

# Dictatorship, Higher Education and Social Mobility\*

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**Abstract:** We study the effect of political regime change on higher education and its distributional consequences. We focus on Chile’s military dictatorship under Augusto Pinochet, a regime characterized by a conservative ideology, severe repression, and a technocratic approach to policy-making. After coming to power through a coup in 1973, the Pinochet regime steadily reduced government funding for higher education, which led to fewer openings for new college students and lower tertiary enrollment. These cuts disproportionately affected college applicants from less affluent backgrounds. Exploiting the greater exposure to the contraction of higher education experienced by birth cohorts that reached college age shortly after the 1973 coup, we show that those affected had lower college enrollment, worse labor market outcomes, and struggled to climb up the socioeconomic ladder. These findings suggest that the contraction of higher education hindered social mobility and plausibly contributed to the increase in inequality observed under Pinochet.

**Keywords:** Chile, Pinochet, higher education, technocracy, inequality, redistribution

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# 1 Introduction

The relationship between political regimes and redistribution has long attracted social scientists. Prominent theories posit that democratic governments favor redistribution ([Boix 2003](#); [Acemoglu and Robinson 2006](#)). In line with this prediction, multiple empirical studies document a positive correlation between democracy and social spending, particularly on primary education (e.g., [Brown and Hunter 2004](#); [Avelino et al. 2005](#); [Stasavage 2005](#)). Much less is known about political regimes and higher education ([Gift and Wibbels 2014](#)). Some theoretical models suggest a null or even positive effect of autocracy at this level, given that universities mostly serve richer and more politically influential segments of society ([Stasavage 2005](#); [Ansell 2010](#)). But other models highlight the impact of education on political activism, which is especially salient at the tertiary level and can give rise to a trade-off between human capital accumulation and regime stability ([Bourguignon and Verdier 2000](#); [Glaeser et al. 2007](#)). This theoretical ambiguity suggests that the effect of autocracy on higher education likely varies depending on the historical circumstances and defining characteristics of each regime ([Connelly and Grüttner 2005](#)). Such heterogeneity may explain the null results of previous cross-country studies ([Stasavage 2005](#); [Gallego 2010](#)).

In this paper, we study the impact of Chile’s Pinochet dictatorship on higher education and its distributional consequences. Pinochet’s was a right-wing, military regime marked by the absence of democratic processes, the widespread use of repression, and the delegation of economic policy to technical experts. This portrayal largely overlaps with the concept of *bureaucratic authoritarianism* originally developed by [O’Donnell \(1973, 1979\)](#) to characterize the South American dictatorships from the 1970s, including Pinochet’s. However, autocracies combining repression and technocracy can be found in other parts of the world, such as Turkey’s military rule in the early 1980s or South Korea under Park Chung-hee ([Kim 2011](#); [Geddes et al. 2018](#)). China’s ‘eco-

conomic miracle’ of recent decades was also the result of modernizing reforms implemented by a highly repressive regime ([Zhu 2012](#)).

Our analysis is centered around the 1973 coup that overthrew the democratically-elected president Salvador Allende and replaced him with a military junta led by Augusto Pinochet. We start by providing a historical reconstruction of the changes to higher education introduced by the new regime. We show that college enrollment grew rapidly in the democratic period before the coup, but steadily declined in the early years of the dictatorship due to a decrease in public funding, which led to fewer openings for new students in all universities. This policy was driven by the regime’s effort to control political opposition and to the growing influence of a group of technocrats known as the *Chicago Boys*. The cuts in openings affected almost all fields of study, in line with the technocrats’ fiscal conservatism, but those fields considered to be more politically contentious experienced larger reductions (e.g., social sciences). College admissions were determined by a centralized algorithm based on test scores, which meant that applicants with lower scores, who predominantly came from less affluent backgrounds, were the ones most affected.

The main focus of our analysis is the distributional impact of this policy. Using survey data spanning more than 50 years, we first show that the share of income accruing to the middle 60% of earners increased in the years before the coup, decreased during the dictatorship, and increased again after democratization in 1990. These changes came at the expense of the top quintile with no change for the bottom quintile, lending support to the hypothesis that regime change mostly affects the middle class ([Stigler 1970](#); [Ross 2006](#); [Rosenfeld 2021](#)).

We then study the contraction of higher education as a potential driver of these changes in inequality. In line with the notion that the age of college enrollment cannot be easily modified, we show that the share of individuals with any college education drops sharply for those birth cohorts that reached college age in the years immediately after the coup (i.e., there is a downward *kink* in the cohort-level trend for college enrollment). Using both census and survey data, we document

similar downward kinks in labor force participation, occupational status, and income for these cohorts, which we attribute to reduced access to higher education in the spirit of a regression kink design ([Card et al. 2015](#)). We further show that the affected cohorts are less likely to be in the top quintile of wealth in 1992 and in the top quintile of income between 1990 and 2017. This suggests that the contraction of higher education under Pinochet hindered social mobility.

We provide several pieces of additional evidence that lend support to a causal interpretation of our findings. First, the affected cohorts display no meaningful break from trend in completion of secondary education, the level of educational attainment immediately below college entry. Second, our sample consists of a small set of consecutive cohorts that arguably had homogeneous exposure to other contemporary factors and our results are robust to using tighter windows of cohorts. Moreover, we are not aware of any other policy change that exclusively and increasingly affected younger cohorts after the coup. Third, the time series of potential confounders (e.g., GDP growth) does not display a similar pattern to our outcomes of interest and our results are robust to controlling for macroeconomic factors. Those cohorts most affected by the contraction of higher education and exhibiting worse downstream outcomes enjoyed a booming economy when they reached college age. Fourth, the results from a synthetic-control analysis using harmonized census data are qualitatively similar to our baseline findings ([Abadie et al. 2015](#)).

Our paper speaks to the literature on political regimes and redistribution. A large body of evidence shows a mostly positive correlation between democracy and social spending or educational outcomes ([Brown 1999](#); [Lake and Baum 2001](#); [Kaufman and Segura-Ubiergo 2001](#); [Baum and Lake 2003](#); [Brown and Hunter 2004](#); [Lindert 2004](#); [Mulligan et al. 2004](#); [Avelino et al. 2005](#); [Stasavage 2005](#); [Huber et al. 2008](#); [Gallego 2010](#); [Harding and Stasavage 2013](#)). However, these studies largely focus on primary education and have struggled to establish causality. Recent work with better causal identification shows a null impact of democratization on educational expansion, mostly because primary coverage was already close to universal ([Paglayan 2021](#)). Evidence on the

impact of political regimes on higher education or broader measures of inequality mostly corresponds to comparisons across countries, remains limited, and also points to null effects (Stasavage 2005; Gallego 2010; Acemoglu et al. 2015; Scheve and Stasavage 2017).

We contribute to this literature by providing within-country evidence on the negative impact of a right-wing, technocratic dictatorship on access to higher education and social mobility.<sup>1</sup> Our setting is ideal for this study because it allows for a sharp contrast between a democratically-elected left-wing government and an autocratic right-wing regime. Our setting is also of particular interest given that the reforms implemented under Pinochet are typically credited for Chile’s subsequent economic success (Becker 1997). Our findings add nuance to the claim that dictatorship can be economically beneficial at early stages of development (Glaeser et al. 2004; Easterly 2013).

The remainder of the paper is organized as follows. Section 2 presents a conceptual framework on the relationship between political regimes and higher education. We provide a historical overview of higher education in Chile and the changes introduced by Pinochet in section 3. Section 4 presents our research design and summarizes our main data sources. Section 5 shows our results on educational attainment, social mobility, and robustness checks. Section 6 concludes.

## 2 Conceptual Framework

In this section, we develop a theoretical framework to understand the impact of the political regime on government policy towards higher education. Our framework highlights several important factors that shape this relationship, including political representation and regime stability. We argue that the relative importance of these factors, which is context dependent, will affect the sign and the magnitude of the effect of political regime change on higher education policy.

In seminal work by Boix (2003) and Acemoglu and Robinson (2006), democratization entails

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<sup>1</sup>Roland and Yang (2017) and Li and Meng (2022) use cross-cohort comparisons similar to ours to study the impact of reduced access to higher education amid China’s cultural revolution.

the acquisition of political power by the poor majority in detriment of the rich elite, which leads to redistribution. Education is considered a prominent tool for this purpose, i.e., *the great equalizer*. However, this characterization mostly concerns lower levels of education (the lack of which affects the poor), but not tertiary education (which largely benefits the rich). Incorporating this distinction, [Stasavage \(2005\)](#) develops a model in which rich urban dwellers pose a political threat in both autocracy and democracy, while poor rural dwellers are only politically relevant under the latter. As a result, higher education (valued by the rich) is provided under both regimes and democratization only improves primary education (valued by the poor). [Ansell \(2010\)](#) arrives to a similar result using an alternative model with a richer microfoundation for preferences over education.

These predictions, based on changes in political representation across regimes, can fail to materialize for several reasons. To start, a *de jure* expansion of the franchise may not lead to greater *de facto* political power for the poor due to the disproportionate influence of the elite over institutional design and electoral politics ([Londregan 2007](#); [Albertus and Menaldo 2018](#); [Elkjaer and Klitgaard 2021](#)). Similarly, not all autocracies are inherently pro-elite and there is abundant empirical evidence of redistributive policies under dictatorship ([Kosack 2014](#); [Albertus 2015](#)). But even if the poor gain effective political power under democracy, they may prefer redistribution through means other than education, such as targeted transfers ([Bursztyn 2016](#)). Moreover, once we move away from the dichotomous distinction between rich and poor, the pivotal group affecting regime change is most likely the middle class, which plausibly demands access to higher education as a vehicle for social mobility under either system ([Stigler 1970](#); [Ross 2006](#); [Rosenfeld 2021](#)).

Another important factor shaping educational policy is regime stability. [Bourguignon and Verdier \(2000\)](#) develop a model in which education has positive economic returns, but also increases political participation. As a result, educational expansion poses a trade-off for the elite between economic growth and political opposition ([López-Cariboni and Cao 2019](#)). This trade-off is particularly salient for higher education, given its curricular focus on critical thinking around

economic and political issues ([Dahlum and Wig 2021](#)). Institutions of higher education can also help to reduce coordination costs, which are an obstacle for collective action ([Shadmehr and Bernhardt 2011](#); [Hollyer et al. 2015](#)). History abounds with examples of universities serving as focal points for political activism (e.g., May 1968, Tiananmen 1989, Hong Kong 2019). Hence, authoritarian regimes at early stages of consolidation are likely to favor restrictive policies towards higher education, such as screening applicants or reducing overall enrollment.

This last prediction is based on the premise that education represents a threat to the status quo. However, education is also a powerful tool through which governments can shape the attitudes and beliefs of their citizens. A large literature has studied the contribution of education towards forging a national identity or fostering obedience ([Darden and Grzymala-Busse 2006](#); [Darden and Mylonas 2016](#); [Cantoni et al. 2017](#); [Alesina et al. 2021](#); [Paglayan 2022](#)). Hence, autocracies may have an incentive to expand access to education, particularly at lower levels with a strong indoctrinating impact. At the tertiary level, this effect is arguably weaker, though dictatorships may still want to tighten oversight over educational content and degree offerings.

Yet another important factor relates to the identity of the *inner sanctum* that holds power within an autocracy. Widely used classifications of authoritarian regimes award a distinct role to military dictatorships, which largely rely on repression for their survival and have a weaker need for political institutions such as parties or a legislature ([Gandhi 2008](#); [Cheibub et al. 2010](#); [Geddes et al. 2014](#)). The concept of *bureaucratic authoritarianism* developed by [O'Donnell \(1973, 1979\)](#) draws a connection between the curtailment of civil liberties, the dismantling of democratic institutions, and the delegation of economic policy to technical experts in certain military regimes.<sup>2</sup> The impact of technocracy on education is theoretically ambiguous and is likely to vary across levels due to

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<sup>2</sup>Under bureaucratic authoritarianism, “specialists in coercion have decisive weight, as well as... the civilian technocrats in charge of the economic apparatus” ([O'Donnell 1979](#), p. 292). For discussions of the broader theoretical framework surrounding bureaucratic authoritarianism see [Collier \(1979\)](#); [Remmer and Merx \(1982\)](#); [Ames \(1986\)](#).

the trade-off between human capital accumulation and fiscal conservatism.

The previous discussion suggests that the relationship between political regimes and educational policy is theoretically indeterminate. In line with this ambiguity, [Ansell and Lindvall \(2013\)](#) show that the centralization of primary education historically took place under radically different regimes (liberal democracies and fascist autocracies). Theoretical work that allows for a complex political landscape with multiple social classes and types of regime also suggests that the impact of regime change on education depends on pre-existing conditions ([Manzano 2017](#)). For instance, democratization may have opposite effects depending on whether the previous regime was a right-wing or left-wing dictatorship. To make progress in our understanding of this topic, it appears indispensable to take into consideration historical circumstances and regime characteristics.

### **3 Higher education under Pinochet: Historical Evidence**

There were eight universities in the country when Socialist candidate Salvador Allende won Chile's 1970 presidential election. The oldest (Universidad de Chile) was founded in 1842, while the newest (Universidad del Norte) opened in 1956. Only two universities were public, but all were 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. About 40% of students were female and 67% attended public universities.

College enrollment grew from 25,000 students in 1960 to 77,000 by the end of the center-left government of Eduardo Frei in 1970. The Allende government oversaw an even larger increase, reaching 146,000 students by 1973. Panel (a) in [Figure 1](#) shows that gross enrollment in higher education grew almost on par with secondary education in the 1960s, but outgrew the lower levels in the early 1970s. This was a period of mass expansion of higher education throughout Latin America, aimed at fostering social mobility for the growing urban middle class ([Brunner 1984](#)).



[FIGURE 1 ABOUT HERE]

Also contributing to the expansion of higher education was a 1967 reform that furthered student and faculty involvement in university governance and introduced a small tuition fee based on family income. The reform also introduced a centralized admissions process and a college admissions test called *Prueba de Aptitud Académica* (PAA). Under this system, which largely remains in place, applicants rank programs based on their preferences and universities rank applicants based on their school grades and their PAA scores. Universities choose the yearly number of openings per program and a deferred-acceptance algorithm then determines admissions.

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 quickly targeted universities as part of its goal to neutralize political opposition. Only two weeks after the coup, the junta appointed military officers to lead all universities, claiming that these had become “centers for Marxist indoctrination” (Brunner 2008, p.137). Over the following months, hundreds of students, faculty, and staff were expelled for their political views (Castro 1977; Brunner 1984). Some were detained, tortured, or killed as part of a broad wave of repression (Bautista et al. 2020; Esberg 2021).<sup>3</sup> Several academic units and most student organizations were shut down, political activity was forbidden, and teaching materials were censored. However, all eight existing universities remained open between 1973 and 1981.

The dictatorship’s initial handling of universities, focused exclusively on political control, soon began to incorporate a technocratic concern about the amount and the efficiency of public spending (Echeverría 1980; PIIE 1984; Velasco 1994). This was the result of the growing influence over policy of a group of market-friendly economists known as the *Chicago Boys* (Valdés 1995).<sup>4</sup> These

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<sup>3</sup>There 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.

<sup>4</sup>As early as 1974, the Ministry of Finance began pushing for a reduction in subsidies to universities and increased

technocrats advocated for reduced funding for higher education, arguing that an assured stream of public funding failed to provide incentives for thrift or effort (CEP 1992). They also argued that higher education was excessively costly and should be considered a privilege rather than a right, with government funds better spent elsewhere in the education system. The fact that the Chicago Boys' policy proposals aligned with the regime's aim to defuse the political threat posed by universities facilitated their implementation. In the words of Levy (1986, p.105), "the regime's penchant for political control meshed conveniently with its penchant for economic conservatism."

The military regime pursued its twin aims of political control and technocratic efficiency by reducing government funding for universities. Panel (b) in Figure 1 shows that the share of the education budget devoted to higher education, which had risen to almost 50% under Allende, steadily declined after the coup and reached its pre-Allende level of close to 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 (PIIE 1984). A push for higher tuition met with strong resistance and was abandoned, thus forcing universities to downscale.

Panel (a) in Figure 1 shows a sharp decline in college enrollment after the coup, equivalent to a 38% drop between 1973 and 1981.<sup>5</sup> This reduction in enrollment was mostly driven by fewer incoming students per year, since "most previously enrolled students remained enrolled despite purges" (Levy 1986, p. 101). In line with this hypothesis, panel (c) in Figure 1 shows that openings rose under Allende and reached a maximum of 47,000 in 1973, but then fell and stagnated after the coup, dropping to 33,000 by 1980 (30% decline).<sup>6</sup> Importantly, the number of applicants exceeded 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).

<sup>5</sup>The unanticipated nature of this reduction is evidenced by the fact that UNESCO projections placed aggregate enrollment at around 200,000 students for 1975, while the actual figure fell short of 150,000 (Levy 1986).

<sup>6</sup>Appendix Figure A1 (p. i) 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.

available openings throughout this period, meaning that the supply of openings was the binding constraint on admissions and the determinant factor in the fall in enrollment.

University downsizing did not affect all fields of study equally, but hardly any was left untouched. Panel (a) in Figure 2 shows the aggregate change in openings per field between 1973 and 1980. In line with the aim of reducing the political threat posed by universities, those fields with strong political content such as law or the social sciences experienced particularly large reductions, while politically neutral ones (namely the natural sciences) were the only ones to grow. However, most fields saw aggregate decreases of 20-40% in openings, including the two largest ones (education and engineering). This suggests that the fiscal concerns of the Chicago Boys also played a prominent role. As a result of the widespread nature of the cuts, the distribution of students across fields did not change very much after the coup, as panel (b) shows.

[FIGURE 2 ABOUT HERE]

The dictatorship left the centralized matching mechanism used for admissions unchanged, in line with the Chicago Boys' support for meritocracy and efficiency. As fewer college openings became available, those applicants with lower scores in the PAA test were the ones that mechanically failed to gain admission. Figure 3 suggests that the excluded applicants predominantly came from less affluent backgrounds. Panel (a) shows that the share of the incoming class whose father had attended college was higher in 1981 than in 1976.<sup>7</sup> Panel (b) highlights the role of the admissions mechanism by showing the average PAA score of the incoming class in these same years disaggregated by father's occupation and expressed relative to the top scorers (children of university faculty in both years). The higher relative scores in 1981 indicate a more compressed distribution, consistent with a higher threshold for admissions. Moreover, admitted students with blue-collar

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<sup>7</sup>Unfortunately, information on family background is only available for these two years, both of which are after the coup. However, Figure 1 shows that the contraction of higher education was more intense in the latter year.

fathers experience much higher increases, which suggests that the marginal applicants excluded by the reduction in openings predominantly came from this group.<sup>8</sup>

[FIGURE 3 ABOUT HERE]

There is little evidence that the contraction of higher education was offset by large gains elsewhere in the education system. Figure 1 shows that enrollment in primary and secondary remained roughly constant after 1973 despite higher spending. Appendix Figure A3 (p. ii) further shows that the number of schools also remained unchanged and that the share of primary students receiving subsidized meals (a proxy for pro-poor policies) decreased.<sup>9</sup>

## 4 Data and Empirical Strategy

Our main data sources are the individual records from Chile’s population census of 1992 and the thirteen waves of the biennial CASEN household survey between 1990 and 2017. The census data is provided by Chile’s national statistical agency (INE), while CASEN comes from the Ministry of Planning. CASEN is a repeated cross-section that includes information on more than 200,000 individuals in recent waves and is representative at the regional level.<sup>10</sup> We also use harmonized census files from IPUMS - International for a synthetic control analysis and income data from

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<sup>8</sup>Post-enrollment outcomes seemingly improved under the dictatorship. Panel (a) in Appendix Figure A2 (p. i) shows that the graduation rate declined slightly before the coup and recovered afterwards, in line with the notion that most college students remained enrolled after the coup. Panel (b) shows a steady increase in the college premium on earnings after the coup. These results plausibly reflect a combination of more selective admissions, a stronger focus on academic activities, and a lower supply of professionals.

<sup>9</sup>Early education was the only level to grow under Pinochet, though from a very low base (4% gross enrollment rate in 1970). Moreover, growth in early education followed the pre-coup trend and was overseen by the National Council of Kindergartens (JUNJI), a body established by Allende in 1970.

<sup>10</sup>Chile is administratively divided into 16 regions, subdivided into 56 provinces and 346 counties.

Universidad de Chile’s EOD survey to provide descriptive evidence on inequality. Appendix B provides further information on our data sources.

Our empirical strategy is based on the premise that the timing of major educational decisions cannot be easily altered. College enrollment is no exception, as younger individuals cannot usually forgo secondary education and for older ones it becomes increasingly difficult to enroll once they exit secondary. Hence, we expect individuals that reached ‘college age’ shortly after the coup to be affected by Pinochet’s contraction of higher education to a larger extent than their slightly older peers that reached the same age a few years before. We use age 21 as our proxy for the age of college entry based on administrative data showing that this was the average age of first-year college students in 1970 (Appendix Figure A4, p. ii). Our baseline sample includes individuals who reached age 21 between 1964 and 1981 (born between 1943 and 1960), but we verify below that our results are robust to using tighter windows of cohorts.<sup>11</sup> We further restrict the sample to individuals who report at least four years of secondary education to ensure a relevant counterfactual for college enrollment, but we verify that our results are also robust to dropping this restriction.

Our research design specifically exploits the growing tightness of college admissions during the early years of the dictatorship (i.e., Figure 1), which suggests that each new cohort reaching college age after the coup was more affected than the previous one. Hence, rather than simply comparing cohorts reaching college age before and after the coup, we focus on changes in cohort-level trends for our outcomes of interest. We work with the following reduced-form model:

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

where  $Y_{i,c}$  is an outcome for individual  $i$  belonging to cohort  $c$  (denoted by the year in which it

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<sup>11</sup>We stop with the 1981 cohort to mitigate the confounding effect of a university reform implemented after that year. This reform turned the satellite campuses of the public universities into independent institutions, further reduced funding for existing universities, and allowed the entry of new universities (not eligible for government funding).

reached age 21).  $X_i$  is a set of observable characteristics, including gender-specific county-of-birth fixed effects.  $\mathbb{1}(\text{Dictatorship})$  is a dummy equal to one for individuals who reached age 21 in 1973 or later, while  $f(c)$  and  $g(c)$  are smooth functions capturing the cohort profile of the outcome  $Y_{i,c}$ . 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 model fits the data well for most outcomes. We normalize the running variable in these functions to zero for 1972, the last year before the coup. Our parameter of interest is  $\pi_1$ , which captures the change in trend (i.e., *kink*) for cohorts reaching college age after 1973. Finally,  $u_{i,c}$  is an error term clustered either at the county-of-birth level or at the cohort level. For the latter, we use the Wild cluster procedure following [Cameron et al. \(2008\)](#).

Our analysis starts by documenting a sharp downward kink in college enrollment for the cohorts that reached college age after the coup, despite no meaningful change in the trend for secondary completion. We then study downstream effects by looking for similar changes in the respective cohort-level trends of our other outcomes of interest, in the spirit of a regression kink design ([Card et al. 2015](#)). Our identifying assumption is that in the absence of the contraction of higher education there is no reason to expect kinks in these outcomes for cohorts reaching age 21 after 1973. As supporting evidence for this assumption, we verify that the time series of potential confounders, such as GDP growth, does not follow a similar pattern to college enrollment and we further show that our results are robust to the inclusion of additional controls in the vector  $X_i$ . Moreover, even if the time series of an omitted variable were to exhibit a linear kink after 1973, for it to confound our analysis it must only affect individuals at the age of college entry. We are not aware of any relevant variable that (i) exhibits a kink in its time series after 1973 and (ii) differentially affects cohorts reaching college age before and after 1973.<sup>12</sup>

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<sup>12</sup>Two leading candidates for such a confounder are military conscription and international migration, as these are both events that were likely affected by the coup and are more likely to occur after reaching college age. Appendix Figure A5 (p. iii) provides evidence against these alternative explanations, as both the number of enlisted soldiers and students abroad *decreased* after the coup. Furthermore, changes in military recruitment would have only affected men

## 5 Distributional Impact of the Contraction of Higher Education

In this section, we study the distributional effects of the contraction of higher education under Pinochet. We first document a positive correlation between the dictatorship and income inequality. We then leverage differential exposure to the educational contraction across cohorts to document a reduction in college enrollment for those affected and to study its socioeconomic consequences. We summarize the results from a battery of robustness tests at the end.

### 5.1 *Income inequality*

As motivation for the analysis of the distributional effects of the contraction of higher education under Pinochet, we first provide descriptive evidence on the evolution of inequality in Chile during our sample period. We focus our attention on the political transitions that took place in 1973 (military coup) and 1990 (democratization), guided by the theoretical prediction of a negative correlation between democracy and inequality (Boix 2003; Acemoglu and Robinson 2006).<sup>13</sup>

We use data on reported income among respondents of the EOD survey between 1960 and 2012 to estimate the yearly share of income accruing to the top and bottom quintiles, as well as to the middle 60%, which is our proxy for the middle class. We also estimate the Gini coefficient for each year. Panel (a) in Figure 4 shows the yearly income shares accruing to the different social strata, while panel (b) shows the Gini coefficient. Both graphs suggest a strong positive correlation between autocracy and inequality in Chile, in line with French-Davis (2018). More specifically, the years before the 1973 coup show convergence in the shares of income going to the top 20% and the middle 60%, particularly during the Allende government. After the coup, there is a steady increase in inequality, with top earners' share of income growing at the expense of the middle class.

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at that time, while we show below that the educational contraction affected both men and women.

<sup>13</sup>Following Pinochet's defeat in a plebiscite in 1988, a presidential election took place in 1989. Patricio Aylwin from opposition coalition Concertacion won and was inaugurated in 1990, putting an end to the Pinochet regime.

The Gini coefficient increases from 0.46 in 1973 to 0.57 in 1990. After democratization in 1990, there is again redistribution from the top quintile to the middle class, though not as marked as under Allende. Importantly, the share of income accruing to the bottom 20% does not vary much and never rises above 6% during this period. This pattern suggests that redistribution under democracy benefits mostly the middle class rather than the poor (Stigler 1970; Ross 2006; Rosenfeld 2021).

[FIGURE 4 ABOUT HERE]

## 5.2 Educational Attainment

Having established that inequality increased under Pinochet, we now explore the contribution of the contraction of higher education to this pattern. To validate our empirical strategy, we start by documenting a smooth trend in secondary completion among cohorts that reached college age around the military coup, combined with a sharp reduction in college enrollment for those cohorts that reached college age *after* the coup.

Panel (a) in Figure 5 shows the share of people per cohort that report four or more years of secondary education in the 1992 census. We use this as a proxy for secondary completion given that this information is not directly available from our main sources. The  $x$ -axis corresponds to the year in which cohorts reached age 21. The red vertical line marks the year of the military coup. We use solid lines to capture the actual trends before and after the coup, while the dashed line is the counterfactual trend for the post-coup period. The plot shows a smooth increase in the share of people per cohort with full secondary education. Not only do the linear trends fit the data quite accurately, but the post-coup trend overlaps almost perfectly with the counterfactual. This result lends support to our identification strategy to the extent that changes in other factors (e.g., economic conditions) would likely also affect educational attainment at the level that immediately precedes entry into higher education.

Panel (b) shows the share of people per cohort that report any college education in the 1992



census. College entry steadily increases for the cohorts reaching age 21 before the coup, especially during the Allende government between 1970 and 1973. In contrast, cohorts reaching the same age after the coup experience a steady decrease in college enrollment. Panel (c) replicates the analysis for the restricted sample of individuals with complete secondary. Having shown a smooth trend in secondary completion, we introduce this sample restriction because we deem full secondary to be the relevant counterfactual to college enrollment, particularly when we consider downstream economic outcomes below. In this sample, the college enrollment rate increased by 12 percentage points (pp) between the 1964 and 1972 cohorts (44% increase) and *decreased* by 18 pp between the 1973 and 1981 cohorts (46% decrease).

[FIGURE 5 ABOUT HERE]

Columns 1-3 in Table 1 present the corresponding estimates of equation (1) for these outcomes. 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. Column 1 shows that the share of people with full secondary education grew at a rate of 0.8 pp per cohort before the coup, a trend that remains unchanged after the coup. Column 2 shows that college enrollment increased on average 0.8 pp per cohort before the coup. This trend changes by -1.2 pp per cohort after the coup. The difference between the two coefficients indicates a net enrollment trend of -0.4 pp per cohort after the coup. Once we condition on complete secondary, column 3 shows that college enrollment increased by 1.8 pp per cohort before the coup but *decreased* at the same net rate (-1.8 pp) afterwards.<sup>14</sup>

[TABLE 1 ABOUT HERE]

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<sup>14</sup>Appendix Table C1 (p. vi) and Figure C1 (p. xiv) show similar results using data from other sources. In Appendix Table C2 (p. vi), we exploit the information on household composition from the census to show that the downward kink in college enrollment remains even if we restrict the sample to siblings (96% drop in sample size) and include family fixed effects. This is consistent with the broad-based reduction in college openings documented above.

### 5.3 Labor Market and Distributional Outcomes

We now examine the effects of the dictatorship's educational contraction on the economic outcomes of those affected. Panels (d)-(h) in Figure 5 plot cohort-level averages of the outcome in the caption, as well as the pre- and post-coup trends. These averages are calculated among individuals with full secondary using census data from 1992, except for panel (h) which uses data from CASEN. Panels (e)-(h) further restrict the sample to individuals in the labor force. Panel (d) shows a sharp downward kink in labor force participation for those cohorts that reached college age after the military coup. Panel (e) then shows a similar downward kink in the probability of having a professional occupation (e.g., doctor, lawyer, engineer) for the affected cohorts.<sup>15</sup> Panel (f) likewise shows a downward kink after 1973 in the cohort-level trend for an occupational income score that we construct following Abramitzky et al. (2014).<sup>16</sup> Panel (g) further shows an upward kink in the probability of being unemployed, while panel (h) shows a downward kink in average income between 1990 and 2017.

In sum, high-school graduates from the cohorts exposed to the contraction of higher education under Pinochet were worse off according to all the labor market outcomes considered. Reduced access to higher education made it more difficult for affected individuals to find employment and, in particular, to work in high-earning professional occupations. Among the cohorts that reached college age under the dictatorship, this negative impact was larger for younger ones, in line with the previous results on educational attainment. Columns 4-8 in Table 1 quantify these kinks. For instance, column 8 shows a positive trend in average income of \$5,500 per cohort (in constant 2015 Chilean pesos), which reverts to -\$4,400 per cohort in the post-coup period. This is equivalent to a

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<sup>15</sup>Appendix Figure C2 (p. xv) and Table C3 (p. vii) show offsetting increases in other occupations, ranging from clerks to elementary occupations (e.g., domestic helper, street food salesperson).

<sup>16</sup>The index is based on the log median wage for the 3-digit occupation code in CASEN from 1992 to 2000. Appendix Figure C3 (p. xvi) shows similar results using different years to construct the score.

1% reduction per cohort relative to the sample mean (i.e., 8% reduction between 1973 and 1981).

These negative effects on labor market outcomes for the affected cohorts presumably hindered their ability to climb up the socio-economic ladder. We next study the impact of the contraction of higher education on the respective distributions of wealth and income, in an attempt to connect the previous results to the broader increase in inequality during the dictatorship that we documented above. For this purpose, we leverage information on the wealth quintile to which a household belongs, which is included in the dataset for the 1992 population census provided by INE.<sup>17</sup> Similarly, the data from CASEN includes the quintile of income to which a household belongs.<sup>18</sup>

Panels (a)-(c) in Figure 6 plot the respective share of people per cohort that are in the top 20%, middle 60%, and bottom 20% of the wealth distribution. Panels (d)-(f) provide analogous information for the income distribution. The patterns are similar in both cases. The share of people in the top quintile of wealth or income drops sharply for the cohorts that reached college age after the military coup. This downward kink at the top of either distribution is compensated by a higher share in the middle 60%, but also to a smaller extent by a higher share in the bottom quintile. Table 2 provides the corresponding regression estimates. Column 1 shows that the share in the top quintile of wealth in 1992 decreases at a net rate of 1.5 pp per cohort after the coup. This trend is more than seven times larger than the one observed among pre-coup cohorts and is equivalent to a 3% reduction per cohort relative to the sample mean. In the case of income, column 4 shows a 0.8 pp net reduction in the share at the top of the distribution for each new post-coup cohort, which is four times larger than the pre-coup trend and corresponds to a 2% reduction per cohort relative to the sample mean. Based on 13 waves of the CASEN survey between 1990 and 2017, the latter results suggest that individuals affected by the contraction of higher education under Pinochet

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<sup>17</sup>These quintiles correspond to housing wealth and are calculated based on observable characteristics of the dwelling and ownership of assets. The census does not record information on income.

<sup>18</sup>To the extent that there is resource pooling between individuals from different cohorts within households, the household-level calculation of these measures will attenuate the individual impact of reduced educational attainment.

struggled to reach the top of the income distribution throughout their working lives.

[FIGURE 6 ABOUT HERE]

[TABLE 2 ABOUT HERE]

#### 5.4 Robustness Checks

Three additional sets of results provide further support to a causal interpretation of our findings. First, we verify that the kinks in cohort-level trends are not capturing non-linear age effects. Appendix Tables C4 and C5 (p. viii) show that results are similar if we pool multiple survey waves or censuses and estimate a more stringent specification with age fixed effects. Second, Appendix Tables C6 and C7 (p. ix-x) show that the results are again unaffected if we control for macroeconomic indicators that plausibly affect the college entry decision, such as GDP growth or the youth unemployment rate. Moreover, Appendix Figure C4 (p. xvi) shows that the time series for these variables does not display a monotonic trend after the coup and that those cohorts most affected by the educational contraction experienced a booming economy when they reached college age. Third, Appendix Tables C8 and C9 (p. xi-xii) show that both men and women experience the negative impact of reduced access to higher education. If anything, the effects are larger on women, which helps to rule out alternative explanations based on factors that mostly affect men, such as changes to military conscription or exposure to repression.

We also verify that our results are not driven by methodological choices. While our main analysis relies on the pre-coup trend to provide a counterfactual for post-coup cohorts, Appendix Figure C5 (p. xvii) shows that a synthetic control analysis based on census data from other countries delivers similar findings for available harmonized outcomes (Abadie et al. 2015).<sup>19</sup> Similarly,

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<sup>19</sup>We use data from 61 countries listed in Appendix Table B1 (p. v). We use lags of the dependent variable to build the synthetic control and we only use *even* years to avoid cherry-picking and over-fitting (Ferman et al. 2019).

Appendix Figures [C6](#) and [C7](#) (p. [xviii-xix](#)) show that we can both tighten or expand the set of cohorts included in the analysis and the findings remain unchanged. In particular, a tighter bandwidth ensures increased comparability and exposure to other factors. Finally, we verify that our results are unaffected if we include in the sample individuals without complete secondary education (Appendix Tables [C10](#) and [C11](#), p. [xiii-xiii](#)).

## 6 Conclusion

In this paper, we study the effect of political regime change on higher education and its distributional consequences. For the case of Chile, the Pinochet dictatorship's goals of political consolidation and fiscal conservatism caused a large contraction of all universities in the country, which took place through a steady reduction in the number of openings for new students. As a result, individuals who reached college age shortly after the military coup experienced a sharp decline in college enrollment, had worse economic outcomes throughout the life cycle and struggled to reach the top of the socioeconomic ladder. These findings suggest that the contraction of higher education hindered social mobility and plausibly contributed to higher inequality under Pinochet.

Our finding of a positive correlation between autocracy and inequality is consistent with the predictions from canonical models of regime change ([Boix 2003](#); [Acemoglu and Robinson 2006](#)). Additionally, our results highlight that education is a prominent tool for redistribution that can be affected by the political regime. Most notably, the change in education policy that we document took place at the tertiary level, which indicates that higher education is an important vehicle of social mobility for the middle class and that this segment of society is the one most affected by regime change ([Stigler 1970](#); [Ross 2006](#); [Rosenfeld 2021](#)). Our findings also suggest that educational policy in autocracies at early stages of consolidation may prioritize regime stability over human capital accumulation, particularly at the tertiary level due to the heightened political risk.

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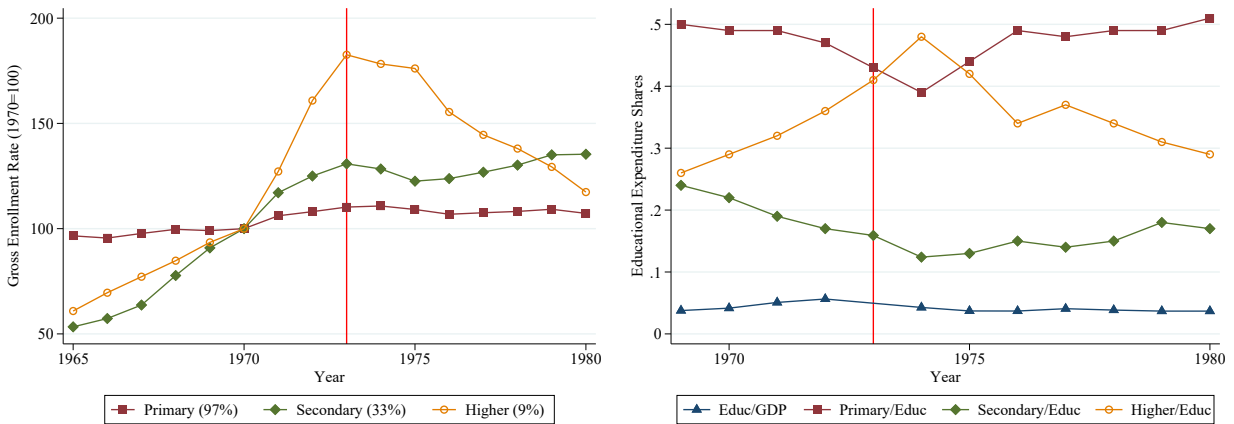
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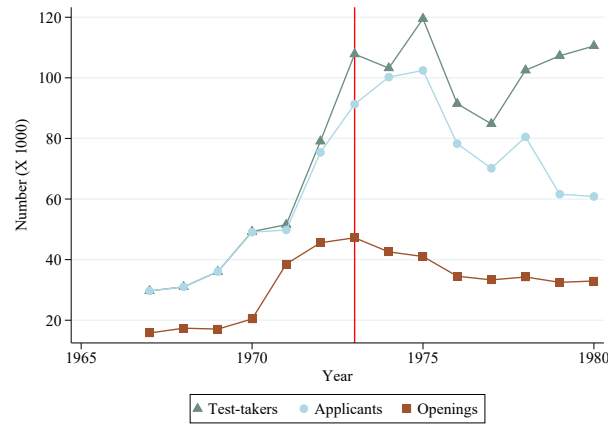
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**Figure 1: Enrollment and Funding Across Education Levels**



**(a) Enrollment**

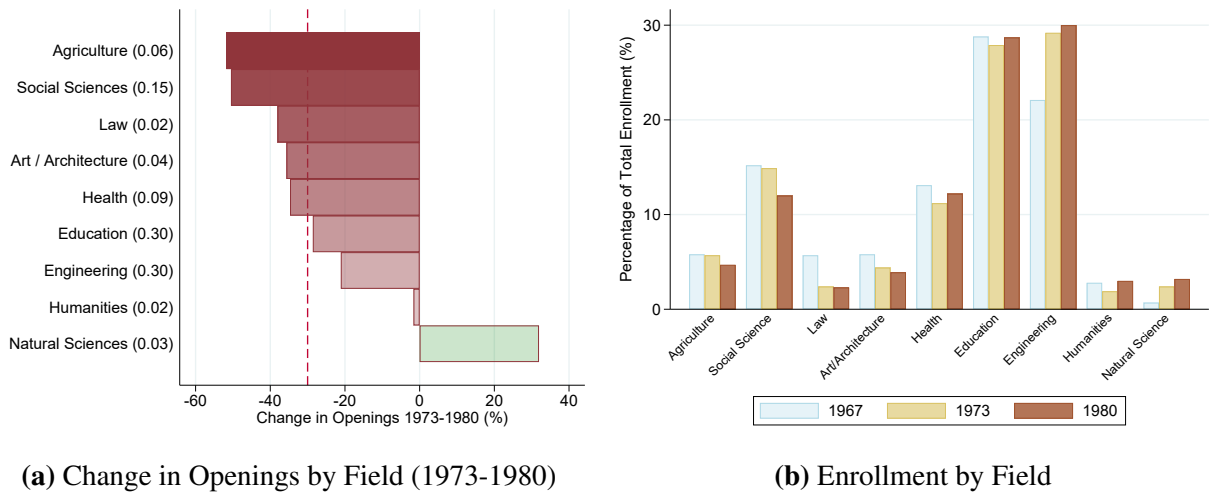
**(b) Public Spending**



**(c) College Openings and Applicants**

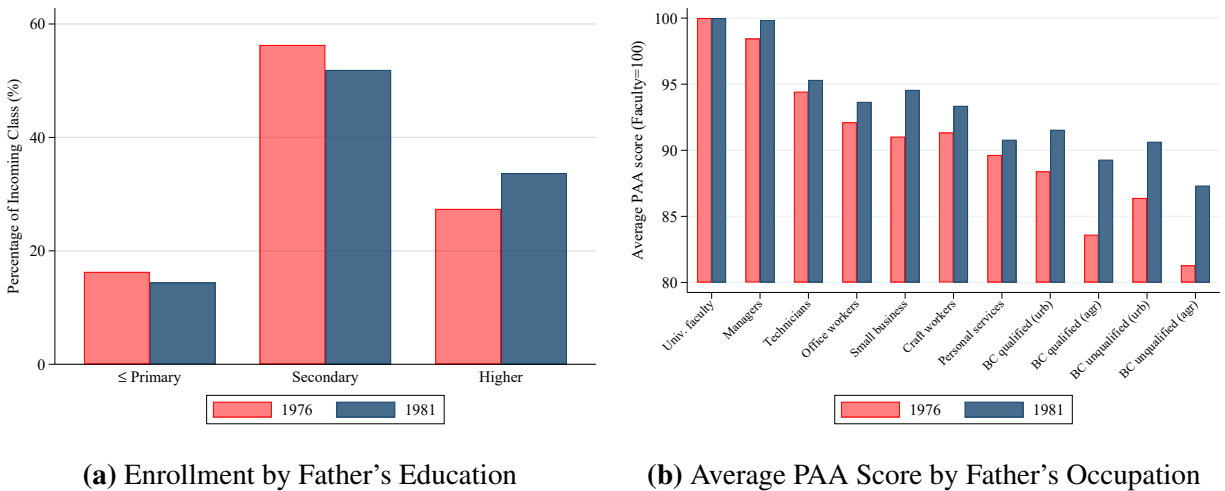
Notes: Panel (a) shows indices for the gross enrollment rate per education level. The respective denominators are population in the 6-14-15-19,20-24 age groups. Enrollment rate in 1970 (=100) shown in parenthesis in the legend. Panel (b) shows the percentage of public spending on education devoted to each level, as well as total education spending as as percentage of GDP. Panel (c) shows the yearly number of people that took the PAA test, college applicants, and college openings for incoming students. Sources: [PIIE \(1984\)](#); [Universidad de Chile \(2011\)](#).

**Figure 2: College Openings and Enrollment by Field**



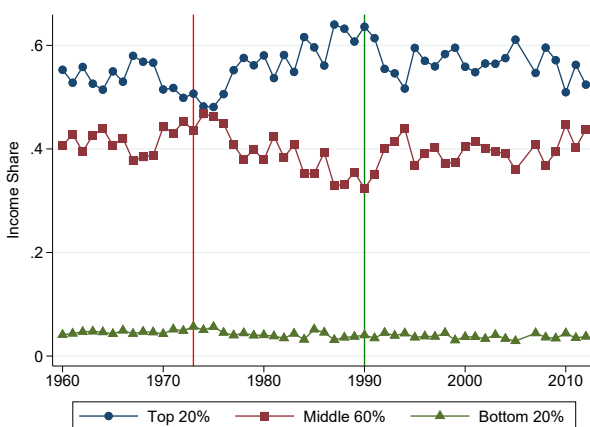
Notes: Panel (a) shows the change in openings by field between 1973 and 1980. The number in parenthesis corresponds to the field's share of openings in 1973, while the dashed line indicates the aggregate reduction in openings. Panel (b) shows enrollment shares per field in 1967, 1973 and 1980. Field classification based on UNESCO categories. Source: [PIIE \(1984\)](#); [Brunner \(1984\)](#).

**Figure 3: Characterization of Incoming Class by Family Background**

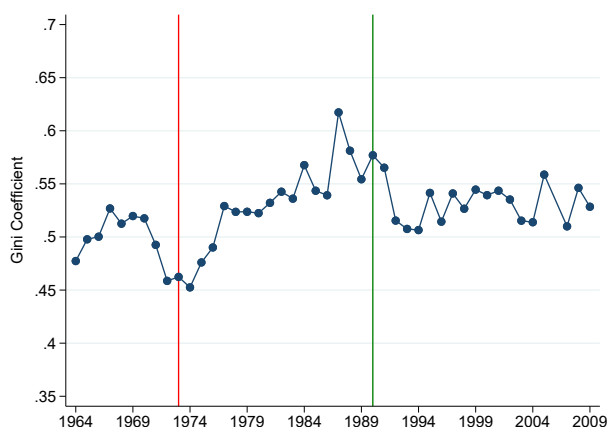


Notes: Panel (a) shows the share of the incoming class in 1976 and 1981 corresponding to each level of father's education. Panel (b) shows the average score in the PAA test of the incoming class for the same years, disaggregated by father's occupation. In both years, the highest average corresponds to university faculty, which we have separately normalized to 100 for each year. BC = Blue collar. The sample in panel (a) is restricted to the 11 largest majors, while in panel (b) it includes all students. Source: [PIIE \(1984\)](#).

**Figure 4: Income Inequality**



**(a) Income Shares**

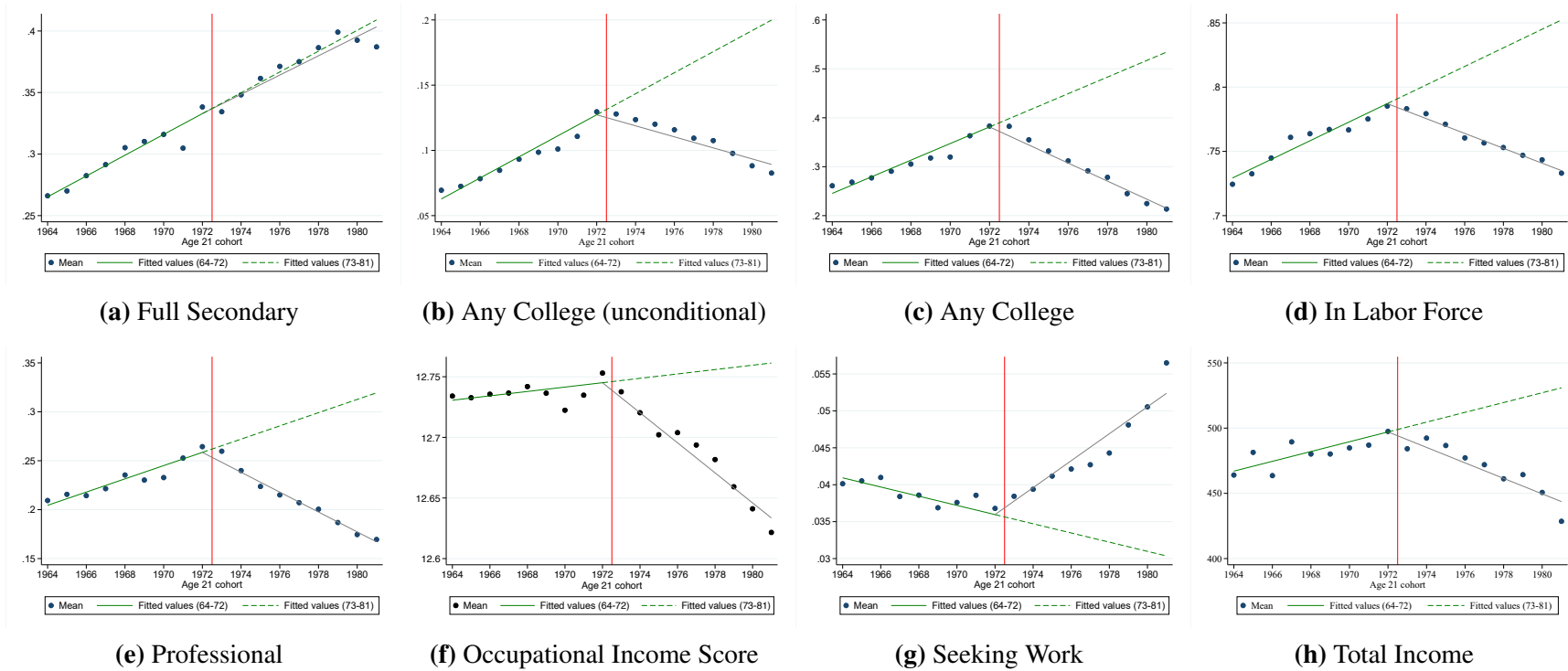


**(b) Gini Coefficient**

Notes: Panel (a) shows the share of income going to the top 20% of earners, middle 60% and bottom 20%. Panel (b) shows the Gini coefficient (own calculations). Source: EOD survey for Santiago metropolitan area. Vertical lines indicate the year of the military coup (1973) and the return to democracy (1990).

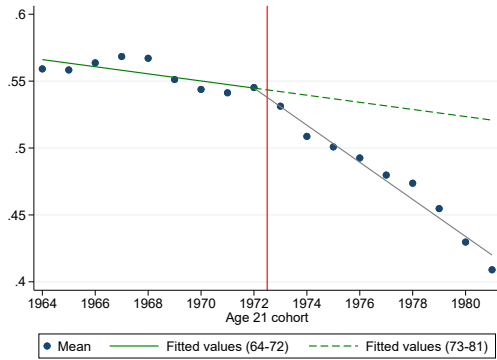


**Figure 5: Visualization of Kink in College Enrollment and Labor Market Outcomes**

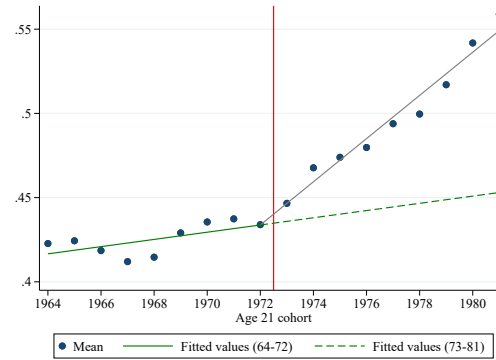


Notes: Panels show averages by cohort for the variable in the caption. Solid green line corresponds to line of best fit for cohorts reaching college age before 1973. Dashed green line shows extrapolation for later cohorts. Solid grey line corresponds to line of best fit for cohorts reaching college age in 1973 or afterwards. Panels (a)-(g) use data from 1992 population census, while panel (h) uses pooled data from the CASEN survey between 1990 and 2017. Panels (a) and (b) are based on unrestricted samples. In panels (c) and (d) we restrict the sample to individuals with full secondary education, while in panels (e)-(h) we impose the additional restriction of labor force participation. Total income in panel (h) is reported in 1000s of constant 2015 Chilean pesos and is winsorized at the 1% and 99% levels.

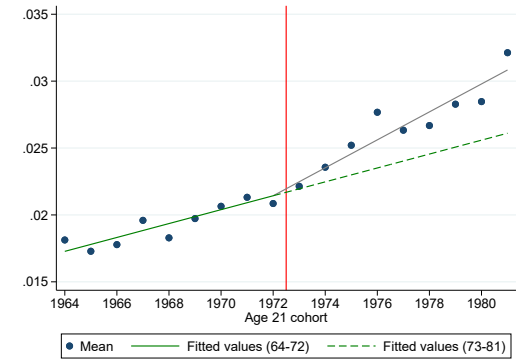
**Figure 6: Visualization of Kink: Household Wealth and Income**



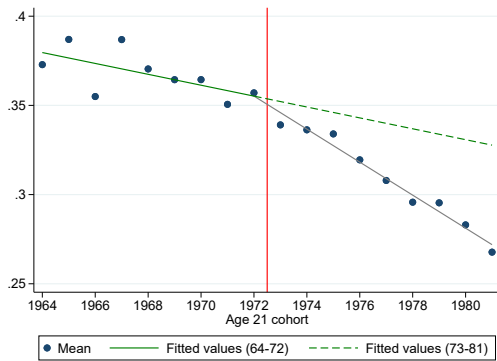
**(a) Wealth: Top 20%**



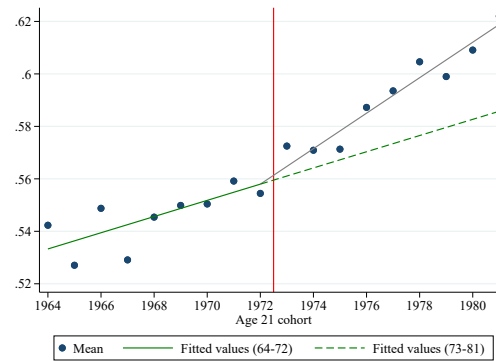
**(b) Wealth: Middle 60%**



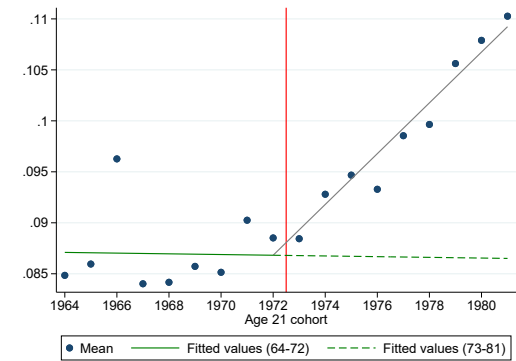
**(c) Wealth: Bottom 20%**



**(d) Income: Top 20%**



**(e) Income: Middle 60%**



**(f) Income: Bottom 20%**

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.

**Table 1: Educational Attainment and Labor Market Outcomes**

|                             | Full<br>Secondary               | Any College                      |                                  | In Labor<br>Force                | Professional<br>Occupation       | Occupational<br>Income Score     | Seeking<br>Work                  | Total<br>Income                   |
|-----------------------------|---------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|-----------------------------------|
|                             | (1)                             | (2)                              | (3)                              | (4)                              | (5)                              | (6)                              | (7)                              | (8)                               |
| Yr Age 21                   | 0.008***<br>(0.0003)<br>[0.002] | 0.008***<br>(0.0004)<br>[0.000]  | 0.018***<br>(0.0004)<br>[0.001]  | 0.008***<br>(0.0003)<br>[0.000]  | 0.007***<br>(0.0006)<br>[0.001]  | 0.004***<br>(0.0004)<br>[0.005]  | -0.001***<br>(0.0001)<br>[0.004] | 5.462***<br>(0.6796)<br>[0.000]   |
| Yr Age 21 x 1(Dictatorship) | -0.001<br>(0.0005)<br>[0.707]   | -0.012***<br>(0.0007)<br>[0.000] | -0.036***<br>(0.0007)<br>[0.000] | -0.012***<br>(0.0006)<br>[0.000] | -0.016***<br>(0.0009)<br>[0.000] | -0.016***<br>(0.0006)<br>[0.000] | 0.003***<br>(0.0002)<br>[0.003]  | -9.8663***<br>(0.9611)<br>[0.001] |
| Sample restrictions         | None                            | None                             | Full secondary                   |                                  | Full secondary + In labor force  |                                  |                                  |                                   |
| County of birth x gender FE | Yes                             | Yes                              | Yes                              | Yes                              | Yes                              | Yes                              | Yes                              | Yes                               |
| Survey year FE              | No                              | No                               | No                               | No                               | No                               | No                               | No                               | Yes                               |
| Observations                | 2,982,951                       | 2,982,951                        | 1,024,570                        | 1,024,570                        | 770,652                          | 684,995                          | 776,304                          | 163,693                           |
| R-squared                   | 0.088                           | 0.046                            | 0.040                            | 0.200                            | 0.023                            | 0.061                            | 0.004                            | 0.198                             |
| Mean DV                     | 0.343                           | 0.101                            | 0.295                            | 0.758                            | 0.097                            | 12.70                            | 0.043                            | 471.846                           |

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. Columns 1-7 use data from the 1992 census, while column 8 uses pooled data from the CASEN survey between 1990 and 2017. Total income in column 8 is reported in 1000s of constant 2015 Chilean pesos and is winsorized at the 1% and 99% levels. 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: Household Wealth and Income**

|                             | Wealth (1992 census)             |                                 |                                 | Income (CASEN: 1990-2017)        |                                 |                                 |
|-----------------------------|----------------------------------|---------------------------------|---------------------------------|----------------------------------|---------------------------------|---------------------------------|
|                             | Top<br>20%                       | Middle<br>60%                   | Bottom<br>20%                   | Top<br>20%                       | Middle<br>60%                   | Bottom<br>20%                   |
|                             | (1)                              | (2)                             | (3)                             | (4)                              | (5)                             | (6)                             |
| Yr Age 21                   | -0.002***<br>(0.0005)<br>[0.015] | 0.001***<br>(0.0005)<br>[0.037] | 0.000***<br>(0.0001)<br>[0.001] | -0.002**<br>(0.0008)<br>[0.087]  | 0.003***<br>(0.0008)<br>[0.008] | -0.000<br>(0.0004)<br>[0.403]   |
| Yr Age 21 x 1(Dictatorship) | -0.013***<br>(0.0007)<br>[0.001] | 0.012***<br>(0.0007)<br>[0.001] | 0.001***<br>(0.0001)<br>[0.003] | -0.006***<br>(0.0011)<br>[0.002] | 0.003***<br>(0.0011)<br>[0.035] | 0.003***<br>(0.0006)<br>[0.000] |
| County x gender FE          | Yes                              | Yes                             | Yes                             | Yes                              | Yes                             | Yes                             |
| Survey year FE              | No                               | No                              | No                              | Yes                              | Yes                             | Yes                             |
| Observations                | 1,007,957                        | 1,007,957                       | 1,007,957                       | 163,342                          | 163,342                         | 163,342                         |
| R-squared                   | 0.114                            | 0.085                           | 0.050                           | 0.080                            | 0.046                           | 0.028                           |
| p-value a+b=0               | 0.000                            | 0.000                           | 0.000                           | 0.000                            | 0.000                           | 0.000                           |
| Mean DV                     | 0.500                            | 0.475                           | 0.024                           | 0.327                            | 0.577                           | 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 (columns 1-3: birth; columns 4-6: residence) 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

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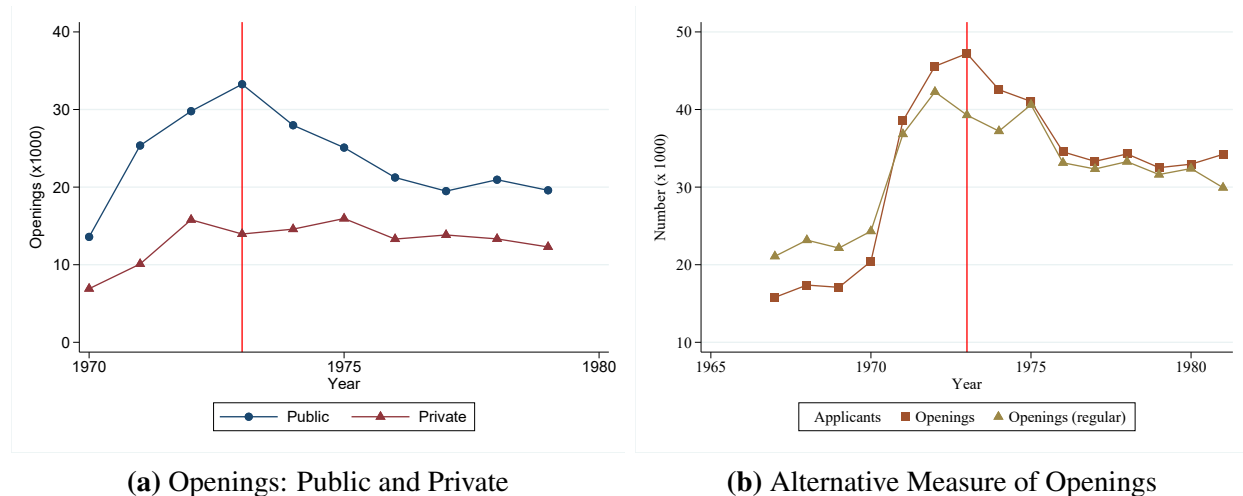
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|                   |   |           |
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| <b>Appendix A</b> | <b>Additional Background Tables and Figures</b> | <b>i</b>  |
| <b>Appendix B</b> | <b>Additional Information on Data Sources</b>   | <b>iv</b> |
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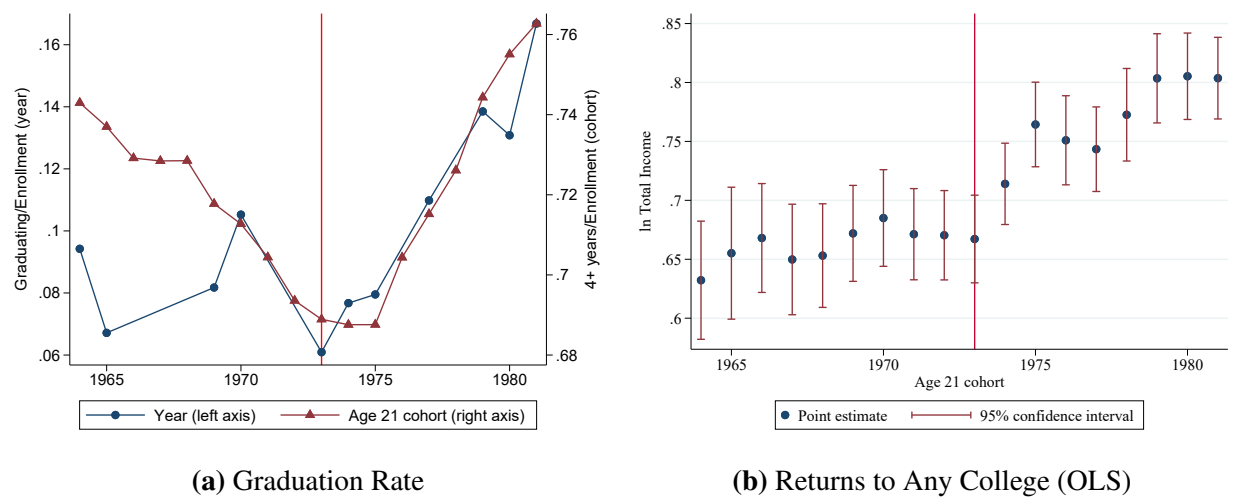
## Appendix A Additional Background Tables and Figures

**Figure A1: Further Evidence on Supply and Demand for College**



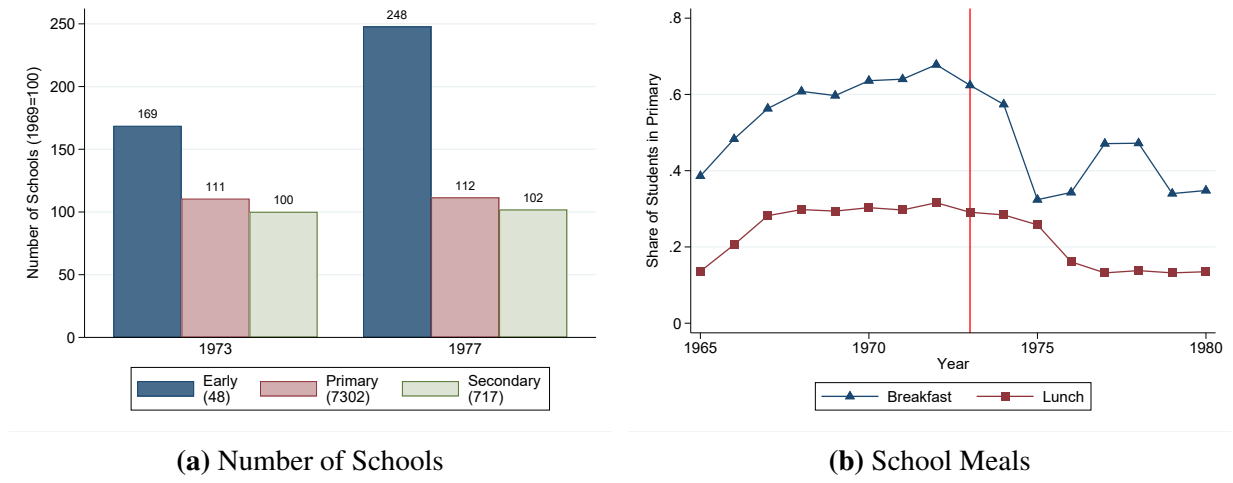
Notes: Panel (a) shows yearly openings in private and public universities. Panel (b) shows the number of applicants and openings per year, but includes an alternative measure of regular openings.

**Figure A2: Post-Enrollment Outcomes**



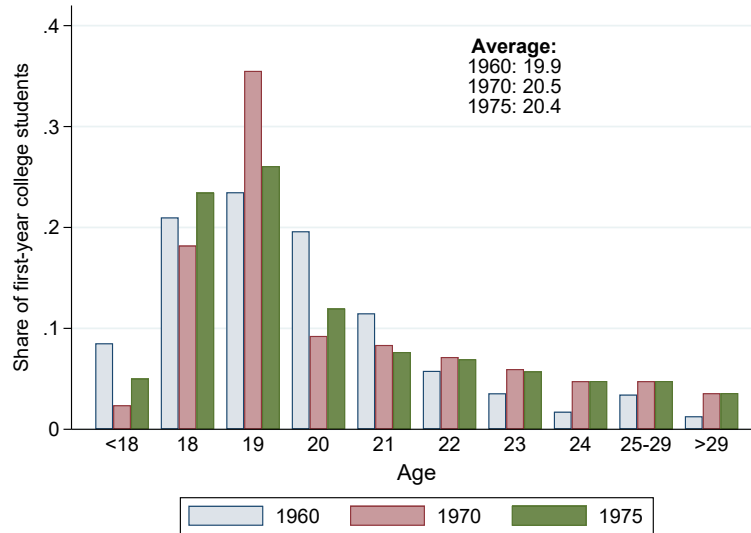
Notes: In panel (a), circle markers (left axis) correspond to graduating students as a share of total students per year, based on the UNESCO statistical yearbooks. Triangle markers (right axis) show the share of 1992 census respondents per cohort that report 4+ years of college, among those with any college. Panel (b) shows results from a regression of log income (in constant 2015 Chilean pesos) on a full set of cohort dummies interacted with a dummy for any college. Sample includes all CASEN survey respondents that reached age 21 between 1964 and 1981 and report 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 A3: Other Outcomes: Lower Levels**



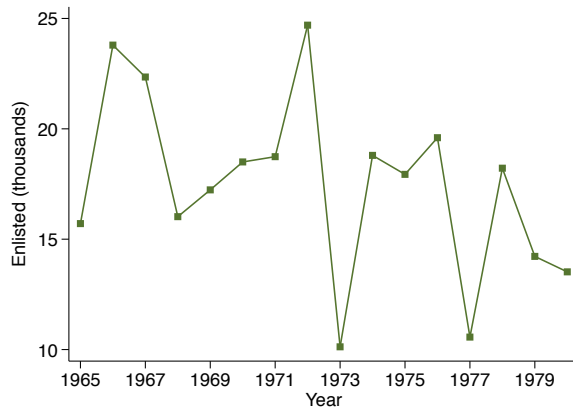
Notes: Panel (a) shows the number of schools per level (early, primary, secondary) in 1973 and 1977, relative to 1969 (normalized to 100). Panel (b) shows the yearly share of primary students receiving either free breakfast (triangle markers) or lunch (square markers). Sources: [Echeverría \(1980\)](#);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

**Figure A4: Age Distribution of First-year College Students**

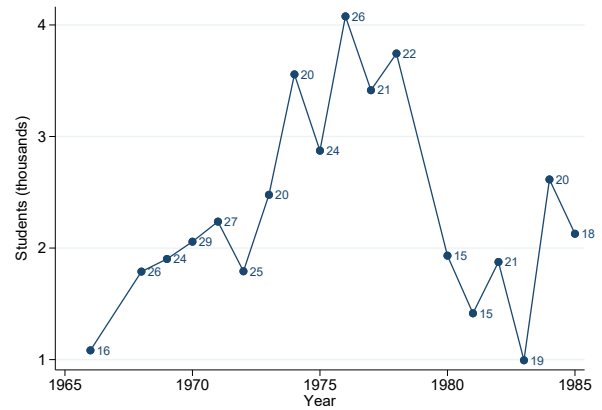


Notes: Information for 1960 comes from the published results from that year's population census ([INE 1965](#)). The respective sources for 1970 and 1975 are [Schiefelbein \(1976\)](#) and [Echeverría \(1982\)](#), based on administrative records and the 1970 population census. Data for 1970 corresponds 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 A5: Alternative Mechanisms**



**(a) Conscription**



**(b) Students Abroad**

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.

## Appendix B Additional Information on Data Sources

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 (*Encuesta de Caracterización Socioeconómica Nacional*). 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.

To provide descriptive evidence on inequality, we use data from a household survey called *Encuesta de Ocupación y Desocupación* (EOD) that is collected by Universidad de Chile and provides comparable information for the period 1960-2012. The geographical coverage of this survey is restricted to the Santiago metropolitan area, but this region represented 36% of the country's population in 1970 (40% in 2017).

We use data from the Integrated Public Use Micro-data Series (IPUMS) for the synthetic control analysis. We focus on censuses taking place between 1987 and 1997 to have a comparable timing to the 1992 census for Chile. This leaves us with 61 countries, which are listed in Table B1.



**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 |
| Austria                                | 1991                | Argentina                           | 1991                |
| Bangladesh                             | 1991                | Bolivia                             | 1992                |
| Benin                                  | 1992                | Brazil                              | 1991                |
| Botswana                               | 1991                | Burkina Faso                        | 1996                |
| Canada                                 | 1991                | Chile                               | 1992                |
| China                                  | 1990                | Colombia                            | 1993                |
| El Salvador                            | 1992                | Ecuador                             | 1990                |
| Ethiopia                               | 1994                | Egypt                               | 1996                |
| France                                 | 1990                | Fiji                                | 1996                |
| Guinea                                 | 1996                | Greece                              | 1991                |
| Iraq                                   | 1997                | Guatemala                           | 1994                |
| Jamaica                                | 1991                | Honduras                            | 1988                |
| Kenya                                  | 1989                | Hungary                             | 1990                |
| Malaysia                               | 1991                | Indonesia                           | 1990                |
| Mauritius                              | 1990                | Lesotho                             | 1996                |
| Mexico                                 | 1990                | Mongolia                            | 1989                |
| Morocco                                | 1994                | Mozambique                          | 1997                |
| Papua New Guinea                       | 1990                | Nicaragua                           | 1995                |
| Puerto Rico                            | 1990                | Panama                              | 1990                |
| Rwanda                                 | 1991                | Paraguay                            | 1992                |
| Saint Lucia                            | 1991                | Peru                                | 1993                |
| Senegal                                | 1988                | Philippines                         | 1990                |
| Switzerland                            | 1990                | Poland                              | 1988                |
| Tanzania                               | 1988                | Portugal                            | 1991                |
| Trinidad and Tobago                    | 1990                | Romania                             | 1992                |
| United Kingdom                         | 1991                | South Africa                        | 1996                |
| United States of America               | 1990                | Spain                               | 1991                |
| Vietnam                                | 1989                | Thailand                            | 1990                |
|  |                     | Turkey                              | 1990                |
|  |                     | Uganda                              | 1991                |
|  |                     | Uruguay                             | 1996                |
|  |                     | Venezuela                           | 1990                |
|  |                     | Zambia                              | 1990                |

## Appendix C Additional Results and Robustness Checks

**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***<br>(0.0007)<br>[0.001]  | 0.011***<br>(0.0007)<br>[0.001]  | 0.012***<br>(0.0004)<br>[0.001]  | 0.007***<br>(0.0004)<br>[0.001]  |
| Yr Age 21 x $\mathbb{1}(\text{Dictatorship})$ | -0.024***<br>(0.0011)<br>[0.000] | -0.024***<br>(0.0011)<br>[0.000] | -0.025***<br>(0.0008)<br>[0.000] | -0.018***<br>(0.0007)<br>[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  $\mathbb{1}(\text{Yr Age 21} \geq 1973)$  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: Within-Household Estimates**

| Source (Census):                              | Dependent variable: Any College  |                                  |                                  |                                  |                                 |                                  |
|---|----------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------|----------------------------------|
|   | 1992                             |                                  | 2002                             |                                  | 2017                            |                                  |
|   | Children                         | Siblings                         | Children                         | Siblings                         | Children                        | Siblings                         |
| Relationship to HH head:                      | (1)                              | (2)                              | (3)                              | (4)                              | (5)                             | (6)                              |
| Yr Age 21                                     | 0.021***<br>(0.0028)<br>[0.000]  | 0.018***<br>(0.0034)<br>[0.000]  | 0.012**<br>(0.0048)<br>[0.001]   | 0.010***<br>(0.0033)<br>[0.002]  | 0.015<br>(0.0108)<br>[0.066]    | 0.007**<br>(0.0035)<br>[0.011]   |
| Yr Age 21 x $\mathbb{1}(\text{Dictatorship})$ | -0.043***<br>(0.0038)<br>[0.000] | -0.038***<br>(0.0050)<br>[0.000] | -0.029***<br>(0.0061)<br>[0.000] | -0.022***<br>(0.0048)<br>[0.000] | -0.034**<br>(0.0143)<br>[0.002] | -0.020***<br>(0.0048)<br>[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  $\mathbb{1}(\text{Yr Age 21} \geq 1973)$  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 C3: Occupational Choice: Disaggregated Categories**

|                             | Politicians,<br>Managers         | Professionals                    | Technicians                      | Clerks                           | Services,<br>Sales               | Skilled<br>Agriculture          | Craft                            | Plant/<br>Machine ops            | Elementary<br>Occups.            | Military                         |
|-----------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|---------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
|                             | (1)                              | (2)                              | (3)                              | (4)                              | (5)                              | (6)                             | (7)                              | (8)                              | (9)                              | (10)                             |
| Yr Age 21                   | -0.004***<br>(0.0002)<br>[0.000] | 0.007***<br>(0.0006)<br>[0.001]  | 0.001***<br>(0.0003)<br>[0.008]  | -0.002***<br>(0.0004)<br>[0.001] | -0.002***<br>(0.0002)<br>[0.000] | -0.000*<br>(0.0001)<br>[0.042]  | -0.001***<br>(0.0002)<br>[0.006] | -0.001***<br>(0.0002)<br>[0.006] | -0.002***<br>(0.0002)<br>[0.000] | 0.004***<br>(0.0002)<br>[0.001]  |
| Yr Age 21 x 1(Dictatorship) | 0.000<br>(0.0003)<br>[0.431]     | -0.016***<br>(0.0009)<br>[0.000] | -0.001***<br>(0.0003)<br>[0.131] | 0.005***<br>(0.0004)<br>[0.000]  | 0.005***<br>(0.0003)<br>[0.000]  | 0.001***<br>(0.0001)<br>[0.002] | 0.004***<br>(0.0003)<br>[0.002]  | 0.002***<br>(0.0003)<br>[0.000]  | 0.005***<br>(0.0004)<br>[0.000]  | -0.004***<br>(0.0003)<br>[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 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 C4: Labor Market Outcomes with Age FE: CASEN**

|   | In Labor<br>Force                | Seeking<br>Work                 | Total<br>Income                  | Top<br>20%                      | Middle<br>60%                | Bottom<br>20%                 |
|---|----------------------------------|---------------------------------|----------------------------------|---------------------------------|------------------------------|-------------------------------|
|   | (1)                              | (2)                             | (3)                              | (4)                             | (5)                          | (6)                           |
| Yr Age 21 x $\mathbb{I}(\text{Dictatorship})$ | -0.004***<br>(0.0009)<br>[0.000] | 0.002***<br>(0.0005)<br>[0.023] | -4.598***<br>(1.0987)<br>[0.004] | -0.002**<br>(0.0011)<br>[0.047] | 0.001<br>(0.0012)<br>[0.455] | 0.001*<br>(0.0007)<br>[0.066] |
| County x gender FE                            | Yes                              | Yes                             | Yes                              | Yes                             | Yes                          | Yes                           |
| Survey year FE                                | No                               | Yes                             | Yes                              | No                              | Yes                          | Yes                           |
| Age FE  | Yes                              | Yes                             | Yes                              | Yes                             | Yes                          | Yes                           |
| Observations                                  | 163,693                          | 114,790                         | 163,693                          | 163,342                         | 163,342                      | 163,342                       |
| R-squared                                     | 0.248                            | 0.013                           | 0.202                            | 0.084                           | 0.047                        | 0.031                         |
| Mean DV                                       | 0.701                            | 0.0386                          | 471.8                            | 0.327                           | 0.577                        | 0.0955                        |

Notes: Dependent variable in the header. Sample includes individuals born between 1943 and 1960 with 4+ years of secondary education. Total income in column 3 is reported in 1000s of constant 2015 Chilean pesos and is winsorized at the 1% and 99% levels. “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  $\mathbb{I}(\text{Yr Age 21} \geq 1973)$ ” 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 C5: Labor Market Outcomes: Census 2002**

|   | In Labor Force                   |                                  |                                  | Seeking Work                   |                                 |                                 | Professional occupation          |                                  |                                  |
|---|----------------------------------|----------------------------------|----------------------------------|--------------------------------|---------------------------------|---------------------------------|----------------------------------|----------------------------------|----------------------------------|
|   | (1)                              | (2)                              | (3)                              | (4)                            | (5)                             | (6)                             | (7)                              | (8)                              | (9)                              |
| Yr Age 21                                     | 0.017***<br>(0.0004)<br>[0.000]  | 0.012***<br>(0.0002)<br>[0.001]  |                                  | 0.000<br>(0.0002)<br>[0.547]   | -0.000**<br>(0.0001)<br>[0.046] |                                 | 0.003***<br>(0.0005)<br>[0.002]  | 0.005***<br>(0.0005)<br>[0.001]  |                                  |
| Yr Age 21 x $\mathbb{I}(\text{Dictatorship})$ | -0.014***<br>(0.0004)<br>[0.001] | -0.013***<br>(0.0003)<br>[0.001] | -0.006***<br>(0.0005)<br>[0.002] | 0.000**<br>(0.0002)<br>[0.213] | 0.001***<br>(0.0002)<br>[0.002] | 0.001***<br>(0.0002)<br>[0.001] | -0.010***<br>(0.0008)<br>[0.000] | -0.013***<br>(0.0008)<br>[0.000] | -0.012***<br>(0.0007)<br>[0.003] |
| 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                           | 0.028                            | 0.031                            | 0.031                            |
| 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                          | 0.203                            | 0.209                            | 0.209                            |

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  $\mathbb{I}(\text{Yr Age 21} \geq 1973)$ ” 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 C6: Educational Attainment and Labor Market Outcomes: Macro Controls**

|                             | Any<br>College                   | In Labor<br>Force                | Professional<br>Occupation       | Seeking<br>Work                  | Total<br>Income                  |
|-----------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
|                             | (1)                              | (2)                              | (3)                              | (4)                              | (5)                              |
| Yr Age 21                   | 0.017***<br>(0.0004)<br>[0.004]  | 0.007***<br>(0.0004)<br>[0.000]  | 0.007***<br>(0.0006)<br>[0.007]  | -0.001***<br>(0.0001)<br>[0.052] | 4.463***<br>(0.7000)<br>[0.004]  |
| Yr Age 21 x 1(Dictatorship) | -0.035***<br>(0.0007)<br>[0.000] | -0.012***<br>(0.0007)<br>[0.001] | -0.016***<br>(0.0009)<br>[0.000] | 0.003***<br>(0.0002)<br>[0.003]  | -9.164***<br>(1.0229)<br>[0.000] |
| GDP Growth                  | -0.064***<br>(0.0101)            | -0.013*<br>(0.0069)              | -0.023***<br>(0.0082)            | -0.009**<br>(0.0045)             | -23.501<br>(22.4039)             |
| Youth Unemployment          | -0.002<br>(0.0117)               | 0.001<br>(0.0072)                | -0.052***<br>(0.0099)            | -0.019***<br>(0.0038)            | 71.983***<br>(20.1717)           |
| County of birth x gender FE | Yes                              | Yes                              | Yes                              | Yes                              | Yes                              |
| Survey year FE              | No                               | No                               | No                               | No                               | Yes                              |
| Observations                | 1,024,570                        | 1,024,570                        | 770,652                          | 776,304                          | 163,693                          |
| R-squared                   | 0.040                            | 0.200                            | 0.038                            | 0.004                            | 0.198                            |
| Mean DV                     | 0.295                            | 0.758                            | 0.215                            | 0.0430                           | 471.8                            |

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. Columns 1-4 use data from the 1992 census, while column 5 uses pooled data from the CASEN survey between 1990 and 2017. Total income in column 5 is reported in 1000s of constant 2015 Chilean pesos and is winsorized at the 1% and 99% levels. GDP per capita growth (source: WDI) and youth unemployment (ages 16-25, own calculations based on EOD) correspond to the year in which the cohort reached age 21. 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 C7: Household Wealth and Income: Macro Controls**

|                             | Wealth (1992 census)             |                                 |                                 | Income (CASEN: 1990-2017)        |                                 |                                 |
|-----------------------------|----------------------------------|---------------------------------|---------------------------------|----------------------------------|---------------------------------|---------------------------------|
|                             | Top                              | Middle                          | Bottom                          | Top                              | Middle                          | Bottom                          |
|                             | 20%                              | 60%                             | 20%                             | 20%                              | 60%                             | 20%                             |
|                             | (1)                              | (2)                             | (3)                             | (4)                              | (5)                             | (6)                             |
| Yr Age 21                   | -0.002***<br>(0.0005)<br>[0.023] | 0.002***<br>(0.0005)<br>[0.031] | 0.000***<br>(0.0001)<br>[0.008] | -0.003***<br>(0.0008)<br>[0.024] | 0.003***<br>(0.0008)<br>[0.002] | -0.000<br>(0.0005)<br>[0.769]   |
| Yr Age 21 x 1(Dictatorship) | -0.013***<br>(0.0007)<br>[0.003] | 0.012***<br>(0.0007)<br>[0.003] | 0.001***<br>(0.0002)<br>[0.007] | -0.005***<br>(0.0011)<br>[0.008] | 0.003**<br>(0.0012)<br>[0.082]  | 0.002***<br>(0.0007)<br>[0.001] |
| GDP Growth                  | 0.027***<br>(0.0093)             | -0.025***<br>(0.0096)           | -0.002<br>(0.0030)              | -0.045**<br>(0.0227)             | 0.032<br>(0.0231)               | 0.013<br>(0.0151)               |
| Youth Unemployment          | 0.054***<br>(0.0087)             | -0.054***<br>(0.0090)           | 0.000<br>(0.0025)               | 0.032<br>(0.0226)                | -0.021<br>(0.0220)              | -0.010<br>(0.0137)              |
| County x gender FE          | Yes                              | Yes                             | Yes                             | Yes                              | Yes                             | Yes                             |
| Survey year FE              | No                               | No                              | No                              | Yes                              | Yes                             | Yes                             |
| Observations                | 1,007,957                        | 1,007,957                       | 1,007,957                       | 163,342                          | 163,342                         | 163,342                         |
| R-squared                   | 0.114                            | 0.085                           | 0.050                           | 0.080                            | 0.046                           | 0.028                           |
| p-value a+b=0               | 0.000                            | 0.000                           | 0.000                           | 0.000                            | 0.000                           | 0.000                           |
| Mean DV                     | 0.500                            | 0.475                           | 0.024                           | 0.327                            | 0.577                           | 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. GDP per capita growth (source: WDI) and youth unemployment (ages 16-25, own calculations based on EOD) correspond to the year in which the cohort reached age 21. Standard errors clustered by county (columns 1-3: birth; columns 4-6: 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 C8:** Educational Attainment and Labor Market Outcomes: Heterogeneous Effects by Gender

|                                     | Any<br>College                   | In Labor<br>Force                | Professional<br>Occupation       | Seeking<br>Work                  | Total<br>Income                   |
|-------------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|-----------------------------------|
|                                     | (1)                              | (2)                              | (3)                              | (4)                              | (5)                               |
| Male: Yr Age 21                     | 0.015***<br>(0.0005)<br>[0.001]  | 0.006***<br>(0.0004)<br>[0.000]  | 0.003***<br>(0.0006)<br>[0.021]  | -0.001***<br>(0.0002)<br>[0.005] | 6.032***<br>(1.1025)<br>[0.002]   |
| Male: Yr Age 21 x 1(Dictatorship)   | -0.033***<br>(0.0007)<br>[0.000] | -0.007***<br>(0.0007)<br>[0.002] | -0.009***<br>(0.0008)<br>[0.001] | 0.003***<br>(0.0003)<br>[0.003]  | -12.238***<br>(1.5783)<br>[0.002] |
| Female: Yr Age 21                   | 0.021***<br>(0.0005)<br>[0.001]  | 0.009***<br>(0.0004)<br>[0.000]  | 0.014***<br>(0.0008)<br>[0.001]  | 0.000<br>(0.0002)<br>[0.279]     | 4.935***<br>(0.7786)<br>[0.000]   |
| Female: Yr Age 21 x 1(Dictatorship) | -0.040***<br>(0.0008)<br>[0.000] | -0.017***<br>(0.0007)<br>[0.000] | -0.028***<br>(0.0014)<br>[0.000] | 0.002***<br>(0.0003)<br>[0.003]  | -7.620***<br>(1.1898)<br>[0.000]  |
| County of birth x gender FE         | Yes                              | Yes                              | Yes                              | Yes                              | Yes                               |
| Survey year FE                      | No                               | No                               | No                               | No                               | Yes                               |
| Observations                        | 1,024,570                        | 1,024,570                        | 770,652                          | 776,304                          | 163,693                           |
| R-squared                           | 0.040                            | 0.200                            | 0.039                            | 0.004                            | 0.198                             |
| Mean DV                             | 0.295                            | 0.758                            | 0.215                            | 0.0430                           | 471.8                             |

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. Columns 1-4 use data from the 1992 census, while column 5 uses pooled data from the CASEN survey between 1990 and 2017. Total income in column 5 is reported in 1000s of constant 2015 Chilean pesos and is winsorized at the 1% and 99% levels. 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 C9: Household Wealth and Income: Heterogeneous Effects by Gender**

|                                     | Wealth (1992 census)             |                                 |                                 | Income (CASEN: 1990-2017)        |                                 |                                 |
|-------------------------------------|----------------------------------|---------------------------------|---------------------------------|----------------------------------|---------------------------------|---------------------------------|
|                                     | Top<br>20%                       | Middle<br>60%                   | Bottom<br>20%                   | Top<br>20%                       | Middle<br>60%                   | Bottom<br>20%                   |
|                                     | (1)                              | (2)                             | (3)                             | (4)                              | (5)                             | (6)                             |
| Male: Yr Age 21                     | -0.002***<br>(0.0006)<br>[0.007] | 0.002***<br>(0.0005)<br>[0.013] | 0.000***<br>(0.0002)<br>[0.006] | -0.003***<br>(0.0010)<br>[0.044] | 0.003***<br>(0.0010)<br>[0.007] | -0.000<br>(0.0005)<br>[0.912]   |
| Male: Yr Age 21 x 1(Dictatorship)   | -0.014***<br>(0.0008)<br>[0.002] | 0.013***<br>(0.0008)<br>[0.002] | 0.001***<br>(0.0002)<br>[0.024] | -0.005***<br>(0.0014)<br>[0.016] | 0.003*<br>(0.0015)<br>[0.120]   | 0.002**<br>(0.0008)<br>[0.029]  |
| Female: Yr Age 21                   | -0.001*<br>(0.0006)<br>[0.098]   | 0.001<br>(0.0006)<br>[0.295]    | 0.000***<br>(0.0001)<br>[0.004] | -0.001<br>(0.0011)<br>[0.346]    | 0.002*<br>(0.0011)<br>[0.204]   | -0.001<br>(0.0006)<br>[0.147]   |
| Female: Yr Age 21 x 1(Dictatorship) | -0.012***<br>(0.0008)<br>[0.003] | 0.011***<br>(0.0008)<br>[0.003] | 0.001***<br>(0.0002)<br>[0.000] | -0.008***<br>(0.0014)<br>[0.002] | 0.004***<br>(0.0015)<br>[0.031] | 0.003***<br>(0.0009)<br>[0.000] |
| County x gender FE                  | Yes                              | Yes                             | Yes                             | Yes                              | Yes                             | Yes                             |
| Survey year FE                      | No                               | No                              | No                              | Yes                              | Yes                             | Yes                             |
| Observations                        | 1,007,957                        | 1,007,957                       | 1,007,957                       | 163,342                          | 163,342                         | 163,342                         |
| R-squared                           | 0.114                            | 0.085                           | 0.050                           | 0.080                            | 0.046                           | 0.028                           |
| Mean DV                             | 0.500                            | 0.475                           | 0.024                           | 0.327                            | 0.577                           | 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 (columns 1-3: birth; columns 4-6: 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 C10: Labor Market Outcomes: Unrestricted Sample**

|                             | Any<br>College                   | In Labor<br>Force                | Professional<br>Occupation       | Seeking<br>Work                  | Total<br>Income                  |
|-----------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
|                             | (1)                              | (2)                              | (3)                              | (4)                              | (5)                              |
| Yr Age 21                   | 0.008***<br>(0.0004)<br>[0.000]  | 0.007***<br>(0.0002)<br>[0.000]  | 0.005***<br>(0.0002)<br>[0.000]  | -0.001***<br>(0.0001)<br>[0.004] | 4.418***<br>(0.3118)<br>[0.001]  |
| Yr Age 21 x 1(Dictatorship) | -0.012***<br>(0.0007)<br>[0.000] | -0.009***<br>(0.0004)<br>[0.001] | -0.007***<br>(0.0003)<br>[0.000] | 0.002***<br>(0.0002)<br>[0.003]  | -5.057***<br>(0.3884)<br>[0.003] |
| County of birth x gender FE | Yes                              | Yes                              | Yes                              | Yes                              | Yes                              |
| Survey year FE              | No                               | No                               | No                               | No                               | Yes                              |
| Observations                | 2,982,951                        | 2,982,951                        | 1,842,799                        | 1,873,045                        | 513,582                          |
| R-squared                   | 0.046                            | 0.333                            | 0.046                            | 0.004                            | 0.192                            |
| Mean DV                     | 0.295                            | 0.758                            | 0.215                            | 0.0430                           | 471.8                            |

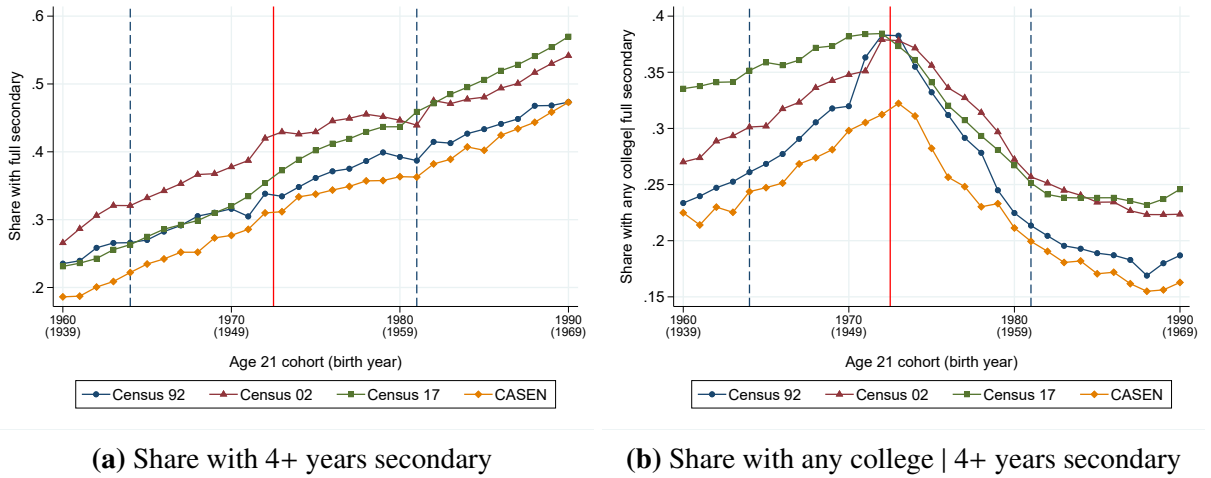
Notes: Dependent variable in the header. Sample includes individuals born between 1943 and 1960. Income in column 4 deflated using yearly CPI. “Yr Age 21” is a continuous variable indicating the year at which the cohort reached age 21, normalized to zero in 1972. “Yr Age 21 x 1(Yr Age 21 ≥ 1973)” is 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 C11: Household Wealth and Income: Unrestricted Sample**

|                             | Wealth (1992 census)             |                                  |                                 | Income (CASEN: 1990-2017)        |                               |                                  |
|-----------------------------|----------------------------------|----------------------------------|---------------------------------|----------------------------------|-------------------------------|----------------------------------|
|                             | Top<br>20%                       | Middle<br>60%                    | Bottom<br>20%                   | Top<br>20%                       | Middle<br>60%                 | Bottom<br>20%                    |
|                             | (1)                              | (2)                              | (3)                             | (4)                              | (5)                           | (6)                              |
| Yr Age 21                   | 0.002***<br>(0.0002)<br>[0.035]  | -0.002***<br>(0.0002)<br>[0.011] | 0.000<br>(0.0001)<br>[0.748]    | 0.001***<br>(0.0003)<br>[0.018]  | 0.000<br>(0.0004)<br>[0.263]  | -0.002***<br>(0.0004)<br>[0.038] |
| Yr Age 21 x 1(Dictatorship) | -0.007***<br>(0.0005)<br>[0.005] | 0.005***<br>(0.0006)<br>[0.004]  | 0.003***<br>(0.0003)<br>[0.006] | -0.004***<br>(0.0005)<br>[0.002] | -0.001<br>(0.0006)<br>[0.043] | 0.005***<br>(0.0005)<br>[0.001]  |
| County x gender FE          | Yes                              | Yes                              | Yes                             | Yes                              | Yes                           | Yes                              |
| Survey year FE              | No                               | No                               | No                              | Yes                              | Yes                           | Yes                              |
| Observations                | 2,938,505                        | 2,938,505                        | 2,938,505                       | 511,927                          | 511,927                       | 511,927                          |
| R-squared                   | 0.119                            | 0.043                            | 0.204                           | 0.074                            | 0.024                         | 0.069                            |
| Mean DV                     | 0.241                            | 0.584                            | 0.175                           | 0.148                            | 0.610                         | 0.242                            |

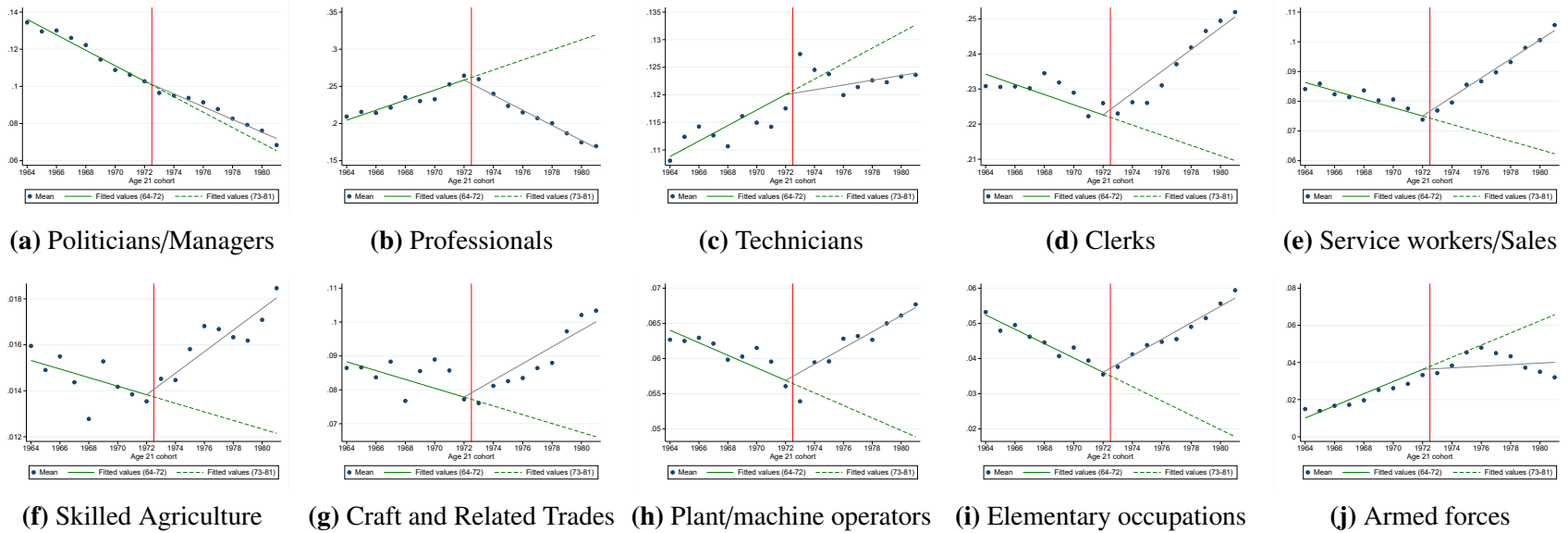
Notes: Dependent variable in the header. Sample includes individuals born between 1943 and 1960 with 4+ years of secondary education. “Yr Age 21” is a continuous variable indicating the year at which the cohort reached age 21, normalized to zero in 1972. “Yr Age 21 x 1(Yr Age 21 ≥ 1973)” is the interaction 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

**Figure C1: College Enrollment: Different Sources**



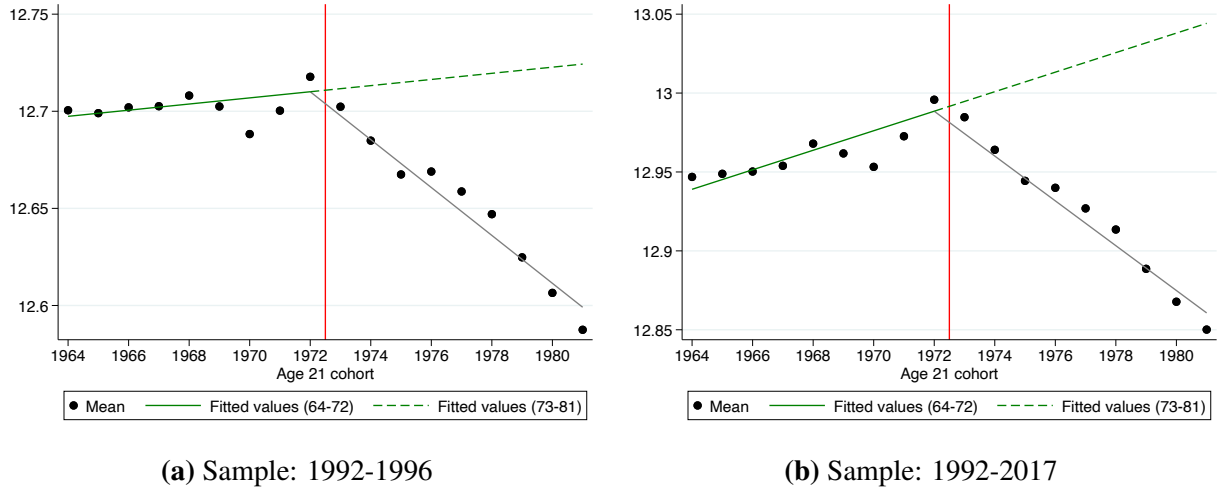
Notes: Panel (a) shows for each source the share of people in each cohort that report at least four years of secondary education. Panel (b) shows the share of people with any college, conditional on having 4+ years of secondary education. The solid red line shows the year of the military coup. Dashed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

**Figure C2: Visualization of Kink: Occupational choice**



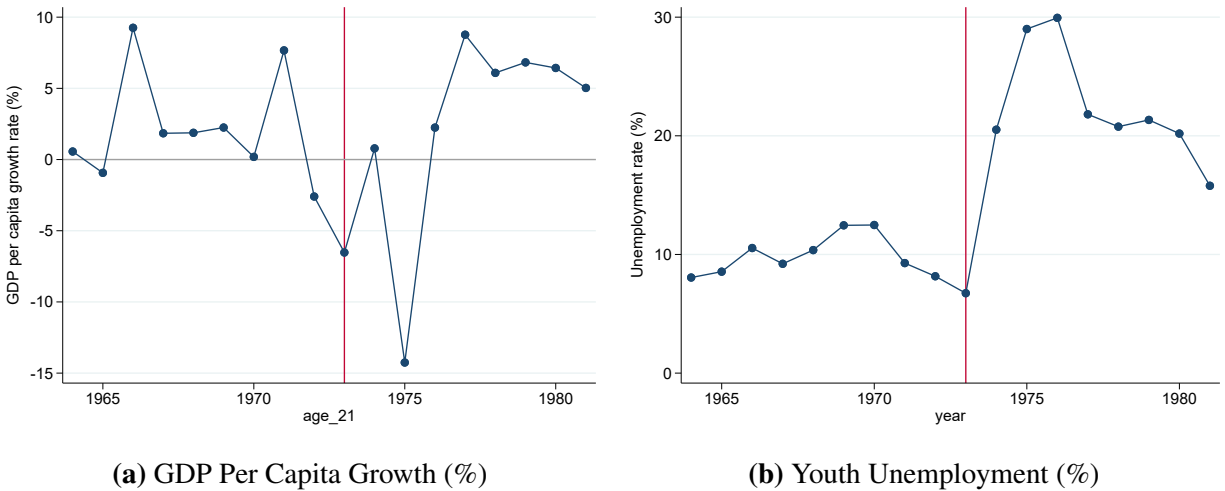
Notes: Panels show averages by cohort. Solid green line corresponds to line of best fit for cohorts reaching college age before 1973. Dashed green line shows extrapolation for later cohorts. Solid grey line corresponds to line of best fit for cohorts reaching college age in 1973 or afterwards. Source: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

**Figure C3: Visualization of Kink: Occupational income score for other wage samples**



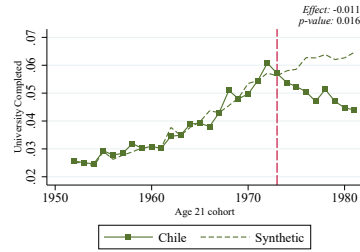
Notes: Panels show averages by cohort for the occupational income score is the logarithm of the median wage of the occupation at the 3-digit level. Wages come from the CASEN biannual survey from 1992 to 1996 (panel A) and from 1992 to 2017 (panel B). Solid green line corresponds to line of best fit for 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 C4: Macroeconomic Conditions**

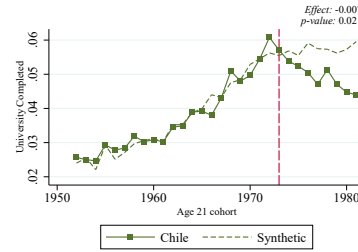


Notes: Panel (a) shows the yearly growth rate of GDP per capita in constant local currency, based on data from the World Bank's World Development Indicators (WDI). Panel (b) shows the yearly youth unemployment rate (ages 16-25). Own calculations based on EOD survey.

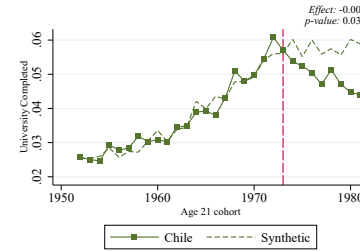
**Figure C5: Synthetic Control**



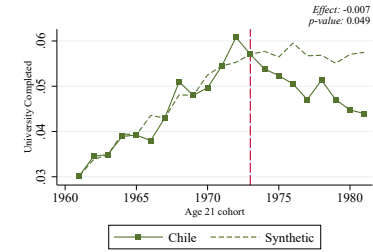
**(a) College: All**



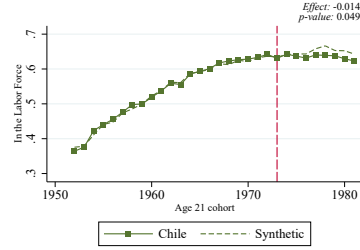
**(b) College: No LATAM**



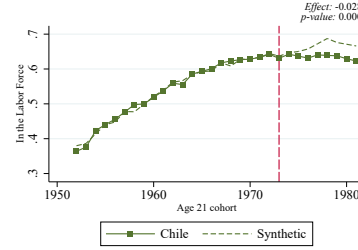
**(c) College: No Autocracy**



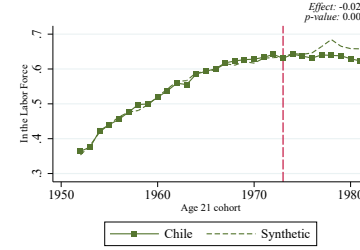
**(d) College: Post-1960**



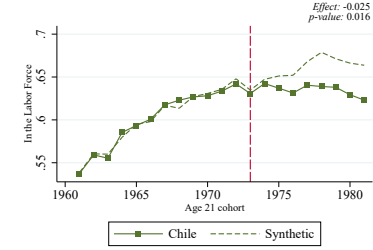
**(e) LFP: All**



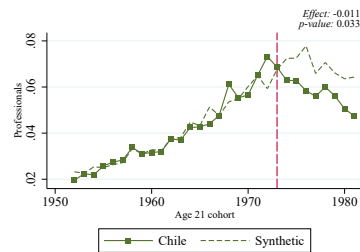
**(f) LFP: No LATAM**



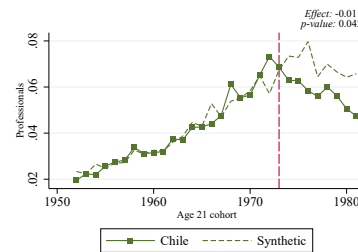
**(g) LFP: No Autocracy**



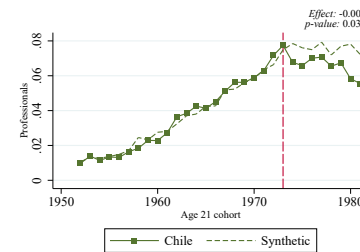
**(h) LFP: Post-1960**



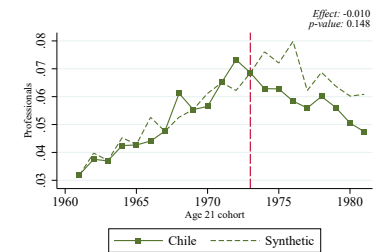
**(i) Professional: All**



**(j) Professional: No LATAM**



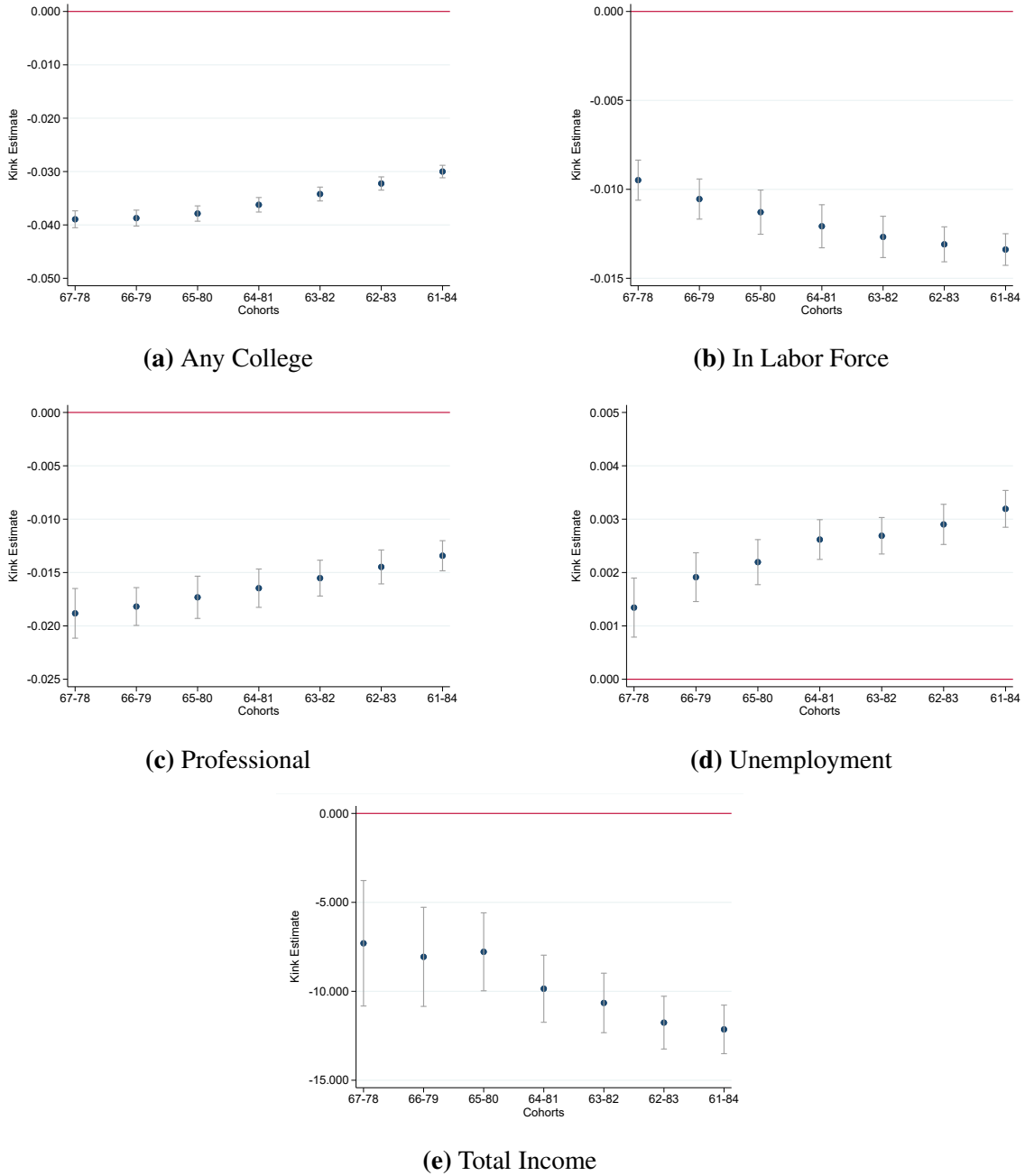
**(k) Professional: No Autocracy**



**(l) Professional: Post-1960**

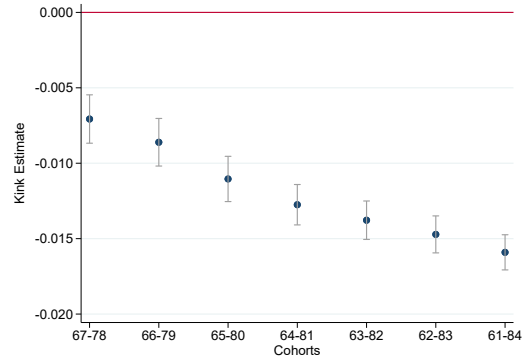
Notes: Panels show results from a synthetic control analysis using harmonized data from IPUMS International. Dependent variable is Full college in panels (a)-(d), labor force participation in panels (e)-(h), and professional occupation in panels (i)-(l). In each row, first panel corresponds to the final sample of available countries in IPUMS, second panel excludes countries in Latin America, third panel excludes countries that had a dictatorship between 1950 and 1990, fourth panel restricts the start date of the sample to 1960. Data for Chile corresponds to 1992 census. For other countries, we use censuses between 1987 and 1997.

**Figure C6: Robustness: Different Bandwidths**

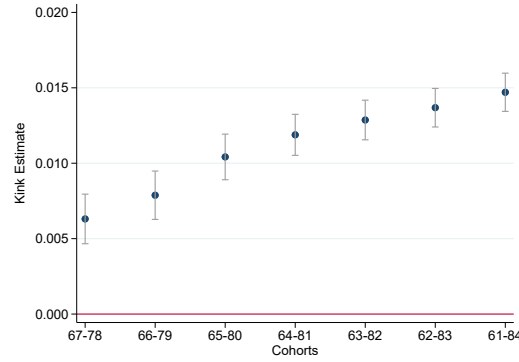


Notes: Each figure replicates the analysis in Table 1 for the outcome in the caption, using the different bandwidths in the x-axis. Total income in panel (e) is reported in thousands of constant 2015 Chilean pesos. Sample includes individuals reaching age 21 between the corresponding years (both inclusive) and that report 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(Dictatorship)” 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. Panels (a)-(d) use information from the 1992 census, while panel (e) uses information from CASEN between 1990 and 2017. All regressions include county (of birth in the census, of residence in CASEN) x gender fixed effects. Panel (e) also includes survey year fixed effects. Standard errors clustered by county in parentheses.

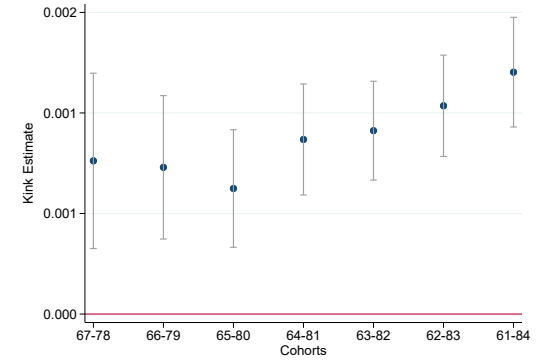
**Figure C7: Wealth and Income Distributions: Different Bandwidths**



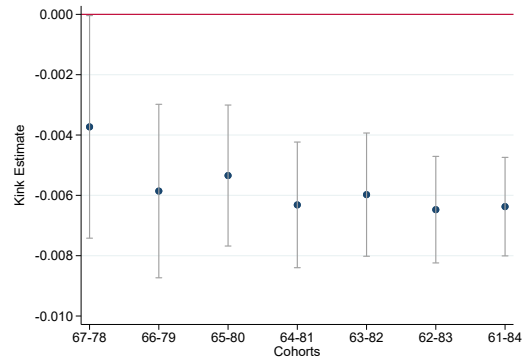
**(a) Wealth: Top 20%**



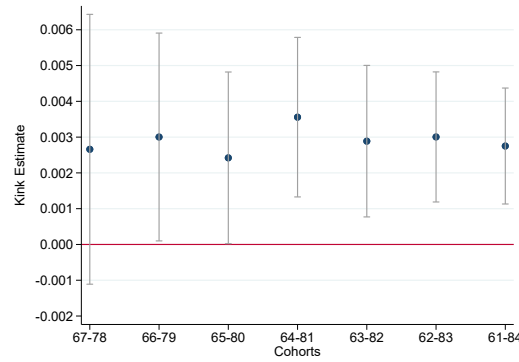
**(b) Wealth: Middle 60%**



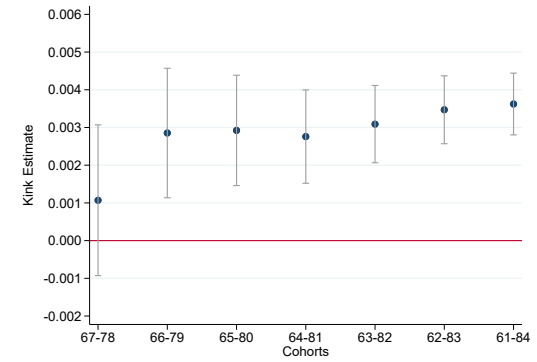
**(c) Wealth: Bottom 20%**



**(d) Income: Top 20%**



**(e) Income: Middle 60%**



**(f) Income: Bottom 20%**

Notes: Figure replicates the analysis of Table 2 for the outcome in the caption, using the different bandwidths in the x-axis. Sample includes individuals reaching age 21 between the corresponding years (both inclusive) and that report 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(Dictatorship)” 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. Panels (a)-(c) use information from the 1992 census, while panels (d)-(f) use information from the CASEN survey between 1990 and 2017. All regressions include county (of birth in the census, of residence in CASEN) x gender fixed effects. Panels (d)-(f) also include survey year fixed effects. Standard errors clustered by county in parentheses.

