

Improving education quality in a world
obsessed with student numbers:

Evidence from Papua New Guinea

PNG Update 2016

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Introduction

Education systems in many developing countries have rapidly expanded over the MDG era.

- Efforts to improve access to schooling have led to large increases in students at schools
 - Primary school net enrolment in developing countries increased from 83% in 2000 to 91% by 2015
 - Additional resources have clearly played an important role in this. Political buy-in has also been important.
- In the post-MDG era, the SDGs are now focused on improving education quality for all, placing an additional burden on many already stressed education systems.
 - Dual objective of more children in school AND improved school learning outcomes

There is concern about how much SDGs will cost, but little about what country-level economic and political contexts mean for achieving these goals.

Research question

How can developing countries manage the dual objective of increasing student numbers and raising education quality at the same time?

- What is the cost, and what are the trade-offs between each of these dual objectives?
- What are the political and economic dimensions to the problem and how will they shape national responses in education policy?

We draw on PNG as a case study to shed light on these questions.

- Why PNG? PNG is similar to many other developing countries:
 - it has made significant gains in improving student numbers (at elementary and primary school levels) but with limited improvements to education quality
 - the next push is to improve student numbers in secondary schooling
 - it is economically constrained and politically volatile
 - service delivery, particularly in education, is a key policy platform in political contests.

SDG 4: Increasing access and improving quality

SDG 4 Quality Education: ‘inclusive and equitable quality education for all and promote lifelong learning opportunities’ by 2030.

- SDG 4 target 1:
 - ‘All girls and boys complete **free**, equitable and **quality** primary and **secondary education** leading to relevant and **effective learning outcomes**’
 - MDG 2 instead focused on increasing enrolment (**quantity**) in **primary schools**

Achieving SDG 4 will require:

- Significant expansion of student numbers in secondary school, and resources to improve student learning outcomes such as investment in teachers, teaching resources, and ways to monitor and evaluate learning outcomes (ODI, 2015; UNESCO, 2015);
- Political commitment; yet there is evidence that there are strong political incentives for governments to focus on improving access to school rather than raise education quality (Harding and Stasavage, 2014; Harding, 2015).

Are developing countries **economically** and **politically** in a position to achieve SDG 4?

Case study: Papua New Guinea

PNG has achieved significant increases in student numbers but learning outcomes remain poor.

- Key education indicators for PNG (Census data)

	2011	2000	1990	1980
Attending school (% aged 5-29 years)	35.0	26.4	20.3	20.6
Ever been to school (% aged 5+ years)	56.6	50.9
Completed grade 10 (% aged 5+ years)	12.5	9.0
Completed grade 12 (% aged 5+ years)	3.7	1.2
Literate (% aged 10+ years)	67.6	56.2	45.1	...

High self-reported literacy rate (67.6%, 2011 census data) but low functional literacy (20%, ASPBAE survey of 5 provinces in PNG)

- Functional literacy rates for those attending primary or secondary school was less than 20%.
- There is a 'crisis in school education quality' (ASPBAE, 2011) .

Free education in PNG

The 2012 Tuition Fee Free (TFF) policy – free tuition up to secondary education – was enabled by:

- Economic optimism, in 2011 PNG was riding high
 - High growth rates and promises of great wealth from the LNG project
 - Expectation of budgetary surplus
- Political dividends:
 - Helped legitimise O’Neill’s Prime Ministership
 - Helped secure coalition of MPs
 - Popular with voters

Focused on education **quantity** over quality; in turn:

- Overcrowding, absenteeism.
- Moves to abolish national primary exit exams are further designed to increase student numbers through improved access to secondary school.

PNG now facing huge economic difficulties, resulting in cuts to social services.

Methodology

We estimate the public financial costs of primary and secondary schooling in PNG across two scenarios:

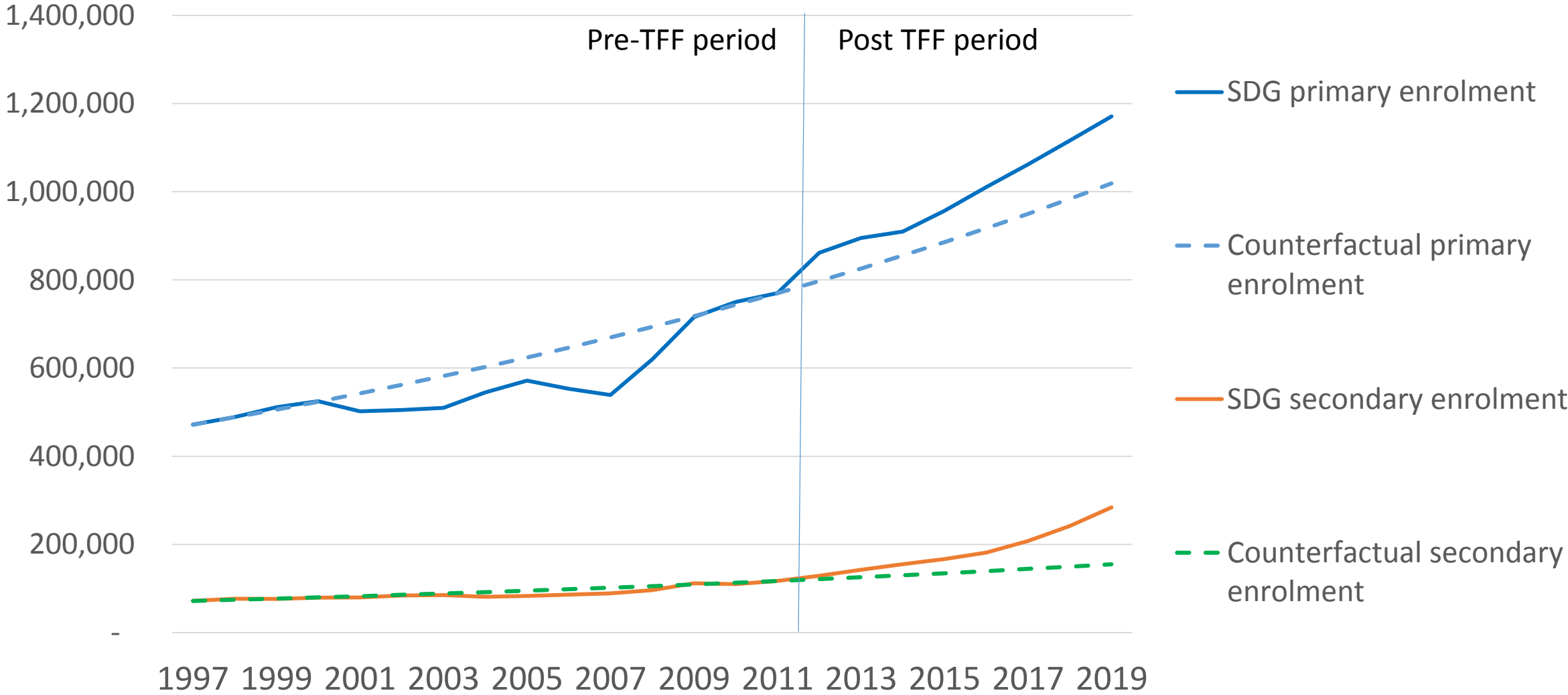
- **SDG:** Achieving SDG 4 target of 90% grade specific net enrolment in **primary** and **secondary** given present projections and 100% transition rate by 2030.
- **Counterfactual:** continuation of average enrolment growth and transition rates before policies to improve access (eg TFF policy and improved grade transition).

Our estimates of costs reflect improved access not improved quality:

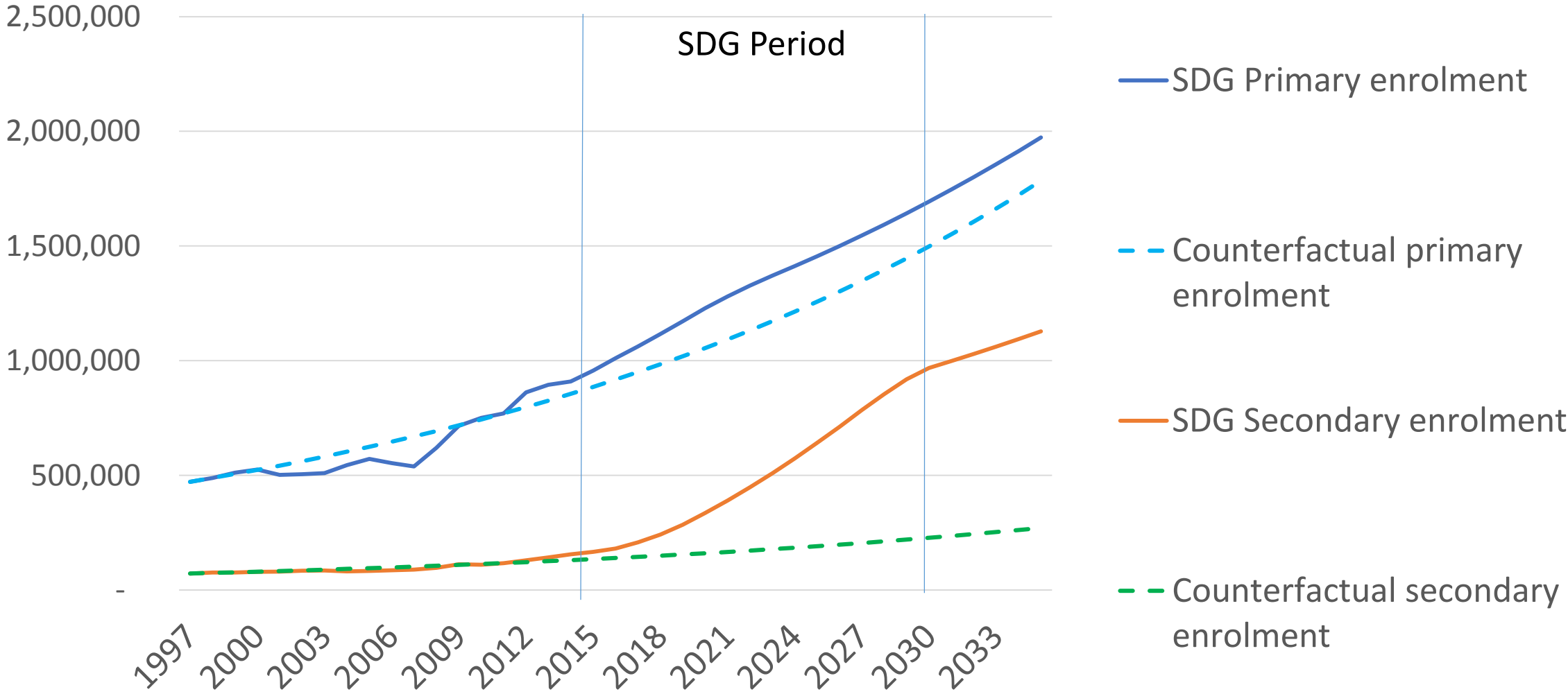
- We keep funding to schools and provision of key school inputs (teachers and infrastructure) on a per student basis identical across the these scenarios and hold them constant in real terms over time at historical levels.
- We account for the public costs of school subsidy payments, teacher salary payments, and construction of classrooms, teacher houses, toilets, water tanks, and education system administration. Student projections and unit costs based on NDoE, UNESCO and 2011 census data.

We then build in costs of improving education quality and consider alternate assumptions.

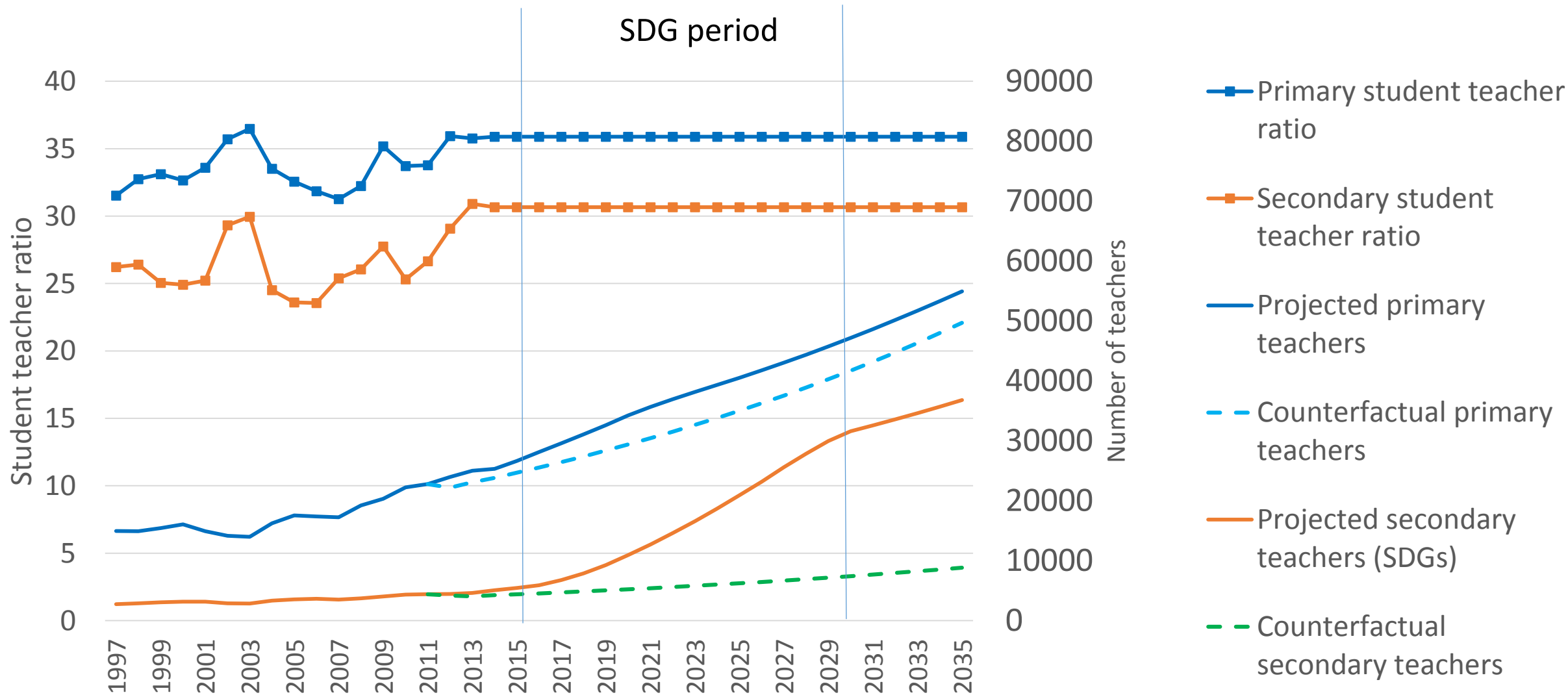
Short-term impact of improved access on enrolment



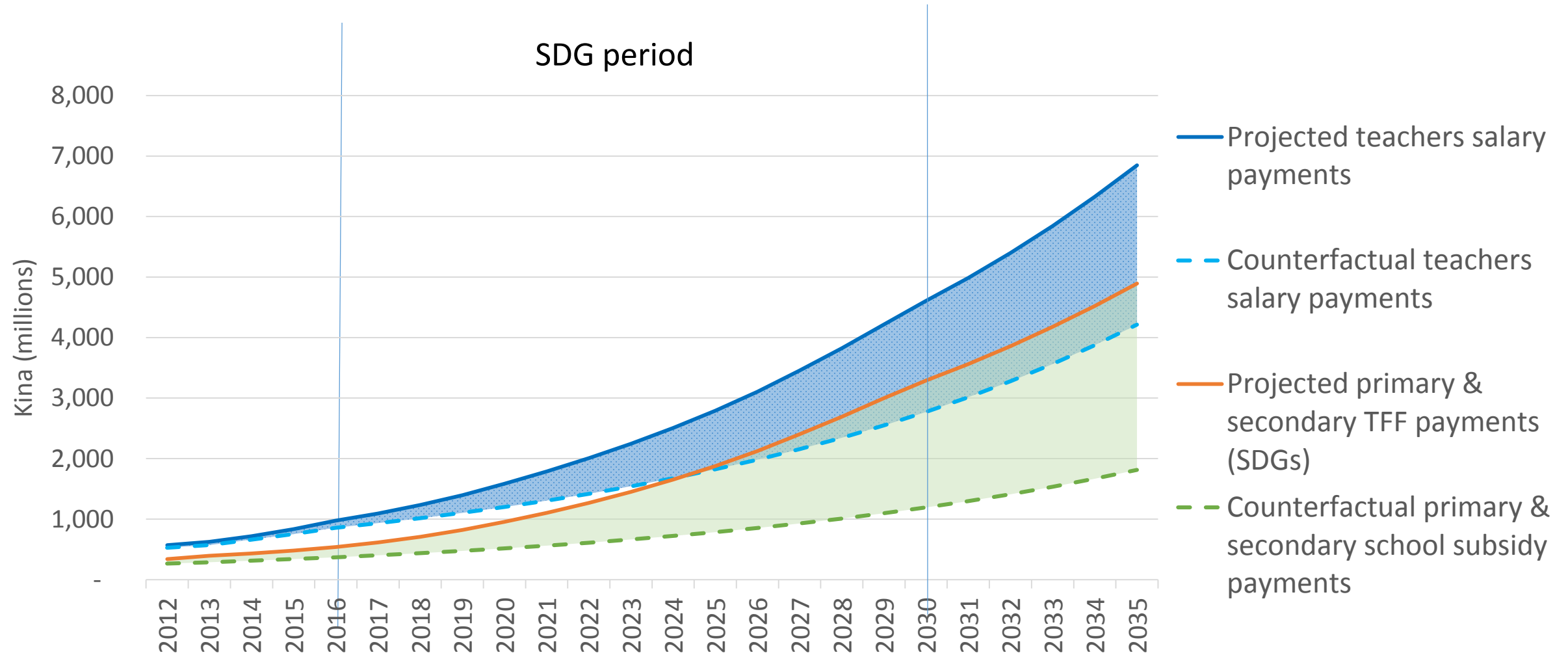
Achieving SDG 4's access target means 56% more students in school by 2030 compared to the counterfactual



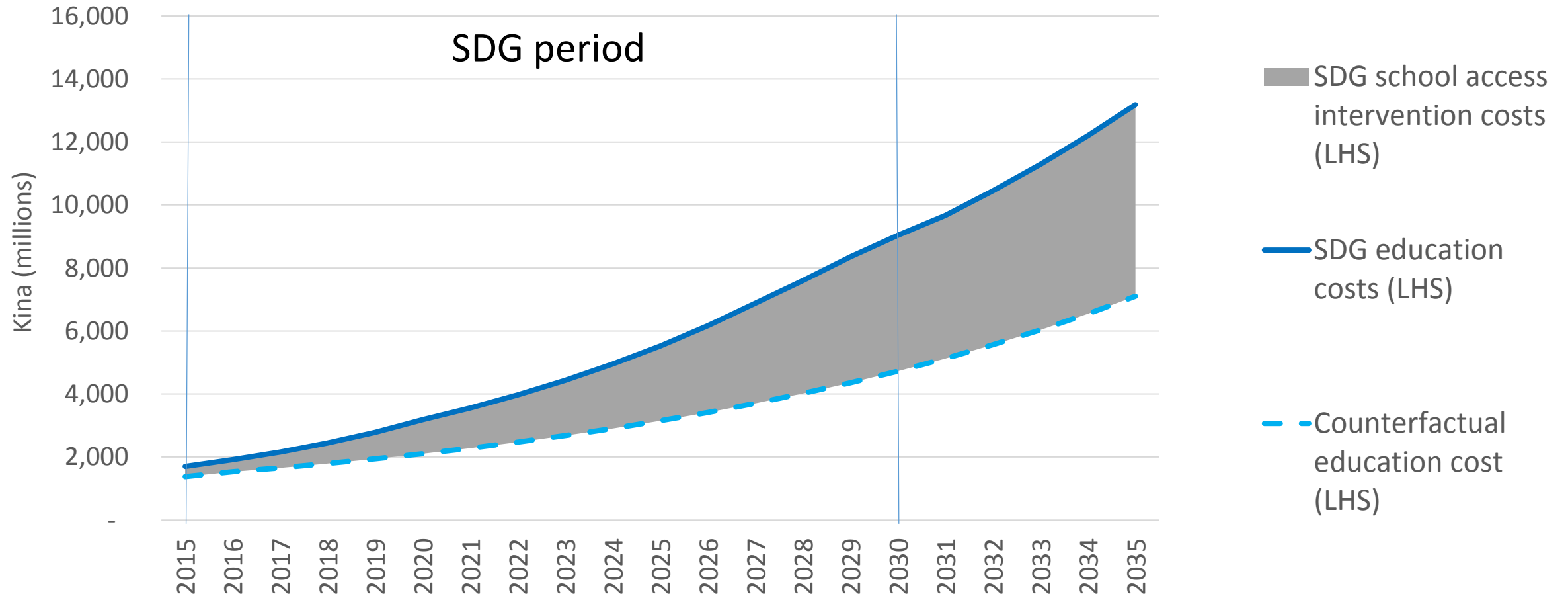
Many more secondary teachers are needed



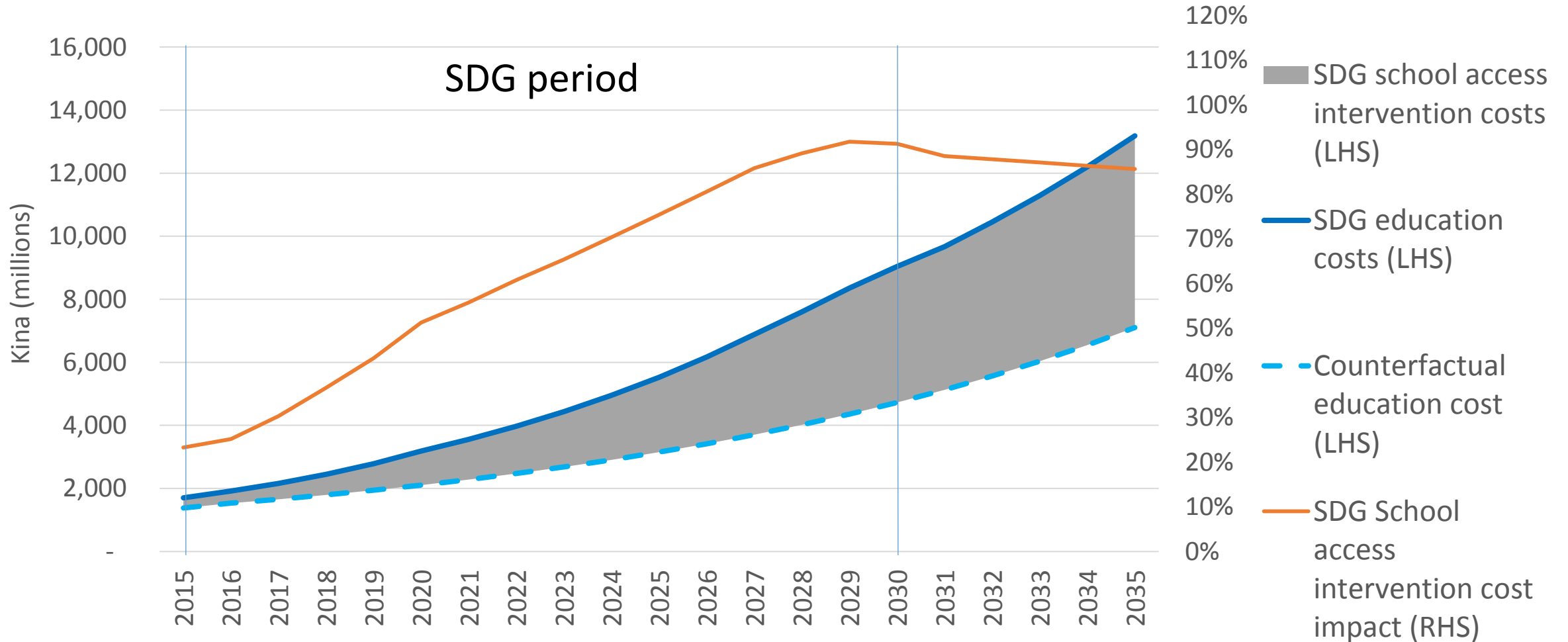
Increasing teacher salaries and TFF (subsidy) costs, particularly for secondary schooling



SDGs additional access cost: real K19.2bn over SDG period;
annual average: real K1.28bn



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Quantity vs quality trade-off

Period	Average annual cost impact		Average annual enrolment impact
	2016-2030		2016-2030
	K mil. (2016 real)	%	%
SDG quantity targets	1,280	66	39
Alternative policy scenarios:			
MDG quantity target	749	39	25
SDG quantity target, 45 students per teacher	570	30	39
SDG quantity and quality target	2,248	117	39
MDG quantity and quality target	1,580	82	25

Quality targets are: 30 students per teacher, teacher salaries growing in line with GDP per capita rather than held constant in real terms

Conclusions

In PNG, improving educational quality amid ballooning student numbers will be difficult.

Without significant shifts in resources and systems PNG will need to make **trade offs between improving access with quality education.**

The political environment suggests **politicians and voters will opt for improving access rather than education quality** because:

- Voters get immediate benefits from reduced tuition fees (free up household budgets but additional funds may not be spent on improving education)
- Voters value education certificates the students receive from school completion even though they may be “empty” (learning outcomes are substandard).
- Voters are more confident that politicians can eliminate school fees than they can improve learning outcomes
- Politicians can say they will improve education quality but a lack of transparency and M&E of education reforms mean that they do not necessarily have to follow through.

Conclusions

Civil society groups, researchers, and governments need to be ready to debate the trade-offs between education access and education quality, and make the argument for a reasonable balance between increasing access and quality.

The international community should also not step back from this challenge if developing countries like PNG are to achieve the SDG for quality education.

Not only can the international community provide more resources for education, it needs to:

- advocate and support for greater transparency around monitoring and reporting on school quality;
- Help measure and communicate the benefits of education quality to voters to raise awareness of trade-offs being made between access and quality decisions.

If hope is to be found in the SDGs, and hope turned in to reality, then the political and economic challenges discussed here will need to be anticipated and overcome.