



Smooth, staggered or stopped?

Educational transitions in SAYPS

Kathryn Isdale, Vijay Reddy, Lolita Winnaar, Linda Zuze

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# The problem statement

- There is low and highly varied mathematics achievement throughout the educational system
- There is considerable grade repetition in schools and many youth exit the system prematurely
- We do not know enough about how learners move through the education system and in and out of education and into the labour market

## The South African Youth Panel Study

- SAYPS a longitudinal panel study, commenced in 2011.
- SAYPS targeted learners from Grade 9 who took part in TIMSS 2011. This formed Wave 1 of the panel
- Further annual waves of information were collected in 2012, 2013, 2014 and, recently, 2015, providing five waves of individual data tracking learners from Grade 9, average age 15.

# Publications to date

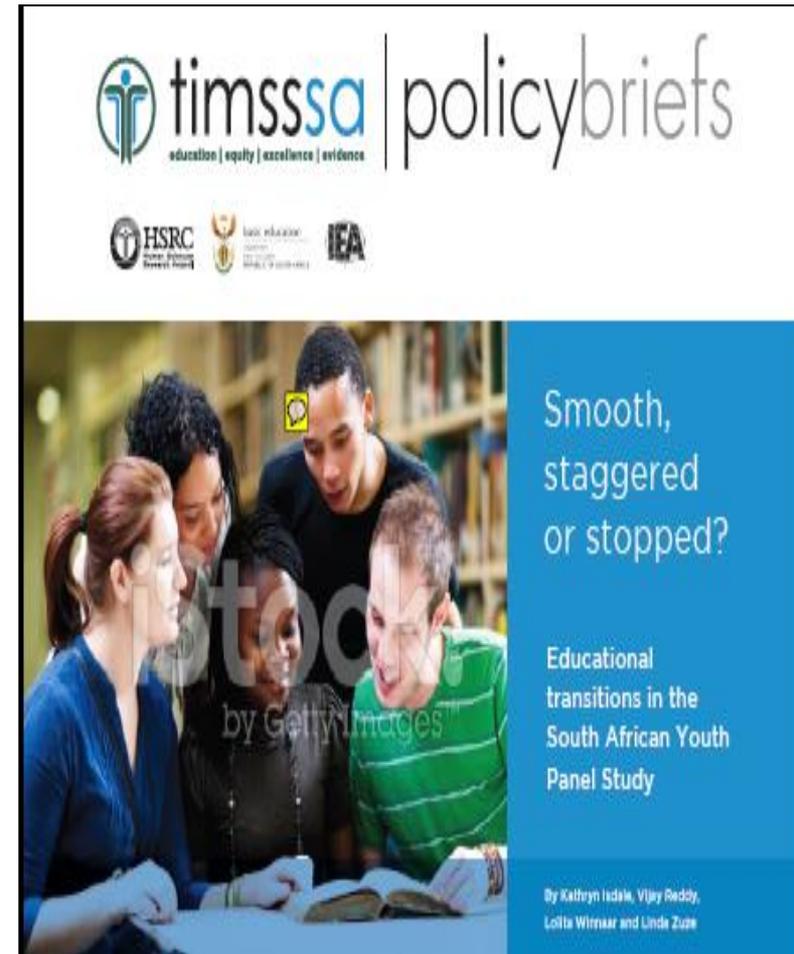
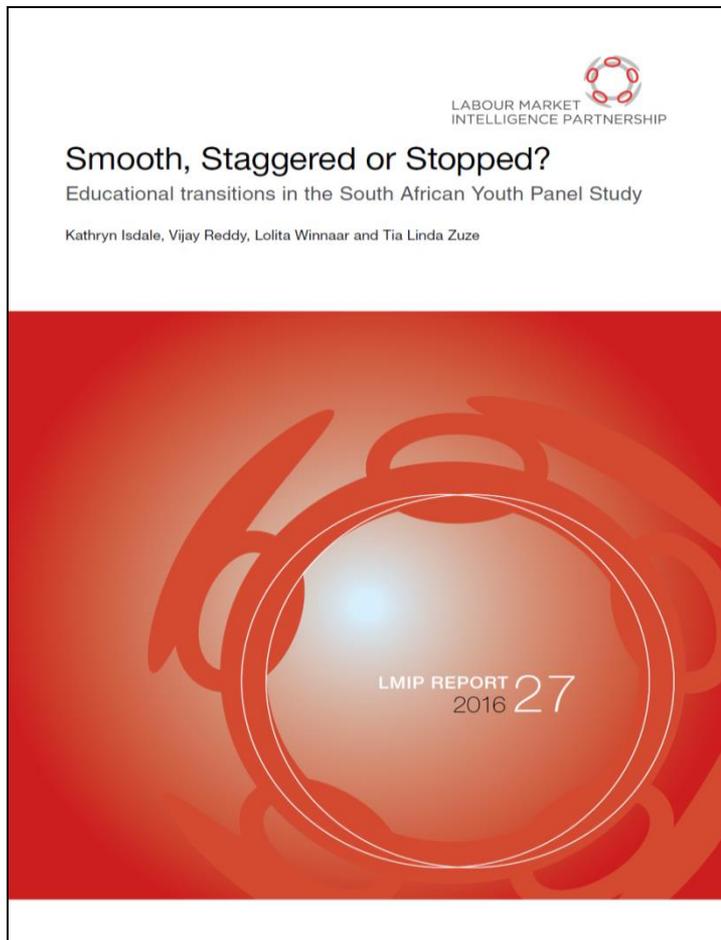
LMIP: [www.lmip.org.za](http://www.lmip.org.za)

**Report:** Four waves of data

**Forthcoming:** Five waves of data

timssa: [www.timss-sa.org.za](http://www.timss-sa.org.za)

Policy Brief: 4 waves of data



## Overview: Smooth, Staggered or Stopped?

- The report uses SAYPS to examine educational transitions in the post-compulsory phase of school
- We analyse characteristics of learners making different transitions and explore key predictors of these pathways
- We report on four distinct groups of learners:
  - Smooth; Staggered; Stuck; Stopped
- Our results are twofold:
  - Confirmatory story re. advantage and prior achievement begets success
  - New story: Beating the odds and a significant role for individual's own academic attitudes and expectations

## Research Background

- SA low educational performance in international comparisons
  - In 2011, only 25% learners reach lowest levels of TIMSS benchmarks
  - Just 1% reaching advanced levels.
- Early school exit and high levels of grade repetition exacerbates a system with already low levels of schooling and high educational inequalities.
- The current study develops previous work in the area by:
  - Using a longitudinal dataset, not a quasi-panel one
  - Considering national, rather than regional, data
  - Exploring school progression and the determinants of different educational pathways in more depth.

# South African Youth Panel Study (SAYPS)

A five year, longitudinal panel study of Grade 9 learners in South Africa starting in 2011

2011: Wave 1

2012: Wave 2

2013: Wave 3

2014: Wave 4

2015: Wave 5

## TIMSS 2011

- Grade 9 learner assessments in maths & science
- Learner qu'naire
- Parent qu'naire
- Teacher qu'naire
- Head qu'naire

At baseline, when learners were in Grade 9, their ages ranged from 12 to nearly 20

In the original sample, the sex split is equal: males = 50.7%

In 2013, learners were asked about their current activities and retrospectively about those for 2012

In the wave 4 data, the sample slightly over represents females (53.3%)

SAYPS:  
Learner qu'naire

*Achieved sample*

SAYPS:  
Learner qu'naire

SAYPS:  
Learner qu'naire

SAYPS:  
Learner qu'naire

11 898

5 946

5 872

3 616

2 224

## SAYPS missing data

- Analysis of missing data
  - Attrition is non-random and cannot be ignored
  - Missing are more likely to be: male, from more disadvantaged, attend poorer schools and lower TIMSS achievement scores.
- Focus on the core longitudinal component
  - Caveat that our estimates are an upper bound
  - Nevertheless, best data to answer our research question

# Key Research Questions

1. What are the main activity choices of young people over time and how do learners move through the education system?

➤ Transition matrices

2. What are the characteristics of young people following different pathways through school?

➤ Descriptive statistics & correlations

3. How do individual characteristics, family background and school factors predict educational pathways?

➤ Logistic regression

## Main activities at each wave of SAYPS

	Wave 1: 2011	Wave 2: 2012	Wave 3: 2013	Wave 4: 2014
Still at school	100	98.0	96.2	92.3
Moved to FET college		0.7	1.4	1.1
Working		0.2	0.5	1.0
Not studying and not working		1.2	1.9	5.6

- Provides a snapshot of what the sample of learners are doing at any one point in time
- But doesn't tell us anything about movement between these activities

## Grade transitions: Wave 1 (2011) to 4 (2014)

	Grade 9	Grade 10	Grade 11	Grade 12	Total
	<b>Wave 4: 2014</b>				
<b>Wave 1: 2011</b>					
<b>Grade 9</b>	33	360	1 230	1 713	3336
	<b>1</b>	<b>10.8</b>	<b>36.9</b>	<b>51.4</b>	<b>100</b>

- High levels of grade retention.
- Using the core longitudinal sample,  $N = 3\,616$ , just under half, 47%, have a “smooth” transition
  - Overestimate: NIDS suggests this figure  $\sim$  a third of learners

# Young people's transitions from 2011 to 2014

Smooth	Staggered	Stuck	Stopped
Neat, year-on-year grade progression through school.	Learners in school for all 4 waves of SAYPS, but have at least one episode of grade repetition or a move to FET college or out of school for 1 year	Learners in school for all four waves of SAYPS, but stuck in grade 9 or 10 for three or more periods.	Individuals who leave school before Wave 4 and do not return
<b>47%</b>	<b>39%</b>	<b>7%</b>	<b>7%</b>

## Characteristics of different transition groups

		Girl	Age 2011	highest house ed	Books in house	TIMSS Math
All		.58	15.7	4.82	2.01	367
Smooth	47%	.63	15.4	5.11	2.15	409
Staggered	39%	.54	15.8	4.62	1.88	343
Stuck	7%	.54	16.1	4.55	1.82	318
Stopped	7%	.43	17.0	4.28	1.91	309

- *Smooth* group come from most advantaged households: highest education, social ladder etc.
- The *smooth* group, although best performing, only just reaches bottom of international “low” benchmark

## Predicting who has which transition?

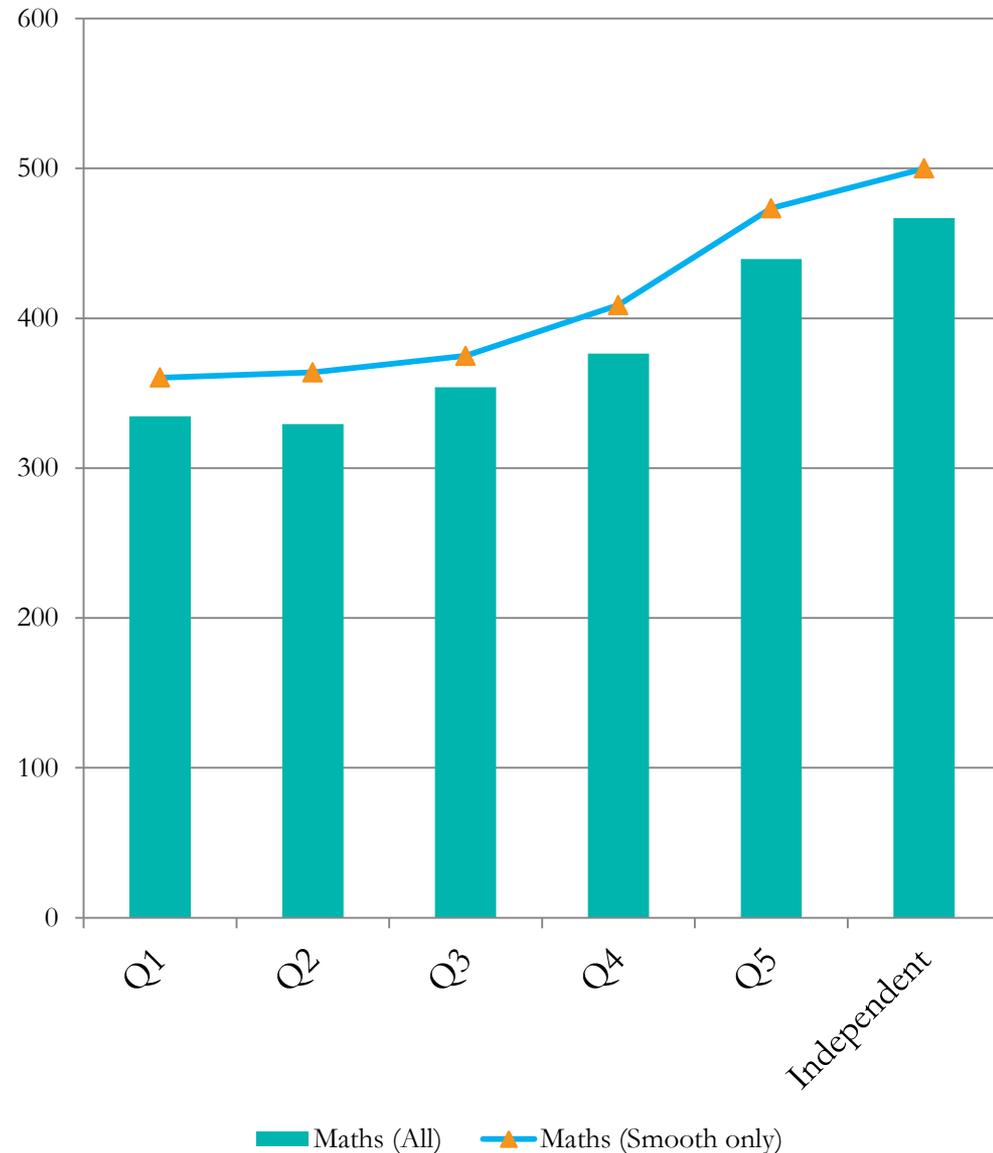
- Using logistic regressions to examine the relationships while controlling for achievement
  - Girls and younger learners perform better
  - Particular importance of prior achievement
  - Those in better-off schools more likely to have smooth transitions

However.....

- Social background does not significantly differentiate educational transitions
- More salient are learner academic attitudes and expectations

## A good news story?

- Learners with even very low TIMSS scores are following “smooth” pathways
  - Even from the least well-off schools
- 57% of the “smooth” group come from fee-paying or independent schools
  - Meaning 43% come from non-fee paying schools



## Beating the odds... but some surprises

	Non-fee paying			Fee paying		Indep	Total
	Q1	Q2	Q3	Q4	Q5		
<b>Smooth</b>	<i>188</i>	<i>269</i>	<i>275</i>	<i>306</i>	<i>424</i>	<i>235</i>	<i>1,697</i>
	<b>11.1</b>	<b>15.9</b>	<b>16.2</b>	<b>18.0</b>	<b>25.0</b>	<b>13.9</b>	<b>100</b>
<b>Staggered</b>	<i>228</i>	<i>311</i>	<i>354</i>	<i>296</i>	<i>152</i>	<i>84</i>	<i>1425</i>
	<b>16.0</b>	<b>21.8</b>	<b>24.8</b>	<b>20.8</b>	<b>10.7</b>	<b>5.9</b>	<b>100</b>
<b>Stuck</b>	<i>56</i>	<i>70</i>	<i>59</i>	<i>41</i>	<i>14</i>	<i>10</i>	<i>250</i>
	<b>22.4</b>	<b>28</b>	<b>23.6</b>	<b>16.4</b>	<b>5.6</b>	<b>4</b>	<b>100</b>
<b>Stopped</b>	<i>47</i>	<i>58</i>	<i>68</i>	<i>50</i>	<i>16</i>	<i>5</i>	<i>244</i>
	<b>19.3</b>	<b>23.8</b>	<b>27.9</b>	<b>20.5</b>	<b>6.6</b>	<b>2.1</b>	<b>100</b>
<b>Total</b>	<i>519</i>	<i>708</i>	<i>756</i>	<i>693</i>	<i>606</i>	<i>334</i>	<i>3616</i>
	<b>14.4</b>	<b>19.6</b>	<b>20.9</b>	<b>19.2</b>	<b>16.8</b>	<b>9.2</b>	<b>100</b>

## Key findings.... The predictable story vs. a new one...

- Our study provides a more nuanced picture of continuities & discontinuities in educational transitions
- Around half (47%) the sample achieves a “smooth” transition
- Achievement begets achievement, but it is possible to succeed academically despite disadvantage
- Learners stay in school even if they are not progressing to the next grade. Possible stagnation effects
- Significant role for individual’s own academic attitudes and beliefs not previously demonstrated in South African data
- Very high educational expectations from all learners

## Policy implications

- Schools matter
  - Invest early, yes, but don't give up!
- Parents are important irrespective of their own education
  - Promoting positive attitudes towards education
- Role of positive attitudes, but need for realistic expectations
- Gender and male disadvantage
- Progression policy
  - “Quick win” for poor performing Q4 & Q5 learners?
- Importance of multiple routes post grade 9
  - Transitions should be seen more like revolving doors than dead ends

## Taster of what happens next...5 waves of data

	Wave 4: 2014	Wave 5: 2015
Still at school	92.3	45.6
Moved to FET college	1.1	-
Post-school institution	-	24.5
Learnership / Apprenticeship / Traineeship	-	1.4
Working	1.0	6.5
Not studying and not working	5.6	21.9

- Nearly a quarter have moved into a post-school institution
- Nearly half remain in school
- More than one in five is not studying or working

# But...

		Post-school	School	Learnership etc.	Working	NEET	Total
	% W4						
<i>W1-W4 Transition Group:</i>							
Smooth		508	131	22	86	333	1,080
	48.6	<b>47.0</b>	12.1	2.0	8.0	30.8	100
Staggered		29	736	5	21	65	856
	38.5	3.4	<b>86.0</b>	0.6	2.5	7.6	100
Stuck		2	119	0	5	17	143
	6.4	1.4	<b>83.2</b>	0	3.5	11.9	100
Stopped		6	29	4	33	73	145
	6.5	4.1	20.0	2.8	22.8	50.3	100
Total		545	1,015	31	145	488	2,224
		24.5	45.6	1.4	6.5	21.9	100



Isdale, K., Reddy, V., Winnaar, L. & Zuze, T.L. (2016). *Smooth, Staggered or Stopped: Educational Transitions in the South African Youth Panel Study*. An LMIP Publication. Human Sciences Research Council

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