SOUTH AFRICAN NATIONAL SURVEY OF RESEARCH AND EXPERIMENTAL DEVELOPMENT

KEY SECTOR RESULTS AND TRENDS

HIGHER EDUCATION SECTOR R&D AT A GLANCE

South Africa's higher education (HE) sector plays a pivotal role in the national system of innovation—both as a performer of research (whether basic, applied, or experimental development), but also as a capacity builder of researchers from South Africa and abroad. This fact sheet shows that in 2018/19, one-third of South Africa's annual R&D spending, about R13.2 billion, took place within HE sector, with the majority of this spending oriented towards the natural sciences, technology, and engineering. A key trend is that almost a quarter of researchers are not South African, although most of these are postgraduate students.

FACT SHEET NO. 30







THE BIG PICTURE



THE VALUE OF SOUTH
AFRICA'S GROSS DOMESTIC
PRODUCT (GDP) IN 2018/19

R 4 873.899 BILLION THE SHARE OF GDP
SPENT ON R&D



SOUTH AFRICA'S
ANNUAL R&D SPEND
HAS INCREASED OVER
THE PAST DECADE:

R 20.955 BILLION IN 2009/10 R 36.784 BILLION IN 2018/19

HE'S SHARE OF THE COUNTRY'S TOTAL R&D SPEND INCREASED FROM:

24.3% IN 2009/10

35.8% IN 2018/19

VALUE OF HE SECTOR R&D SPEND IN 2018/19

R13.183



BILLION

TOTAL NUMBER OF RESEARCHERS IN SOUTH AFRICA

30 930



SOUTH AFRICAN CITIZENS

62 166

CITIZENS OF OTHER COUNTRIES

DOCTORAL STUDENTS & POST-DOCTORAL FELLOWS

R&D SPENDING PATTERNS



BREAKDOWN OF HE SECTOR R&D SPEND BY TYPE OF RESEARCH:



BASIC RESEARCH



APPLIED RESEARCH



EXPERIMENTAL DEVELOPMENT **RESEARCH**

CONCENTRATION OF HE R&D SPENDING BY **RESEARCH FIELD DIVISION:**

NATURAL SCIENCES, TECHNOLOGY & ENGINEERING 57.5%



SOCIAL SCIENCES & HUMANITIES 42.5%



R&D PERSONNEL



MORE THAN TWO **THIRDS (68.8%) OF ALL R&D PERSONNEL** IN SOUTH AFRICA **CONDUCTED RESEARCH** IN THE HE SECTOR



STAFF 54.0%

DOCTORAL STUDENTS & POST-DOCTORAL **FELLOWS 46.0%**





WOMEN ACCOUNTED FOR 46.4% OF ALL RESEARCHERS IN HIGHER EDUCATION





PROPORTION OF MALE/FEMALE STUDENT SPLIT









FEMALE











MALE 1 577

1 150

MALE 13 072

10 *77*0

13 689 15 865

FEMALE

MALE 14 037

FEMALE 16 235

POST-DOCTORAL FELLOWS

DOCTORAL STUDENTS

MASTER'S STUDENTS (full thesis)

MASTER'S STUDENTS (course work & thesis)

BEHIND THE NUMBERS

The annual South African National Survey of Research and Experimental Development (R&D Survey) is conducted by the Centre for Science, Technology and Innovation Indicators (CeSTII) at the Human Sciences Research Council (HSRC), on behalf of the Department of Science and Innovation (DSI). R&D statistics are collected in terms of the Statistics Act No. 6 of 1999, and are quality assured by Statistics South Africa. Data collected through the Survey, and its historic data series, helps to inform decision-makers on investment planning, policy making, advocacy, and research in South Africa. Data also adds to benchmarking and performance comparisons with our international counterparts.

Access previous survey reports: http://www.hsrc.ac.za/en/departments/CeSTii/reports-cestii Data and analysis for this publication was prepared by Mario Clayford.

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