# HSRC shares its research datasets in support of open science

Decades ago, this photo was taken of the HSRC library in Pretoria. While still home to many who work in the organisation's eResearch Knowledge Centre, most research information is stored on a digital repository these days. The HSRC's data curators are committed to making datasets available to researchers and the public.

he HSRC is known for its large-scale research surveys that help us understand South Africa's most pressing societal challenges. Providing a social-science perspective, the survey data inform the development of policies, strategies and programmes to improve the lives of South Africans. The organisation's research agenda is, therefore, also closely aligned with the country's national development priorities.

After having been deposited, the HSRC's research datasets are curated, stored and shared from a digital repository facility.

"Our data come from survey questionnaires, hours of face-to-face interviews, focus-group discussions and researchers' observations in the field. Our researchers have also embraced digital research methods using cellphones (WhatsApp), online platforms (Google Forms and social media data) and video diaries. We must share this data with other researchers to optimise its value," says Qinisile Dlamini, a senior research data curator at the HSRC.

The Organisation for Economic Co-operation and Development (OECD), an intergovernmental organisation that works to stimulate economic progress and world trade, encourages publicly funded research data to be as open as possible. 'Open science initiatives facilitate open access to publications, data, algorithms, software and workflows, [and] play an essential role in accelerating needed scientific research and the innovation process itself,' writes Dr Alan Paic, a senior policy analyst at the OECD, in a digital toolkit that discusses the 'open science' movement, its challenges and how it could be embraced.

Every year, social scientists collect large volumes of data, often through in-person or digital surveys, interviews or observation. They interpret this data to understand various societal issues, such as people's voting behaviour or adherence to COVID-19 protocols. Other surveys track the HIV epidemic and monitor the country's investments in research and development, for example. After having published their findings in academic journals, researchers store these datasets in repositories. Qinisile Dlamini, a senior research data curator at the HSRC, speaks to **Antoinette Oosthuizen** about the importance of sharing these datasets.



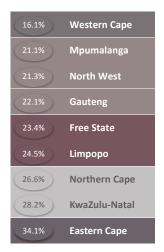
Oinisile Dlamini is a senior research data curator in the HSRC's eResearch Knowledge Centre. She holds a Master of Commerce degree in economics from the University of KwaZulu-Natal and is currently studying towards a Master of Philosophy degree specialising in digital curation at the University of Cape Town. **Photo:** HSRC

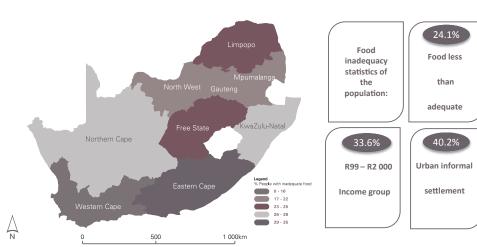


# Food adequacy according to the latest SASAS

Since 2007, one particular question that has been included asks respondents the following: 'To what extent was the amount of food your household had over the past month less than adequate, just adequate or more than adequate for your household's needs?' This question forms part of a broader set of items addressing the adequacy of specific types of consumption in households as the basis for determining poverty levels based on subjective evaluations rather than expert opinion. This is seen as a more democratic approach to examining phenomena such as poverty and deprivation. The 2018 round indicates the following:

# People reporting having less than adequate food, per province





- From the total number of respondents, 24.1 % of adults reported that food had been insufficient in the previous month. The Eastern Cape had the highest percentage (34.1%), followed by KZN and the Northern Cape, which had 28.2% and 26.6%, respectively.
- Households in the urban informal settlement areas had the highest rate, of food inadequacy, at 40.2%, and individuals in the R99 R2 000 income
  category reported the highest rate of 33.6%.

### Download the data and explore more

Human Sciences Research Council. South African Social Attitudes Survey (SASAS) 2018: Questionnaire 1 – All provinces. [Dataset] - SASAS 2018
Q1. Version 1.0. Pretoria South Africa: Human Sciences Research Council [producer] 2018, Human Sciences Research
Council Idistributor] 2021. http:// dx.doi.org/doi:10.14749/1629884021



Access our datasets and learn more about food adequacy according to the latest South African Social Attitudes Survey (2018) **Source:** HSRC

In an OECD blog, Paic further <u>writes</u>, 'Access to data has had far-reaching effects on the reproducibility of scientific results, diffusion of knowledge across society, cross-disciplinary co-operation, resource efficiency, productivity, and competitiveness.'

The importance of data preservation and sharing

"Globally, many funders have made it mandatory for researchers to manage their research data properly," says Dlamini. Increasingly, she adds, researchers must publish the data upon which their findings are based to get their articles accepted by journals. "This highlights the importance of scientific integrity and research transparency. Sharing enables others to replicate, validate, or correct your findings, thereby improving the scientific record. Future scholars can then build on your work."

As technology changes, researchers should also plan for hardware and software obsolescence and consider the longevity of their file format choices to ensure long-term readability and access. Preserving data in a repository eliminates data and metadata loss, says Dlamini. "Submitting data for sharing usually implies that it will also be preserved for the future. This also allows principal investigators and research teams to retrieve their own data years later, even after they have lost familiarity with it."

With research funding being under pressure globally, it is crucial to allocate scarce resources where most needed. According to the OECD, open science increases collaboration and productivity in an era of tight budgets and reduces duplication in collecting, creating, transferring, and reusing scientific material.

### **HSRC** datasets

"The HSRC's quality datasets are free of charge for research or educational purposes. However, users need to register so that the HSRC can keep track of how many people requested the data and how many downloaded it," says Dlamini. "We use that information to compile statistics that help us monitor the success of our data-sharing efforts."

The datasets are available according to different access levels, applicable to the metadata and all electronic files.

- Open-access information is immediately available without the need to register, provide additional information or obtain approval.
- For registered access to information, users log in and provide a reason for wanting access. No approval is necessary.
- Restricted access also requires users to log in and provide a reason. However, access is subject to approval from the owners, funders or depositors of the data. An email notification will be sent to confirm that access has been granted.

Most of these datasets are from longitudinal, repeated, cross-sectional studies, allowing for trend analysis, such as the following:

### Tracking societal values in changing times

The annual South African Social Attitudes Survey (SASAS) is a nationally representative, cross-sectional survey that has been conducted since 2003. It provides a unique, long-term account of the speed and direction of change in the underlying public perceptions, values and social fabric of modern South Africa. As such, it is a notable tool for monitoring evolving social, economic and political values among South Africans, but also demonstrates promising utility as an anticipatory or predictive mechanism that can inform decision- and policymaking processes.

The **2018 SASAS survey** is the 16<sup>th</sup> wave in the series. Topics covered in the questionnaire include democracy and governance, national identity and pride, intergroup relations, immigrant-related attitudes and behaviour, education, moral issues, fatherhood, a personal well-being index, poverty, taxation, crime and safety, *bathopele*, voting, respondent characteristics, household characteristics, as well as personal and household income.

Access the data here.

### Tracking HIV in South African households

The South African National HIV Prevalence, HIV Incidence, Behaviour and Communication Survey (SABSSM) has been implemented since 2002. It is a nationally representative household survey designed to assess the levels of the human immunodeficiency virus (HIV) and related health indicators in the population. The survey provides information on HIV prevalence (total number of cases), incidence (new cases per year), antiretroviral treatment exposure, viral-load suppression, HIV drug resistance, risk behaviours, and key HIV care and treatment services. This data is crucial for the government, policymakers and other stakeholders to manage the HIV epidemic in the country and reach global targets. Fieldwork for the 6th SABSSM was launched in February 2022.

Datasets are available for the 2002, 2005, 2008, 2012 and 2017 surveys.

Access the data <u>here</u>.

# Monitoring South Africa's R&D investments

The South African National Survey on Research and Experimental Development is undertaken annually to monitor the country's investments in research and experimental development (R&D). The HSRC's Centre for Science, Technology and Innovation Indicators performs these surveys on behalf of the South African Department of Science and Innovation. The surveys provide the latest available data on R&D expenditure and performance across five sectors: higher education, science councils, government, business, and not-for-profit organisations. These statistics are used in the development of science policy to set government R&D priorities and funding levels, as well as for monitoring and benchmarking purposes.

The HSRC has released aggregated datasets for download and also accommodates ad hoc requests for access to academic papers, reports and other outputs.

Access the data <u>here</u>.



**Read more** at <a href="http://datacuration.hsrc.ac.za/">http://datacuration.hsrc.ac.za/</a> or contact us at <a href="mailto:datacuration.hsrc.ac.za/">datahelp@hsrc.ac.za/</a>.

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# Further reading:

South Africans' social views: 'the real state-of-the-nation indicators' – Andrea Teagle interviews Dr Ben Roberts about SASAS and what the shifts in South Africans' political, social and sociocultural views mean for the state of South Africa (Page 22).

Photo: HSRC