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Assessing the Environment for Social Science Research in Developing Countries: The Case of South Africa

Final Report

Submitted to:

Global Development Network (GDN)

Submitted by:

Cheryl Potgieter (dvchumanities@ukzn.ac.za)
Urmilla Bob (bobu@ukzn.ac.za)
Radhamany Sooryamoorthy (sooryamoorthyr@ukzn.ac.za)

University of KwaZulu-Natal
Durban, South Africa

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LIST OF ABBREVIATIONS

ACCORD	African Centre for the Constructive Resolution of Disputes
ANIDA	All Nations International Development Agency
ARC	Agricultural Research Council
ASSAf	Academy of Science of South Africa
AU	Author Units
AVRI	African Vision Research Institute
BRICS	Brazil, Russia, India, China and South Africa
CEOs	Chief Executive Officers
CESM	Classification of Educational Subject Matter
CODESRIA	Council for the Development of Social Science Research in Africa
CPUT	Cape Peninsula University of Technology
CREST	Centre for Research on Evaluation, Science and Technology
CSIR	Council for Scientific and Industrial Research
CUT	Central University of Technology
DHET	Department of Higher Education and Training
DST	Department of Science and Technology
DUT	Durban University of Technology
GDN	Global Development Network
GIS	Geographic Information Systems
HSRC	Human Sciences Research Council
IDRC	International Development Research Centre
ISSC	International Social Science Council
MANCOSA	Management College of Southern Africa
MRC	Medical Research Council
MUT	Mangosothu University of Technology
NGOs	Non-governmental organisations
NMMU	Nelson Mandela Metropolitan University
NORAD	Norwegian Agency for Development Cooperation
NRF	National Research Foundation
NSI	National System of Innovation
NWU	North West university
PhD	Doctor of Philosophy
R&D	Research and Development
RU	Rhodes University
SARChI	South African Research Chairs Initiative
SASA	South African Sociological Association
SIDA	Swedish International Development Cooperation Agency
SPSS	Statistical Package for the Social Sciences
SU	Stellenbosch University
TUT	Tshwane University of Technology
TVET	Technical Vocational Education and Training
UCT	University of Cape Town
UFH	University of Fort Hare
UFS	University of Free State
UJ	University of Johannesburg
UK	United Kingdom
UKZN	University of KwaZulu-Natal
UL	University of Limpopo
UNESCO	United Nations Educational, Scientific and Cultural Organisation

UNISA	University of South Africa
UNIVEN	University of Venda
UNIZULU	University of Zululand
UP	University of Pretoria
USA	United States of America
UWC	University of Western Cape
VUT	Vaal University of Technology
Wits	University of Witwatersrand
WSU	Walter Sisulu University

ABSTRACT

South Africa has a rich and busy landscape of social science research institutions, and an equally varied tradition of social science research. These institutions are either located within discrete units or centres at the country's universities, or they stand alone as governmental or parastatal agencies, non-governmental organisations, or collaborative arrangements such as research networks between different local, regional, and international actors, including actors in African low-income countries and other regional developing countries. The evolution of a critical social sciences research tradition in South Africa parallels the struggle against colonial and apartheid rule, where data and research helped to lay the foundation for key post-apartheid institutions. A significant contribution of social science knowledge generation activity in the post-apartheid period is its contribution to national policy making. The Global Development Network (GDN) has developed its *Doing Research* programme to advance and improve its understanding of the social science research environment in developing countries and in so doing to catalyse new thinking about how to measure research productivity using innovative, non-traditional and, importantly, a context-specific approach. The central question is: How can we think differently about the evaluation of the contribution of the social sciences to South African research productivity, policy and social development, beyond conventional quantitative discourses of research performance measurement? In this context, the intention of the study undertaken is to map the social science research environment in South Africa, to conduct a political economy analysis thereof, and to develop a framework for measuring the outputs, outcomes, and impact of this environment to development. The research presented here adopts a mixed methods design, incorporating both qualitative (specifically key informant interviews) and quantitative (specifically a survey targeted at social scientists in South Africa and a bibliometric analysis) research approaches. The findings indicate that research productivity among social scientists is increasing with growing funding for research as well as investments in building research capacity. However, the qualitative key informant interviews undertaken in this study indicate that senior and more established social scientists are of the opinion that social science is methodologically and conceptually/ theoretically stunted and has not developed appropriate approaches to engage current societal challenges. Furthermore, numerous challenges remain which include limited funding opportunities (more prominent for certain disciplines and thematic areas), biases in the perceived value of research and contributions (including those in relation to performance management and promotions) towards the natural and physical sciences as well as specific thematic areas, workload distribution (especially at universities), and support for social scientists in terms of mentoring and networking. It is important to note that in the South African context, the availability of funding is not the main issue, rather the ability of social scientists to access funding is. The key recommendations emerging from this study are the need to develop, reward and retain social scientists (and the need to review systems where appropriate) and increasing funding opportunities.

1. INTRODUCTION AND CONTEXT

South Africa has a rich landscape of social science research institutions, and an equally varied tradition of social science research. These institutions are either nested within discrete units or centres at the country's universities, or they stand alone as governmental or parastatal agencies, non-governmental organisations (NGOs), or bespoke collaborative arrangements such as research networks among different local, regional and international actors, including actors in African low-income countries and other regional developing countries. The evolution of a critical social sciences research tradition in South Africa parallels the struggle against colonial and apartheid rule, where data and research helped to lay the foundation for key post-apartheid institutions. There has also been some contribution of social science knowledge generation activity in the post-apartheid period to national and institutional policy making.

The Global Development Network (GDN) has developed its *Doing Research* programme to develop and improve its understanding of the social science research environment in developing countries and in so doing to catalyse new thinking about how to measure research productivity using innovative, non-traditional and, importantly, a context-specific approach. Three academics from the University of KwaZulu-Natal completed this research study to support GDN in the achievement of its objectives, and at the same time, achieve new data and analysis which would assist the development agenda of South Africa and Africa.

This research adopted a mixed methods design, incorporating both qualitative and quantitative research approaches, to map the social science research environment in South Africa; to conduct a political economy analysis thereof; and to develop a framework for measuring outputs, outcomes, and impacts of this environment to development. Adopting a political economy framework ensures a critical stance that examines notions such as power dynamics (including how key decisions that influence how the social sciences are conceptualised and recognised as well as how appropriate resources are allocated), contestation and contradiction, socio-economic relevance, and how key focus areas are prioritised to the exclusion of others. In this way, a nuanced, granular picture of this particular research ecosystem, within the broader South African National System of Innovation (NSI), emerges; revealing a usable conceptual framework that assists in the establishment of a set of indicators to measure and assess this ecosystem. As Manzini (2012) states, the NSI construct in South Africa is used to characterise a country's collective efforts towards fostering technological innovations which is widely used in South African policy discourses. As a policy discourse, although orientated towards science and technology (however, social innovations are also noted and highlighted), the framework is useful since it calls for integration and holistic evaluation that promote synergies which is an approach adopted in this study. Manzini (2012) also indicates the usefulness of the NSI concept in developing contexts for understanding and shaping the behaviour of knowledge-driven economies as well as emphasising the importance of connections and cooperation between various players. In the South African context the key role players, as stated by Manzini (2012), are the plethora of institutions and organisations involved in the production of

knowledge. The centrality of economic utility and notions of what is valued underscores inherent biases and inequalities.

The overarching research question of this study is:

How can we think differently about the evaluation of the contribution of the social sciences to South African research productivity, policy and social development, beyond the conventional quantitative discourses of research performance measurement?

The overarching objectives linked to GDN are meant to:

- Contribute to the understanding of the social science research environment in developing countries;
- Help catalyse new thinking about how to measure research productivity;
- Generate new data and analysis for those interested South African, African and other regional stakeholders; and
- Develop a framework of indicators for assessing the inter-relations between the research environment and research productivity, quality and social utility (or uptake) in South Africa.

The rationale of this study can therefore be thought of as twofold: in the first instance, it builds on, extends and complements research undertaken by Centre for Research on Evaluation, Science and Technology (CREST, 2014) that also investigates both qualitatively and quantitatively the support for and impact of social sciences research in South Africa. The research therefore provides:

- policy-relevant information on the institutional context (both government and academic) in which research is undertaken;
- the individual conditions and exigencies under which this research takes place;
- funding streams which influence the types of research being undertaken;
- the main actors in the research-policy nexus; and
- the nature of the external environment for social science research production in South Africa.

In the second instance, the impacts of local and global challenges in South Africa necessitate a sound evidence-base to inform policy making. However, this evidence base must reflect a balanced spectrum of research approaches, and not simply rely on an assumption that the hard (or natural) sciences will reveal all the necessary questions and answers. The social dimensions of these challenges necessitate strong investment in research capacity to carry out, and evaluate, impactful research that is taken up widely by policy makers, communities, businesses and civil society. This study, therefore, provides a solid evidence-base for understanding the key features of the social science research environment in contemporary South Africa, the challenges to the production of high quality policy relevant research, and barriers to uptake in the policy environment.

2. BRIEF LITERATURE REVIEW ON THE STATE OF THE SOCIAL SCIENCES WITH A SPECIFIC FOCUS ON SOUTH AFRICA

Vale's (2009: 247) interview with Edward L. Ayers, a distinguished social scientist, reveals that increasingly the sciences and the humanities are viewed as being complementary with Ayers claiming that "the humanities and modern technological society have always been co-dependent". What the interview indicates is that much emphasis is placed on the value of social sciences and humanities to the sciences, justifying the role of social sciences in academic training and research. Additionally, there is increased focus on the exchange/ engagement between the sciences and social sciences, indicating the importance of inter-disciplinarity and how different disciplines are positioned to be "woven together for the last century, continually converging and diverging, continually reinforcing each other and critiquing each other" (Ayles interviewed in Vale, 2009: 247).

The history of the evolution of social sciences in South Africa for the past 80 years is traced by CREST (2014), who asserts that social sciences research has a strong tradition in the country. This tradition, he notes, is reflected by the establishment of the Human Sciences Research Council (HSRC) in 1969. The current position of the humanities and the social sciences in the country is a topical issue for rigorous debate. In terms of the volume of the research produced in these branches of knowledge, it is both comparable and significant. The potential for the human and social sciences to influence transformation in South Africa has been acknowledged (Wilson et al., 1999). The humanities and the social sciences constitute 38% of the annual total research output in the country (Academy of Science of South Africa - ASSAf, 2011).

Reviews relating to South Africa's NSI broadly, and the social sciences and humanities particularly, have highlighted both the importance of and challenges related to the funding and development of the social sciences in South Africa (Department of Science and Technology – DST, 2012; Department of Higher Education and Training – DHET, 2011; Nairobi Report, 2009). The Ministerial Review (DST, 2012: 197-8), for example, summarises the following statistics taken from the 2008-09 National Research and Development (R&D) Survey for South Africa:

- As a percentage of the whole, government spending on social sciences R&D at local, provincial and national levels was 18.5%.
- Expenditure by higher education institutions on social sciences R&D was 20%.
- Including the not-for-profit, and business sectors, overall more than 87% of research expenditure was allocated to natural sciences, engineering and technology fields, while only 12.5% was allocated to the social sciences.

These figures confirm the emphasis placed on the natural sciences and engineering in the allocation of research funding resources across the NSI. Thus, social science researchers and institutions depend on international donors for much of their research funding, including, for example, the Swedish International Development Cooperation Agency (SIDA), the Norwegian Agency for Development Cooperation (NORAD), All Nations International Development Agency (ANIDA), Dutch, French and British governments in Europe, the

International Development Research Centre (IDRC) in Canada; and various foundations in the United States of America (USA) (most notably Ford, Rockefeller, Mellon, Kresge, Kellogg, Atlantic Philanthropies and Carnegie). This situation is not confined to South Africa: state funding of social science research in sub-Saharan Africa is the exception rather than the rule (International Social Science Council - ISSC/ United Nations Educational, Scientific and Cultural Organisation - UNESCO, 2010). Moreover, social sciences disciplines in South Africa are often, in the configuration of universities, part of humanities or arts faculties. As a result of this, government spend on the social sciences is relatively low compared to the science and technology fields, and how and where additional financial support is sourced and supported is not clearly documented.

Additional challenges are highlighted by the Nairobi Report (2009) which reviewed the state of the social sciences in an Africa-United Kingdom (UK) context, and echoed by both the Humanities and Social Science Charter and the World Social Science report 2010 (ISSC/ UNESCO, 2010). These relate to the importance of improving institutional foundations (structures, systems and governance which are seen to be obstacles in research and research funding) as well as to the provision of support for early career researchers.

Social science research institutions are either nested within discrete units or centres in the country's universities or they stand alone as governmental agencies, non-governmental organisations, or bespoke collaborative arrangements between different local, regional, and international actors. Active formal partnerships and informal engagements with institutions in low-income African countries and other regional developing countries are an important part of this landscape, and South Africa's social science community is engaged actively on the continent in the production and dissemination of social science knowledge (Nairobi Report, 2009). The HSRC, one of the eight science councils in South Africa, also has a number of active engagements across the continent. It is important to note that South Africa is one of the few African countries that have a government-funded research institute devoted to the social sciences. A significant part of these knowledge generation activities are linked to issues of health (including but not limited to HIV/AIDS) and in recent years the impacts of climate change have been more actively engaged.

The evolution of a critical social sciences research tradition in South Africa - one that takes as axiomatic understandings of racial, gender, and other forms of social exclusion - arguably parallels the struggle against colonial and apartheid rule, where data and research helped to lay the foundation for key post-apartheid institutions such as the Constitution (Mouton, 2010). We contend that social science expertise continues to play a vital and instrumental role in both the formulation and critique of policy.

The South African context is unique globally in that the government (DHET) allocates substantial subsidies to universities based on research productivity in selected categories. This is one of the main income streams at state-funded universities. In terms of the DHET (2015a; 2015b), the categories that receive subsidies are journal articles in accredited lists that are provided annually by the DHET, as well as books, chapters in books and conference proceedings that are screened and accepted by the DHET. Additionally, the DHET allocates

subsidies in relation to Masters and Doctoral students graduated. Subsidies are allocated per research output category in relation to Author Units (AUs). This is similar to Denmark's model for the allocation of basic funding to universities where the Danish Ministry of Education and Research approves a list of journals and publishers that are counted (Milana et al., 2015). However, the DHET does not differentiate between disciplines, the citation impact of research publications or any other aspect within a specific category. This is unlike the Danish system where, according to Milana et al. (2015: 248), "academic journals are ranked as higher or lower in this authoritative list and provide a rationale for the allocation of different 'points' and rewards to universities, based on where their employees publish". It is important to also note that in the South African system, co-authorship is shared by the different institutions proportionally (for example, if two academics from different institutions publish an article, each institution is allocated 0.5 AUs) and authors not affiliated to recognised institutions (currently the 25 state-funded universities, universities of technology as well as the main research institutions including the HSRC, the Medical Research Council - MRC and the Council for Scientific and Industrial Research – CSIR are recognised) are not subsidised. All staff affiliated to the recognised institutions and students who publish qualify for subsidies.

The Table below indicates that South Africa's higher education landscape is highly differentiated in terms of research productivity among the 23 state institutions – the top 5 universities produce more than 50% of the total research outputs. South Africa has a highly regulated public sector higher education environment as described above. What is important to note is that 20 years after the demise of apartheid, the top universities in terms of research productivity are the historically advantaged white universities, with a few exceptions, which are generally merged universities such as the University of KwaZulu-Natal (UKZN) and the University of Johannesburg (UJ).

Table 1: Percentage of total research output units produced by each institution (2009-2013)

	Institution	**2009**	**2010**	**2011**	**2012**	**2013**
1	UKZN (University of KwaZulu-Natal)	12.1	11.8	11.2	11.5	11.6
2	UP (University of Pretoria)	13.0	12.2	11.7	11.5	11.5
3	UCT (University of Cape Town)	13.0	12.9	11.7	11.2	11.1
4	SU (Stellenbosch University)	11.5	10.6	10.3	10.7	10.5
5	Wits (University of Witwatersrand)	10.1	9.6	9.3	9.0	9.3
6	NWU (North West university)	4.9	6.0	6.6	7.0	8.3
7	UNISA (University of South Africa)	6.9	7.5	7.1	7.2	7.4
8	UJ (University of Johannesburg)	5.1	6.3	6.9	7.1	6.4
9	UFS (University of Free State)	5.6	5.1	5.1	5.2	4.7
10	RU (Rhodes University)	3.9	3.3	3.2	3.3	3.2
11	UWC (University of Western Cape)	3.1	2.7	3.1	3.0	2.9
12	NMMU (Nelson Mandela Metropolitan University)	2.5	2.6	3.1	2.5	2.4
13	TUT (Tshwane University of Technology)	1.4	1.9	2.2	1.9	2.0
14	UFH (University of Fort Hare)	1.5	1.5	1.6	1.7	1.7
15	UL (University of Limpopo)	0.8	1.0	1.3	1.8	1.6
16	CPUT (Cape Peninsula University of Technology)	1.4	1.6	1.3	1.4	1.1
17	UNIVEN (University of Venda)	0.6	0.8	1.2	1.0	1.1
18	DUT (Durban University of Technology)	0.5	0.5	o.8	0.7	0.9
19	VUT (Vaal University of Technology)	0.4	0.5	0.7	0.6	0.6
20	UNIZULU (University of Zululand)	0.8	0.7	0.6	0.6	0.6
21	CUT (Central University of Technology)	0.4	0.4	0.4	0.5	0.5
22	WSU (Walter Sisulu University)	0.3	0.5	0.4	0.5	0.3
23	MUT (Mangosothu University of Technology)	0.0	0.1	0.2	0.1	0.1

Source: DHET (2015a)

Tables (2 and 3) below indicate the Classification of Educational Subject Matter (CESM) categories for journal articles and books. The figures in the Tables indicate that social sciences do not include disciplines such as psychology, philosophy, religion and theology, education and economics (which is part of business, economics and management studies) which seems to be misaligned with global trends. In this study these disciplines are included as part of the social sciences in keeping with the self-identification approach adopted, and that in other studies these disciplines are included. The Tables suggest that social sciences (together with the disciplines outlined above) are contributing to increased social science research outputs recognised by DHET in South Africa. It is also important to note that the social sciences are leading in terms of books.

Table 2: Journal publication output units accrued in DHET journal list by CESM category, 2013 and 2012

CESM category	2013		2012		
	No. of Units	**% of Total**	**No. Of Units**	**% of Total**	**% increase from 2012 to 2013**
09: Health profession and related clinical sciences	2146.38	17.9%	1862.32	16.9%	15%
13. Life Sciences	1293.46	10.8%	1108.53	10.0%	17%
20: Social Sciences	1035.1	8.6%	861.6	7.8%	20%
14: Physical Sciences	1034.71	8.6%	1005.51	9.1%	3%
04: Business, Economics and Management Studies	884.96	7.4%	910.33	8.2%	-3%
01: Agriculture, Agricultural operations and related sciences	836.46	7.0%	937.34	8.5%	-11%
17: Philosophy, Religion and Theology	822.39	6.9%	655.38	5.9%	25%
07: Education	680.93	5.7%	714.82	6.5%	-5%
12: Law	683.31	5.7%	642.45	5.8%	6%
08: Engineering	670.63	5.6%	598.5	5.4%	12%
11: Languages, Linguistics and Literature	493.13	4.1%	469.41	4.3%	5%
15: Mathematics and Statistics	448.49	3.7%	398.22	3.6%	13%
18: Psychology	268.02	2.2%	243.8	2.2%	10%
19: Public Management and Services	185.47	1.5%	156.62	1.4%	18%
03: Visual and Performing Arts	161.83	1.3%	140.83	1.3%	15%
06: Computer and Information Sciences	144.9	1.2%	112.65	1.0%	29%
05: Communication, Journalism and related studies	98.4	0.8%	87.47	0.8%	12%
02: Architecture and Building Environment	75.53	0.6%	81.1	0.7%	-7%
10: Family ecology and Consumer Sciences	19.41	0.2%	28.36	0.3%	-32%
16: Military Sciences	13.87	0.1%	24.45	0.2%	-43%
TOTAL	**11997.38**	**100%**	**11035.72**	**100.0%**	

Source: DHET (2015a)

Table 3: Book publications by CESM category

CESM category and field	2013		2012		% increase from 2012 to 2013
	Total units awarded	% total book publications	Total units awarded	% total book publications	
20: Social Sciences	231.65	29.9%	169.05	29.1%	37%
11: Languages, Linguistics and Literature	107.22	13.8%	80.06	13.8%	34%
17: Philosophy, Religion and Theology	95.89	12.4%	78.37	13.5%	22%
12: Law	83.86	10.8%	88.95	15.3%	-6%
07: Education	46.68	6.0%	37.22	6.4%	25%
04: Business, Economics & Management Studies	33.35	4.3%	29.92	5.2%	11%
18: Psychology	26.41	3.4%	3.21	0.6%	723%
08: Engineering	23.03	3.0%	4.17	0.7%	452%
03: Visual & Performing Arts	19.9	2.6%	19.96	3.4%	0%
14: Physical Sciences	17.51	2.3%	6.68	1.2%	162%
09: Health Professions & Related Clinical Sciences	17.02	2.2%	9.74	1.7%	75%
15: Mathematics & Statistics	14.82	1.9%	0.41	0.1%	3515%
02: Architecture & Built Environment	14.18	1.8%	6.22	1.1%	128%
13: Life Sciences	13.67	1.8%	16.8	2.9%	-19%
01: Agriculture, Agricultural Operations & Related Sciences	10.92	1.4%	3.54	0.6%	208%
06: Computer & Information Sciences	5.96	0.8%	0.6	0.1%	893%
05: Communication, Journalism & Related Studies	4.93	0.6%	15.1	2.6%	-67%
19: Public Management and Services	4.29	0.6%	8.33	1.4%	-48%
16: Military Sciences	2.44	0.3%	2.47	0.4%	-1%
10: Family Ecology & Consumer Sciences	0.64	0.1%	0	0.0%	0%
Total	**774.37**	**100%**	580.8	100%	

Source: DHET (2015a)

In an extensive study ASSAf (2011: 14) made the following statement, capturing the current context and status of the humanities and the social sciences in South Africa:

> The Humanities in South Africa are decidedly 'mixed' in terms of international standing, social influence, patterns of deterioration and sites and instances of encouraging vigour and productivity on the one hand, while there are also concerning symptoms of decline with dangerous portents for the future. Some Humanities departments are producing internationally recognised experts; however, there are some extremely worrying signs of decline that need to be arrested and reversed as a matter of urgency - given the important role that the Humanities have to play in our society.

This sets the backdrop for the review of relevant literature on the theme which accords with the focus of the project that has been undertaken in South Africa.

To begin, one needs to look at the state of humanities and the social sciences in South Africa. There have been two major reports (ASSAf, 2011; DHET, 2011) that emerged out of the longstanding debate on the declining status and position of humanities and the social sciences in South Africa. Both reports affirmed that there is a crisis or decline in the humanities and social science subjects in the country. The crisis is believed to be unfolding in different directions: decreasing student enrolments in these subjects, the production of graduates in the fields, the drying up of funding resources, intellectual stagnation, the visibility (or lack of) of research outcomes, and the ageing academic and research workforce (ASSAf, 2011).

Despite these significant challenges there are a number of initiatives to reinvigorate the social sciences in South Africa. One of the reports, entitled *The Humanities Charter*, resulted from the initiative of the Minister of Higher Education (DHET, 2011). The architects of this report put forward several concrete suggestions for rescuing the humanities and social sciences from the ongoing slide. The recommendations and interventions included the formation of an academy/ institute of humanities and social sciences which has been achieved; the African Renaissance Programme; the consolidation of catalytic projects that are aimed at animating the fields of humanities and social sciences, to increase the capacity to do research on themes such as race and gender; and the creation of useful frameworks for the integrity of fields and disciplines. When materialised, some of these recommendations can lead to the strengthening of the subjects/ disciplines of the social sciences in the country. One significant recommendation of the Charter was to encourage collaborative efforts with the international community, which is expected to assist humanities subjects in their growth, development and recognition.

Linked to the above initiatives are a number of catalytic projects, mentioned above, in the humanities and social sciences which have recently been funded by DHET. The National Research Foundation (NRF) and the DST have also made a number of public statements and implemented actions underlining the importance of the humanities and social sciences. The NRF, for example, has awarded funding for the social sciences and has also funded the South African Research Chairs Initiative (SARChI), of which a number are in the social sciences. The following recommendations emerged from the *Humanities and Social Science Charter* in relation to the development of the social science in South Africa:

- A review of the system for rewarding research productivity so that book manuscripts, chapters in books, performance and sustainable community practices (key in the social sciences and humanities) will gain more recognition. As discussed later, DHET (2015a) policy has already changed in relation to books and chapters in books.
- In order to source additional support and funding for the humanities and the social sciences, a bifurcated structure for the NRF (National Science and

Technology Research Foundation and a National Humanities and Social Science Research Foundation) was proposed.

- A revision of the government's knowledge procurement policy so that it strengthens both statutory institutions, such as the HSRC, and policy/ application-oriented, planning and data-gathering institutions at the university level. The authors of the Charter suggest that 20% of knowledge-linked state expenditure at national, provincial and local levels is expended on partnerships with the HSRC, and HSRC partnerships with universities and tertiary institutions or university centres and units.

Similarities with these suggestions and recommendations can also be seen in the ASSAf (2011) study. ASSAf proposed a Council for the Humanities to advise the government to improve the standing of the humanities in the country. The formation of this body is underway as indicated by one of the key informants interviewed in this study. It also asked for a review of government funding, a restructuring of funding allocations through the NRF, a dedicated national fund for humanities research, and the accelerated establishment of research chairs and centres of excellence. All these are to build capacity for the next generation of scholars in the field and some of these initiatives have already been implemented.

Mouton (2011) asked a few relevant questions with regard to the present crisis or decline of humanities in South Africa. These were based on the contents and arguments of the two reports on the status of humanities, one by ASSAF (2011), and the other called the *Humanities Charter* (DHET, 2011). Mouton's questions were about the convincing case for the dire state of the humanities in South Africa, the nature of the evidence provided to show the disadvantaged position of the humanities, and whether the recommendations put forward for the recovery of humanities were either evidence-based or indeed realistic. Mouton called for authors to look beyond the methodological and other substantive problems that have been raised in these two reports, and to focus on other important issues relating to the humanities and social sciences.

The social sciences are generic and have a number of component subjects. The review, therefore, covers separate disciplines/ subjects broadly grouped as the social sciences, depending on the availability of studies. Robbe (2014), for instance, in her essay on the issues of African studies deliberated on the possible conditions for the emergence of African studies in South Africa. This is grounded on the presumption that there were problems that prevailed in the country which prevented the development of the social sciences in the country. In an effort to focus on African studies, Robbe (2014) discussed current debates about the humanities and the social sciences in South Africa. According to her, there are two essential issues. One, the context of African studies should be placed in the international context. Two, the national context of the humanities and the social sciences need to be debated. It is presumed that African studies in South Africa can become a laboratory that employs new critical approaches in research.

One recommendation by Robbe (2014) for the growth and development of the humanities and social sciences in South Africa is the need for research on aspects of South African society and culture to provide substantial theoretical insights. Such insights can enrich African studies and make it a subject and field of conversation and exchange between communities with different geopolitical and disciplinary affiliations. Robbe (2014) argued for African studies to 'reconstitute' as a laboratory of trans-disciplinary thinking about Africa that involves anthropological, sociological, literary, linguistic, historical, economic, environmental and political research. At the same time, it should restate its research priorities on matters that were relevant to African societies in the context of both theoretical and methodological debates. The trans-disciplinary dimension has also been emphasised in other studies on other social science subjects. Sitas (1997) suggested that a new sense of trans-disciplinarity in new contexts outside sociology, and a search for theoretical, practical and transformative innovation, can turn the situation around.

Vale and Fourie's (2014) work provides a comprehensive and useful account of the evolution of politics, and political science as a discipline, as a field of study at South African universities. The focus of the book is to evaluate the state of political sciences in South Africa and raises concerns over how politics is taught at universities and how the discipline has lost relevance in relation to contributing to South Africans' understanding of their own polity and its place in global politics, which poses interesting challenges for South African scholarship.

While reviewing the position of the political sciences, a major social science discipline in South Africa, Gouws et al. (2014) noted several changes that have occurred in the field of political sciences. These contributed towards the disciplinary growth and development of political sciences in the country. The changes included research being conducted with quantitative methodological orientations which has been achieved since 1994, the international exposure and networking of political science departments at universities in the country, and scholars now specialising in several different fields. Gouws et al. (2014) also stressed that transformation in the higher education sector had impacted on the productivity of political scientists in the country. Previous surveys reported the development of the discipline from its embryonic stage to a fully developed discipline that catered to the interests of political science and international relations (Gouws et al., 2014). However, a number of challenges were also brought to the fore by these surveys. Among them were that the new directions in the discipline are required to effect intellectual decolonisation. They include addressing the theoretical weaknesses of the discipline, the invisibility of women in the field, the challenges posed by transformation in the country, and teaching large number of students without adequate staff complement, thus reducing the time for their research. The survey of Gouws et al. (2014) identified certain key issues that need attention for the development of the discipline. These include the lack of theoretical development and conceptual deficit to deal with African politics; a creative curriculum development that is more inclusive; emphasis being given to new paradigms; and strengthening the African philosophical and postcolonial theoretical component to the pedagogy of political science curricula. Gouws et al. (2014) also emphasised the need to address questions around the character and pedagogy to meet the demands of the African context.

The study by Fairhurst et al. (2003) presented some key issues pertaining to geography as a discipline in South African universities. Drawing on primary interview-based data and documentary evidence, the study inferred that the current emphasis of the discipline was on applied geography and that new specific fields of specialisation have been charted. Some of the findings of this study that pertained to research revealed the current position of the discipline in the South African context. The research output of geographers in the country had grown significantly. The discipline was constrained by the limited availability of qualified academics who could guide research in the subject, the levels of specialisation affected by the size of the departments in several universities, and structural issues in accessing funds for research (Fairhurst et al., 2003). In the light of the environmental challenges that South Africa is facing, Shackleton et al. (2010) envisaged research programmes which could produce the necessary knowledge and skills, engaging scientists in the field to find meaningful solutions to a number of relevant issues.

In an early paper, Sitas (1997) discussed the waning of sociology in South Africa. Sitas argued that the prowess of sociology has waned since 1990 due to several reasons. These were the collapse of the left hegemony at the international level, professional and institutionalisation of distinctive social sciences, the political and social uncertainty of power blocs, professional sociologists who turned into consultants, corporations and government which lured away the best sociologists, and the worsening material conditions for teaching sociology. As a way forward, Sitas argued for a new sense of trans-disciplinarity.

In a paper responding to Burawoy's (2004) classification of South African sociology into policy sociology, professional sociology, critical sociology and public sociology. Webster (2004) agreed that the strengths of sociology were drawn from engaging with the public. However, Webster (2004) believed that the tradition of critical and public sociology that emerged during the apartheid era eroded in later years. In the interests of the discipline, Webster argued, South African sociologists should benchmark themselves against the best in the world to build the discipline as an effective research entity. The increased participation of South African sociologists in international professional organisations such as the International Sociological Association opened opportunities to participate in the global system of knowledge production (Webster, 2004). A major proposition of Webster is crucial to the growth of the discipline in the country. He suggested that South African sociology has to find a way to prevent its key scholars from engaging in consultancy or management work. Sitas (1997) also made this point earlier. This happens at the cost of the core activities of teaching and fundamental research. The challenge for South African sociology is thus to establish a more professional sociology that makes use of the rich theoretical and methodological traditions of the core of the discipline (Webster, 2004).

In a historical review of the discipline of sociology in South Africa, Jubber (2007) found that South African sociology's published work had contributed significantly to the knowledge about the nature, structure and history of the complexities of South African society. Some of the current challenges of the society, such as the HIV/AIDS pandemic, have given rise to a priority research areas for sociologists in the country that will have an impact on the pattern of South African sociological research (Jubber, 2007). In a similar way, Mapadimeng (2009)

maintained that in the complex post-apartheid society there were opportunities in the development of different but complementary streams of sociology in the country.

In a bibliometric analysis of the papers published in the journal of the South African Sociological Association, Sooryamoorthy (2015) reported the characteristics of South African sociology in terms of race, gender, sector, the types of research they conduct, and the key research focus areas in the post-apartheid period. He concluded that the current sociological research being conducted in South Africa was relevant in a society that was grappling with a host of social issues, could help meet the challenges the society were facing and, in the end, lead to the recognition of the discipline in the country. This is important for the research profile of the discipline in South Africa. As to what is important in the country, Sooryamoorthy was in agreement with the view point of Savage and Burrows (2007) that sociology must develop its own research agenda that was tailor-made to meet the changing social realities and to evolve and develop its focus. The analysis showed that there was currently no core sociological area that was shared by sociologists in the various departments of sociology across the country. The production of rigorous research can only help the discipline to raise its status and improve career opportunities (Sooryamoorthy, 2015).

Bibliometric analyses showed that the production of research in the field of education is substantial. On research in the field of education that encompasses research on teaching and learning (published during 1995-2006), Deacon et al. (2010) argued that this branch of the social sciences has some features to be noted. In their view, education research was robust with numerous scholars working in the area. But most of the research was more individualistic and on a small-scale, rather than large-scale and long-term. The latter could consolidate knowledge about issues of national and international importance. There had been an increase in the production of publications in the field with some level of international visibility. Varying from educational theory to higher education studies, the work in education research has particular importance for researchers in the country (Deacon et al., 2010).

In a review of the discipline of psychology, a subject and discipline that has advanced its standing among other social science subjects in the country, Macleod and Howell (2013) reported a few features that characterise the subject from others. Their analysis is founded on the research published in a major journal, the *South African Journal of Psychology.* They noted that there had been an increase in the production of papers in the field, a change in the methodological persuasions in favour of increases in the number of theoretical and qualitative papers, the geographical specificity of research, and declining collaborative efforts with African, Asian, South American, and Middle-Eastern scholars. The authors in this bibliometric analysis found that there was renewed interest in South African psychology, as evidenced by the production of papers in the selected journal. Traditional topics continued to be pursued while there were other topical issues that were under-researched, and researchers relied on universities, hospitals or schools for their samples. Collaboration of South African psychologists was skewed in favour of high income countries, and there was a limited focus on relevant social issues.

As for theology, another discipline grouped in the social sciences, a paper by De Villiers (2004) showed that the position of the social sciences was not different from that of theology during the apartheid period. Faculties of Theology were privileged in many universities in the apartheid period, which was lost in the new South Africa. According to De Villiers (2004), this was due to the surplus of theology students who were not fruitfully employed, a drop in the number of students choosing theology at universities, and the research priorities of universities in the country.

Criminology in South Africa, over the years, evolved from conventional criminology to practical criminology (Hesselink, 2013). Scholars like Artz and Moult (2012, cited in Hesselink, 2013: 139) viewed criminology as being at a crossroads. The reasons for this were several: it lacked academic and theoretical unity, issues on the question of the foundation of criminology (variously in law, sociology or psychology), and the indefinite place of criminology at the institutional, ideological and theoretical levels.

Using a combination of methods including web-based surveys, bibliometric analysis and telephonic interviews, CREST (2014) presented some key findings in regard to the current position as well as the strengths and the weaknesses of the social sciences in the country. CREST (2014) revealed that in terms of research outputs South Africa is growing. There has been a six-fold increase in the research capacity of the social science research in the country during 1993-2012. Two areas were identified with the highest growth rate in the production of research outputs. They were the health-related social sciences and social sciences research on climate change. A growing pool of human resources in the social sciences was found in the universities and research centres across the country. Compared to 2002, the social sciences are in a better position in 2012 in regard to research and development expenditure (CREST, 2014). However, the study showed that in the view of the majority of the respondents, the state of social sciences remained unsatisfactory mainly due to two reasons: the lack of funding and the lack of PhD holders in the social sciences. There were also concerns about the negative effects of the political history of isolation on the development of many academic disciplines in the social sciences. The report puts forward a number of suggestions for the growth of social sciences in the country.

Between 2007 and 2011 South Africa's researchers were the 18th highest producer of publications in the social sciences discipline globally (ISSC/ UNESCO, 2013). Yet the social sciences in South Africa face deep and significant endogenous and exogenous challenges. They include challenges related to funding. In the current national funding system, government research subsidies are awarded *largely* based on publication count in DHET accredited journals, rather than on social utility, policy influence or impact of research. By extension, social science disciplinary capacity to mobilise research resources remains a challenge, given the inherently skewed national funding formulas that privilege the natural over the social sciences. Donor dependence is one result. There is also the much broader challenge of building the next generation of South African social science academics, which under the current incentive structure afforded to universities and public research institutions, remains difficult.

In summary, what is important was captured well by Zeleza (2002). In an analytical piece on social science research in Africa, Zeleza (2002) argued for intellectual autonomy and authority to strengthen research capacities in African universities. The struggle for research productivity for African social scientists was, in his view, related to paradigms, theories, and methodologies that trivialise, misrepresent and oversimplify African experiences, conditions and realities.

3. ADOPTING THE POLITICAL ECONOMY FRAMEWORK

Stiglitz (1988) highlighted that political economy is most commonly used to refer to inter-disciplinary studies that draw on various disciplines such as economics and political sciences in order to understand how political institutions (including universities and other types of research and training institutions) and the political environment influence primarily market-related behaviour. This has over the years been extended to different types of behaviours and dynamics. The usefulness of the political economy approach is that it is also a lens with which to examine the impact of privatisation and the business-model approach that many higher education institutions embrace which also impact on the social sciences.

Research has shown that there are stark inequalities in the manner in which specific disciplines and groups (such as social sciences versus the natural and physical sciences) are perceived, which influence how resources are allocated and the attractiveness of the disciplines. This resonates with the specific interest of political economy which, as articulated by Williams (2004), raises as one of the most elementary questions the way in which this disparity arises. He notes, for example, that the increasing discrepancy in the prosperity of nations and among the diverse classes created an abstract formulation of welfare problems based in neo-classical economics. The resultant socio-economic challenges are not only linked to economic decisions but are influenced by a range of interconnected socio-political processes and decisions as well. In relation to the social sciences in particular, for example, the funding instruments in South Africa tend to value and elevate the biomedical, natural and physical sciences to a greater extent than the social sciences. This is also related to public choice theory which Alesina et al. (2006) argued, foregrounds issues pertaining to agency and the critical significance of interest groups, especially the significance of lobbying by organised interest groups. They also indicate that an important aspect to consider is the type and sources of information available to the public (in this case students choosing career paths) to make decisions. Thus, adopting this perspective also encourages us to examine the types social science lobbying groups that exist in South Africa, as well as critically assess their agendas/ objectives and effectiveness. In this regard, the role of government is particularly important and policies and efforts to promote or undermine the social sciences are also included.

This study is conceptualised within the context of a political economy approach which in itself is multi-dimensional and multi-disciplinary, the context which many social science disciplines function and undertake research in. Political economy recognises that most socio-economic (and environmental) issues in question extend beyond the limits of a single discipline and, in fact, render disciplinary boundaries increasingly irrelevant (Durkheim,

1982). The social sciences are well placed to contribute to knowledge production is these complex and interrelated settings. However, this aspect has been relatively ignored and this analyses also, in undertaking the mapping of social sciences in the South African context, highlight how the social sciences has positioned itself and the contributions it has and can make to unpack the broader socio-economic and environmental challenges that plague the country and the world more generally.

Adopting the political economy also permits a critical examination of social sciences in South Africa (and Africa more generally). Arowosegbe (2008), for example, in his analysis of Claude Ake's contribution as a political philosopher in Africa, illustrated how Western social science has dominated thinking and research in Africa. Thus, the notion of "social science as imperialism" (Arowosegbe, 2008: 334) becomes important to consider, particularly the implications thereof.

Given the above discussion, similarly to the study undertaken by Snyder et al. (2013), the political economy framework that informs this research asks the questions how do inequalities in relation to institutional support and research capacity at different levels affect the production of social science knowledge in South Africa. This is also linked to overarching questions pertaining to how knowledge is constructed, what types of knowledge is valued and who produces knowledge and for what purposes is this knowledge produced. The importance of funding is centralised and its effects on perpetuating inequalities and quality becomes important to consider. Notions of dependencies (a key concept in political economy) also emerge. While looking at a specific country (South Africa), due consideration is given to global processes and trends. Studies such as that conducted by Snyder et al. (2013) also provide the basis for comparative reflection and avenues to forge global responses and initiatives, including at the policy level.

4. RESEARCH METHODOLOGY

This research adopted a mixed methods approach which included a desk-top component, key informant interviews, surveys and bibliometric analysis. Each is briefly described below.

4.1. Desk-top study

The desk-top component of the research included a review of relevant academic literature. In addition, results from official government DHET reports as well as consultancy-based research undertaken have been sourced and examined.

4.2. Key informant interviews

The participants were selected for the in-depth face-to-face key informant interviews based on their positions in universities (for example, current heads of department and directors of research), persons who have been driving forces in setting the social sciences agenda in the country, mid-career academics at professorial level who have a good publishing record but have been vocal in publications, conferences and social media on issues related to social

sciences, officials from relevant government departments (including national parliament) and research councils as well as private consultancies and NGOs who are lead agents in social science related fields and are active in producing knowledge in the social sciences. It is important to note that South Africa does not have 'think tanks' as in North America. The equivalent of 'think tanks' are civil society organisations and some types of NGOs. For example, the African Centre for the Constructive Resolution of Disputes (ACCORD) is an NGO in South Africa which has been recognised at one of the top ten 'think tanks' globally. Researchers based at ACCORD participated in this study. In terms of the key informants interviewed, the research councils/ institutes/ centres are regarded as 'think tanks'. One of the key informants is linked to the National Institute for the Humanities and Social Sciences, which is also the permanent host of the South African BRICS (Brazil, Russia, India, China and South Africa) 'think tank'. Furthermore, the HSRC was appointed as the incubator of the South African BRICS 'think tank' prior to the establishment of a permanent body. Thus, perspectives from 'think tanks' have been included in this study although the terminology is not widely used in South Africa. We also have commissions that often impact on policy and intervention. Many of the members on these commissions have been included as key informants. Additionally, two of the researchers in this study have been and are actively involved in commissions dealing with social inclusion and transformation, gender equality and environmental issues.

Efforts were made to ensure that the following constituencies were represented (the number of persons interviewed in each category is indicated in brackets):

- Universities (13 - 4 were also members of research councils/ commissions, 2 were also research consultants and 3 were also public intellectuals);
- Research councils/ institutes/ centres (8 - one was also a public intellectual and another was also a consultant);
- Government (4 - one was also the previous CEO for the Council for Higher Education);
- Research consultancies (4 - 2 were also based at universities and one was also affiliated to a research council); and
- Social media commentators/ public intellectuals (3 - 2 of whom were based at universities and one at a research council).

In total, 24 in-depth interviews were completed. Participants were chosen purposively. Some participants belonged to more than one category as indicated above. An interview schedule guided the discussion (Appendix 1).

4.3. Quantitative surveys

A structured questionnaire (Appendix 2) was used to collect primarily quantitative data using closed-ended and Likert style questions. Additionally, a few closed-ended questions as well as the scope for other (specify) options were included. The former permitted more qualitative responses and mainly sought explanations for responses and ratings provided. It is important to note that the sampling approach adopted (discussed below) was not intended to generate statistically significant results but was intended to capture different

experiences and contexts in relations to discipline/ field coverage, demographic profile and institutional experiences. Similar targeted/ purposive sampling approaches have been undertaken by other studies including CREST's (2014) research.

In terms of the sampling approach specifically in this study, social scientists who work in higher education institutions, research institutes, government departments, civil society organisations and NGOs were approached to participate using the purposive sampling approach. Electronic versions of the survey were sent to universities, including research offices within the institutions to circulate and the other targeted organisations stipulated above. Additionally, known social scientists from specific disciplines/ fields were targeted to ensure that as many of the social science disciplines were covered. It is important to note that potential respondents who were contacted were encouraged to forward surveys to social scientists who they knew of. Furthermore, surveys were handed out at the World Social Science Forum held in Durban in September 2015 as well as other national conferences and workshops that the researchers attended. Some of these were face-to-face interviews, which the respondents preferred. The expected sample size was 100 – 120 respondents. One hundred and seven (107) completed surveys were analysed. An additional six surveys were received but discarded because of the quality of the responses with the majority of the questions not being completed. The survey data was inputted into the Statistical Package for the Social Sciences (SPSS) and analysed thematically. Frequency tables were generated and, where appropriate, cross-tabulations were undertaken.

CREST (2014) conducted telephone interviews with leading social science scholars. Our approach in this research was to expand the target groups and ensure that a range of social scientists were included in relation to socio-demographic profile, research productivity, and established and emerging researchers. This we believe contributes to understanding different perspectives, perceptions and experiences. This approach ensures that the voices of a group of persons who may not be 'leading' scholars are included who are shaping the social sciences. We also note that they were actively involved and committed to various mentoring of 'the next generation' of academics.

For the primary data collection, ethical clearance was granted via the UKZN Human and Social Sciences Ethics Committee.

4.4. Bibliometric analysis

A bibliometric analysis of publications produced by South African authors during the period of 1966 to 2014 was undertaken. Bibliometric analysis is widely used in mapping the growth, trends and patterns in the production of knowledge. The data for this analysis was sourced from the Web of Science. We specifically used the dataset of the Social Sciences Citation Index—1956 to the present of the Web of Science, saved under the core collection of the main database. The Web of Science is one of the most extensively used databases for this kind of analysis. In comparison to other similar databases, it has a wide coverage of recognised scientific journals. Analyses based on the data from the Web of Science have appeared in prominent journals such as *Scientometrics* and the *Journal of Infometrics.*

Although the subset of the data contains publications since 1956, none were included until 1966. During the period of some 50 years from 1966-2014 there were a total of 23,881 papers published by South Africans, either single-handedly or in collaboration with other scholars, and either within the country or outside it. As the database stores publications of different types such as articles, reviews and communications, we filtered it for articles only. All languages were included in this first stage of collecting the records. The data for the analysis was collected in July 2015.

5. BIBLIOMETRIC ANALYSIS

This section of the report presents an analysis of the publications of South African authors who have worked in various subjects/ branches of the social sciences. Some general features of these publications by South African social scientists can be inferred from this data for the entire period. The highest number of papers during the period of analysis was produced in 2014 (2,576), which formed about 11% of the total production. The number of publications reached a four-digit figure from 2008 onwards. Ninety-eight percent of the papers (23,425) were published in English while the remaining were written in Afrikaans, Dutch, German and French. The papers originated mainly from universities. The first few top institutions with the highest number of publications were the University of Cape Town (4,475 papers, 18.78%), the University of Witwatersrand (4,412 papers, 18.51%), the University of Stellenbosch (2,304 papers, 9.67%), the University of Pretoria (1,994 papers, 8.37%), the University of KwaZulu-Natal (1,618 papers, 6.79%), the University of South Africa (UNISA) (1,074 papers, 4.5%) and the University of Western Cape (999 papers, 4.2%).

The major subject/ research areas under which the publications fell were psychology (2,772 papers, 15.83%), business economics (3,106 papers, 13%), public environmental and occupational health (2,204 papers, 9.2%), education and educational research (2,164 papers, 9.1%), area studies (1,360 papers, 5.7%), social sciences (other topics) (1,182 papers, 4.96%), anthropology (1,156 papers, 4.85%), and environmental sciences and ecology (1,079 papers, 4.5%). The outlets chosen by the authors for their publications ranged from national to international journals. The highest number of papers was carried in the *South African Medical Journal* (865 papers, 3.63%), *South African Journal of Economics* (832 papers, 3.49%), *South African Journal of Psychology* (572 papers, 2.4%), *Journal of Psychology in Africa* (522 papers, 2.19%), *Journal of Southern African Studies* (364 papers, 1.52%), and the *South African Journal of Education* (324 papers, 1.36%).

The joint production of publications (co-authored publications) occurred with partners from a wide range of countries. The highest (13% of the publications) had the association of scholars from the USA, followed by England (7.87%), Australia (3%), Canada (2.75%), the Netherlands (2.74%), Belgium (1.48%), Germany (1.46%) and Sweden (1.39%). Authors from African countries with whom South African scholars worked included, in the order of the percentage of publications, those from Kenya (.89%), Zimbabwe (.73%), Nigeria (.71%), Tanzania (.54%), Ghana (.54%), Uganda (.52%), and Malawi (.4%).

The above are the general features of the total publications of South African scholars working in different fields of the social sciences, as stored in the Social Sciences Citation Index (SSCI) dataset of the Web of Science. To take the analysis to the next level more details of the publication records were sought. For this purpose full bibliographic information of the publications was gathered from the database. As it is not easy to analyse all 23,881 publications produced during 1966-2014, a sample of publications was selected for in-depth analysis. Given the number of publications for the years from 1966 to 2014, we started with the year 1970 when the publications were stabilised. In the next stage, publications in every five years were chosen. This means that all publications for the years of 1970, 1975, 1980, 1985, 1990, 1995, 2000, 2005 and 2010 formed the data for more detailed analysis. There were a total of 3,794 publications for these selected nine years, which is about 16% of all the publications produced by South African scholars from 1966 to 2014.

In line with the objectives of the project, this analysis focussed on the following:

- The production of publications in the field of the social sciences in South Africa;
- The trends of publication productivity across years and subjects;
- Characteristic features of these publications in terms of authorship/ co-authorship and subject/ research areas;
- Partnership of South African scholars with authors from other parts of the world, for the production of publications; and
- The origin of publications in terms of the sector of authors.

The basic variables available from the publication records included the names of authors, the type of document (papers in this case), the year of publication, affiliation addresses of the authors, the name of the journal in which the paper was published, subject categories of the paper and the citation count. From these variables a number of other useful variables were derived for this analysis. For instance, from the affiliation addresses of the authors the sector (university, research institute or industry) can be found. This variable is also useful in gathering information on collaboration, domestic or international, or both. In the case of international collaboration the countries of the partnering authors can be derived.

As noted earlier, there were a total of 3,794 papers published by South African authors in the nine sampled years. In 1970, there were 47 publications forming 1.2% of the total publications for all the sampled years (Table 1). The production of papers in the social sciences that are stored in the Web of Science database steadily increased over the years. By 2010 the production of papers reached a figure of 1,694 papers, which is 45% of all the papers. In this production two trends are evident. One, between 1990 and 1995 the percentage of papers increased significantly from 233 to 349 papers. This was an increase of over 3%. Two, between 2000 and 2005 the increase was one of the highest, from 579 to 1,694 publications (an increase of 30%). Two years (1995 and 2010) are thus characterised by significant increases in production.

Table 4: Features of publications by South African authors, 1970-2010

	Year																		Total	
	1970		1975		1980		1985		1990		1995		2000		2005		2010			
Variables	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*
Number of Publications	47	1.2	108	2.8	181	4.8	217	5.7	233	6.1	349	9.2	386	10.2	579	15.3	1694	44.6	3794	100
Number of authors ***[a]																				
Single author	35	74.5	76	70.4	121	66.9	112	51.6	111	47.6	162	46.4	156	40.4	203	35.1	545	32.2	1521	40.1
Multiple author	12	25.5	32	29.6	60	33.1	105	48.4	122	52.4	187	53.6	230	59.6	378	64.9	1149	67.8	2273	59.9
	Mean (SD)		Mean (SD)		Mean (SD)		Mean (SD)		Mean (SD)		Mean (SD)		Mean (SD)		Mean (SD)		Mean (SD)		Mean (SD)	
Mean number of authors	1.34		1.46		1.62		1.82		1.99		1.96		2.41		2.74		3.14		2.61 (2.70)	
(*F*=23.072, df =8)***[b]	(.635)		(.847)		(1.17)		(1.22)		(1.31)		(1.25)		(2.37)		(2.22)		(3.41)			
Fractional count of authors	.86		.83		.80		.72		.68		.68		.63		.57		.54		.61 (.33)	
(*F*=32.859, df =8)***[b]	(.25)		(.27)		(.29)		(.30)		(.31)		(.31)		(.32)		(.33)		(.33)			
Mean number of foreign countries	.15		.09		.06		.09		.12		.15		.41		.50		.66		.45 (.95)	
(*F*=26.374, df =8)***[b]	(.42)		(.29)		(.24)		(.29)		(.33)		(.41)		(.82)		(.96)		(1.17)			
	N	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*
All South African authors	8	17.0	22	20.4	49	27.1	87	40.1	97	41.6	142	40.7	122	31.6	194	33.5	538	31.8	1259	33.2
Any type of collaboration***[a]	12	25.5	32	29.6	60	33.1	105	48.4	122	52.4	187	53.6	230	59.6	378	64.9	1149	67.8	2273	59.9
Domestic collaboration***[a]	8	17.0	25	23.1	52	28.7	88	40.6	98	42.1	145	41.5	142	36.8	239	41.3	681	40.2	1478	39.0
Internal institutional collaboration	7	14.9	15	13.9	35	19.3	63	29.0	73	31.3	110	33.2	103	26.7	170	29.4	468	27.6	1050	27.7
External institutional collaboration	1	2.1	10	9.3	17	9.4	25	11.5	25	10.7	29	8.3	39	10.1	69	11.9	213	12.6	428	11.3
International collaboration	4	8.5	9	8.3	11	6.1	18	8.3	24	10.3	45	12.9	107	27.7	172	29.7	585	34.5	975	25.7

Notes: a. Chi-square test; b. One way ANOVA, Sig: *p<.1. **p<.05. ***p<.01.

The papers were produced by either single or multiple authors. Most of the papers (60%) were produced jointly, while the remainder (40%) were sole-authored publications of South African scholars. Since 1970 South Africans preferred to work in teams, which is evident in the steadily increasing production of joint publications. In 1970 there were only a quarter of the publications that involved more than one author. By 1985 it had risen to 48%, which is close to half of all the papers. This means one in every two papers was co-authored. By 2005 this ratio improved to three out of four papers. In 2010, joint publications formed 68% of the total publications for the year.

The variable of co-authorship (single or multiple authors) does not reveal a complete picture of the number of authors involved in the production of a paper. For this purpose the number of authors per publication was counted. As shown in Table 4, the average number of authors per publication was calculated. For all the sampled years the mean number of authors was 2.6. Across the selected individual years, from 1970 to 2010, the average value of this variable showed an increasing pattern. Between 1970 and 2010, the mean value of the number of authors more than doubled, from 1.34 in 1970 to 3.14 in 2010. That this difference over the years was statistically significant is revealed in the independent ANOVA test.

The increase in the number of authors per publication showed the greatest increase after 1995. In 2000 the increase was 0.45 percentage points over the previous year of 1995. South African social science scholars have become more and more collaborative in the production of publications in a significant way since then. As is evident from the data, the trend is one of collaboration rather than of single authored publications.

Another important variable also contributes to the analysis of the cooperative dimension of South African scholars in the social sciences. This is the fractional count of authors which is calculated by dividing the number of papers by the number of authors for each publication. A higher fractional count indicates that the production of a publication involved fewer authors. The lower the fractional count, the higher the involvement of authors (in number). The average fractional count for all sampled years was 0.61, while the highest figure was obtained for 2010 (0.66). Between 1970 and 2010 the change was 0.32 percentage points (from 0.86 in 1970 to 0.54 in 2010). The decrease was more than one-third. This substantiates the previous finding on collaboration. The publications of South African scholars tended to involve more than one author, which is an encouraging situation for more authors to work together. This could be linked to increased involvement in funded projects, which is discussed later. It should also be pointed out that many of the collaborators were postgraduates students involved in undertaking research. This is encouraged since qualifying institutions get DHET subsidies when affiliated staff and students publish. Additionally, institutions that reward or provide research grants based on publications allocate student AUs to supervisors. Thus, publishing with students and/ or other affiliates are encouraged in the South African context.

The collaborative element in the production of publications leads to the next level of analysis of the type and nature of collaboration. There are six variables listed in Table 4 that

explain both the type and nature of collaboration. They are many types of collaboration, country of authors (South Africans or others), domestic collaboration, internal institutional collaboration, external institutional collaboration and international collaboration.

Sixty percent of the papers were collaboratively produced by South African authors during the entire sampled period of analysis. As noted earlier, for multiple authors the trend is one of growth, from 26% in 1970 to 68% in 2010. The association of papers with any type of collaboration was significant in the Chi-square test (p<.00). Collaboration can be within the same institution, outside the institution or outside the country. Within the same institution (internal institutional) or in different institutions in South Africa (external institutional) is domestic collaboration. When South African scholars work with those from outside the country it becomes international collaboration. Domestic and international collaborations are not exclusive categories as both can be possible in the production of a paper. An example would be a paper produced by four authors, two of whom belong to the same institution, one from another institution in the country and the last one from a foreign institution. In this case there is both domestic (internal as well as external) and international collaboration.

In the data, 40% of the publications brought together scholars from within the same or different organisations within the country. Of these 28% were internal institutional and 11% external institutional collaboration in the papers. In domestic collaboration the change followed an upward path until 1995, from 17 to 42%. Since then (from 2000) there has been a decline in domestic collaboration. The same pattern was also observed in internal institutional collaboration. Again, this could be attributed to co-publishing with students as discussed earlier. In external institutional collaboration, it started with a lower percentage of publications than the internal one, which showed an increase from 2.1% in 1970 to 13% in 2010. South African scholars are more inclined to associate with their colleagues in the same institution than with those in other institutions in the country. With regard to international collaboration, there were a quarter of publications (26%), which is close to the number of domestically collaborated papers. Until 1985 international collaboration among South African scholars was in the region of 8%. Thereafter there was a steady growth in the participation of scholars with the international community. In 1990 the percentage was 10, which increased to 35% by 2010.

The Web of Science classifies publications under a range of subjects. There were more than 200 subject/ research areas. As the focus of this analysis is on publications in the social sciences, the subjects were filtered accordingly. In Table 5 the details of the subjects across years are provided. In terms of the number of publications there were a few major subjects and research areas. These were psychology (which includes the behavioural sciences, psychiatry and substance abuse), economics (including business), sociology (including ethnic studies, social issues, science and technology studies, criminology, family studies and cultural studies), education and education research, area studies, anthropology, geography (including urban studies), linguistics, information studies and library sciences, international relations and public administration, and social work.

Psychology emerged as the top subject/ research area with the highest number of publications. It constituted 19% of all the publications of the sampled years. In the order of number of publications, psychology was followed by economics, sociology, education, area studies, international relations and public administration, anthropology, geography, linguistics, information studies and library sciences, and social work.

The sectoral affiliation of authors (Table 6) shows that there were four major sectors to which the authors were affiliated: university, research institute, industry and hospital. The measure is a combined score for the sectors of all authors. As the average number of authors per publication was about three, the sectors of the first five authors were combined to create the numerical variable presented in Table 6. This is justified as 92% of the publications had five or less authors. Three categories were separated for the analysis. They are the sector of all authors (first five), sector of South African authors (first five) and the sector of non-South African authors (first five).

Table 5: Subject/ research areas of South African publications, 1970-2010

Subject/Research Areas	Year																		Total	
	1970		1975		1980		1985		1990		1995		2000		2005		2010			
	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%	N	%
Psychology, Psychiatry, Behavioural Sciences and Substance abuse	5	0.7	21	3.0	30	4.2	38	5.4	37	5.2	94	13.3	107	15.1	107	15.1	270	38.1	709	18.7
Business and Economics	16	3.0	22	4.1	28	5.3	34	6.4	33	6.2	42	7.9	70	13.2	58	10.9	228	42.9	531	14.0
Sociology (Ethnic Studies, Social Issues, Science and Technology Studies, Criminology, Family Studies and Cultural Studies	3	0.7	8	1.9	9	2.2	17	4.1	14	3.4	37	9.0	48	11.6	56	13.6	221	53.5	413	10.9
Education and Educational Research	0	0	3	0.9	5	1.5	12	3.5	19	5.5	26	7.6	20	5.8	64	18.7	194	56.6	343	9.0
Area Studies	3	1.1	15	5.6	9	3.4	21	7.9	34	12.7	32	12.0	25	9.4	43	16.1	85	31.8	267	7.0
International Relations and Public Administration	2	1.1	1	0.5	6	3.2	6	3.2	4	2.1	18	9.6	28	14.9	32	17.0	91	48.4	188	5.0
Anthropology	3	1.8	4	2.4	4	2.4	15	9.1	13	7.9	19	11.6	18	11.0	27	16.5	61	37.2	164	4.3
Geography and Urban Studies	4	3.3	1	0.8	3	2.5	9	7.4	10	8.3	8	6.6	22	18.2	22	18.2	42	34.7	121	3.2
Linguistics	-	-	1	0.9	1	0.9	2	1.9	3	2.8	1	0.9	5	4.7	7	6.6	86	81.1	106	2.8
Information Studies and Library Science	1	1.1	1	1.1	-	-	3	3.3	9	9.9	29	31.9	8	8.8	16	17.6	24	26.4	91	2.4
Social Work	-	-	-	-	-	-	1	2.8	-	-	5	13.9	8	22.2	8	22.2	14	38.9	36	0.9

Table 6: Sectoral affiliation of authors, 1970-2010

Sector of Authors	*Year*																		*Total*	
	1970		*1975*		*1980*		*1985*		*1990*		*1995*		*2000*		*2005*		*2010*			
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
Sector of all authors																				
University (*F*=20.752, df =8)*** [b]	1.23	.48	1.28	.55	1.32	.58	1.50	.74	1.67	.95	1.70	.88	1.78	.94	1.84	.94	1.99	1.01	1.82	.96
Research Institute (*F*=.590, df =8)	1.50	.71	1.22	.67	1.22	.58	1.24	.44	1.23	.59	1.39	.80	1.43	.94	1.33	.69	1.38	.64	1.35	.67
Industry (*F*=.890, df =8)	1.33	.58	1.50	.84	1.11	.33	1.25	.50	1.00	.00	1.17	.41	1.11	.33	1.25	.45	1.11	.32	1.17	.41
Hospital (*F*=2.571, df =8)** [b]	-	-	1.00	00	1.32	.67	1.13	.50	1.46	.87	1.20	.63	2.00	1.35	1.11	.32	1.29	.57	1.31	.72
Sector of SA authors																				
University (*F*=5.062, df =8)*** [b]	1.12	.33	1.22	.52	1.27	.55	1.43	.73	1.57	.94	1.57	.86	1.48	.82	1.48	.73	1.52	.75	1.49	.77
Research Institute (*F*=.782, df =8)	1.50	.71	1.17	.65	1.23	.59	1.25	.44	1.21	.51	1.40	.87	1.54	1.07	1.29	.75	1.26	.57	1.29	.67
Industry (*F*=.567, df =8)	1.33	.58	1.50	.84	1.13	.35	1.25	.50	1.00	.00	1.17	.41	1.00	.00	1.14	.38	1.00	.00	1.16	.42
Hospital (*F*=1.139, df =8)	-	-	1.00	.00	1.28	.67	1.14	.54	1.17	.58	1.29	.76	1.67	1.23	1.07	.26	1.11	.32	1.22	.65
Sector of non-SA partners																				
University (*F*=3.954, df =8)*** [b]	1.20	.45	1.14	.38	1.00	.00	1.06	.25	1.27	.46	1.23	.67	1.39	.79	1.62	.90	1.68	.95	1.59	.91
Research Institute (*F*=.586, df =8)	-	-	-	-	-	-	-	-	1.00	.00	1.14	.38	1.21	.58	1.12	.32	1.25	.51	1.21	.47
Industry (*F*=1.648, df =8)	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.00	1.33	.50	1.07	.26	1.11	.31
Hospital (*F*=2.878, df =8)** [b]	-	-	-	-	-	-	-	-	2.50	2.12	1.00	.00	2.00	1.00	1.14	.36	1.21	.51	1.29	.65

Note: One way ANOVA. Sig: ***p*<.05, *** *p*<.01

In the case of all authors, the university sector is the prominent sector with the highest average value of 1.82 authors per publication. It is followed by research institutes, industry and hospitals. When the analysis was segregated for the sector of South African and non-South African authors, the same feature recurred. In the ANOVA test a significant statistical difference was obtained for university and hospital for all authors. The difference indicated that the contribution of these two sectors increased over time. In the case of South African authors the test result was significant only for the university sector, while it was significant for both university and hospital for non-South African authors. Universities and hospitals are the two key sectors in the production of social science publications in the country.

As discussed earlier, one-fourth of the publications of South African scholars involved contributors from abroad. Scholars were drawn from a number of countries. Table 7 shows the major foreign partners of South African scholars in the social sciences, for the selected eight sample years. The table presents only countries that had been engaged in the production of a sizable number of papers. The highest number of papers with international participation was done in association with scholars from the USA (11%). England participated in the production of another 7% of the papers. These were the two prominent countries of the international partners of South Africans. South African scholars associated with authors from these two countries from 1970 onwards, which was not the case with many other countries. In some instances more than one country was involved in the production of a paper. Seven percent of the papers were in this category of multiple country collaboration. Australia, Canada, the Netherlands, Sweden and Germany were the other countries whose scholars worked with South African authors to produce 40 to 90 papers. There were only a few papers in which contributors from African countries (Kenya and Nigeria, for instance) participated. It will be meaningful to know the regional collaboration of South African authors in terms of North America, Africa, Eastern Europe, Middle-East, Asia, Australasia and Latin America.

Table 7: Major partnering countries

	Year																			
	1970		*1975*		*1980*		*1985*		*1990*		*1995*		*2000*		*2005*		*2010*		*Total*	
Countries	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*
USA	3	.7	5	1.2	2	.5	3	.7	11	2.7	22	5.3	43	10.4	83	20.0	243	58.6	415	10.9
England	3	1.1	1	.4	5	1.8	6	2.2	2	.7	8	2.9	41	15.0	50	18.3	157	57.5	273	7.2
Australia	-	-	-	-	1	1.1	2	2.2	1	1.1	5	5.6	8	8.9	11	12.2	62	68.9	90	2.4
Canada	-	-	-	-	-	-	4	4.9	5	6.2	3	3.7	8	9.9	9	11.1	52	64.2	81	2.1
The Netherlands	-	-	-	-	-	-	-	-	-	-	1	1.6	8	12.5	10	15.6	45	70.3	64	1.7
Sweden	-	-	-	-	-	-	-	-	-	-	-	-	1	2.3	7	15.9	36	81.8	44	1.2
Germany	-	-	1	2.5	1	2.5	6	-	-	-	-	-	6	15.0	9	22.5	23	57.5	40	1.1
Switzerland	-	-	-	-	-	-	-	-	-	-	-	-	4	11.4	4	11.4	27	77.1	35	.9
France	-	-	-	-	-	-	-	-	1	3.0	-	-	2	6.1	8	24.2	22	66.7	33	.8
Belgium	-	-	-	-	-	-	1	3.2	1	3.2	1	3.2	1	3.2	4	12.9	23	74.2	31	.8
Norway	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	20.0	24	80.0	30	.7
Kenya	-	-	-	-	-	--	-	-	-	-	-	-	3	11.1	6	22.2	18	66.7	27	.7
Scotland	-	-	1	4.8	2	9.5	1	4.8	-	-	-	-	2	9.5	1	4.8	14	66.7	21	.5
New Zealand	-	-	-	-	-	-	-	-	1	4.8	-	-	2	9.5	6	28.6	12	57.1	21	.5
Nigeria	-	-	-	-	-	-	-	-	-	-	1	6.3	2	12.5	3	18.8	10	62.5	16	.4
Ireland	-	-	-	-	-	-	-	-	-	-	1	9.1	2	18.2	4	36.4	4	36.4	11	.2

The countries of international partners were grouped to form the regions of partners, as presented in Table 8. Following the same approach, the countries of the first five authors were taken into account. The highest score in this measure was obtained for North America (1.61 authors) for all the selected years; Africa closely followed with 1.59. Eastern European countries had the mean value of 1.50. The lowest score was for Latin America.

This bibliometric analysis provides an insight into the nature of the production of papers by South African scholars who work in the area of social sciences. The number of authors involved, specific subject/ research areas and collaboration are significant variables in mapping the growth of the social sciences in South Africa.

Table 8: Continental origin of South African partners, 1970-2010

Region	*Year*																			
	1970		*1975*		*1980*		*1985*		*1990*		*1995*		*2000*		*2005*		*2010*		*Total*	
	M	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*	*M*	*SD*
North America (*F*=1.076, df =8)	1.00	.00	1.40	.55	1.00	.00	1.14	.38	1.69	1.08	1.32	.85	1.49	.87	1.67	.91	1.67	.98	1.61	.94
Africa (*F*=.475, df =5)	-	-	-	-	-	-	-	-	-	-	-	-	1.80	.84	1.80	1.15	1.56	.84	1.59	.87
Eastern Europe (*F*=.100, df =3)	-	-	-	-	-	-	-	-	-	-	-	-	1.50	.71	1.50	.71	1.44	1.01	1.50	.86
Europe (*F*=1.502, df =8)	1.33	.58	1.33	.58	1.13	.35	1.13	.35	1.00	.00	1.17	.58	1.33	.68	1.45	.79	1.55	.85	1.48	.80
Middle East (*F*=.463, df =5)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1.25	.71	1.20	.56
Asia (*F*=.278, df =5)	-	-	-	-	-	-	-	-	1.00	.00	1.00	.00	1.20	.45	1.31	.86	1.19	.49	1.19	.54
Australasia (*F*=.535, df =6)	-	-	-	-	-	-	1.00	.00	1.00	.00	1.00	.00	1.00	.00	1.18	.39	1.16	.41	1.14	.37
Latin America (*F*=.717, df =2)	-	-	-	-	-	-	-	-	-	-	-	-	1.00	.00	1.00	.00	1.15	.36	1.11	.32

Note: One way ANOVA.

6. DATA ANALYSIS, RESULTS AND DISCUSSION

The data analysis was undertaken thematically. The survey and key informant results were integrated.

6.1. Background of respondents

In terms of the profile of the key informant interviewees, the participants' organisational affiliations have been discussed in the methodology section. In terms of the gender profile of the key informants, almost equal proportions were females (45.8%) and males (54.2%). The range of key informant interviews reveals that different types of organisations (including government) and social scientists were included. The key informants were persons who hold key positions in their organisations, as well as individuals who influence policy and interventions relating to the social sciences. Most of them have an academic profile, although their current positions may not be only as a professor in a university. For example, we interviewed the Chief Executive Officers (CEOs) of the HSRC and South African Technology Network (SATN), who are active and leading social scientists, as well as persons who were key to government linked initiatives such as commissions related to the social sciences. It is important to note, as indicated earlier, that many of these persons may be based at a university but they are often members of government commissions, task teams and consultants. For example, one of the key informants from a research council headed the government task team which looked into racism in higher education. Another, based at a university, was appointed by the Minister of Education to work on *Humanities and Social Science Charter* and is involved in the institute, which has been set up. Also, one of the key informants who is affiliated to the Centre for Higher Education Transformation is an individual who over a number of decades has been crucial to thinking and policy development in the social sciences. It is, therefore, clear that that persons interviewed contribute to the social sciences and higher education and that these organisations can be classified as 'think tanks'.

The survey respondents, similar to the key informants, were from a range of institutions as indicated in the Table below. This was a result of the purposive sampling approach adopted (in addition to inviting scholars from different higher education institutions and research institutes) to ensure that different types of experiences and contexts are covered in relation to where social scientists are in South Africa. Unsurprisingly, the majority of the respondents were from universities (72.9%) followed by research institutes/ councils/ units/ centres (8.4%). The rest were from NGOs (6.5%), government departments (6.5%) and research consultancy firms (5.5%). The research institutes/ councils/ units/ centres covered were mainly the HSRC (4.7%) as well as one respondent each from the MRC, Agricultural Research Council (ARC), African Vision Research Institute (AVRI) and the CSIR. The presence of social scientists in research centres such as the MRC, ARC, AVRI and CSIR which are known to be more 'scientifically' inclined indicates that social scientists are positioning themselves to contribute to trans- and inter-disciplinary research. Additionally, the value of social science perspectives and contributions are being embraced in non-social science research environments.

Table 9: Type of institution respondent is affiliated to (n=107)

	Frequency	Percent
Universities	78	72.9
Research institutes/ councils/ units/ centres (independent of a university)	9	8.4
Non-governmental research organisations	7	6.5
Research consultancy firms	6	5.6
Government departments	7	6.5

In terms of the specific universities that respondents were located in, they were from 23 universities across South Africa (Table 9). The universities that the respondents where from are indicated in the Table below (together with the provinces where the institutions are located). The results indicated that most South African universities had respondents who participated in the study and almost all provinces (with the exception of Mpumalanga Province) were included, which denotes a geographical spread in terms of responses. The highest number of respondents was from UKZN (11.2%), which could be attributed to the researchers being based at this institution.

Table 10: Name of university (and province in where located) respondent is affiliated to (n=107)

	Province	Frequency	Percent
Not applicable	-	29	27.1
CPUT	Western Cape	3	2.8
CUT	Free State	1	.9
DUT	KwaZulu-Natal	5	4.7
Management College of Southern Africa (MANCOSA)	KwaZulu-Natal	1	.9
MUT	KwaZulu-Natal	1	.9
NMMU	Eastern Cape	4	3.7
NWU	North West	3	2.8
RU	Eastern Cape	1	.9
TUT	Gauteng	1	.9
UCT	Western Cape	4	3.7
UFH	Eastern Cape	2	1.9
UFS	Free State	2	1.9
UJ	Gauteng	5	4.7
UKZN	KwaZulu-Natal	12	11.2
UNISA	Gauteng	4	3.7
UP	Gauteng	4	3.7
SU	Western Cape	6	5.6
UNIVEN	Limpopo	4	3.7
UWC	Western Cape	2	1.9
UNIZULU	KwaZulu-Natal	3	2.8
VUT	Gauteng	3	2.8
Wits	Gauteng	5	4.7
WSU	Eastern Cape	2	1.9

In terms of the current position of the respondent, the Table below shows that the most prominent category was lecturer (20.6%) followed by associate professor (17.8%), senior lecturer (16.8%), researcher (12.1%) and full/ senior professor (11.2%). In terms of academic positions, more senior academics participated with senior lecturers and professors comprising 45.8% of the sample. This is reflective of the willingness to participate rather that the proportion of academics in terms of different positions with universities in South Africa were most faculty are lecturers and the least are full/ senior professors. Among the rest of the respondents, they were director/ executive members (7.5%), project managers (4.7%), managers (2.8%), honorary researchers (1.9%) and senior research fellows (1.9%). Two postdoctoral scholars and one PhD student also participated. The project managers and director/ executive members were generally based in NGOs, consultancies and government departments.

Table 11: Current position of respondent (n=107)

	Frequency	Percent
Lecturer	22	20.6
Senior Lecturer	17	15.9
Associate Professor	19	17.8
Full/ Senior Professor	12	11.2
Researcher	13	12.1
Honorary researcher	2	1.9
Project Manager	5	4.7
Director/ Executive member	8	7.5
Honorary Senior Lecturer	1	.9
Senior Research Fellow	2	1.9
Manager	3	2.8
PhD Student	1	.9
Postdoctoral scholars	2	1.9

In terms of the highest academic qualification of the respondents, the Table below shows that the majority of the respondents had PhD/ doctoral qualifications (69.2%) followed by Masters Degrees (29%). Only one respondent had a bachelor/ undergraduate degree. The high proportion of PhD/ doctoral degrees does not correspond to the national average and may be attributed to the targeted purposive sampling approach adopted. Specifically, the latest DHET (2015a) report indicates that in 2013, 41% of academics in South Africa had PhDs and 35% had Masters as their highest qualifications. The higher proportion could also be linked to the fact that social scientists outside academia were also targeted to participate in the survey and almost all of these respondents had PhDs. This resonates with the global trend that PhDs are no longer generally being retained or trained for academia but are likely to be attracted to a range of positions outside academia. This trend is most notable with the natural, physical and engineering sciences where industry employs a substantial proportion of PhD graduates. This study reveals that social scientists with PhDs are also being attracted to positions outside academia. Of the 21 respondents in this study who were not in a university or research institute (that is, based in government, NGOs or consultancy firms), 9 (42.9%)

had PhDs and the rest had Masters Degrees. Among those who had Masters Degrees, with the exception of two respondents, the rest were registered or planned to register for a PhD.

Table 12: Highest academic qualification of respondent (n=107)

	Frequency	Percent
Bachelor/ undergraduate degree	2	1.9
Masters' degree	31	29.0
PhD/ doctoral degree	74	69.2

The Table below indicates that most respondents attained their highest academic qualifications in South Africa (78.5%). The highest proportions of respondents who attained their highest qualifications from outside South Africa were from the UK (7.5%) and the USA (4.7%). Two respondents each attained their highest academic qualifications from Holland, India and Zimbabwe. One respondent each received their highest qualifications from Botswana, Kenya, Sweden and Zimbabwe. The results indicate that social scientists in South Africa are generally trained within the country or in Europe or the USA. It is also important to note that among those who attained their highest academic qualifications in South Africa, a substantial proportion of the respondents did so in the institution that they were currently employed in. This suggests that there is limited exposure to other institutions and engagement with other academics during their educational career.

Table 13: Country where highest academic qualification was attained (n=107)

	Frequency	Percent
South Africa	84	78.5
Australia	1	.9
Botswana	1	.9
Holland	2	1.9
India	2	1.9
Kenya	1	.9
Sweden	1	.9
UK	8	7.5
USA	5	4.7
Zimbabwe	2	1.9

Among the 30.8% of the respondents who had not completed a PhD, the Table below shows that almost all (12.1% of the respondents) were registered for a PhD or planned to register for a PhD (9.3%). A few respondents (8.4%) were not registered and did not plan to register for a PhD while one did not respond. While the reasons for not planning to register were not solicited, the respondents who were not registered and did not plan to register were over 55 years old, or were in NGOs and government departments, and therefore may be well-established in their careers and see no need to complete a PhD.

Table 14: If respondent did not complete a PhD, is respondent currently registered for a PhD or plans to register for a PhD (n=107)

	Frequency	Percent
Not applicable	74	69.2
No	9	8.4
Currently registered for PhD	13	12.1
Plan to register for a PhD	10	9.3
No response	1	.9

Very few respondents stated that they received any other formal training in research methodology (12.1%), policy engagement (one respondent) or research communication. In terms of research methodology training these were general methodology training, pre-doctoral training programmes and training in social science statistical packages. The pre-doctoral training seemed to be specifically linked to proposal writing seminars or programmes. None of the respondents received research communication training. This aspect is critically important since a key concern emerging in the literature is the ability of social scientists to communicate their research to other users and stakeholder groups outside academia. There are either limited opportunities for this type of training or social scientists currently do not see the value of this type of training which may be linked to their focus on academic publications. In terms of the specifics of the training received, these were linked to qualitative and quantitative data collection approaches (related to specific projects) and how to undertake a policy review. None of the respondents indicated that the training resulted in the respondent receiving a degree outside university courses.

In terms of the rating of training received (inclusive of degree courses) in relation to specific attributes outlined in the Table below, higher positive ratings (combination of ratings of 1 and 2) were received for the development of social science research skills (66.4%) and actual use of taught methodologies in social science research (55.1%). In terms of both these statements, 20.6% provided a rating of 3 which is a neutral response. Only 7.4% and 3.7%, respectively, of the respondents seem to be dissatisfied with social science skills and the ability to utilise social science methodological skills. In terms of ratings in relation to quality of teaching/ instruction, 52.3% of the respondents were neutral (rating of 3) and 39.2% indicated a rating of 1 and 2 while 2.8% stated 4. The relevance of the content covered received a rating of 1 and 2 by 49.6% of the respondents while 38.3% provided a rating of 3 and 7.4% stated 4 and 5. Thus, the results indicate general satisfaction with specific aspects of training received.

Table 15: Respondents' ratings of training experience (inclusive of degree courses) in relation to specific attributes (n=107, in %): Multiple responses
1=Excellent and 5=Poor/ Inadequate NA=Not applicable NR=No response

	NR	1	2	3	4	5	NA
Development of social science research skills	2.8	13.1	53.3	20.6	6.5	.9	2.8
Quality of teaching/ instruction	2.8	3.7	35.5	52.3	2.8	-	2.8
Relevance of content covered	2.8	1.9	47.7	38.3	6.5	.9	1.9
Actual use of taught methodologies in social science research	2.8	5.6	49.5	20.6	.9	2.8	17.8

The majority of the respondents (88.8%) were not affiliated to any other institution in South Africa or outside South Africa. A few (5.6%) were affiliated to institutions within South Africa and 7.5% were affiliated to institutions outside South Africa. These were mainly other universities or research institutes. In South Africa, the institutions identified were Regent Business School, the South African Sociological Association (SASA), DUT, UNISA and UWC. In terms of countries outside South Africa, the institutions identified were the African Association of Public Administration and Management in Kenya, Bindura University in Zimbabwe, Columbia University in the USA, Lone Star College in the USA, University of Delhi in India, University of Rwanda, University of Tanzania and ISA/ ISS (abbreviation and country where located not specified).

The Table below shows that 88.8% of the respondents were not NRF-rated scientists, which suggests that although research outputs in the social sciences are increasing, this is a result of a few social scientists being productive which positions them to be rated. Among the rest, the most prominent was a C (1, 2 and 3) rating (10.3%). One respondent each stated B2 and Y.

Table 16: If respondent is an NRF rated research and, if so, rating currently held (n=107)

	Frequency	Percent
No/ not applicable	95	88.8
A1	-	-
A2	-	-
B1	-	-
B2	1	1.9
C1	4	3.7
C2	2	1.9
C3	4	3.7
P	-	-
Y	1	1.9

The Table below indicates that most of the rated researchers received their ratings in the last decade (6.5% during 2005-2011). This is not surprising given that rating for social scientists were introduced after it was institutionalised for the natural scientists. In addition, the increase in rating could be linked to the fact that in the recent decade and a half there has been a rise in research outputs by social scientists.

Table 17: If an NRF rated researcher, year in which first rating received (n=107)

	Frequency	Percent
Not applicable	95	88.8
2002	1	.9
2003	1	.9
2005	2	1.9
2010	3	2.8
2011	2	1.9

Among the respondents interviewed, the Table below indicates that most of respondents (64.5%) were under 15 years (29.9% for 5-10 years, 18.8% for 6-10 years and 16.8% for 10-15 years) while 34.5% were established researchers being social scientists for more than 15 years (12.1% for 6-20 years, 11.2% for 21-25 years and 11.25 for more than 25 years). For the purposes of this research, the responses reflect different lengths of experiences. The average number of years respondents have been working as a social scientist was 13.1 years and ranged from 2 to 35 years.

Table 18: Number of years respondent has been working as a social scientist (n=107)

	Frequency	Percent
No response	1	.9
0-5	32	29.9
6-10	19	17.8
10-15	18	16.8
16-20	13	12.1
21-25	12	11.2
>25	12	11.2

In terms of the age of the respondents, the Table below shows that this corresponds closely to the number of years respondents have been working as a social scientists, with most of the respondents being 26-35 years (40.2%), followed by 36-45 years (21.5%) and 46-55 years (21.5%). A few respondents were 56-65 years (13.1%) and more than 65 years (2.8%). One respondent was less than 25 years. The average age was calculated to be 41.5 years and ranged from 21 to 70 years.

Table 19: Age of respondent (n=107)

	Frequency	Percent
< 25	1	.9
26-35	43	40.2
36-45	23	21.5
46-55	23	21.5
56-65	14	13.1
> 65	3	2.8

Almost equal proportions of respondents were males (46.7%) and females (53.3%). This does not reflect the female gender bias in the social sciences noted in the literature. In terms of the historical racial category of the respondents, the Table below shows that they self-identified themselves as White (36.4%), African (25.2%), Indian (22.4%) and Coloured (10.3%). A few (4.7%) stated not applicable or other but did not indicate a racial category. The results do not reflect the population distribution in South Africa and indicates the historical biases that persist in academia and within research institutions.

Table 20: Historical racial category of the respondent (n=107)

	Frequency	Percent
No response	1	.9
African	27	25.2
White	39	36.4
Coloured	11	10.3
Indian	24	22.4
Not applicable/ other	5	4.7

The Table below indicates a spread in terms of the disciplinary background of the respondents in terms of their academic/ research training. Prominent disciplines included sociology (20.6%), geography (13.1%), education (11.2%), political science (9.3%), psychology (9.3%), social work (8.4%), history (7.5%), development studies (6.5%) and economics (5.6%). In terms of geography, these respondents were human/ social geographers. The disciplines traditionally regarded as social sciences were prominent (for example, sociology, political science, psychology and education). It is interesting to note that there were respondents (one each) from a public administration and law disciplinary background. As indicated in the methodology section, potential respondents approached to participate in the research were requested to forward the survey. Clearly, and this is reiterated in the literature, notions of which disciplines constitutes the social sciences differ.

Table 21: Disciplinary background of respondents (disciplinary category that best describes respondents' academic/ research training) (n=107)

	Frequency	Percent
Anthropology	3	2.8
Development Studies	7	6.5
Economics	6	5.6
Education	12	11.2
Geography	14	13.1
Gender studies	2	1.9
History	8	7.5
Law	1	.9
Political Science	10	9.3
Psychology	10	9.3
Social Work	9	8.4
Sociology	22	20.6
Planning	2	1.9
Public Administration	1	.9

6.2. What constitutes 'social sciences' and the implications thereof

The majority of the respondents (97.2%) forwarded various definitions of what constitutes the social sciences as presented in the Table below. Unsurprisingly, the responses consistently included a thematic consideration of society and people. The most prominent thematically categorised responses were the focus on people and society (30%), systematic/ scientific study of social processes and humans (25.2%), using appropriate social quantitative and/or qualitative methodologies to conduct research on society and societal problems (24.3%), understanding of social processes, interactions, structures, institutions and consequences (19.6%), social inquiry or investigation that employs scientific methods towards finding answers to social questions (9.3%), study of people and corresponding institutions, specifically key aspects such as perceptions, beliefs, behaviours and attitudes (7.5%), and the examination of how people interact with one another and their environment (6.5%). It is interesting to note that there was a focus on content (the 'what' component) as well as the 'how' aspects (the focus on research and methodologies in particular).

Table 22: Thematic aspects covered in relation to the definition of what constitutes the social sciences (n=107): Multiple responses

	Frequency	Percent
No response	3	2.8
Addressing social problems and issues	3	2.8
Examination of how people interact with one another and their environment	7	6.5
Examination of social life	1	.9
Focus on society and people	31	30.0
Scientific study of human relationships, behaviour and society in all its dimensions	6	5.6
Social inquiry or investigation that employs scientific methods towards finding answers to social questions	10	9.3
Study of people and corresponding institutions, specifically key aspects such as perceptions, beliefs, behaviours and attitudes	8	7.5
Systematic/ scientific study of social processes and humans	27	25.2
The investigation and study of society in all its dimensions	1	.9
The study of how people interact with one another and with their environments for survival of human kind	3	2.8
Training to understand social phenomena	5	4.7
Understanding of social processes, interactions, structures, institutions and consequences	21	19.6
Using appropriate social quantitative and/or qualitative methodologies to conduct research on society and societal problems	26	24.3

The most prominent social science research areas/ fields in South Africa as indicated in the Table below were identified as education (87.9%), health issues (71%), urban studies (58.9%), environmental issues (57.9%), development studies (50.5%), rural development (47.7%), economic issues (45.8%) and transformation and equity issues (45.8%). Close to a third of the respondents also stated globalisation and global change (31.8%) and information science and technology studies (30.8%). These areas are aligned to key challenges within the South African context. What is also noteworthy is that inter-disciplinary fields such as environmental and health issues were prominent. During the key informant interviews it was raised by several of the informants that many of the research areas/ fields such as development studies, rural development, urban studies, globalisation and global change, environmental issues and health issues are cross-cutting and overlapping. Examples provided were that global change can include environmental issues and rural development can include economic, environmental and health aspects. Development studies in particular was seen as a research area that can be all encompassing. This again reiterates conceptual difficulties when dealing with the social sciences. It is important to note that CREST (2014) shows that the top social science disciplines in terms of research outputs are business and economics, followed by psychology. Interestingly, as indicated earlier, many business, economics and psychology academics do not self-identify as social scientists. Furthermore, these were not identified by the respondents to

be the most prominent and impactful social science fields/ disciplines. It is possible that the respondents also did not see these disciplines as being part of the social sciences.

Table 23: Most prominent research areas/ fields in South Africa (n=107): Multiple responses

	Frequency	Percent
Political issues	56	52.3
Urban studies	63	58.9
Development studies	54	50.5
Rural development	51	47.7
Economic issues	49	45.8
Transformation and equity issues (including social inclusion and exclusion)	49	45.8
Globalisation and global change	34	31.8
Environmental issues (including climate change)	62	57.9
Health issues (including HIV/AIDS)	76	71.0
Education (including schooling and higher education)	94	87.9
Information science and technology studies	33	30.8

Respondents were asked to rate the prominent research areas/ fields identified and the results are presented in the Table below. Only a few respondents regarded some of the fields as being the best in the world (mainly political, urban, economic, health and education issues). Most respondents provided a rating of above average or average. Few respondents stated below average or they did not know. This suggests that respondents were familiar with a range of research areas/ fields in South Africa that social scientists were involved in and generally had a positive impression of these fields/ areas.

Table 24: Rating of prominent research areas/ fields as most prominent in South Africa (n=107, in %): Multiple responses

1=Best in the world 2=Above average 3=Average 4=Below average
5=Do not know NA=Not applicable

	1	2	3	4	5	NA
Political issues	10.3	30.8	11.2	-	-	47.7
Urban studies	10.3	30.8	15.9	-	1.9	41.1
Development studies	-	15.0	31.8	3.7	-	49.5
Rural development	-	23.4	16.8	6.5	.9	52.3
Economic issues	8.4	17.8	13.1	6.5	-	54.2
Transformation and equity issues (including social inclusion and exclusion)	.9	15.9	21.5	7.5	-	54.2
Globalisation and global change	5.6	10.3	14.0	.9	.9	68.2
Environmental issues (including climate change)	2.8	32.7	19.6	.9	1.9	42.1
Health issues (including HIV/AIDS)	9.3	42.1	16.8	1.9	.9	29.0
Education (including schooling and higher education)	8.4	27.1	43.0	8.4	.9	12.1
Information science and technology studies	-	7.5	20.6	1.9	.9	69.2

In relation to the key informant interviews, the majority of the participants did not directly provide a definition or a list of disciplines in terms of responding to the question pertaining to what constitutes the social sciences in South Africa. A dominant way of answering the question, which emerged amongst the younger and black/ women participants was that social sciences research would be research that: "assists with the challenges of a developmental state" or research that "contributes to the transformation of higher education taking people as the most important factor". However, they made it clear that they identify as social scientists as they have the skills and training to deliver on the above mandate.

Older and more established participants tended to give a history of the development of social sciences globally and in South Africa, and then defined the disciplines, and often it correlated with what we would define as the mainstream of classical/ traditional understanding of the social sciences. A trend which emerged is that the academics who were trained in a particular discipline (for example, psychology) but were working and publishing in newer disciplines, such as gender studies/ masculinity studies, felt that a question as to what constitutes social science research is not that relevant as the issue is what is the impact of the research which one undertakes. They, however, emphasised that they did not believe that business and management sciences were core or part of the social sciences. As one key informant stated, "I never think of management or these people who study MBA as part of the social sciences. I would like to meet one of them who see themselves as social scientists". The above discourse which emerged, in fact, contradicts the findings (see CREST, 2014), which indicated that a large number of publications in the social sciences were what would be defined as business sciences. There seems to be emerging discourse that 'business', 'human geography' (where there is a tendency to embrace the identity of being an environmental scientist), 'psychology" and 'education' are not part of social sciences. This is extremely interesting

and alludes to the power dynamics in academia. These disciplines are well positioned to respond to funding opportunities and inter-disciplinary research. Key informants, who were psychologists and human geographers, spoke to the fact that many of their colleagues would rather identify as health specialists and environmental scientists, respectively, and not social scientists as health and environmental specialists/ scientists are "ranked higher" by funders and also in terms of fields that government identifies as scarce skills or priority areas. One key informant noted that these perceptions and attitudes were also noticeable in universities and among funders.

Not many of the persons interviewed were actively involved in the debate as to the definition of what constitutes the social sciences, but the majority were aware of it and a number of participants felt that the debate was affecting them as individuals. For example, two participants stated that they were not sure whether they should apply when there is a call for funding that targets the "humanities and social sciences" since it is unclear who the target researchers are. As one of the participants stated, "I am not in political sciences or sociology and once when I indicated that there was funding for social scientists a national call to do a project, my Head of Department at the time said 'but they probably mean people in sociology'". There was a feeling again from the participants who were prolific publishers or contributing to major research projects/ reports that the confusion often meant that they did not respond to calls because they assumed it was not for them, which meant they also did not get to work in groups or inter-disciplinary teams which the funders required and they ended up believing that there is insufficient funding for the social sciences. One participant stated, "I think we always say that there is not funding but there is. We often do not apply. But then again so much of the funding in social sciences is if you do work on HIV or something related to infant mortality, for example". The latter response to the funding environment reinforces perceptions held by many of the respondents (and some of the key informants) that there is not enough funding for the social sciences. However, as the literature review and some of the key informants indicated, funding opportunities in the social sciences has increased which suggests that many social scientists are either unaware of funding opportunities or are unable to access the funding or respond to calls.

Many of the key informants stated that funders seem to drive the agenda and many of the persons in specific disciplines or fields (such as public health and environmental issues) get funding. These researchers often are more practitioner or applied-orientated. Researchers who see themselves as contributing to methodology or theory are left out. Another trend that emerged was that persons in psychology and sociology were in the same faculty or had a dean that was, for example, a physiotherapist and they felt that these discipline leaders who had PhDs that lacked theory did not appreciate or understand what social science researchers did. This contributed to the theoretical challenges in the social sciences. Essentially, as one participant stated, "the problem is that pseudo-social scientists who call themselves social scientists, take leadership positions. They believe in community interventions but there are serious shortcomings in theory, policy and research".

A number of persons when engaged with or late in the conversation after initially not being sure about what constitutes the social sciences tended to define it in relation to their own discipline or disciplines that they would see as 'close' to them, for example, sociology, political sciences, development studies and interestingly newer areas such as tourism studies and international relations. Confusion and the tendency to define social sciences in relation to one's own discipline

focus is clearly evident and resonates with the survey findings as well. The lack of clarity has led a number of consequences as discussed above and highlighted as follows: levels of contribution and the extent to which different types of research are valued and acknowledged, allocation and attempt at securing resources, leadership concerns, methodological clarity and development, curricula not being transformed and essentially not having "anything to say or very little to contribute" to current challenges in South Africa. This, some of the participants argued, is leading ultimately to the social sciences being marginalised.

Some of the participants engaged with the power dynamics linked to the definition of social sciences, noting that as long as social sciences are seen as a "step-child" to the natural and physical sciences, disciplines and social scientists who can will embrace what they perceive to be more marketable and reputable identities such as geographers preferring to be regarded as environmental scientists. Many researchers also do not identify themselves with their disciplinary roots but the thematic field/ area that they undertake research in. For example, they identify themselves as health researchers or climate change experts. Development studies itself, one participant argued, may have contributed to abandoning disciplinary identities. This, one participant noted, is critical to resolve since thus far, the social sciences have been defined for them (social scientists) by people in power (political agendas) and the changing thematic and disciplinary landscapes creates spaces for the construction and reconstruction of identities and definitions. One participant stated that the key challenges for the social sciences are to go beyond disciplinary categorisation to how contribution to knowledge occurs and what the responses to the grand challenges are (linked to new sustainable development goals). Furthermore, senior more established social scientists are of the opinion that social science is methodologically and conceptually/ theoretically stunted and has not developed appropriate approaches to engage current societal challenges. As one of the key informants from the research council stated, the social sciences does not appear to be sufficiently sophisticated to engage in conversations in South Africa, given the context of protests. Furthermore, the key informant argues that modes of analysis (especially in disciplines such as history, sociology, anthropology and political sciences) have failed to understand the nature of modernity and decolonisation in current contexts. This implies that assumptions and current concepts need to be rethought and new concepts and languages need to be developed to describe people and their experiences in dignified ways. It was also noted by one of the respondents that much of the social sciences in South Africa is constructed in ways that perpetuate 'whiteness' and is embedded in Eurocentric ideas that emerged in the last 400 years.

6.3. Perceptions of top social science disciplines and thematic areas

The Table below indicates that the top three social science research fields that respondents perceive directly contribute to South African public policy are environmental issues (54.2%), education (52.3%), health issues (42.1%), economic issues (34.6%), transformation and equity issues (27.1%), development studies (14%), political issues (13.1%), rural development (13.1%) and globalisation and global change (12.1%). These areas are thus perceived to influence public policy. Additionally, these are also research areas that leverage funding and have higher levels of research outputs. The results also suggest that issues deemed to be key social challenges are also perceived to influence public policy attention.

Table 25: Top 3 social science research fields respondents perceive directly contribute to South African public policy (n=107, in %): Multiple responses

	Frequency	Percent
Political issues such as elections, governance, corruption, etc.	14	13.1
Urban studies	6	5.6
Development studies	15	14.0
Rural development	14	13.1
Economic issues	37	34.6
Transformation and equity issues (including social inclusion and exclusion)	29	27.1
Globalisation and global change	13	12.1
Environmental issues (including climate change)	58	54.2
Health issues (including HIV/AIDS)	45	42.1
Education (including schooling and higher education)	56	52.3
Information science and technology studies	2	1.8
Gender studies	1	.9
Tourism studies	2	1.8

Key informants, especially those based in research institutes, noted the contribution of social science in relation to policy making in the post-apartheid South Africa. One key informant from one of the research institutes stated: “the social sciences was at the forefront during apartheid of critiquing apartheid policies and exposing intended and unintended societal impacts that reinforced inequalities”. Furthermore, the participant indicated that the social sciences has played a role in informing the development of post-apartheid policies. Another key informant (from the university sector) did not agree with this assertion stating that policy development in post-apartheid South Africa has been characterised by a “top-heavy approach that is dominated by politicians and selected academics and consultants (mostly from the sciences to give ‘credibility’ to the policies developed) as well as community representatives or organisations”. The extent to which representatives championed the interests and concerns of the groups they claimed to ‘represent’ was also questioned. Four of the key informants also raised concerns about consultation and engagement in South Africa. One senior academic and social activist argued that civil society structures which were strong during the apartheid era are weaker today.

Despite the above concerns, key informants and survey respondents provided examples of their involvement in policy development. This included being involved in the development of land reform, tourism, health, gender, transformation, environmental, social welfare, arts and culture, sport, transport, energy, waste and labour policies. They key role, however, remains critiquing policies. One respondent stated: “many of South Africa’s policies are laudable, however, there are serious limitations and the main challenge is implementation and enforcement”. The importance of proper monitoring and evaluation was also stressed to assess impacts and effectiveness of policies. Some key informants also noted the roles played by social scientists in developing policies and procedures within their respective institutions.

While similar to the perceptions regarding which social science research fields are regarded as the top three in relation to their contributions to public policy, the Table below shows that in terms of which field should receive greater financial support, areas viewed as having greater direct impact and dealing with key social challenges in South Africa were the most prominent. These were education (47.7%), environmental issues (38.3%), transformation and equity issues (35.5%), health issues (33.6%), rural development (32.7%) and urban studies (20.6%).

Table 26: Top 3 social science research fields respondents perceive should receive greater financial support (n=107, in %): Multiple responses

	Frequency	Percent
Political issues	10	9.3
Urban studies	22	20.6
Development studies	13	12.1
Rural development	35	32.7
Economic issues	16	15.0
Transformation and equity issues (including social inclusion and exclusion)	38	35.5
Globalisation and global change	11	10.3
Environmental issues (including climate change)	41	38.3
Health issues (including HIV/AIDS)	36	33.6
Education (including schooling and higher education)	51	47.7
Information science and technology studies	16	15.0
Gender studies	2	1.8
Sexuality	1	.9
Tourism studies	4	3.7

Similar patterns to that of which social science research fields should receive greater financial support are presented in the Table below in relation to fields that should receive greater policy attention. Again, the main fields identified were education (51.4%), health issues (38.3%), environmental issues (34.6%), economic issues (29%), transformation and equity issues (27.1%) and rural development (25.2%).

Table 27: Top 3 social science research fields respondents perceive should receive greater policy attention (n=107, in %): Multiple responses

	Frequency	Percent
No response	3	2.8
Political issues	11	10.3
Urban studies	16	15.0
Development studies	16	15.0
Rural development	27	25.2
Economic issues	31	29.0
Transformation and equity issues (including social inclusion and exclusion)	29	27.1
Globalisation and global change	11	10.3
Environmental issues (including climate change)	37	34.6
Health issues (including HIV/AIDS)	41	38.3
Education (including schooling and higher education)	55	51.4
Information science and technology studies	10	9.3
Local government	1	.9
Tourism	1	.9
Social policy	1	.9

The top social science thematic areas in South Africa identified by the key informants reflected the areas that the respondents were working in and are similar to the survey findings. It included environmental (specifically climate change), poverty and inequality, urban and rural development, health related (HIV/AIDS), indigenous knowledge and transformation issues. The aspect of transformation and decolonisation were repeated issues that were discussed by many of the key informants, especially in the context of the range of protests that were being experienced across higher education institutions in South Africa led by students. It was strongly felt that the social sciences have failed to provide the critical space to engage with transformation issues sufficiently, particularly in relation to the higher education sector. One participant stated that social scientists are partly to be blamed for the challenges confronted but the current environment provided the social sciences with opportunities to provide a critical lens and theoretical approaches. The transformation challenges and socio-economic challenges that are persistent in South Africa (especially the higher education crisis encapsulated in the #feesmustfall campaign that affected every university in South Africa) presents the “sputnik moment” that Ayles (interviewed in Vale, 2009: 248) asserts occurred in the USA in the wake of the 2001 terrorist attacked.

Interestingly, thematic areas were identified as top social science areas based on what the NRF and funding organisations have set as priorities. There was much talk or reference to South Africa’s National Development Plan and how that could influence research. However, there was a strong feeling that the thematic areas researchers are currently responding to such as rural development, environmental and health issues, and economic aspects are inter-disciplinary and have established concepts and theories. Yet, we seem to have failed to address or contribute to better understanding and dealing with key societal challenges, such as why social scientists do not have the tools to engage with the issues of xenophobia and student disruptions. Another example is how persons in

communities are using cell phones to mobilise mass-based protest, which is contemporary research which is not being done.

There was consensus that generally the top thematic areas are being driven by wider political agendas and funding frameworks. The implication is that the South African perspective is becoming entrenched and is “inward looking” as there is also an element that researchers are only looking to solve local community issues. The latter statement is supported by data which indicates that much of South African social science research is published in local journals. The challenge for the social sciences in South Africa is to balance being locally and nationally relevant while contributing to global knowledge.

The key informant qualitative responses in relation to what are the perceived top social science disciplines varied, but there was a lot of navel gazing. For example, key informants in psychology were of the opinion that they were producing a large number of the publications. This is correct if one uses the bibliometric data as a point of comparison. Interestingly, the topics that psychologists are publishing in relate to health issues and they are thus able to also support their research by raising funds. Some interviewees who had doctorates in psychology and one senior government official who was near completion of a PhD in psychology emphasised the fact they do not only publish in psychology journals in fact as they undertake inter-disciplinary work which falls outside of clinical psychology.

Funding agencies and government were seen to drive agendas which impacts on where persons were publishing and this led to “the top” social science disciplines. This has also influenced where researchers publish - targeting journal articles rather than books or chapters in books. Several of the key informants pointed out that funded research does not necessarily contribute to publications/ knowledge production. The example provided was that the HSRC has a large government subsidy and raises a large amount of funding to produce research, yet only 5% of South African research outputs is produced by the HSRC. There was also contestation that top social science disciplines are not necessarily those who are publishing the most, but those whose who are able to contribute to both theory and intervention. A number of persons interviewed spoke to the fact that social scientists are often not specialising as they are driven by state funding and political agendas.

When asked if education was a social science, most key informants acknowledged that there was confusion in this regard but they supported the position that education was a social science. A few participants noted that when education was counted in relation to being a social science, it increases overall research outputs. It was also stated that many PhDs were graduating from education. Academic snobbery also merged as it was alluded to that education doctorates and masters often are completed by practitioners and the topics investigated are driven by the challenges in schools. It was noted that while much is being done or researched, education has “narrow focussed topics” that are not making a major impact.

It was further pointed out by one of the key informants that in education there is a group of “white academics” who in the last 15 years have “anointed a few black” (African, Coloured and Indian) academics and while they are producing, they are “not really growing the next generation of academics”. It was stated also that often when the “newer African, Coloured and Indian academics

choose to cut the umbilical cord both in terms of working together or branching out into new areas, there are fall-outs and a chilly climate prevails". No doubt that these opaque and often not mentioned factors contribute to not only who are perceived as the top social science disciplines but who are the top publishers in these disciplines.

6.4. Perceived value of social science research in South Africa

The Table below presents respondents' perceptions of the main role/s or contribution/s that social science research play/s or make/s in South Africa. The most prominent response was developing skills to think independently and critically (76.6%) followed by informing development and review of policies (57%), developing skills in qualitative research methodologies (55.1%), promoting trans-, inter- and multi-disciplinary research (55.1%) and developing skills in quantitative research methodologies (52.3%). A few respondents also stated assisting the natural and physical sciences to consider social dimensions/ implications (15%) and addressing social challenges and problems (14%). It is interesting that more than half of the respondents noted promoting trans-, inter- and multi-disciplinary research, but substantially fewer respondents identified assisting the natural and physical sciences to consider social dimensions/ implications. This suggests that engagement with other disciplines were confined to areas within the broader 'social science family' rather than the natural and physical sciences. Also, respondents did not seem to understand the differences between trans-, inter- and multi-disciplinarity; using the concepts interchangeably. Choi and Pak (2006) summarise the definitions of the three concepts as multi-disciplinarity referring to drawing on knowledge from different disciplines but stays within their boundaries; inter-disciplinarity referring to analysis, synthesis and harmonising links between disciplines into a coordinated and coherent whole; and trans-disciplinarity referring to the integrating the natural, social and health sciences in a humanities context, transcending their traditional boundaries. One of the key informants stated that notions of inter-disciplinarity in the social sciences tend to be myopic, with social scientists generally engaging with other social scientists outside their disciplines. Yet, there is a growing literature that purports the importance of the social sciences to the sciences. This is also supported in this study in relation to the number of respondents who were social scientists based in science organisations.

Table 28: Perceptions of the main role/s or contribution/s that social science research play/s or make/s in South Africa (n=107): Multiple responses

	Frequency	Percent
Developing skills to think independently and critically	82	76.6
Developing skills in qualitative research methodologies	59	55.1
Developing skills in quantitative research methodologies	56	52.3
Informs development and review of policies	61	57.0
Assists the natural and physical sciences to consider social dimensions/ implications	16	15.0
Promotes trans-, inter- and multi-disciplinary research	59	55.1
Address social challenges and problems	15	14.0

In terms of respondents' ratings of the general satisfaction of the current state of social science research in South Africa, the Table below shows that close to half of the respondents stated that

they were not sure (43%). This was followed by 32.7% of the respondents who indicated satisfied. Almost equal proportion of respondents stated dissatisfied (10.3%) and very satisfied (11.2%). Only a few respondents (2.8%) were very dissatisfied. Younger respondents and those outside universities generally indicated that they were not sure because they were not familiar with different aspects of social science research.

Table 29: Rating with the general satisfaction of the current state of social science research in South Africa (n=107)

	Frequency	Percent
Very satisfied	12	11.2
Satisfied	35	32.7
Not sure	46	43.0
Dissatisfied	11	10.3
Very dissatisfied	3	2.8

The reasons for the ratings of the general satisfaction of the current state of social science in South Africa are linked to the contribution of social sciences in addressing social challenges and concerns (20.6%), as well as the view that the quality and outputs of the social sciences in South Africa are high (21.5%), as indicated in the Table below. One respondent indicated that funding is available. The main reason for dissatisfaction was linked to the social sciences not being adequately valued and acknowledged in relation to the prominence of natural and physical sciences (9.3%) which, as one of the respondents stated, are “considered to be superior”. The dominance of the natural and physical sciences was deemed to have undermined the social sciences which one respondent indicated was “left behind”. One respondent each also stated inadequate funding, poor quality of research and methodological skills, and social sciences has failed to address and contribute to critical challenges in South Africa. Some of the respondents shared that they stated “not sure”, as the social sciences is a broad concept that covers diverse disciplines and areas of research and that respondents are familiar with their area/ discipline but not the social sciences in general to provide a response.

Table 30: Reasons for the rating with the general satisfaction of the current state of social science research in South Africa (n=107)

	Frequency	Percent
No response/ not applicable	47	43.9
Quality and outputs of social scientists are high in South Africa	23	21.5
Social scientists contribute to addressing social challenges and concerns	22	20.6
Funding available	1	.9
Far more attention has been given to the sciences and social science has been left	10	9.3
Inadequate funding	1	.9
Poor quality of research and methodological skills	1	.9
Social sciences has failed to address and contribute to critical challenges in South Africa	1	.9

The Table below indicates that most respondents rated the quality of current social science research in South Africa as above average (43%) and average (35.5%). Some of the respondents (10.3%) stated below average. A few respondents (3.7%) stated best in the world and 7.5% did not know.

Table 31: Rating of the quality of current social science research in South Africa (n=107)

	Frequency	Percent
Best in the world	4	3.7
Above average	46	43.0
Average	38	35.5
Below average	11	10.3
Do not know	8	7.5

In terms of the respondents' ratings of their social science discipline in South Africa, the Table below shows that 53.3% stated above average, 42.1% average and 3.7% excellent. One respondent indicated below average. The results reveal that more respondents rated their own discipline positively (99.1% in total for excellent, above the average and average combined) as compared to social sciences in general (82.2% in total for best in the world, above the average and average combined).

Table 32: Rating of the respondent's social science discipline in South Africa

	Frequency	Percent
Excellent	4	3.7
Above average	57	53.3
Average	45	42.1
Below average	1	.9

Key informants generally felt that social sciences is crucial to addressing the grand challenges related to transformation in higher education in South Africa as well as contributing to achieving developmental goals and addressing socio-economic and environmental challenges. Poverty and inequity, in all its forms, is entrenched in society. They (together with other socio-economic and environmental challenges) will not be solved without social scientists and the social sciences. This was a consensus position and a dominant discourse. There was a strong feeling that all students across disciplines should be exposed to aspects of social science theory and teaching and it was crucial to developing students who were excellent in their specific professions or discipline knowledge. There was general consensus that the social sciences could provide critical thinking skills. However, key informants spoke to the fact that the social sciences was not as vibrant as it was during the late 1980s and early 1990s in South Africa. This was a view held by key informants who were both academics and political activists during the last years of apartheid, and in fact challenged both the state and the setting up of the HSRC, the latter which during apartheid supported the apartheid state.

Some of the key informants also acknowledged that to a certain extent social science had not developed theories which could engage contemporary societal challenges and this was a shortcoming in the work of South African social scientists, as indicated earlier. There is a paucity of funding for "blue sky" research in the social sciences, as most funding is earmarked for small applied studies which could be a reason for the lack of contemporary theoretical development. The social sciences was also seen as valuable as particular disciplines provided students with both quantitative and qualitative skills, which provided them with a sound background to embark on postgraduate studies in a range of disciplines, including management degrees.

A crucial value of the social sciences is that it should be a "disruptive voice for change". There was a strong view that many of the social scientists, like those at the HSRC, are too close to government and are not providing sufficient critical work. In addition, the HSRC does a lot of research, raises large amounts of funding separate from its government subsidy, but is not producing knowledge which correlates to its research standing and funding. Furthermore, it emerged that some key informants were of the opinion that the HSRC should embark on large-scale projects and not work in silos. Also, generally key informants based at universities felt that research projects should have a university partner.

It was also highlighted that there are also social scientists who are only critical, but do not provide any assistance to higher education policy change or even to curriculum transformation. There are also a number of social scientists whose voices are "disruptive" as public intellectuals, "but are not providing leadership in the knowledge economy or social sciences and neither are they producing knowledge in the form of scholarly books or journal articles". Thus, there are different ways in which social sciences could be more valuable, and this is a challenge which social scientists need to take up. The participants also made it clear that a lot of social science research takes place in universities, outside of the formal research centres. Examples were provided of researchers who were more prolific than those in the research centres, yet they are not acknowledged or in a position to leverage the resources/ funding that is often earmarked by universities and external funders for research centres. This raises questions pertaining to the prominence of research councils in terms of accessing resources, and the importance of undertaking research to assess the costs and benefits or

return on investments. One key informant based at a university stated that not only are academics based at universities doing more research than those in research councils and institutes with less funding and resources, but there is the additional benefit of direct student involvement and empowerment in student projects. The social sciences would also make a "more valuable contribution to South African society and the South African innovation landscape if research projects which the HSRC, for example, undertook had a university partner". Caution was raised, however, that this should not only be in the form of sub-contracting to universities which in a sense is "using university academics as a source of relatively cheap labour".

6.5. Involvement in social science research

The main reasons why respondents undertake social science research were supporting academic career advancement (64.5%) and contribution to academic knowledge (59.8%). Other reasons were contributing to policy discourse on current issues (43%), responding to a funder's/ client's specialised needs/ interests (28%), being able to contribute to improving quality of life of people (11.2%) and being a social activist (5.6%). Two respondents also stated improving the teaching of social sciences. The responses relate primarily to academic career aspirations as well as being relevant and contributing to address social challenges. Those who referred to policy discourse on current issues were generally outside universities or viewed themselves primarily as social activists or being able to improve the lives of people. The link between policy informing action and transformation seems to be missing in the South African context. This could be attributed to the lack of lobbying groups or organisations that work with researchers and academics to navigate this environment and building relationships between researchers and policy makers. As indicated in this study, this is a role that some respondents and key informants felt the HSRC should focus on.

Table 33: Primary purpose/ why respondent undertakes research in the social sciences (n=107): Multiple responses

	Frequency	Percent
Contribution to academic knowledge	64	59.8
Supporting academic career advancement	69	64.5
Contributing to policy discourse on current issues	46	43.0
Responding to a funder's/client's specialised needs/ interests	30	28.0
Be able to contribute to improving quality of life of people	12	11.2
Being a social activist	6	5.6
Improving the teaching of social sciences	2	1.9

In terms of respondents' contributions as an author to specific types of research outputs (encapsulated in the Table below in terms of averages and ranges), substantial differences are noted. Firstly, the respondents mostly published in DHET accredited journals for the last five years with averages that ranged from 0.6 in 2010 and 2011 to 0.9 in 2014. The overall average for the five year period was 3.5. The next most conspicuous output was chapters in edited books (with an overall average for the five year period being 1.7). Similar trends in outputs were found in relation to non-DHET accredited, peer reviewed journal articles (with an overall average for the five year period being 0.7), books and monographs (with an overall average for the five year period being 0.5),

conference proceedings (with an overall average for the five year period being 0.5), technical/ consultancy reports (with an overall average for the five year period being 1.5) and policy reports/ development of policies (with an overall average for the five year period being 0.6). The high proportions of zero percentages indicate that numerous social science researchers are not able to have research outputs. In terms of DHET accredited journals and chapters in edited books, there is clearly an upward trend noticeable with more respondents indicating that they publish in these outputs over the five year period.

It is clear that social scientists are responding to the DHET system where AUs for universities are recognised in DHET accredited journals, books, chapters in books and conference proceedings. Policy-orientated research is not recognised and is therefore discouraged within the context of a subsidy system. There is thus a tendency to focus on "furthering careers rather than furthering knowledge", as one key informant stated. The latter three types of outputs undergo rigorous evaluation and approval processes that are undertaken within universities (prior to submission to the DHET) and by DHET themselves. Journal articles are approved if they are published in DHET accredited lists which are communicated to all universities annually. Thus, many researchers target DHET accredited journal articles since they are known (rather than having to go through the review process) and they currently receive the highest proportion of AUs that generate subsidies.

The revised DHET (2015b) policy (to be implemented from 2016 onwards) recognises DHET accredited journals as being equivalent to chapters in books and a book being equivalent to 2 to10 journal articles (depending on the number of pages). The review processes for books and chapters in books will still be in place. It will be interesting to see how social scientists respond to the revised DHET policy, and whether there will be an increase in these types of outputs, which globally social scientists contribute substantially to. It is important to note that many of the respondents did not publish in various research outputs, which is of concern, particularly in the academic/ university environment where research outputs are important for academic promotions and in many South African universities they are also an integral part of performance management. Some universities also provide research incentives to researchers who publish in DHET accredited research outputs so that they can generate more subsidies. Thus, research productivity can leverage individual level research funding. The implications of the subsidy model are that in South Africa there is a problematic assumption that economic incentives will result in increased research outputs and that all researchers are in a position to respond. There is limited understanding that the publication environment (especially in accredited and higher impact journals) is increasingly competitive. Furthermore, many researchers may have the desire to publish but struggle to do so. There is therefore a need for capacity-building and skills development.

Table 34: Respondent's contribution as an author to social science outputs for the last five years (n=107)

	2010	2011	2012	2013	2014	Total for 5 year period
DHET accredited journal articles						
Average	.6	.6	.7	.8	.9	3.5
Range	0-7.5	0-6	0-12	0-10	0-8	0-28.67
Percentage of zero responses	63.6	66.4	57.9	46.7	44.9	29.9
Non-DHET accredited, peer reviewed journal articles						
Average	.1	.1	.2	.2	.1	.7
Range	0-2	0-2	0-3	0-2	0-2.5	0-9.5
Percentage of zero responses	89.7	87.9	84.1	80.4	85.0	67.3
Books and Monographs						
Average	.1	.1	.1	.1	.2	.5
Range	0-3	0-5	0-3	0-2	0-5	0-18
Percentage of zero responses	96.3	97.2	92.5	91.6	87.9	77.6
Chapters in edited books						
Average	.3	.3	.3	.4	.5	1.7
Range	0-4	0-6	0-8	0-11	0-9	0-35
Percentage of zero responses	81.3	85.0	77.6	79.4	69.2	50.5
Conference proceedings						
Average	.1	.1	.1	.1	.1	.5
Range	0-2	0-2	0-1.5	0-3	0-2	0-5
Percentage of zero responses	94.4	89.7	88.8	88.8	86.9	67.3
Technical/ consultancy reports						
Average	.2	.1	.3	.3	.6	1.5
Range	0-3	0-4	0-4	0-5	0-15.25	0-19
Percentage of zero responses	81.3	92.5	80.4	79.4	75.7	58.9
Policy reports/ development of policies						
Average	.1	.1	.1	.1	.2	.6
Range	0-3	0-3.5	0-4	0-3	0-3	0-16.5
Percentage of zero responses	93.5	91.6	91.6	88.8	83.2	74.8

The Table below presents the averages and ranges in terms of graduation of postgraduate students, professional development/ team leader roles in in research projects and mentoring or technical advisor roles on national or international projects. In terms of postgraduate graduation, most respondents supervised to completion Masters by research (average ranged from 0.2 in 2010 to 0.6 in 2014 and overall average for the five year period being 2). This is followed by Masters by coursework (with a yearly average of 0.3 and overall average for the five year period being 1.5). In terms of PhDs/ doctorates, the overall average for the five year period was 1.1. It is clear that the supervision of Masters by research and PhDs/ doctorates is increasing over the years while Masters by coursework is decreasing. This again seems to be the influence of DHET policy whereby more subsidies are generated by graduating Masters by research and PhDs/ doctorates. Many universities

in South Africa are phasing out Masters by coursework. In terms of non-degree professional development/ team leader role/s in research projects, the overall average for the five year period was 1.3. Very few respondents were involved in mentoring or technical advisor roles on national or international projects. Again, as indicated in relation to the publication of research outputs, the majority of the respondents have not supervised a postgraduate student to completion and are not involved in professional development or mentoring roles linked to projects. This reflects supervision capacity challenges in South Africa. Additionally, as CREST (2014) notes, the differing quality of graduate programmes in South Africa which is also of concern.

The survey did not include questions on the current supervision load of social scientists. However, the key informants interviewed from the higher education sector indicated that a major challenge in South Africa is in relation to supervision capacity. Of particular concern was that a large number of academics have high supervision loads but because of a range of factors, throughput rates are low, which results in many students remaining in the system.

Table 35: Number of postgraduate respondents have supervised to completion in the last five years as well as in relation to the number of non-degree professional development/ team leader role/s in research projects and mentoring or technical advisor roles on national or international projects

	2010	2011	2012	2013	2014	Total for 5 year period
Masters by coursework						
Average	.3	.3	.3	.3	.3	1.5
Range	0-6	0-5	0-6	0-6	0-10	0-22
Percentage of zero responses	87.9	84.1	88.8	85.0	78.5	67.3
Masters by research						
Average	.2	.3	.4	.4	.6	2.0
Range	0-5	0-7	0-6	0-8	0-9	0-24
Percentage of zero responses	84.1	84.1	79.4	80.4	66.4	56.1
PhD/ doctorate						
Average	0.2	0.2	0.2	0.2	0.3	1.1
Range	0-2	0-3	0-2	0-4	0-3	0-12.5
Percentage of zero responses	83.2	84.1	82.2	82.2	73.8	71
Non-degree professional development/ team leader role/s in research projects						
Average	0.2	0.2	0.3	0.3	0.4	1.3
Range	0-2	0-3	0-4	0-6	0-5	0-20
Percentage of zero responses	88.8	86.9	85.0	86.9	75.7	71.0
Mentoring or technical advisor roles on national or international projects						
Average	.1	0.1	.1	0.2	0.2	.7
Range	0-2	0-1	0-2	0-2	0-2	0-7
Percentage of zero responses	94.4	89.7	90.7	81.3	80.4	70.1

The Table below indicates that 57% of the respondents stated that they engage in multi-, trans- or inter-disciplinary research while 43% indicated that they did not. The importance of engaging across and within disciplines is an important feature of social sciences and this is clearly discernible among

the respondents. However, as the next Table reveals, most engagement is with other disciplines within the social sciences.

Table 36: If respondent engages in multi-, trans- or inter-disciplinary research (n=107)

	Frequency	Percent
Yes	61	57.0
No	46	43.0

In terms of the three main disciplines respondents are involved in (other than their own) when they engage in multi-, trans- or inter-disciplinary research; the Table below indicates that the main disciplines identified were sociology (16.8%), development studies (15%), political sciences (12.1%), geography (9.3%), education (8.8%), gender studies (7.5%), biological sciences (6.5%), tourism (6.5%), business management (6.5%), environmental studies (5.6%), public administration (5.6%) and economics (5.6%). The results indicate that social scientists in South Africa work across and with many other disciplines, generally within the social and management sciences. However, there is evidence of some engagement and collaboration within the physical, natural and medical sciences. Additionally, different mixed methods approaches are discernible.

Table 37: If engages in multi-, trans- or inter-disciplinary research, main three disciplines that respondent is involved in (other than own) (n=107): Multiple responses

	Frequency	Percent
Not applicable	46	43.0
Biological sciences	7	6.5
Business management	7	6.5
Development studies	16	15.0
Economics	6	5.6
Education	9	8.8
Environmental studies	6	5.6
Evaluation	1	.9
Gender studies	8	7.5
Geography	10	9.3
Health sciences	7	6.5
Historiography	1	.9
Law	4	3.7
Optometry	1	.9
Policy studies	1	.9
Political science	13	12.1
Psychology	4	3.7
Public administration	6	5.6
Public health	1	.9
Social work	3	2.8
Sociology	18	16.8
Statistics	1	.9
Tourism	7	6.5
Religious studies	1	.9
Contextual studies	1	.9
Feminism	1	.9
Linguistics	1	.9
Peace and conflict studies	1	.9
Communication studies	1	.9
Critical theory	1	.9
Hermeneutical studies	1	.9
Indigenous Knowledge Systems (IKS)	1	.9
Physics	1	.9
Statistics	1	.9

There was overall agreement among the key informants interviewed that multi-, trans- or inter-disciplinary research is increasing in the social sciences. Currently it was felt that this is most noticeable in the area of health research. It is also increasing in areas like political sciences, development studies and geography where issues such as climate change, for example, has clearly shown that one discipline's knowledge will not contribute to solving the challenges - be it at a policy,

theoretical or intervention level. Benefits for social science to embrace multi-, trans- or inter-disciplinary research would be that funding (which is deemed to be lacking or scarce) will be raised jointly with colleagues from other disciplines and the consortiums of multi-disciplinary teams, have proven to be successful.

Interestingly, South African researchers have become more supportive of the NRF rating system. Many key informants mentioned that doing multi-, trans- or inter-disciplinary research will enhance their rating level. In their opinion, the latter had spin offs for their careers, their institutions and students who they could support. The challenges are that often universities and the government reward academics who work on their own (even though collaboration is encouraged). Furthermore, while they note the role of the NRF rating system, a number of key informants were critical of what they labelled the "commodification of higher education". There was also a clear concern highlighted by one of the key informants that while the current Minister of Higher Education and Training is supportive of the social sciences, his continuing emphasis on encouraging large numbers of school leavers to become "plumbers and electricians" at Technical Vocational Education and Training (TVET) colleges is indicative of the "anti-intellectual climate" in the country, and this impacts on social scientists.

The Table below encapsulates the term that best describes the type of social science research that respondent is involved in. The majority of the respondents (48.6%) stated applied research. This was followed by advocacy research (26.2%), conceptual/ theoretical research (19.6%), and lastly, policy-orientated research (5.6%). In the context of this study, applied research refers to research geared towards addressing a specific societal challenge or problem (often inclusive of consultancy-based research), advocacy research is more aligned to lobbying for particular issues and working together with communities and NGOs and policy-orientated research refers to research that either reviews existing policies or contributes to the development of specific policies.

Table 38: Term that best describes the type of social science research that respondent is involved in (n=107): Multiple responses

	Frequency	Percent
Applied research	52	48.6
Advocacy research	28	26.2
Conceptual/ theoretical research	21	19.6
Policy-orientated research	6	5.6

The Table below shows the main factors that influence the research the respondent is involved in. By far the most important factor identified by the majority of the respondents was academic demands (56.1%) followed by external research funding agencies (32.7%). Other factors identifies were consultancy for the public sector (15.9%), political groups (11.2%), consultancy for the NGO sector (8.4%) and consultancy for the private sector (5.6%). One respondent stated pursuit of knowledge.

Table 39: Main factors that influence the research the respondent is involved in (n=107): Multiple responses

	Frequency	Percent
Academic demands (meet requirements and expectations of your position)	60	56.1
External research funding agencies	35	32.7
Consultancy for the public sector	17	15.9
Consultancy for the private sector	6	5.6
Consultancy for the NGO sector	9	8.4
Political groups	12	11.2
Pursuit of knowledge	1	.9

In terms of the frequency of respondent's interactions on an annual basis with stakeholders/ organisations in relation to the social science research conducted, most of the respondents (98.1%) had interactions with other researchers in their institutions on a weekly (70.1%) or monthly (28%) basis. The majority of respondents (55.9%) also interacted with other researchers in universities not their own on a less regular basis than interactions with other researchers in their own institutions. Additionally, 44.9% of the respondents interacted with government departments. The majority of the respondents did not interact with research councils/ units such as the NGOs (72.9%), HSRC (71%), national funding agencies such as the NRF (77.6%), private companies (71%) and international funding agencies (68.2%). Among those who did interact with these organisations, they did so generally on a monthly basis, twice a year or annually. Most researchers within universities worked with colleagues within their own or other universities. Researchers based outside universities interacted more with government departments, research councils, international funding agencies and private companies. Furthermore, active researchers based at universities interacted with national funding agencies such as the NRF. Social scientists who were not research active (supervising students and/ or generating research publications) were less likely to interact with other stakeholders.

Table 40: Frequency of respondent's interactions on an annual basis with stakeholders/ organisations in relation to the social science research conducted (in %): Multiple responses

	None	Weekly	Monthly	Twice a year	Annually	No response
Other researchers in my institution	.9	70.1	28.0	.9	-	
Other researchers in universities not your own	29.1	10.3	15.9	17.8	11.2	15.0
Government departments	55.1	8.4	17.8	8.4	10.3	-
Research councils/ units such as the HSRC	71.0	6.5	5.6	9.3	7.5	-
NGOs	72.9	5.6	6.5	6.5	8.4	-
National funding agencies such as the NRF	77.6	-	1.9	7.5	13.1	-
International funding agencies	68.2	1.9	8.4	12.1	9.3	-
Private companies	71	2.8	4.7	6.5	3.7	11.2

The Table below indicates that the majority of the respondents are most interested as social scientists in influencing government departments (53.3%), other researchers in their institution (32.7%), international funding agencies (24.3%), NGOs (23.4%), other researchers not in their own universities (17.6%) and research councils/ units such as the HSRC (14%). Only 5.6% of the respondents wanted to influence national funding agencies, such as the NRF and private companies. The results indicate that many researchers are not interacting with organisations they hope to influence. In terms of government in particular, key informants indicated that government is in a position to use social science research to inform policies and affect change which can address challenges experienced. Additionally, it is perceived that government can direct research funding and resources.

Table 41: Stakeholders/ organisations that respondent is most interested in influencing as a social scientist (n=107): Multiple responses

	Frequency	Percent
No response	2	1.9
Other researchers in my institution	35	32.7
Other researchers in universities not your own	30	17.6
Government departments	57	53.3
Research councils/ units such as the HSRC	15	14.0
NGOs	25	23.4
National funding agencies such as the NRF	6	5.6
International funding agencies	26	24.3
Private companies	6	5.6

The Table below indicates that the majority of the respondents view other researchers in their institution (38.3%), other researchers not in their own universities (22.4%) and government departments (21.5%) as the main stakeholders/ organisations that they perceive as being most receptive to engage with them. Other stakeholders/ organisations identified were international funding agencies (18.7%) and national funding agencies such as the NRF (15.9%) with 8.4% each stating research councils/ units such as the HSRC and NGOs. Only a few respondents (3.7%) stated private companies.

Table 42: Stakeholders/ organisations that respondent views as being most receptive to engage/ partner with him/ her (n=107)

	Frequency	Percent
No response	3	2.8
Other researchers in my institution	41	38.3
Other researchers in universities not your own	24	22.4
Government departments	23	21.5
Research councils/ units such as the HSRC	9	8.4
NGOs	9	8.4
National funding agencies such as the NRF	14	15.9
International funding agencies	20	18.7
Private companies	5	3.7

The Table below shows that the majority of the respondents (57%) did not identify main stakeholders/ organisations that they perceive as being least receptive to engage with them. This suggests that there is a willingness to engage with different stakeholders/ organisations by most of the respondents. The organisations perceived to be least receptive were private companies (20.6%) and government departments (11.2%). A few respondents stated national funding agencies such as the NRF (5.6%) and international funding agencies (3.7%). One respondent each stated other researchers in their own universities and research councils/ units such as the HSRC. None of the respondents stated other researchers not in their institution and NGOs.

Table 43: Stakeholders/ organisations that respondent views as being least receptive to engage/ partner with him/ her (n=107)

	Frequency	Percent
No response	61	57.0
Other researchers in my institution	1	.9
Government departments	12	11.2
Research councils/ units such as the HSRC	1	.9
National funding agencies such as the NRF	6	5.6
International funding agencies	4	3.7
Private companies	24	20.6

The Table below encapsulates the averages and ranges for the number of social science seminars, conferences and workshops respondents attended in the last five years nationally and internationally. Most respondents attended conferences and workshops, which were attended mostly nationally, rather than internationally. A few respondents attended seminars, had visiting lectureships (only internationally outside Africa) and had sabbaticals. There were relatively fewer engagements in SADC and the rest of Africa with more interactions outside Africa.

Table 44: Number of social science seminars, conferences and workshops respondent attended in the last 5 years nationally and internationally

	Nationally	Internationally	SADC	Rest of Africa	Outside Africa
Seminars					
Average	1.2	.9	.2	.1	.5
Range	0-26	0-14	0-3	0-2	0-9
Percentage of zero responses	61.7	70.1	88.8	88.8	72.9
Conferences					
Average	1.3	1.7	.3	.3	1.0
Range	0-15	0-10	0-2	0-3	0-7
Percentage of zero responses	45.8	46.7	74.8	75.7	56.1
Workshops					
Average	.9	.7	.1	.1	.5
Range	0-8	0-7	0-2	0-2	0-5
Percentage of zero responses	66.4	70.1	89.7	88.8	71.0
Visiting lectureships					
Average	.2	.3	.03	.01	.2
Range	0-3	0-5	0-1	1	0-5
Percentage of zero responses	88.8	84.1	97.2	99.1	86.0
Sabbaticals					
Average	.1	.1	-	-	.1
Range	0-2	0-2	-	-	0-2
Percentage of zero responses	88.8	86.0	-	-	86.0

Among the respondents who received funding to attend seminars, conferences or workshops, the main sources were institution/ organisation respondent worked for (48.6%) followed by self-funded (35.5%), organiser of the seminar/ conference/ workshop (31.8%) and NRF travel grant (28%). A few respondents (10.3%) stated another travel grant. The results indicate that while funding sources are available, the majority of the respondents are unable or have not attempted to secure funding from these sources as highlighted earlier.

Table 45: If funding was required to attend seminars, conferences or workshops, who provided the funding (n=107): Multiple responses

	Frequency	Percent
Self-funded	38	35.5
Institution/ organisation work for	52	48.6
NRF travel grant	30	28.0
Another travel grant	11	10.3
Organiser of the seminar/ conference/ workshop	34	31.8

Among those who were funded, only a few respondents (14%) stated that the funders played a role in supporting research dissemination. The specific roles played related to payment of page fees (3.7%), publishing the research (3.7%), paid for publication (1.9%) and supported consultative workshop with stakeholders (1.9%). One respondent each stated joint publication, provided funding for postgraduate students and report on website. The results indicate that there is limited support for research dissemination among funders.

The Table below shows results in relation to the rating of current access to research resources in respondent's organisation. More than half of the respondents positively rated (provided a rating of 1 to 3) the following aspects:

- Electronic library with access to data bases such as JSTOR, SAGE, Elsevier, etc.;
- Inter-library loan services;
- Computer facilities;
- Internet services/ facilities; and
- Quantitative research software programmes such as SPSS.

Aspects with high proportion of no responses (NA) were:

- Qualitative research software programmes such as the AtlasTI and NVivo; and
- Reference Manager software programmes such as EndNote.

This suggests that these respondents are not familiar with these programmes or do not require them.

A few respondents (7.5%) identified research resources respondents had access to and these were statistician (2.8%), language editor (1.9%), Geographic Information Systems (GIS) (one respondent), archives (one respondent) and research assistant (one respondent). Additionally, 23.4% of the respondents identified research resources that they do not currently have in their institution but would like to access. These include statistical package (6.5%), statistician (5.6%), qualitative research software (4.7%) and language editor (3.7%). One respondent each stated full-time postgraduate students, joint publications and access to journal databases and the NRF.

The results indicate that there are substantial differences among the organisations where respondents are from in relation to the availability of electronic research resources. Additionally, the availability of software packages (notably qualitative data management packages and reference managers) and inter-library loan services were not highly rated. In terms of the software packages, the responses could suggest that these resources are either not available or if they are available,

researchers are not aware of them or how to use or access them. This may also explain the high rate of not applicable responses in relation to these aspects.

Table 46: Rating of current access to research resources in respondent's organisation (1=Excellent and 5=Poor/ Inadequate, and NA=Not applicable) (in %): Multiple responses

	1	2	3	4	5	NA
Electronic library with access to data bases such as JSTOR, SAGE, Elsevier, etc.	21.5	36.4	21.5	8.4	7.5	4.7
Inter-library loan services	15.0	16.8	27.1	7.5	3.7	29.9
Computer facilities	22.4	30.8	24.3	8.4	6.5	7.5
Internet services/facilities	23.4	32.7	26.2	6.5	9.3	1.9
Quantitative research software programmes such as the Statistical Package for the Social Sciences (SPSS)	6.5	22.4	26.2	12.1	4.7	28
Qualitative research software programmes such as the AtlasTI and NVivo	7.5	17.8	25.2	5.6	5.6	38.3
Reference Manager software programmes such as EndNote	2.8	3.7	35.5	5.6	.9	51.4

6.6. Funding for research

The survey included a question on projects that respondent had funding for social science research that they have accessed in the last five years (2010-2014). Very poor quality data was provided with responses including "too many to state" or "cannot recall". Among the few that did provide information, in almost all cases the required information (mostly the name of the funder and amount received) was not provided. Thus, the results are not presented and discussed. However, it was worth noting that some of the respondents and most of the key informants interviewed identified a range of projects that respondents had funding for social science research that they had accessed in the last five years. In some instances, substantial funding was leveraged with three key informants stating that they personally had acquired funding of more than R5 million per year for the last five years. Two of these key informants were based at universities and one in a research council. The sources of the funding were government departments (especially provincial and national government departments), national funding agencies such as the NRF, international organisations such as the United Nations and the Council for the Development of Social Science Research in Africa (CODESRIA), and the universities and research institutes in which they are located.

The funding was for a range of projects linked to gender issues, education, housing delivery, health issues, environmental projects (especially in relation to climate change adaptation), transformation, rural and urban development issues and others. The funding of small projects and a diversity of projects that are not connected has, as one of the key informants pointed out, led to the stagnation of theory and it also impacts on academics being able to support young emerging academics in multi-year projects, which could assist them in specialising and building a research and broader academic profile.

The Table below shows that the majority of the respondents felt that accessing research funding in the social sciences and their disciplinary area is easier today in South Africa compared to 5 years ago (32.7% and 38.3%, respectively) or it is about the same as 5 years ago (52.3% and 45.8%, respectively). Thus, the results indicate that respondents generally do not perceive the funding environment for the social sciences and their discipline as worsening. The key informants also agreed that the funding environment was not worsening but as a key informant pointed out, "let's not get too excited, it's a low base we working from and let's not get fooled by the crumbs when we need bread".

Table 47: If respondents think that accessing research funding in the social sciences and their disciplinary area is harder or easier today in South Africa compared to 5 years ago (before 2010) (n=107, in %)

	Harder today	Easier today	About the same as 5 years ago
Social science generally	15.0	32.7	52.3
Your discipline specifically	15.9	38.3	45.8

There was a discourse which was quite self-reflective which emerged from the key informant interviews, that recognised that many social scientists were not responding to the funding opportunities that existed. The good news, one participant highlighted, is that South Africa has a Higher Education Minister (who himself has a doctorate in sociology) and Science and Technology Minister who are supportive of the social sciences. However, the constraint is that often the policies which drive the commitment to science, engineering and technology (while not overtly anti-social science) is implemented in a way which marginalises the social sciences. There was a strong feeling that the government's funding model and the way in which government subsidies are generated in relation to social science benefits the natural and physical sciences (including engineering). In addition, various funding models at universities are biased to the natural and physical sciences. It all looks equitable on paper but the financial model is inherently flawed in relation to the social sciences.

While conducting the key informant interviews there was a view, from the participants who were senior but not in management positions and the younger participants, that the new funding formula that supports books will be excellent as it would provide more subsidy for universities; this in turn would mean that universities could allocate additional funding to building the next generation of social scientists. Senior persons and those in management were less optimistic and knew, as one key informant stated, "that an increase in funding generated by, for example, a book as an output does not necessarily mean that more money will be earned by universities as it is the same cake just sliced differently".

In relation to resources for social science research, most of the key informants supported the view that the situation is improving in South Africa and globally. It is important to note that key informants (even those from government) mentioned that while funding was getting better, it was not near the levels that they would like it to be. It was also highlighted that there needs to be more analysis of who is accessing the funding and why specific individuals and groups struggle to access

funds. In fact, one key informant stated that while funding has increased, the same individuals and groups access the funding, which has contributed to reinforcing inequalities in the social sciences. Additionally, as noted earlier, there were concerns that financial allocation models within institutions were biased towards the natural and physical sciences. In relation to both South Africa and the globally, key informants believed that often it was, as one participant stated, "two steps forward and two steps back… so same place". Furthermore, it was cited that often support for social science research depends on one or two individuals who are in decision-making positions and who are supportive of the social sciences.

6.7. South African social science research landscape

The Table below indicates respondents' opinions of the top three research institutions in South Africa. The main institutions identified were Wits (48.6%), HSRC (34.6%), UCT (33.6%), UKZN (27.1%) and UWC (15.9%). The results indicate that research councils and the top most research productive universities had a good reputation for undertaking social science research. It is important to note that none of the respondents identified any of the universities of technologies as being a top social science research institution in South Africa.

Table 48: Respondent's opinions of which are the top three social science research institutions in South Africa (n=107): Multiple responses

	Frequency	Percent
No response	21	19.6
HSRC	37	34.6
MRC	4	3.7
NNMU	1	.9
RU	7	6.5
UCT	36	33.6
UJ	5	4.7
UKZN	29	27.1
UP	6	5.6
SU	7	6.5
UWC	17	15.9
Wits	52	48.6
NRF	5	4.7
CSIR	4	3.7
KPMG	1	.9
Statistics South Africa	1	.9

The reasons for identifying the top three institutions that contribute to social science research in South Africa are presented in the Table below. The main reasons for choosing the institutions were related to the following aspects:

- Publication outputs (86%);
- Impact/ application of research (54.2%);

- Well known in field/ reputation (24.3%); and
- Rankings (19.6%).

These reasons, together with most of the other reasons forwarded, link to perceived notions of impact and quality of research. Rankings as a reason was generally provided by respondents who identified Wits and UCT as the top three institutions.

Table 49: Reasons for respondent's opinion of which are the top three social science research institutions in South Africa (n=107): Multiple responses

	Frequency	Percent
Not applicable/ no response	22	20.6
Impact/ application of research	58	54.2
Policy-relevant research	1	.9
Publication outputs	92	86.0
Rankings	21	19.6
Strong methodology training for postgraduate students	1	.9
Top/ highly rated journals	3	.9
Tradition of primary research	1	.9
Well known in field/ reputation	26	24.3
High quality journal outputs	1	.9
Innovative research	1	.9
Largest university in terms of researchers	1	.9
Policy-relevant research	3	2.8

In relation to which institutions key informants perceived are the top contributors to social science research in South Africa, almost all the participants mentioned the "big five": UCT, SU, Wits, UKZN and UP. However, many of them also stated UJ and UWC are producing substantial social science research. UJ's research outputs have grown phenomenally, which may be linked to them having big marketing campaigns and this may have had an impact on how they are viewed. RU was also mentioned by the older key informants.

In terms of which institutions are struggling in relation to social science research in South Africa, interestingly the participants did not see only the historically black universities as struggling. In fact, often UWC (a historically black university) was mentioned as one of the institutions that was not struggling. Those that were seen as struggling were often referred to as the universities of technology. Certain historically black institutions were seen to be struggling as traditionally they did not have the resources to be research led, in terms of the social sciences or any discipline. However, many were seen to be struggling as they had weak leadership and academics who were still essentially teachers and not scholars/ academics. However, it was also clear that there is the perception that certain institutions are struggling as funders do not support them. As one key informant stated, most historically black universities are "seen as 'at risk' institutions and funders do not support them unless they are part of a consortium led by 'a stable partner'".

6.8. Level of satisfaction with current state of social science in South Africa

The Table below shows that close to half of the respondents (47.7%) were not sure in relation to whether the social sciences in South Africa are in a state of 'crisis' (experiencing major challenges). Among the rest, most of the respondents either disagreed (29%) or strongly disagreed (5.6%) with the statement that the social sciences in South Africa are in a state of 'crisis', while 16.8% agreed and one respondent strongly agreed with the statement. The reasons for the not sure responses were linked to respondents not being familiar with social sciences in general, as indicated earlier, and that some aspects are strong while others are not. The few who agreed with the statement forwarded reasons in relation to funding and resource constraints, as well the continued lack of support of the social sciences, when compared to science and engineering fields. Those who disagreed forwarded reasons that social sciences contribute substantially to research outputs and addressing socio-economic and environmental challenges in South Africa. Its reputation internationally was also noted.

Among the key informants this question raised various responses. Some provided an outright no (that the social sciences was not in crisis), citing the research in the social sciences that was being produced. There was another view that social science is in a methodological crisis (that is, it does not appear to have the appropriate tools or methods to undertake rigorous research in relation to complex issues facing South Africa such as racism, student unrest, xenophobia, etc.) and responds inadequately when big societal challenges arise because they "do not have the tools to say anything". A number of participants viewed the fact that there were so few black professors in the social sciences, which was at some level indicative that there is a crisis, and there was a general failure to transform. Ayles (interviewed in Vale, 2009: 248) resists the notion of the humanities/ social sciences being in a crisis, noting that "we have never had more students studying the humanities, never more scholars producing more scholarship". This is certainly true in the South African context as well. Ayles attributes this sense of being in a crisis on new competition as different disciplines and fields emerge and appear to take prominence, such as business sub-disciplines, recreational and tourism studies, climate change, etc. This again brings into question historical categorisation of disciplines and what constitutes the sciences, social sciences, humanities and other broader academic boundaries.

Table 50: Extent to which you agree that the social sciences in South Africa are in a state of 'crisis' (experiencing major challenges) (n=107)

	Frequency	Percent
Strongly agree	1	.9
Agree	18	16.8
Not sure	51	47.7
Disagree	31	29.0
Strongly disagree	6	5.6

The Table below indicates that the majority of the respondents characterise the current time as very good (32.7%) and good (27.1%) to begin a career as a social science researcher. Some of the respondents stated that it was a bad (19.6%) to start a career as a social scientist while 20.6% did

not respond. Those who did not respond were generally not in academia and were not active researchers in terms of generating research outputs or graduating students. The main reasons forwarded for it being a good time were funding and resources available, networks and support provided by peers, opportunities to undertake research and publish, movement towards trans- and inter-disciplinary research (including the integration of qualitative and quantitative methods), which creates many opportunities for social scientists, employment opportunities and societal relevance. The reasons forwarded for it being a bad time were lack of employment and career opportunities, lack of funding and resources, excessive workloads that prevents focusing on research and lack of recognition by government.

Table 51: If respondent characterises the current time as good or bad to begin a career as a social science researcher (n=107)

	Frequency	Percent
No response	22	20.6
Very good time	35	32.7
Good time	29	27.1
Bad time	21	19.6

The Table below shows that close to half of the respondents (44.9%) felt that it was more difficult today to attract young people to a social science research career than 5 years ago (before 2010). The rest stated about the same as 5 years ago (35.5%) and easier today (15%). A few respondents (4.7%) did not respondent. Although respondents were not asked to provide reasons for their responses, it could be surmised that this could be attributed to the reputation of the social sciences and the perception that other disciplines and fields were better positioned to create opportunities, and that there is less of a market demand for the social sciences.

Table 52: If respondent feels that it is easier or more difficult today to attract young people to a social science research career than 5 years ago (before 2010) (n=107)

	Frequency	Percent
No response	5	4.7
Easier today	16	15.0
More difficult today	48	44.9
About the same as 5 years ago	38	35.5

In terms of the career prospects in the social sciences in South Africa, the key informants stated that the career prospects are good, especially when as a social scientist one is linked to a professional degree, for example, psychology, social work or teachers (among the respondents who acknowledged education as a social science). Disciplines being well positioned to respond to the grand challenges were also mentioned, specifically geography and its links to climate change. However, some of the participants cautioned that the fact that many social science graduates have professional degrees means that there is no drive to complete masters and doctoral degrees. This has an impact on the knowledge produced in particular disciplines. There was a concern that many

Masters students do not pursue PhDs and those who do are not retained in the academic sector. The quality and lack of experience of supervisors who have to supervise doctoral students was often highlighted.

6.9. Key challenges

The Table below presents respondents' rating of statements pertaining to specific challenges being experienced in relation to promoting and sustaining social science research in South Africa. There were high proportions of respondents (more than half indicating a rating of 3 to 5 which indicates some level of agreement with the statements), perceiving the following as key challenges in South Africa generally:

- Policies in South Africa are biased towards the science, engineering and technology fields;
- National funding formula is biased towards the science, engineering and technology fields;
- Lack of support for early career social science researchers;
- Poor structures, systems and governance for social science organisations;
- Limited opportunities for career development, including access to mentors and training opportunities;
- Promotion and performance management criteria are biased against the social sciences;
- Too few job opportunities (in universities, government, industry, etc.) for social scientists;
- The South African government is not supportive of social science research;
- Salaries for social scientists are below market competition; and
- Ethics processes for research involving human subjects in the social sciences.

There was less support that the following aspects are key challenges:

- Limited national funding opportunities for social science research;
- Inadequate infrastructure such as computer facilities, libraries, etc. to support social science research;
- Lack of adequate resources such as e-journals and databases;
- Limited number of or too few social scientists in South Africa;
- The South African government is not familiar with the value of social science research; and
- Lack of media interest and attention to social science research.

It is also important to note that the following statements received high proportions of don't know responses:

- Limited international funding opportunities for social science research;
- The general public is not familiar with the value of social science research; and
- The South African government is not supportive of social science research.

A few respondents (3.7%) forwarded other challenges with one each stating improving quality of research outputs, lack of awareness of the value of social sciences, need for training in research skills and social sciences not being a priority for government.

Table 53: Rating of the extent to which respondents believe that specific challenges are being experienced in relation to promoting and sustaining social science research in South Africa (n=107, in %)

	1	2	3	4	5	DK
Limited national funding opportunities for social science research	5.6	32.7	24.3	11.2	11.2	15.0
Limited international funding opportunities for social science research	4.7	14.0	29.9	14.0	10.3	27.1
Policies in South Africa are biased towards the science, engineering and technology fields	4.7	14.0	10.3	21.5	27.1	22.4
National funding formula is biased towards the science, engineering and technology fields	4.7	10.3	15.0	19.6	27.1	23.4
Lack of support for early career social science researchers	8.4	15.0	27.1	19.6	6.5	23.4
Poor structures, systems and governance for social science organisations	.9	9.3	32.7	15.0	5.6	36.4
Limited opportunities for career development including access to mentors and training opportunities	4.7	10.3	26.2	28.0	3.7	27.1
Promotion and performance management criteria are biased against the social sciences	3.7	8.4	22.4	22.4	19.6	23.4
Inadequate infrastructure such as computer facilities, libraries, etc. to support social science research	14.0	23.4	15.0	15.0	16.8	15.9
Lack of adequate resources such as e-journals and databases	20.6	37.4	28.0	6.5	-	7.5
Limited number of or too few social scientists in South Africa	.9	25.2	29.9	13.1	13.1	17.8
Too few job opportunities (in universities, government, industry, etc.) for social scientists	-	15.0	33.6	23.4	9.3	18.7
The general public is not familiar with the value of social science research	-	10.3	41.1	19.6	11.2	17.8
The South African government is not familiar with the value of social science research	6.5	29.0	17.8	6.5	12.1	28.0
The South African government is not supportive of social science research	8.4	9.3	20.6	15.9	6.5	39.3
Lack of media interest and attention to social science research	9.3	19.6	18.7	11.2	13.1	28.0
Ethics processes for research involving human subjects in the social sciences	10.3	15.9	27.1	14.0	6.5	26.2
Salaries for social scientists are below market competition	.9	8.4	16.8	30.8	15.9	27.1

Note: 1=strongly disagree and 5=strongly agree DK=Don't know

Similar responses emerged in relation to respondents' rating of statements pertaining to specific challenges being experienced in relation to promoting and sustaining social science research in the respondents' institutions. This suggests that it is possible that respondents were projecting their

institutional experiences as being reflective of the national social science landscape. High proportions of respondents perceived the following as key challenges within their institutions:

- Limited funding opportunities for social science research;
- Policies in institution are biased towards the science, engineering and technology fields;
- Lack of adequate resources such as e-journals and databases; and
- Lack of support for early career social science researchers.

There was less support that the following aspects are key challenges:

- Inadequate infrastructure such as computer facilities, libraries, etc. to support social science research;
- Lack of social scientists in department/ inadequate staff; and
- Ethics processes for research involving human subjects in the social sciences.

Social scientists external to established universities and research institutions generally identified accessing specific research resources (specifically e-journals and database as well as computer and internet facilities) as challenges experienced.

It is also important to note that the following statements received high proportions of don't know responses:

- Poor structures, systems and governance for social science organisations;
- Limited opportunities for career development, including access to mentors and training opportunities;
- Promotion and performance management criteria are biased against the social sciences;
- High administrative workloads;
- High teaching workloads; and
- The leaders in the organisation are not familiar with the value of social science research.

A few respondents (3.7%) forwarded other challenges, with one each stating internal politics, limited journals on accredited lists, not enough is done by older researchers to help younger ones and specialised research institutes and centres. In terms of the latter, this issue was also raised by one of the key informants who stated that research institutes and centres are generally biased towards the natural, physical and medical sciences and they receive substantial research resources. This was noted as a key reason why many social science research fields/ areas struggle to become established.

Table 54: Rating of extent to which respondent believes that specific challenges are being experienced in relation to promoting and sustaining social science research in your institution (n=107, in %)

	1	2	3	4	5	DK
Limited funding opportunities for social science research	4.7	21.5	19.6	24.3	8.4	21.5
Policies in the institution are biased towards the Science, Engineering and Technology fields	9.3	10.3	21.5	28.0	11.2	19.6
Lack of support for early career social science researchers	6.5	10.3	18.7	27.1	19.6	17.8
Poor structures, systems and governance for social science organisations	.9	14.0	24.3	15.0	6.5	39.3
Limited opportunities for career development including access to mentoring and training opportunities	2.8	12.1	19.6	17.8	16.8	30.8
Promotion and performance management criteria are biased against the social sciences	8.4	14.0	15.9	15.0	9.3	37.4
Inadequate infrastructure such as computer and internet facilities (access to high speed broadband) to support social science research	17.8	17.8	26.2	15.0	10.3	13.1
Lack of adequate resources such as e-journals and databases	15.0	15.9	19.6	29.9	7.5	12.1
Lack of social scientists in department/ inadequate staff	13.1	19.6	17.8	10.3	10.3	29.0
High teaching workloads	8.4	22.4	-	15.0	25.2	29.0
High administrative workloads	10.3	14.0	18.7	15.0	9.3	32.7
The leaders in the organisation are not familiar with the value of social science research	3.7	22.4	29.9	.9	10.3	32.7
Ethics processes for research involving human subjects in the social sciences	14.0	20.6	20.6	13.1	9.3	22.4

Note: 1=strongly disagree and 5=strongly agree DK=Don't know

It is important to note that most academics agreed with the statement that promotion and performance management criteria are biased against the social sciences. The high proportion of "don't know" responses was mainly among those not based in universities or researcher institutions. This emerged as an important point of discussion during the key informant interviews with participants based at universities. One participant stated that despite superficial policy changes such as including the social sciences as part of 'sciences' in most national and institutional policies, there is a "bias towards the natural and physical sciences since notions of quality remain strongly linked to impact factors and publishing in specific journals such as *Nature*".

Younger social scientists and those who publish and supervise to completion fewer postgraduate students agreed with higher administrative and teaching workloads. This is a major issue of concern within universities. As one key informant who was a Head of Department stated, restructuring and rationalisation at most universities has resulted in fewer administrative/ support staff. In these instances generally, academics are required to take on increased administrative roles. Furthermore, five of the key informants (all based at universities) cautioned that increased class sizes as well as

concerns over the preparedness of students registering at universities, increases the teaching workloads of academics. One key informant shared experiences where departments were struggling to replace staff who had resigned or retired. This was also noted by one of the survey respondents who shared that in the last five years in their department, 5 (out of 14) staff had resigned or retired and only two were replaced. This severely impacted on existing staff who are required to assist. One key informant stated that although this creates opportunities for masters and doctoral students to gain teaching experience, permanent academics are generally required to supervise part-time/ contract/ temporary lecturers which places an increased burden on them. Also, the supervision of postgraduate students is negatively impacted. Many of the key informants stated that there is a huge demand for postgraduate skills development in South Africa (which is also identified in the National Development Plan), yet there is limited or weak supervision capacity.

The results in relation to the challenges experienced reveal that there a substantial differences in relation to their perceptions pertaining to the challenges experienced in South Africa generally, and their institution more specifically. The high proportion of "don't know" responses in relation to some of the statements indicates that that some of the respondents are not familiar with these aspects. In terms of the main challenges experienced, these generally relate to funding opportunities, support for social scientists as well as issues pertaining to workloads. The responses indicate that most of the respondents view infrastructure and services to be generally adequate.

6.10. Suggestions to improve and strengthen social sciences research in South Africa

The Table below encapsulates respondents' rating of statements pertaining to specific suggestions to improve and strengthen social sciences research in South Africa. Substantially high proportions of respondents supported the suggestions, with the highest support for investments in building social science research capacity (especially targeting Masters and PhDs), increased funding opportunities for social science research and promoting (and rewarding) high quality, policy relevant research. These were followed by reviewing the system for rewarding research productivity to include sustainable community practices, having promotion and performance management criteria that are specific to broader fields, such as the social sciences and natural sciences, and having more targeted programmes for social scientists, such as targeted South African Research Chairs and focused social science Centres of Excellence. Almost an equal proportion of respondents disagreed and agreed with the suggestion to restructure the NRF, with its subdivisions of a National Science and Technology Research Foundation and a National Humanities and Social Sciences Research Foundation. Other suggestions forwarded by three of the respondents were increased opportunities to work with universities in the rest of Africa, the NRF should fund conferences for social scientists and the entry criteria for undergraduate students should be reconsidered.

Table 55: Extent to which respondent agrees or disagrees with specific suggestions to improve and strengthen social sciences research in South Africa (n=107, in %)

	1	2	3	4	5	DK
Increase funding opportunities for social science research	2.8	9.3	13.1	21.5	41.1	12.1
Have more targeted programmes for social scientists such as targeted South African Research Chairs and focused social science Centres of Excellence	9.3	14.0	20.6	13.1	29.0	14.0
Review the system for rewarding research productivity to include sustainable community practices	6.5	12.1	21.5	18.7	28.0	13.1
Promote (and reward) high quality policy relevant research	3.7	11.2	17.8	29.0	32.7	5.6
Restructure the NRF with its subdivisions into a National Science and Technology Research Foundation and a National Humanities and Social Sciences Research Foundation	12.1	17.8	18.7	9.3	18.7	23.4
Investments in building social science research capacity (especially targeting Masters and PhDs)	.9	2.8	14.0	33.6	32.7	15.9
Have promotion and performance management criteria that are specific to broader fields such as the social sciences and natural sciences	2.8	8.4	16.8	26.2	15.9	29.9

Note: 1=strongly disagree and 5=strongly agree DK=Don't know

Similar responses were noted in relation to specific suggestions to improve and strengthen social sciences research in respondents' respective institutions. The highest support was for increasing funding opportunities for social science research, investments in building social science research capacity (especially targeting Masters and PhDs) and supporting conference attendance and networking activities. These were followed by reviewing the system for rewarding research productivity, having more targeted programmes for social scientists, such as targeted Research Chairs and Centres, and having promotion and performance management criteria that are specific to broader fields such as the social sciences and natural sciences. One respondent forwarded an additional suggestion which was to encourage individual effort.

Tables 56: Extent to which respondent agrees or disagrees with specific suggestions to improve and strengthen social sciences research in their institution (n=107, in %)

	1	2	3	4	5	DK
Increase funding opportunities for social science research	8.4	6.5	5.6	27.1	36.4	15.9
Have more targeted programmes for social scientists such as targeted Research Chairs and Centres	7.5	10.3	11.2	16.8	23.4	30.8
Review the system for rewarding research productivity	4.7	8.4	14.0	22.4	24.3	26.2
Support conference attendance and networking activities	-	.9	9.3	30.8	31.8	27.1
Investments in building social science research capacity (especially targeting Masters and PhDs)	.9	-	5.6	36.4	34.6	22.4
Have promotion and performance management criteria that are specific to broader fields such as the social sciences and natural sciences	-	12.1	18.7	11.2	23.4	34.6

Note: 1=strongly disagree and 5=strongly agree DK=Don't know

Unsurprisingly, given the challenges identified by the respondents earlier, there was substantial support for developing, rewarding and retaining social scientists (and the need for a review system where appropriate) and increasing funding opportunities. It is interesting to note, however, that there was more support for investments in social sciences human resources capacity development compared to increasing funding. Additionally, there was a need for more recognition of social sciences and equitable evaluation mechanisms for promotion and performance management purposes.

7. REFLECTIONS ON METHODOLOGY AND OBJECTIVES

This study, as part of the broader GDN project, is intended to compare experiences relating to undertaking research on the social sciences in different country contexts. A number of lessons emerged from undertaking this research in South Africa, which are briefly discussed in this section. In terms of the methodology adopted, the usefulness of the mixed methods approach is noted. The triangulation of survey, key informant, desk-top and bibliometric information reveals different voices, concerns and contestations. However, key challenges experienced include:

- The length of the survey: several respondents raised concern about how long it took for them to complete the survey and the level of detail required. It is hoped that the broader GDN project will distil key indicators or questions that should be included in quantitative surveys examining social sciences (and other areas or specific disciplines) that can be used as a guide. In this study, the length of the survey may have dissuaded potential respondents from completing the survey.
- Linked to the above, it is believed that the timing of the primary data collection impacted on the number of surveys completed. This was beyond the control of the researchers since the student disruptions destabilised the entire higher education sector. When some level of stability resumed, academics were focusing on examinations and this was followed by the vacation period. This not only impacted on engagements with colleagues in the academic

environment but also in the research and government sectors. The timing of primary data collection therefore is important to consider.

- In terms of the sampling approach, it was interesting that many universities and research councils did not communicate details about the project to the broader research community within their institutions despite ethical clearance being granted by UKZN. A more targeted and purposive approach is therefore advocated. Additionally, the response rate and quality of responses was improved when individuals were interviewed either telephonically or at conferences/ workshops rather than when completed surveys were submitted electronically via email. This also provided the opportunity to probe responses and engage in more detail with the respondents.
- Allowing respondents to self-identify as social scientists may have also affected the research. Future research should provide more clarity on the types of disciplines and researchers to be targeted. However, as indicated in this study, what constitutes the social sciences remains contested and debated.

In terms of future research, non-social scientists should be included as key informants to solicit their views about the social sciences. This is important given that there is a substantial focus on the complementarity of the sciences and the social sciences within the context of growing interest among key stakeholders (including funders, government departments and researchers) on inter-, multi- and trans-disciplinary research. Additionally, this research did not provide detailed information on the types and nature of partnerships in Africa although organisations like Research Africa and CODESRIA are prominent in the social science landscape. The roles of the social science councils, such as the HSRC, also need further examinations in terms of the key research agendas and the extent of influence and impact. A key issue emerging from this study is that while social science research outputs (using traditional criteria such as journal articles, books and postgraduate students) are increasing, questions remain in relation to the impact and the quality of the research. These aspects need to be critically examined and indicators or criteria developed on how to systematically and comparatively assess these elusive but critically important concepts. This raises questions about who benefits from social science research.

Furthermore, as indicated earlier in the report, this study was informed by a political economy analysis as shown in the Figure below. While most of the issues outlined in the Figure have been examined in the study, there is a need for a more detailed assessment of potential risks and opportunities. Specifically, this study suggests that specific disciplines are more at risk than others while some disciplines are better positions to respond more positively to changing contexts and opportunities, especially those that are inclined to embrace inter-disciplinarity. This is also linked to disciplinary re-positioning and understanding winners and losers which have not been sufficiently unpacked in this study.

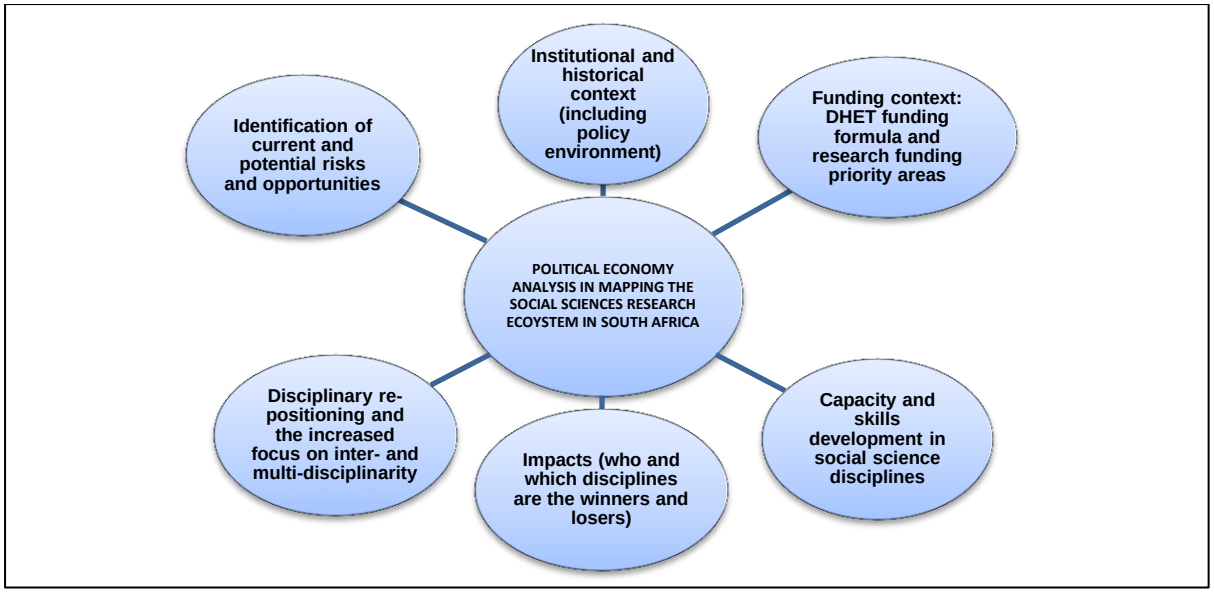

Figure 1: Key aspects under examination in conducting a political economy analysis of the social science research environment

In terms of the overarching objectives of this study articulated in the introduction, in relation to **contributing to the understanding of the social science research environment in developing countries,** this South African case study shows the broader national context of higher education and how the social sciences are located within this context. The South African context is highly regulated and national funding and agendas have a substantial impact on specific institutions and research in particular. This study went beyond the focus on volumes or quantity of social sciences research and extended data collection and analysis to examine qualitative aspects, including perceptions as well as different voices, experiences and perspectives. Social sciences research is concentrated in universities and research councils/ centres/ institutes. The dominance of specific disciplines and fields was also noted, which is also linked to funding opportunities. The findings reveal that the social sciences is contributing substantially to research outputs in South Africa, which is not matched with concomitant funding, which tends to be biased towards the natural, physical and medical sciences. Furthermore, a range of opportunities and challenges exist.

In terms of **helping catalyse new thinking about how to measure research productivity**, this study notes the limitations of focusing on traditional notions of research productivity, especially the focus almost exclusively on academically recognised or accredited research outputs (in the South African context journal articles, books and chapters in books). The attempt to examine policy and technical outputs (such as consultancy reports) and impacts in this research are illustrative example of looking more broadly at research productivity. However, the results do reveal that there are few of these outputs, with very few researchers contributing to these types of outputs. The key reason is that current funding, rating, performance and performance management mechanisms acknowledge and reward traditional types of research outputs more than other types of research outputs. This study has also focused on the 'how' aspect of measuring research productivity. In this regard, the triangulation of bibliometrics, quantitative surveys and qualitative key informant interviews underpinned by desk-top research provides a more comprehensive approach. This approach in itself is not new but the inclusion of different types of questions (including the range of social science

research outputs) provides valuable insights. These insights include the challenges of collecting national data that is representative of the target population. In this study issues of how to define social scientists (including which disciplines constitute being part of the social sciences), sampling challenges (often studies of this nature use the purposive sampling approach when surveys are conducted) and how much data to collect (the length of the survey in this study was raised as a concern) came to the fore.

In terms of **generating new data and analysis for those interested South African, African and other regional stakeholders** linked to the above discussion, using a mixed methods approach has generated new data as well as identified areas that need further research attention. A major gap in current understanding and analysis is how to examine the rise in trans-, multi- and inter-disciplinarity. What was evident in the findings is that current inter-disciplinary research in South Africa is actually collaboration among social sciences disciplines rather than across the natural and physical sciences. It was noted that while there is increasing rhetoric about the value of the social sciences to the natural and physical sciences, there is lack of evidence to support this assertion.

In terms of **developing a framework of indicators for assessing the inter-relations between the research environment and research productivity, quality and social utility (or uptake) in South Africa**, this is aligned to the political economy approach adopted to frame the research. The challenges to translate social science outputs into impacts raise questions pertaining to the quality and social utility of the research being conducted. This is particularly relevant in relation to the social sciences driving policy critique and development in South Africa, as well as dealing with grand challenges such as transformation and social unrest. An appropriate framework of indicators will also assist in informing the development of data collection instruments, which should be more focused. Additionally, key indicators collected systematically will permit comparisons among different case studies (whether institutions, countries, regions, etc.) as well as ascertain trends over time.

8. CONCLUSION AND RECOMMENDATIONS

This research aimed at investigating the contemporary social sciences scenario in South Africa, focussing chiefly on the research productivity and allied matters concerning the production of knowledge broadly in the area of social sciences, has revealed several useful findings and insights into pertinent issues on social science research. The findings are significant in providing a better understanding of the research productivity of scholars in the social sciences. The findings are derived from the data collected through a mixed methodology approach (qualitative, quantitative and bibliometric).

The study showed the production of research publications in the social sciences from 1966 to 2014 and their characteristics and trends in terms of disciplines/ areas, institutions, sectors of origin, research partners, partnering countries and types of collaboration. The analysis of the publications revealed that South African scholars collaborate actively in the production of scientific papers. More than one author was involved in writing a majority of the papers, a trend that continued up until the recent years. Also, an increase in collaborated publications from early years was quite evident in the analysis, more so since 1995. This trend is to be noted in the research productivity of South African

scholars engaged in the social sciences. Collaboration has been recognised as an important means to achieve a higher level of productivity and visibility, and studies have affirmed these linkages. If this pattern is sustained then the research productivity of South African social scientists will increase in the coming years. Collaboration was significant with colleagues in other institutions within the country and abroad. International collaboration has also increased in recent years. This has implications not only for the research productivity of South African social scientists, but also for the international visibility of publications. The increased visibility of publications will also bring more attention to the works of the South African scholars in the form of citations. Not surprisingly, a large majority of the publications originated from universities and in the area of psychology.

The study showed that certain research areas are, according to the study participants, contributing directly to policy that is important for the country. These include education, health sciences, environmental studies, developmental studies and rural development. These are the key areas that can add value to policy initiatives. In relation to funding support, it is evident that the above areas are to be prioritised. The connection between funding and research areas indicated that increased funding does not always lead to increased number of publications. The HSRC is a case in point. In the matter of specialisation, there is not a lot to report as research is often driven by government funding and political agendas. The role of the HSRC in agenda setting and collaboration with other institutions has also been highlighted, and needs to be strengthened. Furthermore, there is a need for institutions, the NRF and government departments to provide support for hubs of excellence in the social sciences. These hubs or centres will also create more spaces for networking and collaboration.

The study showed that the status of the social science research in the country is by and large not in an appreciable state and much deserves to be done for its enhancement. The value of social science research is not as valued as research in the natural and physical sciences. This is despite the role social scientists play in dealing with social issues such as poverty, inequality and other developmental issues. As regards the motivation for increased productivity, it is clear that for our respondents it is more career-driven than knowledge production oriented. Production of papers has become an integral part of the performance management system for academics in universities. They are expected to meet their norms. Journal articles, rather than books and book chapters, are the preferred types of outputs for many of them which is in line with the DHET policy on rewarding publication outputs. The recent policy changes (to be implemented in 2016) which attributes equal weighting to journal articles and chapters in books as well as books which now will be weighted 2 to 10 times that of a journal article is likely to trigger changes in where social scientists publish. However, it should be noted that books and chapters in books have to undergo stringent screening processes within institutions as well as by ASSAf, which is an organisation that remains traditionally science-based in its orientation. Therefore, the impact of the revised policy is yet to be seen and needs to be monitored. Linked to the recognition of research outputs (which was highlighted as being biased towards the natural and physical sciences) is the need to review the current systems of rewarding research productivity as well as promotion and performance management.

The social sciences in South Africa does have its share of challenges. Most of these emanate from limited funding and policies that are skewed in favour of natural sciences. This study reveals that a major issue is not necessarily the lack of funding, but the ability of specific disciplines and

researchers to access the available funding. This includes the level of awareness of available funding, which brings into question how opportunities are communicated and who the target groups are. This requires skills to be developed to access funding and resources. A great deal has to be done in terms of supportive structures, resources, and systems of governance for the development of the social sciences, and also to attract and retain social scientists. Furthermore, the is a need for funders to target new and emerging researchers, and have opportunities that provide funding that are not necessarily connected to large projects.

The focus should be on resourcing (and not only funding) the social sciences, which includes skills development, networking and mentoring as well as addressing staffing (including high workloads) and infrastructural constraints. Linked to this is the importance of training and capacity building, which includes evaluating and rethinking undergraduate and postgraduate curricula and training. The development of research capacity (including supervisory capacity) among social scientists is critical to ensure that new social scientists are well trained and prepared, and that social scientists are well positioned to contribute to addressing the diverse and complex challenges that are faced within institutions and in society more generally. The social sciences has the expertise in South Africa to play a vital role in the formulation of relevant policies, development of critical research skills and capacity, and engaging in relevant research to provide information and explanations on a range of socio-economic and environmental issues.

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APPENDIX 1

ASSESSING THE ENVIRONMENT FOR SOCIAL SCIENCE RESEARCH IN DEVELOPING COUNTRIES: THE CASE OF SOUTH AFRICA

KEY INFORMANT INTERVIEW SCHEDULE

1. What is the profile of the key informant in relation to organisation, demographics and experience/ background as a social scientist?

2. What, in your opinion, constitutes social science research? What are the debates and contestations relating to definitions of social science (in South Africa specifically) and what are the impacts of these discourses/ discussions on social science research in the country?

3. What are the top social science disciplines in South Africa and why is this this case?

4. What are the top social science thematic research areas in South Africa and why is this this case?

5. What is the value of social science research in South Africa? Is it adequately recognized and acknowledged? Are you satisfied with the current state of social science research in South Africa? Please provide reasons.

6. How does the social sciences compare with other fields/ areas of research in relation to research outputs (journal articles, books, technical reports, policy reports, postgraduate students, etc.) in South Africa? What are the reasons for the performance of social sciences at the current levels? What types of research outputs are the social sciences better placed to contribute to? In which types of research outputs are there limitations and why should this be of concern?

7. Is the social sciences well placed to contribute to multi-, trans- or inter-disciplinary research? In which areas of research is this most noticeable and why? What are the benefits and challenges in relation to this type of research for the social sciences?

8. What are the main factors that are affecting the social sciences (and research in particular) in South Africa? Is there adequate support for social science research in South Africa? What are the challenges experienced in relation to promoting and sustaining social science research in South Africa? Are there any specific factors that are unique to your institution?

9. What are the opportunities and constraints in relations to funding for social science research? How can the constraints be addressed? Who should be involved in addressing the constraints?

10. In relation to resources for social science research, is the situation improving or worsening in South Africa and globally? Why?

11. Would you agree that the socials sciences in South Africa is in a state of 'crisis'? Explain your response.

12. What are the career prospects in the social sciences in South Africa? How can career opportunities be created or improved?

13. Are you familiar with the policy environment in South Africa and in your institution which impacts social science research? What are the strengths and weaknesses/ challenges with current policies (and practices)?

14. Which institutions are the top contributors to social science research in South Africa and why do you think this is the case?

15. Which institutions are struggling to contribute to social science research in South Africa and why do you think this is the case?

APPENDIX 2

ASSESSING SOCIAL SCIENCE RESEARCH ENVIRONMENT IN DEVELOPING COUNTRIES: THE CASE OF SOUTH AFRICA

SOCIAL SCIENTISTS SURVEY

A. PROFILE OF THE RESPONDENT

Please tick the box against the applicable response.

1. Which institution/s do you currently belong to (select all that apply)? Please mention the name of your institution against the relevant category.

Category	Name of the Institution	Tick mark
University (specify name of institution)		
Research institute/ council/ unit/ centre (specify name) (independent of a university)		
Non-governmental research organisation (specify name)		
Research consultancy firm		
Other (specify)		

2. What is the highest academic qualification you have attained (include institution and country)?

Degree	Institution	Country
Certificate/ Diploma		
Bachelor/ undergraduate degree		
Master's degree		
PhD/ doctoral degree		
Others (specify)		

2.1. If you have not completed a PhD, are or currently registered for a PhD or plan to register for this qualification?

No		Currently registered for PhD		Plan to register for a PhD	

2.2 If you have received any other formal training in research methodology, policy engagement or research communication, please specify the details of the training and whether you received the training outside university degree courses?

	Specifics of training	Whether received degree outside university courses?
Research methodology		
Policy engagement		
Research communication		

2.3. Please rate your training experience (inclusive of degree courses) in relation to specific attributes.

1=Excellent and 5=Poor/ Inadequate NA = Not applicable

	1	2	3	4	5	NA
Development of social science research skills						
Quality of teaching/ instruction						
Relevance of content covered						
Actual use of taught methodologies in social science research						

3. Your current position/s (select all that apply)?

Lecturer	
Senior Lecturer	
Associate Professor	
Full/ Senior Professor	
Researcher	
Research associate	
Honorary researcher	
Project manager	
Director/ executive member	
Other (specify)	

3.1. If you are affiliated to any other institution in the country or outside, please specify the institution/s and country/ies.

	Institution	Country
In South Africa		
Outside South Africa		

4. Your disciplinary background (which disciplinary category best describes your academic/ research training/ background?)

Anthropology	
Development Studies	
Economics	
Geography	
History	
Philosophy	
Political Science	
Psychology	
Social Work	
Sociology	
Other (specify)	

5. Are you a National Research Foundation rated scientist?

Yes		No	

5.1. If yes, please indicate the rating you currently hold? (Please circle the appropriate one)

A1	A2	B1	B2	C1	C2	C3	P	Y

5.2. Which year you got your first rating?_____

6. Please indicate the number of years you have been working as a social scientist. _____

7. What is your year of birth? _____

8. Your gender (Please tick against the appropriate category)

Male		Female	

8. Your historical South African racial category (Please tick against the appropriate category)

African		White		Coloured		Indian		Not applicable		Other (specify)	

B. Understanding your perceptions about social science research

1. How would you define social science research? (briefly in three-four sentences)

_____
_____
_____
_____

2. Which social science research areas/ fields are most prominent in South Africa, in your view? Based on your familiarity with social science research in the domains listed, please rate the quality using the following scale:
1=Best in the world 2=Above average 3=Average 4=Below average 5=Do not know

	Most prominent (select all that apply)	Rating of quality
Political issues		
Urban studies		
Development studies		
Rural development		
Economic issues		
Transformation and equity issues (including social inclusion and exclusion)		
Globalisation and global change		
Environmental issues (including climate change)		
Health issues (including HIV/AIDS)		
Education (including schooling and higher education)		
Information science and technology studies		
Other (specify)		

2.1. Which of the social science research fields do you think directly contributes to South African public policy? (choose a maximum of three you consider to be the most important)

2.2. Which of the social science research fields do you think should receive greater financial support? (choose a maximum of three you consider to be the most important)

2.3. Which of the social science research fields do you think should receive greater policy attention? (choose a maximum of three you consider to be the most important)

3. What is the main role/s or contribution/s that social science research play/s or make/s in South Africa?

Developing skills to think independently and critically	
Developing skills in qualitative research methodologies	
Developing skills in quantitative research methodologies	
Informs development and review of policies	
Assists the natural and physical sciences to consider social dimensions/ implications	
Promotes trans-, inter- and multi-disciplinary research	
Other (specify)	

4. In general, are you satisfied with the current state of social science research in South Africa?

Very satisfied	Satisfied	Not sure	Dissatisfied	Very dissatisfied

4.1. Please give a reason for your response above.

_____

_____

5. How would your rate the quality of current social science research in South Africa?

Best in the world	Above average	Average	Below average	Do not know

6. How would you rate your social science discipline research in South Africa?

Excellent	Above average	Average	Below average	Do not know

C. Involvement in social science research

1. In relation to most of your own research in the social sciences, which best describes its primary purpose/ why you undertake the research?

Contribution to academic knowledge	
Supporting academic career advancement	
Contributing to policy discourse on current issues	
Responding to a funder's/client's specialised needs/ interests	
Other (specify)	

2. Please indicate your contribution as an author to social science research outputs for the last five years?
Note: Department of Higher Education and Training (DHET).
Please consider the proportion of your contribution when indicating a total per year. For example, in a co-authored publication with another author your contribution would be 0.5 AUs as per DHET policy in the South African context. If there were more than two authors give the fractional count (1/n).

	2010	2011	2012	2013	2014
DHET accredited journal articles					
Non-DHET accredited, peer reviewed journal articles					
Books and Monographs					
Chapters in edited books					
Conference proceedings					
Technical/ consultancy reports					
Policy reports/ development of policies					
Other (specify)					

3. Please indicate the number of postgraduate students you have supervised to completion in the last five years (2010-2014) as well as in relation to the number of non-degree professional development/ team leader role/s in research projects and mentoring or technical advisor roles on national or international projects?

	2010	2011	2012	2013	2014
Masters by coursework					
Masters by research					
PhD/ doctorate					
Non-degree professional development/ team leader role/s in research projects					
Mentoring or technical advisor roles on national or international projects					

4. What fields/ areas of what constitutes social science do you undertake research in?

_____
_____
_____

5. Do you engage in multi-, trans- or inter-disciplinary research?

Yes	No

5.1. If yes, which are the main 3 disciplines (other than your own) that are involved in your research?

1	
2	
3	

6. Please indicate which term best describes the type of social science research that you are involved in. Please choose one only or provide an additional option.

Applied research	
Advocacy/ activities research	
Conceptual/ theoretical research	
Other (specify)	

7. What are the main factors that influence the research you are involved in?

Academic demands (meet requirements and expectations of your position)	
External research funding agencies	
Consultancy for the public sector	
Consultancy for the private sector	
Consultancy for the Non-Governmental sector	
Political groups	
Other (specify)	

8. Please indicate the frequency of your interactions on an annual basis with stakeholders/ organisations in relation to the social science research you conduct?

	None	Weekly	Monthly	Twice a year	Annually
Other researchers in my institution					
Other researchers in universities not your own					
Government departments					
Research councils/ units such as the Human Sciences Research Council					
Non-governmental organisations					
National funding agencies such as the NRF					
International funding agencies					

Private companies					

8.1. Which of the stakeholders from the above list are you most interested in influencing as a social scientist?

_____

_____

8.2. Which of the stakeholders from the above list are most receptive to engage/ partner with you?

_____

_____

8.3. Which of the stakeholders from the above list are least receptive of engage/ partner with you?

_____

_____

9. Please indicate the number of social science seminars, conferences and workshops you attended in the last 5 years nationally and internationally.

	Seminars	Conferences	Workshops	Visiting lectureships	Sabbaticals	Other (specify)
Nationally						
Internationally						
SADC						
Rest of Africa						
Internationally (outside Africa)						

10. If funding was required to attend seminars, conferences or workshops, who provided the funding?

Self-funded	
Institution/ organisation work for	
National Research Foundation travel grant	
Another travel grant	
Organiser of the seminar/ conference/ workshop	
Other (specify)	

10.1. Has any of your funder/s played a role in research dissemination support?

Yes		No	

10.1.1. If funder/s played a role in research dissemination support, specify role/s played.

_____

_____

11. Please rate your current access to research resources in your organisation. 1=Excellent and 5=Poor/ Inadequate

	1	2	3	4	5	Not applicable
Electronic library with access to data bases such as JSTOR, SAGE, Elsevier, etc.						
Inter-library loan services						
Computer facilities						
Internet services/facilities						
Quantitative research software programmes such as the Statistical Package for the Social Sciences (SPSS)						
Qualitative research software programmes such as the AtlasTI, NVivo						
Reference Manager software programmes such as EndNotes						

11.1. What other research resources do you have access to?

_____

_____

11.2. Which research resources do you currently not have access to but you would like to have for your research?

_____

_____

12. Please indicate the source of funding and amount for social science research that you have accessed in the last five years (2010-2014)? Please insert additional rows, if necessary.

Source of funding	Year funding received	Title/ brief description of research project	Amount received	Number of researchers involved in project	Number of Masters supported by project	Number of PhDs supported by project

13. Compared to 5 years ago (before 2010), do you think that accessing research funding in the social sciences and your disciplinary area is harder or easier today in South Africa?

	Harder today	Easier today	About the same as 5 years ago
Social science generally			
Your discipline specifically			

D. South African social science research landscape

1. Which, in your opinion, are the top three research institutions in South Africa (including universities, research institutes/ councils, please specify which) that contribute to social science research in the country?

	Name of institution	Reason for choice
1		
2		
3		

2. What are the social science thematic research areas that you consider to be strong in South Africa?

Thematic area/s	Reason/s for selection

3. Indicate the extent to which you agree that the social sciences in South Africa are in a state of 'crisis' (experiencing major challenges)?

Strongly agree	Agree	Not sure	Disagree	Strongly disagree

3.1. Please explain/ provide reasons for your response above.

_____

_____

4. Would you characterise the current time as good or bad to begin a career as a social science researcher? (Please tick the appropriate box against the relevant response)

Very good time		Good time		Bad time		Very bad time	

4.1 Please provide your reasons.

_____

_____

_____

5. Is it easier or more difficult today to attract young people to a social science research career than 5 years ago (before 2010)? (Please tick the appropriate box against the relevant response)

Easier today		More difficult today		About the same as 5 years ago	

E. Challenges experiences

1. Rate the extent to which you believe the following challenges are experienced in relation to promoting and sustaining social science research in South Africa.

1=strongly disagree and 5=strongly agree DK=Don't know

	1	2	3	4	5	DK
Limited national funding opportunities for social science research						
Limited international funding opportunities for social science research						
Policies in South Africa are biased towards the Science, Engineering and Technology fields						
National funding formula is biased towards the Science, Engineering and Technology fields						
Lack of support for early career social science researchers						
Poor structures, systems and governance for social science organisations						
Limited opportunities for career development including access to mentors and training opportunities						
Promotion and performance management criteria are biased against the social sciences						
Inadequate infrastructure such as computer facilities, libraries, etc. to support social science research						
Lack of adequate resources such as e-journals and databases						
Limited number of or too few social scientists in South Africa						
Too few job opportunities (in universities, government, industry, etc.) for social scientists						
The general public is not familiar with the value of social science research						
The South African government is not familiar with the value of social science research						
The South African government is not supportive of social science research						
Lack of media interest and attention to social science research						
Ethics processes for research involving human subjects in the social sciences						
Salaries for social scientists are below market competition						

2. What other challenges do you think are experienced in relation to promoting and sustaining social science research in South Africa?

_____

_____

_____

3. Rate the extent to which you believe the following challenges are experienced in relation to promoting and sustaining social science research in your institution.

1=strongly disagree and 5=strongly agree **DK=Don't know**

	1	2	3	4	5	DK
Limited funding opportunities for social science research						
Policies in South Africa are biased towards the Science, Engineering and Technology fields						
Lack of support for early career social science researchers						
Poor structures, systems and governance for social science organisations						
Limited opportunities for career development including access to mentoring and training opportunities						
Promotion and performance management criteria are biased against the social sciences						
Inadequate infrastructure such as computer and internet facilities (access to high speed broadband) to support social science research						
Lack of adequate resources such as e-journals and databases						
Lack of social scientists in department/ inadequate staff						
High teaching workloads						
High administrative workloads						
The leaders in the organisation are not familiar with the value of social science research						
Ethics processes for research involving human subjects in the social sciences						
Others (please specify)						

4. What other challenges do you think are experienced in relation to promoting and sustaining social science research in your institutions?

_____

_____

_____

F. Suggestions

1. Please indicate the extent to which you agree or disagree with the suggestions below to improve and strengthen social science research in South Africa.

1=strongly disagree and 5=strongly agree **DK=Don't know**

	1	2	3	4	5	DK
Increase funding opportunities for social science research						
Have more targeted programmes for social scientists such as targeted South African Research Chairs and focused social science Centres of Excellence						
Review the system for rewarding research productivity to include sustainable community practices						
Promote (and reward) high quality policy relevant research						
Restructure the National Research Foundation with its subdivisions into a National Science and Technology Research Foundation and a National Humanities and Social Sciences Research Foundation						
Investments in building social science research capacity (especially targeting Masters and PhDs)						
Have promotion and performance management criteria that are specific to broader fields such as the social sciences and natural sciences						

2. What other suggestions can you make to improve and strengthen social science research in South Africa?

_____

_____

_____

3. Please indicate the extent to which you agree or disagree with the suggestions below to improve and strengthen social science research in your institution.

1=strongly disagree and 5=strongly agree **DK=Don't know**

	1	2	3	4	5	DK
Increase funding opportunities for social science research						
Have more targeted programmes for social scientists such as targeted Research Chairs and Centre						
Review the system for rewarding research productivity						
Support conference attendance and networking activities						
Investments in building social science research capacity (especially targeting Masters and PhDs)						
Have promotion and performance management criteria that are specific to broader fields such as the social sciences and natural sciences						

2. What other suggestions can you make to improve and strengthen social science research in your institution? Please provide examples of specific programmes that are implemented in your institution, if applicable.

_____

_____

_____

THANK YOU FOR YOUR PARTICIPATION!