



EDUCATION MODELLING

The National Centre for Social and Economic Modelling (NATSEM) is based at the Institute for Governance and Policy Analysis (IGPA) at the University of Canberra. Over recent years NATSEM has conducted a number of research projects on education, including research on child education and tertiary education.

We also work closely with staff at the Education faculty at the University, who specialise in Early Childhood, Primary, Secondary and Educational Leadership. We also collaborate closely with staff at the Royal Children’s Hospital in Melbourne; the Murdoch Children’s Research Institute (MCRI); and the Telethon Kids Institute.

KIDS IN COMMUNITIES (KICS)

www.mcri.edu.au/kics

NATSEM has been involved in the Kids in Communities collaboration (KiCS) since its inception. This project aims to help understand how different factors in our communities — physical environment, social environment, socio-economic factors, access to services, and governance — influence the way that children develop. The project has led to a number of reports identifying factors that have helped disadvantaged communities derive better early childhood development.

The method used quantitative data to identify paired ‘off diagonal’ and ‘on diagonal’ communities in each State and then focus groups in each community to collect qualitative data on what was different between the paired communities.

The factors identified (called “Differentiating Foundational Community Factors”) included household income, highest level of schooling, housing affordability, housing tenure, housing density, negative stigma, perceived Early Childhood Education and Care availability, perceived crime and local decision-making. More information on these factors can be found in the main report.

Publications



Goldfeld, Villanueva, Lee, Robinson, Moriarty, Peel, Tanton, Giles-Corti, Woolcock, Brinkman, Katz (2017). Foundational Community Factors (FCFs) for Early Childhood Development: A report on the Kids in Communities Study.

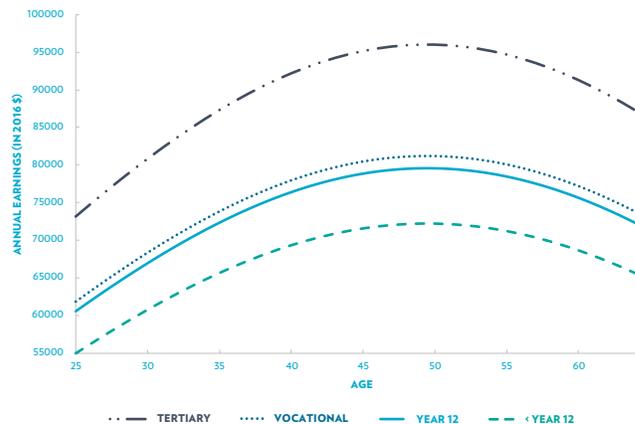


Goldfeld, Woolcock, Katz, Tanton, Brinkman, O’Connor, Mathews and Giles-Corti (2015), “Neighbourhood Effects Influencing Early Childhood Development: Conceptual Model and Trial Measurement Methodologies from the Kids in Communities Study” Social Indicators Research 120(1): 197–212.

RETURNS TO EDUCATION

In a collaboration with KPMG, staff at NATSEM used an econometric regression model to estimate the returns to education, including projections of lifetime income. The project found that those with a tertiary education had the highest incomes, but those with Year 12 or a vocational education had similar lifetime earnings.

Changes in annual disposable income (in 2019 \$) by household types



Publications



KPMG, Is tertiary education worth it?

SCHOOLS FUNDING

In collaboration with the Commonwealth Department of Education, staff at NATSEM conducted a review of income stability, informing the review of the socio-economic status (SES) score methodology. The Commonwealth's report, and NATSEM's research report, can be found at:

Publications



Tanton, R. and Peel, D. Stability of Incomes for small geographies, University of Canberra, Canberra.

MEASURING SPATIAL DISTRIBUTIONS OF SECONDARY EDUCATION ACHIEVEMENT IN AUSTRALIA

This study was a collaboration with the Commonwealth Department of Education and Training under the Higher Education Participation and Partnerships Programme (HEPPP) which aimed to analyse regional inequalities in secondary school education outcomes by examining how factors contributing to these differences perform spatially. To measure these inequalities, the Index of Educational Advantage (IdEA) was created. This was a composite area-based index using data from the 2011 National Assessment Program – Literacy and Numeracy (NAPLAN) scores, the nationwide school database from the Australian Curriculum, Assessment and Reporting Authority (ACARA) and the 2011 Census data from the Australian Bureau of Statistics (ABS). This series of indexes covers three key dimensions (the socio-economic, resource and efficiency/other factors) of the education process.

The results confirm that there is a disparity between rural and urban areas, but it also revealed that more attention needs to be paid to the disparity within capital cities as well. Some rural areas, especially in Victoria, were performing relatively well. Disparities were triggered by both the socio-economic condition of the area and the resources being put into the school system.

Publications



Li, Miranti, and Vidyattama (2017), 'Index of Educational Advantage (IdEA)', Report commissioned for the Commonwealth Department of Education and Training.

ANALYSIS OF NESA DATA

In collaboration with the Education Faculty at the University, NATSEM is conducting quantitative analysis of the NSW Education Standards Authority (NESA) data to identify the connection between education access and achievement. The collaboration includes discussions on access to education from the students and parents point of view, the impact of gender, the condition of the school, longitudinal achievement of students as well as location including whether the student's family are migrants and its impact on education achievement.



MORE INFORMATION

Robert Tanton

Building 24, University of Canberra

+61 6201 2769 | robert.tanton@canberra.edu.au