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A WORKING PAPER OF THE DEPARTMENT OF ECONOMICS AND THE
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ABSTRACT

International trade in higher education services provides opportunities for stimulating economic development and fostering the mobility of knowledge, leading to increased intellectual capital, which is vital for a country to remain competitive in a globalising world. The aim of this paper is to explore the nature and scope of the delivery of higher education export services at the University of Stellenbosch. To this end, a questionnaire was constructed and distributed among 109 international students at the University of Stellenbosch during 2009. This pilot study investigates the factors that motivate international students to further their studies at the University of Stellenbosch. In addition, it provides an estimate of the associated economic impact on the hosting country of exporting higher education services.

Keywords: Trade in Education Services, Comparative Advantage, Higher Education Services

JEL codes: F10, F20, I23

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1. INTRODUCTION

"The challenge to each higher education institution is to answer the questions of who, what, where, when and how such mobility can best be promoted and why, fundamentally, it is desirable..." - Allan Goodman, President of the Institute of International Education (IIE) in a recent interview, 2009

Allan Goodman was commenting on the recent publication, entitled: *"Higher Education on the Move: New Developments in Global Mobility"* in which the authors of the Institute of International Education (IIE) endeavoured to explain the dramatic growth in the global demand for higher education services. The conclusion was that higher education institutions face enormous challenges in meeting the growing global mobility of students, but similarly are presented with a promising opportunity to stimulate their own economies. It has been observed that the nature and context of sending and hosting countries regarding international education services are rapidly changing and this in turn provides lucrative opportunities for developing nations.

For the last decade, countries that are international study destinations have come to realise the importance of higher education export services and are increasingly proclaiming its advancement as part of their economic development strategies. Most countries view academic mobility and education exchanges as critical components for building intellectual capital, sharing knowledge and remaining competitive in a globalising world. In addition, Donaldson and Gatsinzi (2004) persuasively argue that foreign students can give "the kind of international feel, which is helpful in combating xenophobia and racial tensions". Racine et al. (2003) add that foreign students are important for strengthening "cultural, social, political and diplomatic" relations. The South African Development Community (SADC) Protocol of Education and Training (1997) recognises the qualitative and longer-term benefits of cross-border education as part of a "human centred" development strategy. Moreover, many international students remain in the hosting country and contribute to meeting the shortage of skills in the skilled workforce (Zigurasa and Lawb, 2006).

The global trade in education services is an integral part of modern economies, but due to its brief existence, only limited research is available. More research is imperative to answer the questions of who, what, where, when and how such mobility can best be promoted.

Consequently, this study investigates the profile of international students enrolled at the University of Stellenbosch to shed some light on the key perceptions of these students regarding South Africa and the education services on offer. It also seeks to investigate the general behavioural patterns of the users of international education services.

Section 1 provides an overview of the relationship of higher education as an exported service in the global and South African context, including a brief discussion on the comparative advantage of South Africa in supplying international education services; and the nature of the University of Stellenbosch in this context. Section 2 explains the methodology used and the findings. A questionnaire was administered to capture the perceptions and behaviour of international students. The section includes estimates of the economic impact of income generated through hosting the students. Section 3 compares similar national and international economic impact studies and Section 4 concludes.

1.1 Exporting Services and Higher Education: An Overview

The World Trade Organisation (WTO) brought international trade in services under common multilateral rules in 1995 (WTO, 2006). International trade in services is covered in the General Agreement on Trade in Service (GATS), which also contains a classification of the different channels through which these services occur. There are four dominant modes of supply in which a service is rendered in international markets. The first, “Cross-Border Supply”, can be described in the context of providing higher education services as distance or correspondence education. The second is “Consumption Abroad” and points to the global mobility of international students. This mode of supply constitutes the largest share of the international market for trade in education services; this paper is solely concerned with this second mode of supply. The third mode of supply is “Commercial Presence” and represents franchising arrangements or the satellite campuses of education institutions. The fourth mode is called the “Presence of Natural People” and refers to professional academics working temporarily abroad at other universities (Knight, 2002). The United Nations Provisional Central Product Classification distinguishes five different education services, namely primary, secondary, higher, adult and other services. The focus of this research is limited to higher education, which refers to education services that result in obtaining a university degree.

1.2 Education export services and South Africa

A country has a comparative advantage if it can, relative to prices of producing other goods, produce a commodity or service relatively more cheaply than other countries (Suranovic, 2009). To calculate the magnitude of comparative advantage, the Revealed Comparative Advantage (RCA) index is generally used. The formula used can be summarised formally in generic form as:

$$RCA_{ij} = \frac{X_{ij} / \sum_j X_{ij}}{\sum_i X_{ij} / \sum_i \sum_j X_{ij}}$$

Applied to higher education, X_{ij} shows the number of international students in South Africa (country i) who make use of exported education services (sector j). The expression $\sum_j X_{ij}$ is the world's export value of education service (j) as measured by the number of mobile international students. In the denominator the expression $\sum_i X_{ij}$ represents the economic size (GDP) of South Africa (i) and the fraction $\sum_i \sum_j X_{ij}$ is the combined economic value added of the entire world. Thus the RCA index provides an indication of the size of the South African education export market, relative to that of the world and comparing that to the South African share of world production of all goods and services. If this exceeds one, it indicates that South Africa has a comparative advantage in providing higher education export services. The results, based on data on international student mobility obtained from UNESCO and GDP data from the International Monetary Fund Statistical Database for 117 countries over the period spanning 1999 to 2007, are summarised in Table 1.

Table 1: Revealed Comparative Advantage for South Africa in Higher Education Exports

Year	1999	2000	2001	2002	2003	2004	2005	2006	2007
RCA (SA)	4.81	5.98	5.62	6.30	4.57	3.91	3.63	3.85	4.39

Compiled from data provided by the IMF and UNESCO

Following the Hinloopen and Marrewijk (2001) RCA classification system, the results for South Africa indicate a medium comparative advantage for the period 2004 to 2006 and a strong comparative advantage for the period 1999 to 2003 and 2007. Accordingly, relative to economic size, South Africa can be regarded as a large supplier of education services in the world.

1.3 The Global Migration of Students

“Most countries now view academic mobility and education exchanges as critical components for sharing knowledge, building intellectual capital and remaining competitive in a globalising world”. - Peggy Blumenthal, Chief Operating Officer of the Institute of International Education

Higher education enrolment has grown worldwide. In 1991 there were 68 million students registered at higher education institutions. By the year 2005 the number of higher education students had grown to 144 million, implying an annual growth rate of around 5½%. Countries in Asia, such as Malaysia, China and India in particular, have experienced especially large growth rates.

This dramatic growth has also resulted in a dramatic rise in the number of mobile students worldwide. Global higher education mobility has grown by 57% in the past decade, with more than 2.9 million students seeking education abroad in 2008. In addition to the growth in the number of mobile students, the overall context of global mobility in terms of the combination of sending and hosting countries has also changed (IIE, 2009).

Furthermore, the British Council reports that the number of international students is expected to increase to an estimated 5.8 million by 2020. Currently, the number of students seeking further education at mainly English-speaking destinations constitutes approximately 1 million and is expected to increase to 2.6 million over the next decade (UNESCO, 2006).

The expansion of the higher education population is putting heavy pressure on higher education systems in many developing countries, particularly at postgraduate level, and result in large numbers of students seeking higher education outside their home countries. The global demand for higher education services is also pressurising international institutions to eliminate barriers to mobility, such as unsynchronised university calendars, course credit transfers and financial considerations (Gertz, 2009).

1.4 International Students in South Africa

There is a large international demand for higher education services in South Africa. Since 1999, South Africa has been the ninth-largest supplier of higher education services to foreign students. Between 1999 and 2006, the number of international students choosing South Africa as their study destination grew by 54.55%. In 2006, South Africa provided higher education to 53 738 international students, which constitute 2.12% of all international students worldwide (Table 2).

Table 2: Main Suppliers of Higher Education Services

Rank	Country	1999	2000	2001	2002	2003	2004	2005	2006
1	United States	451 935	475 169	475 168	582 996	586 316	572 509	590 158	584 719
2	United Kingdom	232 540	222 936	225 722	227 273	255 233	300 056	318 399	330 078
3	France	130 952	137 085	147 402	165 437	221 567	237 587	236 518	247 510
4	Germany	178 195	187 033	199 132	219 039	240 619	260 314	259 797	207 994
5	Australia	117 485	105 764	120 987	179 619	188 160	166 954	177 034	184 710
6	Japan	56 552	59 691	63 637	74 892	86 505	117 903	125 917	130 124
7	Russian Federation	...	41 210	64 103	70 735	68 602	75 786	90 450	77 438
8	Canada	40 033	40 404	45 693	52 596	59 874	70 023	75 546	68 520
9	South Africa	34 770	45 377	39 752	46 687	49 979	51 012	50 129	53 738
10	Italy	23 496	24 929	29 228	28 447	36 137	40 641	44 921	49 090
	World	1 627 129	1 753 680	1 821 417	2 121 881	2 353 062	2 433 218	2 472 323	2 532 805

In 2006, 35 880 international students in South Africa, or 67%, originated from the Southern African Development Community. The majority of them came from Zimbabwe (18%), Namibia (13.2%) and Botswana (10.9%) (IIE, 2008), 16% from other countries in Africa and 14% from outside Africa. The latter was comprised of visitors from Asia (4.43%), Australia (0.22%), Europe (6.52%), North America (2.79%) and South America (0.25%) (IEASA, 2008). According to Ramphela et al. (1999:12) and Hall (2004:3), the use of English as a medium of instruction serves as an attraction for international students to enrol at South African universities. One reason advanced for the large influx of students from the African continent is the infrastructural differences between the sending and hosting countries (Massey et al., 1993:431), while proximity serves as another explanation for the large number of students from Southern Africa (Shindondola, 2002:49).

1.5 International Students at the University of Stellenbosch

The focus of this study is on the University of Stellenbosch, one of the largest exporters of higher education services in South Africa (Aloyo, 2008:25). The demand for higher education services at this university has rapidly increased over recent years. Enrolment of international students for the period 2004 to 2008 has grown by 67%. In addition, the fraction of international students registered at the University of Stellenbosch increased from 6.94% to 10.3% over this period. The proportion of international students from African countries remained relatively stable between 56% and 62% (Table 3).

Table 3: International Student Enrolment and Share at the University of Stellenbosch

Year	2004	2005	2006	2007	2008
International student enrolment	1 530	1 729	2 197	2 324	2 555
International enrolment as share of total enrolment	6.94%	7.79%	9.44%	9.87%	10.30%
Share of international students from African countries	62.09%	57.89%	56.12%	58.13%	58.31%

Source: Institutional Information, Stellenbosch International Student Database, 2009

The Department of Institutional Information at the University of Stellenbosch supplied data on the total number of international students registered at the University in 2009. This contains information on their origin, the type of students (i.e. exchange or special students) and courses taken. Of the 2 941 international students who studied at the University of Stellenbosch during 2009, 69.6% were registered for postgraduate courses. Students came from 102 different countries, with the largest representation from Namibia (23.46%), followed by the USA (10.64%), Zimbabwe (7.07%), Germany (6.83%), Nigeria (6.32%), the Netherlands (4.66%) and the United Kingdom (2.92%). The majority enrolled for courses in the Economic and Management Sciences Faculty (25%), followed by Arts and Social Sciences (22%), Health Sciences (18%), Natural Sciences (13%), Engineering (9%), Agricultural Sciences (5%), Theology (3%), Law (3%), Education (2%) and Military Sciences (0.04%).

2. METHODOLOGY AND FINDINGS

The sample framework consisted of international students who attended courses at the University of Stellenbosch during 2009. In total 109 international students were approached to complete the standard questionnaire during three different interview sessions (Table 4). Fieldwork was completed between January and July 2009. The first interview took place at a special orientation session for foreign students hosted by the International Office of the University of Stellenbosch. For the last two interviews international students were approached in a formal class environment and requested to complete the questionnaires. The sample is thus not a random one, but a sample of convenience, but should give an indication of both the pattern of behaviour and the costs of studies, once appropriate provision has been made for the composition of the underlying population of the international student population.

Table 4: Number of Questionnaires Completed and the Respective Dates

Interview	Date	Total respondents
Interview 1	21 January 2009	60
Interview 2	5 May 2009	23
Interview 3	21 July 2009	26
		109

A prerequisite for promoting international student arrivals in South Africa is a proper understanding of the needs and expectations of international students. To this end, it is imperative to investigate the demographic characteristics of foreign students, what they find to be the main alluring forces presented by the host country (South Africa) and the estimated spending patterns of the visitors.

2.1 Demographic Characteristics

Respondents were drawn from 18 different countries: 46.2% from Europe (the Netherlands had the highest representation at 16.9%); 45.2% from North America (43.4% from the USA); 5.6% from Africa; and 2.8% from Asia. Students from African countries were underrepresented in the sample, while students from America and Australia were overrepresented, which potentially affects the accuracy of the results. Most of the responding students (66%) were registered in the

Arts and Social Sciences Faculty, followed by 17% in the Economic and Management Sciences Faculty. A further 6% were registered in the Law Faculty, 6% in the Science Faculties, 3% in the Education Faculty and 2% in the Engineering Faculty. There is thus some overrepresentation in the sample of students registered in the Arts and Social Sciences Faculty. The majority were registered as special students (48%) followed by exchange students (46%) and a small minority (6%) were affiliated students². Most (83%) of the combined exchange, special and affiliated students remain for only one semester at the University of Stellenbosch; 9% stay for two semesters and 8% complete an entire degree at the University of Stellenbosch.

2.2 Perceptions on South Africa and Stellenbosch

The five-point Likert³ scaling technique was used to measure perceptions of the international students on the main attractions offered by Stellenbosch and the sources most frequently utilised to gain information on South Africa.

2.2.1 Main Attractions

A British Council (1987) study to determine the factors that explained the movement of students between particular countries emphasised seven distinct factors. These can be summarised as geography, language, accessibility and affordability of the education institution, historical connections, and the perceived quality and employability of the qualification. In addition, three perceived attractive characteristics of South Africa were added to the questionnaire, namely the issue of cultural diversity, natural diversity of the landscape and various unique tourist-related activities.

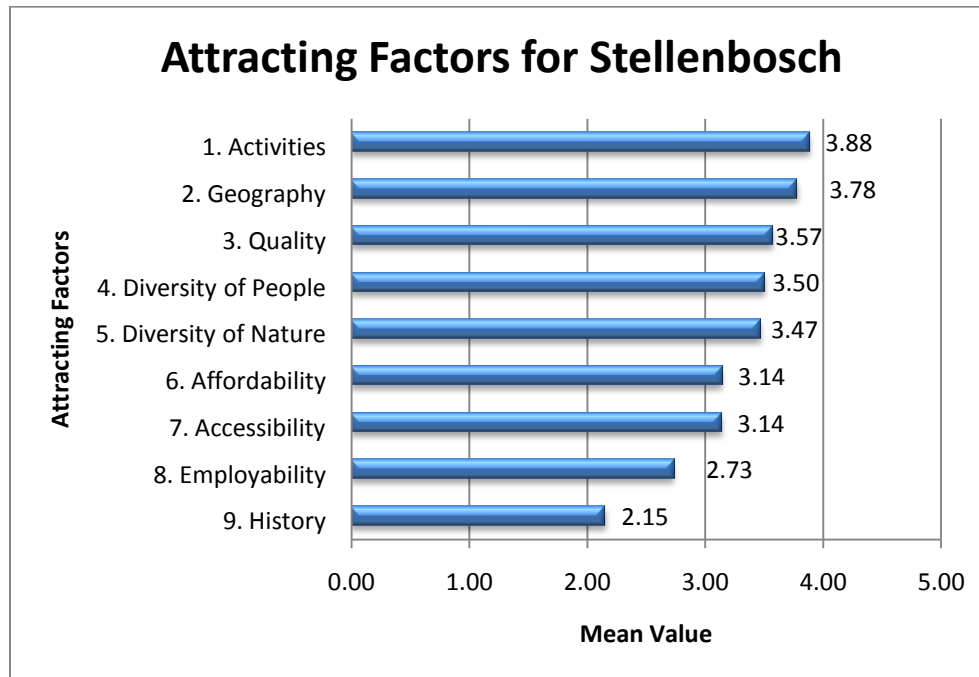
The main factors attracting international students to Stellenbosch can be summarised in order of importance by using the computed mean values. The dominant three factors attracting students to Stellenbosch are firstly the range of activities (3.88) (which in order of importance were

² The term “international exchange students” refers to the students from the partner universities that have formal exchange agreements with the University of Stellenbosch. The expression “special students” refers to international students from education institutions that do not have a formal exchange agreement with the University of Stellenbosch. “Affiliated international students” come to the University of Stellenbosch to do research, practical training or as part of a departmental internship (International Office, 2009b).

³ Students were requested to rate their perception of Stellenbosch, indicating their utility level, with a minimum score of one to a maximum score of five. See Likert (1932), Gay (1996), UNI (2009) and Farlex (2009). See (Nunally, 1978, cited by Neuman) and Dyer (1995) for more about the criticism against attitude scales.

travelling (23.4%), seeing wildlife, meeting local people and engaging in extreme sports such as shark-cage diving); secondly the geographical location (3.78); and thirdly the quality of education services (3.57) (Figure 1).

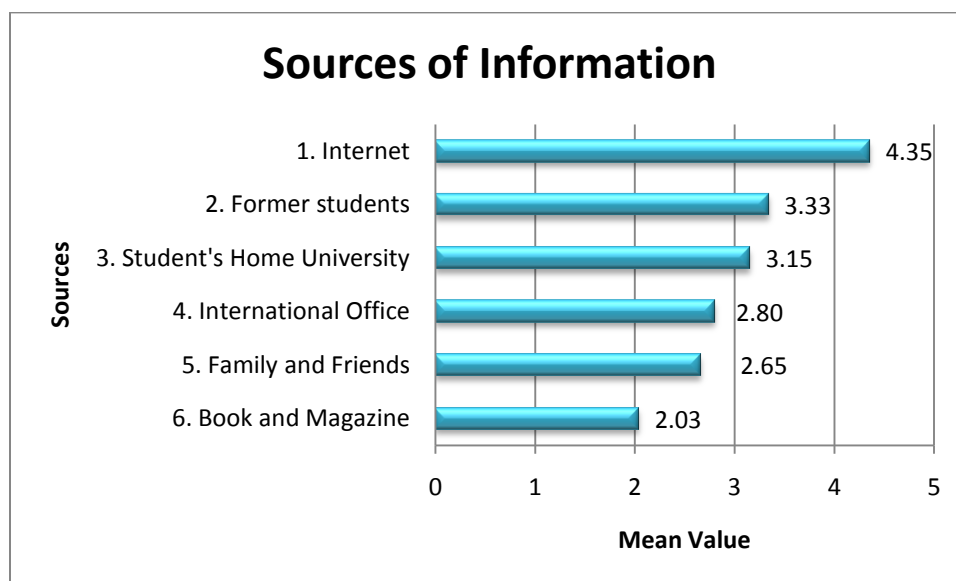
Figure 1: The Main Attracting Factors for Stellenbosch



2.2.2 Information on South Africa

The dominant three sources of information on South Africa, according to their computed mean values on the Likert scale, are firstly the internet (4.35); secondly former students (3.33) and thirdly the student's home university (Figure 2). Earlier visits to South Africa can be viewed as another means of obtaining information about the country and study opportunities; 24.7% of respondents had previously visited South Africa.

Figure 2: Sources of Information on South Africa



2.2.3 Countries and Universities Compared

An investigation of the list of other countries considered provides a broad indication of comparable student destinations. In total, respondents considered 51 countries in addition to South Africa. They generally regarded South Africa as a comparable study destination to several First World countries. The largest individual majority of the participating international students, 12.4%, had also considered furthering their studies in Australia, followed by 10.7% who considered the USA. The African continent was mentioned in 16.5% of the cases, where the greatest interest in further studies was in Ghana with 3.5%.

In total, 41.2% of these international students at the University of Stellenbosch had considered other South African universities as study destinations. Of this cohort, 31% had considered the University of Cape Town, followed by the University of the Western Cape with 9%.

2.3 Economic Impact

National and international studies (Vickers and Bekhradnia, 2007; Snowball and Antrobus, 2006) confirm that international students can contribute significantly to the local business sector. The aim of this section is to estimate the monetary value of exporting these education services from the University of Stellenbosch. Two sources of data were used, namely the questionnaires and supporting data from the International Office of the University of Stellenbosch, the latter to

get a more accurate representation of the tuition fees and accommodation expenses of participating students.

2.3.1 Financial Student Data

Due to the various exchange rates, the questionnaire asked that students use an exchange rate of R10 to \$1 to express financial values in South African Rand (ZAR) values. The Rand/Dollar exchange rate was converging towards R10 per \$1 during January 2009, when the first questionnaires were administered.

A large majority of the participating students (62.8%) stated that they and their families were paying for their stay in South Africa. Of these, 36.7% received funds from their family members (including parents) and 25.8% stated that they themselves and their savings were used as sources of finance. Bursaries and scholarships were recorded by 12.2% of the respondents, followed by funds from the students' home government (10.9%), funds from their home university (8.3%) and lastly student loans (5.8%). The questionnaire did not capture information about the amounts contributed from each of these sources, only the main type of funding sources.

Tuition fees: It can be seen from Table 5 that the cost of tuition for exchange students amounts to R3 500 per semester, for special students R28 900 per semester and for affiliated students R3 695 per semester. In addition, affiliated students were required to pay R400 per week to the university. If an international student is registered for a degree, then in addition to the exchange or special fee, such a student pays the full tuition amount for the degree programme. The cost of degree programmes varies according to the respective courses.

Table 5: Tuition Fee by Programme

Type of student	Tuition
Exchange student	R3 500 (per semester)
International special student	R28 900 (per semester)
Affiliated student	R3 695 (per semester) + R400 per week
Degree programme	R3 500 + tuition fee

Source: International Office, University of Stellenbosch (2009b)

Accommodation fees: The data set obtained from the International Office (2009a) included a separate column containing the costs of university accommodation. Students spent between R9 745 and R26 000 per semester on accommodation expenses, with an average amount of R19 470.

Living costs: The participating international students had to make a list of the items that featured as a summary of their monthly expenses. Table 6 indicates that the participating students expected to spend an average amount of R1 760 on food and drink and R557 on household and clothing expenses. An amount of R1 612 was allocated to travelling and R791 to entertainment.

Table 6: Items

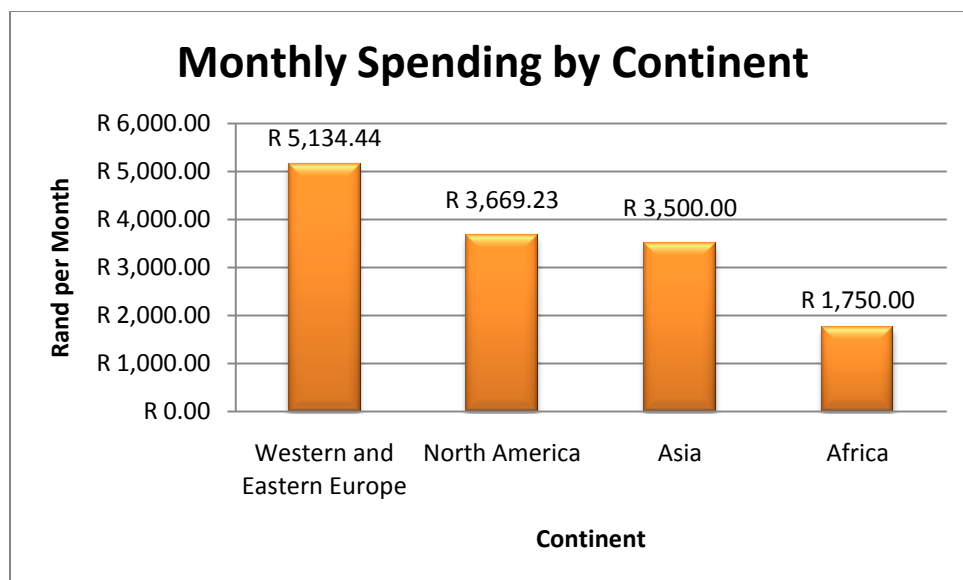
Item	Minimum	Maximum	Average
Food and drinks	R175	R5 000	R1 760
Travel	R60	R4 000	R1 612
Communication e.g. phone	R10	R500	R197
Household and clothing	R50	R1 000	R557
Entertainment	R100	R2 000	R792
Other e.g. study materials	R300	R3 500	R1 167
Souvenirs and gifts	R200	R250	R217

Total monthly spending: Respondents were also asked the total amount spent per month (not necessarily the sum of the individual items). Tuition fees and the cost of accommodation were excluded. Monthly reported spending ranged between R400 and R13 000, with an average amount of R4 506. When sorted into spending categories, the mode appeared to be R4 000 - R4 999 per month, recorded by 20% of respondents. The second largest group (17%) spent R3 000 – R3 999 followed by both the R1 000 - R1 999 and R5 000 - R5 999 cohorts, each comprising 14% of students. Thus 51% of students spent between R3 000 and R6 000, with nearly a quarter spending more than R6 000 per month.

Most of the respondent students (63%) were between 20 and 21 years old and monthly expenditure did not seem to vary with age. Female respondents (62%) were in the majority, but male respondents reported a higher average monthly expenditure: R5 168, versus R3 696. This

may reflect some of the selection biases in the sample. By continental block (see Figure 3), Western and Eastern European students sampled spent on average R5 134 per month compared to their North American and Asian peers who spent respectively R3 669 and R3 500. The African student respondents expected to spend R1 750 per month. Earlier visits to South Africa did not appear to reflect spending levels.

Figure 3: Relation between Continental Origin and Monthly Spending



2.4 Total Income Generated

The total income generated for the regional economy by all the participating international students at the University of Stellenbosch can be determined by calculating both their direct spending, and by also estimating the multiplier (indirect) effects on the local economy over a period of one semester.

2.4.1 Direct expenditure by students

Direct expenditure combines tuition fees, accommodation expenditure and other living costs. In total, 2 941 students were registered at the University of Stellenbosch in 2009. Tables 7, 8 and 9 describe the total living costs, accommodation and tuition respectively incurred by these students, calculated from the Stellenbosch International Student Database for one semester. Of the interviewed sample, 85% indicated that they would remain for one semester only, 8% studied for a year and 7% for a full degree programme. As there was inadequate information about the

full spectrum of the 2 941 international students (such as the duration of their visit to South Africa), the total amount is confined to a semester or a five-month visit.

Aggregate living costs of all international students for the semester were calculated by applying the continental bloc averages to the number of students from each of these continents. Of all the international students, 392 students originated from the Americas and Australasia, 661 from Eastern and Western Europe and Russia, 147 from India, the Middle East and Asia and 1 741 from other countries on the African continent. Table 7 shows the aggregate income generated on living expenses by these students for the regional economy in a semester. By weighting the continental costs in this way, the estimates compensate to some extent for the poor representativeness of the original sample.

Table 7: Aggregate Living Costs per Semester for All International Students in 2009

Continental bloc	Monthly spending per semester (5 months)
Americas and Australasia	R7.181 million
Eastern and Western Europe and Russia	R14.218 million
India, the Middle East and Asia	R1.869 million
Rest of Africa	R14.145 million
Total	R37.415 million

Aggregate accommodation fees were computed by using the semester mean value obtained in Section 2.3.1. Extrapolated to the entire international student population, that provides the total shown in Table 8.

Table 8: Aggregate Accommodation Expenses per Semester for All International Students in 2009

Accommodation	Amounts
Average per student per semester	R19 468
Aggregate total for 2 941 students	R57.254 million

The Stellenbosch International Student Database distinguishes only between special and non-special students. Although non-special students consist of exchange and affiliated students, their basic tuition fees are nearly the same (R3 500 and R3 695 respectively plus a weekly fee of

R400). In 2009, 840 special students and 2 101 non-special students studied at the University of Stellenbosch. Owing to the lack of adequate data on the duration of visits, tuition fees calculated are confined to enrolment fees, not including any course fees that students studying for a degree have to pay. In addition, tuition fees for all non-special students (exchange and affiliated) were limited to the lower bracket of the two, namely R3 500 (the exchange students' fees).

Table 9: Aggregate Tuition Fee for All International Students in 2009 for One Semester

Tuition Fees for One Semester	Amounts
Exchange and affiliated students	R8.402 million
Special students	R24.276 million
Total	R32.678 million

The aggregate direct income incorporates tuition fees, accommodation and living costs and is presented in Table 10. The total direct income generated by hosting the 2 941 international students for the first semester of 2009 amounted to R127.348 million, or R43 300 per student.

Table 10: Aggregate Direct Expenditure per Semester

Student expenditure per semester	Amounts
Living costs	R37.415 million
Accommodation	R57.254 million
Tuition	R32.678 million
Aggregate direct expenditure	R127.348 million
Aggregate expenditure per student	R43 300

2.4.2 Indirect Regional Income (Regional Multiplier Effect)

The direct income generated by the international students circulates through the local economy and spills over to other regions, resulting in an overall effect greater than the initial or direct injection (Crompton, 1995; Vickers and Bekhradnia, 2007). The size of this multiplier depends upon a range of variables, such as the current state of the economy, the nature of the industry generating the income and the extent of leakages from the region. A meta-analysis of various

economic impact studies by Baaijens and Nijkamp (2000) found that a small region (on average less than 500 km²) with a population of between 20 000 and 150 000 was likely to have a multiplier of less than 1.5, implying an indirect effect of 0.5. A study by Snowball and Antrobus (2006) used both 0.25 and 0.35 as the indirect effect from spending by international students at Rhodes University in Grahamstown. These latter estimates would imply an indirect effect of between R31.8 million and R44.6 million per semester on regional economic activity from the presence of international students at the University of Stellenbosch. The total effect on the region could thus be between R159.2 million and R171.9 million in a semester.

In summary, foreign students already contribute a significant amount to the economy of Stellenbosch and surroundings, and thereby even more to the South African economy. Combining the direct and indirect effect of expenditure, the economic activity generated by hosting each international student is between R54 100 and R58 500 per semester visit.

3. Findings in Perspective

The results of this study could be compared to other national and international studies. An economic impact study by Snowball and Antrobus (2006) found that foreign students at Rhodes University spent on average R47 281 per annum. A similar study performed by Myles (cited in Kabeli 2005) at the Nelson Mandela Metropolitan University reports that foreign students spend on average R57 000 each annually. A more recent study by Aloyo (2008) comprising six South African universities, namely the University of Johannesburg, University of Cape Town, Witwatersrand University, Nelson Mandela Metropolitan University, University of KwaZulu-Natal and a private foreign tertiary institution, Monash South Africa, calculated the average income generated by foreign students to amount to R78 167. The income discrepancies from these studies can mainly be attributed to their use of full time international student data, as opposed to the semester values calculated for the students residing at the University of Stellenbosch.

The economic impact results coincide further with studies undertaken by Vickers and Bekhradnia (2007) for the United Kingdom and Infometrics Consulting (2000) for New Zealand. In the case of New Zealand, the combined living costs and tuition amounted to R62 793, using the observed exchange rate of NZ\$1 = R3 for the period. The aggregate totals reported in the

United Kingdom study exceeded those in the above studies. Using the exchange rate of UK£ 1 = R11 for the period, the aggregate living cost per student amounted to R87 000 and the tuition fee to R71 907 for undergraduate and R103 862 for postgraduate students. In summary, South Africa provides an affordable alternative to international education service delivery.

4. CONCLUSION

The University of Stellenbosch recorded a significant increase of 92% in international student enrolments from 2004 to 2009. In 2009, 2 941 international students from a broad spectrum of sending countries enrolled for courses at the University of Stellenbosch.

Findings from the questionnaire and institutional data suggest that the main factors responsible for attracting the responding international students to Stellenbosch were the range of activities available, geographic location and quality of education. Information sources most frequently utilised to obtain information were the Internet, former students and home universities. The majority of participating international students were supported financially by their families or their own savings. Total income generated by hosting the students for the duration of one semester in 2009 amounted to **R127.3 million, while adding the multiplier effect may have** stimulated regional income by between R159 million and R172 million in the semester. These findings substantiate arguments about the fundamental desirability of exporting higher education services.

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