From ABC to GDP:
How Investing in Younger Students Pays Off Big

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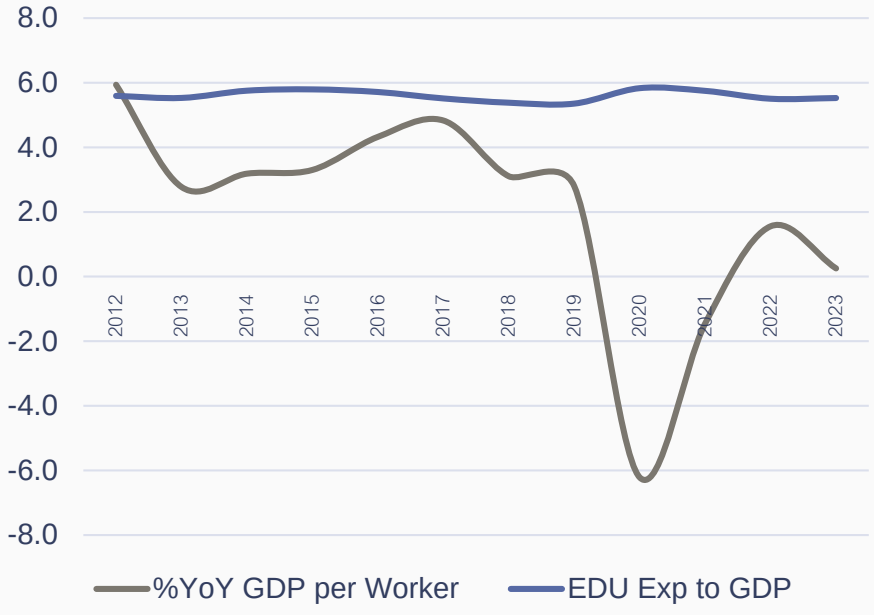
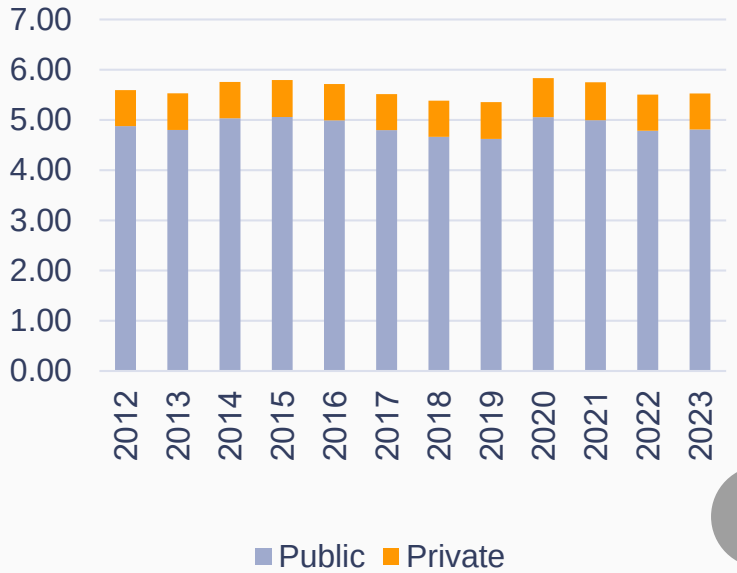
Thailand's Education Spending:
Are We Getting Results?

Thailand's education expenditure trends are continuously increasing, particularly in governmental education expenditure, while labor productivity shows limited growth.

GDP vs %YoY Output per Worker



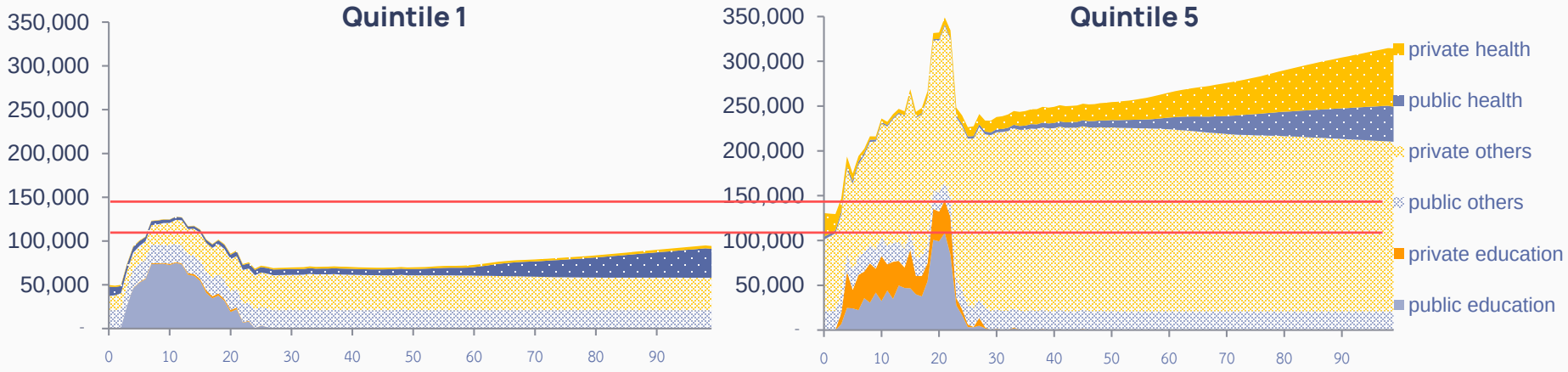
Education Expenditure to GDP



Sources: NESDC

Who Benefits from Education Spending?

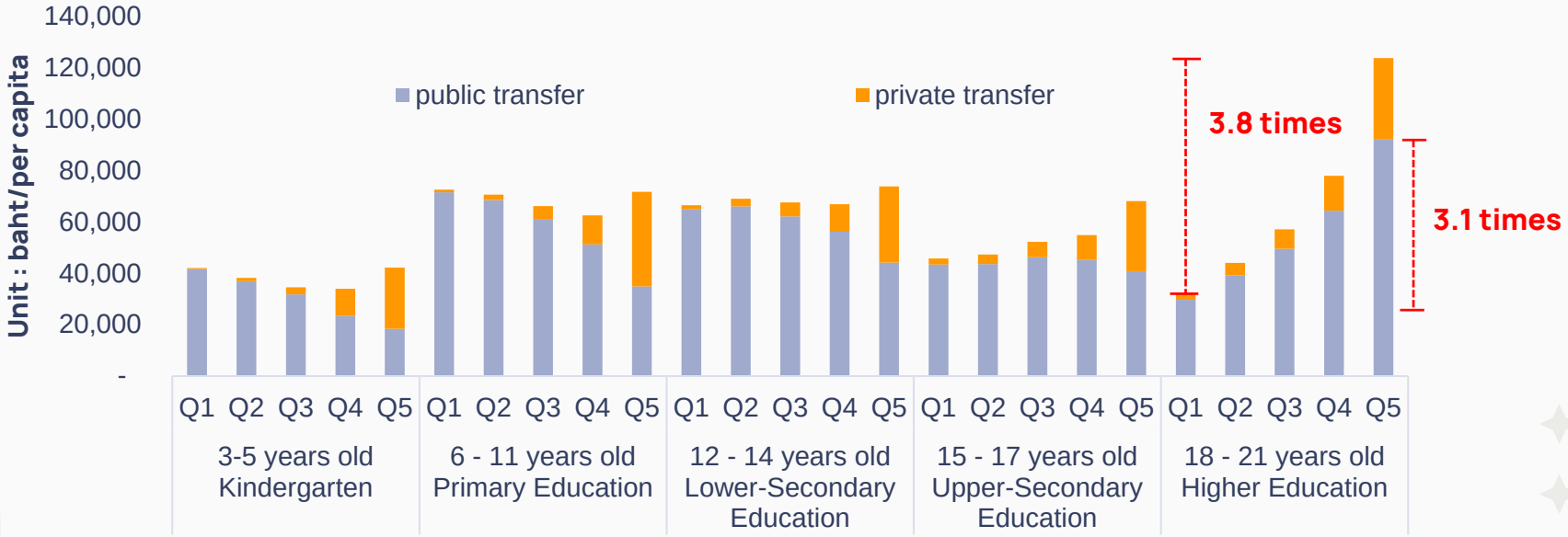
Government investment in education shifts from favoring poorer students in basic education to wealthier students in higher education, largely due to dropouts from disadvantaged households.



Sources: NESDC

Problem with FREE Higher Education!

A significant portion of Thailand's education expenditure is concentrated in higher education, with particularly high per-capita costs, and the main beneficiaries are individuals from affluent backgrounds.



Sources: NESDC

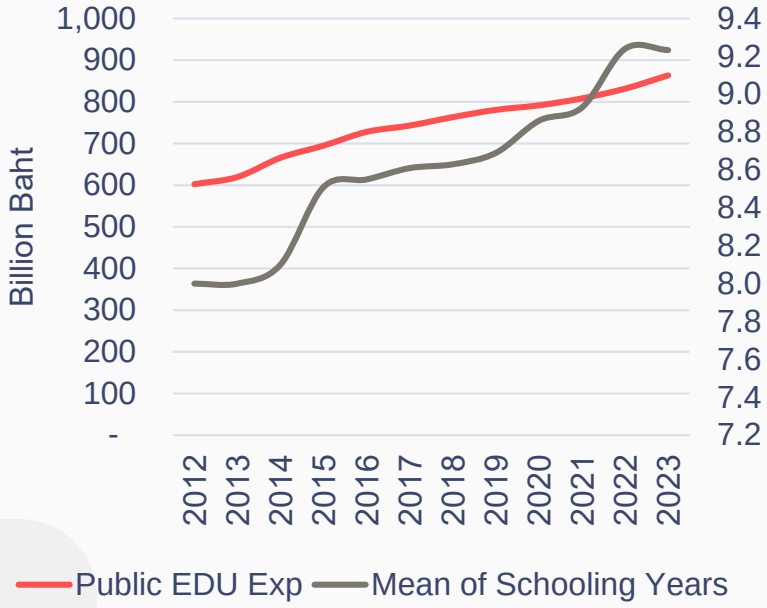
Why Basic Education Matters More?

Assumption

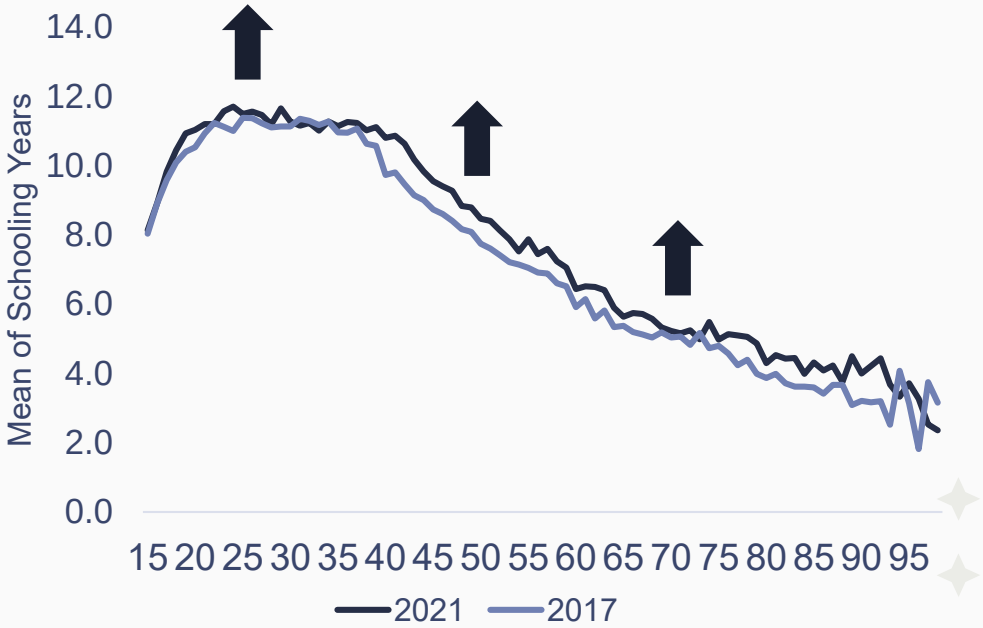
"Increased education expenditure extends years of schooling and enhances labor productivity."

The Economic Impact of More Schooling

An Extra 1,584 Baht/Person → + 1 Year



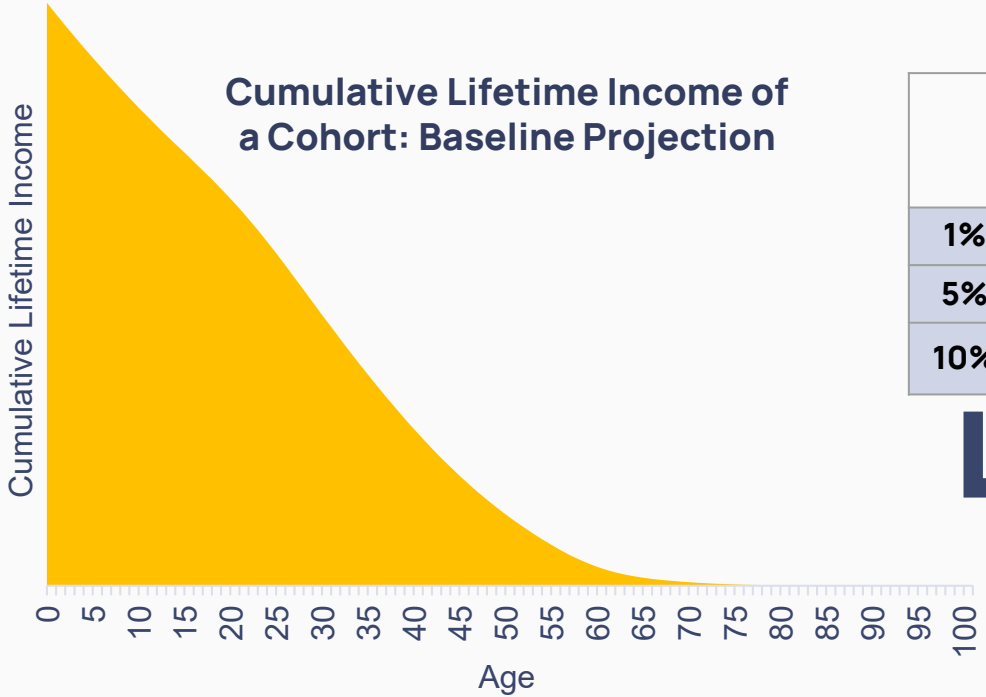
+EDU Spending by 60 billion baht → + 0.32 Year



Sources: NESDC

What happens when people stay in school longer?

Cumulative Lifetime Income of a Cohort: Baseline Projection



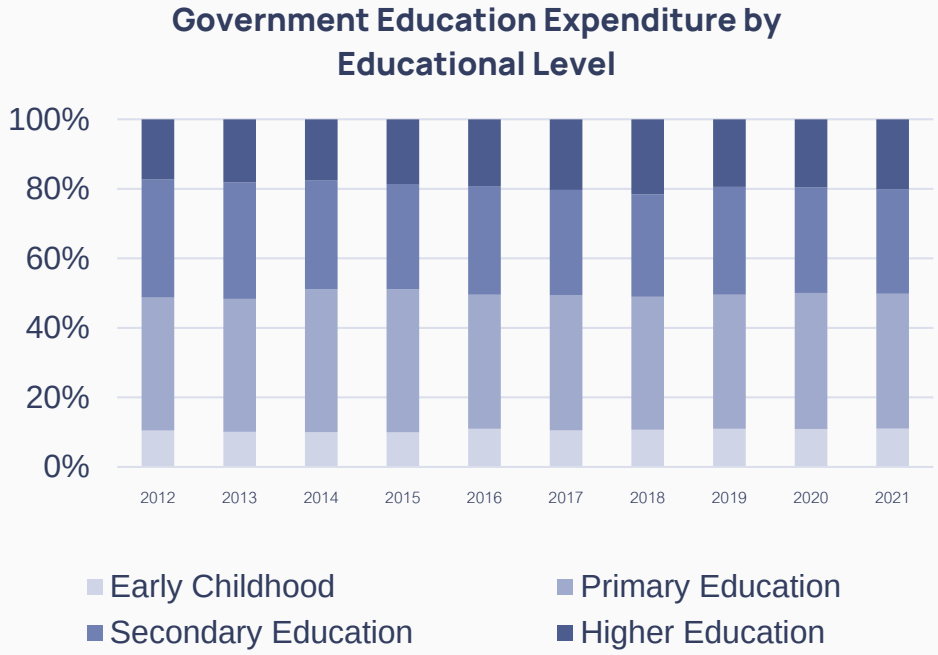
	Years of Schooling	productivity	Lifetime Income (Multiples)
1%	9.02	0.5781	0.71
5%	9.38	2.8905	1.28
10%	9.82	5.7810	3.03

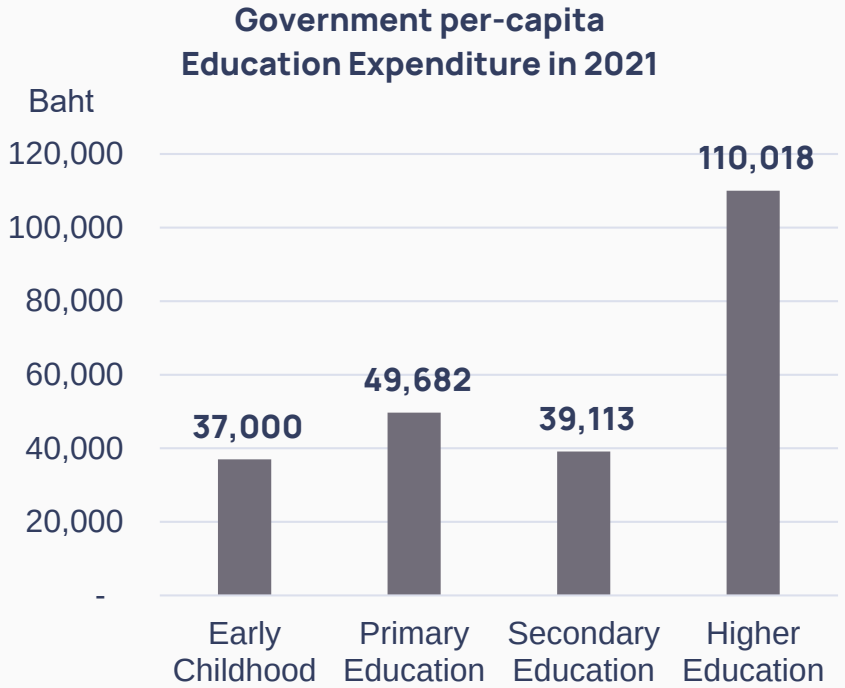
Increase %year of baseline (8.93 years)

Sources: NESDC

So, Where Should We Spend?

Government spending on education in Thailand





Sources: NESDC

Challenges and Limitations

- **Assumption:** We assume productivity increases equally at every age group.
  But in reality, younger workers might benefit more from additional education than older workers.
- **Policy Implication**: More spending doesn't always mean better learning outcomes.
  Even if the government reallocates spending, ensuring effective use of funds is another challenge.

Conclusion:

A Stronger Thailand Starts with Basic Education

Research shows that **early investment in basic education gives the highest return**—leading to better literacy, numeracy, and lifelong skills. But the benefits go beyond academics:

- **Strong early education reduces inequality** by giving poor children a better start in life.
- **It ensures students are prepared for higher education** so they don't need remedial classes later.
- **It creates a more skilled workforce** that helps drive Thailand's economy forward.

Conclusion:

We should invest more in

Basic Education
to build strong foundations

Teacher Training
to improve
learning quality

School Resources
to ensure all students, rich or poor, have the tools to succeed.

Conditional Cash Transfer
to include poor
and nearly poor families.

Thank You

Back Up

Step to Calculate Cumulative Lifetime Income of a Cohort

1. The number of effective working years over the remaining lifetime.
2. Prospective labour income for all persons age *z* in year *t* , with rate of productivity growth.
3. Aggregate labour income.
4. Discounted aggregate labour income, with discount rate.
5. Discounted aggregate labour income for cohorts.
6. Cumulative lifetime income over the remaining lifetime.

For a cohort aged *z* in year *t*, the number of effective working years over the remaining lifetime (*WL*):

$$WL(z,t) = \sum_{x=z+1}^{w} \left(\frac{1+\rho}{1+r}\right)^{-(x-z)} L(x, t+x-z)$$

r is the discount rate.

ρ is the rate of productivity growth.

$L(x,t)$ is the number of effective years of labour.

Present value of prospective labour income for all persons age *z* in year *t*:

$$PVYl(z,t) = \sum_{x=z+1}^{\omega} (1+r)^{-(x-z)} Yl(x, t+x-z)$$

$Yl(x,t)$ is the total labour income.