

INCLUSIVE ECONOMIC DEVELOPMENT (IED)



In delivering 'social science that makes a difference', the Research Programmes of the Human Sciences Research Council initiate and undertake policy-oriented research projects and programmes from its offices in Cape Town, Durban, Pietermaritzburg and Pretoria. Its public-purpose mandate is set out in the Human Sciences Research Council Act of 2008.

The Inclusive Economic Development (IED) division of the Human Sciences Research Council undertakes research that aims to transform educational outcomes and increase economic participation. It recognises that education and the economy have long been linked, and thus conducts research in both areas, sometimes discreetly, often overlapping, and through a multidisciplinary lens. The division works in two themes: *Education and Livelihoods* that aims at improving educational outcomes, and *Changing Economies*, that investigates the social, spatial and structural obstacles to economic participation to bring about the gains and growth that South Africa and the rest of the continent needs. In *Changing Economies* we attempt to understand the social dynamics of economies with a focus on how more communities might benefit from people-centred innovation and spatial planning that allows greater inclusion. An important focus here is the strengthening of social trust, and the eradication of exclusionary practices at the level of households and in macroeconomic policy choices.

The Trends in International Mathematics and Science Study (TIMSS), within the IED Division is looking for experienced researchers to produce academic working papers. Please see below for details.

Background

The Trends in International Mathematics and Science Study (TIMSS) is an assessment of the mathematics and science knowledge of fourth and eighth grade students around the world. TIMSS was developed by the International Association for the Evaluation of Educational Achievement (IEA) to allow participating nations to compare students' educational achievement across borders. (see www.iea.nl/ for details). TIMSS provides estimates of mathematics and science achievement and attempts to explain the performance using contextual information. The goal is to help countries make informed decisions about how to improve teaching and learning in mathematics and science.

TIMSS in South Africa

The Human Sciences Research Council (HSRC) has conducted the TIMSS in South Africa since 1995. TIMSS was administered at grade 8 in 1995, 1999, 2003 and at grade 9 in 2003, 2011, 2015 and 2019. In 2015 and 2019 the HSRC also conducted TIMSS at the grade 5 in 2015 and 2019. The HSRC works with the Department of Basic Education (DBE) for the South African participation in TIMSS.

TIMSS 2019 in South Africa

The national data from the TIMSS 2019 study at Grade 9 and Grade 5 level was analysed and the TIMSS SA results were released on 8 December 2020. In addition to the national study, in 2019 we oversampled the number of schools (and learners) in two provinces: Western Cape and Gauteng. The following reports were published.

TIMSS 2019: Highlights of South African Grade 9 Results in Mathematics and Science

TIMSS 2019: Highlights of South African Grade 5 Results in Mathematics and Science

TIMSS 2019: Highlights of Gauteng Grade 9 Results in Mathematics and Science

TIMSS 2019: Highlights of Western Cape Grade 9 Results in Mathematics and Science

For these reports as well as any other information (as well as instruments and data) you can refer to the TIMSS-SA (website: <http://www.timss-sa.org.za/>)

TIMSS Secondary Analysis

In the last 25 years we have collected nationally representative achievement data and data that could provide further explanations for the achievement scores. We want to optimise the benefit from secondary analysis from these rich sets of data by inviting researchers to submit a proposal for further analysis of the data and producing working papers. The working papers should address a contemporary educational issue and inform educational policy.

The HSRC is planning a training programme on the use of TIMSS Data. You may want to work with an HSRC TIMSS researcher.

Calls for Research Proposals **REF: TIMMS – IED –ART/03/2021**

The Assignment

The assignment will be to produce a research proposal of the topic to be researched and if successful a 25 to 30 page working paper on a specific topic / field of research from either the TIMSS Grade 9 or Grade 5 datasets. The analysis should provide information and insights which feed into the education goal for building achievements and bridging achievement gaps in South Africa.

Submission for consideration

We are inviting researchers to submit a 5-page proposal which clearly articulates the problem statement, the research question and your theoretical and methodological approach to analyse the survey data to produce a working paper.

In addition to the proposal you need to submit a budget to conduct this analysis.

You need to submit a full CV with at least two examples of similar work produced.

The proposal will be peer-reviewed and the HSRC will enter into a contract with researchers/ organisations with successful proposals.

The Working Paper

The major task of the successful proposals is to produce a 25 – 30 page working paper.

The working paper should follow the structure of:

- Abstract;
- Introduction and Rationale for the Study;
- Literature Review;
- Methodology;
- Analysis ;
- Findings and Conclusions; and
- Discussion and Implications for policy and practice to improve quality and decrease inequality in education.

The working paper will be peer reviewed before acceptance and should lead to a peer reviewed journal publication.

Key requirements for applicants

- Experienced researchers with an established research career as evidenced by peer reviewed publications
- Proven experience in analysis of large datasets, especially high using inferential statistical methods
- A PhD in either the Social or Economic Science
- High level of competency in SAS, Stata or SPSS

Timelines

- The duration for the production of the working papers is 6 months from the date of contract signing

Applications

In your application please include a letter of motivation, your CV, names of two contactable referees, plus copies of two working papers/ journal articles. In your application please send a five page proposal outlining your research plan.

The HSRC will only consider applications that include the above requirements.

Please submit your application on-line at <http://hsrc.jb.skillsmapafrica.com>

Please note the following:

- Ensure you *use Google Chrome or Firefox from a computer or laptop, and not a cell phone*
- *Only your CV can be uploaded on the first page* after you have registered/logged in.
- *ALL OTHER DOCUMENTS can be uploaded on the "Document" tab on your profile*
- Attachments *must be less than 2 MB.*
- Should you have any HR enquiries please send your *query citing the reference number* to HREnquiries@hsrc.ac.za
- Should you experience problems applying online, please send your applications to recruitment@hsrc.ac.za. Clearly indicate the reference number in the subject line.
- **For further technical queries, not applications, please contact:
Dr Lolita Winnaar lwinnaar@hsrc.ac.za (Tel: 066 073 2156) or
Ms Mmatsetlane Maja at mmaja@hsrc.ac.za (Tel: 072 073 1769).**

Details about the HSRC can be found at www.hsrc.ac.za

Only applications that comply with the listed above requirements will be considered.

Closing date: 15 April 2021. We encourage applicants to submit prior to the closing date. If you do not receive any response from us within eight weeks, please accept that your application was unsuccessful. Only candidates who are interviewed will be advised of the outcome of their application.

The HSRC reserves the right not to make an appointment.

APPLICATIONS FROM RECRUITMENT AGENCIES WILL NOT BE ACCEPTED.