

The Incidence of Student Financial Aid: Evidence from the Pell Grant Program

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Abstract

The federal Pell Grant Program provides billions of dollars in subsidies to low-income college students to increase affordability and access to higher education. I estimate the economic incidence of these subsidies using regression discontinuity (RD) and regression kink (RK) designs. I show that institutions capture 17 percent of all Pell Grant aid. However, the extent and pattern of capture vary by institutional control and selectivity. While RK estimates suggest that schools capture Pell Grant aid through price discrimination, RD estimates imply the opposite result, that schools supplement Pell Grants with *increases* in institutional aid. I reconcile these disparate findings through a framework in which the treatment of Pell Grant aid is multidimensional: students receive an additional dollar of Pell Grant aid and are also labeled as Pell Grant recipients. RD estimates confound the effects of these dimensions, which have opposite impacts on schools' pricing decisions. I develop a combined RD/RK approach, which allows me to separately identify schools' willingness to pay for students categorized as needy and the pricing response to outside subsidies.

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Appendix Table C2: Institutional-level analyses of the correlation between Pell Grant Aid and Expenditures per FTE, Nonselective Institutions

	<u>Public Institutions</u>		<u>Nonprofit Institutions</u>		<u>For-profit Institutions</u>	
	(1)	(2)	(3)	(4)	(5)	(6)
<i>Dependent variable:</i>						
Instruction expenditures	0.177 (0.133)	0.009 (0.146)	1.223 (0.633)+	0.395 (0.838)	0.262 (0.271)	0.640 (0.397)
Research & public service expenditures	-0.052 (0.076)	-0.042 (0.103)	0.400 (0.190)*	0.179 (0.181)	0.028 (0.036)	0.023 (0.051)
Academic/student support expenditures	-0.232 (0.167)	-0.227 (0.149)	1.767 (0.967)+	0.581 (0.906)	-0.190 (0.726)	0.241 (0.863)
Other expenditures	1.156 (0.203)**	1.085 (0.221)**	1.549 (0.611)*	1.039 (0.747)	-0.234 (0.432)	-0.035 (0.688)
Number of Observations	13,002	13,002	5,530	5,530	10,629	10,629
Institution linear time trends		X		X		X

Source: IPEDS 2000-2009. Notes: Each cell represents a separate regression. Standard errors clustered at institution level in parentheses; ** p<0.01, * p<0.05, + p<0.1; all amounts in constant 2011\$; all regressions include institution fixed effects, county annual unemployment rates, and controls for other sources of revenue per FTE student (federal, state/local, private/investment/endowment, and other). Columns 1,3, and 5 also include linear state time trends; columns 2, 4 and 6 include institution-specific linear time trends. All regressions instrument for Pell Grants/FTE with the annual maximum Pell Grant award (Figure 1). Regressions are weighted by number of FTE undergraduate students.