

Dictatorship, Higher Education and Social Mobility*

María Angélica Bautista Felipe González Luis R. Martínez
Pablo Muñoz Mounu Prem

August 2021

Abstract: We study the relationship between political regimes and higher education and its implications for social mobility and political opposition in the context of the 1973 coup that brought Augusto Pinochet to power in Chile. We show that the Pinochet dictatorship's aims of political control and fiscal conservatism caused a large contraction of all universities in the country, mostly through a steady reduction in the number of openings for new students. Individuals that reached college age shortly after the coup experienced a sharp decline in college enrollment, had worse labor market outcomes throughout the life cycle and struggled to climb up the socioeconomic ladder. These individuals registered to vote at higher rates for the 1988 plebiscite that triggered the democratic transition and we provide suggestive evidence that they increasingly voted against Pinochet. After democratization, children with a parent in the affected cohorts are also less likely to enroll in university.

Keywords: Chile, Pinochet, dictatorship, universities, social mobility, intergenerational transmission, democratization

JEL codes: H52, I23, I24, I25

*We thank Daron Acemoglu, Dan Black, José Joaquín Brunner, David Card, Kerwin Charles, José Díaz, Steven Durlauf, James Fenske, Claudio Ferraz, Fred Finan, Mónica Martínez-Bravo, James Robinson, Martín Rossi, Noam Yuchtman and seminar participants at the University of Chicago, the University of California - Berkeley, Universidad del Rosario, Universidad de Chile, Universidad de San Andrés, Universidad Javeriana, Universidad de los Andes, the Latin American Network in Economic History and Political Economy virtual seminar, the virtual Economic History seminar, the EH Clio Lab, the 2020 Ridge workshops in Public Economics and Political Economy and the 35th Annual Congress of the European Economic Association for comments and suggestions. We also thank Fondecyt (project 11170258) and the Pearson Institute for the Study and Resolution of Global Conflicts for financial support. Azize Engin, Katia Everke, Juan Manuel Monroy, Daniela Guerrero, María Paula Tamayo and Piera Sedini provided outstanding research assistance. Bautista and Martínez: University of Chicago, Harris School of Public Policy; González: Pontificia Universidad Católica de Chile, Instituto de Economía; Muñoz: FGV EPGE, Brazilian School of Economics and Finance; Prem: Universidad del Rosario, Department of Economics. First version: May 2020.

1 Introduction

Prominent theories of regime change posit a strong link between democracy and redistribution (Boix, 2003; Acemoglu and Robinson, 2006). Such redistribution can take place through direct transfers or through the provision of public goods, including education (Meltzer and Richard, 1981; Lizzeri and Persico, 2004). Previous research has documented a positive correlation between democracy and educational expansion (Lindert, 2004; Ansell, 2010), which persists until the present day, as Figure 1 shows for the specific case of tertiary enrollment.¹ However, it remains unclear whether the link between political regimes and education reflects a causal relationship and how this may affect social mobility (Acemoglu et al., 2015). These are ultimately empirical questions, as existing theoretical work highlights the trade-off between the political threat posed by a more educated population and the economic loss resulting from lower human capital, yielding somewhat ambiguous predictions about educational policy in authoritarian regimes (Bourguignon and Verdier, 2000; Cantoni and Yuchtman, 2013). This trade-off is particularly stark in the case of higher education, since universities are key contributors to elite training and human capital formation, but are also focal points for political mobilization. In this regard, most previous work assumes a positive relationship between education and political activism, in line with modernization theory (Lipset, 1959). The possibility that reduced access to educational opportunities could fuel popular discontent has received limited attention (Bai and Jia, 2016; Passarelli and Tabellini, 2017).

Empirical progress on these topics has faced three important hurdles. First, sources of plausibly exogenous variation in exposure to regime change are hard to find. Second, some of the main outcomes of interest may require a long time to materialize. Third, the dearth of data often makes it impossible to accurately measure these outcomes. In this paper, we study the relationship between regime change and higher education and its implications for social mobility and political opposition in the context of Chile's Pinochet dictatorship. For this purpose, we leverage plausibly exogenous variation in exposure to the changes in educational policy implemented by the dictatorship and we combine historical and contemporary data from multiple sources spanning more than five decades.

Our analysis proceeds in four stages. First, we reconstruct the capture of higher education by the Pinochet regime after the 1973 military coup that brought it to power. We show that the regime's aims of political control and fiscal conservatism led to a large contraction of all universities in the country, mostly through a steady reduction in the number of openings for incoming students.

¹The sample period in Figure 1 is 1970-2019. Appendix Figure A1 provides disaggregate plots by decade. Appendix Figure A1 shows that these correlations are robust to controlling for income per capita.

Second, we study the effect of these policies on social mobility by comparing individuals that reached college age shortly before and after the coup. We find that the latter experienced a sharp decline in college enrollment, had worse labor market outcomes throughout the life cycle and struggled to climb up the socioeconomic ladder. Third, we study political behaviors in the 1988 plebiscite that triggered Chile's democratic transition. We show that individuals reaching college age after the coup registered to vote at higher rates. We also document a robust positive correlation between the county-level reduction in college enrollment and opposition to Pinochet at the polls. Lastly, we examine long-run effects by studying the educational attainment of children with parents in the affected cohorts. These children are also less likely to enroll in university, despite reaching college age several years after Chile's return to democracy in 1990.

Our analysis is centered around the military coup that took place on September 11, 1973, which overthrew president Salvador Allende and put in power a junta led by Augusto Pinochet. Before the coup, college enrollment had been rapidly expanding in response to the growing demand for economic opportunities by the urban middle class. After the coup, universities were quickly targeted as part of the new regime's attempt to eradicate all sources of political opposition. Members of the military were appointed as rectors of all universities and many students and faculty were persecuted. However, the regime's handling of universities soon began to reflect the growing influence over policy of a group of market-friendly economists known as the *Chicago Boys*. Over the following years, the dictatorship steadily reduced subsidies to universities, which were largely reliant on government funding and were thus forced to downscale. This mostly took place through a reduction in openings for incoming students and led to a sharp fall in college enrollment. As a result of the matching algorithm used for admissions, the students barred from higher education were those with lower scores in an admissions exam, who disproportionately came from less affluent families. Importantly, the distribution of students across fields remained largely unchanged and post-enrollment outcomes improved for the ever fewer number of admitted students.

To study the impact of this contraction of higher education, we exploit quasi-random exposure to diminished educational opportunities across birth cohorts that reached college age in a narrow window around the military coup, in the spirit of a regression kink design (Card et al., 2015). We show that cohorts reaching age 21 (the average age of first-year college students in 1970) after the coup exhibit a sharp downward kink in college enrollment, despite no visible change in secondary completion. A complementary synthetic-control analysis using harmonized census data from other countries confirms the existence of a sizable gap in college completion for the affected Chilean cohorts. We then combine census and survey data to analyze downstream effects on labor market outcomes, income and wealth. Our baseline strategy involves estimating kinks in the cohort-level

trends of our outcomes of interest for people reaching age 21 after 1973. Naturally, a purely cross-sectional comparison of different cohorts could be confounded by non-linear age effects. Fortunately, the biennial CASEN household survey allows us to observe cohorts repeatedly over time at frequent intervals and to estimate a more stringent specification with age fixed effects.

The affected cohorts exhibit a large negative kink in the probability of having a professional occupation (e.g., doctor, lawyer), which is offset by upward kinks in the probability of having various low-skill or blue-collar occupations. These range from clerks and service workers to domestic helpers and street food vendors. The affected cohorts also exhibit downward kinks in labor force participation and in an occupational earnings score that we construct, and an opposite upward kink in unemployment. These kinks are economically meaningful, clearly visible in raw data from different sources, and robust to flexibly controlling for age effects or to changes in the bandwidth of cohorts analyzed. We also document downward kinks in the probability of being at the top of the income or wealth distributions for the affected cohorts, which strongly suggests that the educational contraction under Pinochet hindered social mobility.

We then examine a possible link between the contraction of higher education and political behaviors in the 1988 plebiscite that triggered the democratic transition. This plebiscite asked voters to decide whether they wanted Pinochet to continue in power (SI option) or to have open presidential elections instead (NO option). Using individual-level data on the universe of Chilean voters in 2017, we show that the affected cohorts exhibit an upward kink in voter registration before the plebiscite, which we interpret as an indication of enhanced political mobilization. To further understand the electoral consequences of reduced access to higher education, we estimate county-specific measures of the kink in college enrollment. We document a robust, positive correlation between this local impact measure and the NO vote share, which won with 55% of total votes.

In the final part of the paper, we examine the long-term consequences of the dictatorship's policies. We study the intergenerational transmission of college enrollment by connecting parents and children based on household composition in the 2017 census. Even though this naturally introduces some selection, the results are robust to the inclusion of a large battery of controls as well as to multiple changes in the composition of the sample. We document a negative kink in college enrollment among children with a parent in the affected cohorts, analogous to the one observed for their parents. Importantly, these children reached college age several years after the country's return to democracy in 1990. Looking at lower levels of education, we find smaller downward kinks for all levels of secondary, but not for primary, which is mandatory in Chile.

We contribute to the literature studying the relationship between political regimes and redistribution ([Acemoglu et al., 2015](#)). Educational policy has garnered substantial attention in this

literature, but most research has focused on lower levels of education, with mixed findings (e.g., Mulligan et al., 2004; Harding and Stasavage, 2013; Paglayan, 2020). There is limited evidence on higher education and it points to a null effect (Gallego, 2010). We add to this literature by providing historical and quantitative evidence on the sizable impact of regime change on Chilean universities. We also provide within-country evidence on the negative and persistent effects of the change in policy on labor market outcomes and social mobility for the affected population.

The Pinochet regime's approach to universities shares many features with other authoritarian regimes (Connelly and Grüttner, 2005). These include the capture of the higher education system shortly after regime change and the elimination of democratic structures within universities, as happened in the Soviet Union in 1922 and in Nazi Germany in 1933. They also include the introduction of controls over the size and the composition of the student body, as happened in China during the Cultural Revolution and also in Nazi Germany (Waldinger, 2010, 2011; Roland and Yang, 2017; Li and Meng, 2020; Alesina et al., 2020). The shutdown of Central European University by Hungarian strongman Viktor Orbán in 2018 provides a more recent example. The main feature that sets the Pinochet regime apart from most other dictatorships is its technocratic concern over the size of government and its embrace of free-market capitalism. Chile is an interesting setting in this regard, as the technocratic reforms implemented under Pinochet are often credited for the country's recent economic success (Becker, 1997). However, the Pinochet era was also characterized by a sharp increase in inequality, with the share of income going to top earners growing at the expense of the middle class, as we show in Figure 2.² Our results help to explain this pattern and they bring to light the large and persistent distributional consequences of higher education policy under Pinochet. They also speak more broadly to the hypothesis that dictatorship may yield economic benefits at early stages of development (Posner, 2010; Easterly, 2013).³

We also contribute to the large literature on the relationship between education and political behaviors. This literature has largely relied on cross-country comparisons or focused on voter behavior in established democracies (Milligan et al., 2004; Sondheimer and Green, 2010; Murtin and Wacziarg, 2014). Existing work on weak and non-democracies is mostly based on surveys and has found that educational expansion at the primary or secondary levels leads affected individuals to either participate at higher rates or to disengage from politics if elections are not credible (Croke et al., 2016; Larreguy and Marshall, 2017).⁴ In contrast, we use administrative data on voter registration and real electoral outcomes to show that reduced access to higher education is associated

²Appendix Figure A2 plots the times series for the Gini coefficient. See also Ffrench-Davis (2018).

³A related literature has studied the challenges to the implementation of growth-promoting policies under democracy (Alesina and Rodrik, 1994; Persson and Tabellini, 1994; Acemoglu, 2008; Aghion et al., 2008).

⁴For theoretical work on the relationship between education and political behavior in non-democracies, see Glaeser et al. (2007); Alesina et al. (2018); Guriev and Treisman (2020).

with political backlash when a democratic window of opportunity arises. In this regard, our work is closely related to [Bai and Jia \(2016\)](#), who show that the elimination of a civil service exam increased revolutionary activity by individuals facing reduced access to the elite in Imperial China. Yet our work focuses on higher education as a platform for social mobility and leverages electoral data to assess political discontent and its contribution to democratization ([Treisman, 2020](#)).

Finally, our paper also contributes to the literature on the intergenerational transmission of human capital ([Black and Devereux, 2011](#); [Björklund and Salvanes, 2011](#)). Previous research has largely focused on parental education at lower levels, often exploiting quasi-random variation in mandatory schooling ([Black et al., 2005](#); [Oreopoulos et al., 2006](#)). A few studies have analyzed the relationship between parental college enrollment and children's early-life outcomes, their beliefs, and their attainment at lower schooling levels, but little is known about the link between the college enrollment of parents and children ([Currie and Moretti, 2003](#); [Maurin and McNally, 2008](#); [Roland and Yang, 2017](#); [Suhonen and Karhunen, 2019](#)). We add to this literature by providing novel evidence of a positive intergenerational link in college enrollment.

The rest of this paper is organized as follows. Section 2 provides a historical overview of higher education in Chile and describes the policy changes introduced by the military regime. Section 3 introduces our main data sources and presents our empirical strategy to study the effects of these changes. Section 4 studies educational attainment for the cohorts reaching college age after the coup and section 5 examines downstream socioeconomic effects. Section 6 studies political behaviors, while section 7 focuses on intergenerational effects. Section 8 concludes.

2 The Political Economy of Higher Education in Chile (1965-1981)

In this section, we provide an overview of higher education in Chile around the time of the military coup. We summarize the main features of the pre-existing system and document the changes in policy implemented by the Pinochet regime. We also provide preliminary evidence of the effects of these policies on college enrollment and on the composition of the student body.

2.1 Universities and Public Policy Before the Military Coup

There were eight universities in Chile when Salvador Allende won the 1970 presidential election.⁵ Only two were public, but the others were also highly reliant on government funding. Most universities were based in the larger cities of Santiago, Concepción and Valparaíso, but several had smaller campuses throughout the country. Almost 40% of students were female and 67% attended

⁵These were Universidad de Chile, Técnica del Estado, Católica, Concepción, Católica de Valparaíso, Austral, Federico Santa María, del Norte. The oldest was Chile, founded in 1842, while the newest opened in 1956 (Norte).

public universities. Most faculty had part-time appointments and only a bachelor's degree (Brunner, 1984). College enrollment grew from 25,000 students in 1960 to 77,000 by the end of the Christian-Democrat government of Eduardo Frei in 1970. The Allende government oversaw an even larger increase, reaching 146,000 students by 1973. Panel (a) in Figure 3 shows that the gross enrollment rate in higher education was 4.6% in 1960, 9.2% in 1970 and 16.8% in 1973. This was a period of mass expansion of higher education throughout Latin America, aimed at improving equality of opportunity and social mobility for the growing urban middle class (Brunner, 1984).

A broad movement for educational reform reached the universities in 1967. Besides bolstering enrollment, the reform furthered student and faculty involvement in university governance. Academic structures were modernized and new programs and research centers were created. Differentiated tuition based on family income was introduced, but fees were low. The reform also introduced a new centralized admissions process and replaced the existing baccalaureate exam with a college admissions test called *Prueba de Aptitud Académica* (PAA) starting in 1967. Under the new system, applicants ranked programs while universities ranked applicants based on a weighted average of their grades in secondary and their PAA scores. Universities chose the weight awarded to each component and the number of openings per program. A deferred-acceptance algorithm then determined admissions. This system remains largely unchanged until today.

2.2 Changes in Policy After the Military Coup

Amid growing political polarization and worsening economic conditions, Allende was overthrown by a military coup on September 11, 1973. A junta presided by General Augusto Pinochet assumed all executive and legislative powers and would go on to govern the country until 1990. The junta immediately targeted universities as part of its goal to eliminate all political opposition. Just two weeks after the coup, the junta appointed members of the military as rectors of all universities, public and private. As motivation, the regime claimed that “universities have become centers for Marxist indoctrination” and that “the extremist agitation and hate preaching that almost drove Chile down a tragic abyss originated in these universities” (Brunner, 2008, p.137, *own translation*). Over the following months, many students, faculty, and staff were expelled or dismissed for their political views, though the exact numbers remain unclear (Castro, 1977; Brunner, 1984). Some were detained, tortured, or killed.⁶ Several academic units and most student groups were shut down, political activity was forbidden and teaching materials were censored, as “the regime insisted on depoliticizing student movements and discouraging student self-government” (CIA, 1985).

⁶There are 24 professors and 252 students among the 3,200 deaths or disappearances attributed to the Pinochet regime by Comisión Rettig (1996). These correspond to 0.2% of the respective numbers of faculty and students in 1975. Comisión Valech (2004) estimates that about 10% of the 38,000 victims of detention or torture were students.

The dictatorship's initial handling of universities, focused exclusively on repression and political control, soon began to incorporate a technocratic concern about the size of government and the efficiency of public spending (Echeverría, 1980; PIIE, 1984; Velasco, 1994).⁷ This was the result of the growing influence over policy of a group of market-friendly economists known as the *Chicago Boys* (Valdés, 1995). As early as 1974, the Ministry of Finance begun pushing for a reduction in subsidies to universities and increased self-financing. In 1975, the Ministry of Education called for a more efficient use of resources and set enrollment goals for universities that put an end to the rapid growth seen in previous years (PIIE, 1984; Levy, 1986). The fact that these measures of fiscal austerity further helped to defuse the political threat posed by universities facilitated their implementation by the dictatorship. In the words of Levy (1986, p.105), “the regime’s penchant for political control meshed conveniently with its penchant for economic conservatism”.

The *Chicago Boys* criticised the *status quo* in Chilean universities on various grounds (CEP, 1992; Valdés, 1995). They argued that an assured stream of public subsidies failed to provide incentives for thrift or effort, which the regime connected to undesirable activism: “the mediocrity in higher education... [is] a source of frustration for students, who become a breeding ground for political agitation” (Brunner, 2008, p.147, *own translation*). The *Chicago Boys* further argued that education resources were better spent on lower levels. The government’s 1977 education plan claimed that it had been “scientifically proven that the social return of pre-school and primary education is higher to that of other levels” (PIIE, 1984, p.89 *own translation*). Also, the high cost per student meant that higher education should be considered a privilege rather than a right. The Pinochet dictatorship thus broke away from the view of higher education as a vehicle for social mobility that had prevailed under democratic rule and embraced a more traditional concept of universities as centers of academic excellence and elite training.

2.3 *The Contraction: Funding, Enrollment and Composition of the Student Body*

The military regime’s twin aims of political control and efficiency in public spending both called for lower subsidies to universities. Panel (a) in Figure 3 shows that the share of the education budget devoted to higher education, which had risen during the Allende years to almost 50%, steadily declined after 1974 and returned to its pre-Allende level of 30% by 1980. This was a large financial blow to universities, as government subsidies were their main source of funding, equivalent to 77% of total revenue in 1972 (Appendix Figure A3). A push for higher tuition met with strong resistance and was abandoned, thus forcing universities to downscale their operation.

⁷Kim (2011) describes a similar transition from an initial wave of intense repression to a phase of technocratic reform during the dictatorship of Park Chung-Hee in South Korea.

Panel (b) in Figure 3 shows the yearly number of college openings and applicants. Applicants exceeded openings at all points in time, meaning that supply was always the binding constraint on admissions. Openings rose in tandem with spending under Allende, but fell and stagnated after the coup.⁸ Universities offered a total of 47,000 openings in 1973, but only 33,000 in 1980 (30% decline). Even though demand adjusted to the tighter supply after 1975, the number of applicants more than doubled the number of spots throughout the period. As a result of these cuts, college enrollment sharply declined.⁹ Panel (a) in Figure 3 shows that the gross enrollment rate fell from 16.9% in 1973 to 10.5% in 1981 (38% drop). UNESCO projections for 1975 overestimated the number of students by 33%, which suggests that this fall was not anticipated (Levy, 1986).

University downsizing did not affect all fields of study equally, but hardly any was left untouched. Panel (a) in Figure 4 shows the change in openings by field between 1973 and 1980, and provides evidence of an interplay between the technocratic imperative to broadly downscale universities and the political objective of targeting those fields deemed more problematic. The fields most affected were agriculture and social sciences, which arguably had more politically active students, while the natural sciences were the only to grow, though from a very small base (3% of openings). Most fields saw aggregate decreases in openings of about 30%, including the two fields with the largest shares of openings, education and engineering. As a result, the distribution of total enrollment across fields did not change very much after the coup, as panel (b) illustrates.

The dictatorship left the admissions process unchanged. As a result, applicants with lower PAA test scores were the ones that failed to gain admission as the number of openings fell. Figure 5 suggests that these applicants predominantly came from less affluent socioeconomic backgrounds. The graph shows the normalized average score of admitted students in 1976 and 1981, disaggregated by father's occupation and classified from high-skill, white-collar occupations to low-skill, blue-collar ones. While these are both post-coup years, they still capture the ongoing contraction of higher education. In both years, admitted students from poorer families have lower average test scores and are thus more likely to be near the admissions cutoff. However, the plot also shows that the distribution compressed as admissions further tightened in 1981, with poorer students making the largest relative gains. This suggests that they were the ones more strongly affected by the cuts. Yet again, the technocratic goal of merit-based admissions contributed to the regime's political goal of "modifying the class composition of university student bodies" (CIA, 1985).

Data from lower levels of education suggests that the decline in college enrollment was not

⁸ Appendix Figure A4 shows that the drop in openings was mostly driven by the two public universities, which had also been responsible for most of the growth under Allende.

⁹ Appendix Figure A5 provides evidence against conscription and student migration as alternative explanations. The number of enlisted soldiers and students abroad both fell after the coup.

offset by large gains elsewhere in the system. Appendix Figure A6 shows that the enrollment rates in primary and secondary remained roughly constant, despite increases in the respective shares of the education budget. Moreover, the number of schools remained essentially unchanged between 1973 and 1977, while the share of primary students receiving subsidized breakfast or lunch (a proxy for pro-poor policies) decreased (Appendix Figure A7). Early education was the only level with substantial growth in enrollment and almost tripled in size between 1970 and 1980.¹⁰

2.4 *Aftermath*

The dictatorship's early policies towards higher education culminated in a large reform in 1981. This reform had three main elements. First, it turned the satellite campuses of the public universities into independent institutions. Second, it further reduced subsidies to all universities, forcing them to increase tuition. Third, it opened the system to competition by new universities, which were not eligible for government funding. College enrollment stabilized after the reform, but it would only grow again after the return to democracy in 1990.

The military regime also drafted a new constitution in 1980, which awarded Pinochet an eight-year term as president. After this time, a plebiscite was to be held to determine whether there would be a second eight-year term for a candidate determined by the military junta or whether there would be open presidential elections. The junta chose Pinochet as its candidate and the plebiscite was held in October 1988. This was the first free election in Chile since 1973 and the “NO” option won with 55% of votes. This result triggered the country’s democratic transition, with the first presidential election held in 1989 and Pinochet stepping down as president in 1990.

3 Data and Empirical Strategy

In this section, we introduce our main data sources and present our empirical strategy to study the socioeconomic effects of the capture of higher education by the Pinochet regime after 1973.

3.1 *Data*

Our main data sources are the individual records from the population censuses of 1992, 2002 and 2017, together with the thirteen waves of the biennial CASEN household survey between 1990 and 2017.¹¹ The census collects basic demographic information and also asks questions on educa-

¹⁰The body overseeing early education was the National Council of Kindergartens (JUNJI), established in 1970 under Allende. Growth in enrollment after 1973 mostly followed the pre-coup trend, with a base rate of 4% in 1970.

¹¹Appendix B provides further information about the data. Individual-level microdata is not available for earlier censuses. CASEN survey years are 1990, 1992, 1994, 1996, 1998, 2000, 2003, 2006, 2009, 2011, 2013, 2015, 2017.

tional attainment and labor market outcomes. The dataset for 1992 additionally includes a variable calculating the wealth quintile to which the household belongs, which is based on characteristics of the dwelling and reported ownership of durable goods. The CASEN survey (*Encuesta de Caracterización Socioeconómica Nacional*) is a repeated cross-section that is representative at the regional level.¹² Its sample size has grown over time, with the most recent waves surveying more than 200,000 individuals in over 70,000 households. The CASEN survey includes information on education and economic conditions for all members of each surveyed household. It has several attractive features, including its relatively high frequency compared to the census and the availability of information on income, albeit self-reported. Based on this information, the data includes a calculation of the income quintile to which each household belongs.

We restrict the analysis to individuals that reached age 21 between 1964 and 1981 (i.e., born between 1943 and 1960), creating an 18-cohort window around 1973, the year of the military coup. We end the sample with the 1981 cohort to mitigate the confounding effect of the university reform implemented after that year. We focus on age 21 because it is a conservative estimate for the average age of first-year college students at the time of the coup (Appendix Figure A8). We verify below that the results are robust to tighter cohort bandwidths or to small changes in the age of college entry (i.e., kink point). For our main analysis, we restrict the sample to individuals that report at least four years of secondary education to ensure a relevant counterfactual for college enrollment, but we verify that the results are robust to using the unrestricted sample. Unfortunately, information on completed levels of education is unavailable in all sources except the 2017 census.

Our main outcome of interest on educational attainment is college enrollment, which is the margin that was directly affected by the dictatorship's policies. We then analyze downstream labor market outcomes, focusing on those that we expect to be directly affected by diminished access to college. These include occupation (based on the ISCO-88 classification), labor force participation, unemployment and income. We further examine effects on social mobility using the household-level quintiles of wealth and income available in the 1992 census and CASEN.

For the study of intergenerational effects, we rely on information on household composition in the 2017 census. This census is arguably the best source on the final educational attainment of children with a parent in the affected cohorts.¹³ The census classifies individuals into households and reports the relationship of all household members to one individual identified as the household head. We connect children to their parents using different combinations of within-household relationships, which means that we can only connect parents and children living together in 2017.¹⁴

¹²Chile is administratively divided into 16 regions, subdivided into 56 provinces and 346 counties.

¹³At the time of the previous census in 2002, the youngest cohort of parents in the sample was only 42 years old.

¹⁴Appendix Table F1 provides summary statistics of various characteristics for a series of nested samples, from the

About 90% of our sample is composed of individuals reported as children of the household head.¹⁵ We restrict the sample to children with ages between 25 and 40 in order to improve our chances of observing final college enrollment, while ensuring balance in the distribution of parental cohorts. We verify below that the results are robust to changes in this bandwidth. Parents in this sample must meet the same conditions as in our main sample above (i.e., reached age 21 between 1964 and 1981 and report 4+ years of secondary education). We can connect each child to only one parent, but we use information on the spouse of the parent (if observed) to provide suggestive evidence on assortative matching as a mediating mechanism. Our final sample for this part of the analysis includes 228,608 individuals (children), 58% of whom report having enrolled in university.

Other data sources include harmonized census files from IPUMS - International for 57 countries (listed in Appendix Table B1), which we use for the synthetic control analysis. To study political behaviors, we use administrative data on the outcome of the 1988 plebiscite at the county level, as well as individual-level registration data for all voters in 2017 from Chile's electoral agency (SERVEL). To measure participation in the plebiscite, we create a dummy equal to one for voters that registered in 1987 or 1988 (the military regime declared the previous voter registry void in 1973). To analyze the effect of the contraction of higher education on the outcome of the plebiscite, we construct a localized impact measure that we discuss in section 6 below.

3.2 Empirical Strategy

Our empirical analysis begins by studying educational attainment among cohorts reaching college age in a small window around the 1973 military coup. We focus on the 1992 census to minimize bias from sample attrition, though similar patterns are present in all other sources. We first examine whether census respondents report any or complete secondary education (i.e., 4+ years). We then look at college enrollment, both unconditionally and conditional on secondary completion. We work with the following reduced-form model:

$$Y_{i,c} = \alpha + \beta X_i + \pi_0 f(c) + \pi_1 \mathbb{1}(c \geq 1973) \times g(c) + u_{i,c} \quad (1)$$

where $Y_{i,c}$ is an outcome for individual i belonging to cohort c (which indicates the year in which the cohort reached age twenty-one). X_i is a set of observable characteristics, including gender-specific county-of-birth fixed effects. $\mathbb{1}(c \geq 1973)$ is a dummy equal to one for individuals that reached

entire population with ages 25-40 to our estimating sample. Children in our sample are more educated than the general population, but this is mostly driven by the restriction that their parents must have completed secondary education.

¹⁵An extra 5% corresponds to household heads that have a parent living with them. Other categories are much smaller and include siblings of the household head, the spouse of the household head and children of the spouse.

age twenty-one in 1973 or later, while $f(c)$ and $g(c)$ are smooth functions (polynomials) capturing the birth-cohort profile of outcome $Y_{i,c}$. We re-scale the running variable in these functions and set it equal to zero for 1972, the last year before the coup. We focus on a linear polynomial (i.e., $f(c) = g(c) = c$) to avoid over-fitting and we provide visual evidence showing that this parsimonious specification accurately describes the evolution of cohort-level averages for most outcomes. Our parameter of interest is π_1 , which directly captures the change in trend (i.e., kink) for cohorts reaching college age after 1973. Finally, $u_{i,c}$ is an error term clustered at the county-of-birth level. To account for correlation of the error term within cohorts, we also provide p-values from the Wild cluster bootstrap procedure following [Cameron et al. \(2008\)](#).

We then study downstream effects by looking for similar changes in the respective cohort-level trends of our outcomes of interest, in the spirit of the regression kink design ([Card et al., 2015](#)). Our identifying assumption is that in the absence of the coup there is no reason to expect kinks in these outcomes for people reaching age 21 after 1973. As mentioned above, our baseline sample includes 18 cohorts reaching college age between 1964 and 1981. The discrete nature of the running variable prevents us from applying a non-parametric approach to select an optimal bandwidth, but we verify that our results are robust to changes in the bandwidth.

We provide estimates of equation (1) when using purely cross-sectional data (e.g., 1992 census). However, a cross-cohort comparison in a single cross-section could be picking up non-linear age effects for outcomes that vary over the life cycle. To address this concern, we use repeated cross-sections to estimate a more stringent specification that includes age and survey year fixed effects.¹⁶ This specification allows the outcome to flexibly vary at each point in the life cycle and ensures that the comparison across cohorts takes place only among people observed at the same age. We estimate the following model either with data from the 13 waves of the CASEN survey or stacking the 1992 and 2002 censuses:

$$Y_{i,c,t} = \alpha + \beta X_i + \gamma_a + \phi_t + \psi \mathbb{1}(c \geq 1973) \times h(c) + e_{i,c} \quad (2)$$

where t denotes the year and a denotes age. Here, γ_a and ϕ_t are age and year fixed effects. As before, we use a linear polynomial for the running variable (i.e., $h(c) = c$) and cluster the error term $e_{i,c}$ either by county or by cohort. The coefficient of interest is ψ , which captures any potential kink among the affected cohorts, relative to the average for individuals observed at the same age.

To study intergenerational effects across cohorts, we use a specification analogous to equation (1). The main difference is that the cohort trends correspond to the observed parent, while the outcome of interest (e.g., college enrollment) corresponds to the child. In our preferred specification,

¹⁶We drop the baseline cohort trend from this specification as age is a linear function of cohort and year.

we expand the set of individual controls for the child (X_i) to include the following sets of fixed effects: (i) gender by county of birth, (ii) gender by parent's gender, (iii) relationship to household head and (iv) age. The latter alleviates the concern that parents from later cohorts will tend to have children that are younger in 2017, who may have different outcomes due to secular trends.

4 Results: Educational Attainment

In this section, we study the educational attainment of cohorts that reached college age around the 1973 military coup. We document a sharp downward kink in college enrollment for cohorts reaching college age after the coup and we use a parsimonious parametric model to quantify it. We also present results from a synthetic control analysis that lend support to a causal interpretation of the findings. At the end, we discuss changes in other educational outcomes, including degree completion and the economic return to college.

4.1 Raw Data

Panel (a) in Figure 6 shows the share of people per cohort that report any college in the 1992 census, without any sample restrictions. The x -axis corresponds to the year in which cohorts reached age twenty-one (year of birth in parenthesis). The vertical lines mark the year of the military coup (solid red) and the window used in the regression analysis below (dashed blue). We observe a rapid increase in college entry for the cohorts that reached college age before the coup, especially during the Allende government between 1970 and 1973, followed by a large decline for those cohorts that reached the same age after the coup. The enrollment rate increased by 6 percentage points (pp) between the 1964 and 1972 cohorts (86% increase) and decreased by 5 pp between the 1972 and 1981 cohorts (38% decrease). Panel (b) shows a smooth increase in the share of people per cohort with full secondary education. This suggests that the drop in college enrollment is not driven by reduced attainment at lower levels.¹⁷

4.2 Parametric Analysis

Table 1 presents estimates of equation (1) for various measures of educational attainment in the 1992 census. In all tables, we show standard errors clustered by county in parentheses and p-values from the wild cluster bootstrap at the cohort level in brackets. The sample in columns 1-3 includes all individuals that reached age 21 between 1964 and 1981. Columns 1 and 2 show that the shares

¹⁷ Appendix Figure C1 shows that the kink in college enrollment is also present in other sources. Appendix Figure C2 shows smooth increases in the shares of people with any primary or any secondary.

of people with any or full secondary education were growing at respective rates of 1 pp and 0.8 pp per cohort before the coup. These rates remain unchanged after the coup. Panel (c) in Figure 6 plots the share per cohort with complete secondary and the estimated linear trends. The solid lines capture the actual trends before and after the coup, while the dashed line is the counterfactual trend for the post-coup period. Not only do the linear trends fit the data quite accurately, but the post-coup trend overlaps almost perfectly with the counterfactual.

Column 3 in Table 1 shows that college enrollment increased on average 0.8 pp for each new cohort reaching college age before the coup. This trend *decreased* by 1.2 pp per cohort for those reaching the same age after the coup. The difference between the two coefficients indicates a net enrollment trend of -0.4 pp per cohort after the coup. Column 4 replicates the analysis for the restricted sample reporting full secondary. We observe a similar pattern to the one in column 3, which is consistent with the smooth trend in secondary completion. Conditional on completed secondary, which we deem the relevant counterfactual, college enrollment increased by 1.8 pp per cohort before the coup but *decreased* at the same net rate for those that followed.¹⁸ Panel (d) in Figure 6 illustrates this sharp kink. These results are in line with the yearly pattern in college enrollment shown in Figure 3. What is notable about the cohort-level analysis is that it reveals sharp differences in the incidence of the reduction in access to college across cohorts. We leverage this variation in exposure to the dictatorship's change in policy to study downstream effects below.

In column 5, we expand equation (1) to allow for separate trends in college enrollment by gender. Women were making larger gains in enrollment than men in the cohorts that reached college age before the coup, but they also experienced a sharper decline afterward. Column 6 shows that the results are unchanged when we restrict the sample to siblings (96% drop in sample size) and include family fixed effects.¹⁹ This provides further evidence of a broad impact of the contraction in higher education. Finally, column 7 examines enrollment in any tertiary education, including vocational school. The trend among cohorts reaching college age before the coup is slightly larger than in column 4, indicating that enrollment in other institutions was also growing. Similarly, the net post-coup drop in total enrollment is smaller (-1.1 pp) than in college enrollment (-1.8 pp), which suggests some substitution of college education with vocational schooling.

¹⁸ Appendix Table C1 shows similar results for the censuses of 2002 and 2017 and the CASEN survey. Appendix Table C2 shows that the results are robust to small changes in the location of the kink point.

¹⁹We classify as siblings people belonging to the same household that meet one of these conditions: (i) two or more children of the household head; (ii) the head and one or more siblings. Appendix Table C3 replicates this analysis for the other censuses. Appendix Table C4 shows similar results within quintiles of housing wealth in 1992.

4.3 Synthetic control analysis

In this section, we present a synthetic control analysis that provides an alternative counterfactual for the evolution of higher education in Chile after 1973 ([Abadie and Gardeazabal, 2003](#)). Our baseline estimates use data from countries in Latin America to construct the counterfactual. For each available census, we calculate the share of people per cohort with completed secondary and college, restricting the sample to individuals aged 20 or higher. We focus on college completion because harmonized data on educational enrollment is not available.²⁰

Panel (a) in Figure 7 shows the baseline results. The solid line corresponds to actual college completion per cohort in Chile, while the dashed line shows the prediction from the synthetic control. We observe that the synthetic control tracks the realized time series very closely up to the year of the coup and exceeds it afterwards. The synthetic control keeps growing, while the actual series drops and stagnates. Placebo inference and confidence sets suggest this difference is statistically significant ([Abadie et al., 2015](#); [Firpo and Possebom, 2018](#)).²¹ The graph shows that approximately 8% of the cohort that reached age 21 in 1981 would have had a college degree in the absence of the coup, while in reality only 5% did. This gap in completion is equivalent to 38% of the counterfactual provided by the synthetic control. The graph further suggests that college enrollment caught up with the counterfactual for the cohorts that reached college age in the late 1990s, several years after the return to democracy. Panel (b) shows that the synthetic control matches well the realized times series for completed secondary education, providing further evidence that the effects on college cannot be attributed to changes in attainment at lower levels.

4.4 Post-Enrollment Outcomes

In this section, we examine potential effects on other aspects of higher education besides enrollment. Figure 8 shows that post-enrollment outcomes improved after the military take-over. Panel (a) focuses on the graduation rate, which we measure either as a share of total enrollment *per year* using data from UNESCO (circles) or as a share of the number of people *per cohort* reporting any college in the 1992 census (triangles). Both sources show a similar pattern of decline before the coup and recovery afterwards, but the variation is small. The graduation rate only declined 4 pp between the cohorts that reached age 21 in 1968 and 1975 (5% decrease), despite the large expan-

²⁰All estimates use lags of the share of people with complete college to build the synthetic control. We follow [Ferman et al. \(2019\)](#) and use only *odd* years to avoid cherry-picking and overfitting, but verify that the results are unchanged if we use *even* or *all* pre-treatment years. The R^2 of a regression of the actual Chilean data on the synthetic control in the pre-treatment period is always larger than 0.95.

²¹See Appendix Table D1 and Figure D1 for details. Appendix Figure D2 shows that the results are robust to changes in the set of controls or in the sample, and also provides estimates from a placebo exercise.

sion in enrollment under Allende and the many expulsions after the coup. This suggests that the vast majority of people enrolled in college at the time of the coup remained enrolled afterwards. Graduations increased sharply after 1975, arguably due to the tighter admission standards and the renewed focus on academic achievement inside universities implemented by the dictatorship.²²

Panel (b) shows cohort-specific estimates of the return to college using data from the CASEN survey. Additional controls include county of residence by gender, survey year and age fixed effects. The return to college fluctuated around 75 log points for cohorts reaching college age before the coup, but increased sharply afterward. The post-coup average of approximately 85 log points represents a 13% increase.²³ This higher return could reflect more selective admissions or a higher graduation rate. It is also consistent with a lower supply of professionals after the coup putting upward pressure on wages if there is imperfect substitution between college-educated workers in different age groups (e.g., [Card and Lemieux, 2001](#)).

These results suggest that the contraction of higher education after the coup did not lead to worse outcomes for admitted students, though repression and censorship likely had a negative impact on the student experience. Moreover, they indicate that inequality increased between people with and without college. As we move on to analyze socioeconomic effects, we can thus interpret any negative consequences for the cohorts that reached college age after 1973 as arising from reduced access to college and not from worse post-enrollment outcomes among admitted students.

5 Results: Socioeconomic Consequences

In this section, we study the effects of the contraction of higher education carried out by the Pinochet dictatorship on labor market outcomes and distributional measures of income and wealth. We uncover a large negative impact on the cohorts that reached college age after the military coup.

5.1 Occupational choice

The panels in Figure 9 plot cohort-level means and estimated trends for binary indicators corresponding to each of the major groups of occupations in the ISCO-88 classification, using data from the 1992 census. We find little evidence of change in the probability of being a manager or a high-level public official in panel (a). These are occupations which arguably benefit from a college education but do not necessarily require one. Panel (b) shows a sharp downward kink

²² Appendix Figure A9 shows that fewer people took the PAA test after the coup and that average (raw) test scores improved. This suggests that people with lower expected scores drove the decline in college applications after 1975.

²³ Appendix Figure C3 shows a similar pattern for other income measures. It also shows that the results are robust to the inclusion of occupation fixed effects (i.e., not entirely driven by differential changes in openings across fields).

in the probability of having a professional occupation (e.g., doctor, lawyer, engineer) for cohorts reaching college age after the coup.²⁴ This kink is matched by opposite upward kinks in the probability of having various lower-skill or blue-collar occupations. These include clerks in panel (d) and sales or service workers in panel (e). They also include skilled agricultural workers in panel (f), machine operators in panel (h), and workers in elementary occupations (e.g., domestic helpers, street food vendors) in panel (i). These findings provide early evidence of a dramatic change in life circumstances caused by the contraction in higher education brought about by the military regime.

Table 2 provides estimates of equation (1) quantifying these kinks. To facilitate the analysis we have grouped the occupations into white-collar and blue-collar, subdividing each into high-skill and low-skill (Appendix Table E1 provides disaggregate estimates for each occupational group in Figure 9). Column 1 shows that the trend in the probability of having a white-collar high-skill occupation flips from a 0.4 pp gain per cohort in the pre-coup period to a 1.3 pp decline afterwards. This is equivalent to a 3% drop for each new post-coup cohort relative to the sample mean. The decline in these occupations is matched by a 0.7 pp net gain per cohort in the probability of having a white-collar, low-skill occupation (column 2), and by a 0.6 pp per-cohort increase in the probability of a blue-collar occupation (columns 3-4 combined). Column 5 shows a downward kink in the probability of being part of the military (also panel (j) in Figure 9), which is further evidence against military conscription as an alternative explanation for the drop in college enrollment. Column 6 shows results from an occupational income score that we construct based on the logarithm of the median wage for the 3-digit occupation code in the CASEN survey from 1992 to 2000 (e.g., Abramitzky et al., 2014). We also find a downward kink in this score, with each additional post-coup cohort experiencing a drop of 1.2%. Panel (a) in Figure 10 plots this sharp kink in the score, which anticipates the negative effects on income and wealth that we document below.²⁵

5.2 Labor Market Outcomes

Panels (b) and (c) in Figure 10 plot cohort-level means and estimated trends for binary indicators of being in the labor force or seeking work, using data from the 1992 census. Panels (d) and (e) plot the same variables from the CASEN survey, averaged across waves between 1990 and 2017. Panel (f) shows an additional plot for log total income, which is only available in CASEN. We observe similar patterns in both sources. Cohorts reaching college age after the coup exhibit downward kinks in labor force participation and income, and an upward kink in the unemployment rate.

²⁴ Appendix Figure E1 shows downward kinks in the probability of having any professional occupation for the affected cohorts. Conditional on being a professional, there is an upward kink in the probability of having an occupation in the natural sciences or engineering, in line with the differential changes in openings across fields documented above.

²⁵ Appendix Table E2 and Figure E2 show similar results using different years to construct the score.

Table 3 quantifies these kinks.²⁶ While the census provides us with a much larger sample, CASEN enables us to observe the study cohorts repeatedly. This is important because these outcomes are likely to vary over the life cycle. Both sources suggest the presence of a downward kink in labor force participation (columns 1-2) and an upward kink in the unemployment rate (columns 4-5). Column 7 provides evidence of a downward kink in total income, which grew at an average rate of 1.6% per cohort for those reaching college age before the coup and drops to a -0.7% net trend per cohort after the coup.²⁷ Columns 3, 6 and 8 show estimates of equation (2), a more stringent specification that replaces the baseline trend with age fixed effects. We can only estimate this specification with data from the CASEN survey, as it requires us to observe different cohorts at the same age. We find that the affected cohorts experienced sizable negative effects in labor market outcomes, even when we flexibly account for potentially confounding age effects. Column 3 shows that each new cohort reaching college age after the coup is 0.4 pp less likely to be in the labor force than the average for that age (0.5% decrease per cohort relative to the sample mean). Column 6 shows that the unemployment rate increases by 0.2 pp per post-coup cohort relative to the age-specific average (5% increase relative to sample mean), while column 8 shows that total income drops at a rate of 0.9% per post-coup cohort, also relative to the age-specific average.

5.3 Distributional Effects on Wealth and Income

The previous results indicate that people reaching college age after the military coup experienced diminished educational opportunities and had worse labor market outcomes.²⁸ In this section, we study distributional measures of wealth and income available in the 1992 census and CASEN. These measures allow us to better understand the challenges that the affected cohorts faced in climbing up the socioeconomic ladder. Though we do not observe family background and are thus unable to fully measure social mobility, there is no reason to expect individuals reaching college age before and after the coup (i.e., born in different years) to come from more or less affluent families. Importantly, these distributional outcomes are calculated at the household level, so intra-

²⁶Similar results for the 2002 census are available in Appendix Table E3. We do not use the 2017 census for this analysis because it does not ask questions on occupation and because the cohort reaching age 21 in 1973 (i.e., kink point) reached age 65 on that year, which is the retirement age for men (women retire at 60).

²⁷Appendix table E4 shows similar results for more restrictive measures of income (e.g., from main occupation). Appendix Table E5 shows additional results on the type of employment. We find a downward kink in the probability of being a salaried employee (-0.7 pp per cohort), matched by roughly same-sized increases in the probability of being a business owner or self-employed. We interpret this as further evidence of economic vulnerability.

²⁸Appendix Tables E6 and E7 provide LATE estimates of the effects of college enrollment, using the downward kink for the affected cohorts as an excluded instrument. This IV strategy requires a stronger exclusion restriction than the previous reduced-form results, implying that the observed kinks in downstream outcomes for these cohorts are driven exclusively by reduced college enrollment. We find that in all cases the IV estimates are comparable to the partial correlations estimated through OLS and are often smaller, suggesting possible selection bias in the latter.

household resource pooling could help attenuate the impact of reduced educational attainment.

Figure 11 plots the cohort-level means and estimated trends. Panels (a)-(e) correspond to dummies for each quintile of wealth in the 1992 census, while panels (f)-(j) show dummies for income quintiles in CASEN, averaged across survey waves. There are sharp downward kinks in the probability of being in the fifth (top) quintiles of wealth or income for the affected cohorts, matched by upward kinks in the probability of being in the third, second or first (bottom) quintiles. While panel (b) shows a clear upward kink in the probability of being in the fourth quintile of wealth, panel (g) suggests a downward kink in the probability of being in the analogous quintile for income, though the latter is exceptionally noisy. These results show that people reaching college age after the coup struggled to reach the top of the income and wealth distributions. They constitute *prima facie* evidence that social mobility stalled after the military coup.

Panels A and B in Table 4 show estimates of equation (1) for the wealth and income dummies respectively. Column 1 in panel A shows a weakly negative trend in the probability of being in the top wealth quintile among pre-coup cohorts (-0.2 pp per cohort), which drops sharply after the coup and becomes -1.5 pp per cohort, equivalent to 3% of the sample mean. Column 1 in panel B shows a similar pre-coup trend in the probability of being in the top income quintile (-0.2 pp per cohort), which also accentuates and becomes -0.8 pp per cohort after the coup (2.4% of the sample mean). Panel C provides estimates of equation (2) for the income quintiles in CASEN. We find that individuals belonging to each younger cohort reaching college age after the coup are 0.2 pp less likely to be in a household belonging to the top income quintile than the age-specific average (0.6% decrease relative to the sample mean). This reduction in the probability of being at the top of the income distribution is matched by 0.1 pp per-cohort increases in the probability of being in either of the bottom two quintiles (0.8% and 1% increases relative to the respective sample means).

5.4 Robustness Checks

We verify that the previous results are robust to several tests. First, Appendix Table E3 provides estimates of equation (2) for labor force participation, unemployment and white-collar high-skill occupation using pooled census data from 1992 and 2002. The ten-year period between these censuses generates an equivalent gap between the pre- and post-coup cohorts that we are able to observe at the same age, but the results are remarkably similar to the ones using higher-frequency data from CASEN in panel C of Table 3. Secondly, all of the previous results are based on samples that only include individuals that report complete secondary education. Appendix Tables E8 and E9 show that the results are very similar if we use the unrestricted sample with all individuals from the relevant cohorts. Finally, we examine the robustness of the results to changes in the bandwidth

of cohorts in the sample, focusing on the more conservative specification with age fixed effects. Appendix Figures E3 and E4 plot estimates of ψ in equation (2) for our baseline bandwidth of 18 cohorts, as well as for alternative bandwidths that drop or add between one and three cohorts on each side. The point estimates are highly stable as we reduce or expand the bandwidth, though precision is affected in some cases with the smaller bandwidths due to the reduced sample size.

5.5 Heterogeneous Effects by Gender

Appendix Figure E5 plots separate point estimates and 95% confidence intervals of ψ in equation (2) by gender for the outcomes in Tables 2-4.²⁹ We find that the downward kinks in labor market outcomes for the affected cohorts are systematically larger for women, especially when compared against the respective sample mean. For instance, women reaching college age after the coup were 1.6 pp less likely per cohort to have a white-collar high skill occupation than the age-specific average (3.5% of the female sample mean), while men experienced a 0.8 pp decline per cohort (2.2% of the male sample mean). These results indicate that access to higher education was fundamental to female progress in the labor market (Goldin, 2006). Women also exhibit a larger downward kink in the probability of being in the top income quintile and larger upward kinks in the probability of being in either of the bottom two quintiles. These results suggest that gender inequality also worsened as a result of the changes in education policy brought about by regime change.

6 Results: Political Behaviors

In this section, we provide suggestive evidence of changes in the political behavior of individuals affected by the contraction of higher education after 1973. We focus our attention on the 1988 plebiscite that asked voters whether they wanted Pinochet to remain in power for eight more years (SI option) or to have open presidential elections instead (NO option). This was a pivotal moment in Chile's history, as NO won with 55% of votes, bolstering the country's return to democracy.

We first look at voter registration in the run-up to the plebiscite as a measure of engagement with the political process (Bautista et al., 2020). The military junta declared the previous voting registry void shortly after the coup, so all voters had to register anew to participate in the plebiscite. Based on individual-level records for the universe of voters in 2017, panel (a) in Figure 12 plots the share of voters per cohort that registered in 1987 or 1988, as well as the estimated trends for the cohorts reaching college age before and after the coup.³⁰ We observe a clear upward kink in the

²⁹Full results disaggregated by gender are available in Appendix Tables E10 and E11.

³⁰In 2012, the country switched to having automatic registration. Hence, the composition of our sample in 2017 is unaffected by differences in the propensity to register across cohorts. The electoral data does not include information

registration rate among the affected cohorts. However, registration was generally very high, with a sample mean of 81%, so the magnitude of the kink is relatively small (i.e., 0.1 pp average net gain in registration per post-coup cohort). Still, we interpret this result as suggesting increased political engagement by those experiencing reduced access to higher education.

To study potential effects on the outcome of the plebiscite, we construct a localized measure of the impact of the contraction in higher education. For this purpose, we estimate a modified version of equation (1) that allows for separate pre- and post-coup trends in college enrollment for each county j in the 1992 census. For computational convenience, we drop the county by gender fixed effects in this regression. We then adjust the county-specific kink in enrollment ($\pi_{1,j}$) based on the precision of the estimates (i.e., Krueger and Summers, 1988) and we standardize this measure to facilitate interpretation. Panel (b) in Figure 12 shows a binned scatterplot of the NO vote share per county against this impact measure. The plot suggests a strong positive correlation between the size of the educational contraction and support for the NO option in the plebiscite.

Table 5 examines the robustness of this correlation. We present robust standard errors in parentheses. We also show in brackets the p-values from a bootstrap procedure that accounts for the generated regressors. Column 1 indicates that a one standard deviation (SD) decrease in the county-specific kink in college enrollment (i.e., sharper fall) is associated with a 3.9 pp increase in the NO vote share (8% increase over sample mean). This column includes no controls, while column 2 controls for total population and for the shares of rural and female population in 1970. Column 3 further controls for the respective distances to Santiago, the regional capital and the provincial capital, while column 4 also adds region fixed effects. The magnitude of the correlation between the kink in enrollment and the NO vote share decreases as we add more controls, but it remains economically and statistically significant. Finally, column 5 adds the vote share for Allende in 1970 as an additional control. This variable is also strongly correlated with the NO vote share, with a one-point increase in the Allende vote share being associated with a 0.44 pp increase in support for NO. Adding this control reduces the correlation of the NO vote share with the local kink in college enrollment by 43%, but it still remains sizable, negative and statistically significant. This is to be expected as the areas that were affected by the contraction were also the ones that arguably benefited from the redistributive policies implemented by Allende and were more likely to support him. We interpret these results as suggestive evidence that the contraction of higher education caused a political backlash and contributed to Pinochet's defeat in the 1988 plebiscite.

on educational attainment, so these results correspond to the unrestricted sample.

7 Results: Intergenerational Effects

In this section, we study the educational attainment of children with a parent in the affected cohorts. As mentioned above, our sample includes more than 230,000 people in the 2017 census who we were able to link to a parent meeting our inclusion criteria. These children have ages between 25 and 40 in 2017, meaning that the oldest ones reached age 21 in 1998, eight years after the end of the Pinochet regime. We use here similar specifications to the ones above, with the main exception that the cohort-level variables refer to the parent, while the outcomes refer to the child.

To start, panel A of Table 6 provides estimates of equation (1) showing that the college enrollment of the parents in our sample exhibits a pattern essentially identical to the full sample in Table 1. Hence, these parents are not fundamentally different from the larger population. Panel B provides estimates of the relationship between the birth cohort of the parent and the college enrollment of the child. For people with a parent that reached college age before the coup, column 1 shows a positive trend in college entry of 0.4 pp per cohort. But this trend reverses for those with a parent in the affected cohorts and becomes -0.1 pp per year. This result suggests a positive causal relationship between the college enrollment of parents and children.

The only controls in column 1 are gender by county of birth fixed effects. In column 2 we further control for the combination of parent's and child's gender, ensuring that potential differences in the gender composition of the sample across cohorts do not bias the estimates. In column 3 we include an additional set of dummies for the relationship of the child to the household head in the census, which is the information we rely on to link parents and children. The results change very little across specifications. In column 4 we introduce age fixed effects for the child. These controls help address the concern that children with parents in the affected cohorts are likely to be younger, which could downward-bias the estimate of the intergenerational effect if younger people benefit from a positive secular trend in college enrollment after democratization. Indeed, we find that controlling for the child's age makes the baseline trend negligible and insignificant, while increasing the per-cohort decline after the coup from -0.5 pp to -0.7 pp. The specification in column 4 is our preferred specification for this part of the analysis.

Figure 13 provides a non-parametric visualization of the results in column 4. Panel (a) shows point estimates and 95% confidence intervals for parents' college enrollment. As in our main analysis above, there is an upward trend in college enrollment among cohorts reaching college age before the coup, while those reaching the same age after the military take-over experience a sharp decline. Panel (b) shows the relationship between the cohort of the parent and the college enrollment of the child. We observe a clear decline in the probability of going to college for children with a parent that reached college age after the coup. For example, a child with one

parent that reached age 21 in 1979 is approximately 5 pp less likely to go to college (9% of sample mean) than a child with a parent that reached the same age right before the coup in 1972. This suggests that the contraction of higher education caused by the Pinochet dictatorship had sizable intergenerational effects, even after the country's return to democracy in 1990.³¹

We subject the previous results to a battery of robustness tests. Appendix Figure F1 shows that the results are hardly affected if we consider more conservative bandwidths for the ages of parents. Appendix Table F3 further shows that the results are robust to different windows of ages for the children included in the sample, including a narrow bandwidth with ages 25-30 (the average person in this sample was *born* in 1990, the year in which Chile returned to democracy). Table F4 shows that the downward kink in college enrollment is stronger for affected children that are household heads or spouses than for those classified as children of the head. This is consistent with status within the household being endogenously co-determined with college enrollment (i.e., children with a parent in the affected cohorts are both less likely to go to college and more likely to have their parents as dependents). Table F5 provides disaggregate results based on gender of the parent or the child. Effects are slightly larger for mothers, consistent with the larger socioeconomic impact of the reduction in college enrollment for women documented above, and for male children.

To better understand the stage at which the educational attainment of children with affected parents lags behind, column 5 in Table 6 includes an additional control indicating whether the child completed secondary education. As expected, this control absorbs some of the variation in college enrollment, but its inclusion only leads to a small reduction in the magnitude of the estimated kink. Hence, most of the effect of parental college enrollment materializes after children finish secondary. Appendix Table F6 provides additional results using completion of each grade in primary and secondary as dependent variable. The parental cohort trends are smooth for all grades in primary, which is to be expected as primary education is mandatory in Chile and mostly beyond the control of parents. However, we find evidence of a downward kink in the probability of progressing through all grades in secondary for children with a parent in the affected cohorts. The magnitude of these kinks is much smaller than for college enrollment, confirming that the transition into higher education is the critical juncture with the largest intergenerational effects.

Our strategy to link parents and children only allows us to credibly link each child to one of the parents. But having a parent with college plausibly affects the child partly through the educational attainment of the other parent, which we do not observe. To explore this possibility, Appendix

³¹ Appendix Table F2 provides IV estimates of the effect of parental college enrollment on the child's probability of enrollment. In this case, the exclusion restriction requires the parent's cohort to affect the child's college enrollment exclusively through the parent's diminished access to college. The results from our preferred specification indicate that having a parent that went to college increases a person's chances of enrolling by 32 pp (45% of the sample mean).

Table F7 uses information on the spouse of the linked parent as a proxy.³² Children with a parent in the affected cohorts exhibit downward kinks in the probability that the parent has a spouse and, if present, in the probability that the spouse attended college, consistent with assortative matching. Controlling for the education level of the spouse reduces the magnitude of the kink in the child's college enrollment from -0.6 pp per cohort to -0.4 (33% drop).

8 Conclusion

In this paper, we study the relationship between political regimes, education and social mobility in Chile. We show that the Pinochet dictatorship's goals of political control and fiscal conservatism caused a large contraction of all universities in the country, which took place mostly through a steady reduction in the number of openings for new students. As a result, individuals that reached college age shortly after the military coup experienced a sharp decline in college enrollment. These individuals also had worse economic outcomes throughout the life cycle and struggled to reach the top of the socioeconomic ladder. However, these individuals also registered to vote at higher rates for the pivotal 1988 plebiscite that brought the Pinochet regime to an end and they appear to have increasingly voted against Pinochet. After democratization, children with a parent in the affected cohorts are also less likely to enroll in college, providing evidence of persistent effects.

We draw several conclusions from these results. First, our findings show that political regime change can have a large impact on the functioning and the size of the education system. In our setting, the Pinochet regime's twin aims of fiscal prudence and political control were both served by a contraction in the supply of higher education. We interpret this policy as a specific instance of the more general tendency of authoritarian regimes to exert control over the size and composition of the student body in higher education ([Connelly and Grüttner, 2005](#)).

Secondly, these policy changes have sizable and long-lasting socioeconomic effects. The educational contraction that we study hindered social mobility for an entire generation and arguably contributed to the increase in inequality experienced under Pinochet. Educational policy is, thus, an important mediating mechanism through which political regimes affect distributional outcomes.

Lastly, and in contrast to most of the received wisdom, our results also suggest that diminished educational opportunities can negatively affect support for an authoritarian regime when a democratic window of opportunity arises. Policies that reduce access to education may in fact undermine the long-term survival of authoritarian regimes, even if they serve short-term goals of political control or fiscal consolidation. Moreover, the intergenerational effects that we uncover

³²For this part of the analysis, we must restrict the sample to linked parents that are household heads, as we cannot identify spouses for others. However, household heads are the bulk of linked parents overall.

and the persistently high level of inequality observed in Chile arguably contribute to the rising levels of political discontent observed in this country in recent years.

References

- Abadie, A., Diamond, A., and Hainmueller, J. (2015). Comparative Politics and the Synthetic Control Method. *American Journal of Political Science*, 59(2):495–510.
- Abadie, A. and Gardeazabal, J. (2003). The Economic Costs of Conflict: A Case Study of the Basque Country. *American Economic Review*, 93(1):113–132.
- Abramitzky, R., Boustan, L. P., and Eriksson, K. (2014). A Nation of Immigrants: Assimilation and Economic Outcomes in the Age of Mass Migration. *Journal of Political Economy*, 122(3):467–506.
- Acemoglu, D. (2008). Oligarchic Versus Democratic Societies. *Journal of the European Economic Association*, 6(1):1–44.
- Acemoglu, D., Naidu, S., Restrepo, P., and Robinson, J. A. (2015). Democracy, Redistribution, and Inequality. In Atkinson, A. and Bourguignon, F., editors, *Handbook of Income Distribution*, volume 2, pages 1885 – 1966. Elsevier.
- Acemoglu, D. and Robinson, J. A. (2006). *Economic Origins of Dictatorship and Democracy*. Cambridge University Press.
- Aghion, P., Alesina, A., and Trebbi, F. (2008). Democracy, Technology and Growth. In Helpman, E., editor, *Institutions and Economic Performance*. Harvard University Press.
- Alesina, A., Giuliano, P., and Reich, B. (2018). Nation-Building and Education. NBER Working Paper 18839.
- Alesina, A. and Rodrik, D. (1994). Distributive Politics and Economic Growth. *Quarterly Journal of Economics*, 109(2):465–490.
- Alesina, A., Seror, M., Yang, D., You, Y., and Zeng, W. (2020). Persistence Through Revolutions. NBER Working Paper 27053.
- Ansell, B. W. (2010). *From the Ballot to the Blackboard: The Redistributive Political Economy of Education*. Cambridge University Press.
- Bai, Y. and Jia, R. (2016). Elite Recruitment and Political Stability: The Impact of the Abolition of China’s Civil Service Exam. *Econometrica*, 84(2):677–733.
- Bautista, M. A., González, F., Martínez, L. R., Muñoz, P., and Prem, M. (2020). The Geography of Repression and Opposition to Autocracy. Forthcoming in American Journal of Political Science.
- Becker, G. (1997). Latin America Owes a Lot to Its ‘Chicago Boys’. *BusinessWeek*. June 9, 1997.

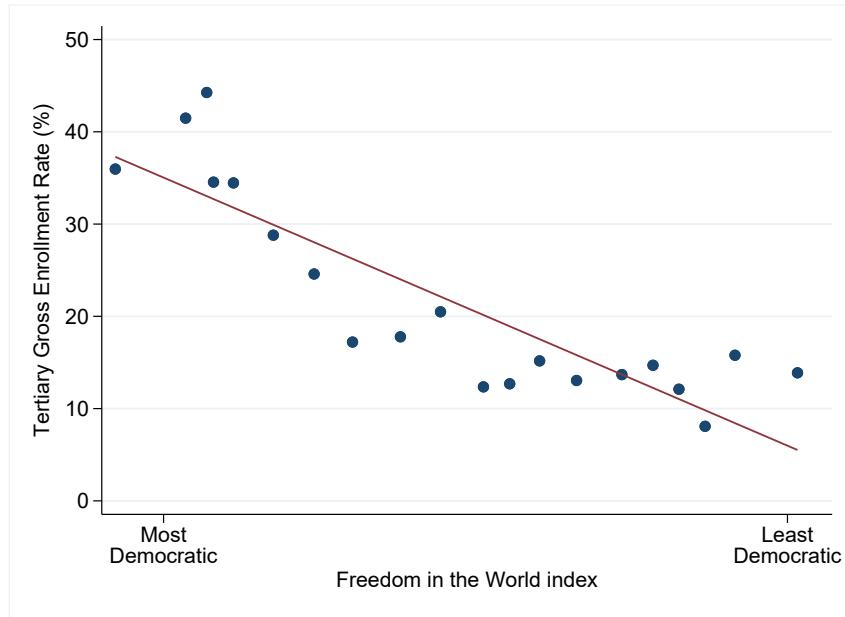
- Björklund, A. and Salvanes, K. G. (2011). Education and Family Background: Mechanisms and Policies. In Hanushek, E. A., Machin, S., and Woessmann, L., editors, *Handbook of the Economics of Education*, volume 3, pages 201 – 247. Elsevier.
- Black, S. E. and Devereux, P. J. (2011). Recent Developments in Intergenerational Mobility. In Card, D. and Ashenfelter, O., editors, *Handbook of Labor Economics*, volume 4, pages 1487 – 1541. Elsevier.
- Black, S. E., Devereux, P. J., and Salvanes, K. G. (2005). Why the Apple Doesn't Fall Far: Understanding Intergenerational Transmission of Human Capital. *American Economic Review*, 95(1):437–449.
- Boix, C. (2003). *Democracy and Redistribution*. Cambridge University Press.
- Bourguignon, F. and Verdier, T. (2000). Oligarchy, Democracy, Inequality and Growth. *Journal of Development Economics*, 62(2):285 – 313.
- Brunner, J. J. (1984). Informe Sobre el Desarrollo y el Estado Actual del Sistema Universitario en Chile. Programa Flacso-Santiago de Chile, Documento de Trabajo 227.
- Brunner, J. J. (2008). *Educación Superior en Chile: Instituciones, Mercados y Políticas Gubernamentales, 1967-2007*. PhD thesis, Universiteit Leiden.
- Cameron, A. C., Gelbach, J. B., and Miller, D. L. (2008). Bootstrap-based Improvements for Inference with Clustered Errors. *Review of Economics and Statistics*, 90(3):414–427.
- Cantoni, D. and Yuchtman, N. (2013). The Political Economy of Educational Content and Development: Lessons from History. *Journal of Development Economics*, 104:233 – 244.
- Card, D., Lee, D. S., Pei, Z., and Weber, A. (2015). Inference on Causal Effects in a Generalized Regression Kink Design. *Econometrica*, 83(6):2453–2483.
- Card, D. and Lemieux, T. (2001). Can Falling Supply Explain the Rising Return to College for Younger Men? A Cohort-based Analysis. *Quarterly Journal of Economics*, 116(2):705–746.
- Castro, P. (1977). *La Educación en Chile de Frei a Pinochet*. Ediciones Sigueme, Salamanca.
- CEP (1992). *El Ladrillo: Bases de la Política Económica del Gobierno Militar Chileno*. Centro de Estudios Públicos.
- CIA (1985). Latin America Review – Chile: Resurgence of University Student Politics. *Central Intelligence Agency (FOIA Collection)*.
- Comisión Rettig (1996). *Informe de la Comisión Nacional de Verdad y Reconciliación*. Chile: Ministerio del Interior, Corporación Nacional de Reparación y Reconciliación.
- Comisión Valech (2004). *Informe de la Comisión Nacional Sobre Prisión Política Y Tortura*. Chile: Ministerio del Interior, Comisión Nacional sobre Prisión Política y Tortura.

- Connelly, J. and Grüttner, M., editors (2005). *Universities Under Dictatorship*. Pennsylvania State University Press.
- Croke, K., Grossman, G., Larreguy, H., and Marshall, J. (2016). Deliberate Disengagement: How Education Can Decrease Political Participation in Electoral Authoritarian Regimes. *American Political Science Review*, 110(3):579600.
- Currie, J. and Moretti, E. (2003). Mother's Education and the Intergenerational Transmission of Human Capital: Evidence from College Openings. *Quarterly Journal of Economics*, 118(4):1495–1532.
- Díaz, E. and Himmel, E. (1985). Evolución Histórica del Sistema de Selección a las Universidades Chilenas 1967-1984. Serie Documentos de Trabajo CPU 5/85.
- Easterly, W. (2013). *The Tyranny of Experts: Economists, Dictators, and the Forgotten Rights of the Poor*. Basic Books.
- Echeverría, R. (1980). La Política Educacional y la Transformación del Sistema de Educación en Chile a Partir de 1973. The Wilson Center, Latin American Program, Working Paper 74.
- Echeverría, R. (1982). Evolución de la Matrícula en Chile: 1935-1981. Santiago, Programa Interdisciplinario de Investigaciones en Educación.
- Ferman, B., Pinto, C., and Possebom, V. (2019). Cherry Picking with Synthetic Controls. *Journal of Policy Analysis and Management*.
- Ffrench-Davis, R. (2018). *Reformas Económicas en Chile: 1973-2017*. Taurus.
- Firpo, S. and Possebom, V. (2018). Synthetic Control Method: Inference, Sensitivity Analysis and Confidence Sets. *Journal of Causal Inference*, 6(2).
- Gallego, F. A. (2010). Historical Origins of Schooling: The Role of Democracy and Political Decentralization. *Review of Economics and Statistics*, 92(2):228–243.
- Glaeser, E. L., Ponzetto, G. A. M., and Shleifer, A. (2007). Why Does Democracy Need Education? *Journal of Economic Growth*, 12(2):77–99.
- Goldin, C. (2006). The Quiet Revolution That Transformed Women's Employment, Education, and Family. *American Economic Review*, 96(2):1–21.
- Guriev, S. and Treisman, D. (2020). A Theory of Informational Autocracy. *Journal of Public Economics*, 186:104158.
- Harding, R. and Stasavage, D. (2013). What Democracy Does (and Doesn't Do) for Basic Services: School Fees, School Inputs, and African Elections. *Journal of Politics*, 76(1):229–245.
- INE (1965). XIII Censo de Población 1960: Resumen País. Instituto Nacional de Estadística, Dirección de Estadísticas y Censos.

- Kim, H.-A. (2011). State Building: The Military Junta's Path to Modernity through Administrative Reforms. In Kim, B.-K. and Vogel, E. F., editors, *The Park Chung Hee Era*, pages 85–112. Harvard University Press.
- Krueger, A. B. and Summers, L. H. (1988). Efficiency Wages and the Inter-Industry Wage Structure. *Econometrica*, 56(2):259–293.
- Larreguy, H. and Marshall, J. (2017). The Effect of Education on Civic and Political Engagement in Nonconsolidated Democracies: Evidence from Nigeria. *Review of Economics and Statistics*, 99(3):387–401.
- Levy, D. (1986). Chilean Universities under the Junta: Regime and Policy. *Latin American Research Review*, 21(3).
- Li, H. and Meng, L. (2020). The Scarring Effects of College Education Deprivation during China's Cultural Revolution. Forthcoming in Economic Development and Cultural Change.
- Lindert, P. H. (2004). *Growing Public: Social Spending and Economic Growth since the Eighteenth Century*. Cambridge University Press.
- Lipset, S. M. (1959). Some Social Requisites of Democracy: Economic Development and Political Legitimacy. *American Political Science Review*, 53(1):69–105.
- Lizzeri, A. and Persico, N. (2004). Why Did the Elites Extend the Suffrage? Democracy and the Scope of Government, with an Application to Britain's "Age of Reform". *Quarterly Journal of Economics*, 119(2):707–765.
- Maurin, E. and McNally, S. (2008). Vive la Révolution! Long-Term Educational Returns of 1968 to the Angry Students. *Journal of Labor Economics*, 26(1):1–33.
- Meltzer, A. H. and Richard, S. F. (1981). A Rational Theory of the Size of Government. *Journal of Political Economy*, 89(5):914–927.
- Milligan, K., Moretti, E., and Oreopoulos, P. (2004). Does Education Improve Citizenship? Evidence from the United States and the United Kingdom. *Journal of Public Economics*, 88(9):1667 – 1695.
- Mulligan, C. B., Gil, R., and Sala-i Martin, X. (2004). Do Democracies Have Different Public Policies than Nondemocracies? *Journal of Economic Perspectives*, 18(1):51–74.
- Murtin, F. and Wacziarg, R. (2014). The Democratic Transition. *Journal of Economic Growth*, 19(2):141–181.
- Oreopoulos, P., Page, M. E., and Stevens, A. H. (2006). The Intergenerational Effects of Compulsory Schooling. *Journal of Labor Economics*, 24(4):729–760.
- Paglayan, A. (2020). The Non-Democratic Roots of Mass Education: Evidence from 200 Years. Forthcoming in American Political Science Review.

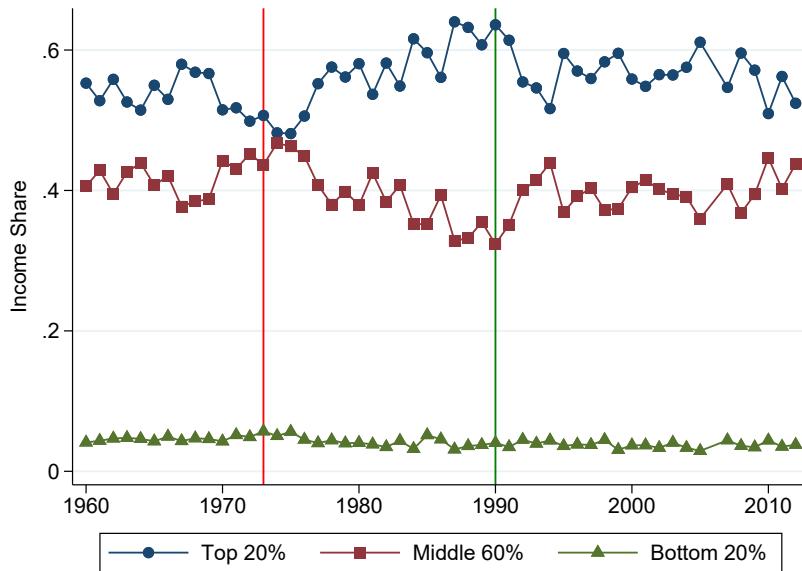
- Passarelli, F. and Tabellini, G. (2017). Emotions and Political Unrest. *Journal of Political Economy*, 125(3):903–946.
- Persson, T. and Tabellini, G. (1994). Is Inequality Harmful for Growth? *American Economic Review*, 84(3):600–621.
- PIIE (1984). *Las Transformaciones Educacionales Bajo el Régimen Militar, Vols. I y II*. Programa Interdisciplinario de Investigaciones en Educación.
- Posner, R. (2010). The Becker-Posner Blog: Autocracy, Democracy and Economic Welfare. <https://tinyurl.com/y5evx7pu>. [Accessed on 08/17/2020].
- Roland, G. and Yang, D. (2017). China's Lost Generation: Changes in Beliefs and their Intergenerational Transmission. NBER Working Paper 23441.
- Schifelbein, E. (1976). Diagnóstico del Sistema Educativo Chileno en 1970. Universidad de Chile, Publicación del Departamento de Economía 31.
- Sondheimer, R. M. and Green, D. P. (2010). Using Experiments to Estimate the Effects of Education on Voter Turnout. *American Journal of Political Science*, 54(1):174–189.
- Suhonen, T. and Karhunen, H. (2019). The Intergenerational Effects of Parental Higher Education: Evidence from Changes in University Accessibility. *Journal of Public Economics*, 176:195 – 217.
- Treisman, D. (2020). Democracy by Mistake: How the Errors of Autocrats Trigger Transitions to Free Government. *American Political Science Review*, 114(3):792–810.
- Universidad de Chile (2011). Compendio Estadístico - Proceso de Admisión Año Académico 2011. Vicerrectoría de Asuntos Académicos.
- Valdés, J. G. (1995). *Pinochet's Economists: The Chicago School in Chile*. Cambridge University Press.
- Velasco, A. (1994). The State and Economic Policy: Chile 1952-92. In Bosworth, B. P., Dornbusch, R., and Labán, R., editors, *The Chilean Economy: Policy Lessons and Challenges*, pages 379–411. The Brookings Institution.
- Waldinger, F. (2010). Quality Matters: The Expulsion of Professors and the Consequences for PhD Student Outcomes in Nazi Germany. *Journal of Political Economy*, 118(4):787–831.
- Waldinger, F. (2011). Peer Effects in Science: Evidence from the Dismissal of Scientists in Nazi Germany. *Review of Economic Studies*, 79(2):838–861.

Figure 1: Tertiary Enrollment and Democracy: 1970-2019



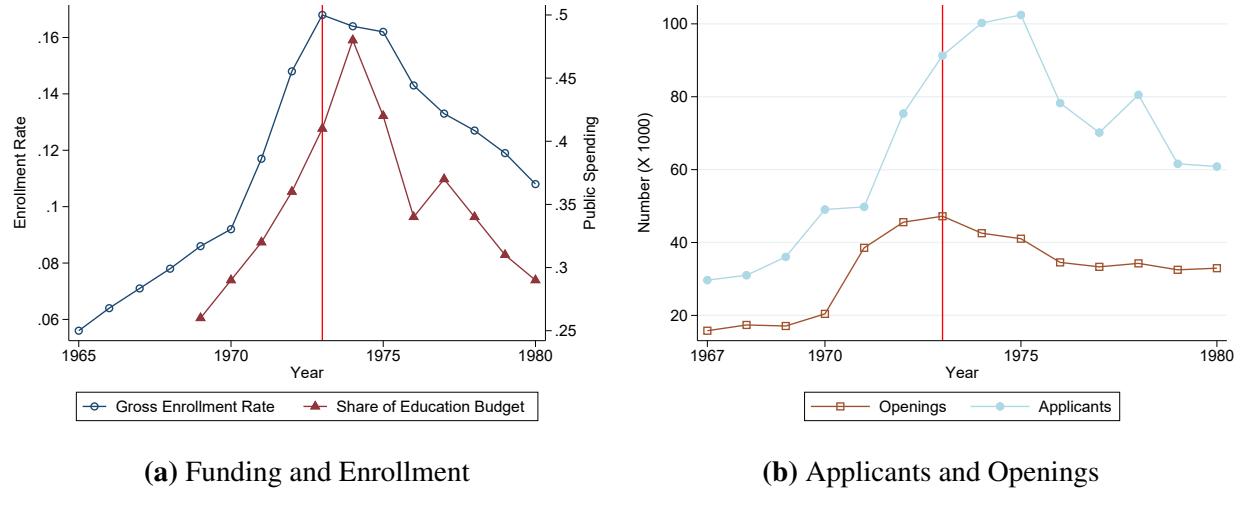
Notes: Figure shows a binned scatter plot of the gross tertiary enrollment rate from the World Bank's World Development Indicators against the Freedom in the World index produced by Freedom House. The unit of observation is country-decade (averaging across years). Additional controls include decade fixed effects. Sample period: 1970-2019.

Figure 2: Income shares



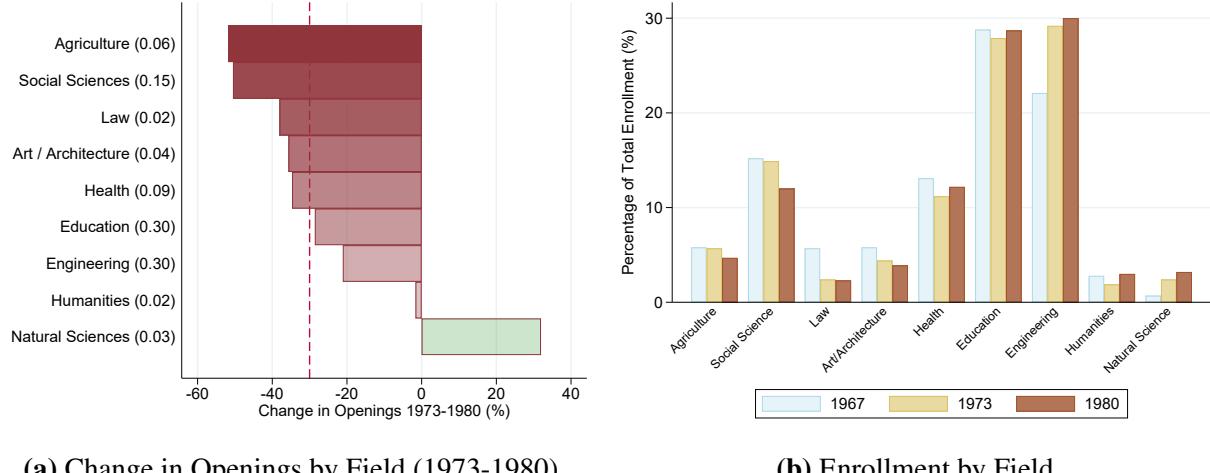
Notes: Figure shows the share of income going to the top 20% of earners, middle 60% and bottom 20%. Sample includes all respondents of Universidad de Chile's EOD Survey between 1960 and 2012, which covers the Santiago metropolitan area. Vertical lines indicate the year of the military coup (1973) and the return to democracy (1990).

Figure 3: College Funding, Enrollment and Openings



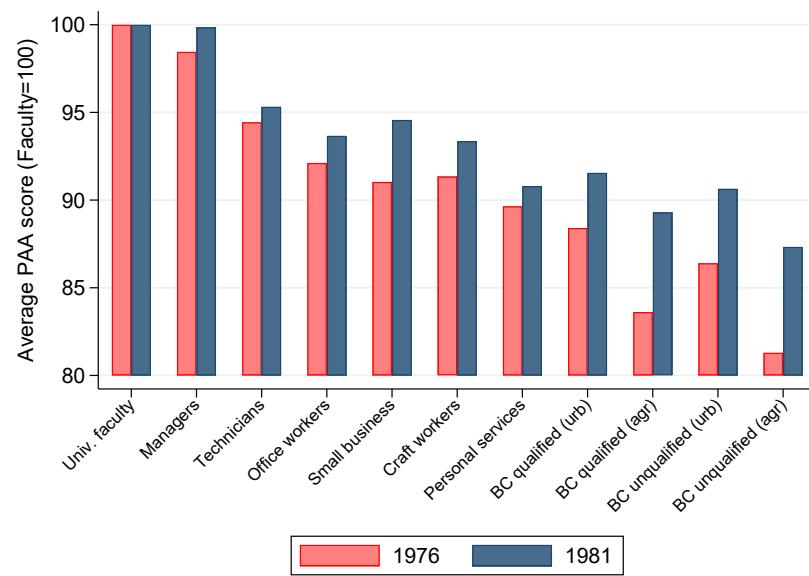
Notes: Panel (a) shows the gross enrollment rate in higher education (i.e., share of 20-24 year-old population) and the share of the national government's education budget devoted to universities. Panel (b) shows the yearly number of college applicants and openings. Sources: [PIIE \(1984\)](#); [Universidad de Chile \(2011\)](#).

Figure 4: College Openings and Enrollment by Field



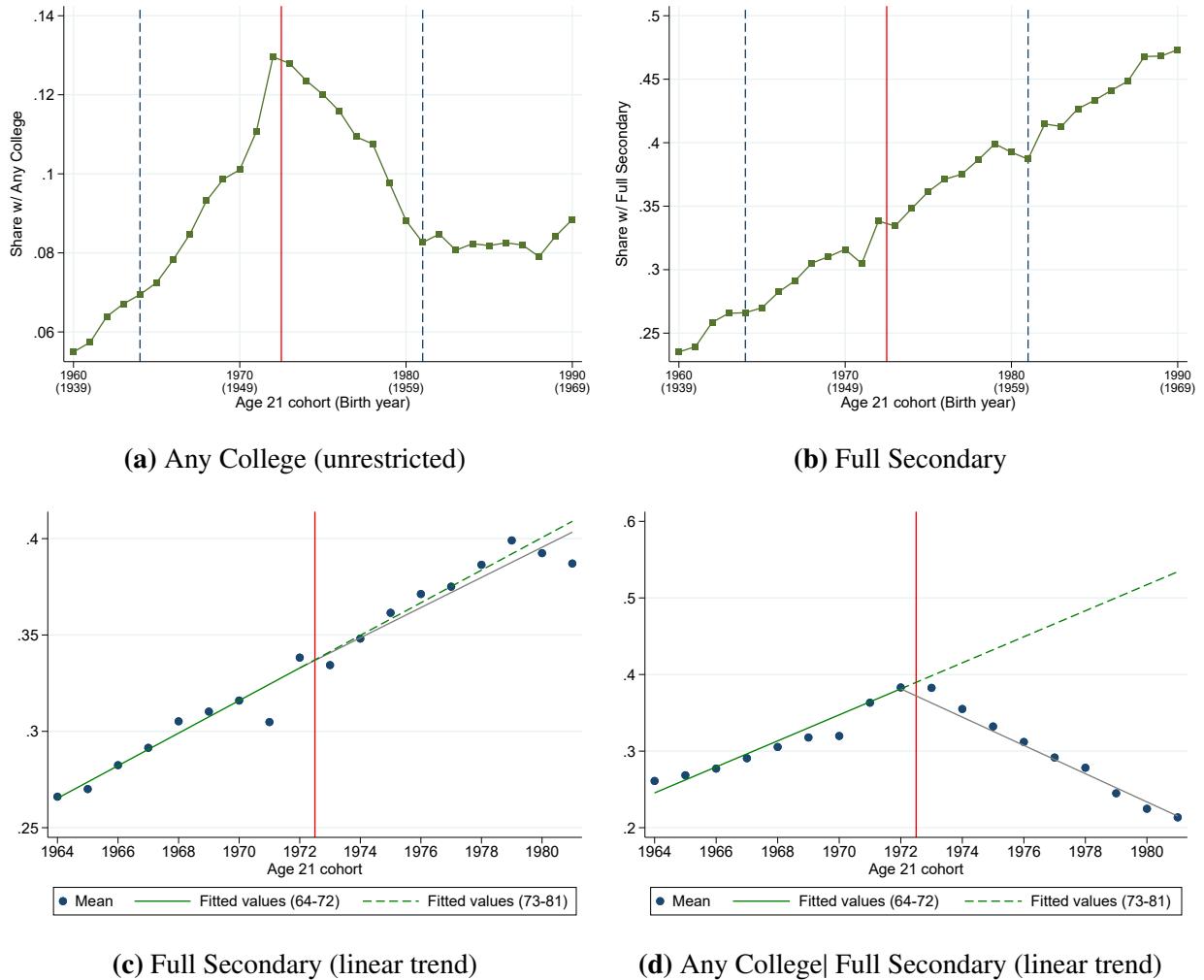
Notes: Panel (a) shows the change in openings by field of study between 1973 and 1980. The number in parenthesis corresponds to the field's share of openings in 1973, while the dashed line indicates the aggregate reduction in openings. Panel (b) shows the share of students enrolled in programs corresponding to different fields of study in 1967, 1973 and 1980. Classification corresponds to UNESCO categories. Sources: [PIIE \(1984\)](#); [Brunner \(1984\)](#).

Figure 5: Average PAA Test Score of Admitted Students by Father's Occupation



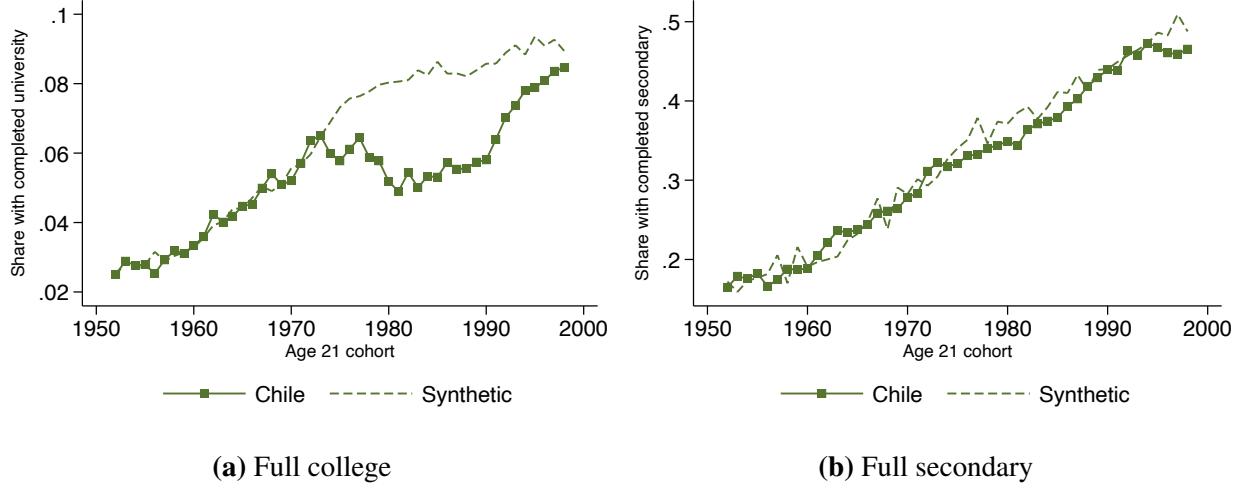
Notes: Figure shows the average PAA test scores for admitted college students in 1976 and 1981, classified by father's occupation. In both years, the maximum corresponds to children of university faculty, which we have normalized to 100. BC = Blue collar. Source: PIIE (1984).

Figure 6: Visualization of Kink: Educational Attainment



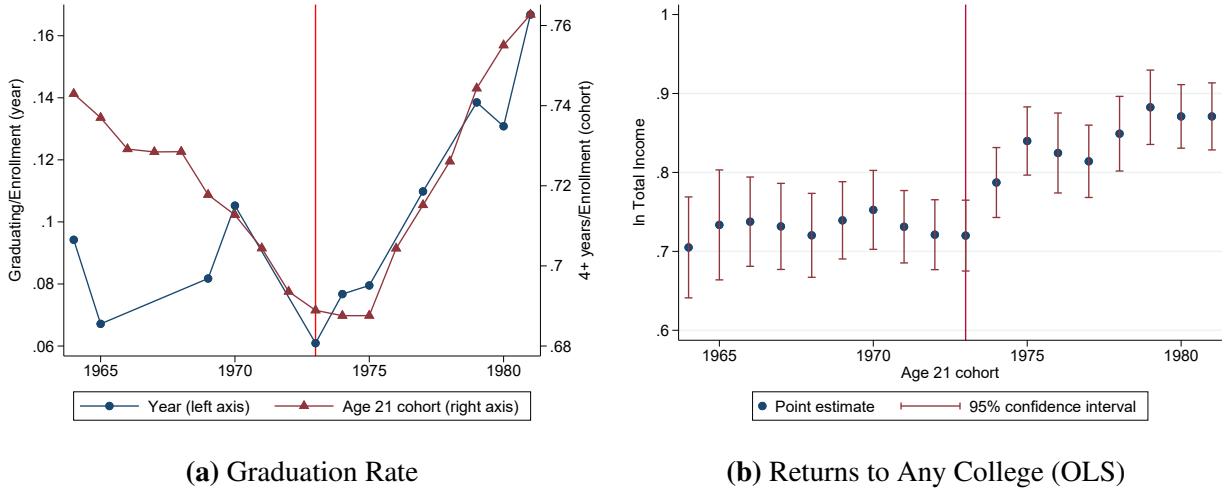
Notes: Panels (a) and (b) show the share of people per cohort that report any college or 4+ years of secondary education in the 1992 census. The solid red line indicates the year of the military coup. Dashed lines correspond to the sample of cohorts used in the analysis. Panels (c) and (d) restrict the sample to these cohorts and show the estimated cohort trends. Solid green line corresponds to line of best fit for cohorts reaching college age before 1973. Dashed green line shows extrapolation for later cohorts. Solid grey line corresponds to line of best fit for cohorts reaching college age in 1973 or afterwards. Sample in panel (d) is restricted to individuals with 4+ years of secondary.

Figure 7: Educational Attainment: Synthetic Control



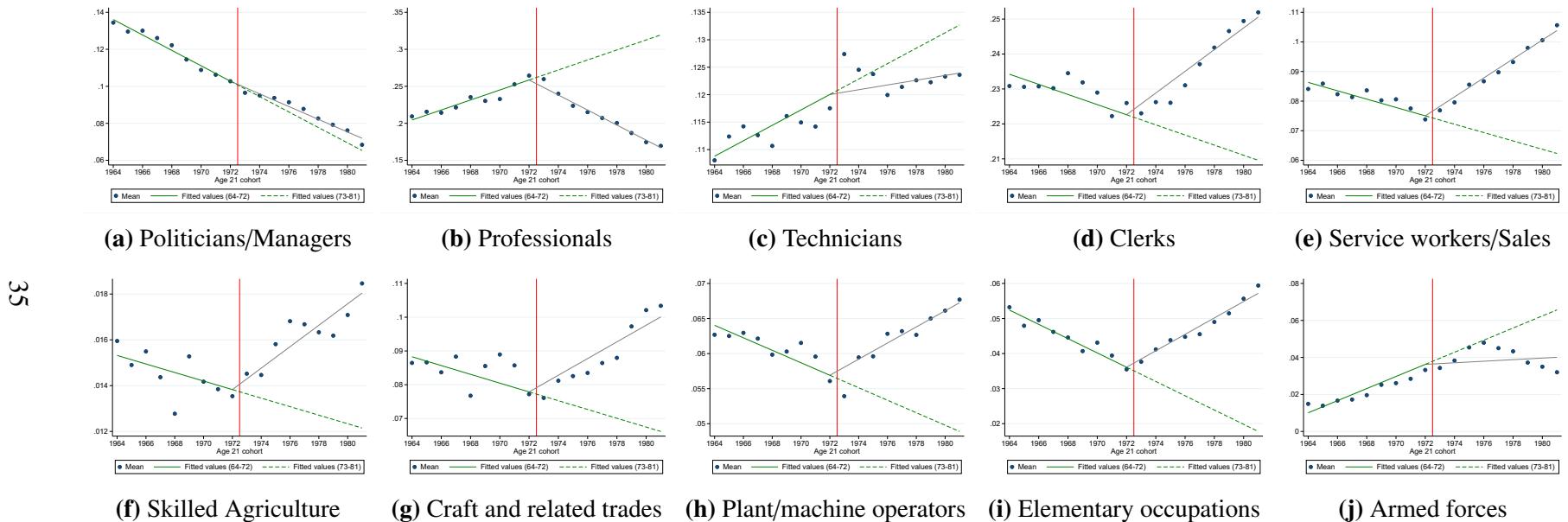
Notes: Panels show observed rates of educational attainment by cohort in the 2002 population census (solid line) and counterfactuals from a synthetic control (dashed line). See the text for additional information on sample construction and estimation. The outcome in panel (a) is the share of people with full college education, while in panel (b) it is the share of people with full secondary education.

Figure 8: Post-Enrollment Outcomes



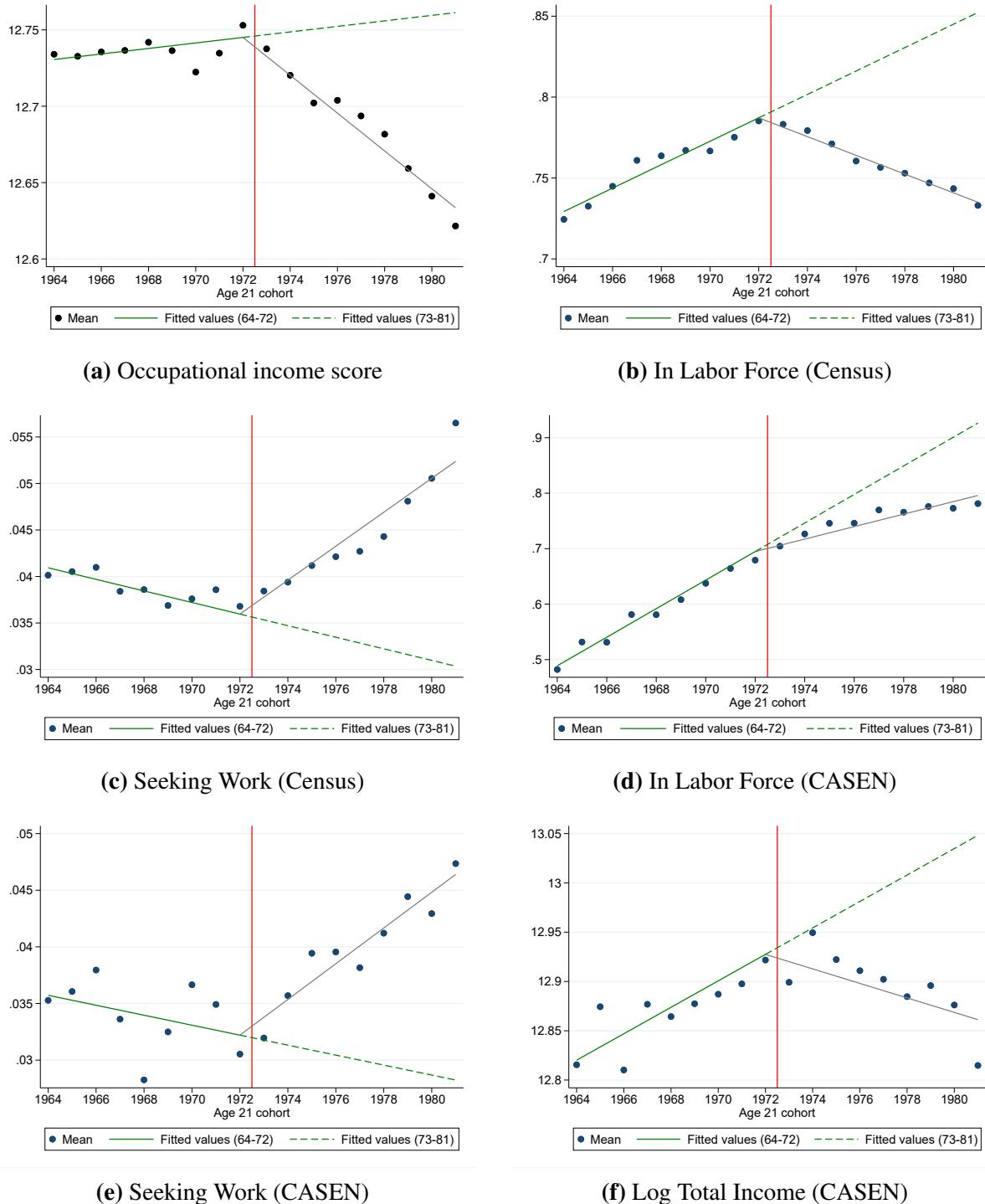
Notes: Panel (a) shows the college graduation rate. Circle markers (left axis) correspond to the number of graduating students as a share of the total number of students per year, based on the UNESCO statistical yearbooks. Triangle markers (right axis) show the number of people in the 1992 census that report 4+ years of college as a share of the people with any college per cohort. Panel (b) shows results from a regression of log real total income on a full set of interactions of a dummy for any college with cohort fixed effects. Sample includes all respondents in the CASEN survey reaching age 21 between 1964 and 1981 and reporting 4+ years of secondary education. Controls include county of residence by gender, survey year and age fixed effects. Standard errors clustered by county of residence.

Figure 9: Visualization of Kink: Occupational choice



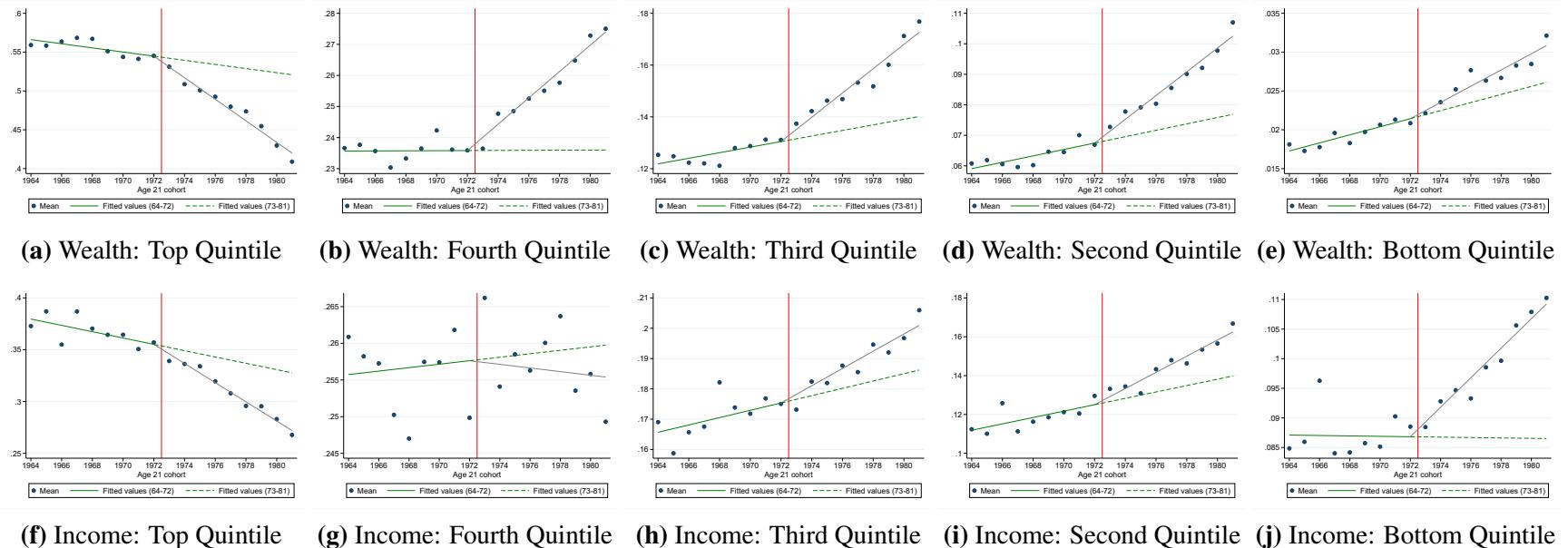
Notes: Panels show averages by cohort for the variable in the caption. Solid green line corresponds to line of best fit for cohorts reaching college age before 1973. Dashed green line shows extrapolation for later cohorts. Solid grey line corresponds to line of best fit for cohorts reaching college age in 1973 or afterwards. Source: 1992 census.

Figure 10: Visualization of Kink: Labor Market Outcomes



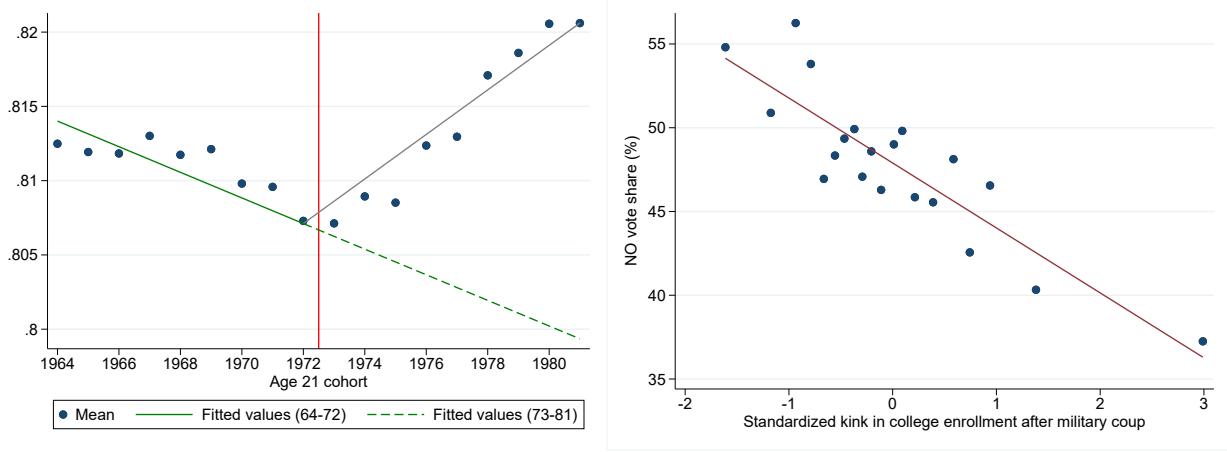
Notes: Panels show averages by cohort for the variable in the caption. Solid green line corresponds to line of best fit for cohorts reaching college age before 1973. Dashed green line shows extrapolation for later cohorts. Solid grey line corresponds to line of best fit for cohorts reaching college age in 1973 or afterwards. Panels (a)-(c) use data from 1992 population census, while panels (d)-(f) use data from the CASEN survey between 1990 and 2017.

Figure 11: Visualization of Kink: Household Wealth and Income



Notes: Panels show averages by cohort for the variable in the caption. Solid green line corresponds to line of best fit for cohorts reaching college age before 1973. Dashed green line shows extrapolation for later cohorts. Solid grey line corresponds to line of best fit for cohorts reaching college age in 1973 or afterwards. Panels (a)-(e) use data from 1992 population census, while panels (f)-(j) use data from the CASEN survey between 1990 and 2017.

Figure 12: Political outcomes: 1988 plebiscite

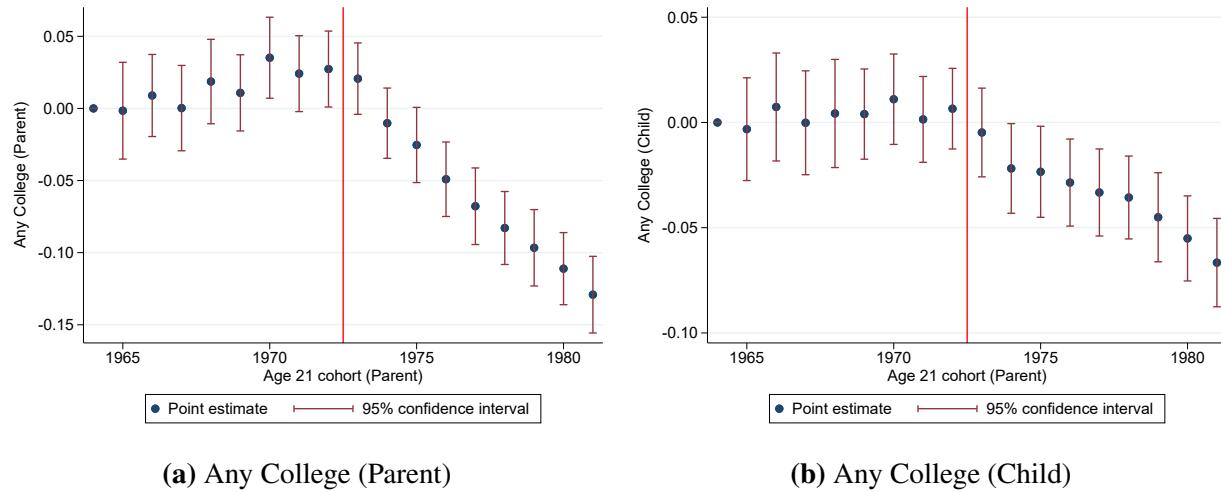


(a) Voter registration

(b) NO vote share

Notes: Panel (a) shows the share of voters per cohort in 2017 that registered to vote before the 1988 plebiscite (i.e., 1987 or 1988). Solid green line corresponds to line of best fit for cohorts reaching college age before 1973. Dashed green line shows extrapolation for later cohorts. Solid grey line corresponds to line of best fit for cohorts reaching college age in 1973 or afterwards. Panel (b) shows a binned scatter plot of the estimated kink in college enrollment at the county level (adjusted for precision and standardized) and the vote share for the NO option in the 1988 plebiscite. Unit of observation is the county.

Figure 13: College Enrollment of Linked Parents and Children



(a) Any College (Parent)

(b) Any College (Child)

Notes: Panel (a) shows point estimates and 95% confidence intervals from a regression of parent's college enrollment on parent cohort dummies. Panel (b) uses child's college enrollment as outcome instead. See text for details on sample construction. Controls include county of birth by gender, parent's gender by (child's) gender, age and relationship to household head fixed effects. Standard errors clustered by county of birth.

Table 1: Educational Attainment

	Secondary Education		Any College Education				Any Higher Education
	Any	Full	(3)	(4)	(5)	(6)	(7)
	(1)	(2)					
Yr Age 21	0.010*** (0.0006) [0.001]	0.008*** (0.0003) [0.002]	0.008*** (0.0004) [0.000]	0.018*** (0.0004) [0.001]	0.015*** (0.0005) [0.001]	0.020*** (0.0021) [0.000]	0.019*** (0.0003) [0.001]
Yr Age 21 x 1(Yr Age 21 ≥ 1973)	-0.000 (0.0004) [0.932]	-0.001 (0.0005) [0.707]	-0.012*** (0.0007) [0.000]	-0.036*** (0.0007) [0.000]	-0.033*** (0.0007) [0.000]	-0.041*** (0.0030) [0.000]	-0.030*** (0.0006) [0.000]
Yr Age 21 x 1(Female)						0.006*** (0.0006) [0.003]	
Yr Age 21 x 1(Yr Age 21 ≥ 1973) x 1(Female)						-0.007*** (0.0008) [0.002]	
Sample	Full	Full	Full	4+ Years of Secondary Education			
County of birth x gender FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Family FE	No	No	No	No	No	Yes	No
Observations	2,982,951	2,982,951	2,982,951	1,024,570	1,024,570	42,649	1,024,570
R-squared	0.119	0.088	0.046	0.040	0.040	0.647	0.034
Mean DV	0.540	0.343	0.101	0.295	-	0.293	0.379
Mean DV (Male)	-	-	-	-	0.315	-	-
Mean DV (Female)	-	-	-	-	0.276	-	-

Notes: Dependent variable in the header. Sample includes census respondents born between 1943 and 1960. “Yr Age 21” is a continuous variable indicating the year when the cohort reached age 21, normalized to zero in 1972. 1(Yr Age 21 ≥ 1973)” is a dummy for cohorts that reached age 21 on or after 1973. Standard errors clustered by county of birth in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table 2: Occupational choice

	White-collar		Blue-collar		Military	Occupational income score
	High-skill	Low-skill	High-skill	Low-skill		
	(1)	(2)	(3)	(4)	(5)	(6)
Yr Age 21	0.004*** (0.0005) [0.004]	-0.003*** (0.0004) [0.001]	-0.002*** (0.0002) [0.006]	-0.003*** (0.0002) [0.000]	0.004*** (0.0002) [0.001]	0.004*** (0.0004) [0.005]
Yr Age 21 x 1(Yr Age 21 ≥ 1973)	-0.017*** (0.0008) [0.000]	0.010*** (0.0005) [0.000]	0.005*** (0.0003) [0.001]	0.006*** (0.0005) [0.000]	-0.004*** (0.0003) [0.004]	-0.016*** (0.0006) [0.000]
County of birth x gender FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	770,652	770,652	770,652	770,652	770,652	684,995
R-squared	0.032	0.027	0.049	0.024	0.027	0.061
Mean DV	0.431	0.323	0.104	0.109	0.034	12.70

Notes: Dependent variable in the header. White collar, high skilled (WC-HS): Politicians and managers, professionals and technicians. WC-LS: Clerks and service or sales workers. BC-HS: Skilled agricultural workers, craft and related trades. BC-LS: Plant/machine operators and elementary occupations. The occupational income score is the logarithm of the median wage of the occupation at the 3-digit level. Wages come from the CASEN biennial survey from 1992 to 2000. Sample includes census respondents born between 1943 and 1960 with 4+ years of secondary education. “Yr Age 21” is a continuous variable indicating the year when the cohort reached age 21, normalized to zero in 1972. 1(Yr Age 21 ≥ 1973)” is a dummy for cohorts that reached age 21 on or after 1973. Standard errors clustered by county of birth in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table 3: Labor Market Outcomes

	In Labor Force			Seeking Work			Log Total Income	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Yr Age 21	0.008*** (0.0003) [0.000]	0.027*** (0.0008) [0.000]		-0.001*** (0.0001) [0.004]	-0.000 (0.0004) [0.114]		0.016*** (0.0017) [0.000]	
Yr Age 21 x 1(Yr Age 21 ≥ 1973)	-0.012*** (0.0006) [0.000]	-0.016*** (0.0009) [0.001]	-0.004*** (0.0009) [0.000]	0.003*** (0.0002) [0.003]	0.002*** (0.0005) [0.007]	0.002*** (0.0005) [0.020]	-0.023*** (0.0023) [0.001]	-0.009*** (0.0027) [0.026]
County x gender FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Survey year FE	No	Yes	Yes	No	Yes	Yes	Yes	Yes
Age FE	No	No	Yes	No	No	Yes	No	Yes
Source	Census	CASEN	CASEN	Census	CASEN	CASEN	CASEN	CASEN
Observations	1,024,570	163,693	163,693	776,304	114,790	114,790	135,152	135,152
R-squared	0.200	0.223	0.248	0.004	0.013	0.013	0.155	0.163
Mean DV	0.758	0.701	0.701	0.043	0.039	0.039	709,631	709,631

Notes: Dependent variable in the header. Sample includes individuals born between 1943 and 1960 with 4+ years of secondary education. Income in column 4 deflated using yearly CPI. “Yr Age 21” is a continuous variable indicating the year at which the cohort reached age 21, normalized to zero in 1972. “Yr Age 21 x 1(Yr Age 21 ≥ 1973)” is the interaction of this variable with a dummy for cohorts that reached age 21 on or after 1973. Standard errors clustered by county (panel A: birth; B/C: residence) in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table 4: Household Wealth and Income

	Household's wealth or income quintile (dummy)				
	Q5 (highest) (1)	Q4 (2)	Q3 (3)	Q2 (4)	Q1 (lowest) (5)
<u>Panel A: Wealth (Census 1992)</u>					
Yr Age 21	-0.002*** (0.0005) [0.010]	-0.000 (0.0004) [0.392]	0.001*** (0.0003) [0.017]	0.001*** (0.0003) [0.014]	0.000*** (0.0001) [0.004]
Yr Age 21 x 1(Yr Age 21 ≥ 1973)	-0.013*** (0.0007) [0.003]	0.004*** (0.0006) [0.001]	0.004*** (0.0004) [0.003]	0.004*** (0.0003) [0.001]	0.001*** (0.0001) [0.000]
<u>Panel B: Income (CASEN 1990-2017)</u>					
Yr Age 21	-0.002** (0.0008) [0.077]	0.000 (0.0006) [0.833]	0.001* (0.0006) [0.096]	0.001*** (0.0004) [0.073]	-0.000 (0.0004) [0.419]
Yr Age 21 x 1(Yr Age 21 ≥ 1973)	-0.006*** (0.0011) [0.002]	-0.001 (0.0010) [0.532]	0.002* (0.0008) [0.118]	0.003*** (0.0007) [0.002]	0.003*** (0.0006) [0.001]
<u>Panel C: Income (CASEN 1990-2017) w/ Age FE</u>					
Yr Age 21 x 1(Yr Age 21 ≥ 1973)	-0.002** (0.0011) [0.047]	-0.001 (0.0010) [0.478]	0.001 (0.0009) [0.533]	0.001* (0.0008) [0.041]	0.001* (0.0007) [0.055]
Panel A:					
County of birth x gender FE	Yes	Yes	Yes	Yes	Yes
Observations	1,007,957	1,007,957	1,007,957	1,007,957	1,007,957
R-squared	0.114	0.013	0.032	0.052	0.050
Mean DV	0.500	0.250	0.145	0.080	0.024
Panels B and C:					
County of residence x gender FE	Yes	Yes	Yes	Yes	Yes
Survey year FE	Yes	Yes	Yes	Yes	Yes
Observations	163,342	163,342	163,342	163,342	163,342
R-squared [Panel B]	0.080	0.012	0.016	0.024	0.028
R-squared [Panel C]	0.084	0.013	0.017	0.026	0.031
Mean DV	0.327	0.257	0.184	0.137	0.096

Notes: Dependent variable in the header. Sample includes individuals born between 1943 and 1960 with 4+ years of secondary education. “Yr Age 21” is a continuous variable indicating the year at which the cohort reached age 21, normalized to zero in 1972. “Yr Age 21 x 1(Yr Age 21 ≥ 1973)” is the interaction of this variable with a dummy for cohorts that reached age 21 on or after 1973. Standard errors clustered by county (panel A: birth; B/C: residence) in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table 5: Opposition to Pinochet in 1988 Plebiscite

	Dependent variable: NO vote share				
	(1)	(2)	(3)	(4)	(5)
Kink in college enrollment	-3.88*** (0.79) [0.000]	-3.21*** (0.66) [0.000]	-2.35*** (0.67) [0.010]	-1.98*** (0.62) [0.000]	-1.13** (0.56) [0.050]
Allende vote share in 1970					0.44*** (0.04)
Population controls	No	Yes	Yes	Yes	Yes
Geographic controls	No	No	Yes	Yes	Yes
Region FE	No	No	No	Yes	Yes
Observations	318	318	318	318	318
R-squared	0.100	0.439	0.485	0.543	0.681
Mean DV	47.90	47.90	47.90	47.90	47.90

Notes: Dependent variable is the NO vote share in the 1988 plebiscite. Unit of observation is the county. Local impact measure is equal to the negative of the county-specific estimate of the net trend in college enrollment for cohorts reaching college age between 1973 and 1981 (adjusted for precision), multiplied by the share of the voting-age population in 1988 belonging to the affected group (age 21 between 1964 and 1981 and reporting 4+ years of secondary education in 1992 census). We exclude counties with less than 1,000 people in the estimating sample. Population controls include total population, rural share and female share in 1970. Geographic controls include distance to Santiago and to the provincial and regional capitals. Observations weighted by population in 1970. Robust standard errors in parentheses. P-values from wild bootstrap in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table 6: Educational Attainment of Children

	(1)	(2)	(3)	(4)	(5)
<u>PANEL A: Any College (Parent)</u>					
Yr Age 21 Parent	0.006*** (0.0008) [0.001]	0.006*** (0.0008) [0.001]	0.006*** (0.0008) [0.001]	0.004*** (0.0008) [0.009]	0.004*** (0.0008) [0.011]
Yr Age 21 Parent x $\mathbb{1}(Yr\ Age\ 21\ Parent \geq 1973)$	-0.021*** (0.0012) [0.000]	-0.021*** (0.0012) [0.000]	-0.020*** (0.0012) [0.000]	-0.022*** (0.0012) [0.000]	-0.021*** (0.0012) [0.000]
<u>PANEL B: Any College (Child)</u>					
Yr Age 21 Parent	0.004*** (0.0009) [0.005]	0.004*** (0.0009) [0.005]	0.004*** (0.0009) [0.005]	-0.000 (0.0009) [0.742]	-0.001 (0.0008) [0.456]
Yr Age 21 Parent x $\mathbb{1}(Yr\ Age\ 21\ Parent \geq 1973)$	-0.005*** (0.0013) [0.006]	-0.005*** (0.0013) [0.005]	-0.005*** (0.0013) [0.005]	-0.007*** (0.0012) [0.004]	-0.006*** (0.0011) [0.003]
County of birth x gender FE	Yes	Yes	Yes	Yes	Yes
Parent's gender x gender FE	No	Yes	Yes	Yes	Yes
Relationship to HH head FE	No	No	Yes	Yes	Yes
Age FE	No	No	No	Yes	Yes
Full secondary FE	No	No	No	No	Yes
Observations	233,136	233,136	233,136	233,136	233,136
R-squared (panel A)	0.085	0.087	0.088	0.095	0.099
R-squared (panel B)	0.044	0.045	0.046	0.063	0.132
Mean DV (Panel A)	0.309	0.309	0.309	0.309	0.309
Mean DV (Panel B)	0.582	0.582	0.582	0.582	0.582

Notes: Notes: Dependent variable in the header of each panel. Sample includes all respondents in the 2017 census between the ages of 25 and 40 that we can connect to at least one parent that was born between 1943 and 1960 and reported full secondary education. See text for further details on construction of sample. "Yr Age 21 Parent" is a continuous variable indicating the year at which the parent reached age 21, normalized to zero in 1972, while $\mathbb{1}(Yr\ Age\ 21\ Parent \geq 1973)$ is a dummy for parents that reached age 21 on or after 1973. Standard errors clustered by county of birth in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Dictatorship, Higher Education and Social Mobility: Appendix for online publication

Table of Contents

Appendix A Additional Background Tables and Figures	II
Appendix B Additional Information on Data Sources	VIII
Appendix C Educational Attainment: Additional Results	X
Appendix D Synthetic Control: Additional Results	XV
Appendix E Economic Consequences: Additional Results	XVIII
Appendix F Intergenerational Effects: Additional Results	XXXII

Appendix A Additional Background Tables and Figures

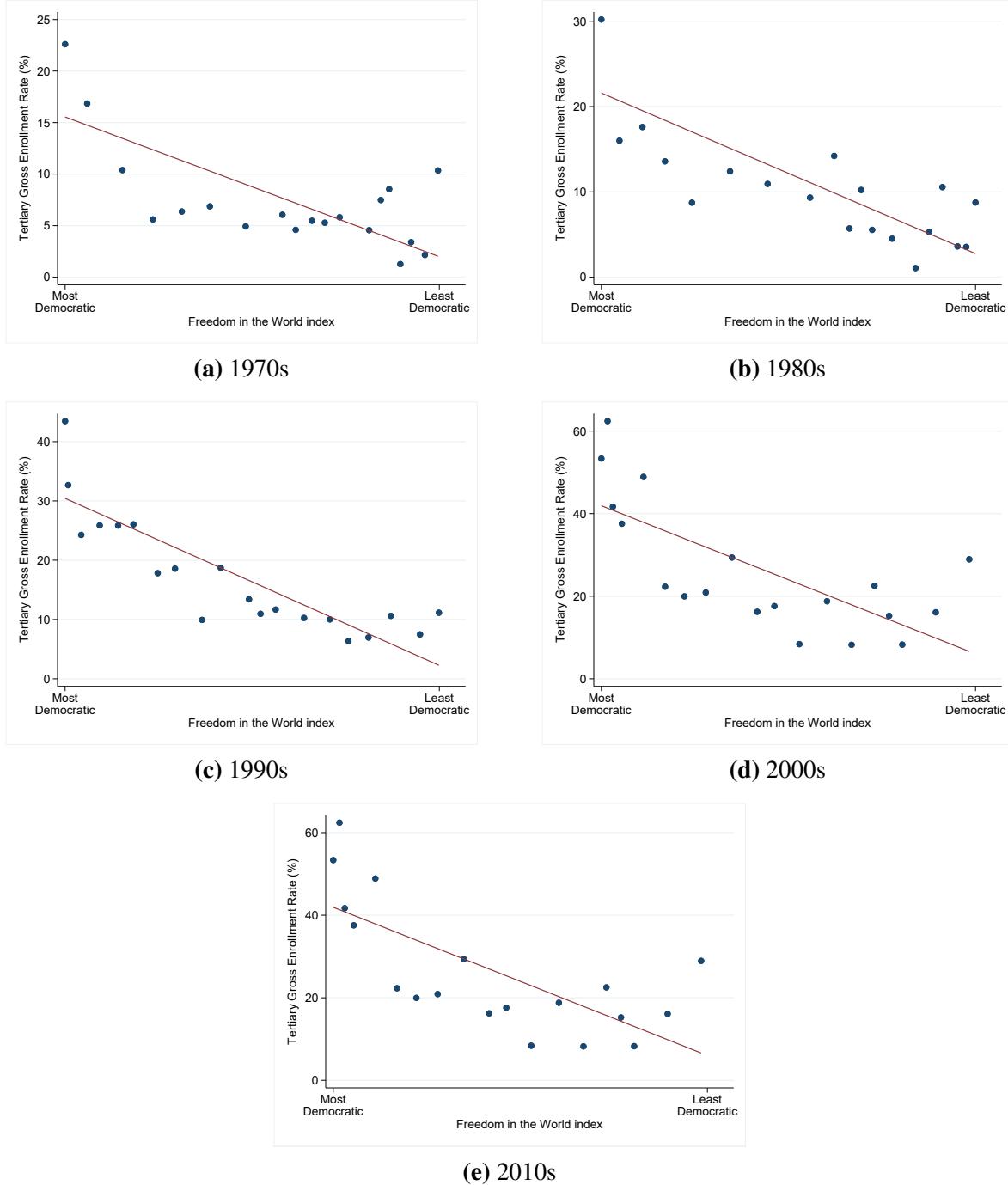
Table A1: Tertiary Enrollment and Democracy

	Dependent variable: Gross Enrollment Rate in Tertiary Education (%)											
	Pooled		1970s		1980s		1990s		2000s		2010s	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
FiW index	-30.87*** (3.51)	-8.35** (4.02)	-16.03*** (2.76)	-7.32** (2.90)	-17.28*** (3.04)	-4.42 (4.41)	-29.03*** (3.90)	-8.98** (3.75)	-37.32*** (5.65)	-12.65** (6.10)	-46.60*** (5.92)	-11.75* (6.53)
log GDP per capita		8.17*** (0.93)		3.14*** (0.67)		4.41*** (0.98)		6.86*** (0.87)		9.68*** (1.21)		13.14*** (1.50)
Observations	700	700	99	99	122	122	157	157	161	161	161	161
R-squared	0.42	0.58	0.33	0.48	0.26	0.43	0.29	0.51	0.25	0.51	0.27	0.57
Decade	Pooled	Pooled	1970	1970	1980	1980	1990	1990	2000	2000	2010	2010
Mean DV	22.44	22.44	7.60	7.60	10.84	10.84	18.03	18.03	27.78	27.78	39.30	39.30

II

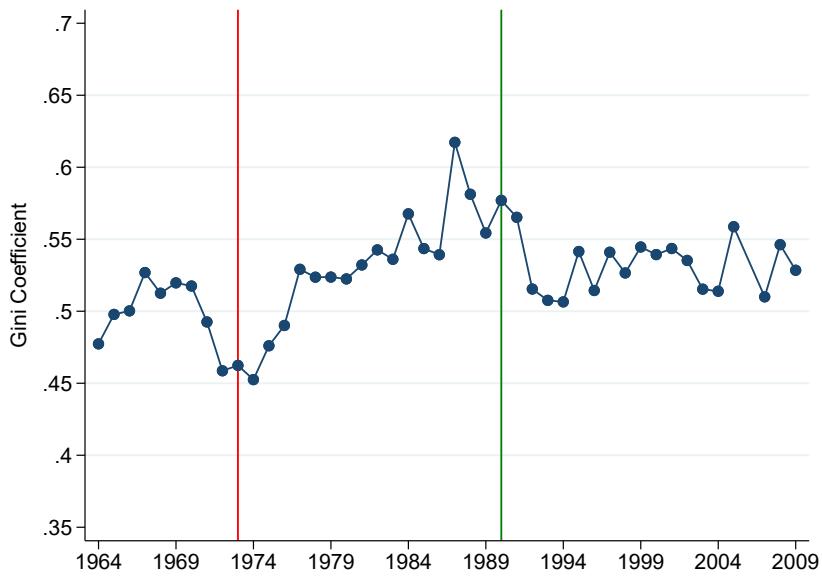
Notes: The dependent variable in all regressions is the gross tertiary enrollment rate, sourced from the World Bank's World Development Indicators (WDI). The Freedom in the World (FiW) index is produced by Freedom House, with lower values representing a greater enjoyment of political values and civil liberties. We rescale the original index, which ranges from 1 to 6, to range from 0 to 1. Log GDP per capita is measured in constant 2010 USD and is sourced also from the WDI. The unit of observation is country-decade (averaging across years with available information within the same decade). Columns 1-2 pool data from all decades and include decade fixed effects as additional controls. Columns 3-12 only include data from the decade in the header (i.e., purely cross-sectional regression). Robust standard errors in parentheses (clustered by country in columns 1-2). *** p<0.01, ** p<0.05, * p<0.1

Figure A1: Tertiary Enrollment and Democracy by Decade



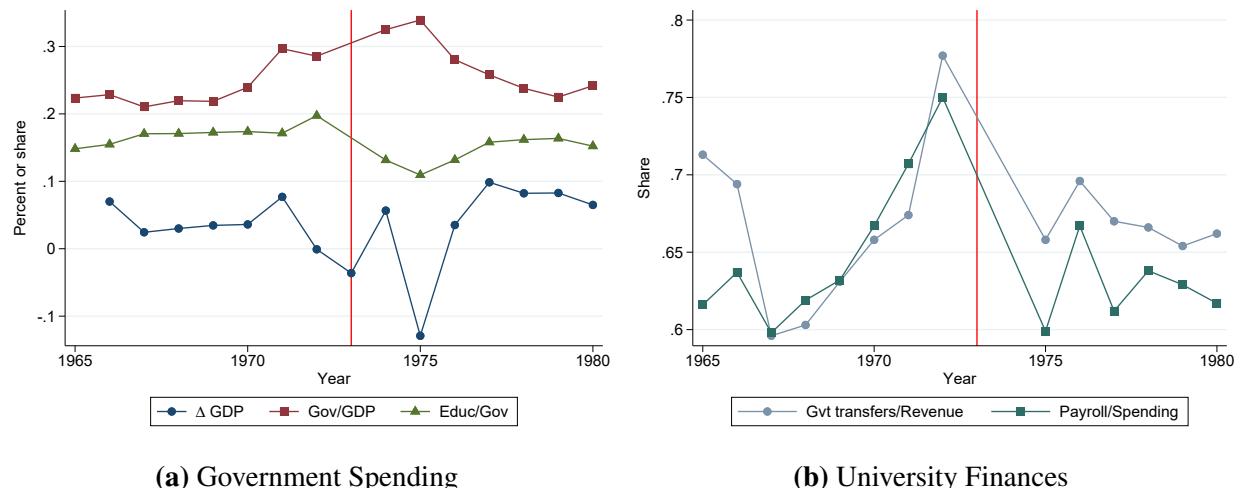
Notes: Figures show binned scatter plots of the gross tertiary enrollment rate from the World Bank's World Development Indicators against the Freedom in the World index produced by Freedom House. The unit of observation is the country-decade (averaging across years) and we restrict the sample to observations in the decade in the caption.

Figure A2: Gini Coefficient



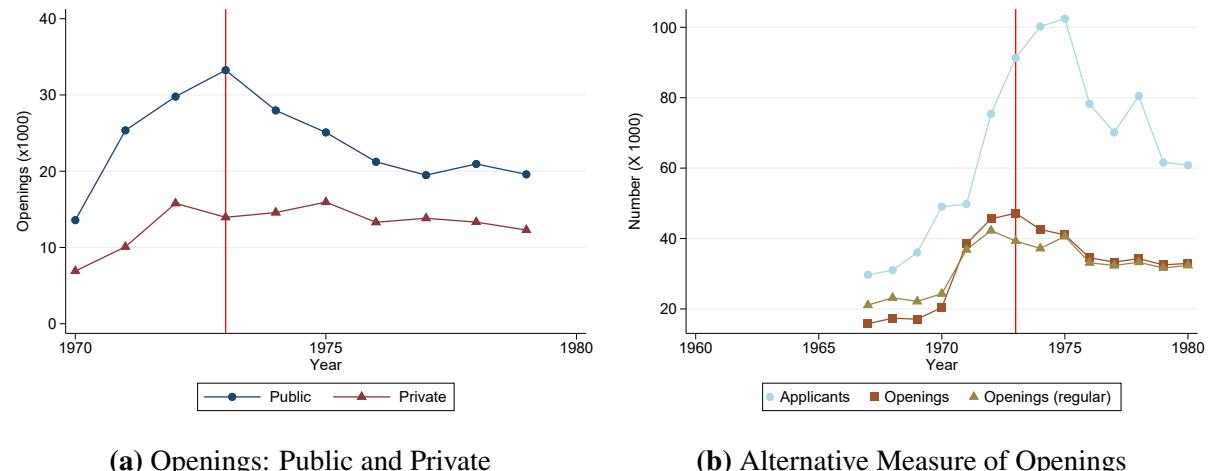
Notes: Figure shows the Gini coefficient, based on self-reported income data in Universidad de Chile's EOD survey.

Figure A3: Public Spending on Education



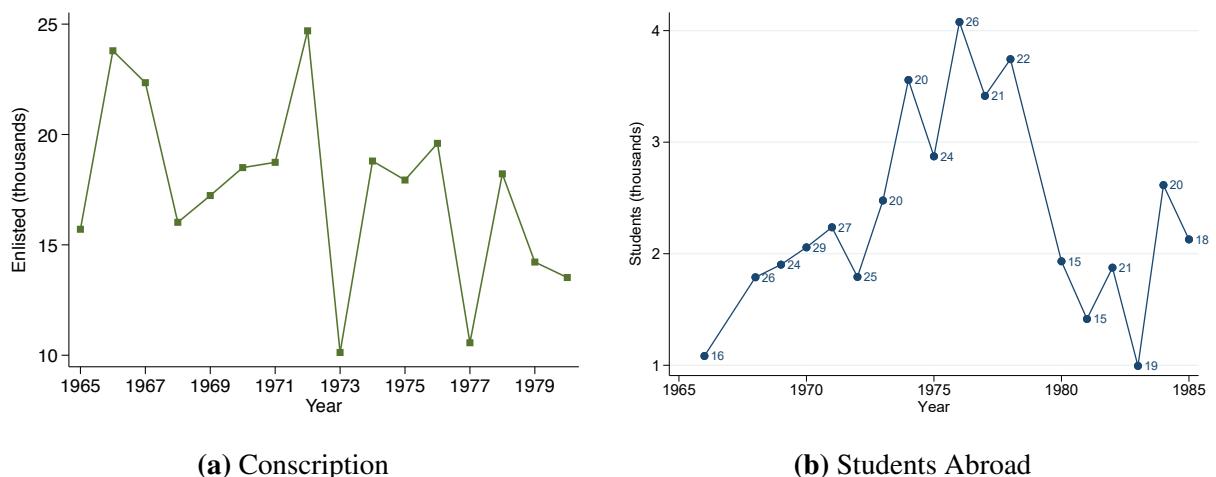
Notes: Panel (a) shows GDP growth, government spending as a share of GDP, and spending on education as a share of government spending. Panel (b) shows fiscal transfers as a share of total revenue in the university system, and payroll as a share of total spending by universities. Source: PIIE (1984).

Figure A4: Further Evidence on Supply and Demand for College



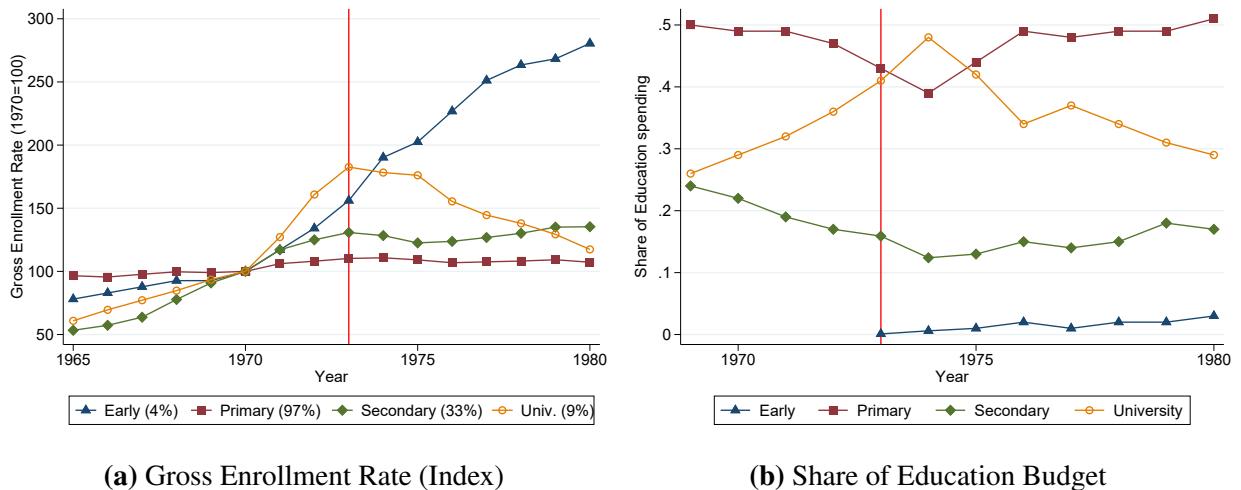
Notes: Panel (a) shows yearly openings in private and public universities. Panel (b) shows the number of applicants and openings per year, but includes an alternative measure of regular openings.

Figure A5: Alternative Mechanisms



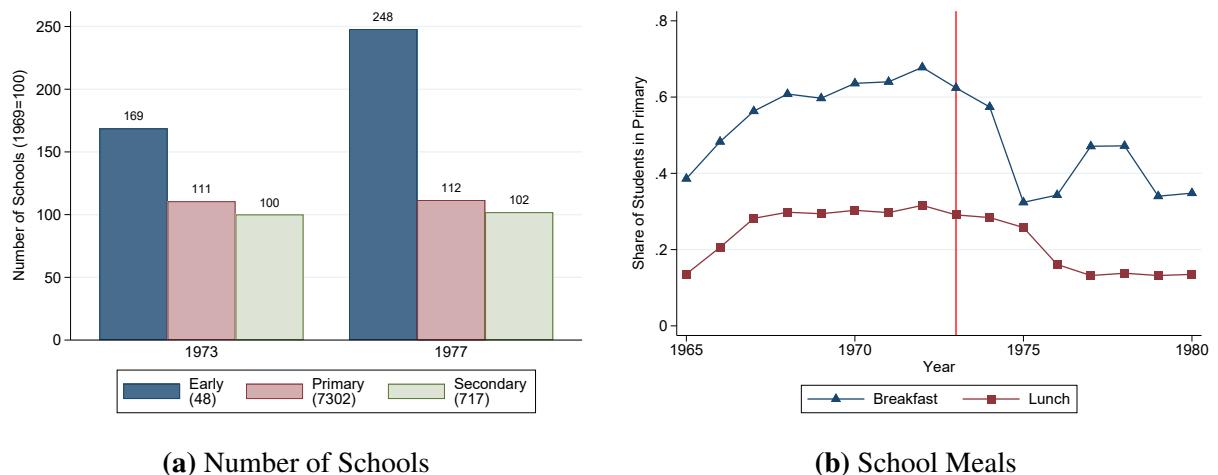
Notes: Panel (a) shows the number of army conscripts per year. Panel (b) shows the number of Chilean students abroad. Sources: records of conscripts per year were obtained through a Freedom-of-Information request and the number of students abroad from UNESCO statistical yearbooks.

Figure A6: Educational Spending and Enrollment



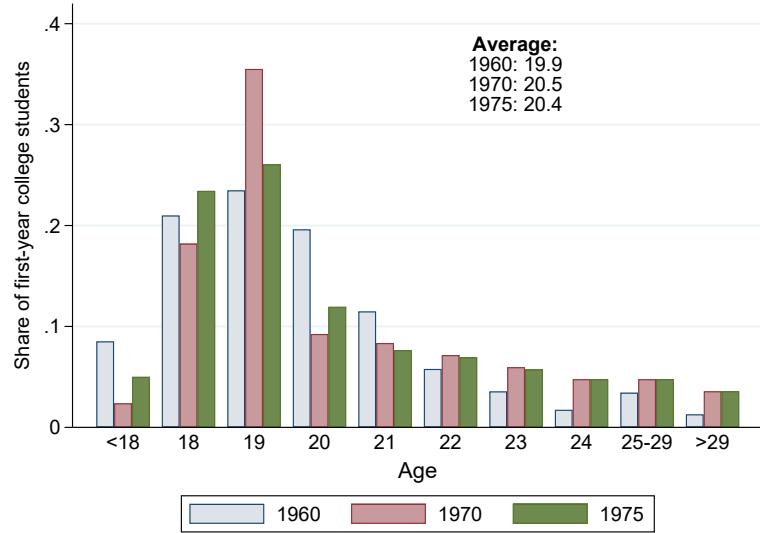
Notes: Panel (a) shows indices for the gross enrollment rates in each level. The respective denominators are population in the 0-5,6-14-15-19,20-24 age groups. Enrollment rates have been normalized to 100 in 1970, number in parenthesis corresponds to enrollment rate in that year. Panel (b) shows the share of public spending on education devoted to early, primary, secondary and higher education. Source: [PIIE \(1984\)](#).

Figure A7: Other Outcomes: Lower Levels



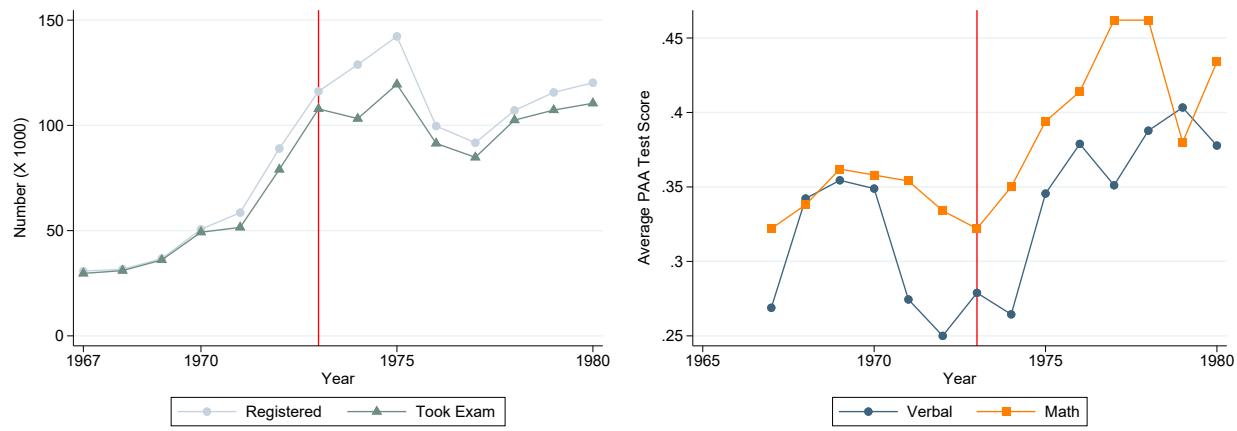
Notes: Panel (a) shows the number of schools per level (early, primary, secondary) in 1973 and 1977, relative to 1969 (normalized to 100). Panel (b) shows the yearly share of primary students receiving either free breakfast (triangle markers) or lunch (square markers). Sources: [Echeverría \(1980\)](#); [PIIE \(1984\)](#).

Figure A8: Age Distribution of First-year College Students



Notes: Information for 1960 comes from the published results from that year's population census ([INE, 1965](#)). The respective sources for 1970 and 1975 are [Schiefelbein \(1976\)](#) and [Echeverría \(1982\)](#), based on administrative records and the 1970 population census. Data for 1970 corresponds to entire tertiary sector (i.e., including technical education). For the average, we set age at 17, 25 and 30 for the < 18, 25 – 29 and > 29 age groups respectively, which likely leads to an underestimate.

Figure A9: Additional Information on PAA Test



(a) PAA Test-takers

(b) Average test scores

Notes: Panel (a) shows the yearly number of students that registered for the PAA test and the number that actually took the test. Panel (b) shows the average (raw) scores in the verbal and math sections of the PAA test. The score is calculated by adding the number of correct answers and subtracting one quarter of the wrong answers. We divide these averages by the number of questions in each section (90 questions in verbal, 50 questions in math) for enhanced comparability. Sources: [Díaz and Himmel \(1985\)](#); [Universidad de Chile \(2011\)](#).

Appendix B Additional Information on Data Sources

Censuses and surveys: The population censuses of 1992, 2002 and 2017 were *de facto* and took place on days declared as national holidays. We restrict the sample to people born in Chile and we identify the cohort of birth using the respondents' age. The census files provide universal information at the individual level on gender, age, educational attainment, labor force participation, unemployment, occupation, marital status and fertility. In each census, individuals are classified into households and one person is identified as the head of each household. For all other respondents, the census reports how they are related to the household head. The questions in the census and their level of detail vary slightly over time, especially in 2017. For example, the 2017 census does not ask about employment categories (i.e., business-owner vs salaried employee), but does ask about completion of the highest educational level. Only the 1992 census includes an additional calculated variable indicating the wealth quintile to which the household belongs based on the observable characteristics of the dwelling and ownership of various assets.

We complement the censuses with a repeated cross-section of the National Socioeconomic Characterization Survey CASEN. This survey has been conducted biannually by the Ministry of Planning since 1987, and it includes detailed information on the labor market of the interviewed population.

Other sources: We use data from the Integrated Public Use Micro-data Series (IPUMS) for the synthetic control analysis. Harmonized data is available for 57 countries (see Table B1 for details). The countries (census year) that we use in the baseline analysis are: Argentina (2010), Bolivia (2001), Brazil (2010), Colombia (2005), Costa Rica (2011), Dominican Republic (2010), Ecuador (2010), Honduras (2001), Haiti (2003), Mexico (2015), Nicaragua (2005), Panama (2010), Peru (2007), Paraguay (2002), El Salvador (2007), Uruguay (2011). The data for Chile comes from the 2002 census.

Table B1: Countries and samples in Synthetic Control Analysis

Without dictatorship between 1950-1990		With dictatorship between 1950-1990	
Country	Last year of Census	Country	Last year of Census
Armenia	2011	Argentina	2010
Austria	2011	Bolivia	2001
Bangladesh	2011	Brazil	2010
Benin	2013	Burkina Faso	2006
Botswana	2011	Chile	2002
Cambodia	2008	Colombia	2005
Canada	2011	Dominican Republic	2010
China	2000	Ecuador	2010
Costa Rica	2011	Egypt	2006
El Salvador	2007	Fiji	2007
Ethiopia	2007	Ghana	2010
France	2011	Greece	2011
India	2009	Haiti	2003
Ireland	2011	Honduras	2001
Jamaica	2001	Hungary	2011
Kenya	2009	Indonesia	2010
Liberia	2008	Jordan	2004
Malaysia	2000	Mongolia	2000
Mexico	2015	Nicaragua	2005
Morocco	2004	Nigeria	2010
Senegal	2002	Panama	2010
Switzerland	2000	Paraguay	2002
Ukraine	2001	Peru	2007
United States	2015	Philippines	2010
Vietnam	2009	Poland	2011
		Portugal	2011
		Romania	2011
		South Africa	2011
		Spain	2011
		Thailand	2000
		Turkey	2000
		Uruguay	2011

Appendix C Educational Attainment: Additional Results

Table C1: College Enrollment: Other Sources

Source	Dependent variable: Any College			
	CASEN 1990-2017		Census 2002	Census 2017
	(1)	(2)	(3)	(4)
Yr Age 21	0.011*** (0.0007) [0.001]	0.011*** (0.0007) [0.001]	0.012*** (0.0004) [0.001]	0.007*** (0.0004) [0.001]
Yr Age 21 x 1(Yr Age 21 ≥ 1973)	-0.024*** (0.0011) [0.000]	-0.024*** (0.0011) [0.000]	-0.025*** (0.0008) [0.000]	-0.018*** (0.0007) [0.000]
County x gender FE	Yes	Yes	Yes	Yes
Year FE	No	Yes	No	No
Observations	163,693	163,693	1,192,851	1,036,105
R-squared	0.057	0.059	0.035	0.037
Mean DV	0.261	0.261	0.325	0.300

Notes: Sample includes survey/census respondents born between 1943 and 1960 and reporting 4+ years of secondary education. “Yr Age 21” is a continuous variable indicating the year at which the cohort reached age 21, normalized to zero in 1972, while $1(Yr\ Age\ 21 \geq 1973)$ is a dummy for cohorts that reached age 21 on or after 1973. All regressions include county of birth x gender fixed effects. Standard errors clustered by county of residence in columns 1-2 and of birth in columns 3-4. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table C2: College Enrollment: Different Kink Points

Kink point (x):	Dependent variable: Any college				
	1971	1972	1973	1974	1975
	(1)	(2)	(3)	(4)	(5)
Yr Age 21	0.024*** (0.0006) [0.006]	0.021*** (0.0005) [0.002]	0.018*** (0.0004) [0.001]	0.015*** (0.0004) [0.000]	0.011*** (0.0003) [0.000]
Yr Age 21 x 1(Yr Age 21 ≥ x)	-0.037*** (0.0008) [0.000]	-0.037*** (0.0007) [0.000]	-0.036*** (0.0007) [0.000]	-0.036*** (0.0007) [0.000]	-0.035*** (0.0007) [0.000]
County of birth x gender FE	Yes	Yes	Yes	Yes	Yes
Observations	1,024,570	1,024,570	1,024,570	1,024,570	1,024,570
R-squared	0.037	0.039	0.040	0.040	0.039
Mean DV	0.295	0.295	0.295	0.295	0.295

Notes: Sample includes all respondents of the 1992 census born between 1943 and 1960 that report 4+ years of secondary education (media). “Yr Age 21” is a continuous variable indicating the year at which the cohort reached age 21, normalized to zero in 1972, while $1(Yr\ Age\ 21 \geq 1973)$ is a dummy for cohorts that reached age 21 on or after 1973. All regressions include county of birth x gender fixed effects. Standard errors clustered by county of birth in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table C3: College Enrollment: Within-Household Estimates

Source (Census):	Dependent variable: Any College					
	1992		2002		2017	
	Children	Siblings	Children	Siblings	Children	Siblings
	(1)	(2)	(3)	(4)	(5)	(6)
Yr Age 21	0.021*** (0.0028) [0.000]	0.018*** (0.0034) [0.000]	0.012** (0.0048) [0.001]	0.010*** (0.0033) [0.002]	0.015 (0.0108) [0.066]	0.007** (0.0035) [0.011]
Yr Age 21 x $\mathbb{1}(Yr\ Age\ 21 \geq 1973)$	-0.043*** (0.0038) [0.000]	-0.038*** (0.0050) [0.000]	-0.029*** (0.0061) [0.000]	-0.022*** (0.0048) [0.000]	-0.034** (0.0143) [0.002]	-0.020*** (0.0048) [0.001]
County of birth x gender FE	Yes	Yes	Yes	Yes	Yes	Yes
Household FE	Yes	Yes	Yes	Yes	Yes	Yes
Observations	27,518	14,986	14,412	14,133	4,955	20,658
R-squared	0.653	0.667	0.655	0.670	0.705	0.672
Mean DV	0.287	0.304	0.304	0.323	0.289	0.309

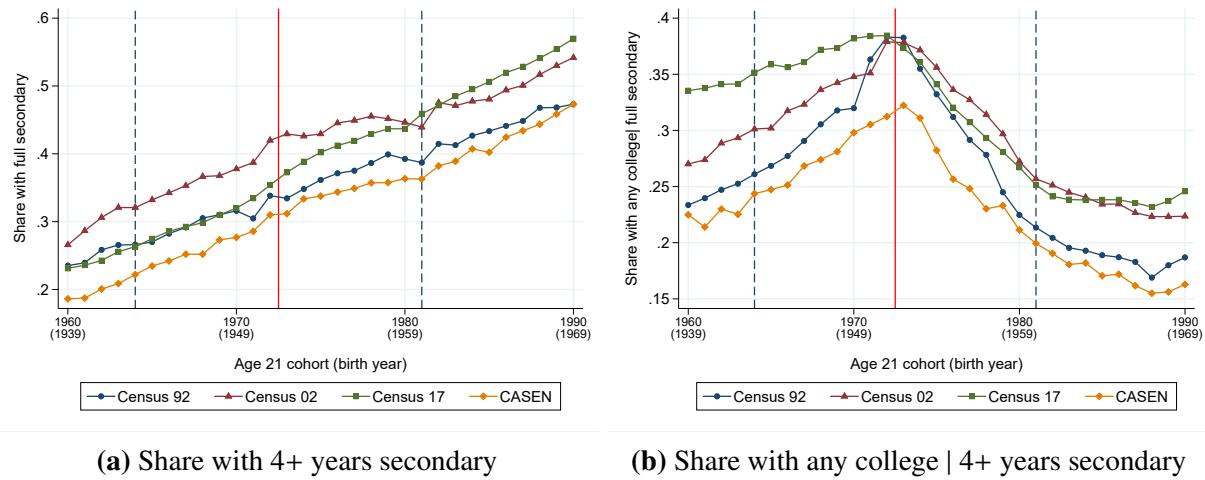
Notes: Sample includes all census respondents from cohorts born between 1943 and 1960, reporting four or more years of secondary education (media). Odd-numbered columns include household heads and respondents classified as siblings. Even-numbered columns include respondents classified as children of the household head. “Yr Age 21” is a continuous variable indicating the year at which the cohort reached age 21, normalized to zero in 1972, while $\mathbb{1}(Yr\ Age\ 21 \geq 1973)$ is a dummy for cohorts that reached age 21 on or after 1973. All regressions include county of birth x gender and household fixed effects. Standard errors clustered by county of birth in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table C4: College Enrollment: Within-Wealth-Quintile Estimates

Sample (Housing wealth quintile):	Dependent variable: Any college				
	5th Quintile (highest)	4th Quintile	3rd Quintile	2nd Quintile	1st Quintile (lowest)
	(1)	(2)	(3)	(4)	(5)
Yr Age 21	0.020*** (0.0005) [0.001]	0.018*** (0.0007) [0.001]	0.017*** (0.0009) [0.000]	0.015*** (0.0008) [0.001]	0.013*** (0.0012) [0.001]
Yr Age 21 x $\mathbb{1}(Yr\ Age\ 21 \geq 1973)$	-0.037*** (0.0009) [0.000]	-0.031*** (0.0012) [0.000]	-0.030*** (0.0014) [0.000]	-0.027*** (0.0013) [0.000]	-0.026*** (0.0018) [0.001]
Birth county x gender FE	Yes	Yes	Yes	Yes	Yes
Observations	504,456	252,358	146,316	80,095	24,493
R-squared	0.042	0.036	0.038	0.035	0.059
Mean DV	0.413	0.209	0.165	0.127	0.125

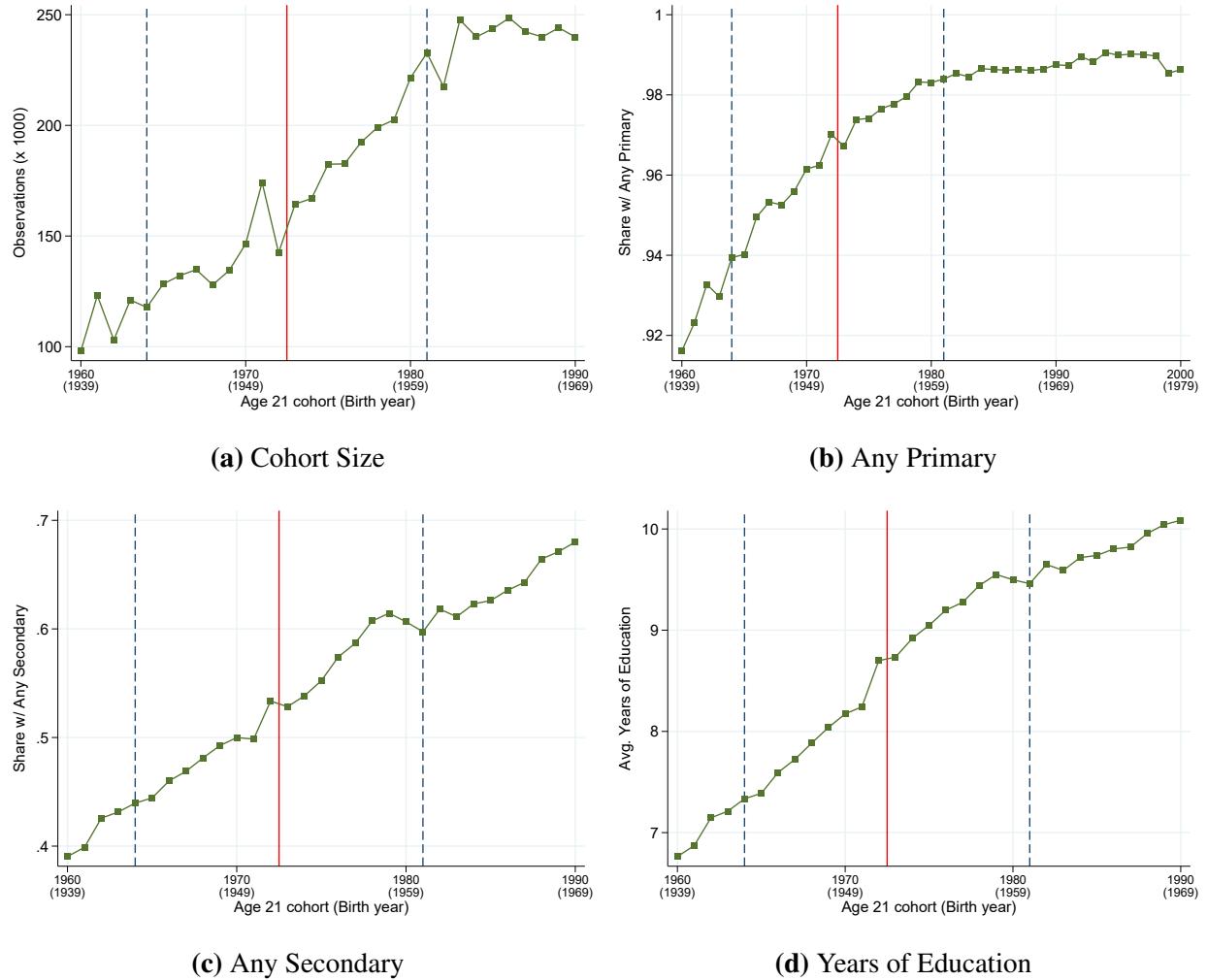
Notes: Dependent variable in the header. The sample in each column includes all 1992 census respondents from cohorts born between 1943 and 1960 (both inclusive) classified in the respective quintile, but is restricted to respondents reporting four or more years of secondary education (media). “Yr Age 21” is a continuous variable indicating the year at which the cohort reached age 21, normalized to zero in 1972. “Yr Age 21 x $\mathbb{1}(Yr\ Age\ 21 \geq 1973)$ ” is the interaction of this variable with a dummy for cohorts that reached age 21 on or after 1973. All regressions include county of birth x gender and household fixed effects. Standard errors clustered by county of birth in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Figure C1: College Enrollment: Different Sources



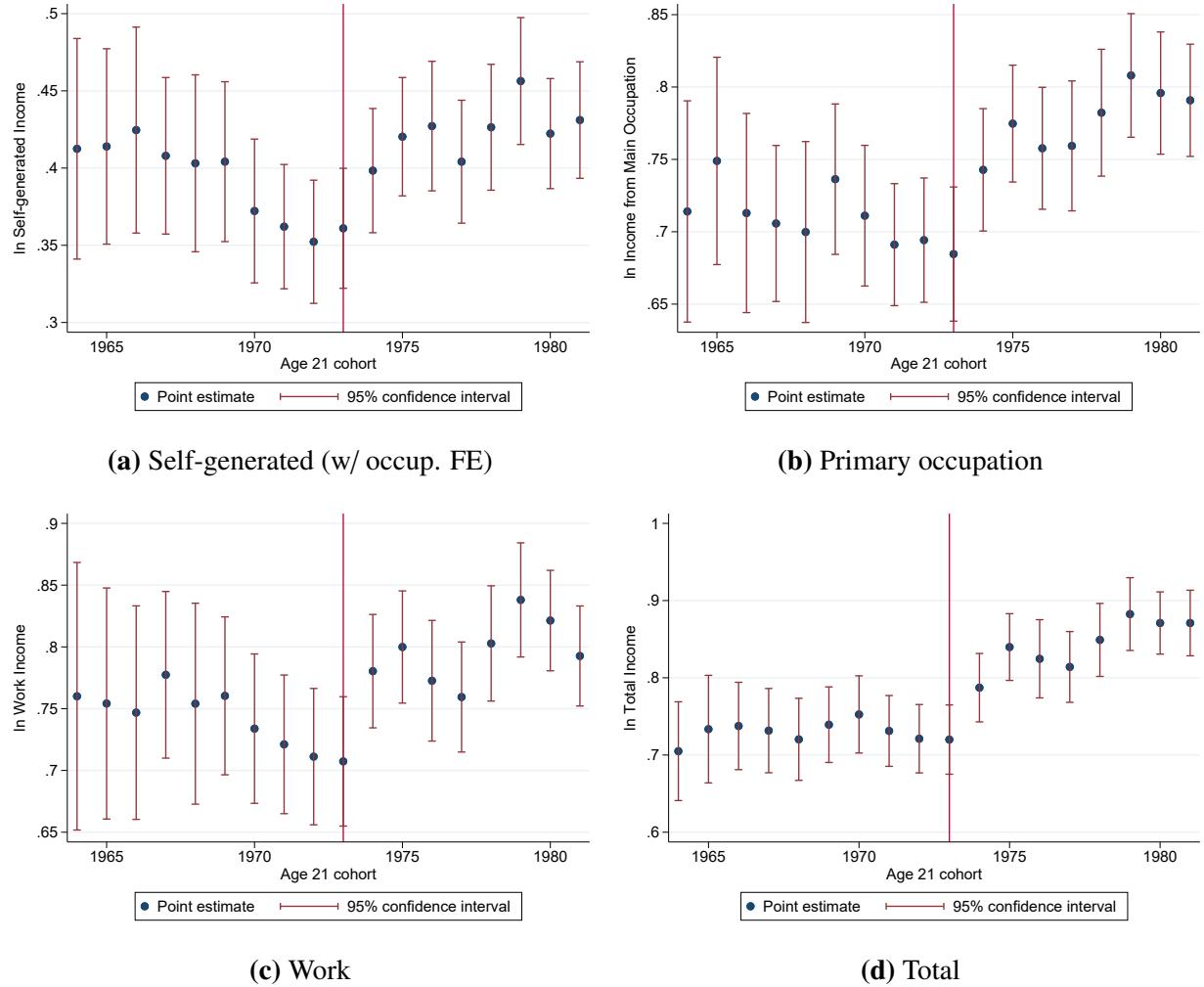
Notes: Panel (a) shows for each source the share of people in each cohort that report at least four years of secondary education. Panel (b) shows the share of people with any college, conditional on having 4+ years of secondary education. The solid red line shows the year of the military coup. Dashed lines show the start (1964) and end date (1981) of the sample of cohorts used in the analysis.

Figure C2: Educational Attainment: Raw Data



Notes: Panel (a) shows the total number of people per cohort (normalized to age 21) in the 1992 population census. Panel (b) shows the share of census respondents per cohort that report any primary education. Panel (c) shows the corresponding share that reports any secondary education. Panel (d) shows the average years of education per cohort. The solid red line shows the year of the military coup. Dashed lines show the start (1964) and end date (1981) of the sample of cohorts used in the analysis.

Figure C3: Cohort-specific Estimates of the College Premium



Notes: Each panel shows results of a regression of log income from the category in the caption on a full set of interactions of a dummy for any college education with cohort fixed effects. Sample includes all respondents in the CASEN survey from cohorts born between 1943 and 1960 (both inclusive), but is restricted to respondents reporting four or more years of secondary education. Regression includes county of residence x gender, survey year and age fixed effects. Panel (a) additionally includes occupation fixed effects. Standard errors are clustered by county of residence.

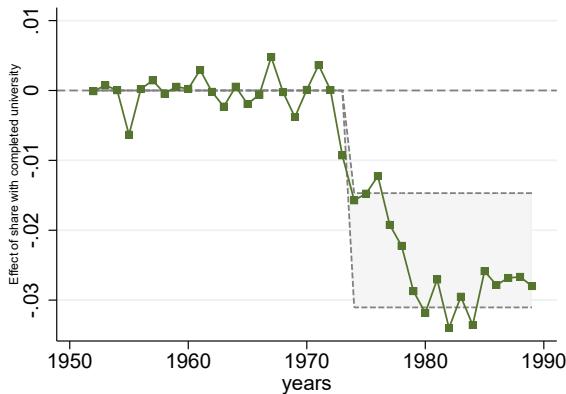
Appendix D Synthetic Control: Additional Results

Table D1: Robustness checks to the synthetic control analysis

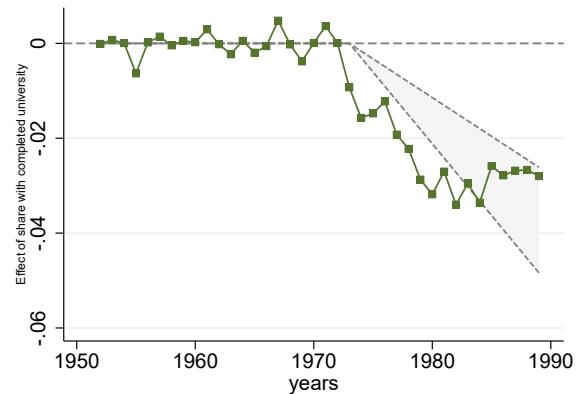
Sample:	R^2	Average effect	p-value	
			Unrestricted	Restricted
Panel A: Using even pre-treatment period outcomes for matching				
LA without controls	96%	-1.69%	0.00	0.00
LA with controls	94%	-1.27%	0.00	0.00
All countries without controls	96%	-1.23%	0.00	0.00
All countries with controls	95%	-1.02%	0.04	0.04
Exclude dictatorships without controls	88%	-1.11%	0.04	0.04
Exclude dictatorships with controls	94%	-1.20%	0.04	0.04
Panel B: Using all pre-treatment period outcomes for matching				
LA without controls	98%	-1.18%	0.00	0.00
All countries without controls	99%	-0.86%	0.02	0.02
Exclude dictatorships without controls	98%	-0.66%	0.04	0.04

Notes: This table presents the goodness of fit of the matching and the treatment effects for different samples and different sets of matching characteristics. The R^2 comes from a regression between the Chilean data and the synthetic control during the pre-treatment period. The *Average effect* is the average difference between Chile and the synthetic control between 1973 and 1981. The *p-value* is computed based on placebo treatments, for each country in the control group we construct their synthetic control and then we create the ratio between the RMSPE in the post (1973-1981) and the RMSPE in the pre-treatment period. Then we see how likely is to find a ratio as large as the one for Chile for the case of a negative effect. The *unrestricted* version uses all the countries, while the *unrestricted* uses only countries with a RMSPE in the pre-treatment period that is smaller than two times the one of Chile, to avoid including as controls countries with a noisy fit.

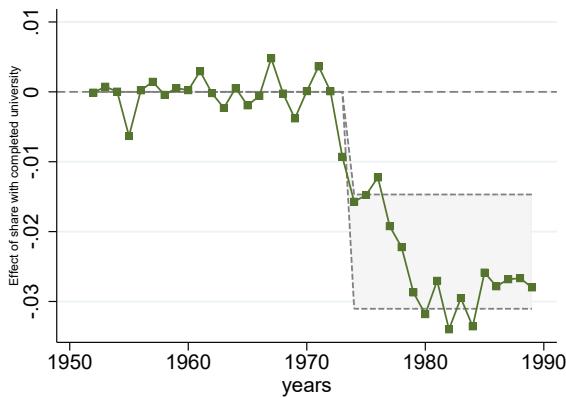
Figure D1: Confidence Sets for Latin America



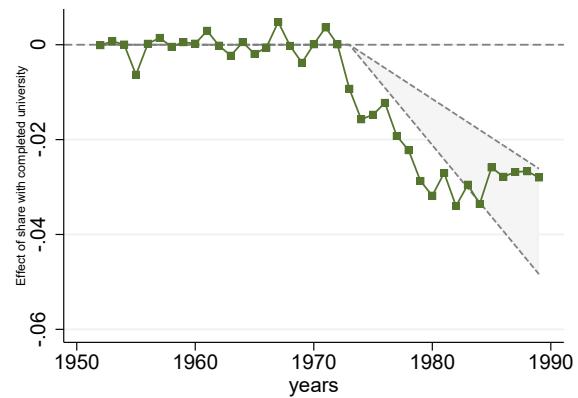
(a) Constant Effect, $\phi = 0$



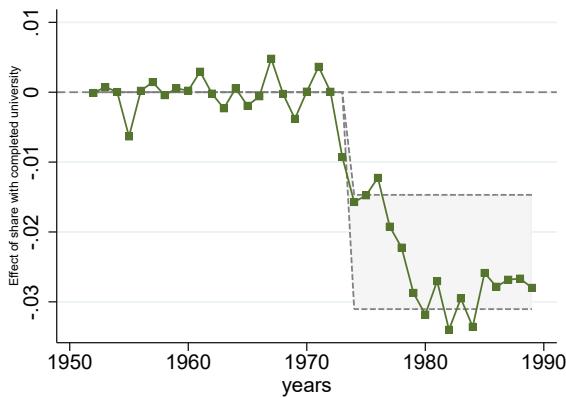
(b) Linear Effect, $\phi = 0$



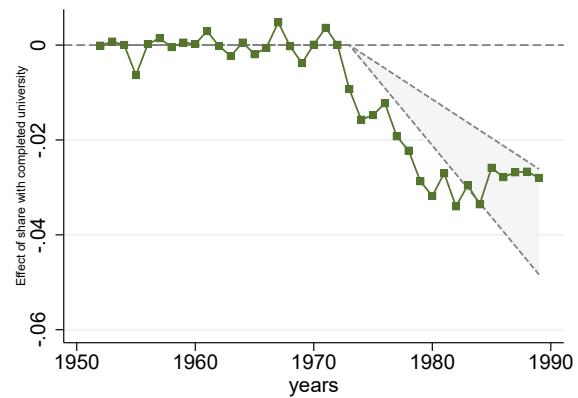
(c) Constant Effect, $\phi = 1$



(d) Linear Effect, $\phi = 1$



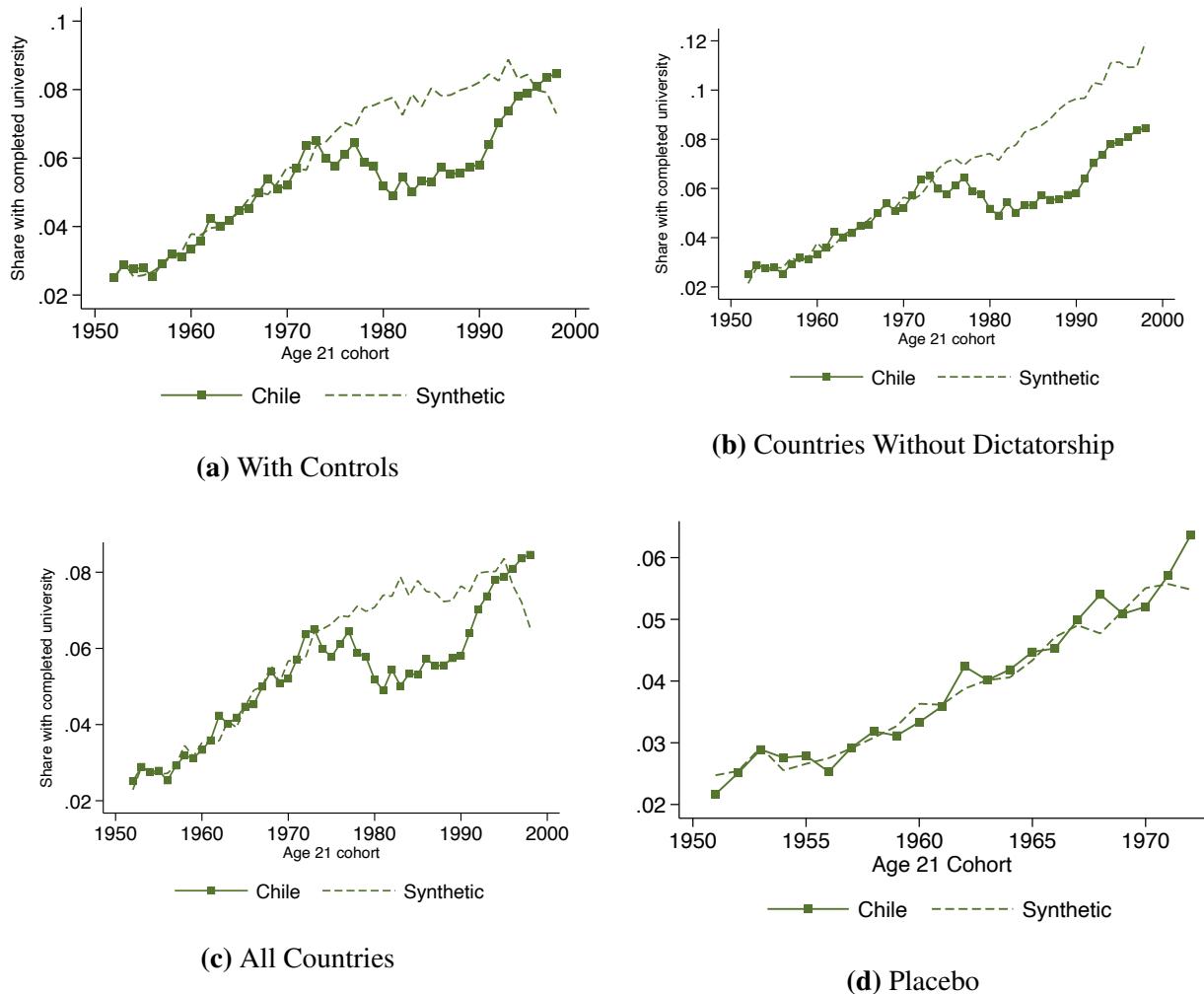
(e) Constant Effect, $\phi = 2$



(f) Linear Effect, $\phi = 2$

Notes: This figure shows the confidence set proposed by [Firpo and Possebom \(2018\)](#) for a constant and a linear treatment effect. Panels A and B use a sensitivity parameter of 0, while Panels C and D (E and F) use a sensitivity parameter of 1 (2). The sample is all Latin American countries and we use as matching characteristics the even pre-treatment outcomes.

Figure D2: Robustness of Synthetic Control Analysis



Note: Panels show observed rates of educational attainment by cohort in the 2002 population census (solid line) and counterfactuals from a synthetic control (dashed line). The outcome in all panels is the share of people with full college education. Panel (a) includes the share of people with ages 18-65, the share of women and the share of people with secondary education as additional controls. Panel (b) excludes country-year pairs under dictatorship as control units to be potentially used in the synthetic control. Similarly, panel (c) uses all 57 countries with IPUMS data. Panels (b) and (c) use the specification with controls and all countries in the sample of potential controls. Panel (d) uses 1960 as a placebo treatment date for the military coup.

Appendix E Economic Consequences: Additional Results

Table E1: Occupational Choice: Disaggregated Categories

	Politicians, Managers (1)	Professionals (2)	Technicians (3)	Clerks (4)	Services, Sales (5)	Skilled Agriculture (6)	Craft (7)	Plant/ Machine ops (8)	Elementary Occupys. (9)	Military (10)
Yr Age 21	-0.004*** (0.0002) [0.000]	0.007*** (0.0006) [0.001]	0.001*** (0.0003) [0.008]	-0.002*** (0.0004) [0.001]	-0.002*** (0.0002) [0.000]	-0.000* (0.0001) [0.042]	-0.001*** (0.0002) [0.006]	-0.001*** (0.0002) [0.006]	-0.002*** (0.0002) [0.000]	0.004*** (0.0002) [0.001]
Yr Age 21 x $\mathbb{1}(Yr\ Age\ 21 \geq 1973)$	0.000 (0.0003) [0.431]	-0.016*** (0.0009) [0.000]	-0.001*** (0.0003) [0.131]	0.005*** (0.0004) [0.000]	0.005*** (0.0003) [0.000]	0.001*** (0.0001) [0.002]	0.004*** (0.0003) [0.002]	0.002*** (0.0003) [0.000]	0.005*** (0.0004) [0.000]	-0.004*** (0.0003) [0.004]
County of birth x gender FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	770,652	770,652	770,652	770,652	770,652	770,652	770,652	770,652	770,652	770,652
R-squared	0.023	0.038	0.004	0.021	0.008	0.033	0.037	0.033	0.009	0.027
Mean DV	0.0965	0.215	0.120	0.235	0.0878	0.0157	0.0880	0.0620	0.0467	0.0335

Notes: Dependent variable in the header. Sample includes census respondents born between 1943 and 1960 with 4+ years of secondary education. “Yr Age 21” is a continuous variable indicating the year at which the cohort reached age 21, normalized to zero in 1972. “Yr Age 21 x $\mathbb{1}(Yr\ Age\ 21 \geq 1973)$ ” is the interaction of this variable with a dummy for cohorts that reached age 21 on or after 1973. Standard errors clustered by county of birth in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table E2: Occupational income score: Other wage windows

	Sample	
	1992-1996	1992-2017
	(1)	(2)
Yr Age 21	0.003*** (0.0004) [0.007]	0.008*** (0.0005) [0.000]
Yr Age 21 x $\mathbb{1}(Yr\ Age\ 21 \geq 1973)$	-0.016*** (0.0006) [0.000]	-0.022*** (0.0008) [0.000]
County of birth x gender FE	Yes	Yes
Observations	684,995	684,995
R-squared	0.063	0.043
Mean DV	12.67	12.93

Notes: The occupational income score is the logarithm of the median wage of the occupation at the 3-digit level. Wages come from the CASEN biannual survey from 1992 to 1996 (column 1) and from 1992 to 2017 (column 2). Sample includes census respondents born between 1943 and 1960 with 4+ years of secondary education. “Yr Age 21” is a continuous variable indicating the year when the cohort reached age 21, normalized to zero in 1972. $\mathbb{1}(Yr\ Age\ 21 \geq 1973)$ ” is a dummy for cohorts that reached age 21 on or after 1973. Standard errors clustered by county of birth in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table E3: Labor Market Outcomes: Census 2002

	In Labor Force			Seeking Work			White-collar high-skill occupation		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Yr Age 21	0.017*** (0.0004) [0.000]	0.012*** (0.0002) [0.001]		0.000 (0.0002) [0.547]	-0.000** (0.0001) [0.046]		-0.004*** (0.0004) [0.000]	-0.000 (0.0003) [0.981]	
Yr Age 21 x 1(Yr Age 21 ≥ 1973)	-0.014*** (0.0004) [0.001]	-0.013*** (0.0003) [0.001]	-0.006*** (0.0005) [0.002]	0.000** (0.0002) [0.213]	0.001*** (0.0002) [0.002]	0.001*** (0.0002) [0.001]	-0.006*** (0.0005) [0.001]	-0.011*** (0.0005) [0.000]	-0.011*** (0.0008) [0.002]
County of birth x gender FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Year FE	No	Yes	Yes	No	Yes	Yes	No	Yes	Yes
Age FE	No	No	Yes	No	No	Yes	No	No	Yes
Observations	1,192,851	2,217,491	2,217,491	909,204	1,685,569	1,685,569	872,783	1,643,495	1,643,495
R-squared	0.133	0.158	0.160	0.004	0.009	0.009	0.022	0.051	0.052
Sample (census)	02	92/02	92/02	02	92/02	92/02	02	92/02	92/02
Mean DV	0.762	0.760	0.760	0.0822	0.0641	0.0641	0.596	0.519	0.519

Notes: Dependent variable in the header. Sample includes individuals born between 1943 and 1960 with 4+ years of secondary education. “Yr Age 21” is a continuous variable indicating the year at which the cohort reached age 21, normalized to zero in 1972. “Yr Age 21 x 1(Yr Age 21 ≥ 1973)” is the interaction of this variable with a dummy for cohorts that reached age 21 on or after 1973. Standard errors clustered by county of birth in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table E4: Other Income Measures

Dependent variable (log income):	Main Occupation		All Work		Self-generated	
	(1)	(2)	(3)	(4)	(5)	(6)
Yr Age 21	0.002 (0.0019) [0.371]		0.017*** (0.0024) [0.000]		0.014*** (0.0018) [0.002]	
Yr Age 21 x $\mathbb{1}(Yr\ Age\ 21 \geq 1973)$	-0.014*** (0.0024) [0.001]	-0.006** (0.0025) [0.039]	-0.023*** (0.0030) [0.001]	-0.008*** (0.0031) [0.029]	-0.021*** (0.0023) [0.001]	-0.008*** (0.0025) [0.044]
County of residence x gender FE	Yes	Yes	Yes	Yes	Yes	Yes
Survey year FE	Yes	Yes	Yes	Yes	Yes	Yes
Age FE	No	Yes	No	Yes	No	Yes
Observations	107,536	107,536	102,008	102,008	131,133	131,133
R-squared	0.161	0.167	0.143	0.155	0.151	0.159
Mean DV	471,432	471,432	504,077	504,077	526,115	526,115

Notes: Dependent variable in the header. Income deflated using yearly CPI. Sample includes individuals born between 1943 and 1960 with 4+ years of secondary education. “Yr Age 21” is a continuous variable indicating the year at which the cohort reached age 21, normalized to zero in 1972, while $\mathbb{1}(Yr\ Age\ 21 \geq 1973)$ ” is a dummy for cohorts that reached age 21 on or after 1973. All regressions include county of residence by gender, survey year and age fixed effects. Standard errors clustered by county of residence in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table E5: Occupation and Employment Categories

Owner	Boss/ Employee	Salaried employed	Self- Worker	Domestic Relative	Helping
	(1)	(2)	(3)	(4)	(5)
Yr Age 21 x $\mathbb{1}(Yr\ Age\ 21 \geq 1973)$	0.004*** (0.0007) [0.001]	-0.007*** (0.0013) [0.002]	0.004*** (0.0013) [0.019]	0.001 (0.0004) [0.267]	0.000 (0.0002) [0.639]
County of residence x gender FE	Yes	Yes	Yes	Yes	Yes
Survey year FE	Yes	Yes	Yes	Yes	Yes
Age FE	Yes	Yes	Yes	Yes	Yes
Observations	110,347	110,347	110,347	110,347	110,347
R-squared	0.031	0.039	0.038	0.056	0.021
Mean DV	0.066	0.661	0.228	0.024	0.007

Notes: Dependent variable in the header. Sample includes individuals born between 1943 and 1960 with 4+ years of secondary education. “Yr Age 21” is a continuous variable indicating the year at which the cohort reached age 21, normalized to zero in 1972, while $\mathbb{1}(Yr\ Age\ 21 \geq 1973)$ ” is a dummy for cohorts that reached age 21 on or after 1973. All regressions include county of residence by gender, survey year and age fixed effects. Standard errors clustered by county of residence in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table E6: Labor Market Outcomes: Effect of College (IV and OLS)

Dependent variable:	In Labor Force	Seeking Work	White-collar High-skill Occupation	Log Total Income
	(1)	(2)	(3)	(4)
<u>Panel A: IV</u>				
Any College	0.162*** (0.0375) [0.000]	-0.060*** (0.0199) [0.022]	0.412*** (0.0532) [0.000]	0.338*** (0.1037) [0.017]
<u>Panel B: OLS</u>				
Any College	0.130*** (0.0032) [0.000]	-0.019*** (0.0012) [0.000]	0.566*** (0.0039) [0.000]	0.792*** (0.0141) [0.000]
County x gender FE	Yes	Yes	Yes	Yes
Survey year FE	Yes	Yes	Yes	Yes
Age FE	Yes	Yes	Yes	Yes
Observations	163,693	114,790	104,061	135,152
Kleibergen-Paap F-stat [panel A]	459.5	376.9	343.0	435.7
R-squared [panel B]	0.263	0.015	0.327	0.263
Mean DV	0.701	0.039	0.403	709,631

Notes: Dependent variable in the header. Sample includes individuals born between 1943 and 1960 with 4+ years of secondary education. Income in column 4 deflated using yearly CPI. In panel A, “Yr Age 21 x $\mathbb{1}(Yr Age 21 \geq 1973)$ ” is the excluded instrument for college enrollment, where “Yr Age 21” is a continuous variable indicating the year at which the cohort reached age 21, normalized to zero in 1972 and “ $\mathbb{1}(Yr Age 21 \geq 1973)$ ” is a dummy for cohorts that reached age 21 on or after 1973. Standard errors clustered by county of residence in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table E7: Household Income: Effect of College (IV and OLS)

	Income quintile (dummy)				
	Q5 (highest) (1)	Q4 (2)	Q3 (3)	Q2 (4)	Q1 (lowest) (5)
	(1)	(2)	(3)	(4)	(5)
<u>Panel A: IV</u>					
Any College	0.092** (0.0435) [0.049]	0.044 (0.0418) [0.473]	-0.027 (0.0370) [0.529]	-0.057* (0.0319) [0.042]	-0.052* (0.0275) [0.047]
<u>Panel B: OLS</u>					
Any College	0.315*** (0.0053) [0.000]	-0.028*** (0.0067) [0.000]	-0.101*** (0.0024) [0.000]	-0.106*** (0.0027) [0.000]	-0.080*** (0.0031) [0.000]
County of residence x gender FE	Yes	Yes	Yes	Yes	Yes
Survey year FE	Yes	Yes	Yes	Yes	Yes
Age FE	Yes	Yes	Yes	Yes	Yes
Observations	163,342	163,342	163,342	163,342	163,342
Kleibergen-Paap F-stat [panel A]	461.8	461.8	461.8	461.8	461.8
R-squared [panel B]	0.166	0.014	0.029	0.043	0.044
Mean DV	0.327	0.257	0.184	0.137	0.096

Notes: Dependent variable in the header. Sample includes individuals born between 1943 and 1960 with 4+ years of secondary education. Income in column 4 deflated using yearly CPI. In panel A, “Yr Age 21 x $\mathbb{1}(Yr Age 21 \geq 1973)$ ” is the excluded instrument for college enrollment, where “Yr Age 21” is a continuous variable indicating the year at which the cohort reached age 21, normalized to zero in 1972 and “ $\mathbb{1}(Yr Age 21 \geq 1973)$ ” is a dummy for cohorts that reached age 21 on or after 1973. Standard errors clustered by county of residence in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table E8: Labor Market Outcomes: Unrestricted Sample

	In Labor Force	Seeking Work	White-collar High-skill Occupation	Log Total Income
	(1)	(2)	(3)	(4)
<u>Panel A: Census 1992</u>				
Yr Age 21	0.007*** (0.0002) [0.000]	-0.001*** (0.0001) [0.004]	0.004*** (0.0002) [0.003]	
Yr Age 21 x 1(Yr Age 21 ≥ 1973)	-0.009*** (0.0004) [0.001]	0.002*** (0.0002) [0.003]	-0.009*** (0.0003) [0.000]	
<u>Panel B: CASEN survey (1990-2017)</u>				
Yr Age 21	0.024*** (0.0005) [0.000]	0.000 (0.0002) [0.840]	0.002*** (0.0005) [0.001]	0.015*** (0.0011) [0.000]
Yr Age 21 x 1(Yr Age 21 ≥ 1973)	-0.013*** (0.0005) [0.001]	0.001*** (0.0003) [0.007]	-0.006*** (0.0007) [0.000]	-0.016*** (0.0014) [0.003]
<u>Panel C: CASEN survey (1990-2017) w/ Age FE</u>				
Yr Age 21 x 1(Yr Age 21 ≥ 1973)	-0.001** (0.0005) [0.120]	0.001*** (0.0003) [0.028]	-0.007*** (0.0007) [0.000]	-0.008*** (0.0016) [0.017]
Panel A:				
County of birth x gender FE	Yes	Yes	Yes	-
Observations	2,982,951	1,873,045	1,842,799	-
R-squared	0.333	0.004	0.056	-
Mean DV	0.628	0.057	0.208	-
Panels B and C:				
County of residence x gender FE	Yes	Yes	Yes	Yes
Survey year FE	Yes	Yes	Yes	Yes
Observations	513,582	308,732	278,032	396,935
R-squared [Panel B]	0.304	0.012	0.066	0.186
R-squared [Panel C]	0.320	0.012	0.067	0.189
Mean DV	0.601	0.048	0.189	404,278

Notes: Dependent variable in the header. Sample includes individuals born between 1943 and 1960. Income in column 4 deflated using yearly CPI. “Yr Age 21” is a continuous variable indicating the year at which the cohort reached age 21, normalized to zero in 1972. “Yr Age 21 x 1(Yr Age 21 ≥ 1973)” is the interaction of this variable with a dummy for cohorts that reached age 21 on or after 1973. Standard errors clustered by county (panel A: birth; B/C: residence) in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table E9: Household Wealth and Income: Unrestricted Sample

	Household's wealth or income quintile (dummy)				
	Q5 (highest) (1)	Q4 (2)	Q3 (3)	Q2 (4)	Q1 (lowest) (5)
<u>Panel A: Wealth (Census 1992)</u>					
Yr Age 21	0.002*** (0.0002) [0.035]	-0.001*** (0.0002) [0.003]	-0.001*** (0.0001) [0.010]	-0.000 (0.0001) [0.608]	0.000 (0.0001) [0.748]
Yr Age 21 x 1(Yr Age 21 ≥ 1973)	-0.007*** (0.0005) [0.005]	0.000 (0.0004) [0.915]	0.002*** (0.0003) [0.011]	0.003*** (0.0002) [0.007]	0.003*** (0.0003) [0.006]
<u>Panel B: Income (CASEN 1990-2017)</u>					
Yr Age 21	0.001*** (0.0003) [0.018]	0.001*** (0.0003) [0.001]	-0.001* (0.0003) [0.128]	-0.000 (0.0003) [0.508]	-0.002*** (0.0004) [0.038]
Yr Age 21 x 1(Yr Age 21 ≥ 1973)	-0.004*** (0.0005) [0.002]	-0.003*** (0.0005) [0.001]	0.000 (0.0005) [0.670]	0.002*** (0.0005) [0.022]	0.005*** (0.0005) [0.001]
<u>Panel C: Income (CASEN 1990-2017) w/ Age FE</u>					
Yr Age 21 x 1(Yr Age 21 ≥ 1973)	-0.002*** (0.0005) [0.020]	-0.001 (0.0005) [0.082]	0.001** (0.0005) [0.022]	0.001** (0.0005) [0.045]	0.000 (0.0005) [0.437]
Panel A:					
County of birth x gender FE	Yes	Yes	Yes	Yes	Yes
Observations	2,938,505	2,938,505	2,938,505	2,938,505	2,938,505
R-squared	0.074	0.021	0.008	0.014	0.069
Mean DV	0.241	0.212	0.193	0.180	0.175
Panels B and C:					
County of residence x gender FE	Yes	Yes	Yes	Yes	Yes
Survey year FE	Yes	Yes	Yes	Yes	Yes
Observations	511,927	511,927	511,927	511,927	511,927
R-squared [Panel B]	0.080	0.012	0.016	0.024	0.028
R-squared [Panel C]	0.076	0.022	0.008	0.014	0.074
Mean DV	0.148	0.185	0.202	0.223	0.242

Notes: Dependent variable in the header. Sample includes individuals born between 1943 and 1960 with 4+ years of secondary education. “Yr Age 21” is a continuous variable indicating the year at which the cohort reached age 21, normalized to zero in 1972. “Yr Age 21 x 1(Yr Age 21 ≥ 1973)” is the interaction of this variable with a dummy for cohorts that reached age 21 on or after 1973. Standard errors clustered by county (panel A: birth; B/C: residence) in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table E10: Labor Market Outcomes: Heterogeneous Effects by Gender

Dependent variable:	In Labor Force	Seeking Work	White-collar High-skill Occupation	Log Total Income
	(1)	(2)	(3)	(4)
Yr Age 21 x $\mathbb{1}(Yr\ Age\ 21 \geq 1973) \times \mathbb{1}(Male)$	-0.004*** (0.0010) [0.001]	0.001 (0.0006) [0.375]	-0.008*** (0.0021) [0.035]	-0.006* (0.0035) [0.022]
Yr Age 21 x $\mathbb{1}(Yr\ Age\ 21 \geq 1973) \times \mathbb{1}(Female)$	-0.004** (0.0015) [0.022]	0.003*** (0.0008) [0.019]	-0.016*** (0.0024) [0.000]	-0.013*** (0.0041) [0.054]
County of residence x gender FE	Yes	Yes	Yes	Yes
Survey year x gender FE	Yes	Yes	Yes	Yes
Age x gender FE	Yes	Yes	Yes	Yes
Observations	163,693	114,790	104,061	135,152
R-squared	0.251	0.014	0.065	0.164
Mean DV (Male)	0.874	0.035	0.372	880,000
Mean DV (Female)	0.533	0.044	0.452	480,000

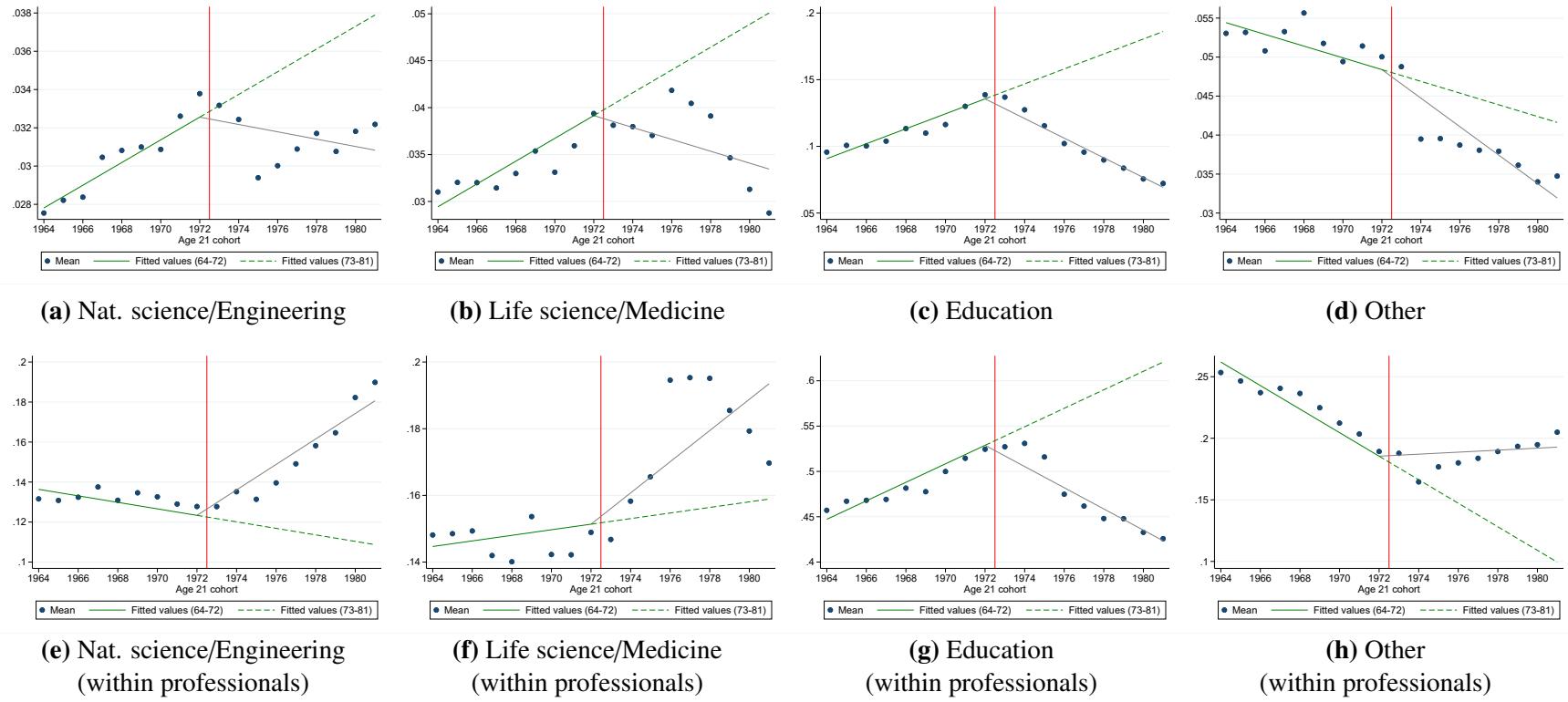
Notes: Dependent variable in the header. Sample includes individuals born between 1943 and 1960 with 4+ years of secondary education. Income in column 4 deflated using yearly CPI. “Yr Age 21” is a continuous variable indicating the year at which the cohort reached age 21, normalized to zero in 1972. “Yr Age 21 x $\mathbb{1}(Yr\ Age\ 21 \geq 1973)$ ” is the interaction of this variable with a dummy for cohorts that reached age 21 on or after 1973. Standard errors clustered by county of residence in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table E11: Household Income: Heterogeneous Effects by Gender

Dependent variable:	Household's income quintile (dummy)				
	Q5 (highest)				
		(1)	(2)	(3)	(4)
Yr Age 21 x $\mathbb{1}(Yr\ Age\ 21 \geq 1973) \times \mathbb{1}(Male)$	-0.001 (0.0015) [0.429]	-0.001 (0.0014) [0.688]	0.001 (0.0011) [0.277]	0.001 (0.0011) [0.502]	0.000 (0.0009) [0.621]
Yr Age 21 x $\mathbb{1}(Yr\ Age\ 21 \geq 1973) \times \mathbb{1}(Female)$	-0.003** (0.0014) [0.027]	-0.001 (0.0013) [0.432]	0.000 (0.0012) [0.793]	0.002** (0.0011) [0.146]	0.002** (0.0009) [0.088]
County of residence x gender FE	Yes	Yes	Yes	Yes	Yes
Survey year x gender FE	Yes	Yes	Yes	Yes	Yes
Age x gender FE	Yes	Yes	Yes	Yes	Yes
Observations	163,342	163,342	163,342	163,342	163,342
R-squared	0.085	0.013	0.017	0.026	0.031
Mean DV (M)	0.332	0.255	0.183	0.136	0.0940
Mean DV (F)	0.322	0.258	0.185	0.139	0.0970

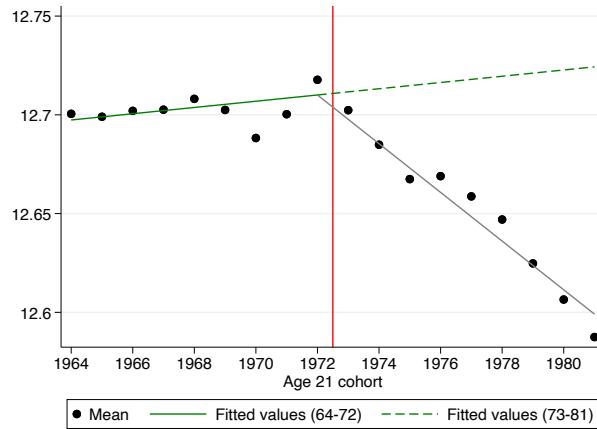
Notes: Dependent variable in the header. Sample includes individuals born between 1943 and 1960 with 4+ years of secondary education. “Yr Age 21” is a continuous variable indicating the year at which the cohort reached age 21, normalized to zero in 1972. “Yr Age 21 x $\mathbb{1}(Yr\ Age\ 21 \geq 1973)$ ” is the interaction of this variable with a dummy for cohorts that reached age 21 on or after 1973. Standard errors clustered by county of residence in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Figure E1: Visualization of Kink: Professionals

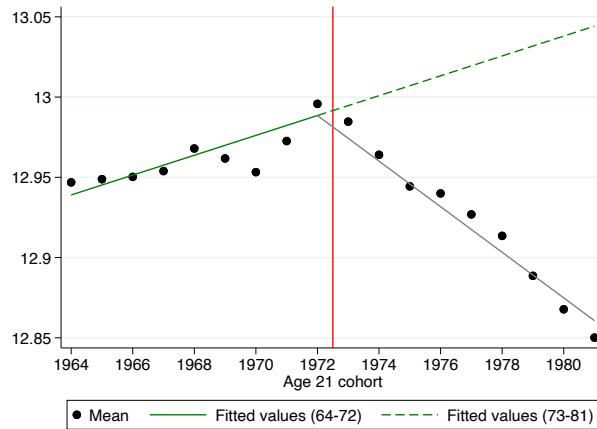


Notes: Panels show averages by cohort for the variable in the caption. Solid green line corresponds to line of best fit for cohorts reaching college age before 1973. Dashed green line shows extrapolation for later cohorts. Solid grey line corresponds to line of best fit for cohorts reaching college age in 1973 or afterwards. Source: 1992 census.

Figure E2: Visualization of Kink: Occupational income score for other wage samples



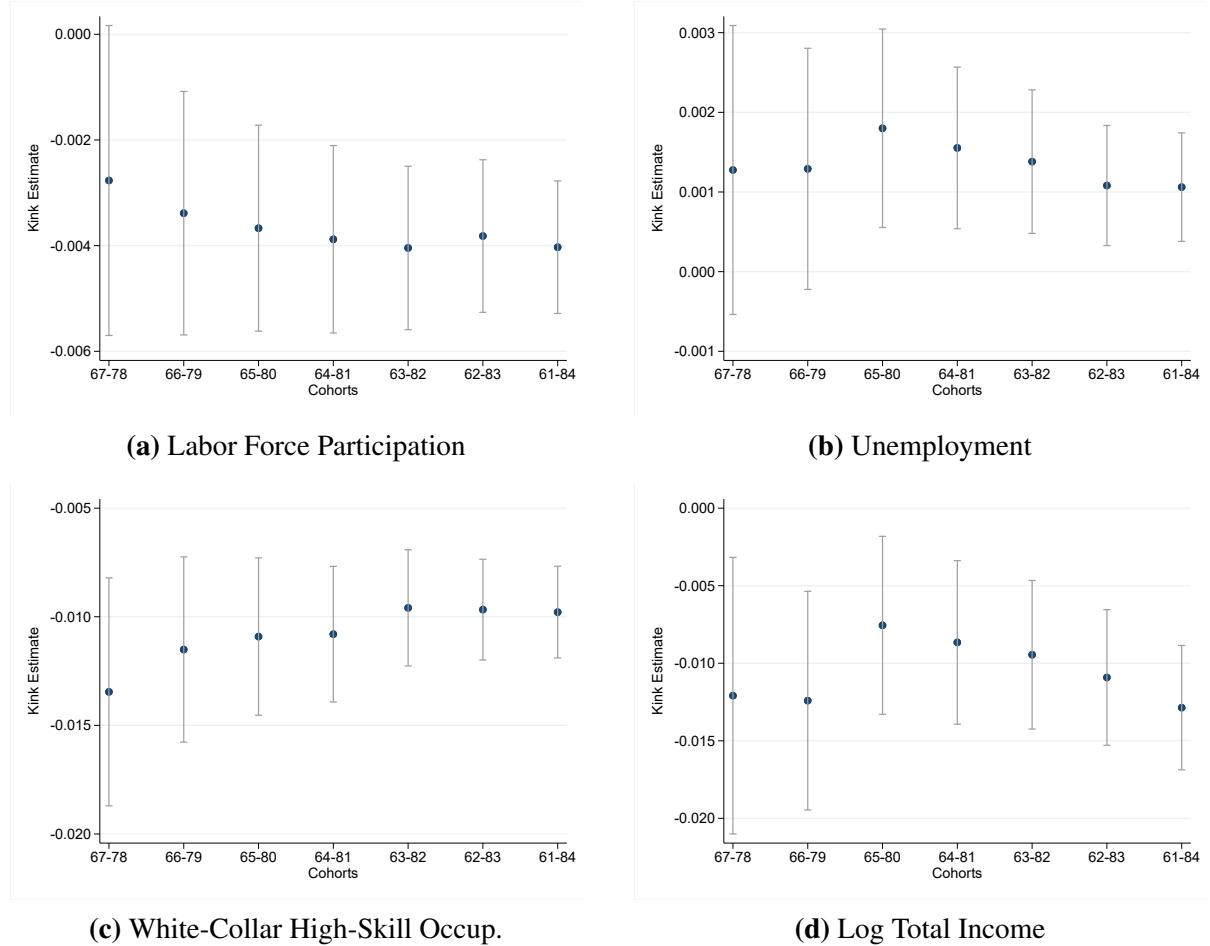
(a) Sample: 1992-1996



(b) Sample: 1992-2017

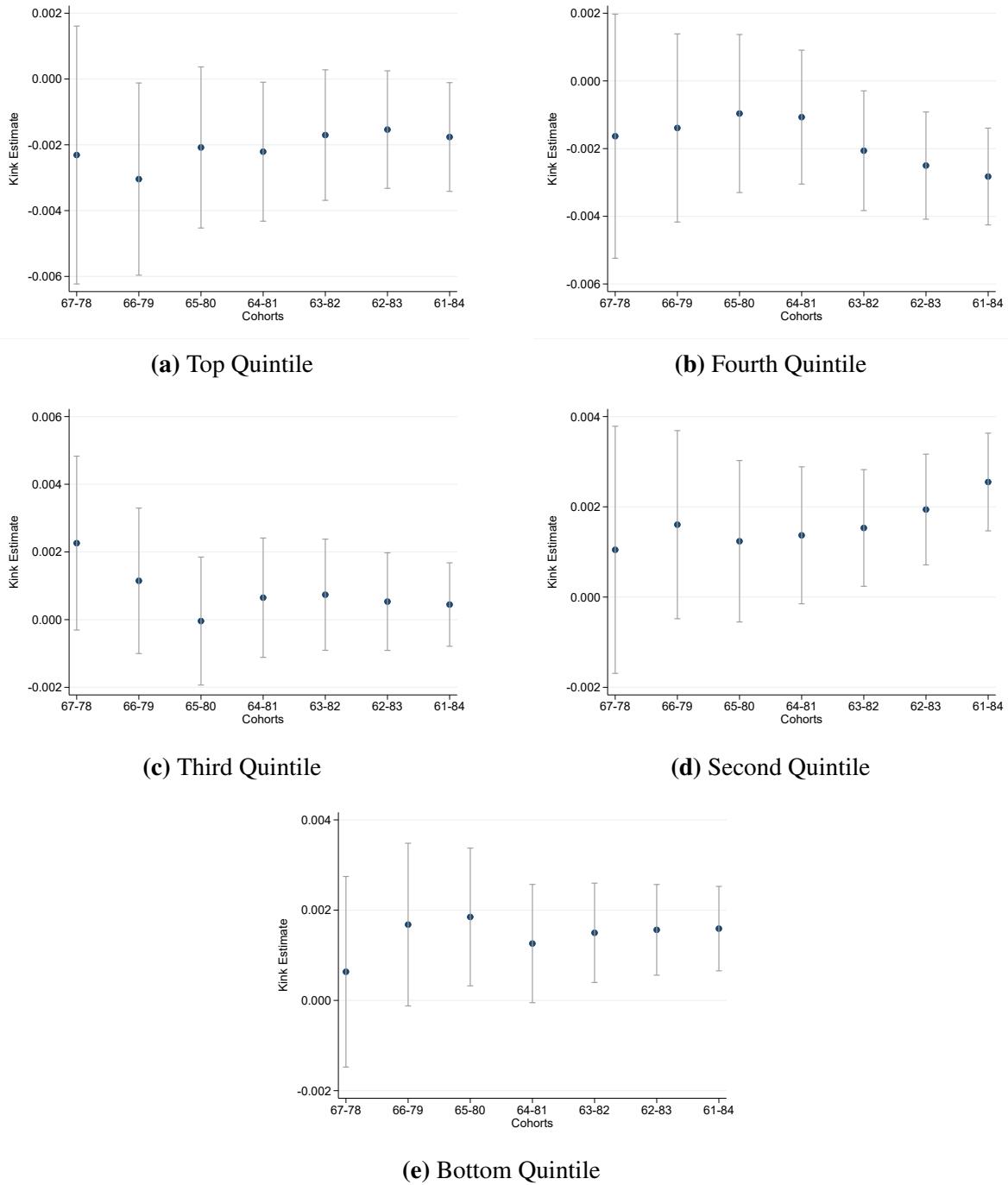
Notes: Panels show averages by cohort for the occupational income score is the logarithm of the median wage of the occupation at the 3-digit level. Wages come from the CASEN biannual survey from 1992 to 1996 (panel A) and from 1992 to 2017 (panel B). Solid green line corresponds to line of best fit for cohorts reaching college age before 1973. Dashed green line shows extrapolation for later cohorts. Solid grey line corresponds to line of best fit for cohorts reaching college age in 1973 or afterwards. Source: 1992 census.

Figure E3: Labor Market Outcomes: Different Bandwidths



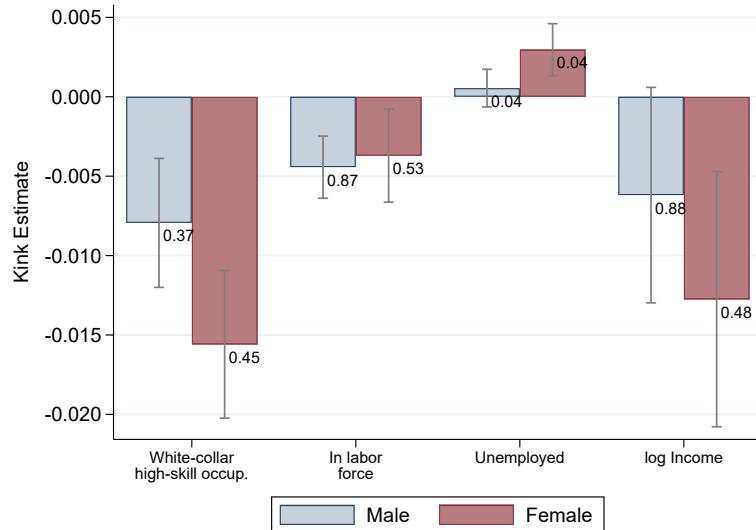
Notes: Each figure replicates the analysis in panel (c) of Table 3 for the outcome in the caption, using the different bandwidths in the x-axis. Sample includes respondents of the CASEN survey born between the relevant years (both inclusive), reporting four or more years of secondary education. “Yr Age 21” is a continuous variable indicating the year at which the cohort reached 21 years of age, normalized to zero in 1972. “Yr Age 21 x 1(Yr Age 21 ≥ 1973)” is the interaction of this variable with a dummy for cohorts that reached age 21 on or after 1973. Plotted coefficients and 95% confidence intervals correspond to this variable. All regressions include county of birth x gender, survey year and age fixed effects. Standard errors clustered by county of birth in parentheses.

Figure E4: Household Income: Different Bandwidths

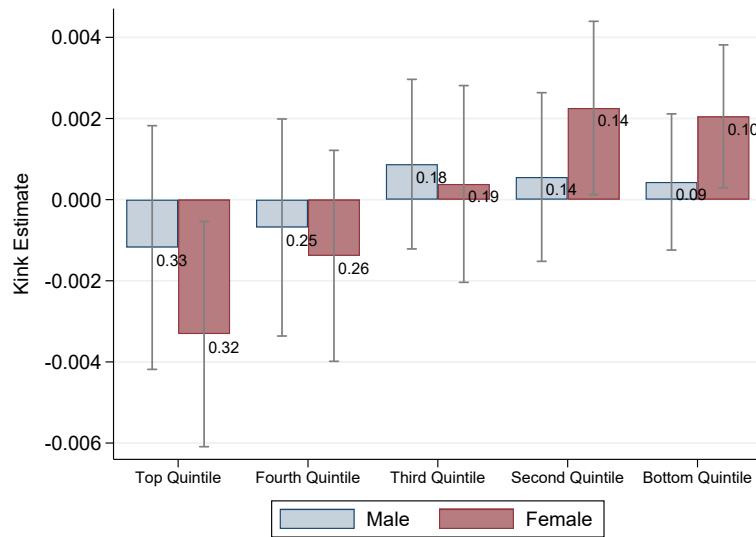


Notes: Each figure replicates the analysis in panel (c) of Table 4 for the outcome in the caption, using the different bandwidths in the x-axis. Sample includes respondents of the CASEN survey born between the relevant years (both inclusive), reporting four or more years of secondary education. “Yr Age 21” is a continuous variable indicating the year at which the cohort reached 21 years of age, normalized to zero in 1972. “Yr Age 21 x $\mathbb{1}(Yr Age 21 \geq 1973)$ ” is the interaction of this variable with a dummy for cohorts that reached age 21 on or after 1973. Plotted coefficients and 95% confidence intervals correspond to this variable. All regressions include county of birth x gender, survey year and age fixed effects. Standard errors clustered by county of birth in parentheses.

Figure E5: Heterogeneous Effects by Gender



(a) Labor Market Outcomes



(b) Income Quintiles

Notes: Graphs shows gender-specific estimates and 95% confidence intervals of the kink in the variable in the caption for the cohorts reaching age 21 after 1973. The number next to each bar indicates the sample mean. Sample includes respondents from the CASEN survey reaching age 21 between 1964 and 1981 and reporting 4+ years of secondary education. The gender-specific interaction term ‘Yr Age 21 x $\mathbb{1}(Yr Age 21 \geq 1973)$ ’ is the regressor of interest, where “Yr Age 21” is a continuous variable indicating the year at which the cohort reached 21 years of age, normalized to zero in 1972. “ $\mathbb{1}(Yr Age 21 \geq 1973)$ ” is a dummy for cohorts that reached age 21 on or after 1973. All regressions include gender-specific county, age, and year fixed effects. Standard errors clustered by county of residence.

Appendix F Intergenerational Effects: Additional Results

Table F1: Educational attainment of Children: Sample Characteristics

	Age	Female	Full	Full	Any	HH	Position in HH			Children	In labor		
			primary	secondary	college	size	Head	Spouse	Child	(women)	force	Unemployed	Studying
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
I: All 25-40 yo	32.10	0.50	0.95	0.80	0.31	24.82	0.36	0.24	0.26	1.45	0.81	0.06	0.12
N=3,781,382	(4.61)	(0.50)	(0.22)	(0.40)	(0.46)	(242.67)	(0.48)	(0.43)	(0.44)	(1.21)	(0.39)	(0.24)	(0.33)
II: I + linked to parent	30.51	0.48	0.96	0.83	0.35	4.52	0.05	0.02	0.90	0.96	0.81	0.10	0.17
N=1,013,071	(4.48)	(0.50)	(0.20)	(0.38)	(0.48)	(1.84)	(0.22)	(0.14)	(0.30)	(1.05)	(0.39)	(0.30)	(0.37)
III: II + parent w/ full secondary	29.59	0.49	0.99	0.94	0.55	4.30	0.04	0.02	0.92	0.70	0.81	0.10	0.23
N=435,949	(4.14)	(0.50)	(0.09)	(0.24)	(0.50)	(1.65)	(0.20)	(0.12)	(0.27)	(0.93)	(0.40)	(0.31)	(0.42)
IV: III + parent age 21 ∈ [1964, 1981]	31.06	0.49	0.99	0.94	0.58	4.17	0.05	0.02	0.91	0.74	0.83	0.10	0.19
N=233,134	(4.39)	(0.50)	(0.10)	(0.23)	(0.49)	(1.64)	(0.22)	(0.14)	(0.28)	(0.98)	(0.38)	(0.31)	(0.39)

Notes: Table shows averages and standard deviations (in parenthesis) for the characteristic described in the header. Top row shows values for the full sample of people with ages 25-40 in the 2017 population census. Second row shows corresponding statistics for the subsample that cohabits with a parent, irrespective of any characteristics of the parent. Third row further restricts the sample by only including parents with full secondary. Finally, the bottom row (our estimating sample) limits the sample to parent born between 1943 and 1960.

Table F2: Educational Attainment of Children: Effect of Parent's College (IV and OLS)

	(1)	(2)	(3)	(4)	(5)
PANEL A: IV					
Any College (Parent)	0.258*** (0.0580) [0.005]	0.258*** (0.0578) [0.005]	0.255*** (0.0584) [0.005]	0.320*** (0.0524) [0.004]	0.284*** (0.0500) [0.003]
PANEL B: OLS					
Any College (Parent)	0.274*** (0.0040) [0.000]	0.273*** (0.0041) [0.000]	0.272*** (0.0041) [0.000]	0.262*** (0.0043) [0.000]	0.243*** (0.0040) [0.000]
Birth county x gender FE	Yes	Yes	Yes	Yes	Yes
Parent gender x gender FE	No	Yes	Yes	Yes	Yes
Relationship to HH head FE	No	No	Yes	Yes	Yes
Age FE	No	No	No	Yes	Yes
Full secondary FE	No	No	No	No	Yes
Observations	233,127	233,127	233,127	233,127	233,127
Kleibergen-Paap F-Stat (panel A)	292.3	289.8	282.3	308.8	310.9
R-squared (panel B)	0.104	0.105	0.105	0.117	0.178
Mean DV	0.582	0.582	0.582	0.582	0.582

Notes: Notes: Dependent variable in the header of each panel. Sample includes all respondents in the 2017 census between the ages of 25 and 40 that we can connect to at least one parent that was born between 1943 and 1960 and reported full secondary education. See text for further details on construction of sample. “Yr Age 21 Parent” is a continuous variable indicating the year at which the parent reached age 21, normalized to zero in 1972, while $\mathbb{1}(\text{Yr Age 21 Parent} \geq 1973)$ is a dummy for parents that reached age 21 on or after 1973. The interaction of these two variables is the excluded instrument in panel A, with the baseline trend as additional control. Standard errors clustered by county of birth in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table F3: Educational Attainment of Children: Different Bandwidths (Child's Age)

Ages of children (bandwidth):	Dependent variable: Any College (child)				
	20-40	30-40	25-35	25-45	25-30
	(1)	(2)	(3)	(4)	(5)
Yr Age 21 Parent	-0.000 (0.0009) [0.703]	0.001 (0.0011) [0.371]	0.003*** (0.0010) [0.003]	-0.000 (0.0009) [0.703]	0.004*** (0.0013) [0.008]
Yr Age 21 Parent x $\mathbb{1}(Yr\ Age\ 21\ Parent \geq 1973)$	-0.007*** (0.0012) [0.004]	-0.013*** (0.0016) [0.002]	-0.009*** (0.0013) [0.001]	-0.007*** (0.0012) [0.004]	-0.006*** (0.0016) [0.002]
Birth County x Gender FE	Yes	Yes	Yes	Yes	Yes
Parent Gender x Gender FE	Yes	Yes	Yes	Yes	Yes
Relationship to HH head FE	Yes	Yes	Yes	Yes	Yes
Age FE	Yes	Yes	Yes	Yes	Yes
Observations	233,127	131,151	187,156	233,127	118,903
R-squared	0.063	0.057	0.056	0.063	0.054
Mean DV	0.582	0.533	0.608	0.582	0.639

Notes: Dependent variable is a dummy indicating whether child enrolled in college. Original sample includes all respondents in the 2017 census between the ages of 25 and 40 that we can connect to at least one parent that was born between 1943 and 1960 and reported full secondary education. Sample further restricted by age of child as indicated in the header. See text for further details on construction of sample. “Yr Age 21 Parent” is a continuous variable indicating the year at which the parent reached age 21, normalized to zero in 1972, while $\mathbb{1}(Yr\ Age\ 21\ Parent \geq 1973)$ is a dummy for parents that reached age 21 on or after 1973. Standard errors clustered by county of birth in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table F4: Educational Attainment of Children: Heterogeneous Effects by Link

Position in household:	Dependent variable: Any College (child)				
	Child	Head	Spouse	Child of spouse	Sibling
	(1)	(2)	(3)	(4)	(5)
Yr Age 21 Parent	-0.000 (0.0010) [0.943]	0.001 (0.0026) [0.812]	0.001 (0.0043) [0.866]	-0.005 (0.0100) [0.585]	-0.005 (0.0094) [0.658]
Yr Age 21 Parent x $\mathbb{1}(Yr\ Age\ 21\ Parent \geq 1973)$	-0.007*** (0.0013) [0.004]	-0.012*** (0.0039) [0.029]	-0.011* (0.0060) [0.137]	-0.001 (0.0127) [0.913]	0.007 (0.0125) [0.669]
Birth County x Gender FE	Yes	Yes	Yes	Yes	Yes
Parent Gender x Gender FE	Yes	Yes	Yes	Yes	Yes
Relationship to HH head FE	Yes	Yes	Yes	Yes	Yes
Age FE	Yes	Yes	Yes	Yes	Yes
Observations	213,059	11,617	4,509	1,965	1,521
R-squared	0.067	0.081	0.103	0.200	0.167
Mean DV	0.585	0.565	0.549	0.508	0.499

Notes: Dependent variable is a dummy indicating whether child enrolled in college. Original sample includes all respondents in the 2017 census between the ages of 25 and 40 that we can connect to at least one parent that was born between 1943 and 1960 and reported full secondary education. Sample further restricted by link to household head as indicated in the header. See text for further details on construction of sample. “Yr Age 21 Parent” is a continuous variable indicating the year at which the parent reached age 21, normalized to zero in 1972, while $\mathbb{1}(Yr\ Age\ 21\ Parent \geq 1973)$ is a dummy for parents that reached age 21 on or after 1973. Standard errors clustered by county of birth in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table F5: Educational Attainment of Children: Heterogeneous Effects by Gender

Estimation Sample:	Dependent variable: Any College (child)			
	Child		Parent	
	Female	Male	Female	Male
	(1)	(2)	(3)	(4)
Yr Age 21 Parent	-0.000 (0.0010) [0.599]	-0.000 (0.0012) [0.957]	0.001 (0.0014) [0.656]	-0.001 (0.0009) [0.483]
Yr Age 21 Parent x $\mathbb{1}(Yr\ Age\ 21\ Parent \geq 1973)$	-0.006*** (0.0014) [0.004]	-0.008*** (0.0015) [0.003]	-0.008*** (0.0019) [0.001]	-0.006*** (0.0013) [0.012]
Birth county FE	Yes	Yes	No	No
Birth County x Gender FE	No	No	Yes	Yes
Parent Gender x Gender FE	Yes	Yes	No	No
Relationship to HH head FE	Yes	Yes	Yes	Yes
Age FE	Yes	Yes	Yes	Yes
Observations	114,022	119,105	94,606	138,489
R-squared	0.052	0.066	0.062	0.068
Mean DV	0.615	0.549	0.563	0.594

Notes: Dependent variable is a dummy indicating whether child enrolled in college. Sample includes all respondents in the 2017 census between the ages of 25 and 40 that we can connect to at least one parent that was born between 1943 and 1960 and reported full secondary education. Sample further restricted by gender of parent or child as indicated in the header. See text for further details on construction of sample. “Yr Age 21 Parent” is a continuous variable indicating the year at which the parent reached age 21, normalized to zero in 1972, while $\mathbb{1}(Yr\ Age\ 21\ Parent \geq 1973)$ is a dummy for parents that reached age 21 on or after 1973. Standard errors clustered by county of birth in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table F6: Educational Attainment of Children: Lower Levels

Dependent variable:	Primary education (basic)								Secondary education			
	1st (1)	2nd (2)	3rd (3)	4th (4)	5th (5)	6th (6)	7th (7)	8th (8)	1st (9)	2nd (10)	3rd (11)	4th (12)
Yr Age 21 Parent	0.000 (0.0001) [0.161]	0.000 (0.0001) [0.278]	0.000 (0.0001) [0.315]	0.000 (0.0001) [0.338]	0.000 (0.0001) [0.478]	0.000 (0.0001) [0.458]	0.000 (0.0002) [0.112]	0.000* (0.0002) [0.081]	0.001** (0.0003) [0.052]	0.001*** (0.0003) [0.026]	0.001*** (0.0004) [0.100]	0.001** (0.0004) [0.267]
Yr Age 21 Parent x $\mathbb{1}(Yr \text{ Age } 21 \text{ Parent} \geq 1973)$	-0.000 (0.0002) [0.280]	-0.000 (0.0002) [0.495]	-0.000 (0.0002) [0.534]	-0.000 (0.0002) [0.808]	0.000 (0.0002) [0.850]	0.000 (0.0002) [0.964]	-0.000 (0.0002) [0.431]	-0.000 (0.0002) [0.242]	-0.001* (0.0003) [0.116]	-0.001*** (0.0004) [0.048]	-0.002*** (0.0005) [0.016]	-0.002*** (0.0005) [0.037]
Birth County x Gender FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Parent Gender x Gender FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Relationship to HH head FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Age FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Observations	233,136	233,136	233,136	233,136	233,136	233,136	233,136	233,136	233,136	233,136	233,136	233,136
R-squared	0.005	0.005	0.005	0.005	0.006	0.006	0.007	0.007	0.010	0.012	0.014	0.015
Mean DV	0.996	0.996	0.996	0.995	0.994	0.993	0.992	0.991	0.981	0.976	0.961	0.950

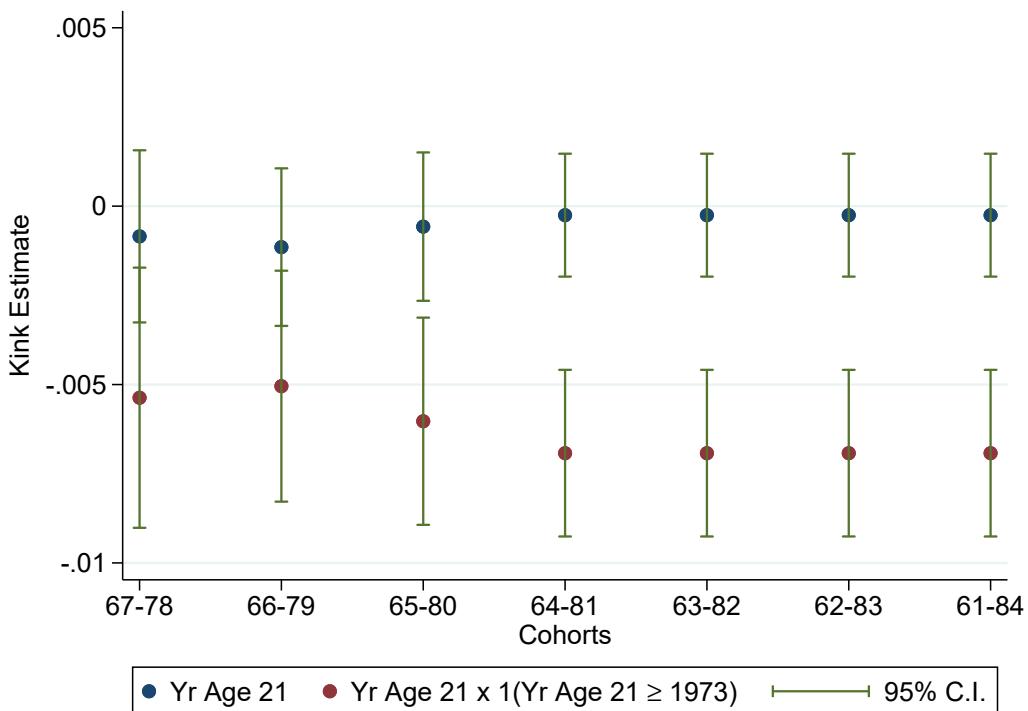
Notes: Dependent variable is a dummy indicating educational attainment at or above the level in the header. Sample includes all respondents in the 2017 census between the ages of 25 and 40 that we can connect to at least one parent that was born between 1943 and 1960 and reported full secondary education. See text for further details on construction of sample. "Yr Age 21 Parent" is a continuous variable indicating the year at which the parent reached age 21, normalized to zero in 1972, while $\mathbb{1}(Yr \text{ Age } 21 \text{ Parent} \geq 1973)$ is a dummy for parents that reached age 21 on or after 1973. Standard errors clustered by county of birth in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Table F7: Educational Attainment of Children: Assortative Matching of Parents

Dependent variable:	Parent's spouse		Any College (Child)		
	Observed	Any College			
			(1)	(2)	(3)
Yr Age 21 Parent	0.006*** (0.0008) [0.001]	-0.000 (0.0010) [0.917]	-0.000 (0.0010) [0.718]	-0.001 (0.0012) [0.194]	-0.001 (0.0011) [0.213]
Yr Age 21 Parent x $\mathbb{1}(Yr \text{ Age } 21 \text{ Parent} \geq 1973)$	-0.004*** (0.0010) [0.009]	-0.008*** (0.0012) [0.000]	-0.007*** (0.0013) [0.004]	-0.006*** (0.0016) [0.019]	-0.004** (0.0014) [0.065]
Birth County x Gender FE	Yes	Yes	Yes	Yes	Yes
Parent Gender x Gender FE	Yes	Yes	Yes	Yes	Yes
Age FE	Yes	Yes	Yes	Yes	Yes
Parent's spouse observed FE	No	No	Yes	No	No
Parent's spouse any college FE	No	No	No	No	Yes
Observations	213,059	133,200	213,059	133,200	133,200
R-squared	0.426	0.086	0.068	0.069	0.110
Mean DV	0.633	0.212	0.585	0.602	0.602

Notes: Dependent variable in the header. Sample includes all respondents in the 2017 census between the ages of 25 and 40 that we can connect to at least one parent that (i) was born between 1943 and 1960, (ii) reported full secondary education, (iii) is a household head. Sample further restricted in columns 2, 4, 5 to children with a parent with an observed partner/spouse. See text for further details on construction of sample. “Yr Age 21 Parent” is a continuous variable indicating the year at which the parent reached age 21, normalized to zero in 1972, while $\mathbb{1}(Yr \text{ Age } 21 \text{ Parent} \geq 1973)$ is a dummy for parents that reached age 21 on or after 1973. Standard errors clustered by county of birth in parentheses. P-values from wild cluster bootstrap at the cohort level in brackets. *** p<0.01, ** p<0.05, * p<0.1

Figure F1: Educational Attainment of Children: Different Bandwidths



Notes: Each figure replicates the analysis of child's college enrollment for the different bandwidths in the x-axis. Sample includes all respondents in the 2017 census between the ages of 25 and 40 that we can connect to at least one parent that reached age 21 in the relevant bandwidth (both years inclusive) and reported full secondary education. "Yr Age 21 Parent" is a continuous variable indicating the year at which the parent reached 21 years of age, normalized to zero in 1972, while " $\mathbb{1}(\text{Yr Age 21 Parent} \geq 1973)$ " is a dummy for parents that reached age 21 on or after 1973. All regressions include county of birth x gender, parent's gender x (child) gender, age and relationship to household head fixed effects. Standard errors clustered by county of birth.