

Table 3.1 Selected sources of regression-discontinuity designs

Source of RD design	Units in study group (at RD threshold)	Treatment variables	Outcome variables
<i>Entrance exams</i>	Students, others	Public recognition of scholastic achievement	Educational achievement
<i>Population thresholds</i>	Municipalities, citizens	Voting technologies Federal funds Cash transfers Electoral rules Politicians' salaries	Effective turnout Voting behavior Voting behavior Voting behavior Candidate entry
<i>Size-based thresholds</i>			
Voter numbers	Voters	Voting by mail	Voting behavior
School size	Students	Class size	Educational achievement
Firm size	Firms	Antibias laws	Productivity
<i>Eligibility criteria</i>			
Poverty rank	Municipalities	Antipoverty programs	Voting behavior
Criminality index	Prisoners	High-security incarceration	Recidivism
<i>Age-based thresholds</i>			
Voting age	Voters	Past voting	Turnout
Birth quarter	Students	Years of education	Earnings
<i>Close elections</i>	Candidates/parties	Incumbency	Candidates' performance
	Firms	Campaign donations	Public works contracts

Note: The table provides a non-exhaustive list of sources of regression-discontinuity designs. Specific studies are listed in Table 3.2. RD, regression discontinuity.

social-scientific research; the second provides a non-exhaustive yet large list of specific recent studies using this research design. For each study, the table lists the author(s), substantive focus, country in which the study took place, and the source of the regression discontinuity.⁷ (Table 3.2 also lists whether a simple difference-of-means test is used to analyze the data, a topic for which I again postpone further discussion until later chapters.)

How are these designs discovered and leveraged in the service of diverse research agendas? As with standard natural experiments, discovering useful regression discontinuities is as much an art as a science. Yet, as the survey in this section will show, regression-discontinuity designs developed in one place or context have often served as inspiration for designs in other settings. One

⁷ Most of these studies take place within a single country, a topic I will discuss elsewhere.

Table 3.2 Examples of regression-discontinuity designs

Authors	Substantive focus	Source of regression discontinuity	Country	Simple difference of means?
<i>Angrist and Lavy</i> (1999)	Effect of class size on educational achievement	Enrollment ceilings on class sizes	Israel	No
<i>Boas and Hidalgo</i> (2011)	Effect of incumbency on access to media	Near-winners and near-losers of close elections	Brazil	Yes
<i>Boas, Hidalgo, and Richardson</i> (2011)	Effect of campaign donations on access to government contracts	Near-winners and near-losers of close elections	Brazil	No
<i>Brollo and Nannicini</i> (2010)	Effect of partisan affiliation of incumbent mayor on federal transfers	Near-winners and near-losers of close elections	Brazil	No
<i>Brollo et al.</i> (2009)	Effect of federal transfers to municipalities on corruption and candidate quality	Population-based revenue-sharing formula	Brazil	No
<i>Chamon, de Mello, and Firpo</i> (2009)	Effects of second-round mayoral runoffs on political competition and fiscal outcomes	Population-based discontinuity in voting system	Brazil	No
<i>Dunning</i> (2010b), <i>Dunning and Nilekani</i> (2010)	Effects of caste-based quotas on ethnic identification and distributive politics	Rule rotating quotas based on caste population proportions ^a	India	Yes
<i>Eggers and Hainmueller</i> (2009)	Effects of holding legislative office on wealth accumulation	Near-winners and near-losers of close elections	UK	No ^b
<i>Ferraz and Finan</i> (2010)	Impact of monetary incentives on politician quality and performance	Salary caps for politicians based on municipal size	Brazil	No
<i>Fujiwara</i> (2011)	Effects of second-round runoff on first-round vote shares	Population-based discontinuity in voting system	Brazil	No ^b
<i>Fujiwara</i> (2009)	Effects of electronic voting technology on de facto enfranchisement and fiscal policy	Thresholds based on numbers of registered voters	Brazil	No ^b
<i>Gerber, Kessler, and Meredith</i> (2011)	Effects of campaign mail on voter turnout and vote choice	Discontinuity in rule used to select households to receive mail ^c	US	Yes
<i>Golden and Picci</i> (2011)	Incumbency advantage and distribution of pork	Within-party comparisons of near-winners and near-losers	Italy	No

<i>Hidalgo</i> (2010)	Effects of electronic voting technology on de facto enfranchisement and fiscal policy	Thresholds based on numbers of registered voters	Brazil	Yes
<i>Kousser and Mullin</i> (2007), <i>Meredith and Malhotra</i> (2011) <i>Lerman</i> (2008)	Effects of voting by mail on turnout and vote choice Social and political effects of incarceration in high-security prisons	Population-based thresholds used to select precincts for voting by mail Criminality index used to assign prisoners to security levels	US US	No Yes ^d
<i>Litschig and Morrison</i> (2009)	Effects of federal transfers to municipalities on incumbent reelection probabilities	Discontinuities based on population-based revenue-sharing formula	Brazil	Yes
<i>Manacorda, Miguel, and Vigorito</i> (2011)	The effect of a cash-transfer program on support for the incumbent government	Discontinuity in program assignment based on a pre-treatment eligibility score	Uruguay	Yes
<i>Meredith</i> (2009)	The effect of past voting on subsequent turnout and partisanship	Voting-age restrictions	US	No ^b
<i>Titunik</i> (2009)	Incumbency advantage in mayoral elections	Near-winners and near-losers of close elections	Brazil	Yes

^a This RD design has an element of true randomization.

^b Local linear regression with or without covariates, or polynomial regression without covariates, is used in these studies, and graphic difference-of-means comparisons are made.

^c The rule is a function of income and other variables.

^d Regression-discontinuity and instrumental-variables designs are both used.