Formula or Negotiation? Assessing the Impact of Higher Education Funding Models on Graduation Rates in the European Union

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Abstract

This study empirically examines how national public funding mechanisms for higher education, along with economic and demographic conditions, influence graduation rates across EU countries. Using a panel dataset initially covering all 27 EU member states over the period 2013–2023, the research applies multiple linear regression analysis with time-lagged models (t to t–4) to capture delayed effects of investment and structural factors.

The model includes macroeconomic indicators (log-transformed GDP per capita, youth unemployment, youth population share), inflation (HICP), education-specific investment (HE expenditure as % of GDP and per student relative to GDP per capita), and the categorical variable of national HE funding mechanism, operationalized through dummy coding, with negotiation-based funding as the reference.

Findings reveal that both formula-based and formula-plus-performance-based models are negatively and significantly associated with graduation rates compared to negotiation-based systems. Moreover, higher GDP and HE expenditure as % of GDP show negative effects, while funding per student and youth share are positively related to graduation outcomes.

These results emphasize the relevance of funding structures in shaping the HE system's efficiency and equity. The study offers valuable policy insights for aligning investment models with performance-based outcomes.

Keywords: graduation outcomes; HE funding systems; lagged effects; public investment efficiency; tertiary education policy