

SOUTH AFRICAN NATIONAL SURVEY OF RESEARCH AND EXPERIMENTAL DEVELOPMENT

KEY SECTOR RESULTS AND TRENDS

HIGHER EDUCATION SECTOR R&D AT A GLANCE 2020/21



South Africa's higher education sector plays a pivotal role in the national system of innovation—it houses the largest R&D workforce in the country, with two-thirds of total R&D personnel working in this sector. In 2020/21, higher education was responsible for 41.1% of total R&D spending in the country. Natural sciences, technology and engineering continue to dominate higher education research, but only marginally more so than the social sciences and humanities. Researchers from other countries make up almost a quarter of the total in higher education, most of them postgraduates.

FACT SHEET NO. 45



Science and Innovation
Statistics South Africa



HSRC
Human Sciences
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THE BIG PICTURE



South Africa's **GDP**
for **2020/21** was
R 5 521.075
BILLION



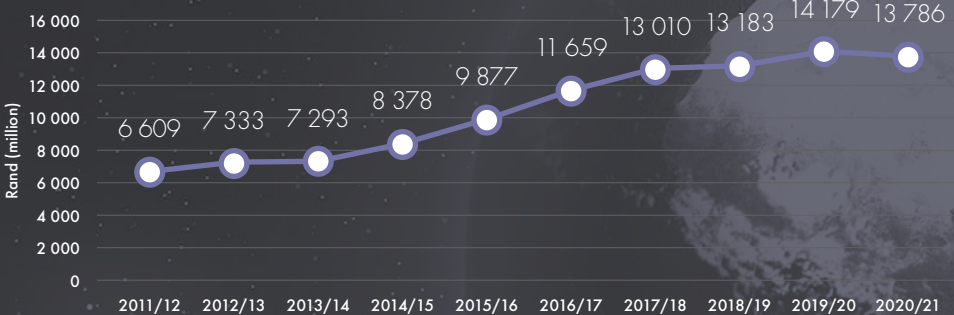
In **2020/21**, **0.61%**
of **GDP** was spent
on national R&D



R&D SPENDING PATTERNS



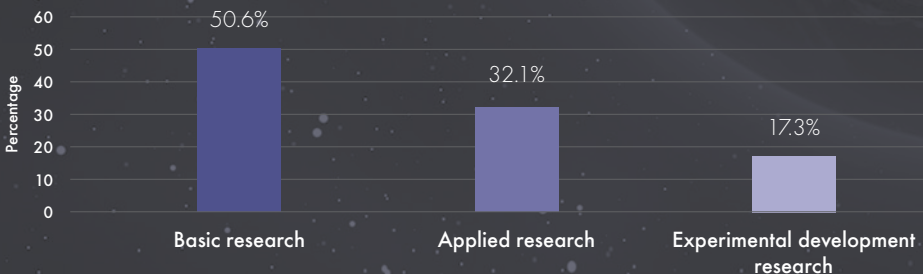
Higher education R&D expenditure from 2011/12 to 2020/21



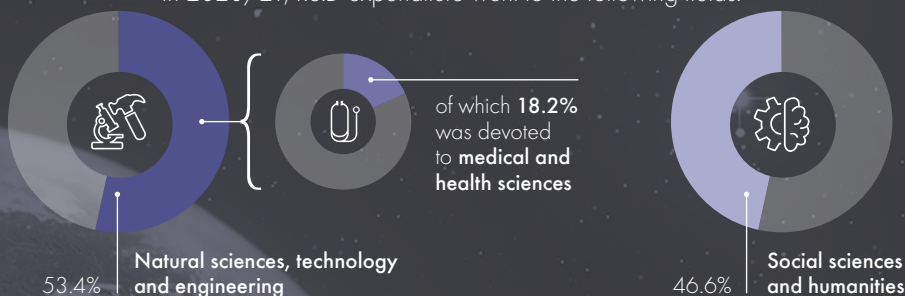
The proportion of Gross Domestic Expenditure on R&D (GERD) stemming from the higher education sector increased from



Within the higher education sector in 2020/21, R&D expenditure was devoted to:



In 2020/21, R&D expenditure went to the following fields:



R&D PERSONNEL



More than two-thirds of all R&D personnel in South Africa were in the higher education sector



71.9%
in 2020/21

Higher education R&D personnel by function (2020/21)

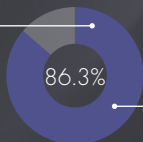


	National R&D personnel	HE R&D personnel	HE % of national total
Researchers*	61 406	52 985	86.3
Technicians directly supporting R&D	9 870	2 267	23.0
Other personnel directly supporting R&D	11 468	4 250	37.1
Total	82 744	59 502	71.9

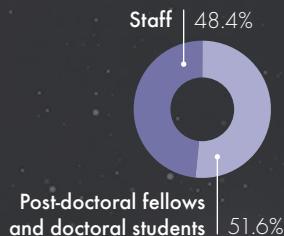
*Includes doctoral students and post-doctoral fellows

Total researchers in SA = **61 406**

of which **52 985** (86.3%) were in the higher education sector



Of the researchers in higher education, 48.4% were staff, while the remaining 51.6% were post-doctoral fellows and doctoral students



In 2020/21 women researchers accounted for 47.3% of researchers in the higher education sector



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:

<https://hsrc.ac.za/divisions/centre-for-science-technology-and-innovation-indicators/>

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