SAJEMS) and Economic History of Developing Regions (EHDR) (formerly known as South African Journal of Economic History).

The articles in PDF format were downloaded from the ESSA, ERSA and the respective journal websites so as to find out the institution of affiliation of each author.<sup>5</sup> The unit allocation was estimated on the following premise. In the situation where one person published an article alone and only worked for institution X, then one unit was allocated to this institution. When one person published an article alone but worked for institutions X and Y, half a unit was allocated to each institution. Where two authors were involved and one worked for institution X while the second author worked for both institutions Y and Z, then 0.5 unit was allocated to institution X, 0.25 unit each was allocated to institutions Y and Z. In the case where two authors were involved in the publication of an article and they worked at the same institution X, the entire one unit was allocated to the institution. The scenario where multiple authors were involved, with two / three / four authors who solely worked at different institutions, then 0.5 / 0.33 / 0.25 unit was allocated to each institution. Similar reasoning applies regardless the number of co-authors involved in the publication of an article, providing they all worked at different institutions. Publications by non-academics (e.g.

Pretoria (UP); Rhodes University (RU); Stellenbosch University (SUN); University of the Western Cape (UWC); University of Witwatersrand (Wits).

<sup>&</sup>lt;sup>3</sup> University of Johannesburg (UJ); Nelson Mandela Metropolitan University (NMMU); University of South Africa (UNISA); University of Venda (Univen); Walter Sisulu University (WSU); University of Zululand (UniZulu).

<sup>&</sup>lt;sup>4</sup> An exception was UJ, because only the 2015 faculty prospectus could be obtained by the authors.

<sup>&</sup>lt;sup>5</sup> Due to the length of time required to download the journal articles in PDF format and find out the institution of affiliation of the authors on the first page of each article, and the fact that South African academics mainly publish on these five journals, the authors decided not to examine the academics' publications on other South African peer-reviewed journals as well as international journals. In fact, Luiz (2009: 599) indicates that very few South African economists published in mainstream international economics journals.

economists from the South African Reserve Bank or National Treasury) were not included for the analysis.

In this study, since only publications on five peer-reviewed local journals were examined, all journals were treated as the same (i.e. equal weights). In addition, the total number of conference papers, working papers and journal articles would be examined (instead of total number of pages). Finally, differences in staff size across the departments would be considered by ranking the departments using per-capita figures. Two drawbacks of the study are as follows: it is not possible to obtain information on the staff size on UFH and UL, so only 15 departments were ranked when it comes to the per-capita research output; secondly, it is not possible to investigate the teaching activities at UL and UniZulu, because the authors were unable to obtain the faculty prospectus, and these two departments also did not specify the courses offered on their respective departmental websites.

## 4. FINDINGS

Table 1 captures the modules offered at each undergraduate level by the economics departments situated at 15 institutions. The data reveals that in 2014, all fifteen departments offered introductory modules in Microeconomics and Macroeconomics at the first year (Level I). As expected, the findings at Level II identify Microeconomics and Macroeconomics as the core module offerings for each department. Detail on whether these modules are semester- or term-based and curricula content falls beyond the ambit of this investigation. Mathematical Economics and Econometrics were offered by approximately a third of the institutions. This early adoption of more quantitative content is likely an endeavour to align with international standards. The three most common modules offered at Level III are International Economics, Public Economics was not offered at all in seven departments and that Econometrics was taught by all but one of the departments (NMMU) at the undergraduate level. This is closely followed by Public Economics which was not offered by only two departments.

#### [INSERT TABLE 1 ABOUT HERE]

The postgraduate modules offered by economics departments in 2014 are summarised in Table 2. Before the results are discussed, it is important to clarify that the WSU and UNISA economics departments don't offer a Master program, while RU and Univen only offer the Master program by full thesis. From the table, it could be seen that only two-fifths of the fifteen institutions offered Honours Research Methods and Master Research Method modules (the primary aim of these modules is to guide the students to learn the skills of writing long research assignments). As expected, Microeconomics and Macroeconomics were offered by all institutions at the Honours level. However, they were only offered by eleven departments at the Masters level. All but two departments (UNISA and Univen) offered Econometrics at the Masters level. On the other hand, 10 departments offered Econometrics at the Masters level, but not all of them offered the general Master Econometrics module, as few departments (UFS and SUN) instead offered two separate modules, namely Advanced Time-Series Econometrics and Advanced Cross-Sectional Econometrics.

Nine departments offered Mathematical Economics as a compulsory Honours module or alternatively as an elective to new Master students who did not complete it at the Honours level. Furthermore, the most commonly offered electives at the postgraduate level were Development Economics, Public Economics, Labour Economics, Monetary Economics, Environmental Economics, Financial Economics and International Trade.

#### [INSERT TABLE 2 ABOUT HERE]

The absolute number of units of the ESSA conference papers, ERSA working papers, and articles on the abovementioned five peer-reviewed journals are shown in Table 3. The results identify academics from SUN, UCT and UJ numbering among the front-runners of ESSA conference presenters, with only one institution not participating. It is also found that UCT and UP garnered the first and second placements for the ERSA working paper series, as these two departments account for half of the working papers during the 10-year period under study. Dominance by UCT and SUN is evident in their interchangeable first position ranking for publications in SAJE, SEE, DSA and EHDR, while UP heads the list for publication in SAJEMS.

#### [INSERT TABLE 3 ABOUT HERE]

The percentage share of each departments' total absolute number of articles published on the five journals in 2005-2014 is captured in Figure 1, and the results confirm that SUN, UCT and UP are the three top-performing departments. This is followed by NWU and RU.

#### [INSERT FIGURE 1 ABOUT HERE]

As some departments have comparatively large staff complements the absolute-term results reflect some bias, per-capita figures are derived and the results are shown in Table 4. First of all, the first column of the table clearly indicates the huge variation in the departments' staff size in 2014, ranging from as small as five (UniZulu and WSU) to as big as 39 (UNISA). After taking the staff size into consideration, some notable changes to the ranking order can be observed. First of all, while SUN retains their top listing for ESSA participation and publications in SAJE and EHDR, they are now also ranked first when it comes to publication on DSA. All other rankings are affected, seeing some relatively smaller departments improve their standing. For instance, NMMU (with a staff size of 12) is now ranked in the top three for publications in SAJEMS (ranked third) and SEE (ranked first), RU is ranked in the top five for publications in SAJE (fourth) and SEE (second), NWU (with a staff size of 16) is now ranked second when it comes to publications on the SAJEMS, while UWC's ranking improves from seventh to third for DSA.

#### [INSERT TABLE 4 ABOUT HERE]

Finally, Figure 2 shows the per capita total number of publications in the five journals, and the results indicates that SUN, UP and UCT are the only three departments with a per capita of two units of publications during the period under study. This is followed by RU, NWU, NMMU, UFS and UKZN, with the per-capita number of units above one.

#### [INSERT FIGURE 2 ABOUT HERE]

#### **5. CONCLUSION**

This is the first local study that examines the performance of the South African economics departments in 2005-2014 by using the official information from the university's faculty prospectus (on teaching activities and staff size), as well as ESSA conference, ERSA working

paper and five South African-based peer-reviewed economic journal websites (for investigating conference participation and research publication performance), instead of relying on information provided by the departmental chairpersons by means of a questionnaire.

Regarding the teaching activities, two interesting findings that deserve attention are that not all departments offer Microeconomics and Macroeconomics at undergraduate third-year level, and not all departments teach the Honours and Masters Research Methods modules to the postgraduate students. With regard to research activities, the rankings of the departments have changed significantly (in particular for smaller departments), after taking staff size into consideration.

Three performance areas that are not examined in this paper due to various reasons but should receive attention as possible future research areas, namely publications on international peer-reviewed journals, the labour market outcome of the postgraduate students (this would require the departments to have a comprehensive Alumni database, capturing the work activities of the graduates upon completing their studies) as well as postgraduate supervision activities.

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Level	Course	UCT	UFH	UFS	UJ	UKZN	NMMU	NW	UP	Rhodes	SUN	UNISA	Univen	WSU	UWC	Wits	Total (15)
I aval I	Macroeconomics	✓	~	✓	✓	$\checkmark$	$\checkmark$	✓	~	$\checkmark$	$\checkmark$	✓	$\checkmark$	✓	$\checkmark$	✓	15
Leven	Microeconomics	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	✓	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	✓	✓	$\checkmark$	✓	✓	✓	15
	Macroeconomics	✓	~	✓	✓	✓	~	~	~	✓	$\checkmark$	~	✓	✓	✓	✓	15
	Microeconomics	✓	✓	✓	✓	✓	~	~	~	✓	√	~	✓	✓	✓	✓	15
	Economic History	✓			✓		~				√	~					5
	Mathematical Economics		✓										✓	✓	✓	✓	5
	Development Economics	✓			✓						√			✓			4
	Econometrics				✓								✓		✓	✓	4
	Labour Economics				~							~		✓	✓		4
	Economic Indicators	✓			✓							✓					3
Lovel II	Environmental Economics											<b>√</b>	$\checkmark$	✓			3
Level II	International Economics										√					✓	2
	Applied Policy Analysis															✓	1
	Economics of Tourism											~					1
	Financial system											~					1
	Game Theory	✓															1
	Health Economics													✓			1
	Monetary Economics										√						1
	Political Economy													✓			1
	Public Economics														✓		1
	Microeconomics	✓	✓								√			✓	✓	✓	6
	Macroeconomics	✓	✓								√			✓	✓	✓	6
	Econometrics	✓	~	✓		✓		~	~	✓	$\checkmark$	~		✓	✓	✓	12
	International Economics	✓	✓	✓	✓	✓	~	~	~	✓		~	✓	✓	✓	✓	14
	Public Economics	~	✓		✓	✓	~	~	~	~	$\checkmark$	~	~	~	✓		13
	Monetary Economics		$\checkmark$		✓	✓		✓		$\checkmark$		✓	$\checkmark$	✓			8
	Development Economics					✓	$\checkmark$	✓				<b>√</b>			✓		5
	Economic History	✓	~							$\checkmark$		<b>√</b>	$\checkmark$				5
	Labour Economics	✓	~			✓					$\checkmark$		✓				5
	Environmental Economics		✓			✓				✓	√						4
	Mathematical Economics			✓						✓	√					✓	4
Level III	Economic Policy			✓		✓			~								3
	Financial Economics				✓		~										2
	Industrial Economics					✓							✓				2
	Managerial Economics						~				√						2
	Agricultural Economics													✓			1
	Cost Benefit Analysis													✓			1
	Economic and Development Ethics						$\checkmark$										1
	Economic Systems		✓														1
	Economics of Africa												$\checkmark$				1
	Institutional Economics										✓						1
	Resource Economics	$\checkmark$	_														1
	Statistical Economics			$\checkmark$													1

Table 1: Courses offered at undergraduate level by each Economics Department

Source: NMMU (2014), NWU (2014a), RU (2014), SUN (2014), UCT (2014a), UFH (2014), UFS (2014a), UJ (2015), UKZN (2014), UNISA (2014), Univen (2014), UP (2014a), UWC (2014a), Wits (2014), WSU (2014).

Course	UCT	UFH	UFS	UJ	UKZN	NMMU	NW	UP	RU	SUN	UNISA	Univen	WSU	UWC	Wits	Total (15)
Honours Research Paper	~	✓	✓	~	$\checkmark$	✓	✓	✓	✓	✓	✓	$\checkmark$	~	✓	✓	15
Master Research Paper	~	~	✓	✓	~	~	✓	✓	✓	~		✓		~	√	13
Honours Research Methods					~		✓	✓				~		~	~	6
Master Research Methods				✓	✓		✓	✓						✓	✓	6
Honours Microeconomics	~	✓	✓	~	$\checkmark$	✓	✓	✓	✓	✓	✓	$\checkmark$	~	✓	✓	15
Honours Macroeconomics	~	~	✓	~	~	✓	✓	✓	✓	~	✓	~	~	~	~	15
Master Microeconomics	✓	✓	✓	~	$\checkmark$	✓	✓	✓		~				~	$\checkmark$	11
Master Macroeconomics	$\checkmark$	~	✓	~	$\checkmark$	$\checkmark$	✓	✓		$\checkmark$				$\checkmark$	$\checkmark$	11
Mathematical Economics	✓	✓	✓	~	$\checkmark$	✓			✓	~					$\checkmark$	9
Honours Econometrics	✓	✓	✓	✓	~	✓	✓	✓	✓	✓			~	~	~	13
Master Econometrics	✓	✓		✓	✓	✓		✓		~				~	~	9
Advanced time-series econometrics			✓							~					~	3
Advanced cross-sectional econometrics			✓							✓						2
Development Economics	~	~		~		✓	✓	~	✓	~	~	~	~	~	~	13
Public Economics		~	✓	~		✓	✓	✓	✓	~	✓		~	~	~	12
Labour Economics	✓	✓	✓	~	$\checkmark$				✓	~			~	~	$\checkmark$	10
Monetary Economics			✓	~			✓	✓	✓	$\checkmark$	✓	$\checkmark$	~	$\checkmark$		10
Environmental Economics	✓	✓			$\checkmark$	✓			✓	~		$\checkmark$		$\checkmark$	$\checkmark$	9
Financial Economics	✓	✓		✓		✓			✓	~		✓		~	~	9
International Trade		✓		$\checkmark$	$\checkmark$		✓	✓	✓	~				$\checkmark$	$\checkmark$	9
Industrial Economics	✓	✓			$\checkmark$				✓	~					$\checkmark$	6
International Finance	✓	✓						✓		~				~	~	6
International Economics			✓		✓	✓					✓		~			5
Economic History									✓	~					~	3
Political Economy				$\checkmark$					✓						$\checkmark$	3
Economics of Technology									✓	~						2
Health Economics			✓		✓											2

 Table 2: Courses offered at postgraduate level by each Economics Department

### Table 2: Continued

Course	UCT	UFH	FS	UJ	UKZN	NMMU	NW	UP	RU	SUN	UNISA	Univen	WSU	UWC	Wits	Total (15)
Agricultural Economics													✓			1
Competition Economics				✓												1
Cost Benefit Analysis													✓			1
Dynamic Economic Theory										✓						1
Economic Challenges in Africa	✓															1
Economic Change and Comparative																
Development															✓	1
Economic Impact Assessment						✓										1
Economic Issues in Developing countries				$\checkmark$												1
Economic Policy Analysis	~															1
Economics of Competition and Regulation															$\checkmark$	1
Economics of Conflicts/War/Peace	~															1
Economics of Education										✓						1
Economics of Ports and Harbours					~											1
Economics of Travel and Tourism						$\checkmark$										1
Experiments in Economics	✓															1
Financial Econometrics						✓										1
Game Theory															$\checkmark$	1
Globalization and South African Economy						$\checkmark$										1
Institutional Economics										✓						1
Local Economic Development				$\checkmark$												1
Methodology in Economics			~													1
Survey Data Analysis	$\checkmark$															1

Source: NMMU (2014), NWU (2014b), RU (2014), SUN (2014), UCT (2014b), UFH (2014), UFS (2014b), UJ (2015), UKZN (2014), UNISA (2014), Univen (2014), UP (2014b), UWC (2014b), Wits (2014), WSU (2014).

	ES	SA	ER	RSA	SA	JE	S	EE	D	SA	SAJ	IEMS	EI	IDR
Institution	(2009-2013)		(2005-2014)		(2005	-2014)	(2005	5-2014)	(2005	5-2014)	(2005-2014)		(2005-2014)	
	Unit	%	Unit	%	Unit	%	Unit	%	Unit	%	Unit	%	Unit	%
UCT	54.42	13.0%	100.13	29.1%	32.67	19.3%	21.17	22.7%	16.75	27.2%	1.00	1.4%	5.59	14.8%
UFH	3.17	0.8%	2.00	0.6%	2.00	1.2%	1.33	1.4%	0.00	0.0%	0.00	0.0%	0.00	0.0%
UFS	25.50	6.1%	3.00	0.9%	13.25	7.8%	4.33	4.6%	1.00	1.6%	3.50	4.8%	0.00	0.0%
UJ	46.50	11.1%	35.37	10.3%	12.25	7.2%	3.17	3.4%	0.75	1.2%	3.00	4.1%	5.50	14.5%
UKZN	39.83	9.5%	26.00	7.5%	7.50	4.4%	4.00	4.3%	5.00	8.1%	5.50	7.6%	1.83	4.8%
UL	4.00	1.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	3.00	4.9%	0.00	0.0%	0.00	0.0%
NMMU	9.58	2.3%	16.00	4.6%	2.00	1.2%	10.83	11.6%	1.00	1.6%	4.50	6.2%	0.00	0.0%
NWU	33.75	8.1%	6.67	1.9%	8.17	4.8%	3.83	4.1%	3.17	5.1%	12.92	17.8%	1.50	4.0%
UP	40.32	9.7%	75.25	21.8%	26.00	15.4%	7.70	8.3%	5.00	8.1%	24.38	33.6%	1.33	3.5%
RU	24.08	5.8%	14.50	4.2%	12.83	7.6%	11.00	11.8%	3.17	5.1%	2.50	3.4%	0.00	0.0%
SUN	94.08	22.5%	35.83	10.4%	35.17	20.8%	13.42	14.4%	13.92	22.6%	5.33	7.4%	16.84	44.5%
UNISA	7.92	1.9%	7.33	2.1%	10.00	5.9%	7.50	8.0%	1.50	2.4%	3.83	5.3%	1.50	4.0%
Univen	1.00	0.2%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.33	0.5%	0.00	0.0%	0.00	0.0%
WSU	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	1.00	1.6%	0.00	0.0%	0.00	0.0%
UWC	2.50	0.6%	3.50	1.0%	1.00	0.6%	0.67	0.7%	3.00	4.9%	0.00	0.0%	0.00	0.0%
Wits	29.92	7.2%	19.08	5.5%	6.42	3.8%	4.33	4.6%	3.00	4.9%	6.00	8.3%	3.75	9.9%
UniZulu	1.00	0.2%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%	0.00	0.0%
	417.57	100.0%	344.66	100.0%	169.25	100.0%	93.28	100.0%	61.58	100.0%	72.47	100.0%	37.85	100.0%

Table 3: Absolute number of units on ESSA conference participation, ERSA working paper series and publication on the five South African based peer-reviewed economics journals

Source: Authors' own calculations.

Institution	ESSA	ERSA	SAJE	SEE	DSA	SAJEMS	EHDR
(Staff size in 2014 in brackets)	(2009-2013)	(2005-2014)	(2005-2014)	(2005-2014)	(2005-2014)	(2005-2014)	(2005-2014)
UCT (37)	1.47	2.71	0.88	0.57	0.45	0.03	0.15
UFS (17)*	1.50	0.18	0.78	0.25	0.06	0.21	0.00
UJ (34)	1.37	1.04	0.36	0.09	0.02	0.09	0.16
UKZN (23)	1.73	1.13	0.33	0.17	0.22	0.24	0.08
NMMU (12)	0.80	1.33	0.17	0.90	0.08	0.38	0.00
NWU (12)**	2.11	0.42	0.51	0.24	0.20	0.81	0.09
UP (23)	1.75	3.27	1.13	0.33	0.22	1.06	0.06
RU (15)	1.61	0.97	0.86	0.73	0.21	0.17	0.00
SUN (30)	3.14	1.19	1.17	0.45	0.46	0.18	0.56
UNISA (39)	0.20	0.19	0.26	0.19	0.04	0.10	0.04
Univen (8)	0.13	0.00	0.00	0.00	0.04	0.00	0.00
WSU (5)	0.00	0.00	0.00	0.00	0.20	0.00	0.00
<b>UWC (7)</b>	0.36	0.50	0.14	0.10	0.43	0.00	0.00
Wits (25)	1.20	0.76	0.26	0.17	0.12	0.24	0.15
UniZulu (5)	0.20	0.00	0.00	0.00	0.00	0.00	0.00

Table 4: Per capita units on ESSA conference participation, ERSA working paper series and publication on the five South African based peer-reviewed economics journals

Source: Authors' own calculations.

Note: It is not possible to derive the per-capita results for UFH and UL since the information on lecturing staff size could not be obtained.

\* UFS: including the lecturing staff in the Bloemfontein (13), Qwaqwa (2) and South (2) campuses.

\*\* NWU: only including the lecturing staff in Potchefstroom campus.



Figure 1: Percentage share of each department on the absolute number of publications unit in the five South African based peer-reviewed economics journals, 2005-2014

Source: Authors' own calculations.





Source: Authors' own calculations, using information on the staff size by department in 2014. Note: It is not possible to derive the per-capita results for two institutions (UFH and UL) since the information on lecturing staff size could not be obtained.