

Education Funding in Greece. A Longitudinal Examination

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Abstract

This study provides a thorough longitudinal analysis of the Greek educational system during the period 1950-2022. It is based on data obtained from published reports by the Hellenic Statistical Authority (ELSTAT) and COFOG data by Eurostat. It mainly deals with educational expenditures as a percentage of total public consumption expenditures, total gross public expenditures, and Gross National Product (GNP). The analysis is mostly segmented into decades due to varying data availability for each period, as well as the need to be more detailed and highlight changes in funding. Findings show significant fluctuations in educational funding, mostly due to broader economic and political changes. Despite significant gains in public spending on education over the decades, the allocation of resources remains a challenge, falling well short of the European Union average. Thus, it is imperative to ensure sustainable and adequate funding for the continued development of Greece's educational infrastructure and services.

Keywords: funding, Greece, government expenditures, education

1. Introduction

As Pasmazoglou (1999) notes, there were two main sources for data concerning the funding of the Hellenic educational system: (a) National Accounts and (b) Regular Budget Expenditures. Moreover, expenditures for education can be defined as a percentage of total consumption expenditure, total gross expenditure (consumption and investment), or economic output.

However, data from the National Accounts and the expenditures of the Regular Budget consistently exhibit significant differences. According to Pasmazoglou (1999), the primary reasons for these disparities are as follows: Firstly, the total expenditures of the regular budget consistently exceed the total public consumption expenditures by 20% to 30%

because the regular budget expenditures include funds not part of public consumption expenditures, such as subsidies and certain investments. Secondly, in the regular budget, due to the allocation and reallocation of funds among various ministries, the estimation basis often changes. In contrast, in the national accounts, the contents of consumption expenditures are considered fixed. Finally, public consumption expenditures for education consistently exceed the expenditures allocated to the Ministry of Education based on the Regular Budget by 25-30%. The amount of consumption expenditures for education does not cover church funds but includes Public Entities' expenses beyond general government funds.

In the present study, the financing of the Greek educational system is historically investigated for the period from 1950 to 2022 using data sourced from the Hellenic Statistical Authority (ELSTAT) and the Eurostat's COFOG data. The methodology is mostly based on a thorough examination of data obtained from statistical yearbooks and national accounts published by the Hellenic Statistical Authority (ELSTAT). The analysis focusses on educational spending as a fraction of public consumption, total gross public expenditure, and Gross National Product (GNP). Because of inconsistency in data availability across different time periods, the analysis is mostly divided into decades. This mismatch results from changes in data collection methods and reporting standards across time. Additionally, Eurostat's COFOG data for the period after 1995 were examined, and Greek government education spending was compared to the European Union average, both in terms of total and GDP.

Section 1 analyzes the decade of the 1950s, section 2 the decade of the 1960s, and section 3 the decade of the 1970s. Section 4 covers the decade of the 1980s, section 5 discusses the period from 1990 to 2009, and section 6 presents the COFOG data. Finally, section 7 presents the conclusions of the study.

2. Decade of the 1950s

At the start of the examined period, Greece faced significant economic, social, and political challenges due to World War II, German occupation, and the civil war. Unlike most countries that began rebuilding efforts after WWII, Greece experienced a five-year delay due to the civil war. Post-civil war, the state economy, infrastructure, and administration were in disarray. According to Kyprianos (2009), the subsequent years were marked by high economic growth, significant international involvement (e.g., joining the Council of Europe and NATO), and changes in social structure driven by economic growth and migration.

Table 1 illustrates the current educational public expenditures as a percentage of total public consumption, total public expenditures, and GNP. It is evident that all indicators of educational expenditures increase significantly, almost tripling. This shift makes sense considering that at the start of the decade, educational spending accounted for a mere 0.75% of the country's GDP. On average for the entire 1950s, current public education expenditure represented: a) 9.95% of total public consumption expenditure, b) 7.52% of total gross public expenditure (consumption and investment), and c) 1.48% of Gross National Product.

Table 1. Educational Expenditure Indices

Year	Current Public Education Expenditure as a Percentage of Public Consumption (%)	Current Public Education Expenditure as a Percentage of Total Gross Public Expenditure (%)	Current Public Education Expenditure as a Percentage of GNP (%)
1950	4,82	3,15	0,75
1951	8,07	6,15	1,33
1952	7,95	6,22	1,34
1953	9,71	7,52	1,38
1954	9,87	7,82	1,47
1955	10,62	8,34	1,53
1956	10,40	8,03	1,63
1957	10,65	8,20	1,51
1958	13,62	10,08	1,94
1959	13,83	9,67	1,92

Calculations based on data from ELSTAT

Source: ELSTAT, National Accounts of Greece 1958-1975

Table 2 was generated using data from the other pillar of data collection for education spending, specifically published statistical yearbooks and state budget data. It reveals that in 1959, the Ministry of Education's expenditures accounted for 7.6% of total budget expenditures.

Table 2. Budget Expenditures

Year	Expenditures of the Ministry of Education, Research and Religious Affairs as a Percentage of the General Government Budget (%)
1957	7,1
1958	7,7
1959	7,6

Calculations based on data from ELSTAT

Source: ELSTAT, Statistical Yearbook of Greece for the year 1962

3. Decade of the 1960s

The early 1960s show a continuation of the rise in expenditures, peaking in 1966. By the late 1960s, there is a decline in percentages suggesting potential shifts in budget priorities. The average public education expenditure was 14.94% of total public consumption expenditure, 9.95% of total gross public expenditure, and 1.98% of GNP.

Table 3. Educational Expenditures Indices

Year	Current Public Education Expenditure as a Percentage of Public Consumption (%)	Current Public Education Expenditure as a Percentage of Total Gross Public Expenditure (%)	Current Public Education Expenditure as a Percentage of GNP (%)
1960	13,83	9,34	1,95
1961	13,87	8,95	1,83
1962	13,88	9,12	1,92
1963	14,54	9,82	1,90
1964	15,81	10,64	2,09
1965	15,96	10,70	2,10
1966	16,11	11,01	2,13
1967	15,37	10,43	2,08
1968	15,23	10,15	1,96
1969	14,80	9,38	1,87

Calculations based on data from ELSTAT

Source: ELSTAT, National Accounts of Greece 1958-1975

Data for the state budget was extracted from published statistical yearbooks for the years 1965 and 1971, forming Table 4. This table indicates that expenditures for the Ministry of Education and Religious Affairs as a percentage of the budget peaked in the middle of the period and then declined. On average, these expenditures accounted for 8.6% of total budget expenditures throughout the decade. Despite the upward trend in the first half, a defining feature of the 1960s was the scarcity of resources for education towards the end of the decade.

Table 4. Budget Expenditures

Year	Expenditures of the Ministry of Education, Research and Religious Affairs as a Percentage of the General Government Budget (%)
1960	7,9
1961	7,4
1962	7,5
1963	8,1
1964	9,3
1965	10,1
1966	10,0
1967	9,5
1968	9,1
1969	7,3

Calculations based on data from ELSTAT Source: ELSTAT, Statistical Yearbook of Greece for the years 1965 & 1971

4. Decade of the 1970s

In the 1970s, the global economy experienced significant turbulence due to the collapse of the Bretton Woods system and the dramatic increase in oil prices imposed by OPEC countries. This upheaval marked the end of a long-term period of simultaneous stability and growth in modern Greek history (Karamouzis & Anastasatos, 2011). The fragile Greek economy, heavily reliant on external factors, was significantly impacted by current account deficits and inflationary pressures (Drakatos, 1997). During the early 1970s, education spending as a percentage of GDP declined, while as a percentage of public consumption it reached its lowest point in 1975. However, there was a recovery onwards, with 1978 recording one of the highest percentages of public consumption dedicated to education. Despite fluctuations, the indicators of current educational expenditures at the end of the 1970s did not differ significantly from those at the beginning of the decade. On average during the 1970s, current public education expenditure represented: a) 14.24% of total public consumption expenditure (compared to 14.94% in the previous decade), b) 9.80% of total gross public expenditure (consumption and investment) (compared to 9.95% in the previous decade), and c) 1.88% of Gross National Product (compared to 1.98% in the previous decade).

Table 5. Educational Expenditures Indices

Year	Current Public Education Expenditure as a Percentage of Public Consumption (%)	Current Public Education Expenditure as a Percentage of Total Gross Public Expenditure (%)	Current Public Education Expenditure as a Percentage of GNP (%)
1970	14,96	9,79	1,86
1971	15,16	9,23	1,83
1972	14,82	8,77	1,74
1973	15,14	9,07	1,64
1974	13,75	9,54	1,87
1975	12,73	9,27	1,83
1976	13,21	9,69	1,87
1977	13,89	10,63	2,02
1978	14,94	11,36	2,12
1979*	14,19	10,66	2,05

* temporary data

Calculations based on data from ELSTAT

Source: ELSTAT, National Accounts of Greece 1958-1975 & National Accounts of Greece 1973-1980

Table 6, constructed from published statistical yearbooks for the years 1976 and 1981, details the expenditures of the Ministry of Education and Religious Affairs within the General State Budget. The data show that these expenditures peaked in 1978 at 9.3%. On average, they represented 8.21% of total budget expenditures over the examined decade, slightly lower than the 8.6% average in the previous decade.

Table 6. Budget Expenditures

Year	Expenditures of the Ministry of Education, Research and Religious Affairs as a Percentage of the General Government Budget (%)
1970	8,3
1971	8,2
1972	7,5
1973	7,6
1974	8,3
1975	7,8
1976	7,7
1977	8,4
1978	9,3
1979	9,0

Calculations based on data from ELSTAT

Source: ELSTAT, Statistical Yearbook of Greece for the years 1976 & 1981

5. Decade of the 1980s

During the 1980s, the Greek economy experienced high public deficits and high inflation. Despite these challenges, there was significant progress in public education expenditures as percentages of total consumption expenditure, total gross expenditure, and GDP increased, driven by increased government spending on education. On average during the 1980s, current public education expenditure represented: a) 14.91% of total public consumption expenditure, b) 10.48% of total gross public expenditure, and c) 2.50% of Gross National Product.

Table 7. Educational Expenditures Indices

Year	Current Public Education Expenditure as a Percentage of Public Consumption (%)	Current Public Education Expenditure as a Percentage of Total Gross Public Expenditure (%)	Current Public Education Expenditure as a Percentage of GNP (%)
1980	13,29	10,05	1,89
1981	13,01	9,99	1,98
1982	13,66	10,38	2,13
1983	14,86	11,02	2,39
1984	13,48	9,82	2,19
1985	14,60	10,45	2,39
1986	14,59	10,99	2,35
1987	14,34	11,44	2,34
1988	14,19	11,36	2,31
1989	15,54	12,28	2,55

Calculations based on data from ELSTAT Source: ELSTAT, National Accounts of Greece 1989; National Accounts of Greece 1990 & National Accounts of Greece 1994

On the other hand, data for the state budget was extracted from published statistical yearbooks, forming Table 8. This table indicates that expenditures for the Ministry of Education and Religious Affairs as a percentage of the budget decreased after experiencing significant fluctuations. On average, during the 1980s, these expenditures accounted for 7.7% of the total budget, significantly lower than the previous decade where the average was 8.2%. By the end of the decade, they constituted only 6.2%. These figures, based on the state budget, show a downward trend compared to the previous decade. However, they contrast with current educational expenditures. This discrepancy is due to differences in how funds are allocated in the budget and the national accounts.

Table 8. Budget Expenditures

Year	Expenditures of the Ministry of Education, Research and Religious Affairs as a Percentage of the General Government Budget (%)
1980	9,8
1981	7,3
1982	9,0
1983	8,0
1984	7,3
1985	8,5
1986	7,7
1987	6,8
1988	6,1
1989	6,2

Calculations based on data from ELSTAT

Source: ELSTAT, Statistical Yearbook of Greece for the years 1982 to 1996

6. The Period 1990-2009

Between 1990 and 2009, Greece's economic output grew at a rate higher than the European Union average. However, the global financial crisis disrupted this growth trajectory, causing a negative growth rate in 2009 for the first time since 1993.

Table 9, constructed using data from the statistical yearbooks of ELSTAT, displays the indicator of educational expenditures within the general state budget. According to Table 9, expenditures by the Ministry of Education and Religious Affairs as a percentage of the general state budget initially declined, reaching their lowest values in 1993 and 1994 (3.2%). Subsequently, they generally exhibited an upward trend, peaking at 6.6% in 2006. Over the next three years, the trend declined, with educational expenditures averaging 4.9% of total expenditures throughout the examined period, much lower than in previous periods.

Table 9. Budget Expenditures

Year	Expenditures of the Ministry of Education, Research and Religious Affairs as a Percentage of the General Government Budget (%)
1990	5,3
1991	4,0
1992	3,7
1993	3,2
1994	3,2
1995	3,5
1996	3,7
1997	4,3
1998	4,9
1999	5,3
2000	5,7
2001	6,4
2002	6,1
2003	5,9
2004	5,6
2005	6,1
2006	6,6
2007	5,3
2008	5,2
2009	4,4

Calculations based on data from ELSTAT

Source: ELSTAT, Statistical Yearbook of Greece for the years 1994-1995, 1998, 2001, 2005 & 2009-2010

7. The COGOF Data

The OECD classified COFOG (The Classification of the Functions of Government) in 1999. This categorization refers to the divisions of public spending that enable the government to pursue its objectives and preferences. The data begins in 1995 and is based on the European System of National Accounts ESA 1995.

The share of Greek government spending on education fluctuated between 1995 and 2022. During this period, it increased slightly as a percentage of GDP but decreased marginally as a percentage of total government expenditure. Notably, the fraction of the GDP that went toward education peaked in 2012 at 4.6%, although the share of the budget that went toward education peaked in 2005 at 9.2%.

As seen in Table 10 Greece has continuously spent a smaller percentage of its entire expenditures on education than the EU. The EU maintained rates between 9.3% and 10.4%, whereas Greece's rates fluctuated significantly, ranging from 7.1% to 9.2%.

In addition, Greece's GDP share allotted to education was always lower than that of the EU, which ranged 4.7%–5.1%; in contrast, Greece's share fluctuated more, ranging from 3.6% to 4.6%.

Table 10. Government expenditure by function – COFOG

Year	<i>Greece</i>		<i>European Union - 27 countries (from 2020)</i>	
	General government expenditure on education purposes (COFOG) as a percentage of the total	General government expenditure on education purposes (COFOG) as a percentage of GDP	General government expenditure on education purposes (COFOG) as a percentage of the total	General government expenditure on education purposes (COFOG) as a percentage of GDP
1995	7,9	3,6	9,3	4,9
1996	8,1	3,6	9,8	5,0
1997	9,0	3,9	10,0	4,9
1998	8,0	3,6	10,1	4,9
1999	8,1	3,7	10,2	4,9
2000	8,3	3,9	10,2	4,8
2001	8,1	3,7	10,3	4,9
2002	8,5	3,9	10,4	4,9
2003	9,1	4,3	10,4	5,0
2004	8,6	4,1	10,3	4,9
2005	9,2	4,2	10,4	4,9
2006	8,1	3,6	10,3	4,8
2007	7,6	3,6	10,3	4,7
2008	7,4	3,8	10,2	4,8
2009	7,6	4,1	10,0	5,1
2010	7,8	4,1	10,0	5,1
2011	8,2	4,5	10,1	4,9
2012	8,0	4,6	9,8	4,9
2013	7,1	4,5	9,9	4,9

2014	8,4	4,3	10,0	4,9
2015	7,6	4,2	10,0	4,8
2016	8,0	4,0	10,0	4,7
2017	8,0	3,9	10,0	4,7
2018	8,4	4,1	10,1	4,7
2019	8,3	4,0	10,1	4,7
2020	7,5	4,5	9,4	5,0
2021	7,1	4,1	9,4	4,8
2022	7,2	3,8	9,5	4,7

Source: Eurostat

8. Conclusions

The current study looks into post-war Greece's financing for education. The period under examination (1950–2022) witnessed significant ups and downs. In the early 1950s, Greece was trying to recover after two devastating wars. The spending on education was less than 1% of GDP in 1950, but it grew quickly as a result of its small stature, rapid economic expansion, and social transformation. The upward trend continued until about the mid-1960s. The following decade, the 1970s, was marked by global turbulence and domestic challenges, which appear to have had a considerable impact on education expenditures. Although there were fluctuations, total spending has remained roughly at the same levels as in the previous decade. In the 1980s, despite considerable economic difficulties, current expenditure increased significantly. In the period from 1990 to 2009, Greece impressed with its economic growth, which was above the EU average, however the GDP collapsed sharply due to the global financial crisis in 2009. During that period (1990-2009), education spending initially declined, then increased in the mid-2000s, peaking in 2006 before falling again. COFOG data covering the years 1995 to 2022 revealed a discouraging conclusion that government spending on education has always lagged the EU average.

The conducted analysis draws attention to the ongoing challenges in resource allocation and the serious implications that ensue. The fluctuations in education spending over time demonstrate the need for more stable and sustainable funding. Policymakers should prioritize raising and sustaining the percentage of GDP allocated to education, ensuring that financing is not overly influenced by short-term economic or political factors. The financing gap between Greece's education system and the EU average must be addressed, and solid and consistent funding mechanisms are clearly needed.

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Note: All references are in Greek.

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