# Returns to Education in the Philippines: Declining Returns, Increased Inequities (2005–2022)

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# Outline

# Introduction

- Education is crucial for individual earnings and economic growth in the Philippines.
- Recent trends show declining returns to education, particularly for college graduates, contributing to income inequality.
- This study examines returns from 2005 to 2022 and explores possible contributing factors.

# Data and methods

- Data: Labor Force Survey (LFS) from 2005 to 2022.
- Sample: 621,638 individuals, with a focus on salaried graduates aged 25–34.
- Methodology: Ordinary Least Squares (OLS) regression for general trends, and Conditional Quantile Regression (CQR) to assess distributional impacts.

# Data and methods

- We estimate naive, basic Mincerian wage equations:

$$\ln(\text{wage}) = \beta_0 + \beta_1 \cdot \text{elem} + \beta_2 \cdot \text{secondary} + \beta_3 \cdot \text{some\_col}$$
$$+ \beta_4 \cdot \text{college} + \beta_5 \cdot \text{female} + \beta_6 \cdot \text{experience} + \beta_7 \cdot \text{exp\_sq} + \epsilon \quad (1)$$

  where $ln$(wage) is the natural logarithm of real wages, $\beta_0$ is the intercept, $\beta_1 - \beta_4$ are coefficients for educational attainment levels, $\beta_5$ is the coefficient for female ($= 1$), $\beta_6, \beta_7$ are coefficients for experience and squared experience, and $\epsilon$ is the error term.

- We also do the runs for the "young" subsample (25-34).

- We also run conditional quantile regressions to uncover the returns across the wage distribution.

# Declining returns and convergence

- Returns to college education dropped from 141.4% in 2010 to 93.7% in 2022.
- Convergence observed between secondary and partial college education levels since 2018.
- Returns for elementary education remained low but stable.

**Figure 1. Returns to education by highest grade completed, full sample, 2005–2022**
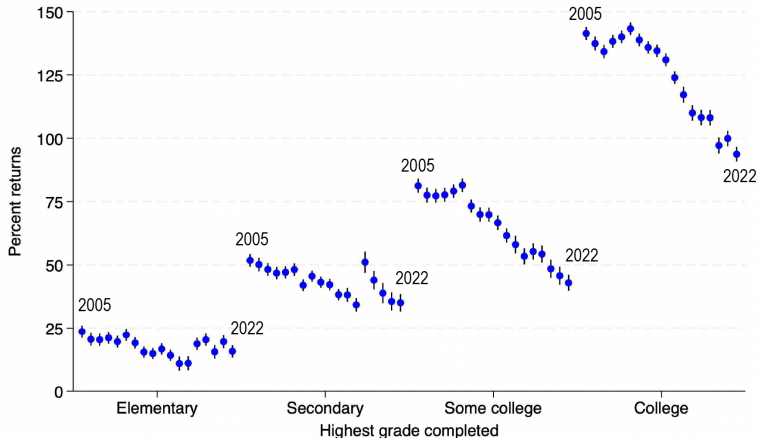


Notes: The reference group comprises observations with no grade completed. Regression coefficients are multiplied by 100 percent. Lines represent 95 percent confidence intervals.
Source: Authors' computations from the 2005–2022 October round of the Labor Force Survey (PSA various years)

Figure 2. Returns to education by highest grade completed, young sample, 2005–2022
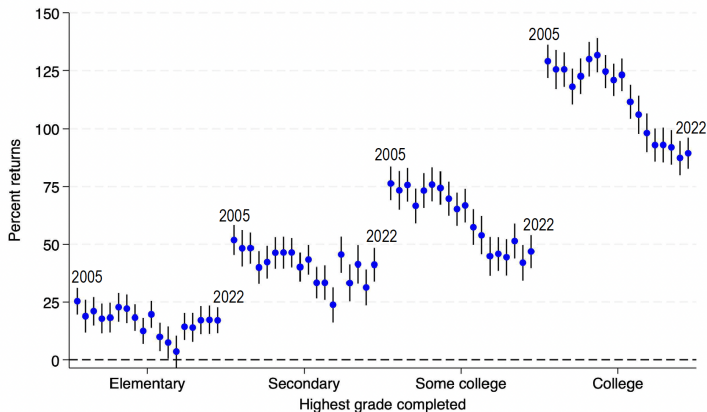


Notes: The reference group comprises observations with no grade completed. Regression coefficients are multiplied by 100 percent. The lines represent 95 percent confidence intervals. The young sample includes people aged 25–34.
Source: Authors' computations from the 2005–2022 October rounds of the Labor Force Survey (PSA various years)

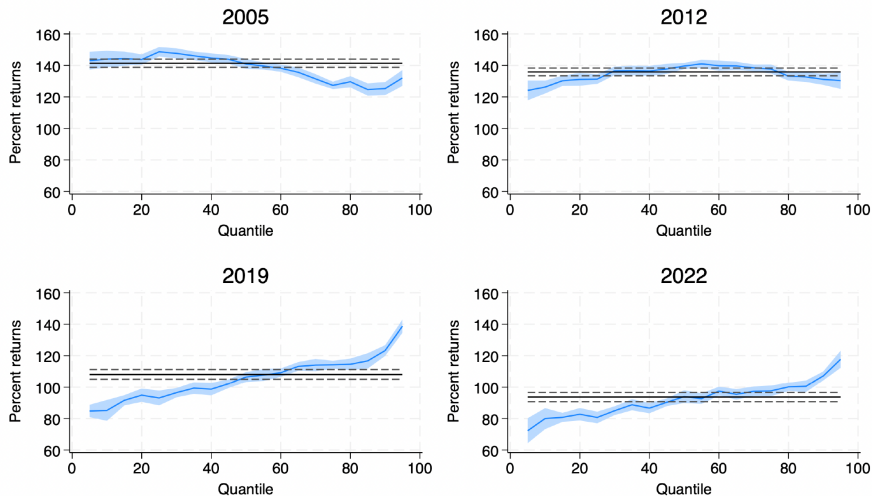**Figure 3. Returns to education using years of schooling, 2005–2022**
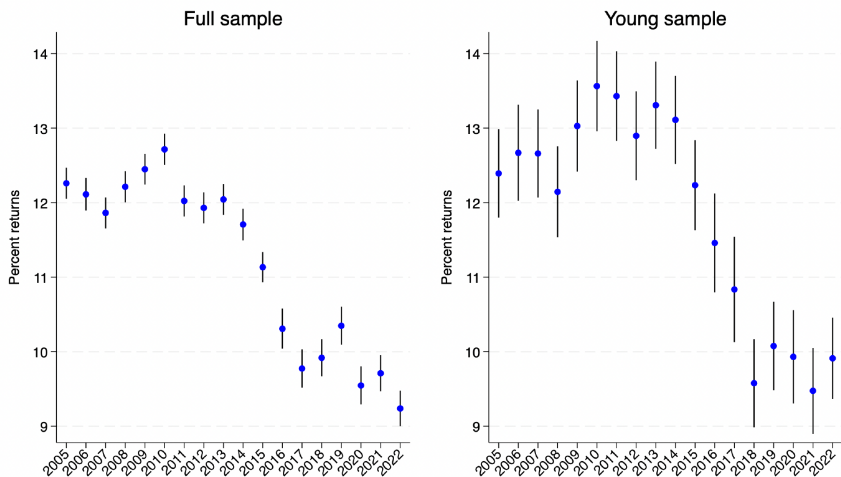


Note: Regression coefficients are multiplied by 100 percent. Data show percent increase in hourly real wages based on an extra year of schooling. The lines represent 95 percent confidence intervals.
Source: Authors' computations from the 2005–2022 October rounds of the Labor Force Survey (PSA various years)

# Widening inequities

- Declining returns are more pronounced for low-wage college graduates.
- Higher returns now skewed toward high-wage workers, reversing previous trends.
- Quantile regression reveals a 64 percentage point drop in returns for the lowest earners vs. 18.2 points for the highest.
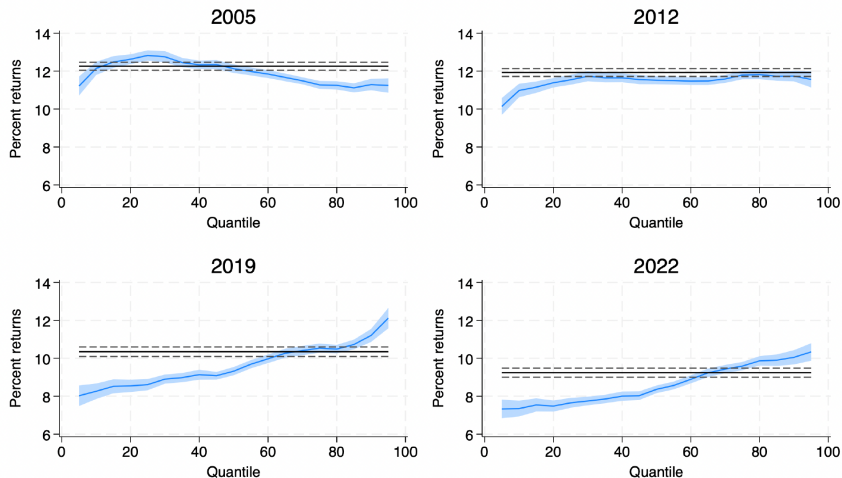
## Figure 4. Returns to college education by quantile, full sample, 2005–2022



Note: Regression coefficients are multiplied by 100 percent. The lines represent 95 percent confidence intervals.
Source: Authors' computations from the 2005, 2012, 2019, and 2020–2022 October rounds of the Labor Force Survey (PSA various years)

**Figure 6. Returns to a year of schooling by quantile, full sample, 2005–2022**



Note: Regression coefficients are multiplied by 100 percent. Data show percent increase in hourly real wages based on an extra year of schooling. The lines represent 95 percent confidence intervals.
Source: Authors' computations from the 2005, 2012, 2019, and 2022 October rounds of the Labor Force Survey (PSA various years)

# Contributing factors to declining returns

- **Shift to formal employment**: Formal jobs increased by 13.91 percentage points from 2005 to 2019.
- **Sectoral shifts**: Movement from agriculture to services sector.
- **Education quality**: Expansion in access may have diluted quality, with overcrowded classrooms and resource challenges.
- **Job quality**: Wage improvements for lower education levels have narrowed the wage gap with college graduates.

# Enhancing education quality

- **Quality standards**: Strengthen CHED's capacity to enforce standards across HEIs.
- **Institutional quality data**: Establish a database with HEI metrics (e.g., graduate employment rates, alumni salaries).
- **Curriculum alignment**: Update curriculum to match industry demands, especially in manufacturing and services.
- **Financial support**: Implement the Student Loan Program for equitable access to higher education.
- **Economic policies**: Encourage investment to create high-skill jobs, foster innovation, and promote entrepreneurship.
- **Education funding**: Prioritize funding for well-equipped classrooms, qualified teachers, and necessary learning resources.
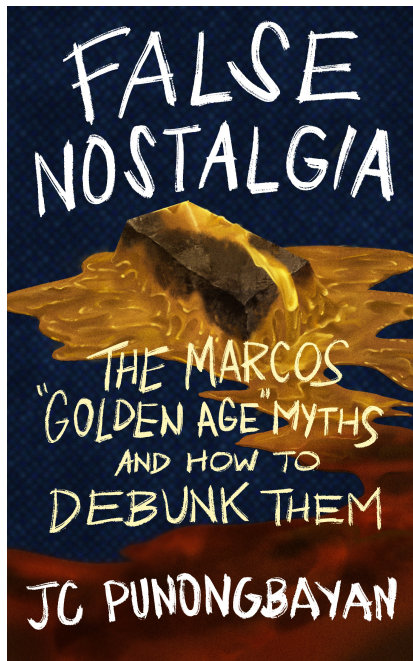
# Conclusion

- The study highlights declining and converging returns to education from 2005 to 2022, particularly for college graduates.
- To address inequality, policymakers must enhance both access and quality of education, while fostering an economy that supports high-skill job creation.
- Future research is needed on the effects of educational quality, HEI prestige, and field of study on labor market outcomes.

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# POLICY NOTES

# Returns to education in the Philippines (2005–2022): Declining benefits, increased inequities

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*Thank you!*