

Essays in Public Education

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(ABSTRACT)

Chapter 1 introduces some of the issues which are addressed in the other chapters of this dissertation. These topics include: (1) the general equilibrium incentives in the provision of public education, (2) human capital production functions in economic modeling, (3) how public education spending may impact income inequality -- both positively and negatively, (4) the effect on public education spending of changes in the college wage premium, and (5) the overall efficiency of government-supplied capital.

Chapter 2 develops a public education system in which voters face general equilibrium incentives to pay taxes for education. Middle-aged voters can increase their returns to saving by increasing the aggregate amount of human capital in the economy. I find that if students differ by their ability to increase their human capital levels through schooling, then the public education policy will invest more education funds in more productive students; this perpetuates income inequality. Also, the greater the discount rate for consumption and the elasticity of education funds in the human capital production function, the more likely it is that a public system provides greater growth in the steady state than a private system.

Chapter 3 studies the allocation of government spending between general tuition subsidies for college students and need-based aid which is directed solely towards students from low-income households. The way to maximize the number of students may be to provide some need-based aid. I find that government provides more aid directed to low-income students if need-based tuition subsidies are provided rather than student loan subsidies. I also look at the effects of changes in parameters, such as the cost of education and the college wage premium, on the policies.

Chapter 4 investigates the returns to aggregate factors of production when labor is disaggregated by education level. I find that a model in which the error term is assumed to be state-wise heteroscedastic and autocorrelated does a better job of approximating the pattern of wages for the different education groups than other models (pooled OLS or random and fixed effects). In addition, this model suggests a significant positive elasticity for public capital.

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Table of Contents

Abstract.....	ii
Acknowledgments	iii
List of Figures	vi
List of Tables.....	vii
1. Issues in the Public Provision of Education	
1.1 Introduction	1
1.2 General Equilibrium Incentives for Public Education.....	3
1.3 Human Capital Production as an Engine for Growth	5
1.4 Income Inequality and Economic Efficiency in Public Education.....	7
1.4.1 Decreasing Inequality with Public Education	7
1.4.2 Increasing Inequality with Public Education	9
1.5 The Effect of a Rising Wage Premium on Public Education Expenditure	11
1.6 The Efficiency of Government-Supplied Capital.....	13
2. A Comparison of Public and Private Education Systems in a General Equilibrium Model	
2.1 Introduction.....	15
2.2 Human Capital Production with Public Education	19
2.2.1 The Economic Environment.....	19
2.2.2 Public Education with Majority Voting.....	21
2.2.3 Public Education and Inequality Over Time	26
2.3 Human Capital Production with Private Education	26
2.3.1 Determining Levels of Education Quality.....	27
2.3.2 Aggregation of Education Spending and Inequality	28
2.4 Comparing Steady States.....	29
2.4.1 Steady State with Public Education	29
2.4.2 Steady State with Private Education	30
2.4.3 Growth or Decline in the Steady State?.....	31

2.5 Comparing Public and Private Regimes.....	32
2.5.1 Comparisons of Physical Capital Accumulation.....	33
2.5.2 Comparisons of Education Quality	34
2.5.3 A Comparison of Steady State Growth Rates.....	36
2.5.4 A Comparison of Welfare.....	37
2.6 Concluding Remarks	38
Appendix A.....	40
Figures	43
3. Determining Preferred Levels of Tuition and Need-Based Aid Subsidies for Colleges	
3.1 Introduction.....	46
3.1.1 The Provision of Public Higher Education	47
3.1.2 State Government Practices in Determining Higher Education Spending.....	48
3.2 The Model.....	51
3.2.1 The Voters.....	51
3.2.2 The Young Agents	52
3.3 Government Supply of General Tuition Subsidies and College Loan Subsidies.....	56
3.3.1 The Government's Budget Constraint	56
3.3.2 The Choice of the Tax Rate with Majority Voting.....	59
3.3.3 An Initial Simulation	61
3.4 General Tuition Subsidies Versus Need-Based Tuition Subsidies.....	63
3.4.1 The Optimal Mix of Subsidies.....	63
3.4.2 The Response to a Rising College Wage Premium	65
3.5 Government Maximization of Future Incomes of the Young Agents.....	65
3.6 Conclusions.....	69
Appendix A.....	70
Figures	74
4. The Returns to Aggregated Factors of Production when Labor Is Measured by Education Level	
4.1 Introduction.....	75
4.2 Aggregate Output and Education-Grouped Workers	78
4.3 Deriving Marginal Products of Labor.....	80

4.4 Data Sources	81
4.4.1 Construction of Aggregate Variables	81
4.4.2 Summary Statistics for Education Group Variables	82
4.5 Empirical Results	83
4.5.1 Pooled OLS Estimation	84
4.5.2 Fixed Effect and Random Effect Models of Aggregate Output	85
4.5.3 Groupwise Heteroscedastic and Autocorrelated Errors	87
4.6 Conclusions.....	89
Tables	90
Bibliography	98
Vita	103

List of Figures

Figure 2.1: Values of the Preferred Tax Rate	43
Figure 2.2: Growth Rates of Capital in the Steady State.....	44
Figure 2.3: Growth Rates of Public and Private Regimes	45
Figure 3.1: Effect of Tuition Subsidies on the Educational Choice Margin.....	74
Figure 3.2: Effect of Student Loan Subsidies on the Educational Choice Margin	74

List of Tables

Table 2.1: Actions of Agents.....	19
Table 2.2: Summary of Welfare Gains from Movement from a Public Education System to a Private System	38
Table 3.1: Simulations of y^* with Different Parameter Values	55
Table 3.2: Preferred Rates of ρ and \tilde{r}	62
Table 3.3: Preferred Rates of ρ and ρ_2	64
Table 3.4: Preferred Rates of ρ and ρ_2 for larger value of a	66
Table 3.5: Preferred Rates of ρ and \tilde{r} when Government Maximizes Earnings.....	68
Table 3.6: Preferred Rates of ρ and ρ_2 when Government Maximizes Earnings	68
Table 4.1: Mean Yearly Income in 1990 (1992 dollars)	80
Table 4.2a: Summary Statistics for Worker Groups – Growth Rates	90
Table 4.2b: Summary Statistics for Worker Groups – Correlations of Growth Rates	90
Table 4.3a: Summary Statistics for Worker Groups -- Share of Each Group in the Work Force	91
Table 4.3b: Summary Statistics for Worker Groups -- Growth Rates of the Share of Each Group in the Work Force.....	91
Table 4.4: Estimated Parameters Derived in Holtz (1994) for 1969-86	92
Table 4.5: Estimated Parameters Using Data for 1980-92.....	92
Table 4.6: Pooled OLS Estimation	93
Table 4.7: Imputed Marginal Products Based on Estimated Elasticities in Table 4.6	95
Table 4.8: Estimated Elasticities for State-Specific Effects	95
Table 4.9: Imputed Marginal Products Based on Elasticities in Table 4.8	96
Table 4.10: Statistics on the Predicted Standard Errors of the Pooled OLS Regression.....	96
Table 4.11: Estimated Elasticities with Groupwise Heteroscedasticity and Autoregression of the Disturbances.....	96
Table 4.12: Imputed Marginal Products Based on Estimated Elasticities in Table 4.11.....	97